LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS PROJECT

HAMLET OF LIDO BEACH, TOWN OF HEMPSTEAD NASSAU COUNTY, NEW YORK

Categorically Excluded, Subject to 24 CFR §58.5
Environmental Review Record

New York State Governor's Office of Storm Recovery
New York State Homes and Community Renewal
U.S. Department of Housing and Urban Development

March 26, 2020

LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS PROJECT

Categorically Excluded, Subject to 58.5

March 26, 2020

Project Name:	Lido Beach / Point Lookout Drainage Improvements Project
Project Location:	Lido Boulevard, Lagoon Drive East, Harbor Drive, and Blackheath Road, hamlet of Lido Beach, Town of Hempstead, Nassau County, New York
Federal Agency:	US Department of Housing and Urban Development
Responsible Entity:	New York State Homes and Community Renewal (HCR) Governor's Office of Storm Recovery (GOSR)
Responsible Agency's Certifying Officer:	James McAllister, Certifying Environmental Officer Governor's Office of Storm Recovery 500 Bi-County Boulevard, Suite 300 Farmingdale, NY 11735 (646) 256-9485; James.McAllister@stormrecovery.ny.gov
Project Sponsor: **Primary Contact:**	Nassau County Sean Sallie, AICP, Deputy Commissioner Nassau County Department of Public Works 1194 Prospect Avenue Westbury, NY 11590 (516) 571-9342; ssallie@nassaucounty.gov
Project NEPA Classification:	24 CFR 58.35(a)
Certification:	The undersigned hereby certifies that New York State Homes and Community Renewal has conducted an environmental review of the project identified above and prepared the attached environmental review record in compliance with all applicable provisions of the National Environmental Policy Act of 1969, as amended (42 USC Sec. 4321 et seq.) and its implementing regulations at 24 CFR Part 58.
Signature:	James M McAllister James McAllister, GOSR
Date:	March 26, 2020
Environmental Review Prepared By:	Tectonic Engineering & Surveying PO Box 37, 70 Pleasant Hill Road Mountainville, NY 10953
	GOSR 500 Bi-County Blvd. Farmingdale NY 11735

CERTIFICATION OF NEPA CLASSIFICATION

It is the finding of the New York State Housing Trust Fund Corporation that the activity(ies) proposed in this 2020 CDBG-DR project, Lido Beach / Point Lookout Drainage Improvements Project, are:
Project Year Project Name

Check the applicable classification.

☐ Exempt as defined in 24 CFR 58.34 (a).

☐ Categorically Excluded as defined in 24 CFR 58.35(b).

☐ Categorically Excluded as defined in 24 CFR 58.35(a) and no activities are affected by federal environmental statues and executive orders [i.e., exempt under 58.34(a)(12)].

☒ Categorically Excluded as defined in 24 CFR 58.35(a) and some activities are affected by federal environmental statues and executive orders.

☐ "Other" neither exempt (24 CFR 58.34(a)) nor categorically excluded (24 CFR 58.35).

☒ Part or all of the project is located in an area identified as a floodplain or wetland. For projects located in a floodplain or wetland, evidence of compliance with Executive Orders 11988 and/or 11990 is required.

For activities excluding those classified as "Other", attached is the appropriate Classification Checklist that identifies each activity and the corresponding citation.

Signature of Certifying Officer	March 26, 2020 Date
James McAllister Print Name	Certifying Officer Title

NEPA CLASSIFICATION CHECKLIST FOR
CATEGORICALLY EXCLUDED ACTIVITIES [24 CFR 58.35(a)]

☒ Acquisition, repair, improvement, reconstruction, or rehabilitation of public facilities and improvements (other than buildings) when the facilities and improvements are in place and will be retained in the same use without change in size or capacity of more than 20 percent (e.g., replacement of water or sewer lines, reconstruction of curbs and sidewalks, repaving of streets).

☐ Special projects directed to the removal of material and architectural barriers that restrict the mobility of and accessibility to elderly and handicapped persons.

☐ Rehabilitation of buildings and improvements when the following conditions are met:

- (i) In the case of a building for residential use (with one to four units), the density is not increased beyond four units, and the land use is not changed;
- (ii) In the case of multifamily residential buildings:
  - a. Unit density is not changed more than 20 percent;
  - b. The project does not involve changes in land use from residential to non-residential; and
  - c. The estimated cost of rehabilitation is less than 75 percent of the total estimated cost of replacement after rehabilitation.
- (iii) In the case of non-residential structures, including commercial, industrial, and public buildings:
  - a. The facilities and improvements are in place and will not be changed in size or capacity by more than 20 percent; and
  - b. The activity does not involve a change in land use, such as from non-residential to residential, commercial to industrial, or from one industrial use to another.

☐ An individual action on up to four dwelling units where there is a maximum of four units on any one site. The units can be four one-unit buildings or one four-unit building or any combination in between. (This does not apply to rehabilitation of a building for residential use).

☐ An individual action on a project of five or more housing units developed on scattered sites when the sites are more than 2,000 feet apart and there are not more than four housing units on any one site. (This does not apply to rehabilitation of a building for residential use).

☐ Acquisition (including leasing) or disposition of, or equity loans on an existing structure, or acquisition (including leasing) of vacant land provided that the structure or land acquired, financed, or disposed of will be retained for the same use.

☐ Combinations of the above activities.

Signature of Certifying Officer	March 26, 2020 Date
James McAllister Print Name	Certifying Officer Title

CERTIFICATION OF SEQRA CLASSIFICATION

It is the finding of the New York State Housing Trust Fund Corporation that the activity(ies) proposed in this 2020 CDBG-DR project, Lido Beach / Point Lookout Drainage Improvements Project, are:

Project Year — Project Name

Check the applicable classification:

- ☐ Type I Action (6NYCRR Section 617.4)
- ☒ Type II Action (6NYCRR Section 617.5)
- ☐ Unlisted Action (not Type I or Type II Action)

Check if applicable:

- ☐ Environmental Impact Statement (EIS) Prepared
- ☐ Draft EIS
- ☐ Final EIS

Signature of Certifying Officer

March 26, 2020
Date

James McAllister
Print Name

Certifying Officer
Title

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]**:**
The Lido Beach / Point Lookout Drainage Improvements Project (Project) will involve drainage improvements at approximately nineteen (19) drainage improvements at approximately fifteen (15) locations in the hamlet of Lido Beach, Town of Hempstead, Nassau County, New York. Project location maps are included in **Attachment 1**. Preliminary Project design plans are included in **Attachment 2**.

The drainage improvements will be performed on Lido Boulevard, Lagoon Drive East, Harbor Drive, and Blackheath Road. In-line check valves will be installed at three (3) locations on Harbor Drive and two (2) locations on Lagoon Drive East; three (3) catch basins will be installed at one (1) location on Blackheath Road; and fourteen (14) catch basins will be installed at nine (9) locations on Lido Boulevard. Construction activities will include the following: trench and culvert excavation; removal of existing drainage structures; installation of in-line pipe check valves, catch basins, reticuline grates with vertical face opening curb boxes, and reinforced concrete pipe for connections to the existing drainage system; restoring concrete curb, cement concrete, existing roadway pavement, concrete, and asphalt disturbed in order to perform the drainage improvements; reconstructing traffic loops; relocating buried electrical service and existing light poles; resetting existing fencing; and applying topsoil and grass seed to disturbed soil.

Statement of Purpose and Need for the Proposal [40 CFR 1508.9(b)]:
In 2012, Superstorm Sandy overwhelmed Lido Beach's stormwater drainage system. Due to its tremendous size, Sandy drove a catastrophic storm surge into the New Jersey and New York coastlines. Floodwaters inundated homes, schools, municipal buildings, and businesses and made streets impassable and areas unusable. Superstorm Sandy's tidal surge was over ten feet in areas of Lido Beach. Evacuation and emergency response was severely hindered or impossible as a result of flooding. Recovery and resiliency of the Community was also severely impacted due to infrastructure limitations and functionality.

Lido Boulevard, a major thoroughfare and primary evacuation route for Point Lookout, Lido Beach, and the adjacent City of Long Beach, was observed to be covered by more than a foot of water. The Community believed the flooding was exacerbated by additional water forced through the Reynolds Channel storm drain outfalls and through the stormwater system and onto neighborhood streets.

The installation of check valves (tidal backflow prevention) will prohibit the rising tide from entering the upland piping system and more importantly permit the draining of the upland piping system into downstream surface waters during low tide events. The draining of the upland piping systems will increase upland storage capacity between storm events. This in turn will help to attenuate or lessen the impacts of certain storm events by providing a time delay for the piping system to fill up with surface collected storm water prior to discharge, thereby minimizing or eliminating potential flooding and increasing the resiliency of the drainage system.

The use of backflow prevention devices will effectively provide additional stormwater storage within the existing drainage pipe network and mitigate the negative effects of rising tides, without creating additional storage. The use of tidal check valves offers the greatest positive effects to flooding mitigation, aside from raising the topography of the land above flood elevation, which generally results in the greatest impacts to private property.

To reduce stormwater ponding occurrences along Lido Boulevard, selected aged and inefficient single-curb inlet opening drainage structures will be removed and more hydraulically efficient drainage structure inlets will be installed. Existing single curb inlet drainage structures will be replaced with two (2) standard reticuline grates and curb boxes. This will increase the surface inlet capacity and the ability of stormwater runoff to be collected and enter the drainage system. This action will decrease the gutter spread width of slow-moving stormwater runoff travelling against the curb line of the relatively flat Lido Boulevard roadway profile gradients by intercepting and collecting the water with a larger inlet area and minimizing

water ponding into the adjacent travel lanes. Given the critical function of Lido Boulevard as a coastal evacuation route, the redundancy provided by the combination inlets (noted above) and their improved maintenance access are advantageous drainage system characteristics consistent with Lido Boulevard's critical function. Implementation of the drainage improvement project would provide improved stormwater drainage for the residents living in the area and significantly reduce the risk of future flooding.

Existing Conditions and Trends [24 CFR 58.40(a)]:
Lido Beach is an unincorporated hamlet located on the Long Beach Barrier Island in the middle of the southern portion of the Town of Hempstead. Lido Beach is bounded by Reynolds Channel to the north, Point Lookout to the east, the Atlantic Ocean to the south, and the City of Long Beach to the west.

The NYRCR Planning Committee (Committee), with input from the public, developed goals for enhancing the resiliency of Community assets that were aligned with the Community's core values. A Community Vision Statement and NYRCR recommendations were shaped in a public engagement process that identified (6) locations in total that the Committee and Lido Beach/Point Lookout residents believed to be the most problematic, flood-prone areas in the Lido Beach/Point Lookout area. Subsequently, a Drainage Study that identified and evaluated the most problematic, flood prone areas in Lido Beach and Point Lookout was completed on February 9, 2018. The Drainage Study involved comprehensive engineering hydraulic modeling, analysis of the existing stormwater system, and the presentation of alternative proposed improvements for consideration. A Technical Design Report, which focused on improvements suggested in the Drainage Study and identified by Nassau County as priority locations, was then completed on July 15, 2019. The proposed Project, which was derived from the Drainage Study and Technical Design Report, is intended to reduce flooding around this critical geographic area.

Funding Information
Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]**: $2,420,000.00**

Estimated Total HUD Funded Amount: $2,420,000.00

Compliance with 24 CFR 58.5, and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 and 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes ☐ No ☒	Based on guidance provided by HUD via Fact Sheet #D1[1], the National Plan of Integrated Airport Systems (NPIAS) was reviewed for civilian, commercial service and military airports located near the Project area. An Airport Hazards map showing the Project area, airport locations, heliport locations, and their associated buffers is included in **Attachment 3**. There are no civilian, commercial service airports located within 2,500 feet of the proposed Project Sites. There are no military airports located within 15,000 feet of the Project area. No additional review is required.
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes ☐ No ☒	Based on the USFWS Coastal Barrier Resources System Map[2], the Project is not located in, or immediately adjacent to (within 150 feet), a Coastal Barrier Resource System Unit or Otherwise Protected Area. The USFWS Coastal Barrier Resources System Map included in **Attachment 3**. No additional review is required.
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	Yes ☐ No ☒	Based on the FEMA FIRMette included in *Appendix I* of **Attachment 4**, the Project is located within a FEMA[3] Special Flood Hazard Area (SFHA – Zone AE).

[1] Fact Sheet #D1: Siting HUD-Assisted Projects in Accident Potential Zones. https://www.michigan.gov/documents/mshda/mshda_cd_nsp2_air_accident_315724_7.pdf

[2] USFWS Coastal Barrier Resources System mapper. https://www.fws.gov/ecological-services/habitat-conservation/cbra/maps/mapper.html

[3] FEMA https://msc.fema.gov/portal

Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]		Proof of National Flood Insurance Program insurance is not required, as the proposed Project does not involve insurable structures. No additional review is required.
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5		
Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	Yes ☐ No ☒	The proposed Project is located in Nassau County, which is within a maintenance area[4,5] for inhalable particulate matter (PM2.5) and carbon monoxide, a marginal non-attainment area for the 8-hour Ozone standard[6] and considered an area source for hazardous air pollutants (HAPs) emissions. Temporary emissions would result from equipment during construction with no increased emissions occurring due to the operation of the proposed Project. Therefore, a conformity and screening analysis was performed according to the requirements of 40 CFR 93, Subpart B (federal general conformity regulations). The screening analysis assumed that the emissions intensity per expenditure (tons per dollar) for the proposed Project would be similar to the average intensity of the construction sector in the county. Projects with a projected construction expenditure substantially lower than the average construction de minimis expenditure would not exceed de minimis emissions levels for general conformity purposes. Based on the screening analysis, the construction expenditure threshold for Nassau County is $410 million before a project may be expected to exceed the de minimis expenditure thresholds requiring further analysis or conformity determination (**Attachment 5**). The estimated construction cost of the Project is approximately $2,420,000.00, which is less than the $410 million threshold; thus, the Project would not require further analysis for a conformity determination. Construction of the Project would not generate significant levels of vehicular traffic; therefore, no exceedances of the National Ambient Air Quality Standard (NAAQS) associated with

[4] EPA, Nonattainment Areas for Criteria Pollutants. https://www.epa.gov/green-book
[5] EPA, Recent Updates: Federal Register Notices Published or Effective After May 31, 2018. http://www.epa.gov/airquality/greenbook/adden.html
[6] Ozone specific: https://www3.epa.gov/airquality/greenbook/hbca.html#Ozone_8-hr.2008.New_York

Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93		carbon monoxide (CO) or particulate matter (PM) is anticipated occur. The Project will not result in siting any new source of air pollutants. The Project will not adversely affect the State Implementation Plan (SIP). Any air quality impacts would be short-term and localized during construction and, therefore, no significant adverse impacts to air quality are anticipated. Additionally, the following measures are recommended to be incorporated into the contract documents and a more detailed conformity analysis will be required to be completed for the bid package using the "General Conformity Worksheet." *Idling Restriction*. In addition to adhering to the local law restricting unnecessary idling on roadways, on-site vehicle idle time will also be restricted to five minutes for all equipment and vehicles that are not using their engines to operate a loading, unloading, or processing device (e.g., concrete mixing trucks) or otherwise required for the proper operation of the engine. *Utilization of Newer Equipment*. EPA's Tier 1 through 4 standards for non-road engines regulates the emission of criteria pollutants from new engines, including PM, CO, NOx, and hydrocarbons (HC). All non-road construction equipment with a power rating of 50 horsepower (hp) or greater would meet at least the Tier 2 emissions standard to the extent practicable. *Best Available Tailpipe Reduction Technologies*. Non-road diesel engines with a power rating of 50 hp or greater and controlled truck fleets (i.e., truck fleets under long-term contract with the Project) including but not limited to concrete mixing and pumping trucks would utilize the best available tailpipe (BAT) technology for reducing DPM emissions. Diesel particulate filters (DPFs) have been identified as being the tailpipe technology currently proven to have the highest reduction capability. Construction contracts would specify that all diesel non-road engines rated at 50 hp or greater would utilize DPFs, either installed by the original equipment manufacturer (OEM) or retrofitted. Retrofitted DPFs must be verified by EPA. Active DPFs or other technologies proven

Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93		to achieve an equivalent reduction may also be used. No additional review is required.
Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)	Yes ☐ No ☒	The Project is located within the New York State Coastal Boundary and adjacent to the Middle Hempstead Bay and Nassau Beach Significant Coastal Fish and Wildlife Habitats[7]; the Project is not located within a Local Waterfront Revitalization Program Community as shown in the NYS Department of State (DOS) Coastal Boundary map, included as part of **Attachment 6**. On February 5, 2020, a New York State Federal Consistency Assessment was completed and submitted to the NYS DOS Division of Coastal Resources for the proposed Project to determine its consistency with the New York State's Coastal Management Plan. On February 7, 2020, the NYS DOS concurred with GOSR's assessment that the proposed Project was consistent with the State Coastal Consistency requirements. The NYS DOS response and the consultation package submitted to the NYS DOS are included in **Attachment 6**. No additional review is required.
Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	Yes ☐ No ☒	The Project area is not listed on an EPA Superfund National Priorities or CERCLA list or equivalent State list. A review of the EPA Facilities Database provides no indication of past uses of the Project area that could have contaminated the Project area, or potentially adversely affect the occupants of the Project area. The Project area is not located within 3,000 feet of a toxic or solid waste landfill site. The NYSDEC Spills Database indicates that there were two (2) closed spills located along Lido Boulevard, potentially at or immediately adjacent to areas of disturbance associated with the Project area. While these spill reports do not include specific locations along Lido Blvd., it should be noted that these spill reports have been closed by the NYSDEC. A spill closure means that the records and the data submitted indicate that the necessary cleanup and removal actions have been

[7] New York Department of State Geographic Information Gateway. https://appext20.dos.ny.gov/coastal_map_public/map.aspx

Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)		completed and no further remedial actions are necessary or the case was closed for administrative reasons (e.g. multiple reports of a single spill consolidated into a single spill number). As such, these spills are not considered a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the Project area. According to NYSDEC reports that there are no bulk storage facilities located on the Project area and the Project area is not listed as an environmental remediation site. Based on a review of available environmental records for the Project area and surrounding area, the Project area is unlikely to contain hazardous materials, contamination, toxic chemicals and gases, or radioactive substances, which would constitute a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the Project area. Therefore, a Phase I Environmental Site Assessment (ESA) or Phase II Investigation is not warranted. Maps, EPA documents, and NYSDEC documents are included in **Attachment 7**. No additional review is required.
Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	Yes ☐ No ☒	According to New York Natural Heritage Program (NYNHP) records request response (included in **Attachment 8**), obtained on February 18, 2020, there are records of the piping plover (NYS endangered and federally threatened) and the least tern (NYS threatened) on the beach at Lido Beach, within 0.1 mile south of the southernmost Project location. There are also records of the common ern (NYS threatened), gulf-billed tern (Unlisted), and Forster's tern (Unlisted) at salt marsh islands across Reynolds Channel, within 0.3 mile north of the Project locations on Harbor Drive. NYSDEC significant natural communities (low salt marsh, high salt marsh, and salt panne) have also been documented at salt marsh islands across from Reynolds Channel, within 0.3 mile north of the Project locations on Harbor Drive. The proposed Project is located in a disturbed area that does not provide potential habitat for these species. Therefore, the Project is anticipated to have no effect on NYSDEC regulated threatened or endangered plants or animals.

Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402		The U.S. Fish and Wildlife Service (USFWS) lists the northern long-eared bat (threatened), piping plover (threatened), red knot (threatened), seabeach amaranth (threatened), roseate tern (endangered), and sandplain gerardia (endangered) as the only federally endangered or threatened species under USFWS jurisdiction that may occur within the boundaries of the proposed Project. According to records request response obtained from the NYNHP, there are records of the piping plover (NYS endangered and federally threatened) on the beach at Lido Beach, within 0.1 mile south of the southernmost Project location. The Project will involve improvements of drainage infrastructure on existing paved roadways and is located in a disturbed area characterized by dense residential and commercial development. No suitable habitat for threatened or endangered species will be disturbed by Project activities. Therefore, GOSR determined that the proposed Project would have "no effect" on species under the jurisdiction of the USFWS. A letter documenting GOSR's No Effect Determination was sent to the USFWS On February 5, 2020. A copy of the USFWS Section 7 No Effect Letter is included in **Attachment 8**. The Project will not involve activities that could affect marine species and anadromous fish, or their respective habitats, under National Marine Fisheries Service (NMFS) jurisdiction. There are no federally listed species or designated critical habitats under NMFS jurisdiction in the action area. Therefore, the Project would have "no effect" on species under NMFS jurisdiction. No additional review is required.
Explosive and Flammable Hazards 24 CFR Part 51 Subpart C	Yes ☐ No ☒	Not applicable. This criterion is applicable to HUD- assisted projects that involve new residential construction, conversion of non-residential buildings to residential use, rehabilitation of residential properties that increase the number of units, or restoration of abandoned properties to habitable condition. The proposed Project does not involve these activities, nor does it involve the introduction of bulk storage of hazardous materials. No additional review is required.

Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	Yes ☐ No ☒	Not applicable. The Project is not located within an Agricultural District as identified by New York State and the University of Cornell in **Attachment 9**. U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) maps provide information on soils types and properties that influence development of sites. According to the USDA NRCS soils map data, soils in the proposed Project area are classified as Urban land – Udipsamments complex; Urban land – Udipsamments, wet substratum; Udipsamments, nearly level; and Udipsamments, wet substratum. According to the USDA NRCS soils map, all of the Project area is considered "not prime farmland". The USDA NRCS soils report is included as part of **Attachment 9**. The Project activities will not involve the conversion of farmland to non-agricultural use. Therefore, the proposed Project would not violate the Farmland Protection Policy Act. No additional review is required.
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55	Yes ☒ No ☐	The Project is located within the 100-year floodplain (FIRM 36059C0307G, effective 9/11/2009 and FIRM 36059C0309G, effective 9/11/2009), as documented in *Appendix I* of **Attachment 4**. The proposed Project will result in approximately 0.06 acres of temporary impacts in the 100-year floodplain. The Project will not result in the creation of additional impervious surfaces and there would be a negligible change to the existing impermeable surface. The proposed impacts are solely associated with the installation of drainage improvements on existing roadways. An 8-step Floodplain Management and Wetlands Protection Determination was completed pursuant to 24 CFR 55.20. See 24 CFR Part 55 – 8-Step Determination: Floodplain Management and Wetlands Protection, annexed hereto as **Attachment 4**. An "Early Notice of a Proposed Project in a 100-Year Floodplain and Wetlands" for the Project was published on February 13, 2020 in the Long Beach Herald edition of the Long Island Herald newspaper. The 15-day

Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55		comment period expired at 5 pm on February 28, 2020. No public comments were received. A "Final Notice and Public Explanation of a Proposed Activity in a 100-Year Floodplain and Wetland was published on March 26, 2020. The 8-step Floodplain Management and Wetlands Protection Determination concluded that due to the nature of the proposed action, prohibition of this work within the floodplain is not practicable. No additional review is required.
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800; Tribal notification for new ground disturbance.	Yes ☐ No ☒	On February 27, 2020 the New York State Historic Preservation Office (SHPO) reviewed the proposed Project and provided a determination that no historic properties will be affected by this undertaking. This determination is included as part of **Attachment 10**. Additionally, as the construction work solely involves work in previously disturbed soils, there is no adverse effect on tribal resources; no consultation with the applicable Tribal Historic Preservation Officers is required. In the event any unanticipated discoveries of human remains and/or cultural resources including, but not limited to, funerary objects, sacred objects, and objects of cultural patrimony are made during execution of the proposed project, work shall be halted immediately and the SHPO and the applicable THPOs shall be consulted before work resumes. No additional review is required.
Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	Yes ☐ No ☒	The Project use is not a noise-sensitive use, and the funded scope of work is defined as minor, or non-substantial. The proposed activities are not expected to generate excessive noise during the short-term construction work and will adhere to local noise control standards. The proposed Project will be completed in accordance with all applicable federal, state and local permit requirements and conditions. Therefore, the proposed Project would not generate any significant adverse noise impacts. No additional review is required.

Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	Yes ☐ No ☒	The Project is located above the Nassau-Suffolk Sole Source Aquifer (SSA). The Project activities were reviewed according to the non-housing project activity initial screen criteria and public wells were identified within ½ mile of the Project area. Therefore, a SSA review and consultation was requested with the US EPA. A SSA consultation package was submitted to the EPA on March 5, 2020, and is included in **Attachment 11**. Based on the project type and location, there should be no impacts, and the project is anticipated to be in compliance with the Safe Drinking Water Act of 1974 Section 1424(e) and the regulations promulgated in 40 CFR Part 149. No additional review is required.
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Yes ☐ No ☒	According to the USFWS National Wetlands Inventory map, NYSDEC Wetlands and Waterways Map, and NYSDEC Tidal Wetlands map, included in *Appendix II* of **Attachment 4**, the Project will not involve work in wetlands and Project activities do not constitute new construction in wetlands. Since Project activities will occur within the floodplain, a 24 CFR Part 55 – 8-Step Determination: Floodplain Management and Wetlands Protection, was performed annexed hereto as **Attachment 4**. Since there are no documented wetlands located in the Project area and there will be no direct construction (new or existing) in wetlands, the 8-step determination focused exclusively on floodplain analysis, and it was concluded there is a reasonable basis to proceed with funding for the proposed Project activities within the floodplain. **Watershed Analysis** The Project is not located within one of the 47 identified watersheds with watershed plans in NYS. Thus, compliance with watershed plan regulations is not applicable for this Project. No additional review is required.
Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	Yes ☐ No ☒	The proposed Project is not located in the vicinity of any wild, scenic, recreational, or study rivers, as designated by the U.S. Department of the Interior, Congress or NYSDEC or included in the National Wild and Scenic Rivers System, as

Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)		documented in **Attachment 3**. Therefore, there is compliance with this section. No additional review is required.
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	Yes ☐ No ☒	The Project is not located in an area defined by the NYSDEC as a potential environmental justice area[8], as shown by the map included in **Attachment 3**. Therefore, the proposed Project does not contribute to, or promote, environmental injustice. No additional review is required.

[8] NYSDEC Environmental Justice. https://www.dec.ny.gov/public/333.html

Attachments:

- **Attachment 1:** Project Location Maps
  - Street Map
  - Topographic Map
  - Aerial Photograph
- **Attachment 2:** Project Design Plans
- **Attachment 3:** Project Reference Maps
  - Airport Hazards Map
  - USFWS Coastal Barrier Resources System Map
  - NYSDEC & NPS Wild and Scenic Rivers Map
  - NYSDEC Potential Environmental Justice Areas Map
- **Attachment 4:** 24 CFR Part 55 – 8-Step Determination: Floodplain Management and Wetlands Protection
  - Appendix I
    - FEMA National Flood Hazard Layer Map
  - Appendix II
    - USFWS NWI Map
    - NYSDEC Wetlands and Waterways Map
    - NYSDEC Tidal Wetlands Map
  - Appendix III
    - Early Notice of a Proposed Activity in a 100-Year Floodplain
  - Appendix IV
    - Affidavit for Early Notice of a Proposed Activity in a 100-Year Floodplain
- **Attachment 5:** CAA De Minimis Threshold Analysis & General Conformity Worksheet
- **Attachment 6:** NYS DOS Coastal Consistency Documentation
  - NYS DOS Coastal Boundary Map
  - NYS DOS Coastal Consistency General Concurrence Letter
  - NYS DOS Coastal Consistency Consultation Package
- **Attachment 7:** HUD Environmental Standards Review
  - HUD Environmental Report Maps and EPA NEPAssist Map
  - NYSDEC Reports for Spills, Environmental Remediation Sites, or Bulk Storage Sites located on, or in close proximity to, the Project Area
  - US EPA Permitted Facilities Located on or Within 3,000 Feet of the Project Area and in Non-compliance with the EPA Permit Requirements
- **Attachment 8:** Endangered Species Compliance Documents
  - NYNHP Records Request Response
  - USFWS Section 7 No Effect Letter
- **Attachment 9:** Agricultural and NRCS Soil Resource Documents
  - New York State Agricultural Districts Map
  - USDA NRCS Soil Resource Report
  - USDA NRCS Farmland Classification Report
- **Attachment 10:** SHPO Documentation
  - SHPO Response
- **Attachment 11:** US EPA Sole Source Aquifer Analysis
  - US EPA Sole Source Aquifer Map
  - US EPA SSA Consultation Response
  - US EPA SSA Consultation Package

List of Sources, Agencies and Persons Consulted [40 CFR 1508.9(b)]**:**

- Federal Aviation Administration (FAA)
- Federal Emergency Management Agency (FEMA)
- United States Environmental Protection Agency (USEPA)
- United States Fish and Wildlife Service (USFWS)
- United States Department of Agriculture (USDA)
- Natural Resources Conservation Service (NRCS)
- National Parks Service (NPS)
- United States Geological Survey (USGS)
- New York State Department of Environmental Conservation (NYSDEC)
- New York Natural Heritage Program (NYNHP)
- New York State Department of State (NYS DOS)
- New York State Historic Preservation Office (SHPO)
- Tribal Historic Preservation Office (THPO)

List of Environmental Permits Potentially Required:

- Town of Hempstead Floodplain Development Permit

Standard Conditions for All Projects

Any change to the approved scope of work will require re-evaluation by the Certifying Officer for compliance with NEPA and other laws and Executive Orders.

This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize federal funding.

Preparer Signature: _____ Date: March 26, 2020

Name/Title/Organization: Kris Mierisch, Tectonic Engineering and Surveying Consultants, P.C.

Certifying Officer Signature: _____ Date: March 26, 2020

Name/Title: James McAllister, Certifying Officer, GOSR

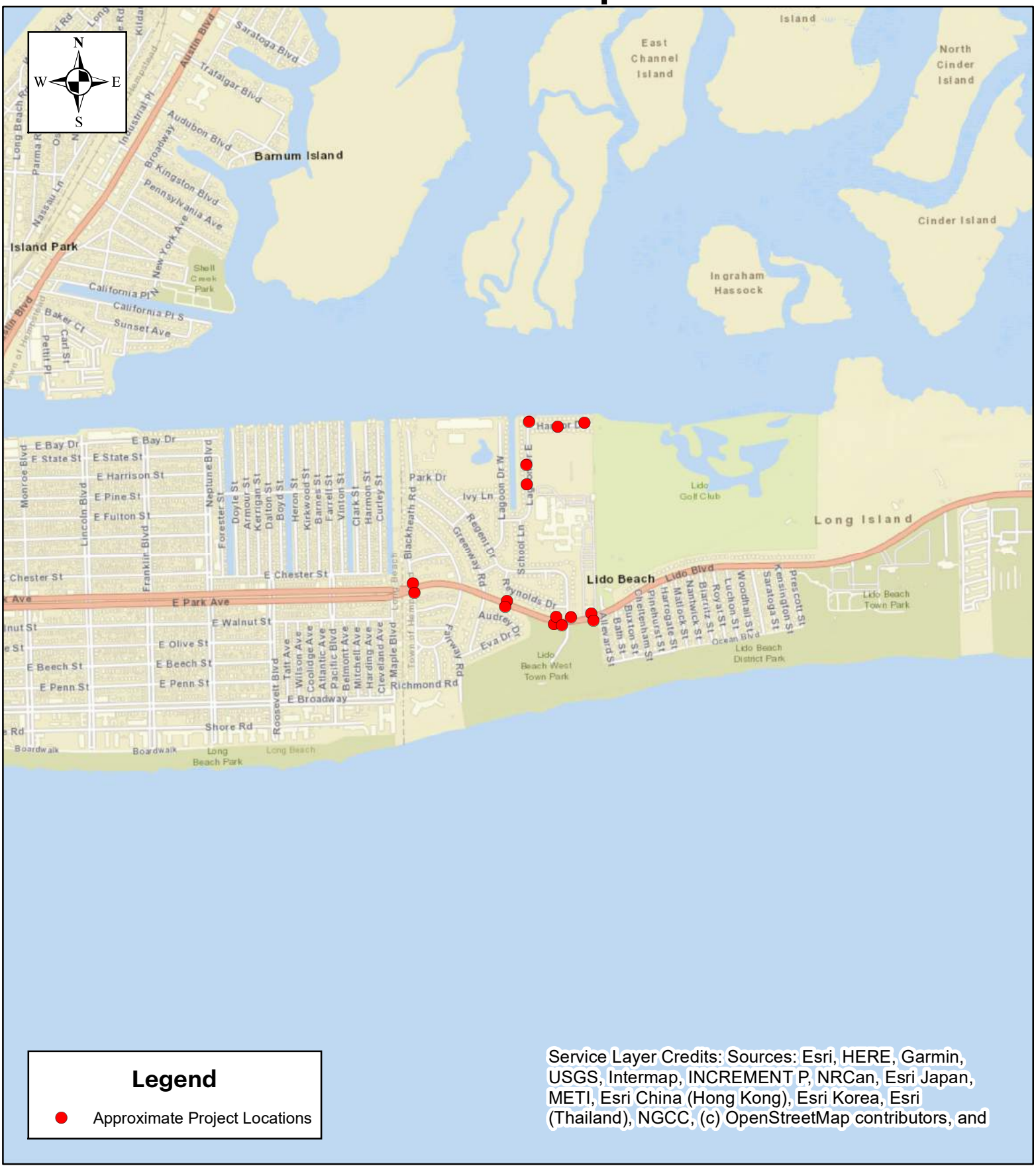
This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

Attachment 1

Project Location Maps

Street Map
Topographic Map
Aerial Photograph

Street Map



Legend

- Approximate Project Locations

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and

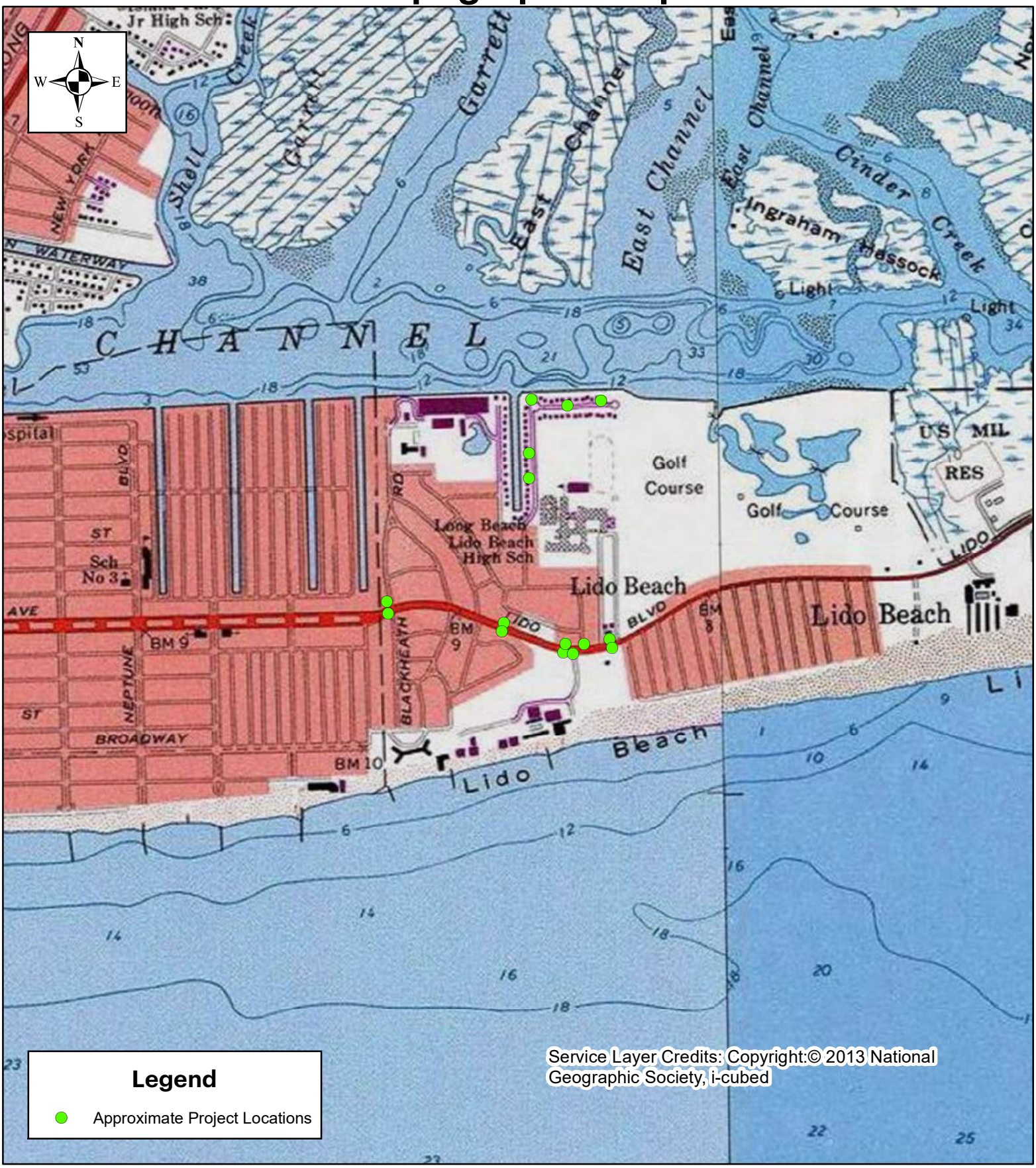
Tectonic

1:20,000

0 1,150 2,300 4,600 Feet

Lido Beach / Point Lookout Drainage Improvements Project
CDP of Lido Beach
Town of Hempstead
Nassau County, New York

Topographic Map



Tectonic

1:16,000

0 900 1,800 3,600 Feet

Lido Beach / Point Lookout Drainage Improvements Project
Hamlet of Lido Beach
Town of Hempstead
Nassau County, New York

Aerial Map

Tectonic

1:8,000

0 462.5 925 1,850 Feet

Lido Beach / Point Lookout Drainage Improvements Project
Hamlet of Lido Beach
Town of Hempstead
Nassau County, New York

Attachment 2

Project Design Plans

DEPARTMENT OF PUBLIC WORKS
NASSAU COUNTY

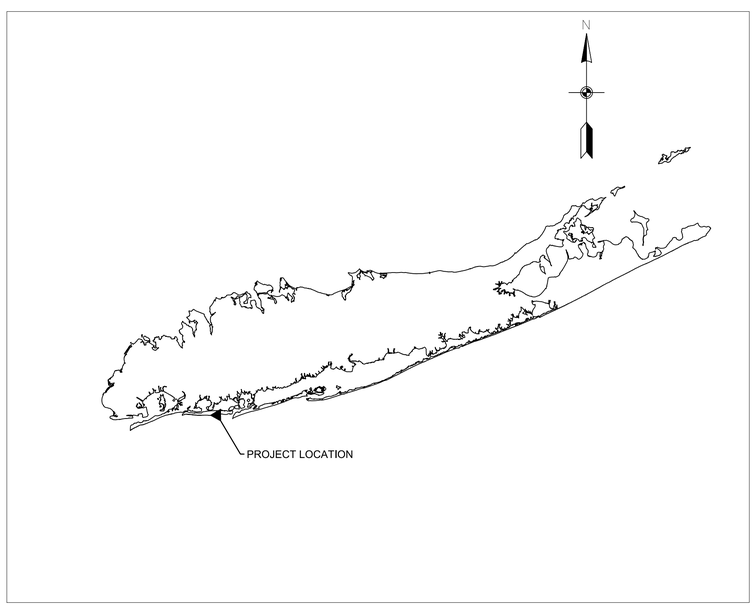
SUBMITTED FOR
REVIEW AND COMMENT

ADVANCED PLANS
60% COMPLETE

NOT FOR CONSTRUCTION

LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

LIDO BEACH, NY
TOWN OF HEMPSTEAD
NASSAU COUNTY
PHASE 60%
CONTRACT No. H60052-01D
OCTOBER 2019



LOCATION MAP
NOT TO SCALE

SURVEY PREPARED BY:

GAYRON DE BRUIN, LAND SURVEYING AND ENGINEERING, PC

PREPARED BY:

JAMES M. BAZATA, P.E, ENV SP — DATE
DIRECTOR OF CIVIL ENGINEERING

RECOMMENDED FOR APPROVAL BY:

GARRY DESYR — DATE
SENIOR DESIGN ENGINEER

HAROLD T. LUTZ, P.E. — DATE
UNIT HEAD TRAFFIC ENGINEER

RICHARD IADEVAIO — DATE
UNIT HEAD CONSTRUCTION

MICHAEL FASANO — DATE
UNIT HEAD ROAD MAINTENANCE

RAKHAL MAITRA, P.E. — DATE
DEPUTY COMMISSIONER OF PUBLIC WORKS

APPROVED BY

KENNETH G. ARNOLD, P.E.COMMISSIONER — DATE
OF PUBLIC WORKS

Existing Legend

Manholes

- Communications
- Drain
- Electric
- Fiber Optic
- Fire Department
- Gas
- Water High Temperature Hot
- Record Only
- Sewer
- Sewer - Drop (COMB; DIAMETER, MATERIAL, DEPTH)
- Sewer Cleanout
- Traffic
- Telephone
- Unknown
- Water

Utility Hardware

- Electric Pullbox
- Electric Vault
- Gas Main Valve
- Gas Marker
- Gas Meter
- Gas Service Valve
- Gas Test Station
- Gas Vent
- Hydrant
- Hydrant Valve
- Irrigation Valve
- Monitoring Well
- Oil Filler Valve
- Pole Riser - Electric
- Pole Riser - Telephone
- Pole Riser - T.V.
- Pole Riser - Traffic
- Roof Drain
- Sewer Vent
- Stand Pipe
- Traffic Detector
- Traffic Loop
- Unidentified Vault
- Unknown Valve
- Unknown Pullbox
- Water Main Valve
- Water Meter
- Water Service Valve

Utility Poles

- Guy Wire and Ancor
- Light Pole Base
- Metal Pole with Light
- Metal Pole with Traffic
- Pedestrian Signal
- Wooden Utility Pole
- Wooden Utility Pole with Light

Utility Pole Abbreviations

F	Fire Box
P	Pedestrian Signal
T	Traffic

Fences

- Guard Rail
- Chain Link Fence
- Wooden Fence
- Metal Fence
- Retaining Wall
- Vinyl Fence

Vegetation

- Bush
- Hedge
- Tree (with Size) Located At Center
- Tree (with Size) Located At Face
- Treeline

Catch Basins

- Type "A"
- Type 1
- Type 3
- Flush Grate
- Round Grate
- Small Rectangle Grate
- Square Grate

Utility Lines and Paint Marks

- Dead End
- End of Information
- Automated Vacuum
- Cable (CATVU)
- Drain (SD)
- Drain (24" or Greater) (SD)
- Electric
- Electric Offset
- Fiber Optic (Fiber)
- Fire (Fire)
- Gas (G)
- Gas offset (G)
- Gas Service (G)
- Oil (Oil)
- Overhead
- Sewer (SAN)
- Sewer (24" Or Greater) (SAN)
- Sewer House Connection (SHC 6.1" Cov.)
- Steam
- Street Lighting
- Telephone (TU_A)
- Telephone Offset (TU_A)
- Traffic (Traffic)
- Unknown Utility
- Water (W)
- Water (24" Or Greater) (W)
- Water Offset (W)
- Water Service (W)
- Water Chilled (Chilled Water)
- Water High Temperature Hot

Miscellaneous

- Aerial Target
- Baseline & Station (0+00, 1+00)
- Basketball Backboard Post
- Bench
- Benchmark
- Bike Rack
- Boring
- Cellar Door
- Column
- Communications Pullbox
- Communications Box - Round
- Curb - Concrete
- Curb - Belgian Block
- Curb - Brick
- Curb & Gutter
- Edge Of Pavement
- First Floor Entrance
- Flagpole
- Fountain
- Garage Entrance
- Grill
- Guardpost
- Handicap Ramp
- Mailbox
- Material Change
- Multi-Meter
- Parking Meter
- Piling
- Police Box
- Sign - Single Post
- Sign - Double Post
- Steps
- Sprinkler (underground)
- Telephone Booth
- Test Hole
- Traffic Control Cabinet
- Trash Can
- Turnstile
- WiFi
- Yard Light

Property Markers

- Cross Cut
- Drill Hole
- Disk
- Iron Pipe
- Iron Rod/ Rebar/ Pin
- L Cut
- Misc. Marker
- Monument
- Monument - Not Found
- PK/Mag Nail
- Railroad Spike
- Spike
- Stake

Property Lines

- ROW Line (HB)
- Lot Lines (PL)

Abbreviations

AOBE	As Ordered By Engineer
Aband.	Abandoned
Alum.	Aluminum
Apt.	Apartment
Asph.	Asphalt
B.O.P.	Beginning Of Profile
B. Blk.	Belgian Block
B.T.	Blacktop
Bit.	Bituminous
Blk.	Block
Brk.	Brick
CB	Catch Basin
C.O.C.	Center Of Cable
Conc.	Concrete
Ch. Lk. Fe.	Chain Link Fence
C.L.F.	Chain Link Fence
DE	Dead End
D.I.C.B.	Double Inlet Catch Basin
Dilap.	Dilapidated
El	Elevation
EOI	End Of Information
EOP	End Of Profile
Exist.	Existing
FF=7.25	First Floor Elevation
Fr.	Frame
GF=18.30	Garage Floor Elevation
I=1.6	Invert Elevation
Inv.	Invert Elevation
L.	Left
L/C	Left Curb
MH	Manhole
PC	Point Of Curvature
Rail Fe.	Post And Rail Fence
Rec.	Record
#107	Residence No. 107
R.	Right
R/C	Right Curb
R=32.65	Rim Elevation Of Manhole
Rim	Rim Elevation Of Manhole
Sew.	Sewer
S.I.C.B.	Single Inlet Catch Basin
SSHC	Sanitary Sewer House Connection
Slt.	Slate
Sta.	Station
Stock. Fe.	Stockade Fence
Sty.	Story
T/G	Top Of Gutter
Th #3	Test Hole
TOP	Top Of Pipe
TW	Top Of Wall
Typ.	Typical
U.G.	Underground
Vac.	Vacant
VPI	Vertical Point Of Intersection
Wd.	Wood

Pipe Material Abbreviations

ACPP	Asbestos Cement Pressure Pipe
ACP	Asbestos Cement Pipe
CI	Cast Iron
CIBS	Cast Iron Bare Steel
CLDI	Cement Lined Ductile Iron
CLMP	Cement Lined Metal Pipe
CMP	Corrugated Metal Pipe
CP	Clay Pipe
CPP	Corrugated Polyethylene Pipe
CS	Carbon Steel
DB	Double Barrel
DI	Ductile Iron
ESVP	Extra Strength Vitrified Pipe
FTRC	Flat Top Reinforced Concrete
FRP	Fiberglass Reinforced Pipe
HERCP	Horizontal Elliptical Reinforced Concrete Pipe
HDPP	High Density Polyethylene Pipe
PE	Polyethylene
PRCP	Precast Reinforced Concrete Pipe
PVC	Polyvinyl Chloride Pipe
RCP	Reinforced Concrete Pipe
SS	Stainless Steel
ST	Steel
VCP	Vitrified Clay Pipe

Directional Abbreviations

(E)	East
(N)	North
(NE)	North East
(NW)	North West
(S)	South
(SE)	South East
(SW)	South West
(W)	West
E/S	East Side
N/S	North Side
S/S	South Side
W/S	West Side

Northing-Easing

N= 155885.200
E= 1085414.106

Proposed Legend

DRAINAGE

- MANHOLE (TYPE AS SPECIFIED)
- STORM DRAINAGE PIPE (DIAMETER AS SPECIFIED) (SD)
- CATCH BASIN (TYPE AS SPECIFIED)
- NASSAU COUNTY TYPE A FRAME AND GRATE WITH CURB BOX

EXCAVATION LIMITS

- TRENCH & CULVERT
- UNCLASSIFIED (FOR RESTORATION ACTIVITIES)

RESTORATION

- CONCRETE SIDEWALK (ITEM 27)
- TOPSOIL & SEED (ITEM 368)
- ASPHALT RESTORATION (ITEM 36D)
- RESETTING EXISTING BRICK PAVERS (ITEM 40R) (OR)
- LANDSCAPING CRUSHED STONES (ITEM 20)

RESTORATION LIMITS

- CONCRETE CURB (ITEM 26)
- SAW CUT ASPHALT PAVEMENT AND CONCRETE (ITEM 58RPC)
- REMOVE AND RESET EXISTING VINYL FENCE (ITEM 64)
- REMOVE AND RESET EXISTING TIMBER FENCE (ITEM 64)
- PROPOSED TREE (ITEM XX)
- RELOCATE EXISTING LIGHT POLE (ITEM 120SS)

EASMENTS

- TEMPORARY EASEMENT (TE)

INDEX OF DRAWINGS (60% SUBMISSION):

C-01	COVER
I-01	INDEX, LEGEND AND ABBREVIATIONS
GN-01	GENERAL NOTES 01
GN-02	GENERAL NOTES 02
SC-01	SURVEY CONTROL
MST-01	MISCELLANEOUS TABLES 01
MST-02	MISCELLANEOUS TABLES 02
MST-03	MISCELLANEOUS TABLES 03
MSD-01	MISCELLANEOUS DETAILS 01
MSD-02	MISCELLANEOUS DETAILS 02
MSD-03	MISCELLANEOUS DETAILS 03
MSD-04	MISCELLANEOUS DETAILS 04
MSD-05	MISCELLANEOUS DETAILS 05
MSD-06	MISCELLANEOUS DETAILS 06
KP-01	KEY PLAN

CONSTRUCTION PLANS

CP-01	CONSTRUCTION PLAN 01
CP-02	CONSTRUCTION PLAN 02
CP-03	CONSTRUCTION PLAN 03
CP-04	CONSTRUCTION PLAN 04
CP-05	CONSTRUCTION PLAN 05
CP-06	CONSTRUCTION PLAN 06
CP-07	CONSTRUCTION PLAN 07
CP-08	CONSTRUCTION PLAN 08
CP-09	CONSTRUCTION PLAN 09
CP-10	CONSTRUCTION PLAN 10
CP-11	CONSTRUCTION PLAN 11
CP-12	CONSTRUCTION PLAN 12
CP-13	CONSTRUCTION PLAN 13
CP-14	CONSTRUCTION PLAN 14
CP-15	CONSTRUCTION PLAN 15

WORK ZONE TRAFFIC CONTROL PLANS

WZTCN-01	WORK ZONE TRAFFIC CONTROL NOTES
WZTC-1-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 1 - PLAN 1
WZTC-2-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 2 - PLAN 1
WZTC-3-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 3 - PLAN 1
WZTC-4-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 4 - PLAN 1
WZTC-5-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 5 - PLAN 1
WZTC-5-2	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 5 - PLAN 2
WZTC-6-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 6 - PLAN 1
WZTC-6-2	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 6 - PLAN 2

NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS SANITARY SEWER NOTES:

1. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO WORK INVOLVING ANY SANITARY SEWER FACILITIES. NOTIFICATION IS TO BE MADE BY CALLING 516-571-7502 OR 7505.

2. ALL WORK SHALL BE IN ACCORDANCE WITH NCDPW STANDARD SPECIFICATIONS AND DETAILS FOR THE CONSTRUCTION OF SANITARY SEWERS, LATEST EDITION 2003. ALL WORK MUST BE PERFORMED IN THE PRESENCE OF A NASSAU COUNTY INSPECTOR.

3. ALL SANITARY SEWER HOUSE CONNECTIONS AND LATERALS SHALL BE LOCATED PRIOR TO ANY EXCAVATION BY THE CONTRACTOR.

4. THE HORIZONTAL/VERTICAL SEPARATION OF SEWER AND DRAINAGE PIPE WATER MAINS/SERVICES SHALL MEET OR EXCEED THE REQUIREMENTS OUTLINED IN THE RECOMMENDED STANDARDS FOR SEWAGE WORKS (TEN STATE STANDARDS), LATEST EDITION.

5. WHERE SANITARY OR HOUSE CONNECTION SEWERS CROSS OVER A DRAINAGE TRENCH AREA, THE SEWER SHALL BE REPLACED WITH DUCTILE IRON EXTENDING A MINIMUM OF FIVE (5) FEET EACH SIDE OF CROSSING TO UNDISTURBED SOIL. THE SAME PLACEMENT SHALL APPLY FOR SEWERS UNDER A DRAINAGE TRENCH AREA WITHIN TWELVE (12) INCHES CLEARANCE, BOTTOM OF DRAIN TO TOP OF SEWER.

6. ALL PIPES, MANHOLES AND APPURTENANCES SHALL HAVE THE COUNTY APPROVAL STAMP THEREON OR WRITTEN CERTIFICATION ACCEPTABLE TO THE COUNTY BEFORE THE MATERIAL CAN BE INSTALLED.

7. WHERE IT IS NECESSARY TO RAISE SANITARY SEWER MANHOLE CASTINGS TO GRADE FOR REPAVING, FIXED FRAME CASTINGS MUST BE RAISED EITHER BY ADJUSTING THE HEIGHT OF THE BRICK MASONRY OR USING AN APPROVED INSERT (METAL INSERTS ARE NOT PERMITTED). ADJUSTABLE FRAME TYPE MANHOLES MAY BE RAISED BY ADDING UP TO A MAXIMUM OF TWO (2), ONE (1) INCH ADJUSTMENT RINGS TO ACHIEVE FINAL GRADE.

8. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS FOR ENTRY INTO A CONFINED SPACE WHENEVER IT IS NECESSARY FOR A CONTRACTOR'S EMPLOYEE TO ENTER A NASSAU COUNTY SANITARY SEWER MANHOLE. THE MINIMUM REQUIREMENTS THE CONTRACTOR MUST COMPLY WITH ARE:

   A. A CONTRACTOR ISSUED "ENTRY PERMIT".

   B. A CONFINED SPACE ENTRY MONITOR TO TEST FOR TOXIC, EXPLOSIVE AND OXYGEN DEFICIENT ATMOSPHERE.

   C. CONFINED SPACE RESCUE AND RETRIEVAL EQUIPMENT.

   THE CONTRACTOR WILL NOT BE PERMITTED TO WORK IN A NASSAU COUNTY SANITARY SEWER MANHOLE UNLESS HE/SHE COMPLIES WITH ALL APPLICABLE OSHA REQUIREMENTS.

SPECIFICATIONS AND STANDARDS:

ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE IN CONFORMITY WITH THE FOLLOWING NASSAU COUNTY DRAWINGS AND ADDITIONAL STANDARDS (AS MODIFIED IN THE CONTRACT PLANS AND SPECIFICATIONS ADDENDA):

A. COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS AND STANDARD SHEETS FOR CIVIL ENGINEERING AND SITE DEVELOPMENT CONSTRUCTION, PRINTED 2009; INCLUDING ALL ADDENDA, NOTES, MODIFICATIONS AND CORRECTIONS OF THE NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS SHALL APPLY WITH THE AMENDMENTS AND ADDED SPECIAL SPECIFICATIONS CONTAINED WITHIN THE PROJECT MANUAL.

B. COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF SANITARY SEWERS, 2003.

C. COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS STANDARD SHEETS FOR THE CONSTRUCTION OF SANITARY SEWERS, 2003.

D. COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS, TRAFFIC SIGNAL SPECIFIC, AND STANDARD DRAWINGS, NOVEMBER 1998.

E. NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT), STANDARD SPECIFICATIONS OF CONSTRUCTION AND MATERIALS, OFFICE OF ENGINEERING, DATED MAY 1, 2008 WITH CURRENT ADDITIONS AND MODIFICATIONS, AS REFERENCED AND/OR AS DESCRIBED IN THE CONTRACT DOCUMENTS.

F. THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

G. NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) US CUSTOMARY STANDARD SHEETS, CURRENT ADDITIONS AND MODIFICATIONS, AS REFERENCED AND/OR AS DESCRIBED IN THE CONTRACT DOCUMENTS.

TREE REMOVAL NOTES:

1. THE CONTRACTOR SHALL EXERCISE EXTREME CARE TO AVOID DAMAGE TO NATURAL GROWTH WITHIN THE PROJECT AREA. THE CONTRACTOR WILL BE REQUIRED TO REPLACE AT HIS OWN EXPENSE TREE, SHRUBBERY AND OTHER NATURAL FEATURES DESTROYED OR DAMAGED THROUGH CARELESSNESS.

2. TREES SPECIFICALLY CALLED FOR TO BE REMOVED ARE INDICATED ON THE PLANS. IT IS NOTED THAT ADDITIONAL TREES AND OTHER FORMS OF VEGETATION WILL BE REMOVED AS ORDERED BY ENGINEER (AOBE). PAYMENT FOR ALL REMOVALS WILL BE MADE UNDER THE APPROPRIATE TREE REMOVAL ITEM.

SAWCUTTING NOTES:

1. ALL SAWCUTTING REQUIRED FOR PAVEMENT AND JOINT REPAIR WORK IS INCLUDED IN THE BID PRICE FOR THE RESPECTIVE REPAIR ITEMS.

2. ALL SAWCUTTING NECESSARY FOR MEETING EXISTING CONDITION IN CONNECTION WITH RESTORATION WORK AREAS INCLUDING PAVEMENT ADJACENT TO PROPOSED CURB, MEET LINES AT EXISTING SIDEWALK ASSOCIATED WITH SIDEWALK RAMP WORK, SIDEWALK, AND DRIVEWAYS, ROADWAYS AND OTHER MEET LINES ASSOCIATED WITH RESTORATION WORK, SHALL BE PAID FOR UNDER ITEM 58RPC.

3. NO SEPARATE PAYMENT WILL BE PAID UNDER THE SAW CUT ITEMS, IF THE PAYMENT FOR SAW CUT IS INCLUDED IN OTHER ITEMS.

ARCHAEOLOGICAL NOTES:

1. WHEN ITEMS HAVING POSSIBLE ARCHAEOLOGICAL VALUE ARE ENCOUNTERED IN THE COURSE OF THE WORK, THE CONTRACTOR SHALL IMMEDIATELY HALT WORK IN THE VICINITY AND CALL TO THE ATTENTION OF THE ENGINEER THE PRESENCE OF SUCH ITEMS. THE ENGINEER WILL EITHER ORDER WORK TO PROCEED OR INSTRUCT THAT THE WORK HALT, BE EXTENDED UNTIL THE COUNTY ARCHAEOLOGIST CAN BE CONSULTED, AND PROPER STEPS CAN BE EMPLOYED TO PROTECT AND EXTRACT THE SPECIMENS. THE CONTRACTOR SHALL HAVE NO CLAIM TO THE OWNERSHIP OF ANY SUCH ITEM, OR TO EXTRA PAYMENT FOR DELAY WHICH MAY RESULT.

SUBGRADE EXCAVATION NOTES:

1. ALL UNDESIRABLE MATERIAL IN THE SUBGRADE SHALL BE EXCAVATED UNDER ITEM 2 AND BACKFILLED WITH EXCESS SUITABLE ITEM 2 MATERIAL WHERE AVAILABLE, OR ITEM 5C AND STABILIZED TO THE SATISFACTION OF THE ENGINEER.

2. PRIOR TO EXCAVATING WITHIN A 20 FEET RADIUS OF A TRAFFIC SIGNAL POLE, TEMPORARY GUY CABLES, TEMPORARY SHEETING AND BRACING, OR OTHER MEANS MAY BE REQUIRED TO ENSURE THAT THERE IS NOT MOVEMENT OF THE POLE FOUNDATION AS A RESULT OF THE EXCAVATION. WHERE REQUIRED TEMPORARY SHEETING AND BRACING SHALL BE FURNISHED, INSTALLED AND PAID UNDER ITEM 10A OR ITEM 10B (AS DETERMINED BY THE ENGINEER IN CHARGE OF INSPECTION), AS INCLUDED IN THE CONTRACT.

3. TEMPORARY GUY CABLES OR OTHER MEANS OF SUPPORT THAT ENTAIL AN ATTACHMENT TO THE TRAFFIC SIGNAL POLE WILL BE THE RESPONSIBILITY OF NASSAU COUNTY DPW TRAFFIC DIVISION.

4. PRIOR TO EXCAVATING WITHIN A 20 FEET RADIUS OF A UTILITY POLE, THE CONTRACTOR SHALL COORDINATE HIS/HER ACTIVITIES WITH THE OWNER TO DETERMINE WHETHER TEMPORARY SUPPORT OF THE POLE IS REQUIRED. WHERE DESIRED BY THE OWNER, TEMPORARY SHEETING AND BRACING SHALL BE FURNISHED, INSTALLED AND PAID UNDER ITEM 10A OR ITEM 10B (AS DETERMINED BY THE ENGINEER IN CHARGE OF INSPECTION), AS INCLUDED IN THE CONTRACT.

5. TEMPORARY GUY CABLES OR ANY OTHER MEANS OF SUPPORT THAT ENTAIL AN ATTACHMENT TO THE UTILITY POLE WILL BE THE RESPONSIBILITY OF THE OWNER.

SURVEY DATUM NOTES:

1. ALL ELEVATIONS SHOWN ON THESE PLANS REFER TO THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88).

2. THE HORIZONTAL DATUM USED ON THIS PROJECT IS NORTH AMERICAN DATUM 1983 (2011) EPOCH 2010.00 (NEW YORK STATE PLANE COORDINATE SYSTEM, LONG ISLAND ZONE0. ALL LINEAR MEASUREMENTS ARE IN U.S. SURVEY FEET.

PROTECTION OF FACILITIES NOTES:

1. THE CONTRACTOR SHALL PROTECT ALL WORK DONE UNDER THIS CONTRACT FROM POSSIBLE DAMAGE FOR THE DURATION OF THE CONTRACT. HE SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT, TO THE SATISFACTION OF THE ENGINEER, OF ANY MATERIAL, STRUCTURE, OR PROPERTY ON OR ADJACENT TO THE SITE AND DAMAGED BY HIM OR HIS EMPLOYEES THROUGH THE CONSTRUCTION OPERATIONS UP TO THE TIME OF ACCEPTANCE BY THE COUNTY.

MISCELLANEOUS NOTES:

1. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT, DUE TO THE NATURE OF RECONSTRUCTION PROJECTS, THE EXACT EXTENT OF RECONSTRUCTION WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER INFORMATION AVAILABLE AT THE TIME. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE WITH FIELD CONDITIONS AS DIRECTED BY THE ENGINEER RESPONSIBLE FOR CONSTRUCTION INSPECTION.

2. THE CONTRACTOR SHALL TAKE PRECAUTIONS NOT TO LEAVE DEBRIS, MATERIALS, AND TOOLS, ETC., ON THE ROADWAY SURFACE WHEN LEAVING THE WORK AREA. IN ADDITION, THE CONTRACTOR SHALL TAKE PRECAUTIONS THAT NO DEBRIS, ETC., INTERFERES WITH ADJACENT OPEN TRAFFIC LANES AND PEDESTRIAN WALKS.

3. THE CONTRACTOR SHALL TAKE POSITIVE STEPS TO PREVENT THE SPLATTERING OF VEHICLES. THE CONTRACTOR SHALL PROVIDE FOR THE PROMPT CLEANING OF ANY VEHICLES SPLATTERED BY CONTRACTORS OPERATIONS AND SHALL PAY FOR THE CLEANING. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS IN THE CONTRACT.

4. ALL OPERATIONS SHALL BE CONDUCTED SO AS NOT TO INTERFERE WITH, INTERRUPT, OR ENDANGER THE OPERATION OF TRAFFIC, NOR DAMAGE, DESTROY, OR ENDANGER THE INTEGRITY OF COUNTY OR STATE FACILITIES OR ADJACENT PROPERTIES.

5. NCDPW WILL NOT UNDERTAKE OR ACCEPT FINANCIAL RESPONSIBILITY FOR ANY REMEDIATION OR SIMILAR ACTIVITY WITH RESPECT TO THE REMOVAL OF HAZARDOUS WASTES (6 NYCRR PART 373 AND 374) AND NON-HAZARDOUS SOLID INDUSTRIAL WASTES (6 NYCRR PART 360), WHICH UNDER LAW WOULD NOT BE REQUIRED AT THE TIME BUT FOR THE ACCOMMODATION OF UTILITY FACILITIES WITHIN THE RIGHT-OF-WAY. SUCH RESPONSIBILITY AND COSTS SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

6. PAVEMENT AND SHOULDER REMOVAL SHALL BE DONE IN A MANNER THAT PROVIDES FOR PROPER RESTORATION OF THE REPLACEMENT SECTION. GENERALLY, STRAIGHT, VERTICAL CUTS OF THE PAVEMENT AND SHOULDER WILL BE REQUIRED. SHEETING MAY BE REQUIRED. PAVEMENT THAT BECOMES UNDERMINED SHALL BE CUT BACK AND REMOVED. ALTERNATIVE REPAIR METHODS MAY BE USED IF PRIOR APPROVAL IS GRANTED BY THE COUNTY.

7. THE LIMIT OF PAVEMENT REPLACEMENT SHALL BE SUCH THAT THE REPLACED PAVEMENT IS SUPPORTED BY THOROUGHLY COMPACTED SUBBASE MATERIAL AND THE PAVEMENT IS RESTORED TO THE PROPER GRADE, SURFACE TOLERANCE AND SURFACE TEXTURE.

8. EXCAVATIONS SHALL BE CONDUCTED IN COMPLIANCE WITH New York STATE INDUSTRIAL CODE PART (RULE NO. 23) AND INDUSTRIAL CODE PART (RULE NO. 53).

9. A CONSTRUCTION TRAILER SHALL BE PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH CONTRACT ITEM 1M/F - MOBILIZATION WITH FIELD OFFICE.

10. THE CONTRACTOR IS NOTIFIED THAT PROPOSED WORK AREAS SHALL BE CONFINED TO NASSAU COUNTY RIGHT-OF-WAY, UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER. IF IT IS NOT FEASIBLE TO PERFORM THE PROPOSED WORK WITHOUT ENTERING PRIVATE PROPERTY, THE WORK IN QUESTION MAY BE ELIMINATED FROM THE PROJECT, AS DIRECTED BY THE COUNTY ENGINEER. NASSAU COUNTY MUST BE ADVISED PRIOR TO THE ENCROACHMENT ONTO PRIVATE PROPERTY, IN THE EVENT THAT ANY WORK AREAS BEYOND THE RIGHT-OF-WAY BECOME NECESSARY.

CURBS AND SIDEWALK NOTES:

1. NEW CURBS NOT ABUTTING EXISTING CURB SHALL BE RAMPED DOWN TO ZERO HEIGHT REVEAL IN THE LAST 10 FT, AT LOCATIONS FACING TRAFFIC. AT EXIT GORES CURB SHALL BE RAMPED DOWN IN 20 FT ON BOTH SIDES OF THE GORE.

2. THE PLANS SPECIFICALLY CALL FOR THE REMOVAL AND REPLACEMENT OF EXISTING CURBS DETERMINED TO BE DAMAGED AND/OR IN DIRECT CONFLICT WITH THE PROPOSED WORK. OTHER EXISTING CURBS ARE TO BE REMOVED IN AREAS OF OBVIOUS CONFLICT WITH THE PROPOSED WORK, NOT SHOWN ON THE PLANS OR WHERE ORDERED BY THE ENGINEER.

UTILITY NOTES:

1. THE LOCATIONS AND SIZES OF EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND ARE NOT GUARANTEED. THE CONTRACTOR IS FOREWARNED TO ASCERTAIN AND DETERMINE THE PRECISE LOCATIONS PREPARATORY TO EXCAVATION.

   THE CONTRACTOR SHALL CONTACT UTILITY COMPANIES AND "ONE-CALL CENTER" AT TELEPHONE NUMBER 1-800-272-4480 OR "NEW YORK 811" (TELEPHONE NUMBER IS 811) FOR MARK-OUT OF ALL FACILITIES PRIOR TO CONSTRUCTION. THE UTILITY COMPANIES AND "ONE-CALL CENTER" SHALL BE NOTIFIED A MINIMUM OF FIVE (5) WORKING DAYS BEFORE THE CONTRACTOR COMMENCES WORK. ANY UTILITY RELOCATIONS OR CROSSINGS SHALL BE COORDINATED WITH THE UTILITY COMPANY OWNING THE FACILITY.

   NASSAU COUNTY OWNED UTILITIES SHALL BE LOCATED BY TONING, TEST HOLES & OTHER METHODS AS APPROVED BY THE ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO REPAIR OR REPLACE UTILITIES DAMAGED BY CARELESSNESS.

2. EXISTING UTILITY FACILITIES REMOVAL, RELOCATION, OR MODIFICATION SHALL BE COMPLETED PRIOR TO COMMENCING WORK. CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THE MODIFICATION OF ALL UTILITIES.

3. EXISTING UNDERGROUND AND OVERHEAD UTILITIES AS SHOWN HEREIN HAVE BEEN DETERMINED BY STANDARD SURVEYING METHODS AND AVAILABLE RECORDS. NEITHER THE EXACT LOCATION NOR THE INFORMATION OF THESE EXISTING UTILITIES IS GUARANTEED TO BE COMPLETE OR CORRECT.

4. THE UTILITY LOCATION QUALITY LEVEL LABELING CONVENTION SHOWN ON THE PLANS DOES NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATIONS.

   THE QUALITY LEVEL DEFINITIONS ARE:

   QUALITY LEVEL A - THE HIGHEST DEGREE OF ACCURACY: THE UTILITY INFORMATION ON THE CONTRACT PLANS HAS BEEN FIELD LOCATED AND VERIFIED BY EXCAVATION, WHEN APPROPRIATE. (SHOWN AS QLA).

   QUALITY LEVEL B - SUBSURFACE GEOPHYSICAL LOCATING TECHNIQUES (THAT IS, UNDERGROUND CAMERAS, RADAR, SONAR, TONE OUTS, ETC.) AND EXISTING RECORD PLANS HAVE BEEN USED TO LOCATE UTILITIES. NO EXCAVATIONS WERE PERFORMED. (SHOWN AS QLB).

   QUALITY LEVEL C - RECORD INFORMATION PROVIDED BY UTILITY OWNERS WAS PLOTTED ON THE CONTRACT PLANS. DEPTHS WERE NOT FIELD VERIFIED. PHYSICAL SURFACE FEATURES LIKE MANHOLES, VALVE BOXES AND HYDRANTS HAVE BEEN FIELD LOCATED. (SHOWN AS QLC).

   QUALITY LEVEL D - EXISTING NYSDOT, NCDPW AND UTILITY COMPANY RECORDS WERE USED TO LOCATE SUBSURFACE UTILITIES. (SHOWN AS QLC).

5. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND FACILITIES TO AVOID CONFLICTS WITH ANY NEW UNDERGROUND WORK. THE CONTRACTOR SHALL DIG TEST HOLES AS DIRECTED BY THE ENGINEER RESPONSIBLE FOR CONSTRUCTION INSPECTION TO DETERMINE EXACT LOCATIONS OF EXISTING UTILITIES, AS DEEMED APPROPRIATE. THE WORK SHALL BE PROGRESSED AND PAID UNDER ITEM 122 - TEST HOLES.

6. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF AND COST OF ALL UTILITY RELOCATIONS OR ADJUSTMENTS THAT ARE SHOWN TO BE DONE BY OTHERS.

7. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH ALL VOLTAGES CARRIED IN OVERHEAD OR UNDERGROUND UTILITY SERVICES. PSEG-LI WILL FURNISH ELECTRIC SERVICE INFORMATION UPON REQUEST. NATIONAL GRID WILL FURNISH APPROXIMATE LOCATIONS AND DEPTHS OF GAS MAINS UPON REQUEST. THIS INFORMATION IS NOT GUARANTEED. THE CONTRACTOR SHALL INDEPENDENTLY DETERMINE WHETHER INTERFERENCE EXISTS IN ALL CRITICAL AREAS.

8. ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH CODE RULE 57 ("HIGH VOLTAGE PROXIMITY ACT") OF THE New York STATE LABOR LAW.

9. PRIOR TO EXCAVATING IN THE VICINITY OF UTILITY POLES, THE CONTRACTOR SHALL CONTACT THE POLE'S OWNER TO DETERMINE THE TYPE OF TEMPORARY POLE SUPPORT REQUIRED. NO SEPARATE PAYMENT WILL BE MADE FOR TEMPORARY SUPPORT OF UTILITY POLES, WHERE REQUIRED. THE COST OF TEMPORARY POLE SUPPORT SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

10. THE CONTRACTOR SHALL NOTIFY THE TRAFFIC ENGINEERING (SHELIA DUKACZ) AT 516-572-0465 TWO DAYS PRIOR TO ANY WORK ADJACENT TO TRAFFIC SIGNALS.

SURVEY NOTES:

1. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROTECT SURVEY MONUMENTS FROM DISTURBANCE, OR DAMAGE. IF ANY MONUMENT IS DISTURBED IT WILL BE THE CONTRACTORS RESPONSIBILITY TO REPLACE THE MONUMENT AND TO ESTABLISH THE REVISED COORDINATES BY FIRST ORDER SURVEY METHODS. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.

2. ANY EXPENSE INCURRED IN REPLACING MONUMENTS OR BENCHMARKS THAT THE CONTRACTOR, OR ANY EMPLOYEE, MAY HAVE FAILED TO PRESERVE SHALL BE CHARGED DIRECTLY TO THE CONTRACTOR OR DEDUCTED FROM THE TOTAL AMOUNT OF THE POST PERFORMANCE BOND.

3. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION SURVEY LAYOUT AND STAKEOUT. THE COST SHALL BE PAID FOR UNDER THE UNIT PRICE BID FOR ITEM 136.

4. THE SURVEY BASELINE SHOWN ON THESE PLANS IS APPROXIMATE AND IS SHOWN FOR TABULATING AND FILING PURPOSES ONLY. THE BASELINE/SURVEY CONTROL DATA IS FURNISHED ON THE PLAN DRAWINGS (UNDER MISCELLANEOUS TABLES). PAYMENT SHALL BE INCLUDED IN THE SURVEY STAKEOUT ITEM 136.

DRAINAGE NOTES:

1. EXISTING DRAINAGE PIPE INVERTS ARE TO BE VERIFIED BY THE CONTRACTOR WHERE REQUIRED TO FACILITATE REPAIRS AS SHOWN ON THE PLANS OR WHERE DIRECTED BY THE ENGINEER. WHERE NEW DRAINAGE PIPE INVERTS ARE SHOWN ON THE PLANS, THEY SHALL BE MODIFIED AS FIELD CONDITIONS REQUIRE AND AS DIRECTED BY THE ENGINEER RESPONSIBLE FOR CONSTRUCTION INSPECTION.

2. ALL DRAINAGE STRUCTURES WITHIN THE PROJECT LIMITS MUST BE MAINTAINED AND BE OPERABLE AT ALL TIMES DURING CONSTRUCTION.

3. THE CONTRACTOR SHALL FURNISH AND INSTALL EXCAVATION AND PROTECTION SYSTEMS AS REQUIRED FOR THE INSTALLATION OF NEW, AND MODIFICATIONS TO EXISTING DRAINAGE STRUCTURES. COSTS FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 10A-1-EXCAVATION PROTECTION SYSTEM, WHEN INCLUDED IN THE CONTRACT.

4. THE CONTRACTOR SHALL VERIFY EXISTING DRAINAGE STRUCTURE SIZES AND TYPES PRIOR TO MAKING ANY MODIFICATIONS TO TOP SLAB, CASTINGS, OR ANY OTHER MODIFICATIONS THAT MAY BE REQUIRED.

5. PRIOR TO THE INSTALLATION OF NEW DRAINAGE, THE CONTRACTOR SHALL DIG TEST HOLES AT NEW STRUCTURE LOCATIONS TO DETERMINE THE EXACT LOCATION OF THE EXISTING UNDERGROUND UTILITIES. IF IT IS DETERMINED BY THE ENGINEER RESPONSIBLE FOR CONSTRUCTION INSPECTION THAT A CONFLICT EXISTS BETWEEN THE EXISTING UTILITIES AND THE NEW DRAINAGE STRUCTURE LOCATIONS, THE CONTRACTOR SHALL SUBSTITUTE AND INSTALL OFFSET OR OTHER TYPE OF CATCH BASINS IN LIEU OF THE STRUCTURES SHOWN ON THE PLANS.TEST HOLES SHALL BE PAID FOR UNDER ITEM 122-TEST HOLES.

6. CURB BOX AND FRAME TYPE "A" AND GRATE TYPE "A" SHALL BE USED FOR CATCH BASINS TYPES "A", "C" AND "11" UNLESS OTHERWISE NOTED. PAYMENT SHALL BE MADE UNDER ITEM 34-MISCELLANEOUS METALS.

7. ALL EXISTING DRAINAGE CASTINGS ARE THE PROPERTY OF THE COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS AND UPON REMOVAL FROM STRUCTURES, THEY SHALL BE PROPERLY STORED AND PROTECTED, UNTIL SUCH TIME THAT THEY MAY BE REMOVED BY THE NASSAU COUNTY HIGHWAY DEPARTMENT. THE CONTRACTOR WILL NOTIFY THE HIGHWAY DEPARTMENT IN WRITING WHERE AND WHEN THESE CASTINGS MAY BE REMOVED FROM THE JOB SITE.

SILT PROTECTION/EROSION CONTROL

1. ALL CATCH BASINS MUST BE PROTECTED PRIOR TO THE START OF WORK - ITEM 141B & ITEM 141C, UNLESS OTHERWISE DIRECTED BY THE ENGINEER RESPONSIBLE FOR THE CONSTRUCTION INSPECTION.

2. GROUND WATER MAY BE ENCOUNTERED DURING THE INSTALLATION OF THE VARIOUS CONTRACT ITEMS. THE COST FOR NECESSARY DEWATERING SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

3. ALL NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PREVENT DIRECT OR INDIRECT CONTAMINATION OF ALL WATER BODIES BY SILT, SEDIMENT, ROADWAY MILLINGS, FUELS SOLVENTS, LUBRICANTS, CONCRETE LEACHATE, OR ANY OTHER POLLUTANT ASSOCIATED WITH CONSTRUCTION AND CONSTRUCTION PROCEDURES. DURING CONSTRUCTION, NO WET OR FRESH CONCRETE OR LEACHATE SHALL BE ALLOWED TO ESCAPE DIRECTLY OR INDIRECTLY INTO ANY WATER BODIES, NOR SHALL WASHINGS FROM CONCRETE TRUCKS, MIXERS, OR OTHER DEVISES BE ALLOWED TO ESCAPE DIRECTLY OR INDIRECTLY INTO ANY WATER BODIES. THE CONTRACTOR SHALL TAKE CARE TO REMOVE ALL MILLINGS AT THE END OF EACH WORK DAY, BY METHODS OUTLINED UNDER THE PAVING SECTION OF THESE GENERAL NOTES OR METHODS AS APPROVED BY THE ENGINEER, SO AS NOT TO DIRECTLY OR INDIRECTLY CAUSE SAID MILLINGS TO BE DEPOSITED INTO SURFACE WATERS. THE COST TO PERFORM THIS WORK IS TO BE INCLUDED IN THE UNIT PRICES BID FOR THE VARIOUS CONTRACT ITEMS, UNLESS OTHER METHODS OF PAYMENT ARE SPECIFIED WITHIN THE CONTRACT DOCUMENTS.

CLEANING OF EXISTING DRAINAGE

1. ALL EXISTING CATCH BASINS THAT LIE WITHIN THE CONTRACT LIMITS, AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER SHALL BE CLEANED UNDER ITEM 12H. CONNECTING PIPES SHALL BE CLEANED FOR A DISTANCE OF 3 FT FROM THE INSIDE WALL OF EACH STRUCTURE. THE COST OF THIS CLEANING SHALL BE INCLUDED UNDER ITEM 12H, UNLESS THE REMAINING PIPE (BEYOND 3 FT) IS MORE THAN 25% FULL AS DETERMINED BY THE ENGINEER. IF IT IS MORE THAN 25% FULL, THE ENTIRE PIPE SHALL BE CLEANED UNDER ITEM 12H, AND MEASUREMENT FOR PAYMENT WILL BE MADE BETWEEN THE INSIDE WALL SURFACES OF ADJACENT MANHOLES OR OTHER DRAINAGE STRUCTURES

2. EXISTING DRAINAGE PIPE SHALL BE CLEANED AS DIRECTED BY THE ENGINEER ON AN AS NEEDED BASIS. A DETAILED LISTING OF THE EXISTING DRAINAGE PIPES WITHIN THE PROJECT IS NOT PROVIDED ON THE PLANS OR KNOWN AT THIS TIME. HOWEVER, AN ESTIMATE OF THE QUANTITY OF LINEAR FEET OF PIPE TO BE CLEANED IS PROVIDED FOR BIDDING PURPOSES, AND MAY BE INCREASED OR DECREASED BASED ON ACTUAL FIELD CONDITIONS ENCOUNTERED AND AS DIRECTED BY THE ENGINEER. THE QUANTITY PROVIDED IS BASED ON THAT ESTIMATE. PAYMENT FOR CLEANING EXISTING PIPE AS ORDERED BY THE ENGINEER SHALL BE PAID FOR UNDER BID ITEM 12H.

3. THE WORK INVOLVED IN CLEANING THE EXISTING DRAINAGE BASINS, ITEM 12H-X, IS TO BE DONE IMMEDIATELY PRIOR TO MILLING. AT EACH BASIN THE CONTRACTOR IS TO PROGRESS THE CLEANING WHILE OBSERVING THE BASIN WALLS. IF PORTIONS OF ANY BASINS WALLS ARE SIGNIFICANTLY DETERIORATED, AS DETERMINED BY THE ENGINEER, CLEANING SHALL TERMINATE. PAYMENT WILL BE MADE UNDER ITEM 12 H-X REGARDLESS OF THE EXTENT TO WHICH THE BASIN HAS BEEN CLEANED. THE ENGINEER WILL THEN DETERMINE IF THE BASIN CAN REMAIN AS IS OR IS TO BE ABANDONED, REPAIRED, OR REPLACED. AS THIS DETERMINATION CANNOT BE MADE BY THE ENGINEER UNTIL THE CLEANING OF THE DRAINAGE STRUCTURE IS ADVANCED, CERTAIN ITEMS AND QUANTITY OF WORK RELATED TO THE POTENTIAL NEED TO ABANDON, REPAIR, OR REPLACE EXISTING DRAINAGE STRUCTURES HAS BEEN ADDED TO THIS CONTRACT AS CONTINGENCY ITEMS.

REMOVAL AND REINSTALLATION OF SIGNS NOTES

1. WORK TO BE DONE UNDER THIS CONTRACT SHALL INCLUDE THE REMOVAL, SAFE STORAGE AND REPLACEMENT OF ALL STREET NAME SIGNS, REGULATORY OR OTHER TRAFFIC SIGNS WHERE SUCH REMOVAL AND REPLACEMENT IS NECESSARY TO COMPLETE THE WORK. THE CONTRACTOR SHALL SUPPLY AND INSTALL A 3" DIAMETER PVC SLEEVE OF NECESSARY LENGTH TO FACILITATE THE REINSTALLATION OF STREET NAME SIGNS, REGULATORY AND PARKING SIGNS IN PAVED AREAS, (CONCRETE OR ASPHALT). THE COST SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS.

MAINTENANCE OF TRAFFIC NOTES

1. THE CONTRACTOR SHALL PERFORM HIS WORK IN SUCH A MANNER AND SEQUENCE THAT INTERFERENCE, RESTRICTIONS AND DELAYS TO THE TRAVELING PUBLIC WILL BE KEPT TO AN ABSOLUTE MINIMUM.

2. THE CONTRACTOR SHALL PROVIDE SAFE AND PASSABLE WALKWAYS THAT ARE ADA COMPLIANT, FOR PEDESTRIAN TRAFFIC WITHIN THE PROJECT LIMITS.

3. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE PROVISIONS OF THE NEW YORK STATE SUPPLEMENT TO THE NATIONAL MUTCD. IN ADDITION, WORK ZONE TRAFFIC CONTROL DRAWINGS AS MAY BE REQUIRED SHALL BE IN ACCORDANCE WITH THE APPLICABLE NYSDOT STANDARD DRAWINGS FOR SECTION 619-WORK ZONE TRAFFIC CONTROL AND SHALL BE SUBMITTED TO NCDPW FOR REVIEW AND ACCEPTANCE. WORK ZONE TRAFFIC CONTROL DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR FOR ANY AND ALL PROJECT ROADWAY SEGMENTS REQUIRING DETOURS AND/OR LANE CLOSURES TO SAFELY EXECUTE THE PROJECT WORK, AS DETERMINED BY THE COUNTY AND/OR THEIR REPRESENTATIVES.

4. SEE ADDITIONAL NOTES FOR MAITENANCE OF TRAFFIC ON DRAWING NO. XX - WORK ZONE TRAFFIC CONTROL.

ADA CURB RAMP NOTES

1. ALL CURB RAMPS TO BE INSTALLED WHERE SHOWN ON THE PLANS OR AS ORDERED BY THE ENGINEER SHALL BE IN COMPLIANCE WITH ADA, PROWAG, AND NCDPW STANDARDS.

2. THE CONTRACTOR SHALL VERIFY THE PLACEMENT OF ALL NEW RAMP CONFIGURATIONS PRIOR TO INSTALLATION. THE CONTRACTOR MUST GIVE 48HRS (2 BUSINESS DAYS) NOTIFICATION FOR NCDPW APPROVAL.

3. A NCDPW INSPECTOR MUST BE PRESENT DURING THE INSTALLATION OF ANY CURB RAMP.

4. IT IS RECOMMENDED THAT A SMART LEVEL TOOL (OR EQUIVALENT) IS USED TO CHECK THE SLOPES ON ALL FORM WORK PRIOR TO THE PLACEMENT OF CONCRETE.

5. NCDPW CIVIL ENGINEERING UNIT MUST BE NOTIFIED IN WRITING OF ANY WORK DONE TO CURB EXISTING CURB RAMPS SO THAT NASSAU COUNTY OR THEIR REPRESENTATIVES CAN UPDATE THE COUNTY'S TRANSITION PLAN INVENTORY.

PAVING

1. TACK COAT SHALL BE APPLIED WHENEVER RESURFACING:(1) ANY PORTLAND CEMENT CONCRETE PAVEMENT RECEIVING AN OVERLAY; 2) ANY MILLED PAVEMENT; AND (3) ANY ASPHALT CONCRETE PAVEMENT EXCEPT WHEN THE EXISTING SURFACE IS EXCESSIVELY FLUSHED, AS DETERMINED BY THE ENGINEER. IN ADDITION, TACK COAT SHALL BE APPLIED TO CONTACT SURFACES BETWEEN ALL HOT MIX ASPHALT PAVEMENT LIFTS REGARDLESS OF TIME PERIOD BETWEEN LIFTS OR CONSTRUCTION VEHICLE USE.

2. WHERE NOTCHES ARE CUT INTO THE EXISTING PAVEMENT IN PREPARATION FOR THE PAVEMENT RESTORATION, THE CONTRACTOR SHALL SAW CUT AND TAKE CARE TO MAINTAIN THE VERTICAL EDGE OF THE RESTORATION LIMIT PRIOR TO PAVING. SAW CUTTING SHALL BE PAID FOR ONCE UNDER ITEM 58RPC. ADDITIONAL SAW CUTTING REQUIRED TO MAINTAIN A VERTICAL EDGE PRIOR TO PAVING SHALL BE DONE AT THE CONTRACTORS EXPENSE. THE CONTRACTOR SHALL EITHER PLACE THE PROPOSED ASPHALT RESTORATION IMMEDIATELY OR PLACE A TEMPORARY WEDGE (1 ON 60) OF ASPHALT TO ELIMINATE THE BUMP CREATED BY THE NOTCH. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE PAVING ITEMS.

3. DURING PAVING OPERATIONS, THE CONTRACTOR SHALL ENSURE THAT THE VERTICAL CHANGE (BETWEEN THE FINISHED PAVEMENT AND THE RAMP) AT ALL THE SIDEWALK CURB RAMPS WITHIN THE PROJECT LIMITS IS LESS THAN ONE-EIGHT INCH (1/8") ACROSS THE ENTIRE RAMP WIDTH.

4. THE CONTRACTOR SHALL FULLY RESTORE ALL ON-STREET PARKING ON ALL ROADWAYS AND AFFECTED SIDE STREETS WITHIN THE PROJECT LIMITS BEFORE THE END OF EACH WORK SHIFT. LOCAL AGENCIES AND AFFECTED BUSINESS ESTABLISHMENTS SHALL BE GIVEN A MINIMUM OF SEVENTY-TWO (72) HOUR ADVANCED NOTICE PRIOR TO THE PLANNED CLOSURES OF THE ON-STREET PARKING AREAS.

CONCRETE PAVEMENT REPAIR NOTES:

1. IN AREAS WHERE COMPOSITE PAVEMENT REPAIRS ARE NOTED ON THE PLANS OR WHERE DIRECTED BY THE ENGINEER, AND CONCRETE PAVEMENT REPAIRS ARE TO BE MADE UNDER ITEM 23SP-CONCRETE FOUNDATION FOR PAVEMENT, THE CONTRACTOR SHALL USE CLASS F HIGH EARLY STRENGTH CONCRETE. THE USE OF STEEL PLATES TO PROTECT THE CONCRETE REPAIR DURING ITS CURING TIME AND TO PERMIT OPENING OF THE ROADWAY TO TRAFFIC AT THE END OF THE WORK DAY SHALL BE PERMITTED. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE COUNTY FOR APPROVAL DEPICTING THE STEEL PLATE TO BE USED AND THE METHOD PROPOSED TO POSITION AND SECURE THE PLATE AT THE REPAIR LOCATION SO AS TO AVOID DISLOCATION OF THE STEEL PLATE DURING ITS USE.

PAVEMENT MARKING NOTES:

1. AFTER THE PAVEMENT RESTORATION IS COMPLETE, THE CONTRACTOR SHALL PLACE PERMANENT PAVEMENT MARKINGS TO MATCH EXISTING ADJACENT MARKINGS.

AS THIS WORK IS MINIMAL IN NATURE, PAYMENT RESTORING MISSING PAVEMENT MARKINGS AS A RESULT OF THE PROPOSED WORK SHALL BE INCLUDED UNDER THE VARIOUS CONTRACT BID FOR THE PROJECT.

WORK HOURS NOTES:

1. FOR THIS PROJECT, NORMAL WORK HOURS SHALL BE 8:00 AM TO 4:30 PM. HOURS FOR WORK ON ROADWAYS SHALL BE 9:00 AM TO 4:00 PM UNLESS OTHERWISE NOTED OR APPROVED BY THE COUNTY. LANE CLOSURES ARE ONLY PERMITTED ON NON-HOLIDAY WEEKDAYS BETWEEN 10:00 AM AND 3:00 PM IN ACCORDANCE WITH THE APPROVED SCHEDULE. UNLESS OTHERWISE PROVIDED IN THE CONTRACT DOCUMENTS OR APPROVED BY THE COUNTY, NO LANE CLOSURES WILL BE PERMITTED ON WEEKENDS.

2. WORK IS NOT PERMITTED ON ALL HOLIDAYS UNLESS PRIOR COUNTY APPROVAL IS OBTAINED. THIS INCLUDES MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, VETERANS DAY, FROM NOON BEFORE THANKSGIVING DAY THROUGH THE SUNDAY FOLLOWING THANKSGIVING DAY, CHRISTMAS EVE, CHRISTMAS DAY, NEW YEAR'S EVE, NEW YEAR'S DAY; AND THE JEWISH HOLIDAYS, INCLUDING: ROSH HASHANA, SUKKOT, SHMINI ATZERET, SIMCHAT TORAH, AND YOM KIPUR. SIMILAR PROVISIONS SHALL APPLY TO CONSTRUCTION DURING OTHER OBSERVED HOLIDAYS NOT SPECIFICALLY LISTED HEREIN.

3. SEE WORK ZONE TRAFFIC CONTROL DRAWINGS FOR ADDITIONAL NOTES AND PERMITTIED WORK TIMES.

SPECIAL NOTES:

1. THE CONTRACTOR IS REQUIRED TO COORDINATE HIS WORK WITH PUBLIC AGENCIES AND PRIVATE UTILITY COMPANIES TO AVOID CONFLICTS AND TO ARRANGE FOR CASTINGS AND APPURTENANCES WHICH ARE TO BE ADJUSTED BY OTHERS IN ADVANCE OF PERFORMING ANY FINAL PAVEMENT OVERLAY WORK.

2. THE AREAS AND TYPES OF PAVEMENT REPAIRS SHOWN ON THE PLANS WERE THE RESULT OF A FIELD INSPECTION TO ASSESS THE CONDITIONS AND TYPE OF THE EXISTING ROADWAY SURFACE AND UNDERLAYMENT PAVEMENT TO BE DISRUPTED BY THE PROPOSED WORK AND SUBSEQUENTLY REPAIRED.

3. THE CONTRACTOR IS REQUIRED TO OBTAIN APPROVAL FOR PROPOSED SIDEWALK RAMP TYPE AND LAYOUT FROM THE COUNTY REPRESENTATIVE PRIOR TO CONSTRUCTING ANY NEW SIDEWALK RAMPS.

4. THE CONTRACTOR IS REQUIRED TO OBTAIN APPROVAL OF LAYOUT OF PROPOSED PAVEMENT MARKINGS FROM THE COUNTY REPRESENTATIVE PRIOR TO STRIPING THE PERMANENT PAVEMENT MARKINGS.

5. THE CONTRACTOR SHALL PREPARE AND SUBMIT A PROJECT SCHEDULE INDICATING ANTICIPATED DURATION OF EACH WORK OPERATIONS BY LOCATION AND TYPE AND ANY PLANNED LANE CLOSURES TO THE COUNTY FOR REVIEW AND APPROVAL PRIOR TO STARTING ANY WORK. THEREON, THE CONTRACTOR SHALL PREPARE AND SUBMIT WEEKLY PROJECT SCHEDULES, INDICATING THE SAME, TO THE COUNTY NO LATER THAN THE FRIDAY MORNING BEFORE THE SUBJECT WEEK.

THE CONTRACTOR SHALL, AT LEAST SEVENTY-TWO (72) HOURS IN ADVANCE, NOTIFY THE POLICE, SCHOOL DISTRICTS WITH BUS ROUTES IN THE AREA, FIRE DEPARTMENT, ETC. IN WRITING WITH A COPY TO THE COUNTY. IF THE CLOSURE OF A STREET OR ROAD IS NECESSARY, THE CONTRACTOR SHALL COOPERATE WITH THE POLICE DEPARTMENT IN THE ESTABLISHMENT OF ALTERNATE ROUTES AND SHALL PROVIDE ADEQUATE DETOUR SIGNS, PLAINLY MARKED AND IN ACCORDANCE WITH THE MUTCD, IN ORDER TO MINIMIZE CONFUSION. THE CONTRACTOR SHALL MAINTAIN THE ROADWAY IN A "PASSABLE" CONDITION FOR THE USE OF EMERGENCY VEHICLES AT ALL TIMES DURING THE CONSTRUCTION. ACCESSIBILITY TO FIRE HYDRANTS, POLICE AND FIRE CALL BOXES SHALL BE MAINTAINED AT ALL TIMES.

6. THE CONTRACTOR SHALL MAINTAIN SAFE AND ADEQUATE VEHICULAR AND PEDESTRIAN ACCESS TO BUSINESSES AND RESIDENCES WITHIN THE PROJECT LENGTH. THE CONTRACTOR SHALL NOTIFY, IN WRITING, PROPERTY OWNERS AT LEAST TWO (2) WORKING DAYS IN ADVANCE OF CLOSING DRIVEWAYS. THIS WORK MAY INCLUDE PROVIDING TEMPORARY PLYWOOD OR ASPHALT WALKWAYS OR INSTALLING TEMPORARY RAMPS AND/OR STEEL PLATES TO OPEN DRIVEWAYS DURING OR AT THE END OF EACH DAY.

7. ALL CASTINGS OVER 1" ABOVE SURROUNDING PAVEMENT SHALL PROTECTED BY THE CONTRACTOR BY A CONSTRUCTION DRUM AND FLASHING LIGHT. THE CONTRACTOR, AT THEIR OPTION, MAY RAMP THE PROTRUDING CASTING ON A 1 ON 10 SLOPE WITH THE TEMPORARY ASPHALT ITEM.

8. WITH REGARD TO ITEM 102PVMS (PORTABLE VARIABLE MESSAGE SIGN - LED ENHANCED DISK MATRIX) THE NUMBER OF DAYS PER PVMS SHALL BE MEASURED AS THE NUMBER OF DAYS A PVMS IS IN-PLACE AND OPERATIONAL (I.E., DISPLAYING A MESSAGE). ANY PVMS THAT IS NOT IN-PLACE SHALL NOT BE MEASURED FOR PAYMENT. ADDITIONALLY, ANY PVMS THAT IS IN-PLACE, BUT NOT DISPLAYING A MESSAGE SHALL NOT BE MEASURED FOR PAYMENT.

9. DEWATERING - THE CONTRACTOR SHALL AT ALL TIMES DURING THE PROGRESS OF THE WORK KEEP THE TRENCHES AND EXCAVATIONS FREE FROM WATER. THE WATER FROM THE TRENCHES AND EXCAVATIONS SHALL BE DISPOSED OF IN SUCH A MANNER AS WILL NOT CAUSE INJURY TO THE PUBLIC HEALTH, NOR TO PUBLIC OR PRIVATE PROPERTY, NOR TO THE WORK COMPLETED OR IN PROGRESS, NOR TO THE SURFACE OF THE STREETS, SURFACE WATERS WHERE APPLICABLE, NOR CAUSE ANY INTERFERENCE WITH THE USE OF THE SAME BY THE PUBLIC. ALL STORM DRAINS AND PIPES USED FOR DISPOSAL OF WATER FROM THE TRENCHES AND EXCAVATION DURING CONSTRUCTION SHALL BE ACCEPTABLY CLEANED AND PROTECTED FROM SILT DEPOSITS.

WHEN IN ORDER TO COMPLY WITH THE ABOVE, IT IS DEEMED NECESSARY TO WIDEN THE TRENCH BEYOND THE ALLOWABLE MAXIMUM WIDTH, TO PERMIT THE INSTALLATION OF WELL-POINTS, THE CONTRACTOR SHALL, AS DIRECTED BY THE ENGINEER, PROVIDE EITHER PIPE OF ADDITIONAL STRENGTH OR CONCRETE ENCASEMENT AT NO ADDITIONAL COST TO THE COUNTY.

THE CONTRACTOR SHALL, WITH HIS OWN EQUIPMENT, PROVIDE DEWATERING WHERE REQUIRED AT NO ADDITIONAL COST TO THE COUNTY. THE COST FOR ALL LABOR, EQUIPMENT, MATERIALS, ETC. REQUIRED TO DISPOSE OF WATER FROM THE EXCAVTIONS SHALL BE DEEMED INCLUDED IN THE PRICES BID FOR ALL ITEMS OF THE CONTRACT.

ALL DEWATERING AND DISCHARGE PIPES AND HOSES WHICH CROSS TRAVELED ROADWAYS SHALL BE PLACED IN SUCH A MANNER SO AS TO ELIMINATE ANY DISRUPTION OF TRAFFIC FLOW. IF ORDERED BY THE ENGINEER, THE CONTRACTOR SHALL PLACE THE PIPES AND HOSES IN SHALLOW TRENCHES WHICH WILL THEN BE PLATED OVER. ALL HEADER PIPE SHALL BE BURIED BELOW EXISTING ROADWAY GRADE AT DRIVEWAYS IN ORDER TO MAINTAIN ACCESS TO DRIVEWAYS. ALL PLATES SHALL BE FIRMLY SECURED SO AS TO ELIMINATE ANY POSSIBLE SHIFT OR MOVEMENT.

DEWATERING BY MEANS OF WELL POINTS OR DEEP WELLS WILL NOT BE ALLOWED WHERE THE RATE OF PUMPING EXCEEDS FORTY-FIVE (45) GALLONS PER MINUTE UNLESS THE APPROPRIATE PERMIT HAS BEEN SECURED FROM THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

WHERE THE SUBGRADE OF THE TRENCH CANNOT BE MAINTAINED IN A DRY CONDITION, THE CONTRACTOR SHALL EXCAVATE THE TRENCH TO AN ADDITIONAL DEPTH OF SIX (6") INCHES BELOW THE SUBGRADE OF THE SEWER AND BACKFILL THE TRENCH TO THE SUBGRADE OF THE SEWER WITH STONE BALLAST. THE COST FOR THIS ADDITIONAL EXCAVATION, SHEETING, INSTALLATION OF STONE BALLAST, LABOR, MATERIALS, PLANT, EQUIPMENT AND INSURANCE REQUIRED OR NECESSARY TO COMPLETE THIS WORK SHALL BE DEEMED INCLUDED IN THE PRICES BID FOR THE RESPECTIVE DRAINAGE ITEMS.

SURVEY CONTROL TO BE ADDED POST 60% SUBMISSION

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC SHEETS\SC-01.DWG
Plot Date: 10/8/2019 9:31 AM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: SURVEY CONTROL 01

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: SC-01	
SCALE: -	SHEET NO: 5 OF 39	

TABLE OF WORK

ITEM	DESCRIPTION:	UNITS	QUANTITY BY LOCATION															AOBE	ITEM TOTAL
			CP-01	CP-02	CP-03	CP-04	CP-05	CP-06	CP-07	CP-08	CP-09	CP-10	CP-11	CP-12	CP-13	CP-14	CP-15		
1 M / F	MOBILIZATION WITH FIELD OFFICE	LS / NEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1S	JOB INFORMATION SIGN	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	TRENCH, CULVERT AND BRIDGE EXCAVATION	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4A	CEMENT CONCRETE BREAKING (PAVEMENT)	SY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4B	CEMENT CONCRETE BREAKING (STRUCTURES)	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5D	SELECT GRANULAR FILL	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	PREARING FINE GRADING	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10A-1	EXCAVATION PROTECTION SYSTEM	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-TF-15SS	15" TIDEFLEX IN-LINE CHECK VALVE	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-TF-24SS	24" TIDEFLEX IN-LINE CHECK VALVE	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-TF-48SS	48" TIDEFLEX IN-LINE CHECK VALVE	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12A-4-18	18" CLASS IV REINFORCED CONCRETE PIPE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12A-4-24	24" CLASS IV REINFORCED CONCRETE PIPE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12A-4-48	48" CLASS IV REINFORCED CONCRETE PIPE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12DIP-15	15" DUCTILE IRON PIPE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12DIP-18	18" DUCTILE IRON PIPE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12H	CLEANING EXISTING DRAINAGE SYSTEM	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13A	CATCH BASINS	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13BP-5	PRECAST MANHOLE 5' DIAMETER	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13BP-SS-7.5	90" NYSDOT PRECAST TYPE B MANHOLE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	CONNECTIONS TO EXISTING DRAINAGE STRUCTURES	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	SCREENED GRAVEL, LOOSE MEASURE	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	BROKEN STONE, LOOSE MATERIAL	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23SP	CONCRETE FOUNDATION FOR PAVEMENT	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	CEMENT CONCRETE PAVEMENT	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	CONCRETE CURB	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	CONCRETE CURB & GUTTER	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	CEMENT CONCRETE SIDEWALK	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	CEMENT CONCRETE DRIVEWAY AND APRONS	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	MISCELLANEOUS METALS	LB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)	TON	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40R	RESET EXISTING STONE BLOCK PAVEMENT	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	ALTER WATER SERVICE CONNECTIONS	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62SS	RELOCATE BURIED ELECTRICAL SERVICE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64	RESET EXISTING FENCE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65B	TRANSPLANTING EXISTING TREES AND SHRUBS	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102	WORK ZONE TRAFFIC CONTROL	LS / NEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102PVMS	PORTABLE MESSAGE SIGN	DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120-SS	RELOCATION OF EXISTING LIGHT POLES (COMPLETE)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
121	DRYBOUND BASE COURSE	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122	TEST HOLES	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
136	SURVEY STAKEOUT	LS/NEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141B	SILT PROTECTION FOR SURFACE INLET DRAINAGE STRUCTURES	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141C	SILT PROTECTION FOR CURB INLET DRAINAGE STRUCTURES	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
368	TOPSOIL AND GRASS SEED	SY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
372	TREE REMOVAL	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
419S-075	FURNISH AND INSTALL 3/4" DIAMETER STEEL CONDUIT	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
419Z	CLEAN EXISTING CONDUIT	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
422L	FURNISH AND INSTALL LOOP WIRE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
422LS	FURNISH AND INSTALL LOOP SAW CUT	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC TABLES\MST-01.DWG
Plot Date: 10/8/2019 9:31 AM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: MISCELLANEOUS TABLES 01 TABLE OF WORK

GPI JOB NO: 2018042.00
CONTRACT NO: H60052-01D
PHASE: 60%
DATE: 10/08/2019
DRAWING NO: MST-01
SCALE: -
SHEET NO: 6 OF 39

TABLE OF DRAINAGE STRUCTURES

STRUCTURE NO.	STRUCTURE TYPE	STATION	OFFSET	FRAME TYPE	GRATE / COVER	EXISTING RIM	PROPOSED RIM	PIPE INVERT ELEVATION	CONNECT TO STRUCTURE NO.	PIPE SIZE	REMARKS
LOCATION - DRAWING NO. CP-01											
MH 6043**	EXISTING MH			-	-	6.42	-	-2.60 (W) N/A	PROPOSED MH 1 MH 13011**	48" RCP 30" RCP	CLEAN AND INVENTORY EXISTING DRAINAGE MANHOLE TO CONFIRM OR DETERMINE THE PROPOSED INVERT OF PROPOSED MH 1
MH 1	7'-6" NYSDOT PRECAST Type B Manhole			STD. NCDPW MH FRAME	NCDPW EMBOSSED MH COVER	N/A	6.5	-2.95 (W) -2.87 (E)	OUTFALL 7005** MH 6043**	48" RCP 48" RCP	PROPOSED MH TO RECEIVE CHECK VALVE
LOCATION - DRAWING NO. CP-02											
CB 6045**	EXISTING CB			-	-	4.77	-	1.6	OUTFALL 7006**	15" RCP	EXISTING CB TO RECEIVE CHECK VALVE
LOCATION - DRAWING NO. CP-03											
CB 6047**	EXISTING CB			-	-	4.79	-	2.1	OUTFALL 7003**	15" RCP	EXISTING CB TO RECEIVE CHECK VALVE
LOCATION - DRAWING NO. CP-04											
MH 11005**	EXISTING MH			-	-	5.37	-	-4.05 (N) -2.5 (S) 1.9 (E)	OUTFALL 13076** MH 13002** CB 6049**	24" RCP 24" RCP 15" RCP	CLEAN AND INVENTORY EXISTING DRAINAGE MANHOLE PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED MH 2, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
MH 2	7'-6" NYSDOT PRECAST Type B Manhole			STD. NCDPW MH FRAME	NCDPW EMBOSSED MH COVER	N/A	5.37	-4.05 (N) -2.5 (S) 1.9 (E)	OUTFALL 13076** MH 13002** CB 6049**	24" RCP 24" RCP 15" RCP	PROPOSED MH TO RECEIVE CHECK VALVE
LOCATION - DRAWING NO. CP-05											
CB 11004**	EXISTING CB			-	-	4.87	-	1.6	OUTFALL 7004**	15" RCP	EXISTING CB TO RECEIVE CHECK VALVE
LOCATION - DRAWING NO. CP-06											
CB 2098**	EXISTING CB			-	-	5.85	-	2.2	MH 6097**	15" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 3, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 2096**	EXISTING CB			-	-	5.96	-	3.2	MH 6097**	15" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 4, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 2095**	EXISTING CB			-	-	5.84	-	3.16	MH 6099**	18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 5, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 3	NCDPW TYPE C			TYPE F3 CAST CURB BOX FRAME	RETICULINE TYPE A GRATE	5.85	5.85	2.2	MH 6097**	15" RCP	
CB 4	NCDPW TYPE C			TYPE F3 CAST CURB BOX FRAME	RETICULINE TYPE A GRATE	5.96	5.96	3.2	MH 6097**	15" RCP	
CB 5	NCDPW TYPE C			TYPE F3 WELDED CURB BOX FRAME	RETICULINE TYPE A GRATE	5.84	5.84	3.16	MH 6099**	18" DIP	
LOCATION - DRAWING NO. CP-07											
CB 3074**	EXISTING CB			-	-	6.15	-	2.04	MH 3075**	18" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 6, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 6	NCDPW TYPE C			TYPE F3 CAST CURB BOX FRAME	RETICULINE TYPE A GRATE	6.15	6.15	2.06	MH 3075**	18" RCP	
LOCATION - DRAWING NO. CP-08											
CB 2085**	EXISTING CB			-	-	4.92	-	2.04 (N) 2.04 (E)	MH 2084** CB 2087**	18" DIP 18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 7, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 7	NCDPW TYPE C			TYPE F3 WELDED CURB BOX FRAME	RETICULINE TYPE A GRATE	4.92	4.92	2.04 (N) 2.04 (E)	MH 2084** PROPOSED CB 8	18" DIP 18" DIP	

**REFERS TO DRAINAGE STRUCTURES OR OUTFALL NUMBERS THAT ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC TABLES\MST-02.DWG
Plot Date: 10/8/2019 9:31 AM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT: NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: MISCELLANEOUS TABLES 02
DRAINAGE TABLE PART 1

GPI JOB NO: 2018042.00
CONTRACT NO: H60052-01D
PHASE: 60%
DATE: 10/08/2019
DRAWING NO: MST-02
SCALE: -
SHEET NO: 7 OF 39

TABLE OF DRAINAGE STRUCTURES

STRUCTURE NO.	STRUCTURE TYPE	STATION	OFFSET	FRAME TYPE	GRATE / COVER	EXISTING RIM	PROPOSED RIM	PIPE INVERT ELEVATION	CONNECT TO STRUCTURE NO.	PIPE SIZE	REMARKS
LOCATION - DRAWING NO. CP-09											
CB 2087**	EXISTING CB			-	-	5.35	-	2.70	CB 2085**	18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 8, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 8	NCDPW TYPE C			TYPE F3 WELDED CURB BOX FRAME	RETICULINE TYPE A GRATE	5.35	5.35	2.68	PROPOSED CB 7	18" DIP	
LOCATION - DRAWING NO. CP-10											
CB 2083**	EXISTING CB			-	-	5.26	-	1.6 (E)	MH 2082**	18" DIP 18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB'S 9 & 10, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 9	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	4.63	4.63	1.75	PROPOSED CB 10	18" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
CB 10	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	-	4.63	1.6 (E) 1.70 (W)	MH 2082** PROPOSED CB 9	18" DIP 18" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
LOCATION - DRAWING NO. CP-11											
CB 2081**	EXISTING CB			-	-	4.92	-	1.30 (W)	MH 2082**	18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB'S 11 & 12, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 11	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	4.92	4.92	1.27 (W) 1.30 (E)	MH 2082** PROPOSED CB 12	18" DIP 18" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
CB 12	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	-	5.1	1.4	PROPOSED CB 11	18" RCP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
LOCATION - DRAWING NO. CP-12											
CB 3059**	EXISTING CB			-	-	4.87	-	1.9 (E)	MH 3060**	18" DIP 18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB'S 13 & 14, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 13	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	4.87	4.87	2.02	PROPOSED CB 14	18" RCP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
CB 14	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	-	4.73	1.9 (E) 2.00 (W)	MH 3060** PROPOSED CB 13	18" DIP 18" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
LOCATION - DRAWING NO. CP-13											
CB 2074**	EXISTING CB			-	-	5.36	-	2.50 (W) 2.40 (E)	MH 3061** MH 2075**	18" DIP 18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB'S 15 & 16, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 15	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	5.36	5.36	2.51 (W) 2.40 (E)	MH 3061** PROPOSED CB 16	18" DIP 18" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
CB 16	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	-	5.4	2.40 (W) 2.40 (E)	PROPOSED CB 15 MH 2075**	18" DIP 18" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
LOCATION - DRAWING NO. CP-14											
CB 3039**	EXISTING CB			-	-	5.22	-	1.93 (N)	CB 2087**	15" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 17, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 17	NCDPW TYPE C			TYPE F3 CAST CURB BOX FRAME	RETICULINE TYPE A GRATE	5.22	5.22	1.92	PROPOSED CB 19	15" RCP	
LOCATION - DRAWING NO. CP-15											
CB 2078**	EXISTING CB			-	-	5.36	-	2.90 (W) 2.30 (S)	MH 2076** CB 3039**	18" DIP 18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB'S 18 & 19, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 18	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	5.42	5.42	2.88 (W) 2.88 (E)	MH 2076** PROPOSED CB 19	15" DIP 15" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
CB 19	NCDPW TYPE A			TYPE F3 WELDED CURB BOX FRAME	RETICULINE TYPE A GRATE	-	5.42	2.88 (W) 2.28 (S)	PROPOSED CB 18 PROPOSED CB 17	15" DIP 15" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE

**REFERS TO DRAINAGE STRUCTURES OR OUTFALL NUMBERS THAT ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC TABLES\MST-03.DWG
Plot Date: 10/8/2019 9:31 AM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

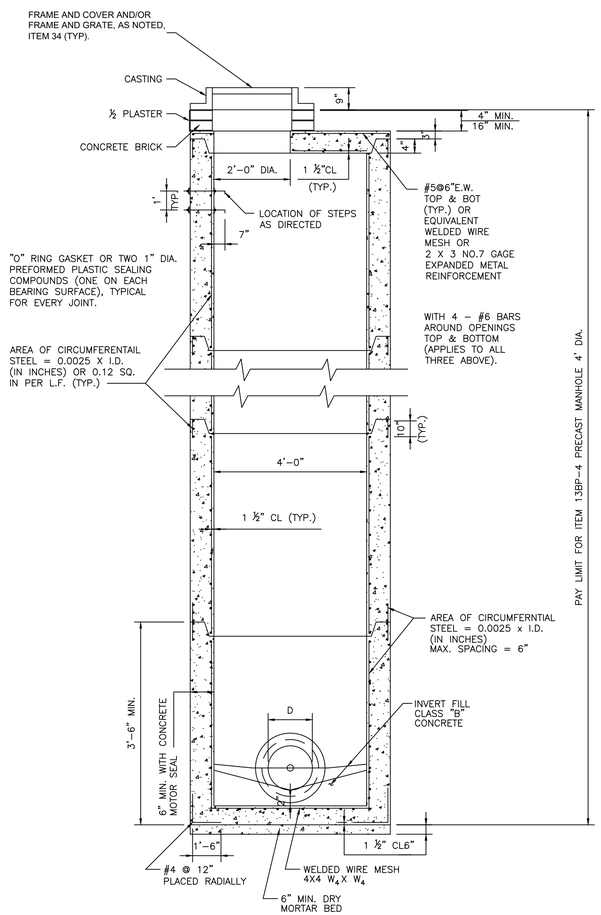
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: MISCELLANEOUS TABLES 03 DRAINAGE TABLE PART 2

GPI JOB NO: 2018042.00
CONTRACT NO: H60052-01D
PHASE: 60%
DATE: 10/08/2019
DRAWING NO: MST-03
SCALE: -
SHEET NO: 8 OF 39



4'-0" DIAMETER PRECAST MANHOLE, ITEM 13BP-4

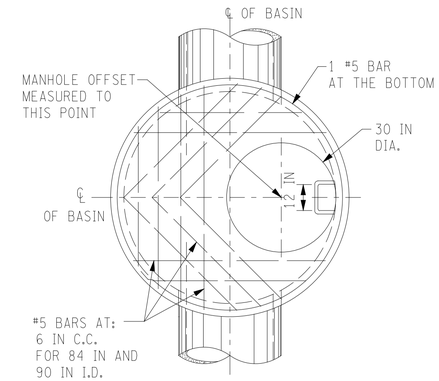
5'-0" DIA. PRECAST MANHOLE, ITEM 13BP-5
6'-0" DIA. PRECAST MANHOLE, ITEM 13BP-6

NOTES:

1. A NO. 2 STEEL HOOP SHALL BE PLACED AROUND ALL PIPE OPENINGS WITH A 1-1/2" CLEARANCE.
2. MIN. COVER ON BAR REINFORCEMENT SHALL BE 2", UNLESS OTHERWISE NOTED.
3. INVERT TO BE CAST IN PLACE.
4. PIPE OPENINGS, IF SQUARE ARE 3" LARGER THAN O.D. OF PIPE, IF ROUND ARE 2" LARGER THAN O.D. OF PIPE.

ESTIMATING NOTES:

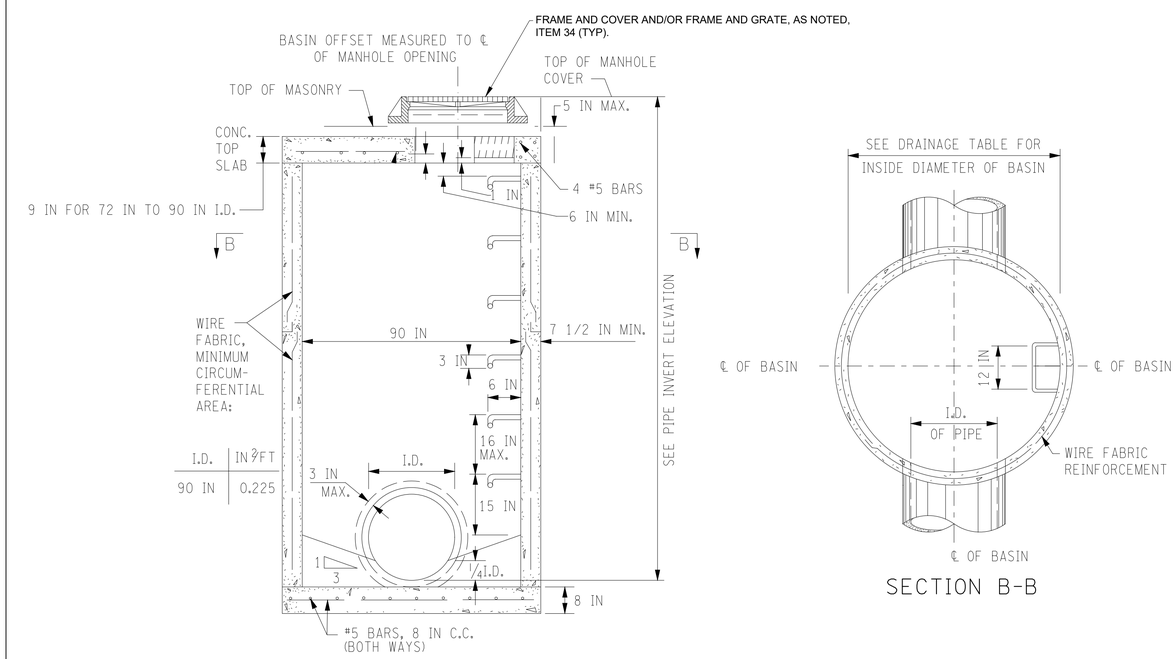
USE THE FOLLOWING ITEM NUMBERS WHEN ESTIMATING THE INSTALLATION OF ALL PROPOSED DRAINAGE STRUCTURES (CATCH BASINS AND/OR MANHOLES)(TYP): ITEM NO'S. 10A, 13BP-5, 13BP-SS-7.5, 34(TYP)



TYPE B MANHOLE

TYPE B DRAINAGE BASINS REQUIRED HORIZONTAL STEEL REINFORCEMENT

DEPTH IN FT	48 IN X 48 IN	48 IN X 60 IN	48 IN X 72 IN	48 IN X 84 IN	48 IN X 90 IN
7 FT – 8 FT		NO REINFORCEMENT REQUIRED			
8 FT – 12 FT					
12 FT – 14 FT					
14 FT – 18 FT			0.25 IN ²/FT		
18 FT – 19 FT					
19 FT – 21 FT					
21 FT – 23.5 FT				0.37 IN ²/FT	
23.5 FT – 26 FT					
26 FT – 29.5 FT					0.5 IN ²/FT



SECTION B-B

7'-6" DIAMETER PRECAST NYSDOT MANHOLE, ITEM 13BP-90SS

NYSDOT TYPE B DRAINAGE BASIN

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

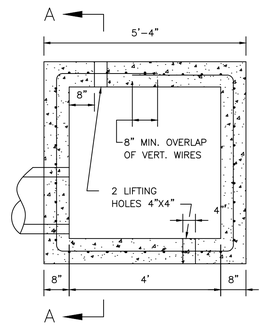
CLIENT:
NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: MISCELLANEOUS DETAILS 01

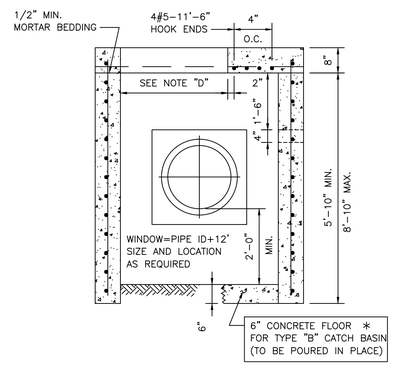
GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: MSD-01	
SCALE: -	SHEET NO: 9 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-01.DWG
Plot Date: 10/8/2019 9:31 AM



PLAN TYPE A

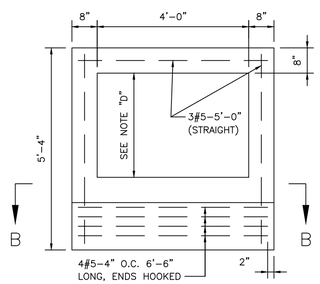
SCALE: 3/8"=1'-0"



SECTION A-A

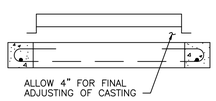
SCALE: 3/8"=1'-0"

"D"=2'-1 1/2" TYPES 1 & 2 FRAME
"D"=2'-7 1/2" TYPE A FRAME



PLAN COVER

SCALE: 3/8"=1'-0"



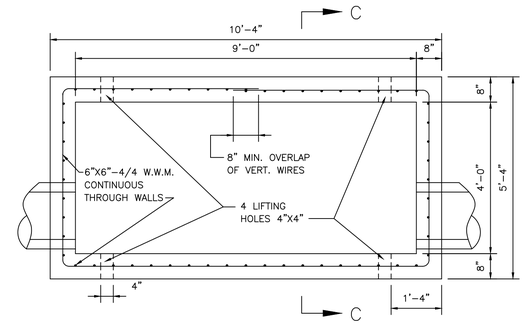
SECTION B-B

SCALE: 3/8"=1'-0"

NOTES:

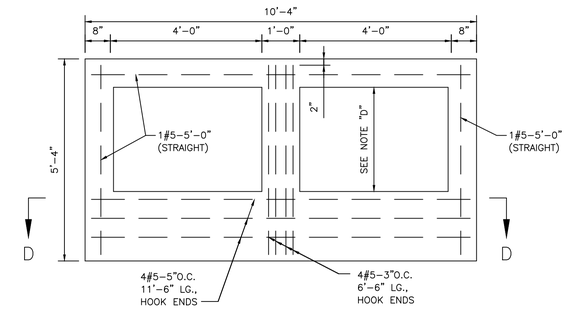
1. REBARS: Fs = 40,000psi A.S.T.M. A-615.
2. W.W.M.; 6"X6"-4/4 Fs = 60,000psi, A.S.T.M. A-185 PROVIDE 1 $\frac{1}{2}$" COVER AT ENDS OF VERTICAL WIRES, 1" RADIUS BENS AT CORNERS.
3. CONCRETE: CLASS "A" AS PER NASSAU CO. SPEC.
4. WINDOW TO BE CAST IN STRUCTURE AS REQUIRED. KNOCK-OUT PANELS WILL NOT BE PERMITTED.

NCDPW TYPE A CATCH BASIN, ITEM 13A



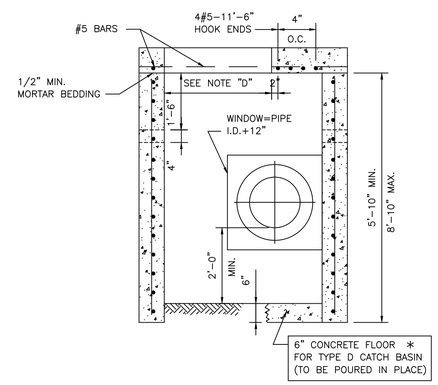
PLAN TYPE C

SCALE: 3/8"=1'-0"



PLAN COVER

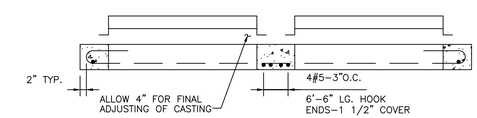
SCALE: 3/8"=1'-0"



SECTION C-C

SCALE: 3/8"=1'-0"

"D"=2'-1 1/2" TYPES 1 & 2 FRAME
"D"=2'-7 1/2" TYPE A FRAME



SECTION D-D

SCALE: 3/8"=1'-0"

NOTES:

1. REBARS: Fs = 40,000psi A.S.T.M. A-615.
2. W.W.M.; 6"X6"-4/4 Fs = 60,000psi, A.S.T.M. A-185 PROVIDE 1 $\frac{1}{2}$" COVER AT ENDS OF VERTICAL WIRES, 1" RADIUS BENS AT CORNERS.
3. CONCRETE: CLASS "A" AS PER NASSAU CO. SPEC.
4. UTILIZE 4 LIFT HOLES FOR HANDLING.
5. WINDOW TO BE CAST IN STRUCTURE AS REQUIRED. KNOCK-OUT PANELS WILL NOT BE PERMITTED.

NCDPW TYPE C CATCH BASIN, ITEM 13A

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-02.DWG
Plot Date: 10/8/2019 9:31 AM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

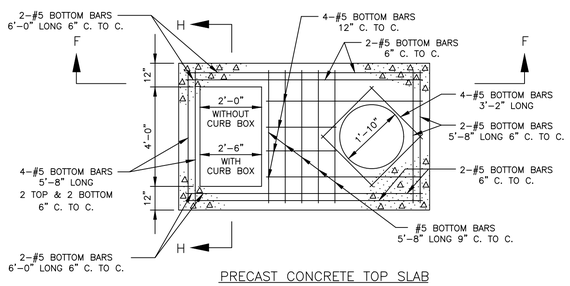
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

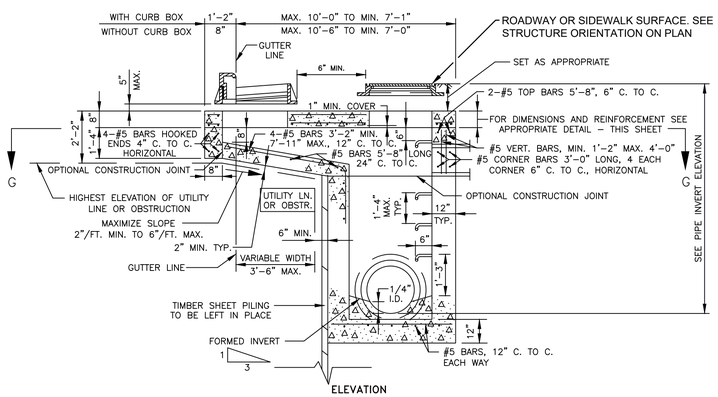
PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: MISCELLANEOUS DETAILS 02

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: MSD-02	
SCALE: -	SHEET NO: 10 OF 39	



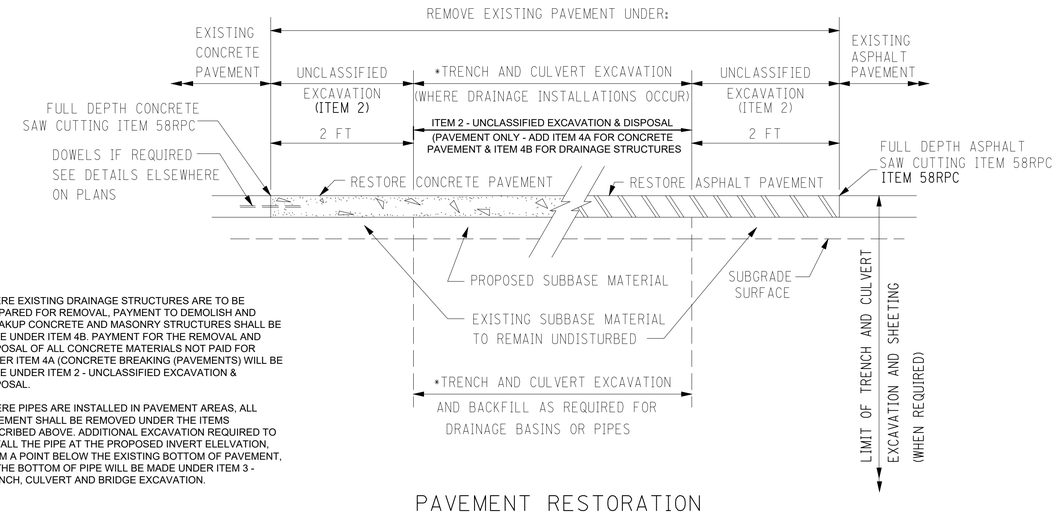
PRECAST CONCRETE TOP SLAB



OFFSET CATCH BASIN WITH MANHOLE

NOTE: SECTIONS F-F, G-G AND H-H APPLY TO BOTH TYPES 11 & 12 CATCH BASINS
N.T.S.

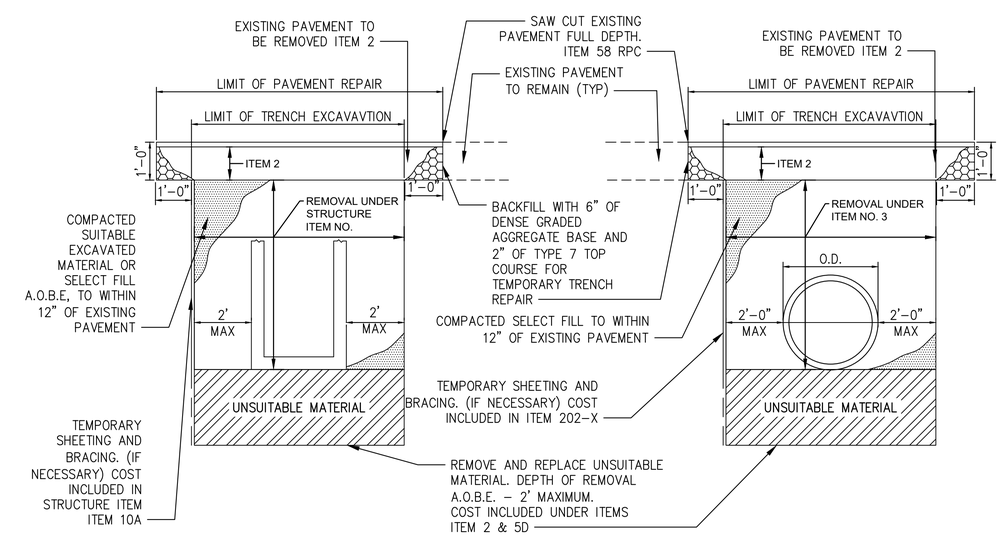
NCDPW TYPE 11 CATCH BASIN, ITEM 13A



* WHERE EXISTING DRAINAGE STRUCTURES ARE TO BE PREPARED FOR REMOVAL, PAYMENT TO DEMOLISH AND BREAKUP CONCRETE AND MASONRY STRUCTURES SHALL BE MADE UNDER ITEM 4B. PAYMENT FOR THE REMOVAL AND DISPOSAL OF ALL CONCRETE MATERIALS NOT PAID FOR UNDER ITEM 4A (CONCRETE BREAKING (PAVEMENTS) WILL BE MADE UNDER ITEM 2 - UNCLASSIFIED EXCAVATION & DISPOSAL.

WHERE PIPES ARE INSTALLED IN PAVEMENT AREAS, ALL PAVEMENT SHALL BE REMOVED UNDER THE ITEMS DESCRIBED ABOVE. ADDITIONAL EXCAVATION REQUIRED TO INSTALL THE PIPE AT THE PROPOSED INVERT ELELVATION, FROM A POINT BELOW THE EXISTING BOTTOM OF PAVEMENT, TO THE BOTTOM OF PIPE WILL BE MADE UNDER ITEM 3 - TRENCH, CULVERT AND BRIDGE EXCAVATION.

PAVEMENT RESTORATION



DRAINAGE STRUCTURE INSTALLATION AND PIPE INSTALLATION DETAIL
NOT TO SCALE

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

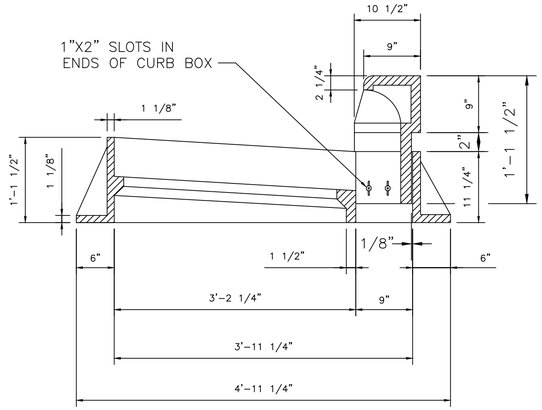
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]
DRAWING TITLE: MISCELLANEOUS DETAILS 03

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: MSD-05	
SCALE: -	SHEET NO: 11 OF 39	

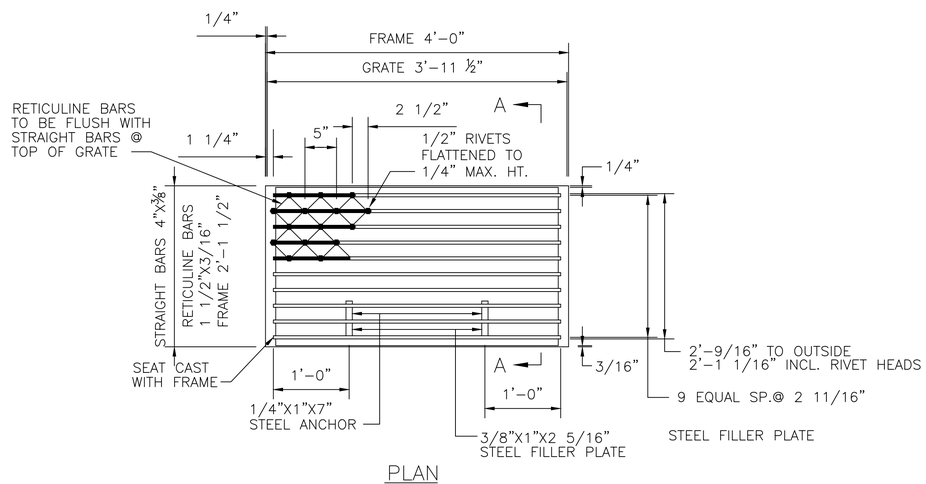
File Name: O:\2018\8AB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-03.DWG
Plot Date: 10/8/2019 9:31 AM



SECTION C–C

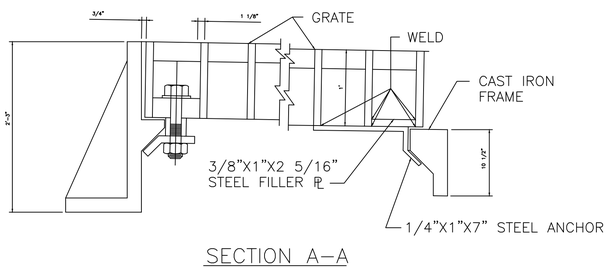
C.I. CURB BOX & FRAME TYPE A

SCALE: 1/2" = 1'-0"



PLAN

SCALE 1/2" = 1'-0"

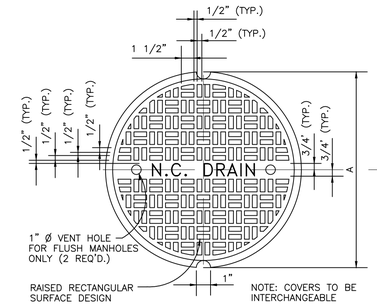


SECTION A–A

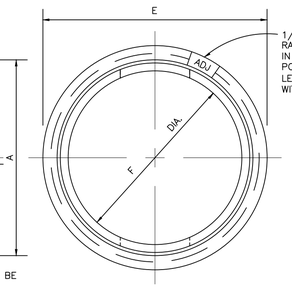
SCALE: 1 1/2" = 1'-0"

FABRICATED STEEL GRATE TYPE A, ITEM 34

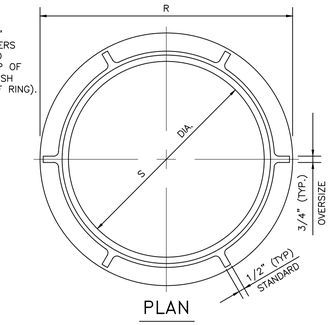
**APPROXIMATE WEIGHT OF GRATE IS 265LB



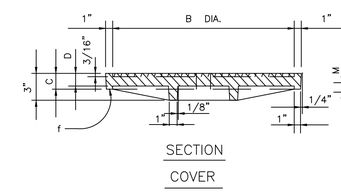
PLAN VIEW



PLAN

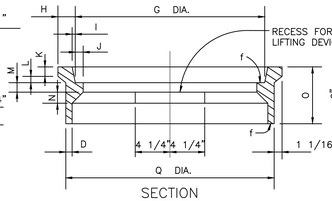


PLAN



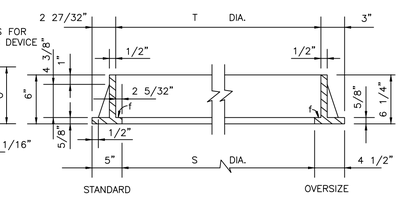
SECTION

COVER



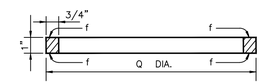
SECTION

INNER FRAME



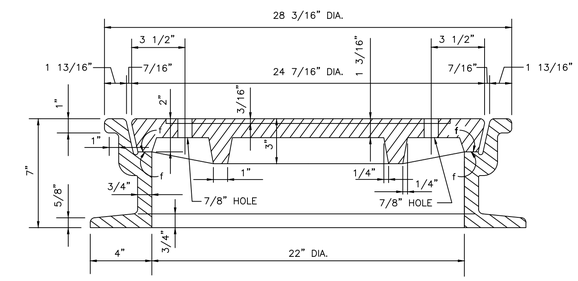
SECTION

OUTER FRAME



FILLER RING (ONE PIECE)

ADJUSTABLE MANHOLE CASTINGS



FIXED CASTING

NCDPW MANHOLE COVER DETAIL, ITEM 34

CASTING COMPONENT	WEIGHT (LBS)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
STANDARD COVER	175	24 7/16	22 7/16	2	1 3/16																
OVERSIZED COVER	300	31 7/8	29 7/8	1 3/8	1 1/8																
STANDARD INNER FRAME	180					28 3/16	22	24	1 13/16	9/32	1	1	1	1 1/4	1 3/8	7 3/8	3/4	26 1/16			
OVERSIZED INNER FRAME	290					36 1/4	30	31 1/2	2 1/8	1/4	3/4	3/4	3/4	7/8	1 1/2	7 1/2	5/8	34 1/4			
STANDARD FILLER RING	——																	26 1/16			
OVERSIZED FILLER RING	——																	34 1/4			
STANDARD OUTER FRAME	130																		32	22	26 5/16
OVERSIZED OUTER FRAME	227																		41	32	35

NOTES:

1) f = MACHINED FINISH

2) MANUFACTURER AND DATE OF MANUFACTURE TO BE PLACED ON UNDERSIDE OF FRAMES AND COVERS.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

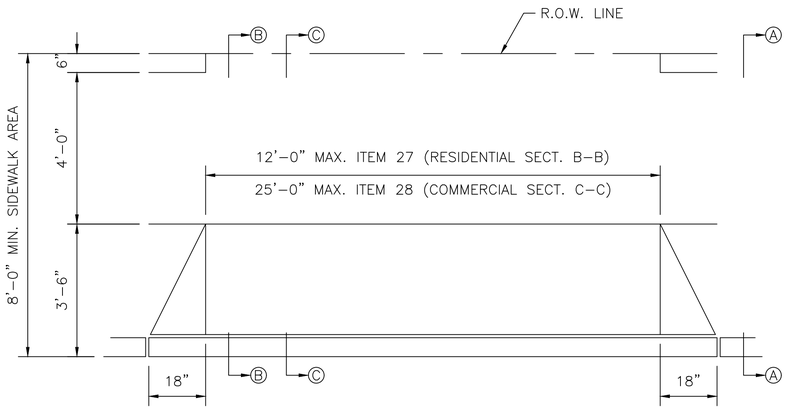
CLIENT: NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

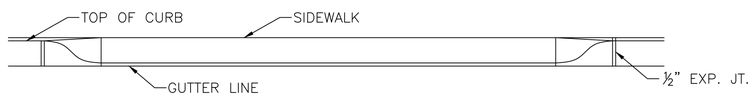
DRAWING TITLE: MISCELLANEOUS DETAILS 04

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: MSD-04	
SCALE: -	SHEET NO: 12 OF 39	

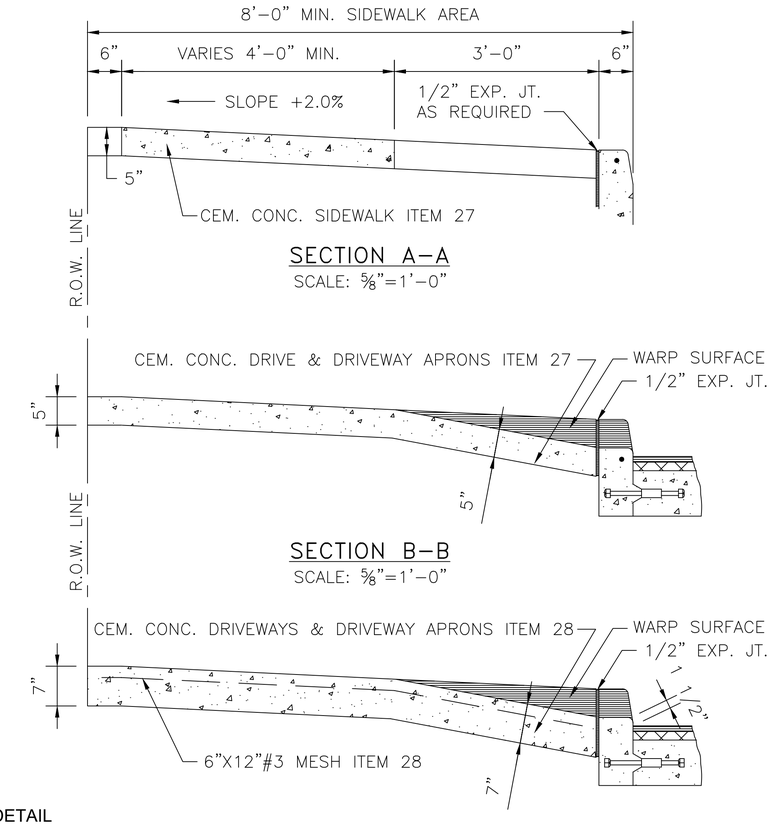
File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-04.DWG
Plot Date: 10/8/2019 9:31 AM



PLAN
SCALE 5/16"=1'-0"



FRONT ELEVATION
SCALE 5/16"=1'-0"

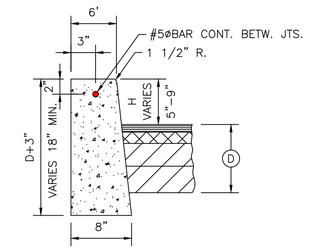


SECTION A-A
SCALE: 5/8"=1'-0"

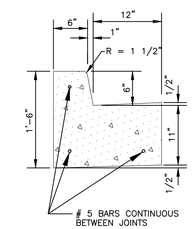
SECTION B-B
SCALE: 5/8"=1'-0"

SECTION C-C
SCALE: 5/8"=1'-0"

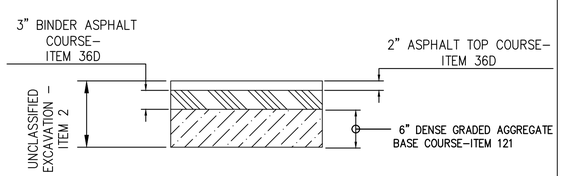
DRIVEWAY APRON RESTORATION DETAIL
ITEM 28



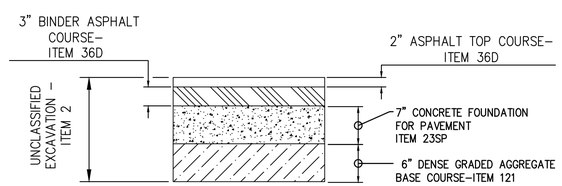
CONCRETE CURB
ITEM 26



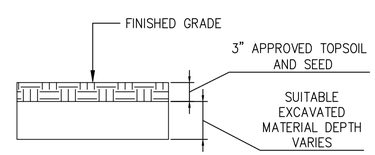
MONOLITHIC CONCRETE CURB AND GUTTER
ITEM 26CG
NTS



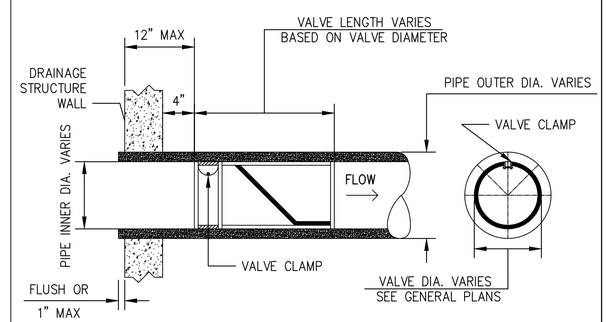
PAVEMENT REPAIR DETAIL
TYPICAL TOWN OF HEMPSTEAD ASPHALT
ROAD



PAVEMENT REPAIR DETAIL
ALONG LIDO BOULEVARD



TURF AND SEED DETAIL
ITEM 368



CHECKMATE IN-LINE CHECK VALVE DETAIL
(UPSTREAM CLAMP)
ITEM 12-TF-15SS
ITEM 12-TF-24SS
ITEM 12-TF-48SS

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]
DRAWING TITLE: MISCELLANEOUS DETAILS 05

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: MSD-03	
SCALE: -	SHEET NO: 13 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-05.DWG
Plot Date: 10/8/2019 9:32 AM

ADDITIONAL DETAILS
TO BE ADDED POST 60%:

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC.DETAILS\MSD-06.DWG
Plot Date: 10/8/2019 9:32 AM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

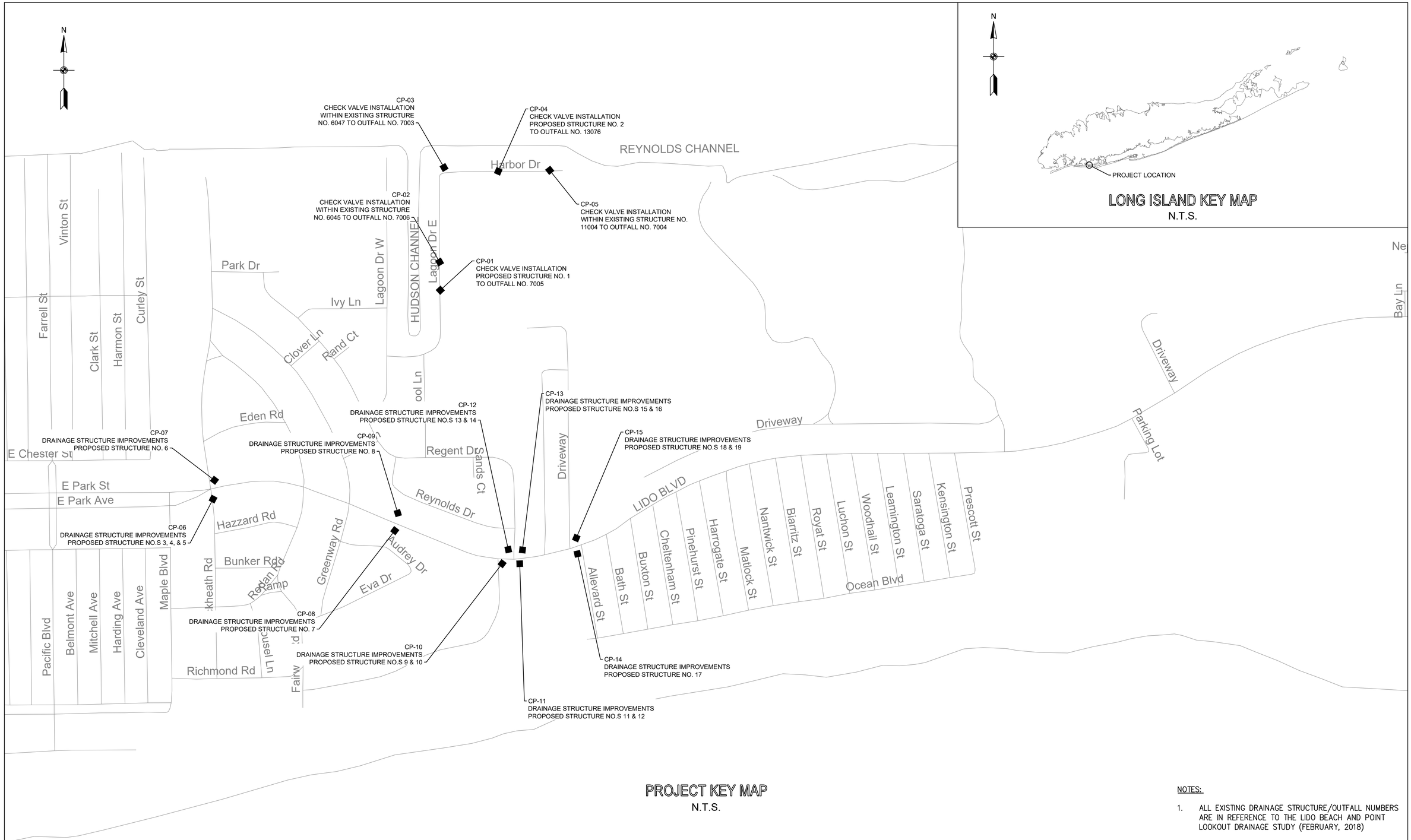
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: MISCELLANEOUS DETAILS 06

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: MSD-06	
SCALE: -	SHEET NO: 14 OF 39	



PROJECT KEY MAP

N.T.S.

NOTES:

1. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

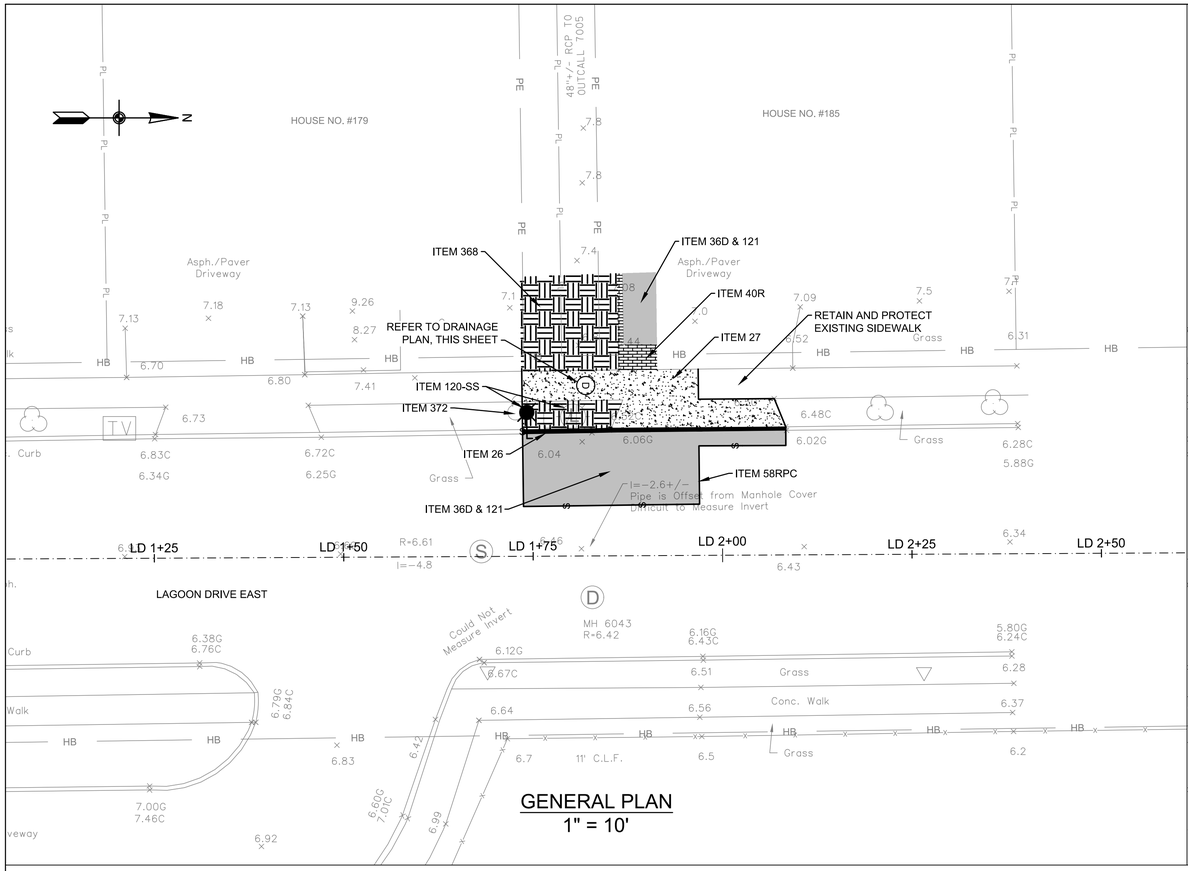
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

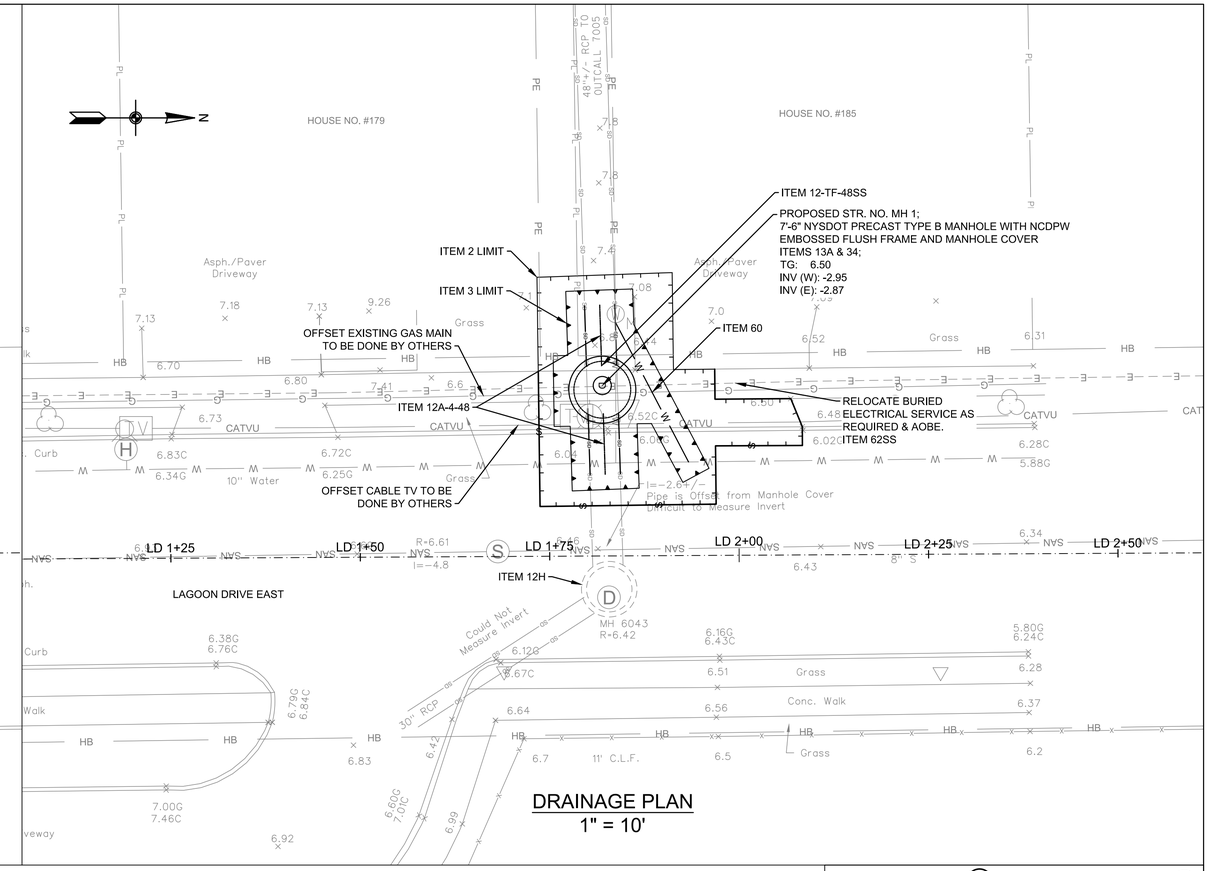
DRAWING TITLE:
KEY PLAN

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: KP-01	
SCALE: N.T.S.	SHEET NO: 15 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC SHEETS\KP-01.DWG
Plot Date: 10/8/2019 9:32 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

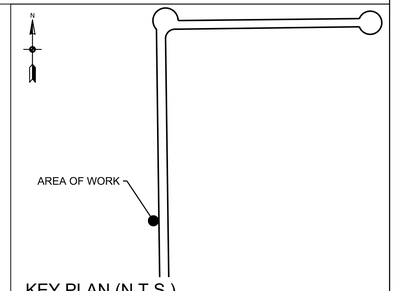
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12-TF-48SS	48" TIDEFLEX IN-LINE CHECK VALVE		SF
12A-4-48	48" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12H	CLEANING EXISTING DRAINAGE SYSTEM		EA
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
40R	RESET EXISTING STONE BLOCK PAVEMENT		SF
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
60	ALTER WATER SERVICE CONNECTIONS		LF
62SS	RELOCATE BURIED ELECTRICAL SERVICE		LF
120-SS	RELOCATION OF EXISTING LIGHT POLES (COMPLETE)		EA
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY
372	TREE REMOVAL		EA



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

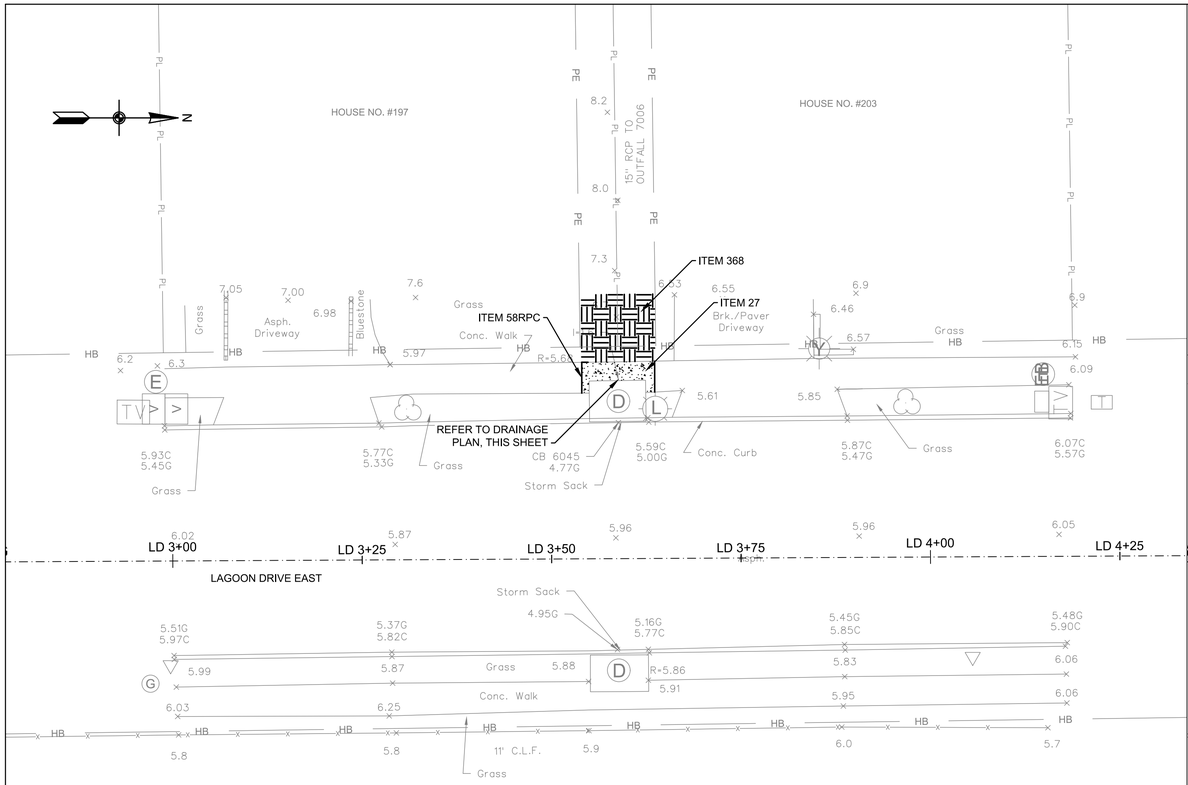
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

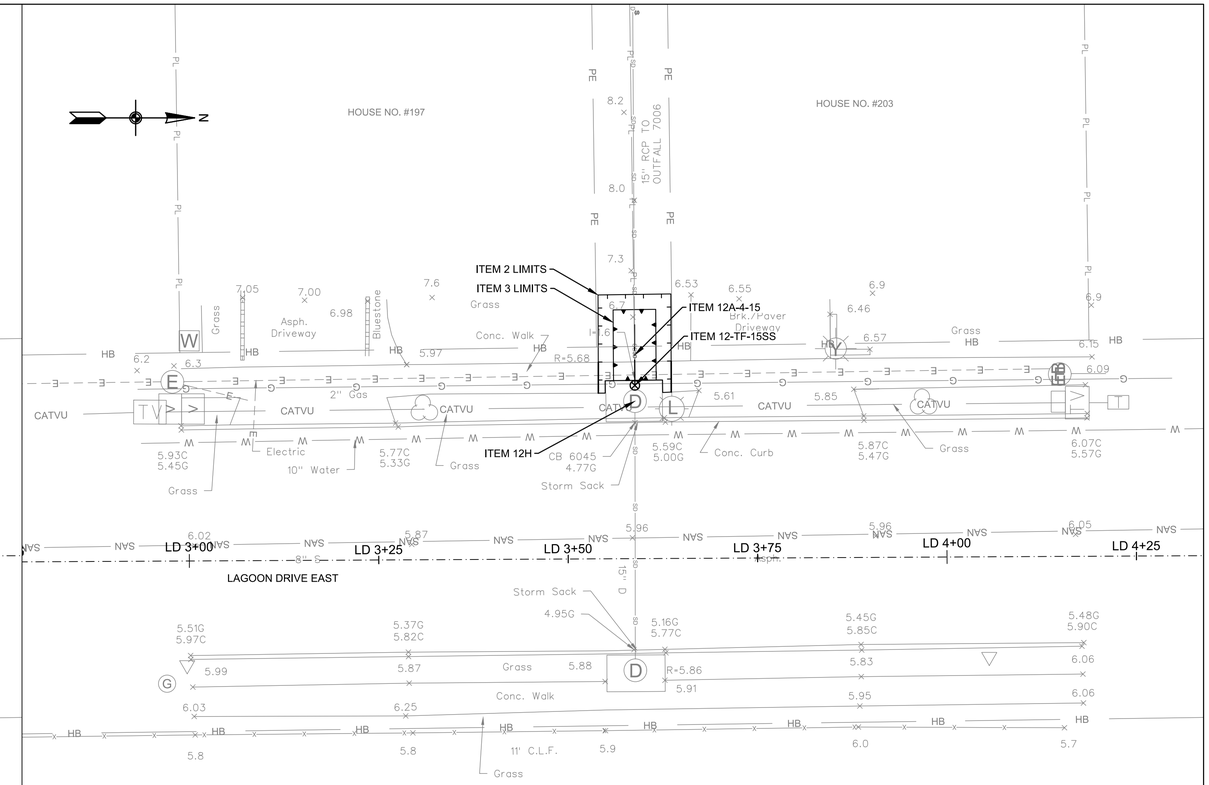
DRAWING TITLE:
CONSTRUCTION PLAN
CHECK VALVE INSTALLATION
179 AND 185 LAGOON DR. E., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-01	
SCALE: 1" = 10'	SHEET NO: 16 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-01.DWG
Plot Date: 10/8/2019 9:32 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

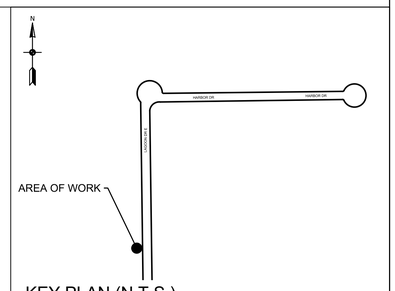
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12-TF-15SS	15" TIDEFLEX IN-LINE CHECK VALVE		SF
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12H	CLEANING EXISTING DRAINAGE SYSTEM		EA
27	CEMENT CONCRETE SIDEWALK		SF
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

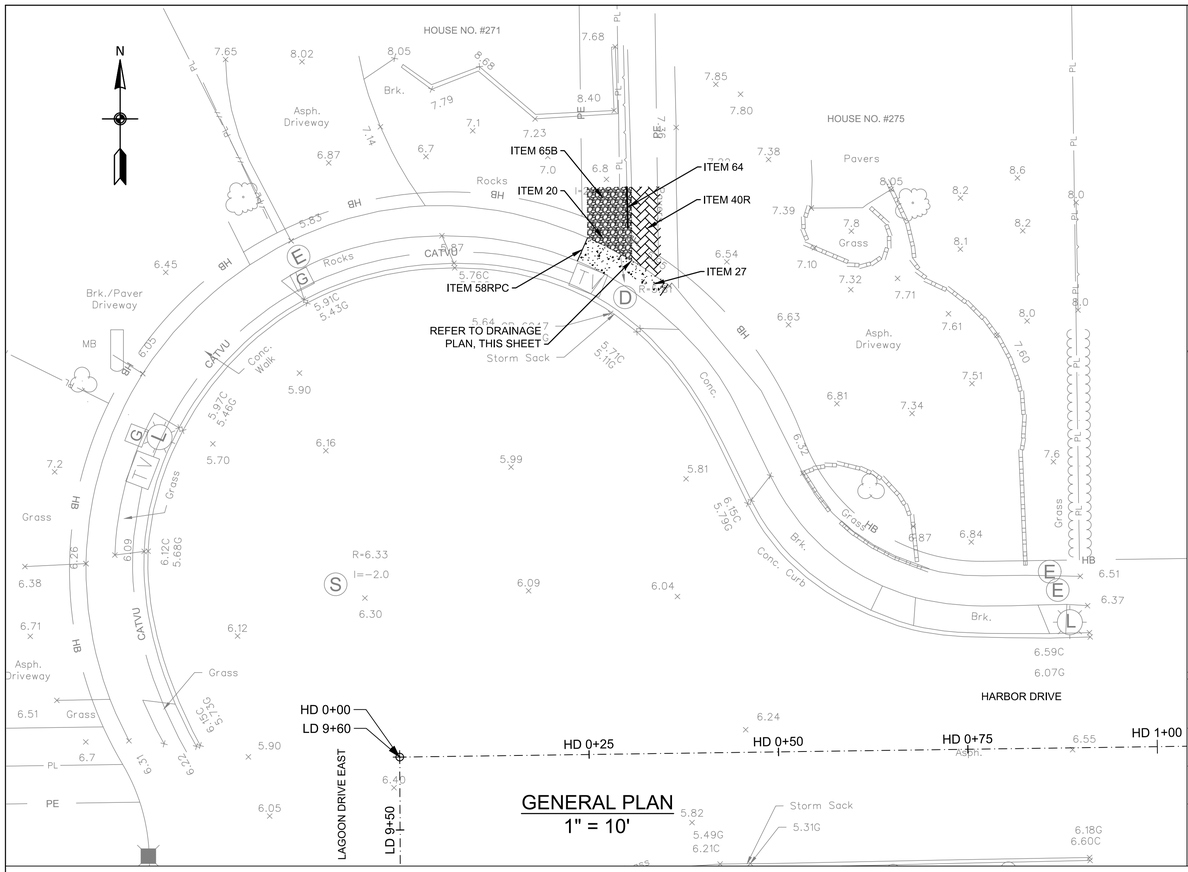
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

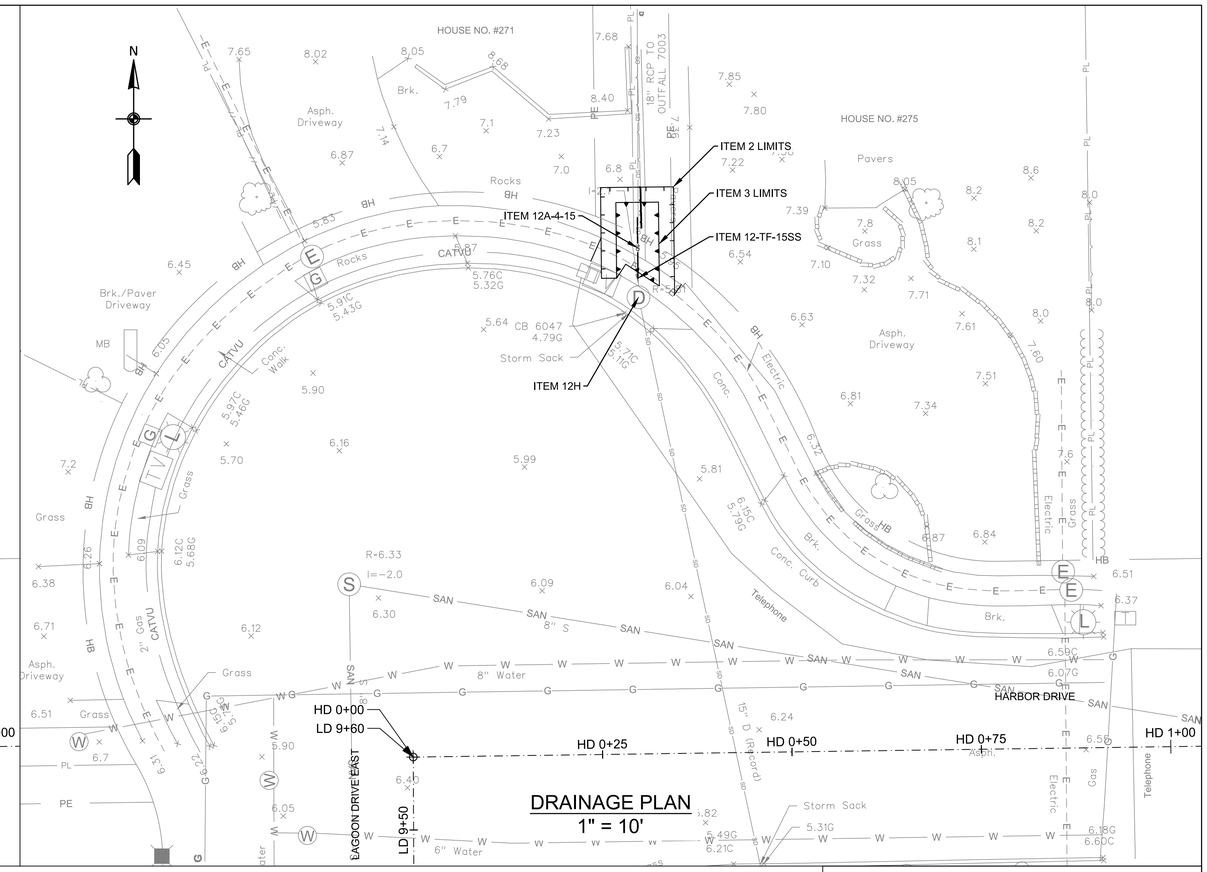
DRAWING TITLE:
CONSTRUCTION PLAN
CHECK VALVE INSTALLATION
197 AND 203 LAGOON DR. E., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-02	
SCALE: 1" = 10'	SHEET NO: 17 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-02.DWG
Plot Date: 10/8/2019 9:33 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

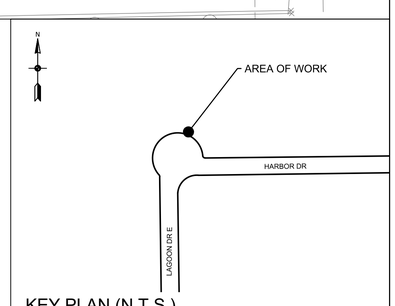
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12-TF-15SS	15" TIDEFLEX IN-LINE CHECK VALVE		SF
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12H	CLEANING EXISTING DRAINAGE SYSTEM		EA
20	BROKEN STONE, LOOSE MATERIAL		CY
27	CEMENT CONCRETE SIDEWALK		SF
40R	RESET EXISTING STONE BLOCK PAVEMENT		SF
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
64	RESET EXISTING FENCE		LF
65B	TRANSPLANT EXISTING SHRUBS		EA



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

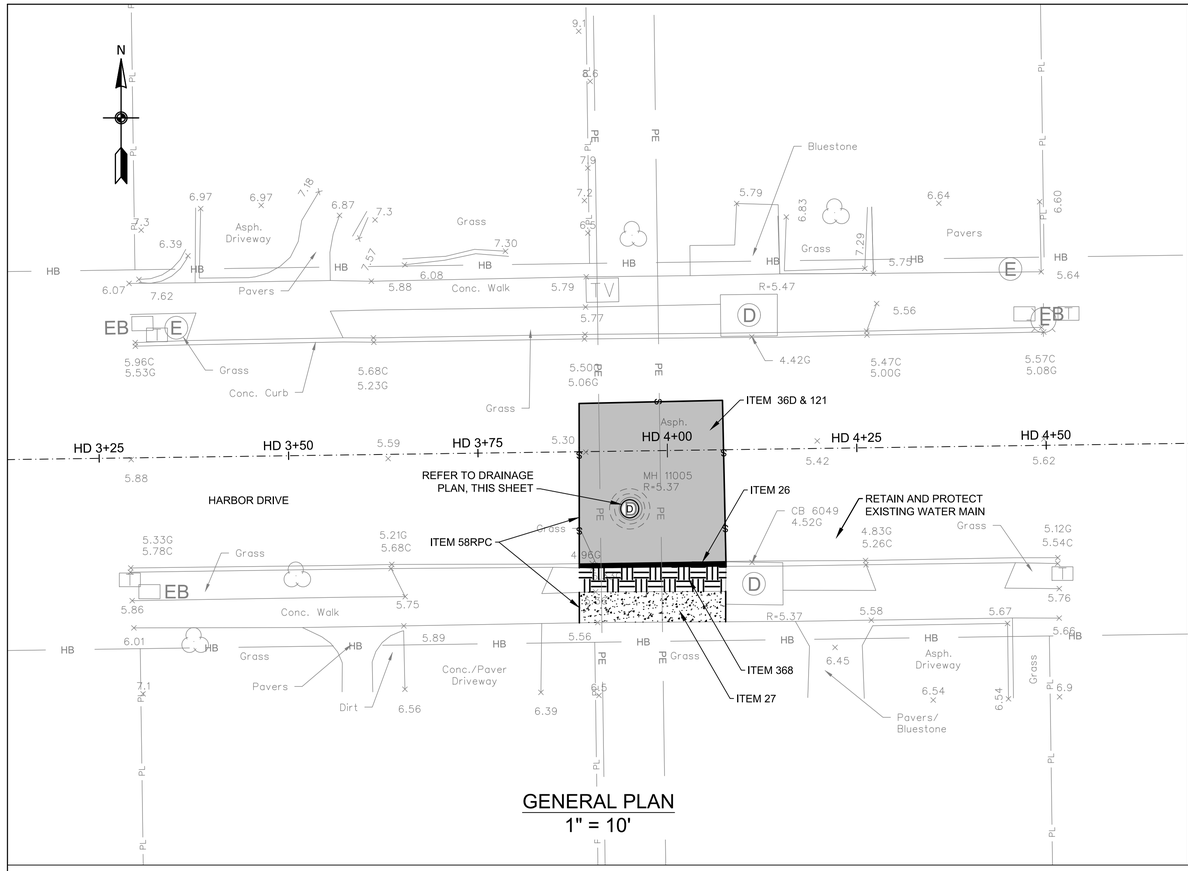
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

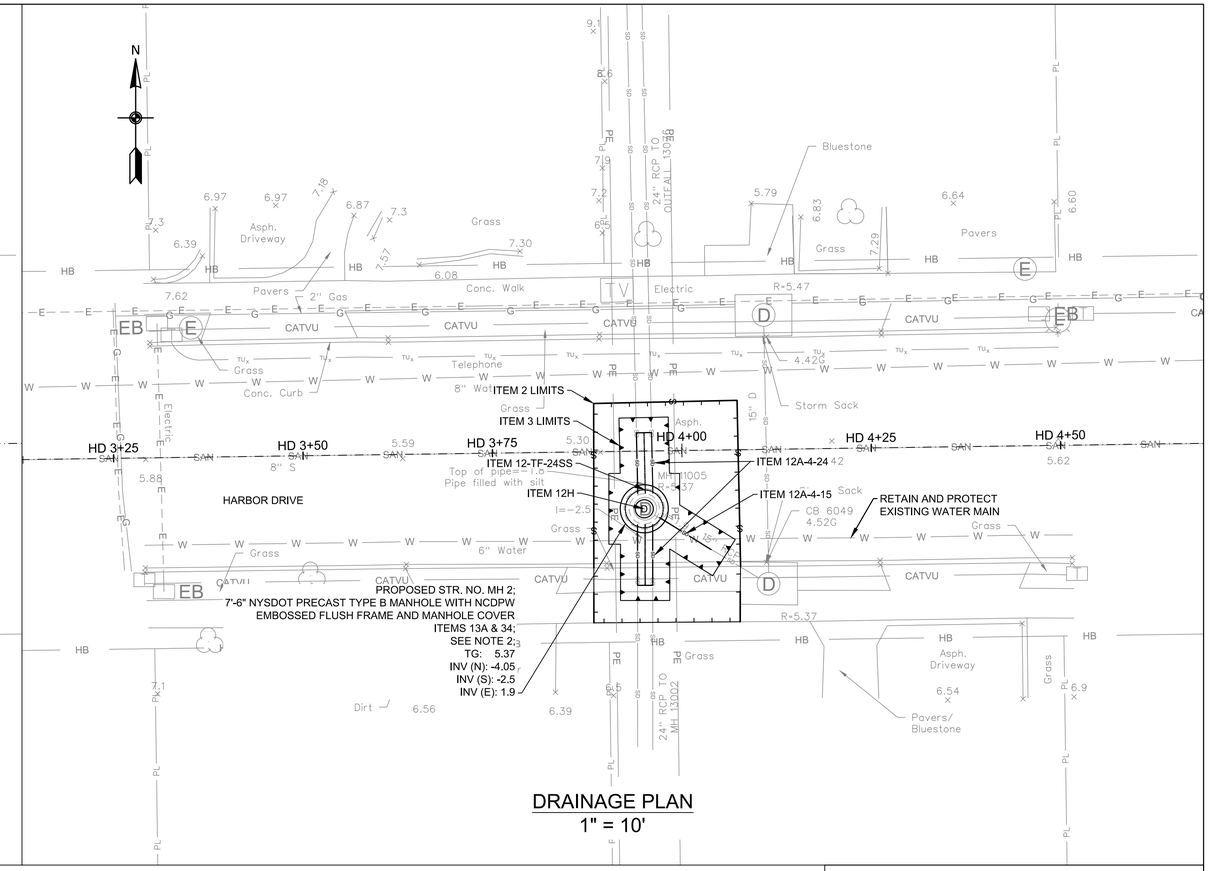
DRAWING TITLE:
CONSTRUCTION PLAN
CHECK VALVE INSTALLATION
271 AND 275 HARBOR DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-03	
SCALE: 1" = 10'	SHEET NO: 18 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-03.DWG
Plot Date: 10/8/2019 9:33 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

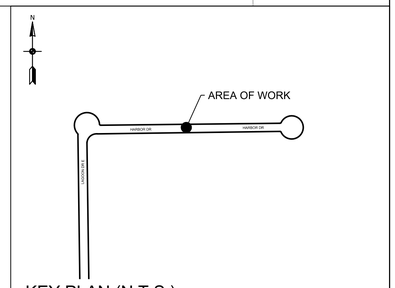
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12-TF-24SS	24" TIDEFLEX IN-LINE CHECK VALVE		SF
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12A-4-24	24" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12H	CLEANING EXISTING DRAINAGE SYSTEM		EA
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

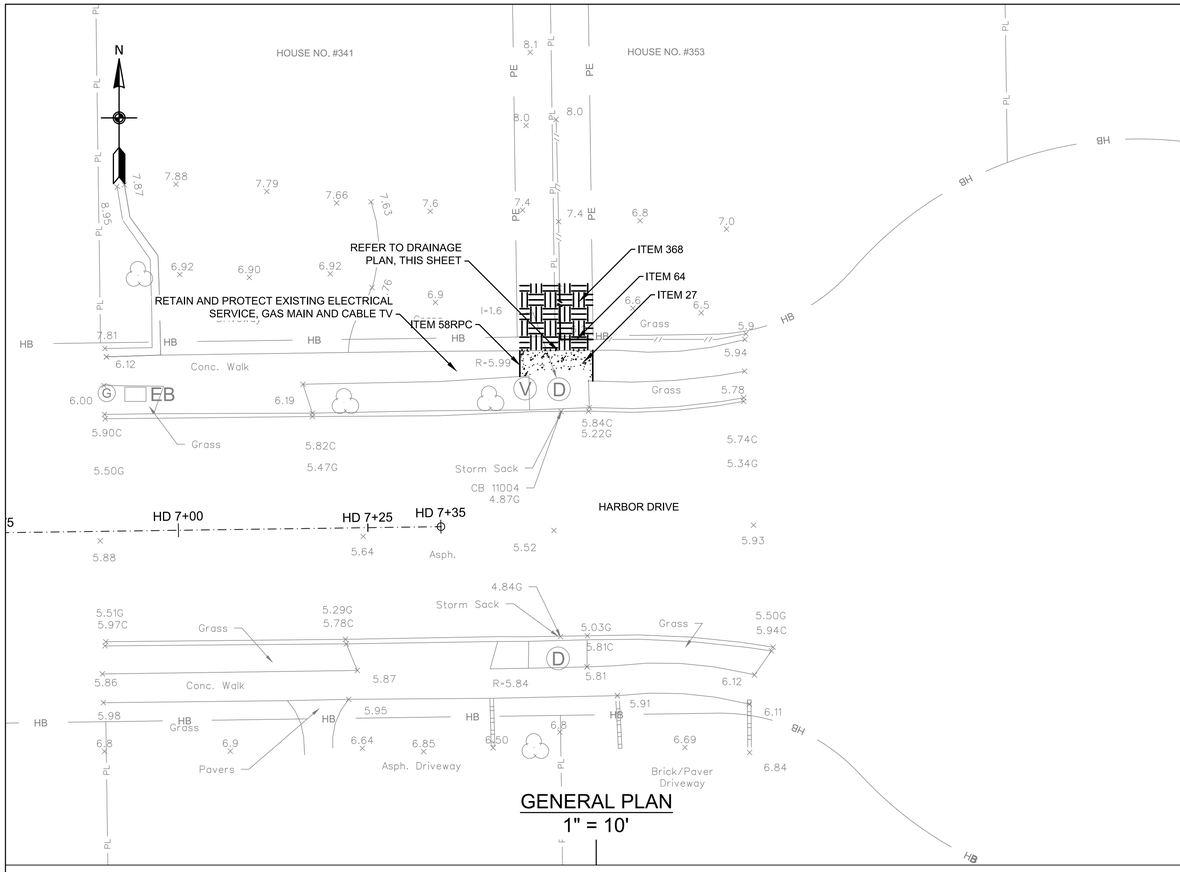
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

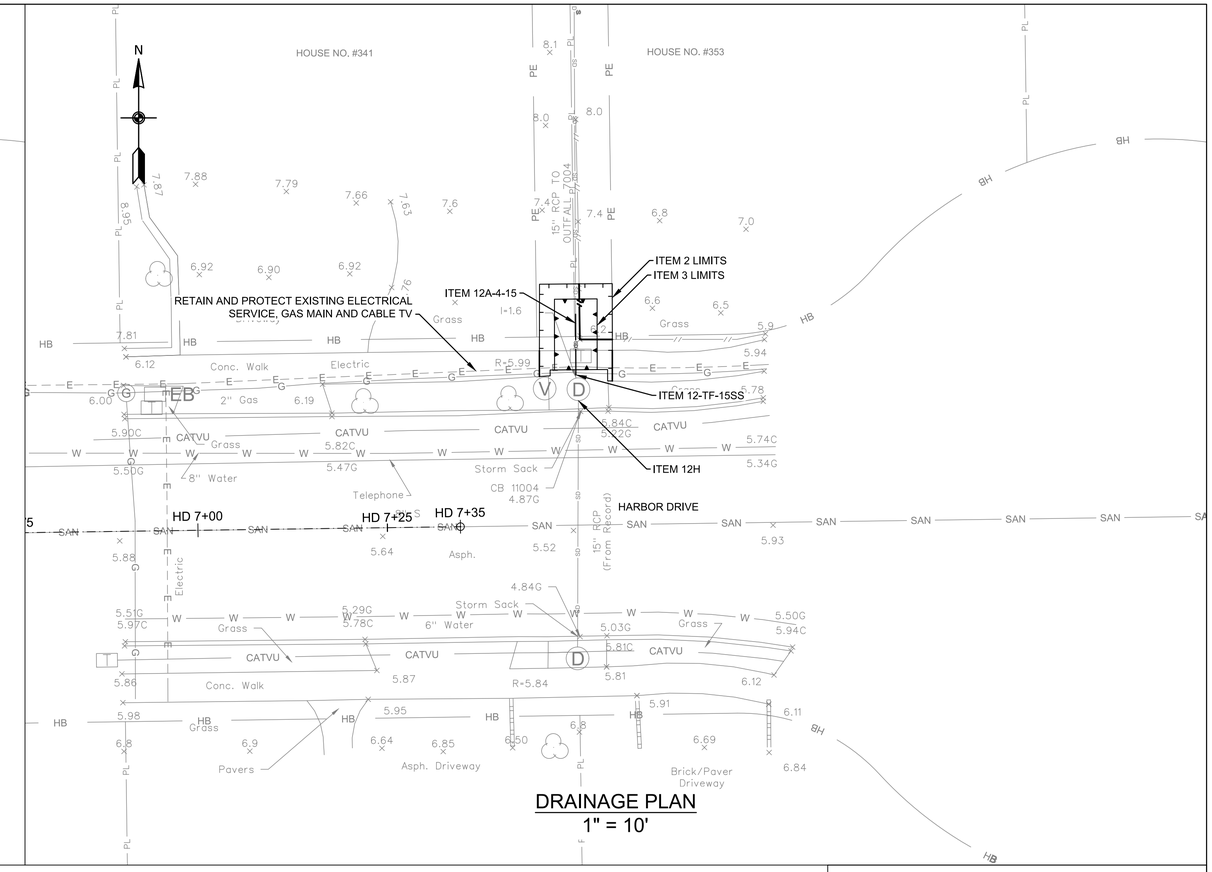
DRAWING TITLE:
CONSTRUCTION PLAN
CHECK VALVE INSTALLATION
311 HARBOR DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-04	
SCALE: 1" = 10'	SHEET NO: 19 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-04.DWG
Plot Date: 10/8/2019 9:34 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

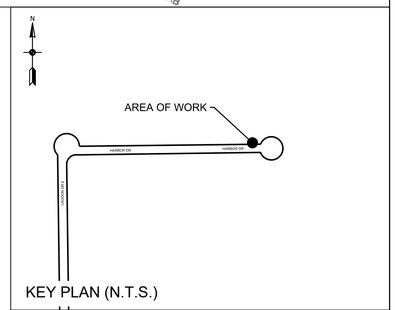
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12-TF-15SS	15" TIDEFLEX IN-LINE CHECK VALVE		SF
12DIP-15	15" DUCTILE IRON PIPE (DIP)		LF
12H	CLEANING EXISTING DRAINAGE SYSTEM		EA
27	CEMENT CONCRETE SIDEWALK		SF
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
64	RESET EXISTING FENCE		LF
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

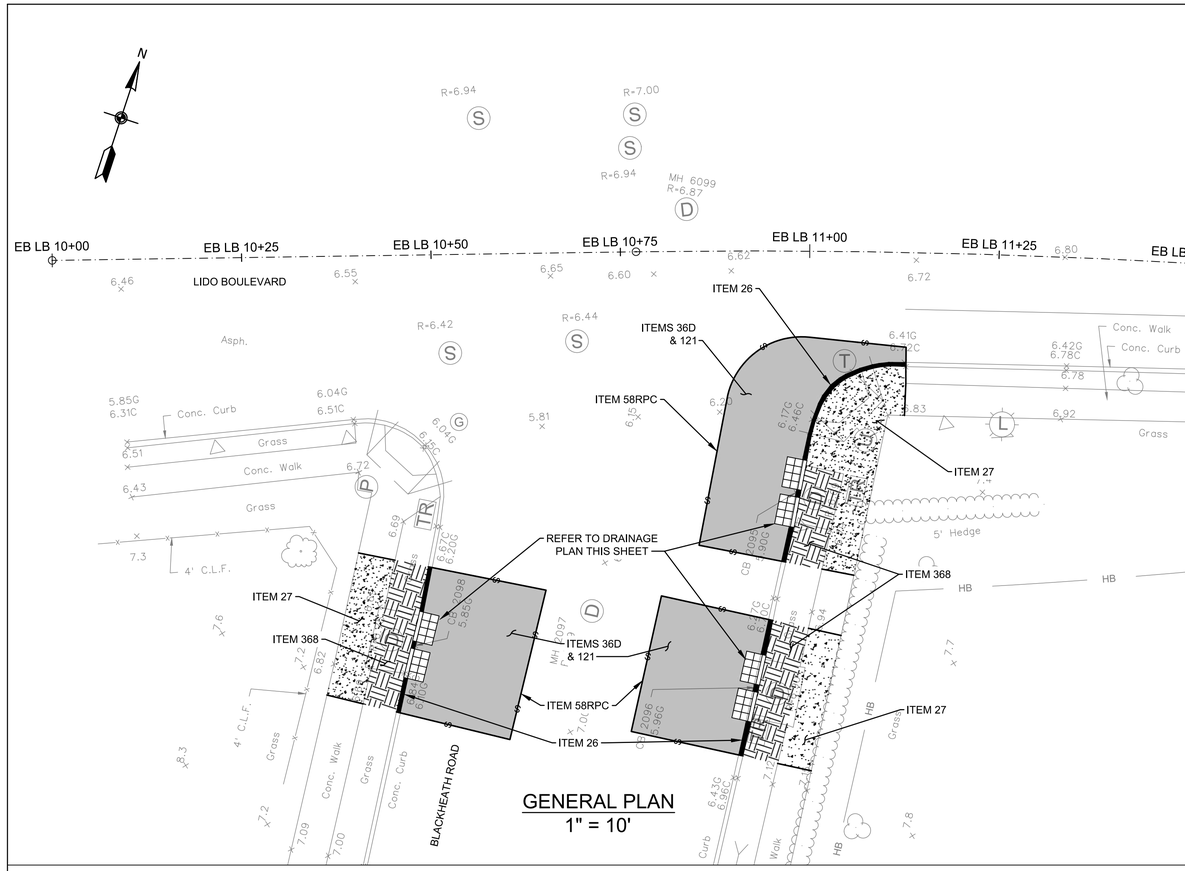
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

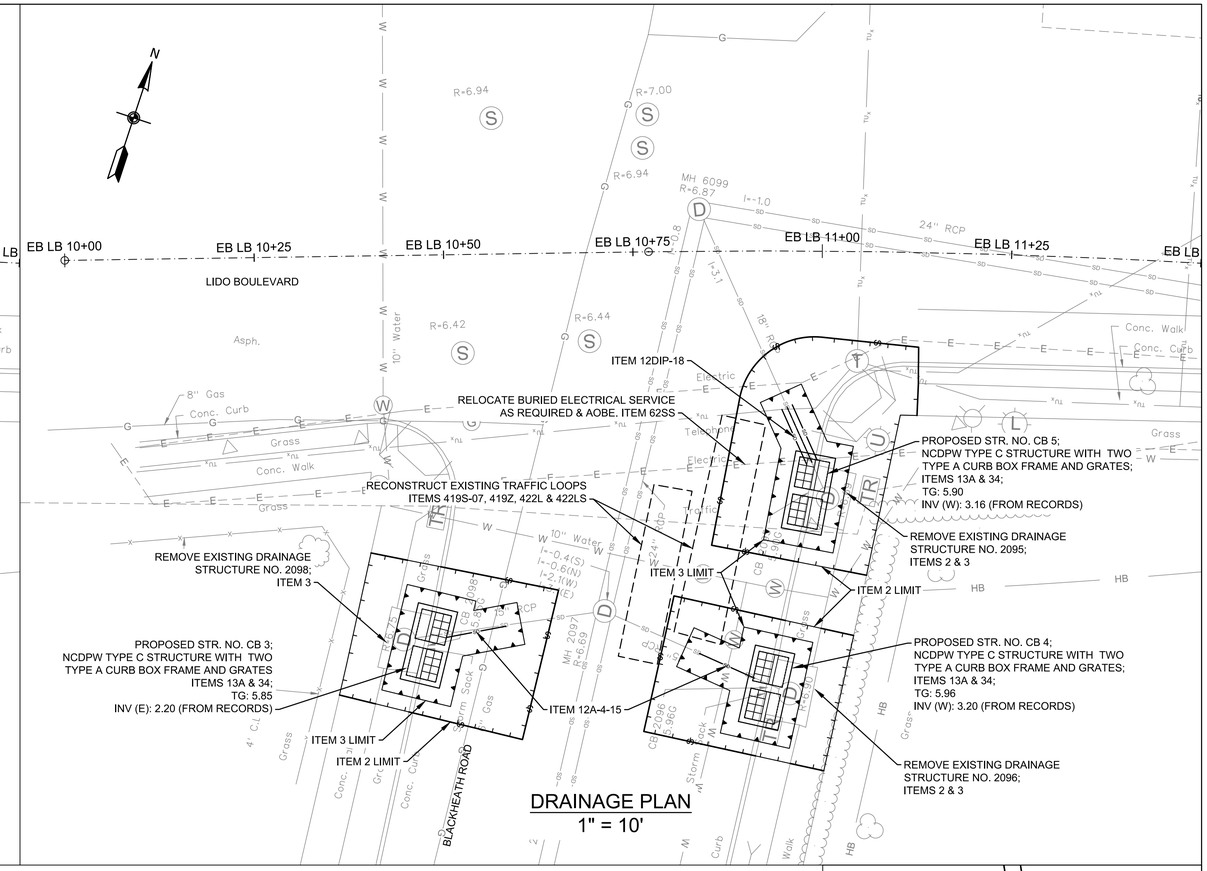
DRAWING TITLE:
CONSTRUCTION PLAN
CHECK VALVE INSTALLATION
341 AND 353 HARBOR DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-05	
SCALE: 1" = 10'	SHEET NO: 20 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-05.DWG
Plot Date: 10/8/2019 9:35 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

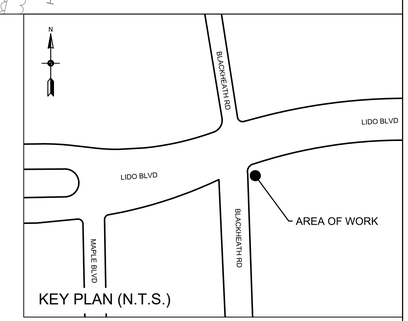
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 AND WZTC-1-1 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12A-4-18	18" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12DIP-18	18" DUCTILE IRON PIPE (DIP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

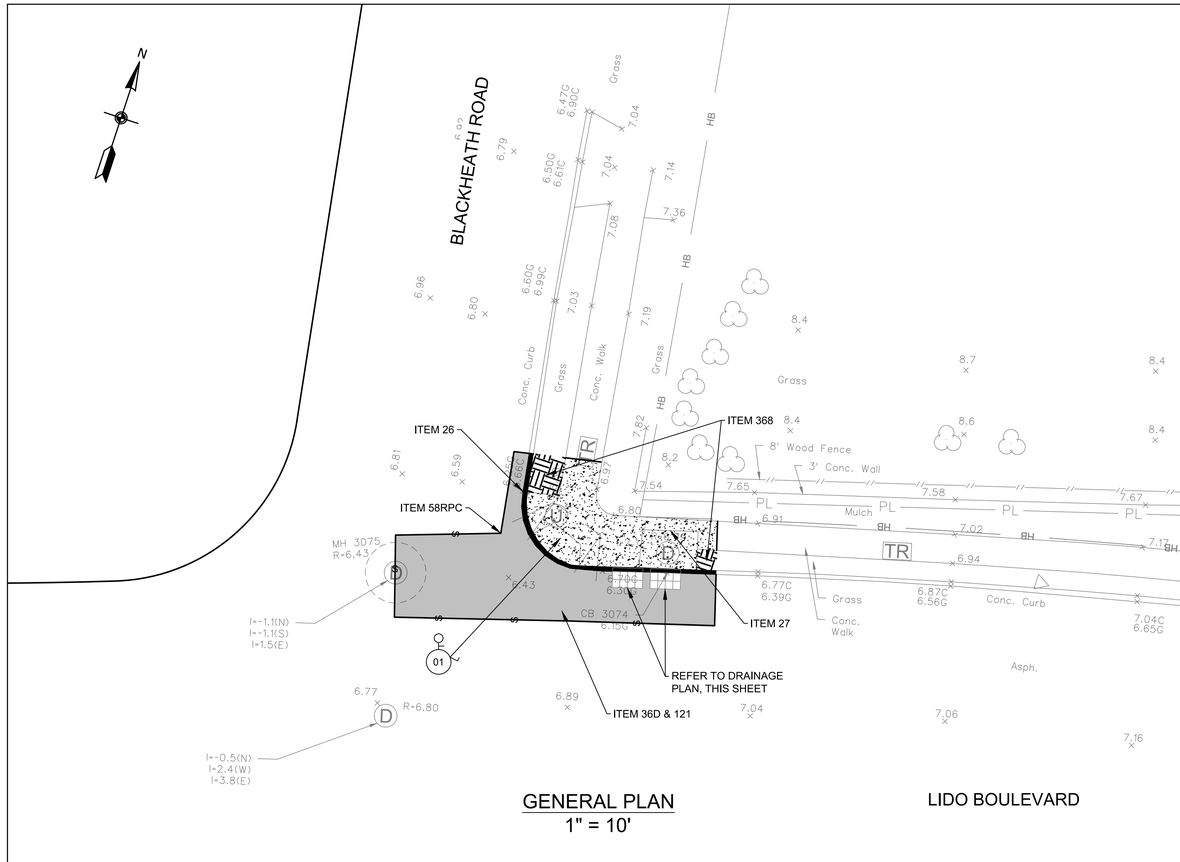
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
117 & 135 LIDO BLVD., LIDO BEACH, NY

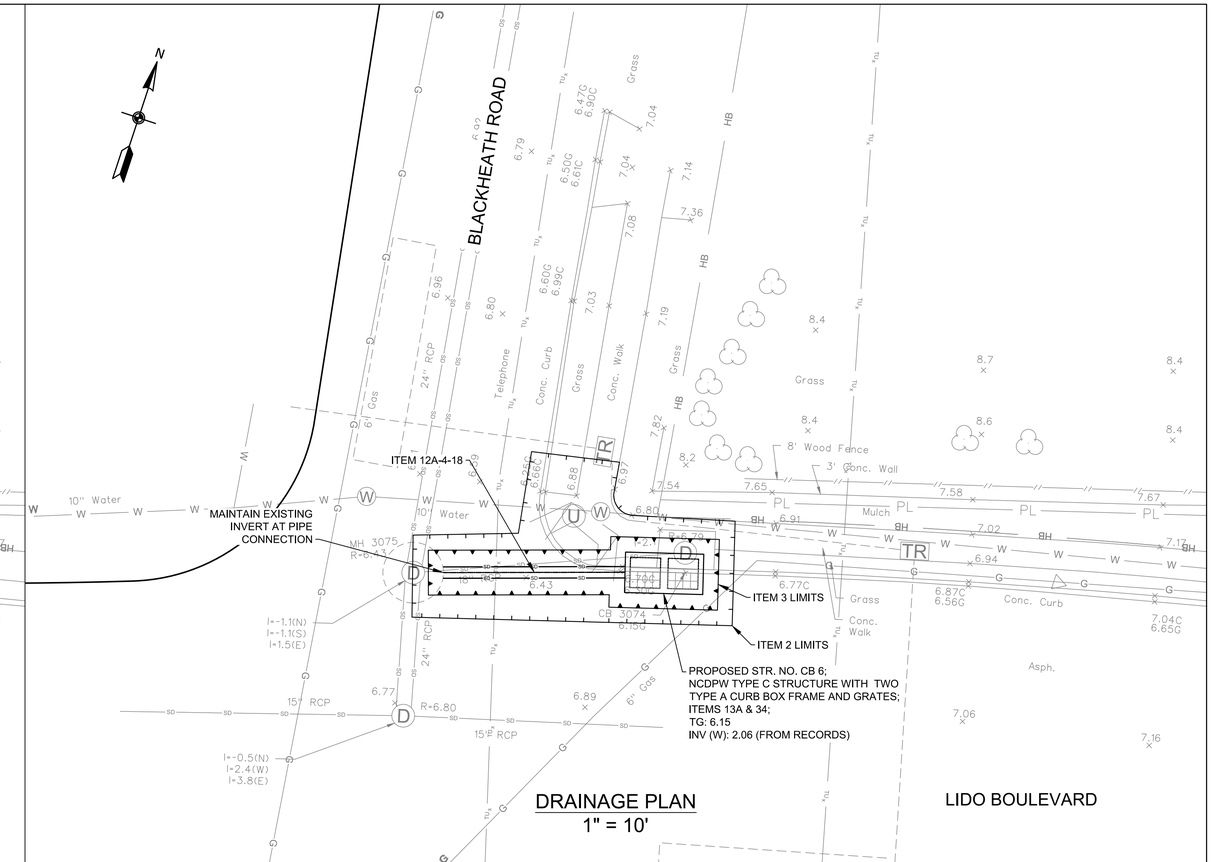
GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-06	
SCALE: 1" = 10'	SHEET NO: 21 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-06.DWG
Plot Date: 10/8/2019 9:35 AM



GENERAL PLAN
1" = 10'

LIDO BOULEVARD



DRAINAGE PLAN
1" = 10'

LIDO BOULEVARD

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

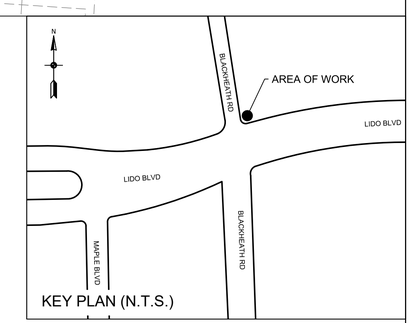
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 AND WZTC-2-1 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-18	18" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CONCRETE SIDEWALK		CY
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

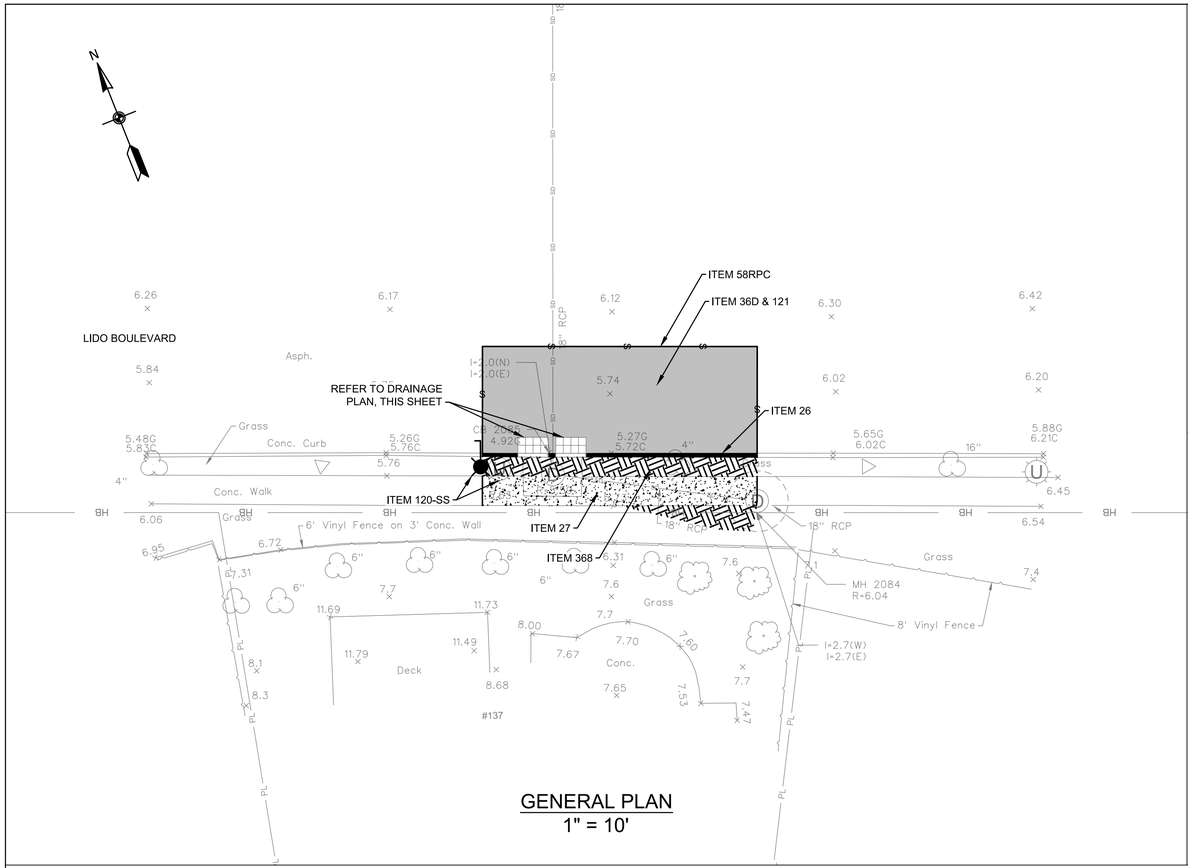
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

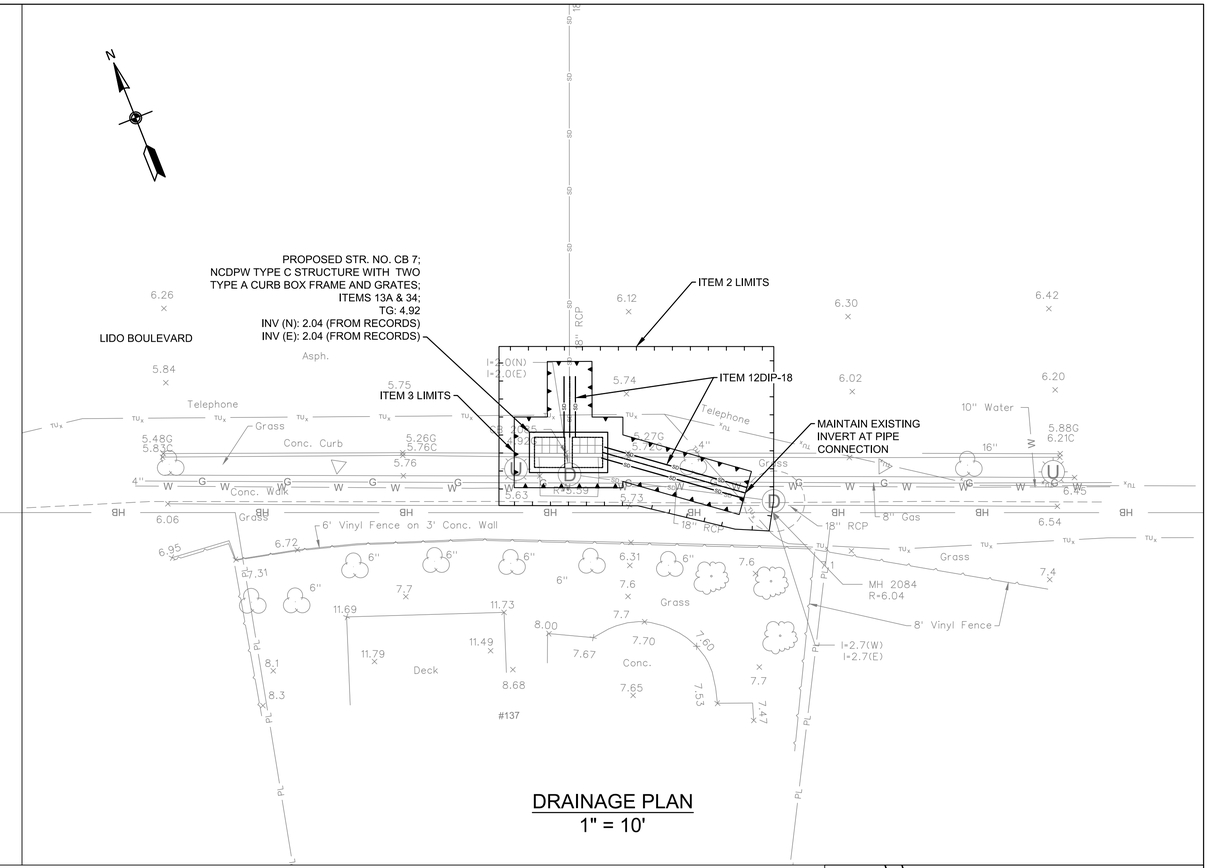
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
132 BLACKHEATH RD., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-07	
SCALE: 1" = 10'	SHEET NO: 22 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-07.DWG
Plot Date: 10/8/2019 9:35 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

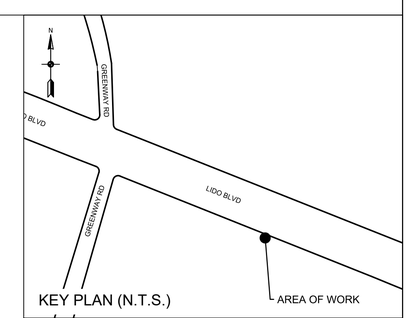
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 AND WZTC-3-1 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12DIP-18	18" DUCTILE IRON PIPE (DIP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
120-SS	RELOCATION OF EXISTING LIGHT POLES (COMPLETE)		EA
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

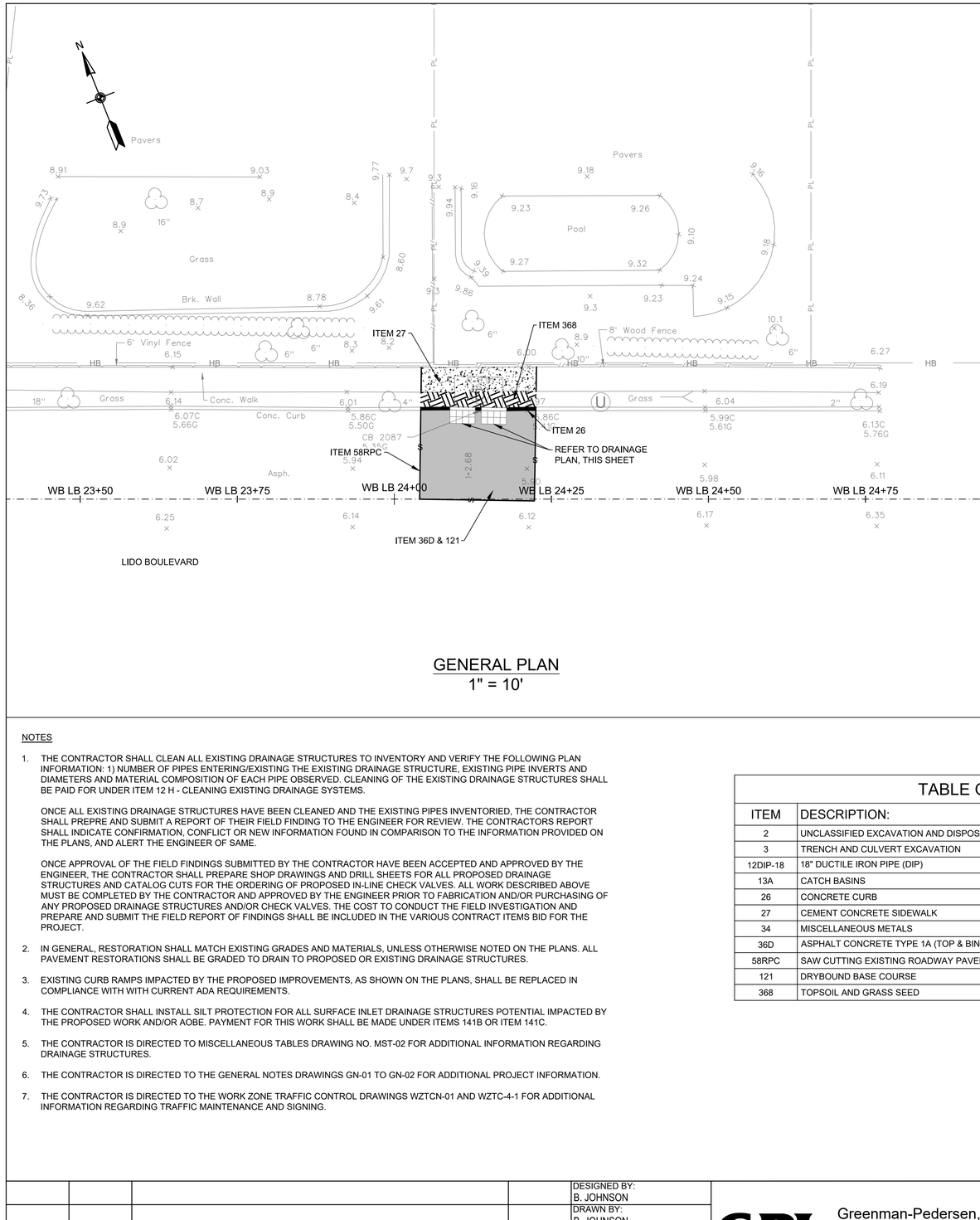
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

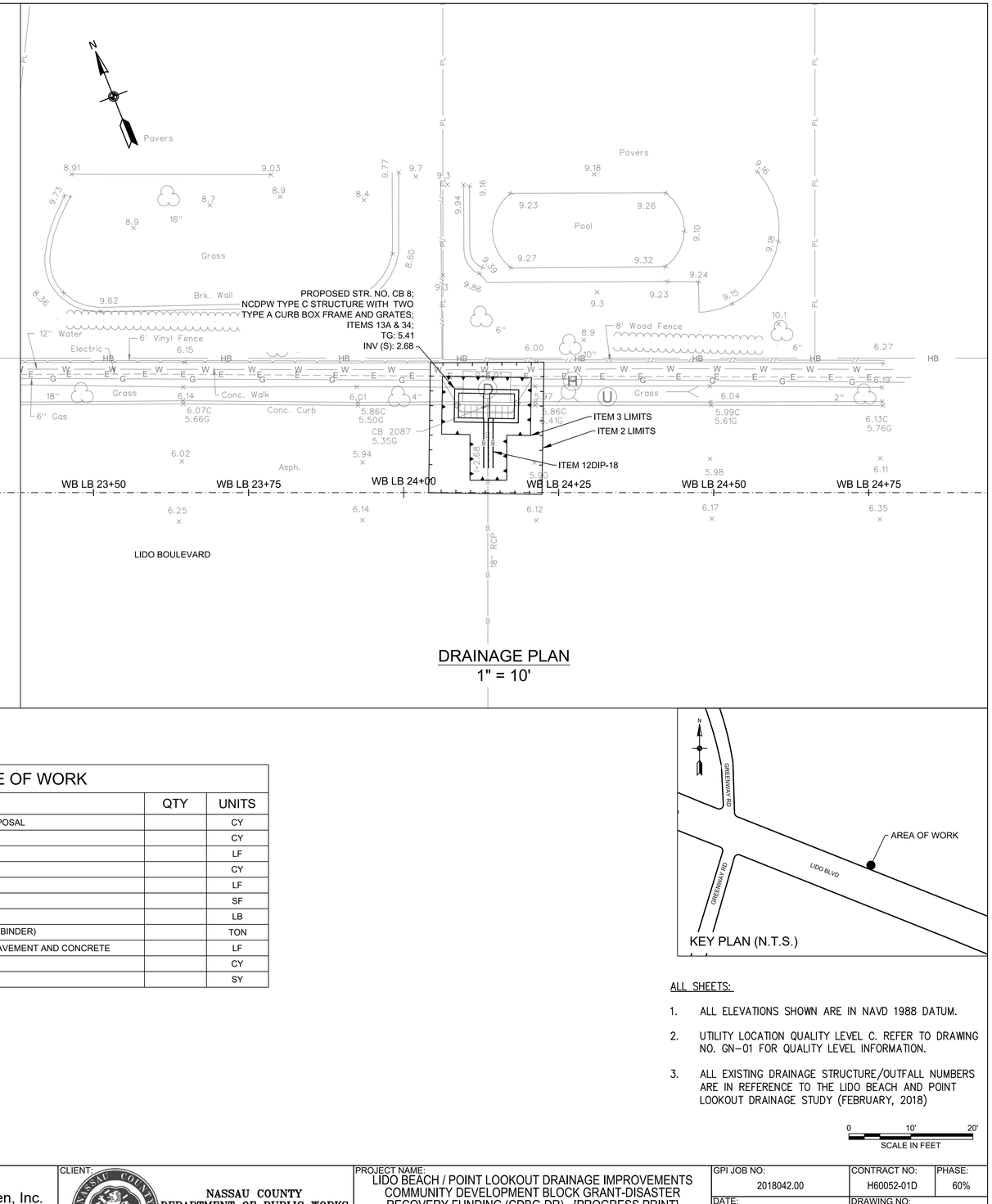
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
137 AUDREY DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-08	
SCALE: 1" = 10'	SHEET NO: 23 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-08.DWG
Plot Date: 10/8/2019 9:36 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 AND WZTC-4-1 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12DIP-18	18" DUCTILE IRON PIPE (DIP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY

KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

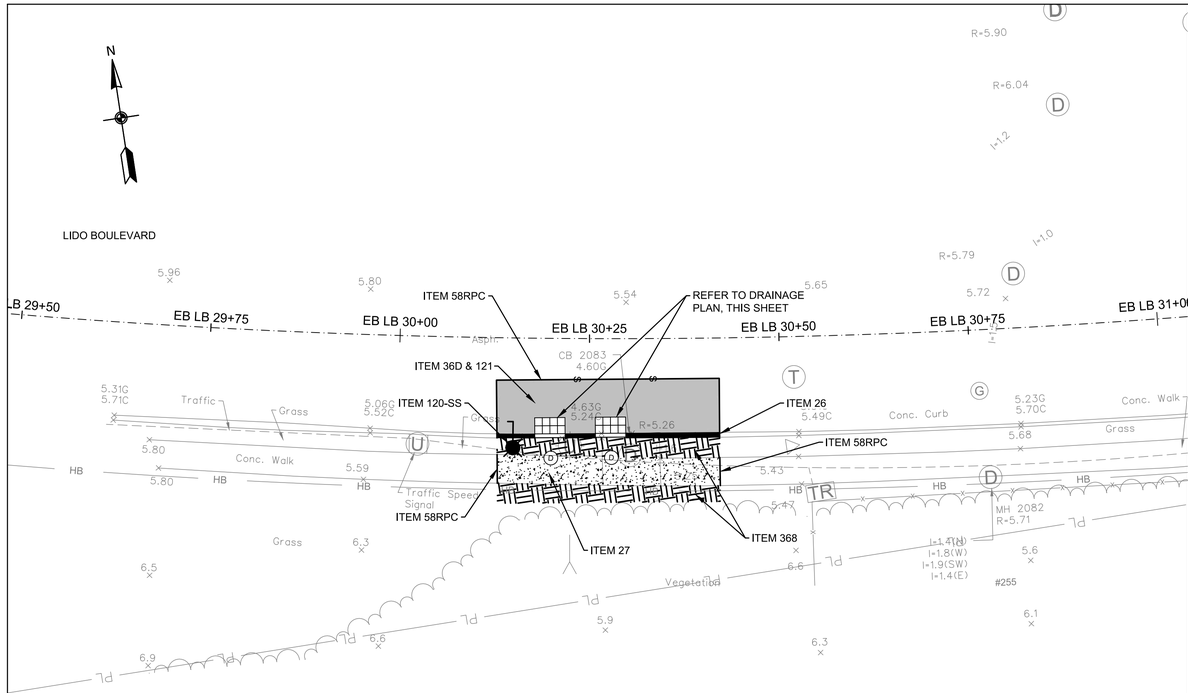
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

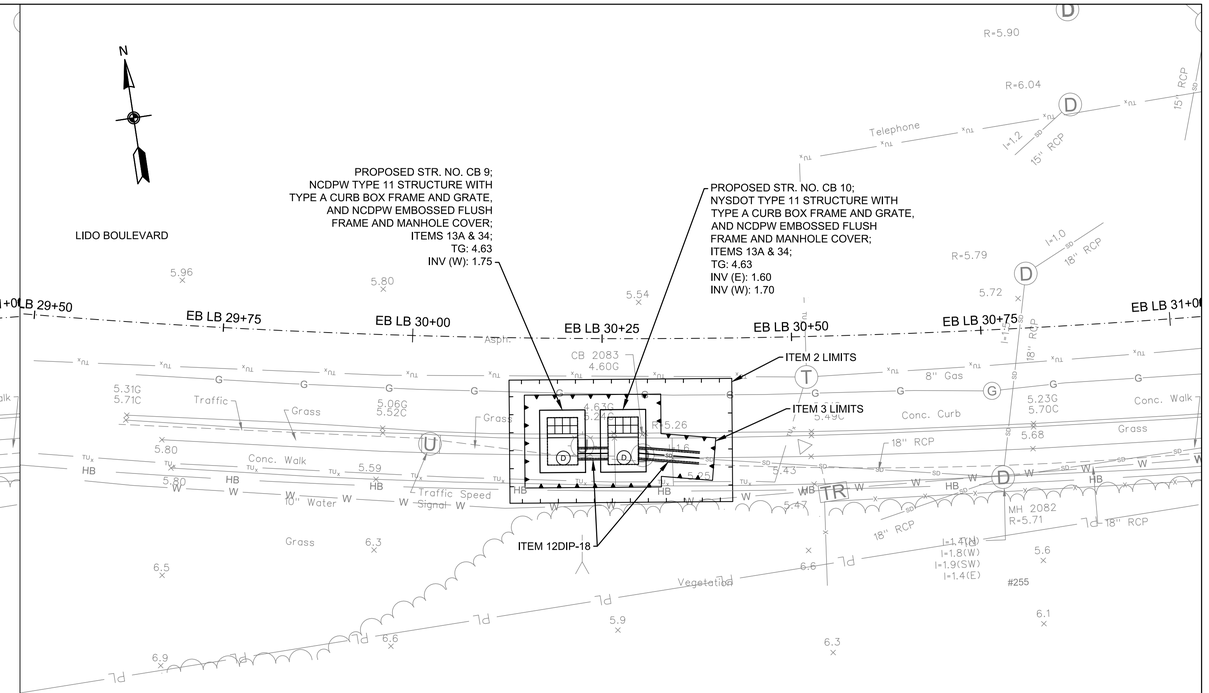
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
67 & 73 REYNOLDS DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-09	
SCALE: 1" = 10'	SHEET NO: 24 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-09.DWG
Plot Date: 10/8/2019 9:36 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

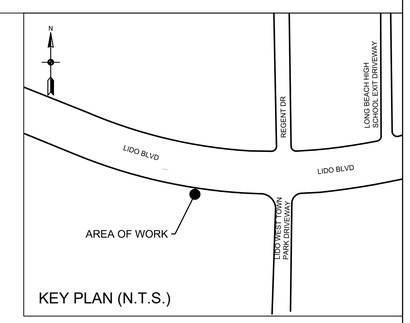
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01, WZTC-5-1 AND WZTC-5-2 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12DIP-18	18" DUCTILE IRON PIPE (DIP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
120-SS	RELOCATION OF EXISTING LIGHT POLES (COMPLETE)		EA
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

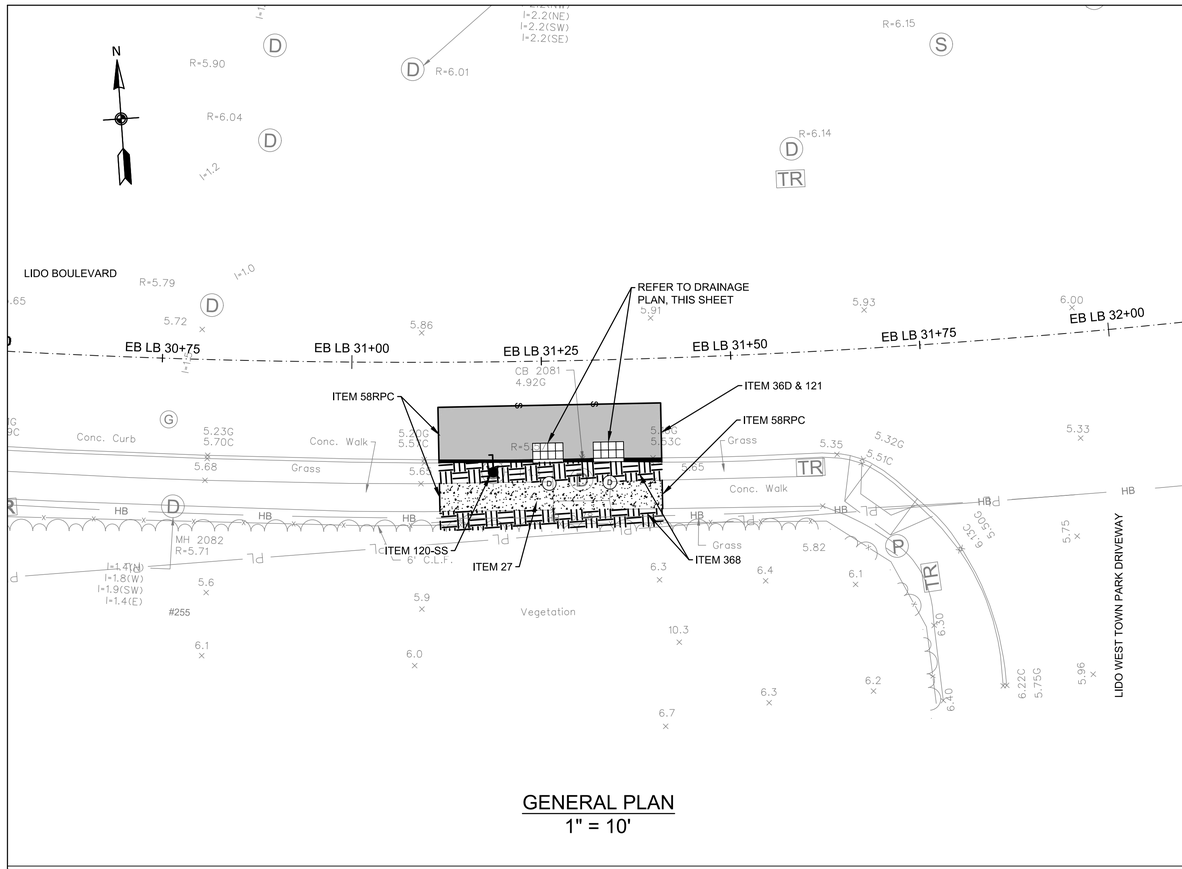
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

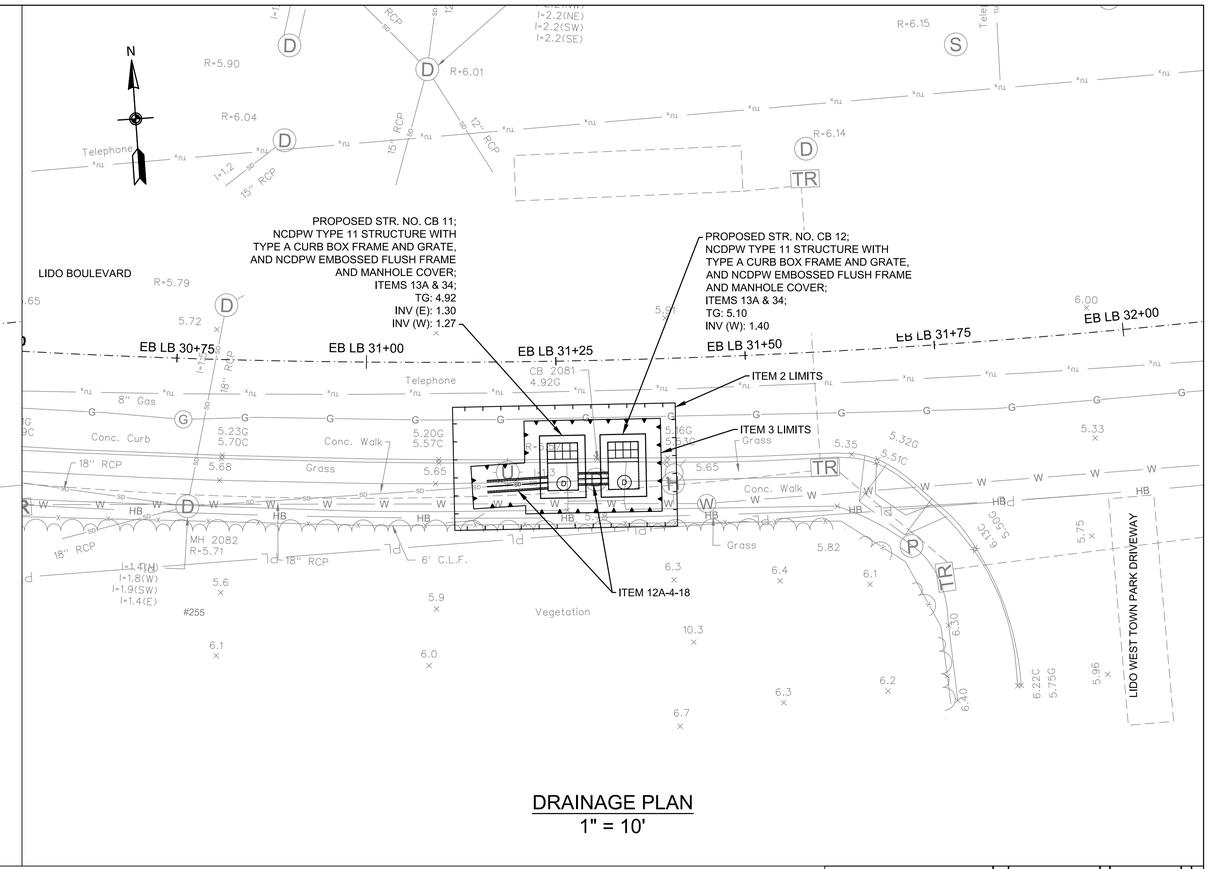
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
255 LIDO BLVD., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-10	
SCALE: 1" = 10'	SHEET NO: 25 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-10.DWG
Plot Date: 10/8/2019 9:37 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

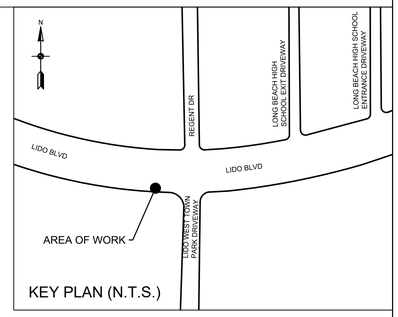
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01, WZTC-5-1 AND WZTC-5-2 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-18	18" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
13A	CATCH BASINS		CY
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
120-SS	RELOCATION OF EXISTING LIGHT POLES (COMPLETE)		EA
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

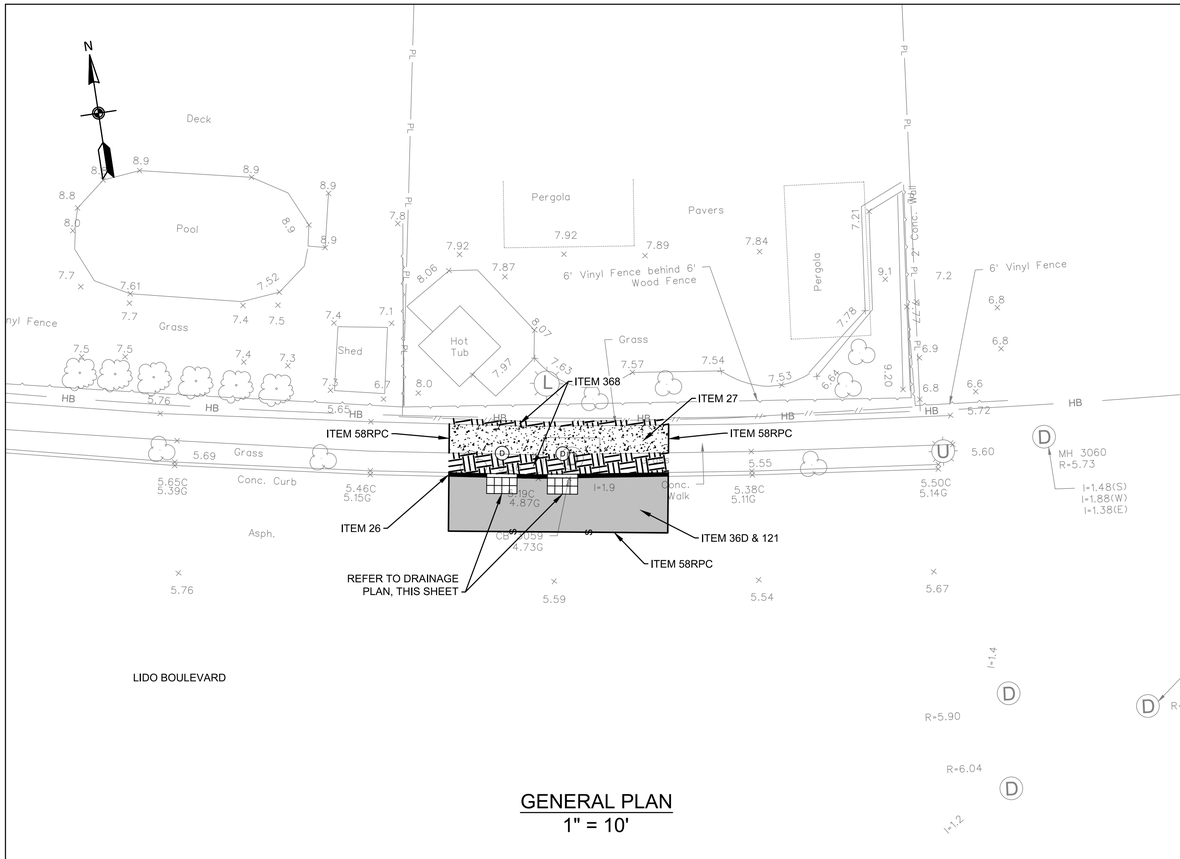
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

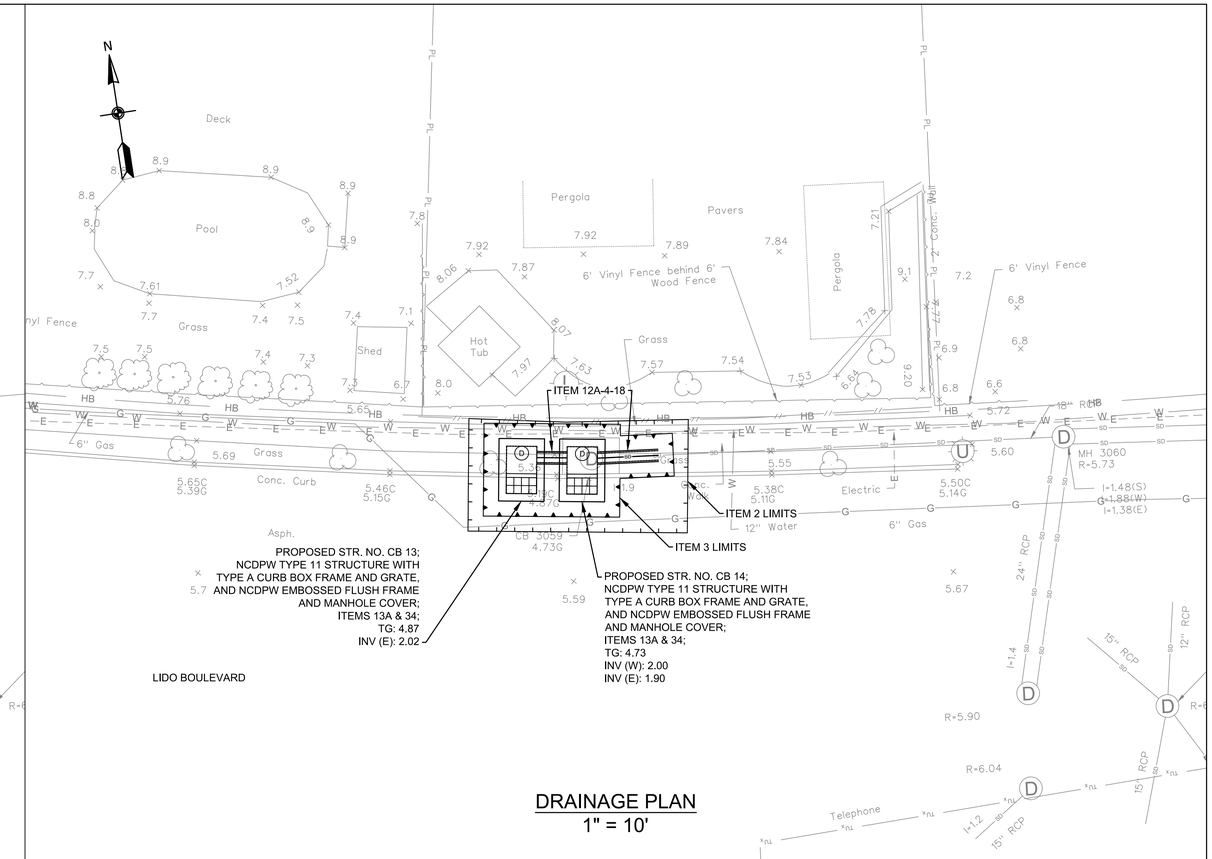
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
255 LIDO BLVD., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-11	
SCALE: 1" = 10'	SHEET NO: 26 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-11.DWG
Plot Date: 10/8/2019 9:37 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

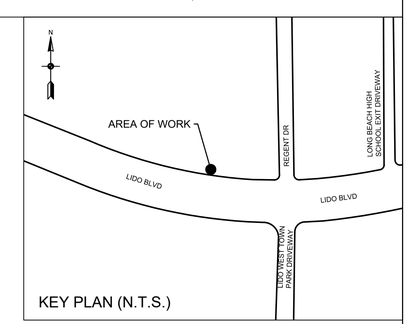
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01, WZTC-6-1 AND WZTC-6-2 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-18	18" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

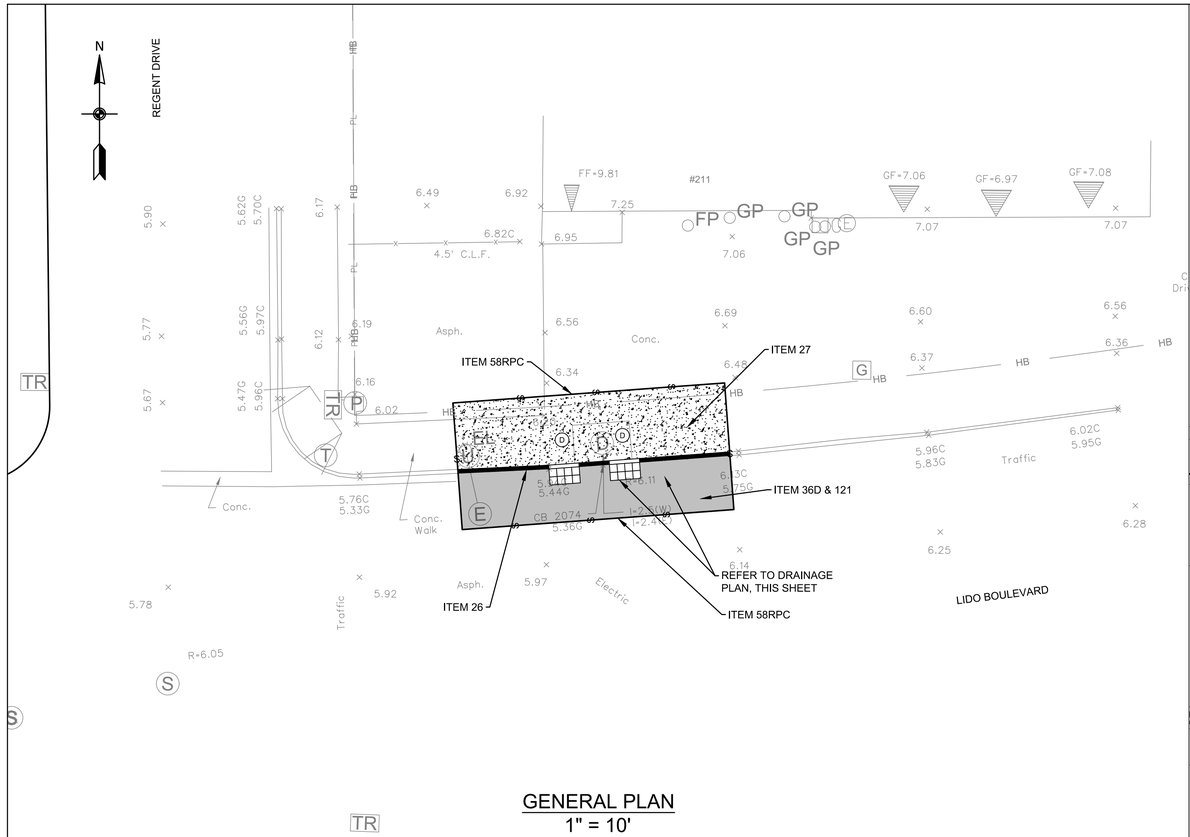
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

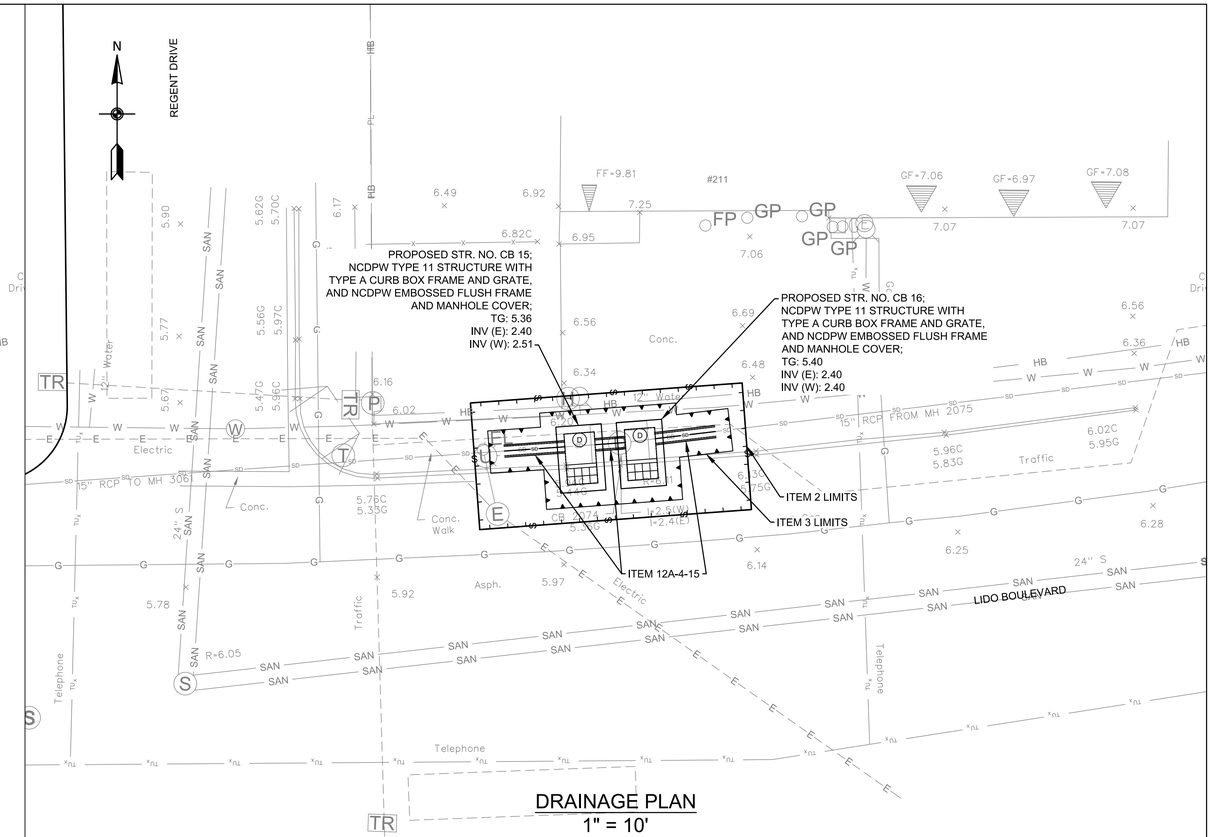
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
9 REYNOLDS DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-12	
SCALE: 1" = 10'	SHEET NO: 27 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-12.DWG
Plot Date: 10/8/2019 9:38 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

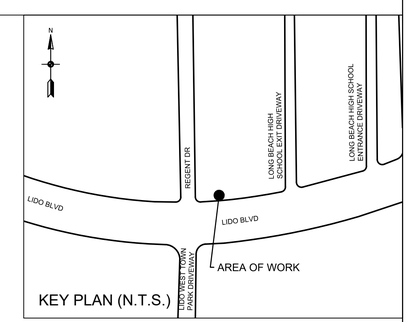
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01, WZTC-6-1 AND WZTC-6-2 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-18	18" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

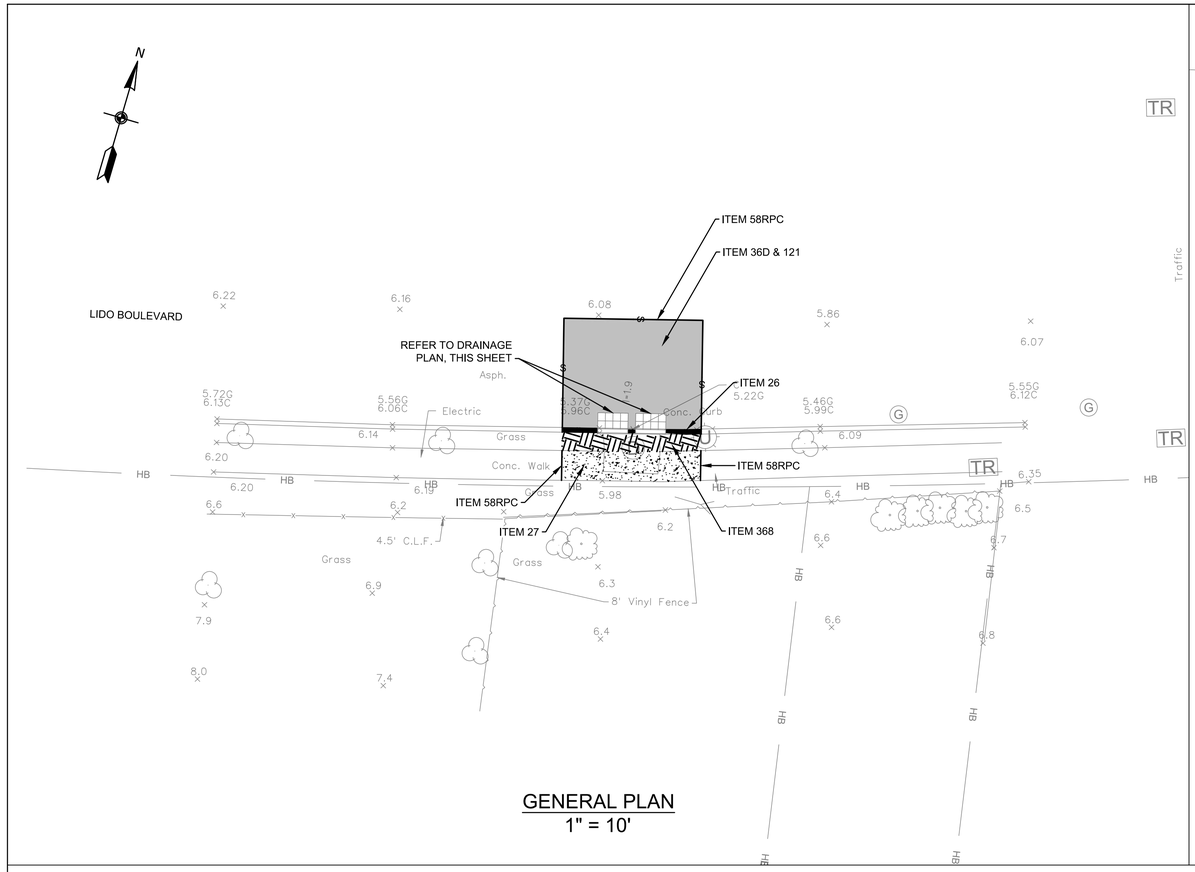
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

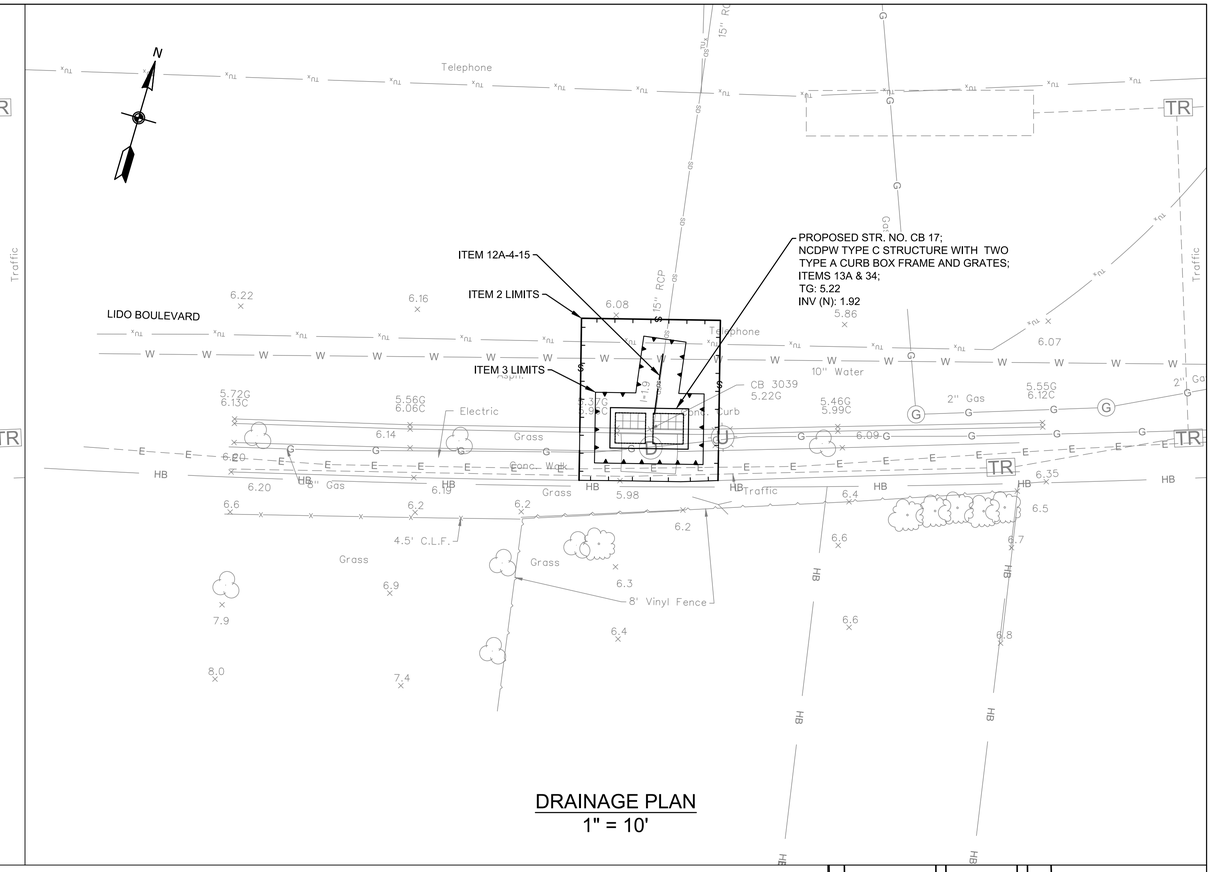
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
211 LIDO BLVD., LIDO BEACH, NY

GPI JOB NO: 2018042.00
CONTRACT NO: H60052-01D
PHASE: 60%
DATE: 10/08/2019
DRAWING NO: CP-13
SCALE: 1" = 10'
SHEET NO: 28 OF 39

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-13.DWG
Plot Date: 10/8/2019 9:38 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

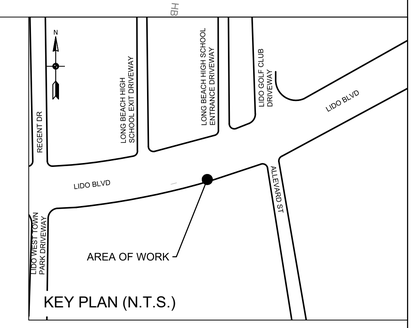
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01, WZTC-5-1 AND WZTC-5-2 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

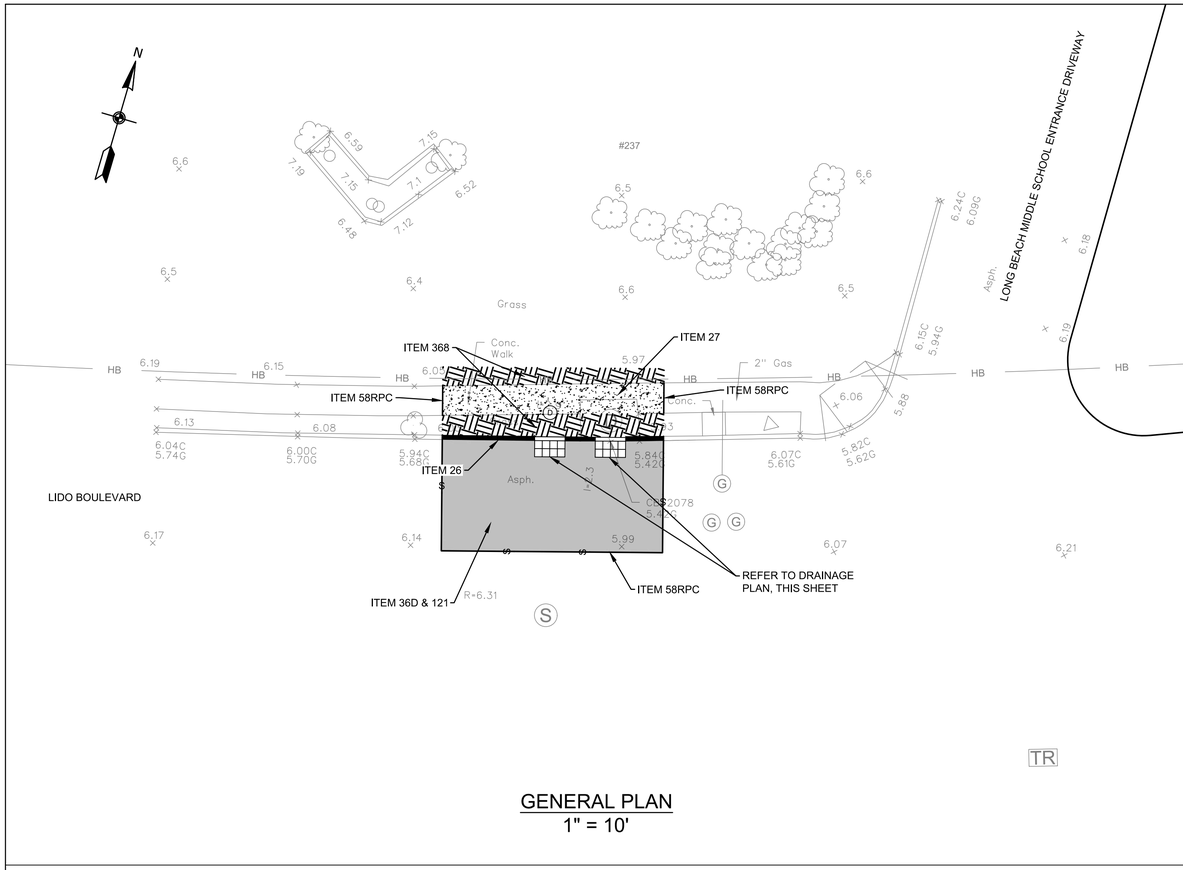
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

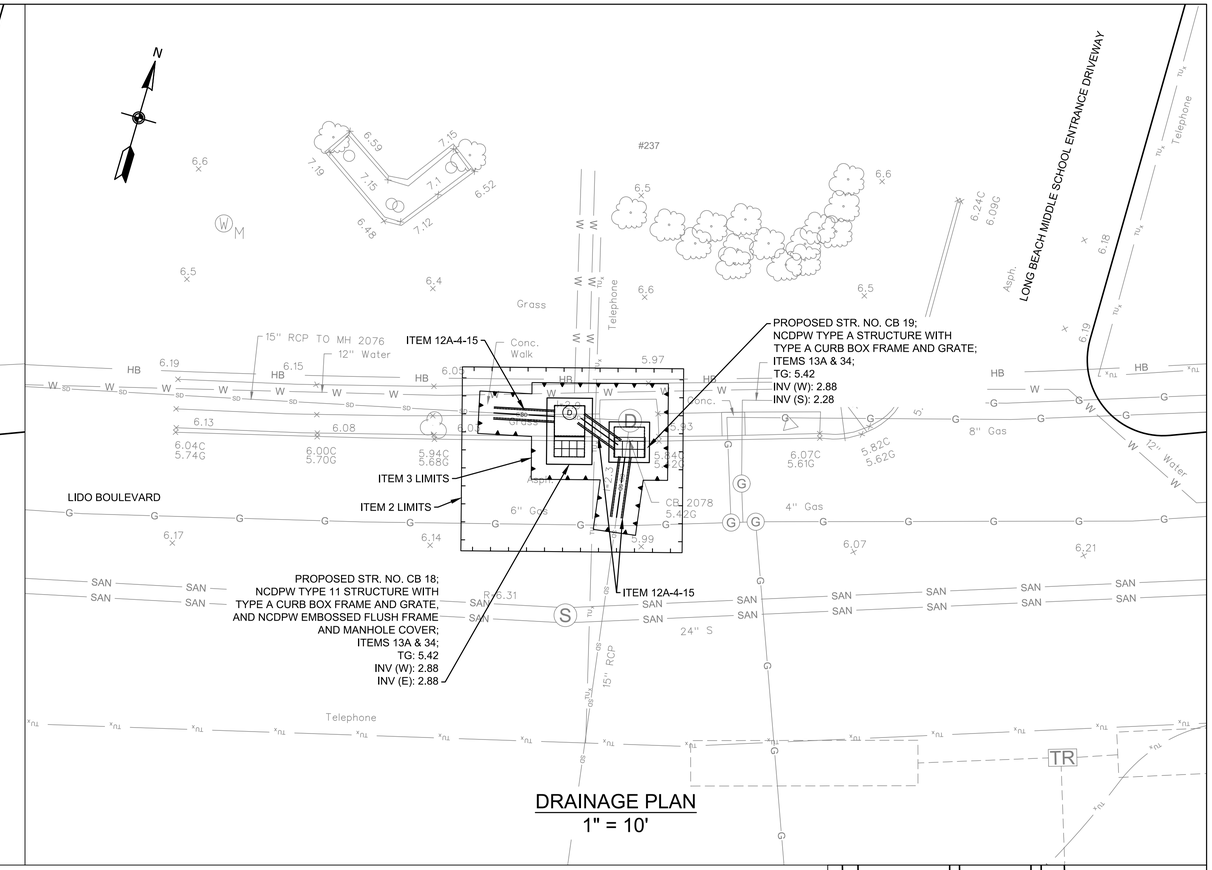
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
250 LIDO BLVD., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-14	
SCALE: 1" = 10'	SHEET NO: 29 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-14.DWG
Plot Date: 10/8/2019 9:38 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

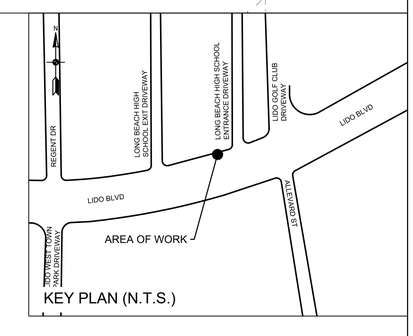
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01, WZTC-6-1 AND WZTC-6-2 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12DIP-15	15" DUCTILE IRON PIPE (DIP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
235 LIDO BLVD., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-15	
SCALE: 1" = 10'	SHEET NO: 30 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-15.DWG
Plot Date: 10/8/2019 9:39 AM

WORK ZONE TRAFFIC CONTROL NOTES:

1.0 THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FOLLOWING TWO SPECIAL NOTES IN THE CONTRACT DOCUMENTS SPECIFICALLY REGARDING WORK ON LIDO BOULEVARD:

SPECIAL NOTE "TEMPORARY LANE/SHOULDER CLOSURE RESTRICTIONS FOR MAJOR HOLIDAYS". NO LANE CLOSURES WILL BE ALLOWED ON WEEKENDS AND ON THE FOLLOWING DAYS:

-NEW YEARS DAY
-MEMORIAL DAY
-INDEPENDENCE DAY
-LABOR DAY
-THANKSGIVING DAY
-CHRISTMAS DAY

1.0.1 FOR THE HOLIDAY RESTRICTIONS NOTED IN THE SPECIAL NOTE THERE CAN BE NO PRESENCE ON THE ROAD UNLESS OTHERWISE NOTED ON CONTRACT PLANS.

1.0.2 UNLESS OTHERWISE STATED ON THE CONTRACT DOCUMENTS, PLANS OR ADVISED, NO LANE CLOSURES WILL BE ALLOWED ON WEEKENDS.

1.1 FOR ALL REGIONAL NON-LIMITED ACCESS STATE ROUTES:

1.1.1 A SINGLE LANE CLOSURE ON ALL NON-LIMITED ACCESS STATE ROUTES WITH TWO (2) OR MORE LANES IN EACH DIRECTION IS ALLOWED BETWEEN 10 AM AND 3 PM AS WELL AS BETWEEN 10 PM AND 6 AM

1.1.2 FULL ROAD OR MULTI LANE CLOSURES ON ALL NON-LIMITED ACCESS STATE ROUTES ARE ALLOWED BETWEEN 10 PM AND 6 AM UNLESS OTHERWISE SPECIFIED ON THE CONTRACT PLANS OR AS DIRECTED BY THE REGIONAL DIRECTOR OR HIS/HER DESIGNEE.

1.2 CONTRACTORS MUST PLACE PORTABLE VMS, AT APPROPRIATE PLACE(S) WITHIN THE CONTRACT LIMIT, AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE, TO PROVIDE ADVANCE NOTIFICATION TO MOTORISTS ABOUT POSSIBLE FULL OR MULTI LANE CLOSURE.

2.0 WORK ZONE TRAFFIC CONTROL GUIDELINES

2.1 WORK ZONE TRAFFIC CONTROL SCHEMES SHALL BE IN ACCORDANCE WITH THE PLANS, NYSDOT STANDARD SHEETS, THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (MUTCD) AND 17 NYCRR CHAPTER V (NEW YORK SUPPLEMENT), SIGN DRAWINGS AND OTHER EXHIBITS OF THE DOCUMENT AS ORDERED BY THE ENGINEER (AOBE).

2.2 THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC CONTROL. WORK ZONE TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE PLANS, NYSDOT STANDARD SHEETS, THE MUTCD, AND AS APPROVED OR DIRECTED BY THE ENGINEER. TRAFFIC SCHEMES SHOWN ON THE PLANS OR IN THE MUTCD ARE TO BE CONSIDERED MINIMUM REQUIREMENTS. THE ENGINEER MAY ORDER ADDITIONAL SIGNS, FLAGGERS, CONES, REFLECTORIZATION ETC., IF NECESSARY, AT NO ADDITIONAL COST TO THE STATE. PAYMENT FOR ALL SUCH WORK SHALL BE INCLUDED IN THE ITEMS FOR WORK ZONE TRAFFIC CONTROL AS APPROPRIATE.

2.3 THE CONTRACTOR MAY SUBMIT REVISIONS TO THIS PLAN FOR THE FOR APPROVAL BY THE COUNTY OR THE ENGINEER. THIS SHALL BE AT NO ADDITIONAL COST TO THE STATE.

2.4 UNDIVIDED HIGHWAYS: THE CONTRACTOR SHALL NOT WORK ON BOTH SIDES OF THE ROADWAY IN THE SAME AREA AT THE SAME TIME.

2.5 DIVIDED HIGHWAYS: THE CONTRACTOR SHALL NOT WORK ON BOTH SIDES OF ONE-WAY TRAFFIC (e.g. ON THE SHOULDER AND IN THE MEDIAN) IN THE SAME AREA AT THE SAME TIME.

2.6 WHEN THE CONTRACTOR IS WORKING WITHIN 15 FT OF A TRAVELED LANE, THE ENGINEER MAY REQUIRE THE ADJACENT TRAVEL LANE TO BE CLOSED.

2.7 THE FOLLOWING SHALL APPLY WHEN TRAVEL LANES ARE CLOSED: THE CONTRACTOR SHALL PLACE TWO PLASTIC DRUMS OR VERTICAL PANELS, AT MAXIMUM 400 FT INTERVALS, ADJACENT TO EACH OTHER IN THE MIDDLE OF EACH CLOSED LANE TO DISCOURAGE USE OF THE LANE BY VEHICLES. FOR THE FIRST 1000 FT OF CLOSURE, AND FOR THE FIRST 1000 FT AFTER EACH ENTRANCE RAMP WITHIN THE CLOSURE, THIS INTERVAL SHALL BE REDUCED TO 200 FT. PLACEMENT OF THESE DRUMS OR VERTICAL PANELS SHALL BE IN ADDITION TO THE DEVICES SHOWN IN WORK ZONE TRAFFIC CONTROL SCHEMES OF THE MUTCD AND THOSE SHOWN ON THE PLANS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR WORK ZONE TRAFFIC CONTROL.

2.8 WHENEVER WORK ZONE TRAFFIC CONTROL SCHEMES PROVIDING FOR ONE_LANE ROAD OPERATION ARE IN EFFECT, THE CONTRACTOR SHALL POSITION FLAGGERS, AT THE LIMITS OF THE ONE_LANE ROAD OPERATION, AT ALL CROSS STREETS WITHIN THE ONE_LANE ROAD OPERATION, AT MAJOR DRIVEWAYS AND SUCH OTHER LOCATIONS AS REQUIRED BY THE ENGINEER TO CONTROL TRAFFIC. FLAGGERS SHALL BE EQUIPPED WITH TWO_WAY RADIOS, IN ACCORDANCE WITH CHAPTER 6E OF THE MUTCD AND SUBSECTION 619-3.02L OF THE STANDARD SPECIFICATIONS, WHERE IN THE OPINION OF THE ENGINEER THE USAGE OF SUCH RADIOS IS NECESSARY TO CONTROL TRAFFIC. SUCH RADIOS SHALL HAVE SUFFICIENT TRANSMITTING POWER TO REACH ALL POINTS WITHIN THE LENGTH OF THE ONE_LANE ROAD OPERATION. PAYMENT FOR THE USE OF SUCH RADIOS SHALL BE INCLUDED IN THE BASIC WORK ZONE TRAFFIC CONTROL ITEM 102.

2.9 WHEN CONES ARE USED IN CONTROLLING THE MOVEMENT OF TRAFFIC THROUGH WORK AREAS, THE CONTRACTOR SHALL TAKE STEPS AS NECESSARY TO PREVENT THE CONES FROM BEING BLOWN OVER OR DISPLACED BY PASSING VEHICLES.

2.10 NOTWITHSTANDING THE PROVISIONS OF SUBSECTION 619-3.19 AND 619-3.02J OF THE STANDARD SPECIFICATIONS AND SECTION 6F.64 OF MUTCD, USE OF CONES WILL NOT BE PERMITTED DURING NIGHTTIME OPERATIONS.

2.11 THE CONTRACTOR MUST NOTIFY THE ENGINEER, NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS, NASSAU COUNTY POLICE DEPARTMENT, TOWN OF HEPSTEAD, POLICE, FIRE DEPARTMENTS AND LIDO BEACH SCHOOL DISTRICT OF ALL DETOURS, PROPOSED STREET CLOSINGS, OR ANY WORK THAT MIGHT AFFECT THE MOBILITY OR ACCESS OF THE FIRE OR POLICE DEPARTMENT 72 HOURS IN ADVANCE OF THEIR IMPLEMENTATION. IN ADDITION, THE CONTRACTOR SHALL ENSURE THAT HYDRANTS AND ALARM BOXES ARE KEPT CLEAR AND AVAILABLE.

2.12 ALONG THE DETOUR ROUTE, THE CONTRACTOR'S RESPONSIBILITY IS LIMITED TO THE PLACEMENT, MAINTENANCE AND REMOVAL OF DETOUR SIGNS AND DEVICES AND A DAILY PATROL TO MAKE SURE THEY ARE IN GOOD CONDITION. WHEN THE DETOUR IS NOT IN EFFECT, THE CONTRACTOR SHALL IMMEDIATELY MOVE, REMOVE OR TEMPORARILY COVER ALL DETOUR SIGNS, TO REFLECT ACTUAL CONDITIONS.

2.13 ALONG THE DETOUR ROUTE, THE CONTRACTOR IS RESPONSIBLE FOR IMPROVING AND REPAIRING, AND MAINTAINING THE PAVEMENT AND FOR THE INSTALLATION, MAINTENANCE, AND REMOVAL OF TRAFFIC CONTROL DEVICES AS SHOWN ON THE PLANS OR AOBE. THE CONTRACTOR SHALL ALSO MAKE PERIODIC PATROLS TO MAKE SURE THE DETOUR IS OPERATING SAFELY AND EFFICIENTLY. WHEN THE DETOUR IS NOT IN EFFECT, THE CONTRACTOR SHALL IMMEDIATELY MOVE, REMOVE OR TEMPORARILY COVER ALL DETOUR SIGNS, TO REFLECT ACTUAL CONDITIONS.

2.14 VARIOUS MAINTENANCE AND CONSTRUCTION SIGNS SPECIFIED IN PART 6 OF THE MUTCD ARE AVAILABLE IN THE STANDARD DIAMOND SHAPE AND AN ALTERNATE RECTANGULAR SHAPE. WHENEVER SUCH SIGNS ARE INCLUDED IN THIS CONTRACT, THE DIAMOND SHAPE SIGN SHALL BE USED, DESPITE OTHER INDICATIONS IN CHAPTER 6F.

2.15 NOT USED.

2.16 THE CONTRACTOR'S ATTENTION IS DIRECTED TO CHAPTER 6F, SECTION 6F.02 OF THE MUTCD, WHICH REQUIRES THAT WITH THE EXCEPTION OF THE RAILROAD ADVANCED WARNING SIGN, WARNING SIGNS USED IN CONJUNCTION WITH WORK ZONE ACTIVITIES SHOULD HAVE ORANGE BACKGROUNDS.

2.17 IN ADDITION TO THE SIGNING SHOWN ON THE PLANS, THE CONTRACTOR SHALL ERECT W20-1 "ROAD WORK AHEAD" SIGNS AT INTERSECTING CROSS STREETS OR ENTERING RAMPS WITHIN THE CONTRACT LIMITS. PAYMENT FOR THESE SIGNS WILL BE MADE UNDER THE ITEM 102.

2.18 NOT USED.

2.19 USE OF SIGN OVERLAYS WILL NOT BE PERMITTED DURING NIGHTTIME OPERATIONS.

2.20 THE CONTRACTOR IS ADVISED THAT EXISTING TRAFFIC SIGNS AND CONSTRUCTION SIGNS WITHIN THE WORK AREA, WHICH ARE NO LONGER NEEDED, EVEN TEMPORARILY, OR ARE CONFLICTING, INAPPROPRIATE OR CONFUSING, SHALL BE REMOVED (SUBJECT TO THE APPROVAL OF THE ENGINEER) OR SHALL BE COVERED COMPLETELY WITH AN OPAQUE MATERIAL. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE WORK ZONE TRAFFIC CONTROL ITEM.

2.21 IN ADDITION TO THE SIGNING REQUIRED IN THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE CONTRACTOR SHALL USE A FLASHING ARROW PANEL, PAID UNDER ITEM 102, POSITIONED AT THE BEGINNING OF TAPER FOR ALL TRAVEL LANE CLOSINGS. ONE FLASHING ARROW PANEL/BOARD WILL BE REQUIRED IN CONJUNCTION WITH THE LANE CLOSURE SHOWN IN THE MUTCD, FIGURE 6H-33 OR OTHER ARRANGEMENTS, WHICHEVER IS APPLICABLE. THE FLASHING ARROW PANEL WILL NOT BE REQUIRED IN CONNECTION WITH SHOULDER CLOSINGS OR SIDE STREET LANE CLOSURES UNLESS THE ENGINEER ORDERS ITS USE.

2.22 ARROW PANELS SHALL DISPLAY A FLASHING ARROW FOR LANE CLOSURES. OTHER OPERATIONAL MODES SUCH AS SEQUENTIAL CHEVRONS, SEQUENTIAL ARROWS OR STEM ARROWS, ARE EXPLICITLY PROHIBITED FOR THESE APPLICATIONS, AND SHALL NOT BE USED ON DEPARTMENT PROJECTS.

ARROW PANELS SHALL NOT BE USED FOR LANE SHIFTS. A LANE SHIFT IS DEFINED AS A LATERAL SHIFT IN THE TRAVEL PATH WITHOUT A REDUCTION IN NUMBER OF LANES.

2.23 UNDER THE PROVISIONS OF ITEM 102, THE LAMPS OF FLASHING ARROW PANELS TO BE EQUIPPED WITH AN AUTOMATIC SOLAR CELL CONTROLLED DIMMING SWITCH AND THAT THE DIMMING VOLTAGE BE MANUALLY CONTROLLABLE. AT NIGHT, FLASHING ARROW PANELS MUST NOT BE PERMITTED TO OPERATE AT SUCH BRIGHTNESS THAT SIGNS, DRUMS, IMPACT ATTENUATION DEVICES OR OTHER TRAFFIC CONTROL DEVICES NEAR THE FLASHING ARROW PANEL CANNOT EASILY BE SEEN BY APPROACHING MOTORISTS. TO ENSURE THAT FLASHING ARROW PANELS ARE NOT TOO BRIGHT FOR NIGHTTIME OPERATION, THE CONTRACTOR SHALL MAKE AN ON SITE INSPECTION OF EACH ARROW PANEL/BOARD AT THE BEGINNING OF ITS FIRST NIGHT OF OPERATION. IN THE EVENT THIS INSPECTION REVEALS THE ARROW PANEL IS TOO BRIGHT, THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO REDUCE LAMP INTENSITIES. IN ADDITION, THE CONTRACTOR SHALL PROMPTLY REDUCE THE LAMP INTENSITY OF ANY ARROW PANEL UPON BEING INFORMED BY THE ENGINEER THAT IT IS TOO BRIGHT. IN THIS CONTEXT, PROMPTLY SHALL MEAN NO LATER THAN THE BEGINNING OF THE NEXT NIGHT OF THE ARROW PANEL'S OPERATION.

THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 102. FAILURE TO COMPLY WITH THIS NOTE SHALL BE CONSIDERED AS UNSATISFACTORY MAINTENANCE AND PROTECTION OF TRAFFIC WITH PAYMENT DEDUCTIONS MADE IN ACCORDANCE WITH THE APPROPRIATE SUBSECTION OF ITEM 102.

2.24 IN ADDITION TO THE DEVICES SHOWN IN THE MUTCD AND THE PLANS, BARRIER VEHICLES (AS PROVIDED FOR UNDER SUBSECTION 619_1.02G) AND MOBILE CONSTRUCTION ZONE IMPACT ATTENUATORS (AS SPECIFIED UNDER SECTION 729-12 OF THE SPECIFICATIONS) SHALL BE PROVIDED WHERE WORK IS LOCATED IN A CLOSED SHOULDER OR TRAVEL LANE ADJACENT TO TRAFFIC AT ISOLATED OR FIXED LOCATIONS WITHIN THE WORK ZONE. THE BARRIER VEHICLE SHALL ONLY BE USED WHEN WORKERS AND/OR EQUIPMENT ARE ACTUALLY OCCUPYING THE SITE OF WORK. THE BARRIER VEHICLE SHALL BE POSITIONED TO PROTECT THE WORKERS IN THE EVENT OF A WORK ZONE INTRUSION. BARRIER VEHICLES MAY NOT BE REQUIRED WHERE THE WORK OPERATION TAKES PLACE OVER AN EXTENDED AREA SUCH AS FOR PAVING, JOINT SEALING, OR PAVEMENT REPAIR OPERATIONS (EXCEPT WHEN SUCH WORK TAKES PLACE WITHIN 1200 FT OF THE BEGINNING OF A LANE CLOSURE) OR WHERE WORKERS ARE PROTECTED BY THE USE OF CONCRETE BARRIER OR ON SIDE STREET LANE CLOSURES. THE COST OF THIS WORK IS TO BE INCLUDED UNDER THE ITEM FOR WORK ZONE TRAFFIC CONTROL.

2.25 THE CONTRACTOR SHALL SCHEDULE HIS/HER OPERATIONS TO MINIMIZE THE INTERRUPTION OF PEDESTRIAN TRAFFIC. THE SIDEWALK ON ONE SIDE OF THE ROADWAY SHALL REMAIN OPEN AND PASSABLE AT ALL TIMES. DURING THE RECONSTRUCTION OF SIDEWALKS, PEDESTRIAN SAFETY AND PROPERTY ACCESS MUST BE MAINTAINED AT ALL TIMES TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL PLACE ALL UNDERGROUND APPURTENANCES UNDER THE SIDEWALK FIRST.

AT LOCATIONS WHERE EXISTING SIDEWALK IS CLOSED, THE CONTRACTOR SHALL PLACE A TYPE III BARRICADE WITH MUTCD R9-9 "SIDEWALK CLOSED" SIGN. WHEN SIDEWALK IS CLOSED IN THE MIDDLE OF A STREET, THE CONTRACTOR SHALL PLACE MUTCD R9-11 "SIDEWALK CLOSED AHEAD", (ARROW) "CROSS HERE" SIGN AT THE CLOSEST SAFE CROSSING.

2.26 ADA COMPLIANT ACCESSIBILITY FOR PEDESTRIANS SHALL BE MAINTAINED AT ALL TIMES, AS PER STANDARD SHEETS 619-50 AND 619-51.

2.27 WHERE NECESSARY, OR AS REQUIRED BY THE ENGINEER, THE CONTRACTOR SHALL UTILIZE FLAGGERS AT DRIVEWAYS TO CONTROL TRAFFIC ENTERING THE TRAVEL WAY.

2.28 THE CONTRACTOR SHALL FURNISH 2-WAY RADIOS AND TRAINED WZTC FLAGGERS IN ACCORDANCE WITH THE FOLLOWING: A TRAINED WZTC FLAGGER EQUIPPED WITH A 2-WAY RADIO SHALL ATTEND EACH POINT OF ACCESS FOR THE ENTIRE TIME THE CLOSURE IS IN PLACE. THE ENGINEER-IN-CHARGE, AND EACH OF THE CONTRACTOR'S AND SUBCONTRACTOR'S WORK CREWS' RADIOS SHALL HAVE SUFFICIENT RANGE TO REACH ALL POINTS IN THE CLOSED SECTION OF THE ROADWAY, AND THEY SHALL BE USED TO WARN THE WORK CREWS, IF ANY UNAUTHORIZED VEHICLE ENTERS THE CLOSED SECTION OF THE ROADWAY. NO WORK MAY PROCEED UNTIL THE VEHICLE ARRESTING BARRIER AND TRAINED WZTC FLAGGERS ARE IN PLACE. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 102.

3.0 PROVISIONS FOR SNOW AND ICE REMOVAL OPERATION

A. INTERFERENCE WITH SNOW PLOWING OPERATIONS BY DRUMS, BARRICADES AND OTHER TRAFFIC CONTROL EQUIPMENT SHALL BE KEPT TO A MINIMUM. ANY DEVICES DISTURBED OR DAMAGED BY SNOW AND ICE CONTROL OPERATIONS SHALL BE REPLACED AND/OR RESET AS NECESSARY AND AS SOON AS POSSIBLE BY THE CONTRACTOR.

B. DRAINAGE FRAMES, GRATES AND COVERS AND OTHER CASTINGS SHALL NOT BE ADJUSTED IN A TRAVEL LANE UNLESS THE FINAL PAVEMENT COURSE IS TO BE PLACED PRIOR TO THE ONSET OF SNOW AND ICE WEATHER. STEEL PLATES, ETC. SHALL NOT PROTRUDE ABOVE THE ADJACENT PAVEMENT. IF ANY OF THESE PROTRUSIONS EXIST IN A NON_TRAVEL LANE PRIOR TO A SNOW AND ICE CONDITION, THEN TEMPORARY ASPHALT RAMPS MUST BE PLACED SO THAT FOR EVERY 1 INCH OF RISE, THERE IS A 6 FT RUN OF RAMP.

C. ALL PAVEMENT CUTS SHALL BE RESTORED TO THE ADJACENT PAVEMENT GRADE TO ELIMINATE RECESSED AREAS WHERE SNOW CANNOT BE PLOWED OR WHERE THE PLOWS MAY SNAG.

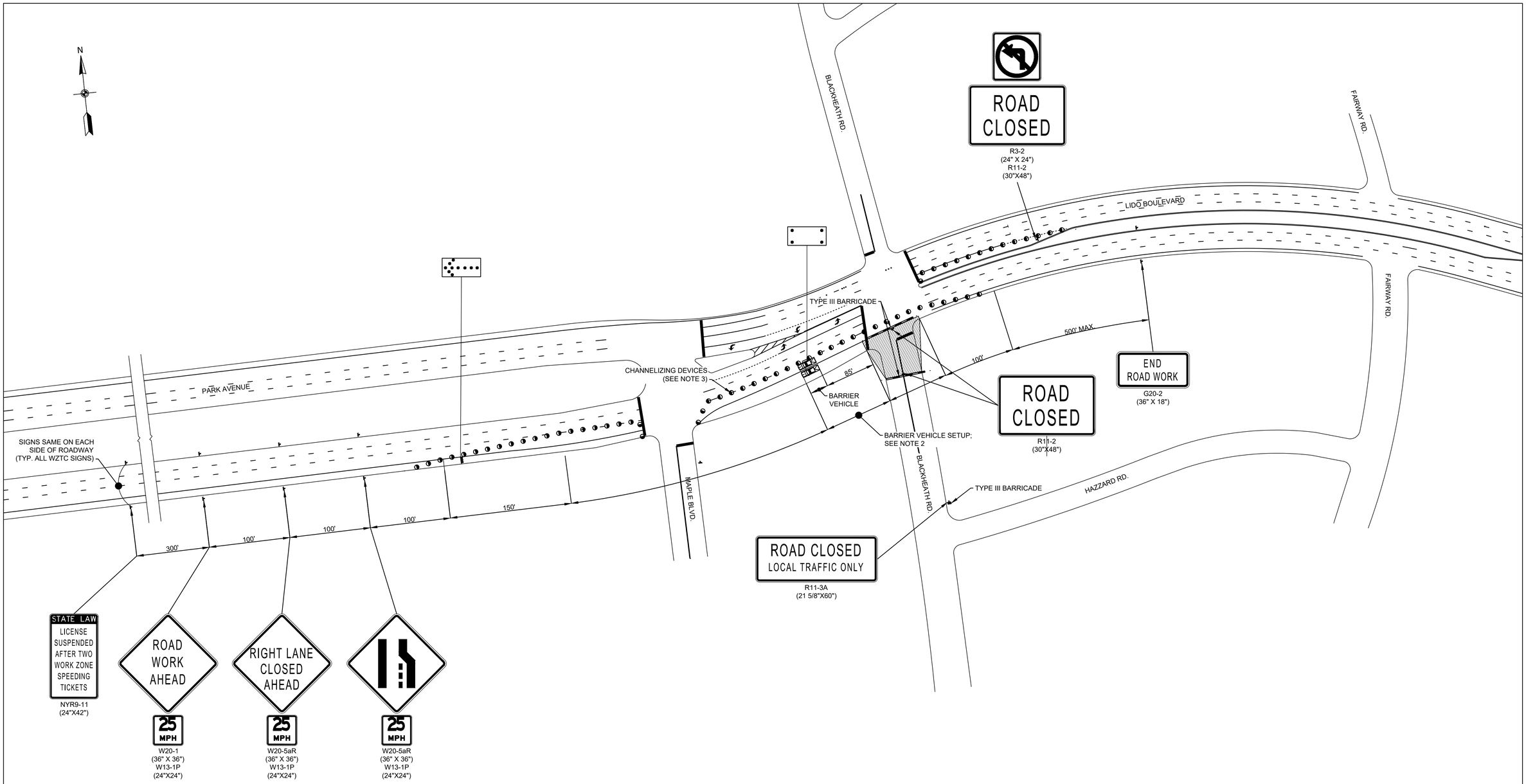
NON-COMPLIANCE WITH THIS NOTE SHALL RESULT IN NON-PAYMENT FOR ITEM 102 FOR THE FIRST DAY AND ASSESSMENT OF LIQUIDATED DAMAGES AS MAY BE APPROPRIATE IN ADDITION TO THE NON-PAYMENT OF ITEM 102 FOR SUBSEQUENT DA

WORK ZONE TRAFFIC CONTROL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	ARROW PANEL		DIRECTION OF TRAFFIC
	ARROW PANEL, CAUTION MODE		SIGN, TEMPORARY
	ARROW PANEL TRAILER OR SUPPORT		TYPE III BARRICADE
	CHANGEABLE MESSAGE SIGN (PVMS)		WORK SPACE
	CHANNELIZING DEVICE		WORK VEHICLE WITH TRUCK MOUNTED ATTENUATOR

SUGGESTED CONSTRUCTION SEQUENCING ALONG LIDO BLVD

SEQUENCE	WZTC DRAWINGS	APPLICABLE CONSTRUCTION PLAN
1	WZTC-1-1	CP-06
2	WZTC-2-1	CP-07
3	WZTC-3-1	CP-08
4	WZTC-4-1	CP-09
5	WZTC-5-1 TO WZTC-5-2	CP-10,11 & 14
6	WZTC-6-1 TO WZTC-6-2	CP-12, 13 & 15



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 1 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX
NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BARRIER VEHICLE SET UP AT ANY TIME
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

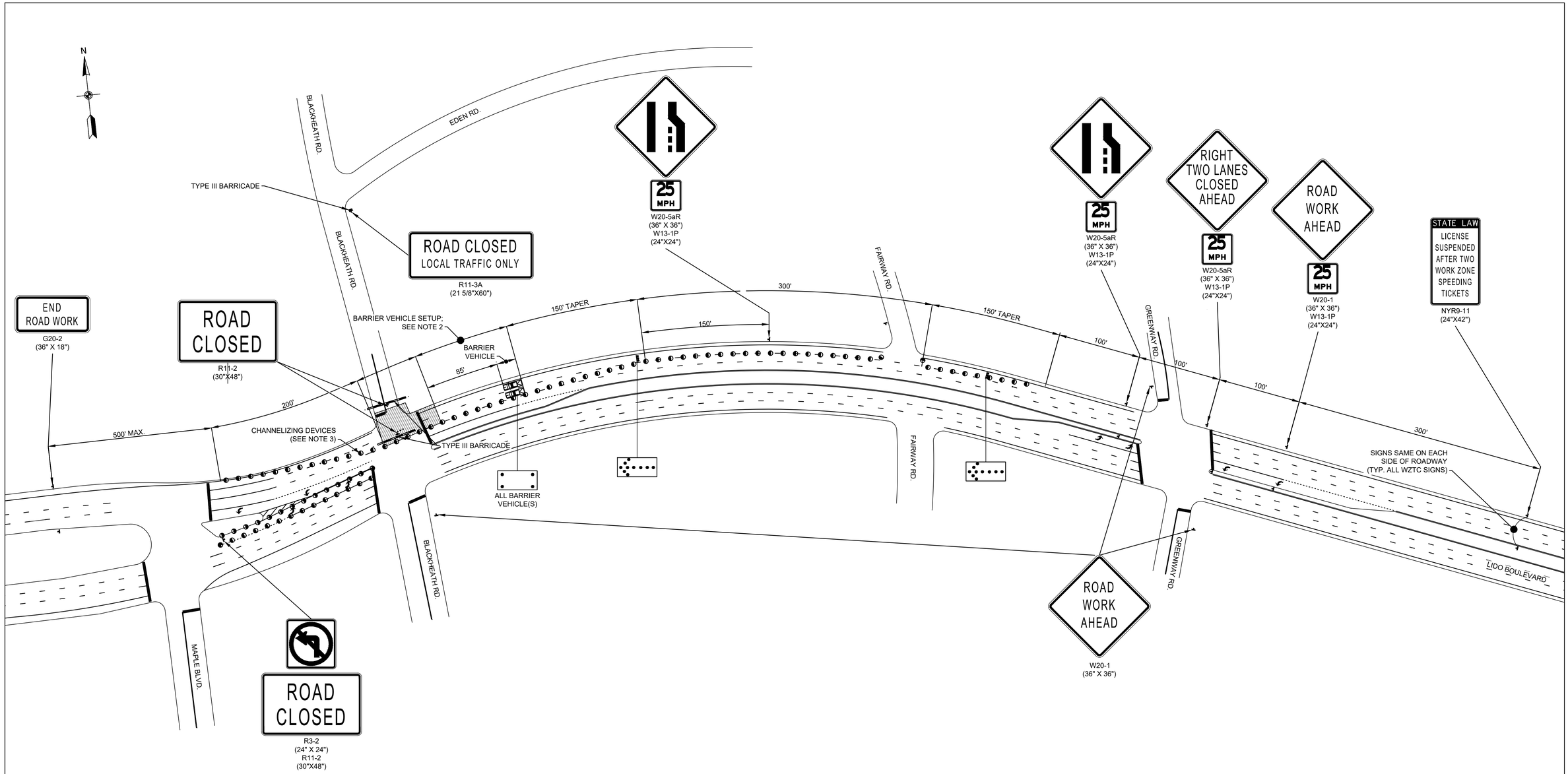
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]
DRAWING TITLE: WZTC - SEQUENCE 1 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-1-1	
SCALE: N.T.S.	SHEET NO: 32 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-1-1.DWG
Plot Date: 10/8/2019 9:39 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 2 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX
NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BARRIER VEHICLE SET UP AT ANY TIME
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

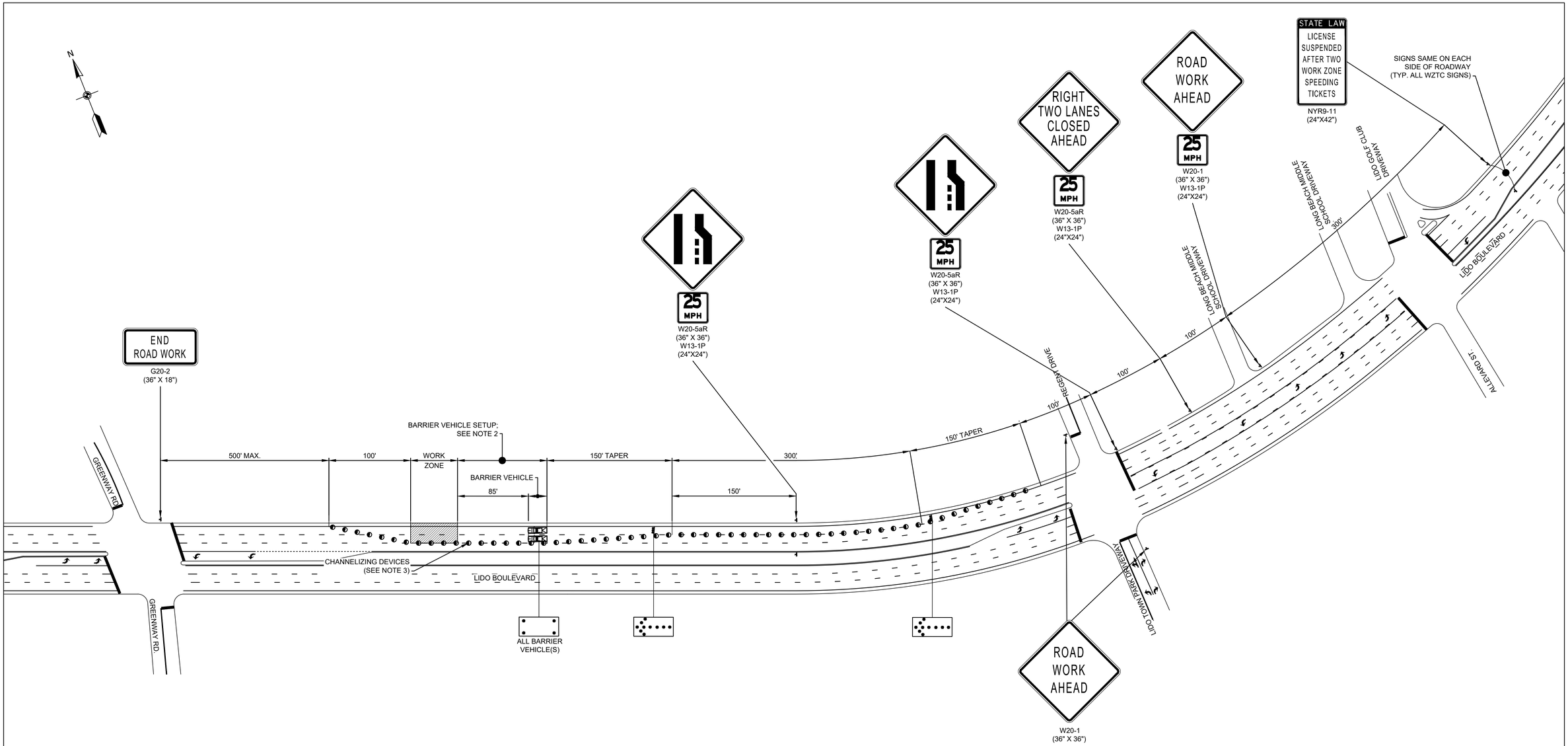
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: WZTC - SEQUENCE 2 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-2-1	
SCALE: N.T.S.	SHEET NO: 33 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-2-1.DWG
Plot Date: 10/8/2019 9:39 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 3 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX
NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BARRIER VEHICLE SET UP AT ANY TIME
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

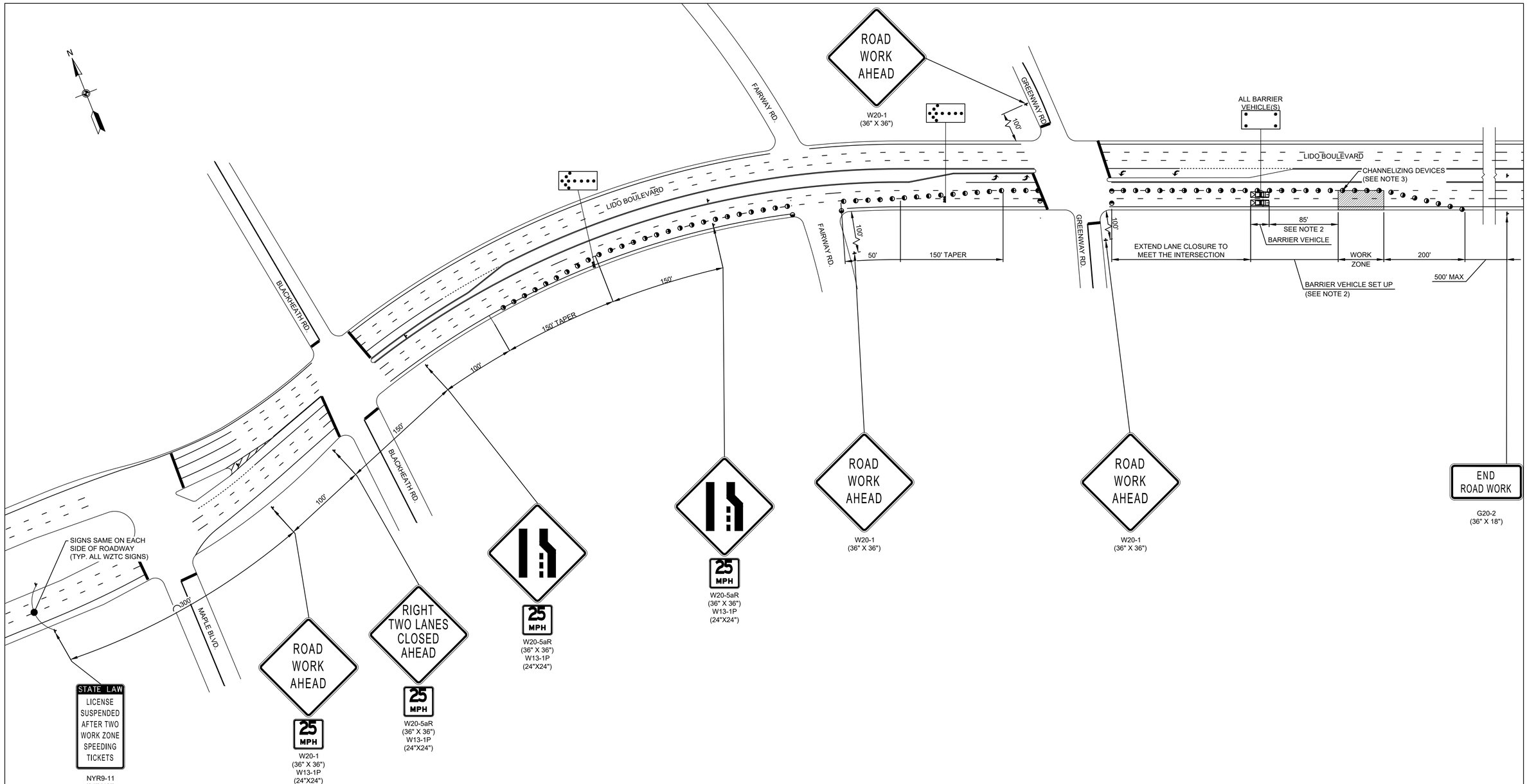
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: WZTC - SEQUENCE 3 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-3-1	
SCALE: N.T.S.	SHEET NO: 34 OF 39	

File Name: O:\2018\BAB-20180042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-3-1.DWG
Plot Date: 10/8/2019 9:40 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 4 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX
NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BARRIER VEHICLE SET UP AT ANY TIME
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

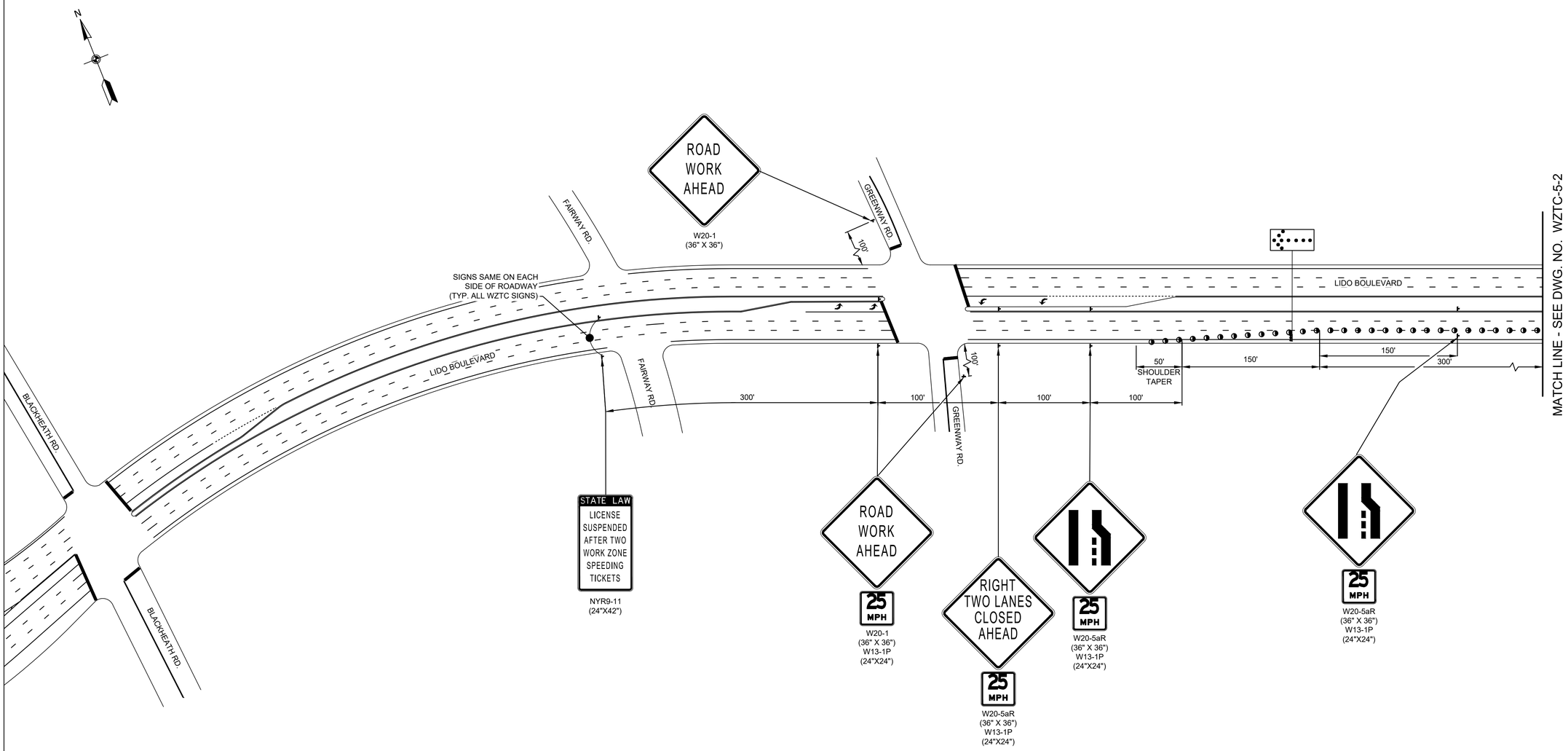
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: WZTC - SEQUENCE 4 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-4-1	
SCALE: N.T.S.	SHEET NO: 35 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-4-1.DWG
Plot Date: 10/8/2019 9:40 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 5 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX
NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BARRIER VEHICLE SET UP AT ANY TIME
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

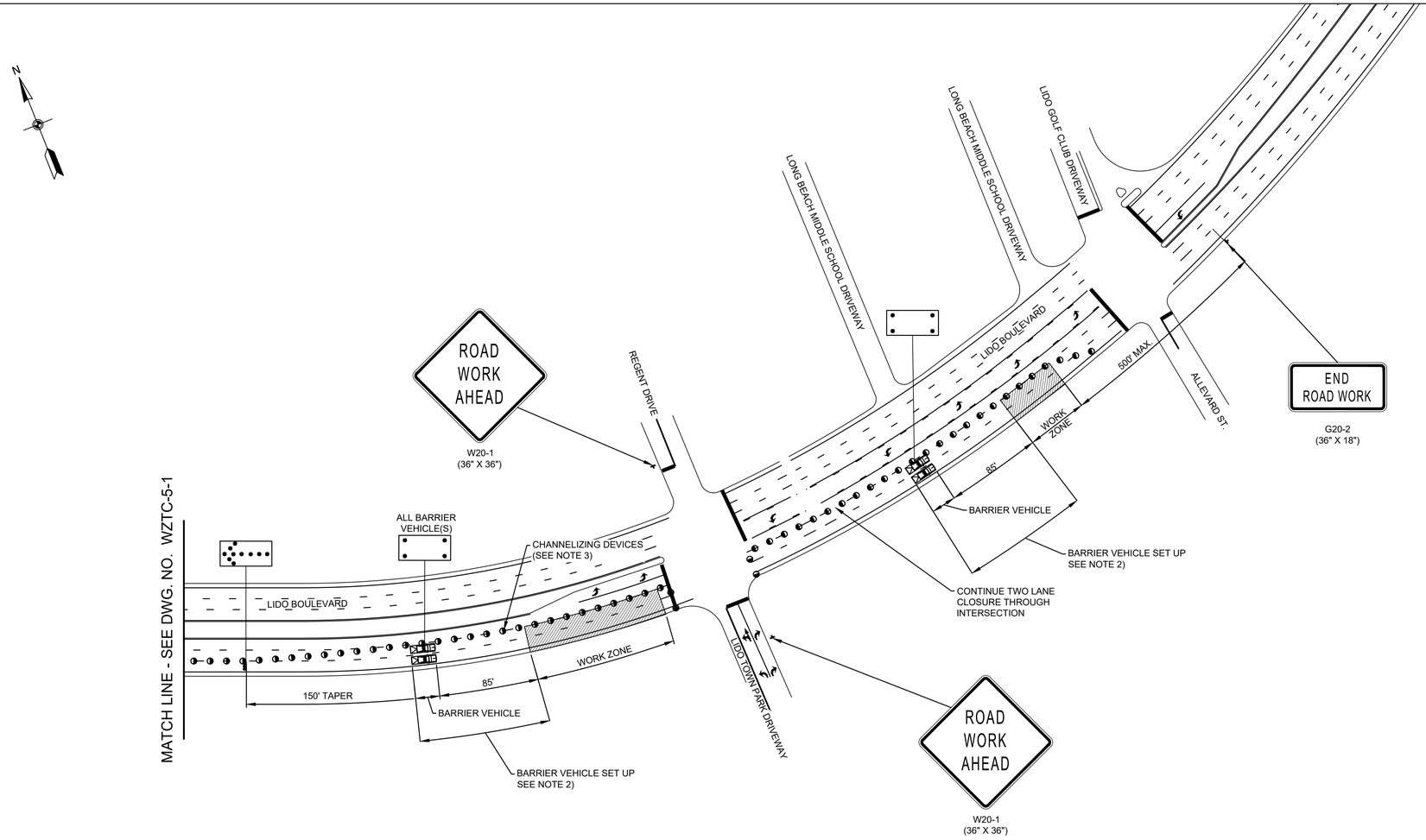
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]
DRAWING TITLE: WZTC - SEQUENCE 5 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-5-1	
SCALE: N.T.S.	SHEET NO: 36 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-5-1.DWG
Plot Date: 10/8/2019 9:40 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 5 - PLAN 2
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX
NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BARRIER VEHICLE SET UP AT ANY TIME
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

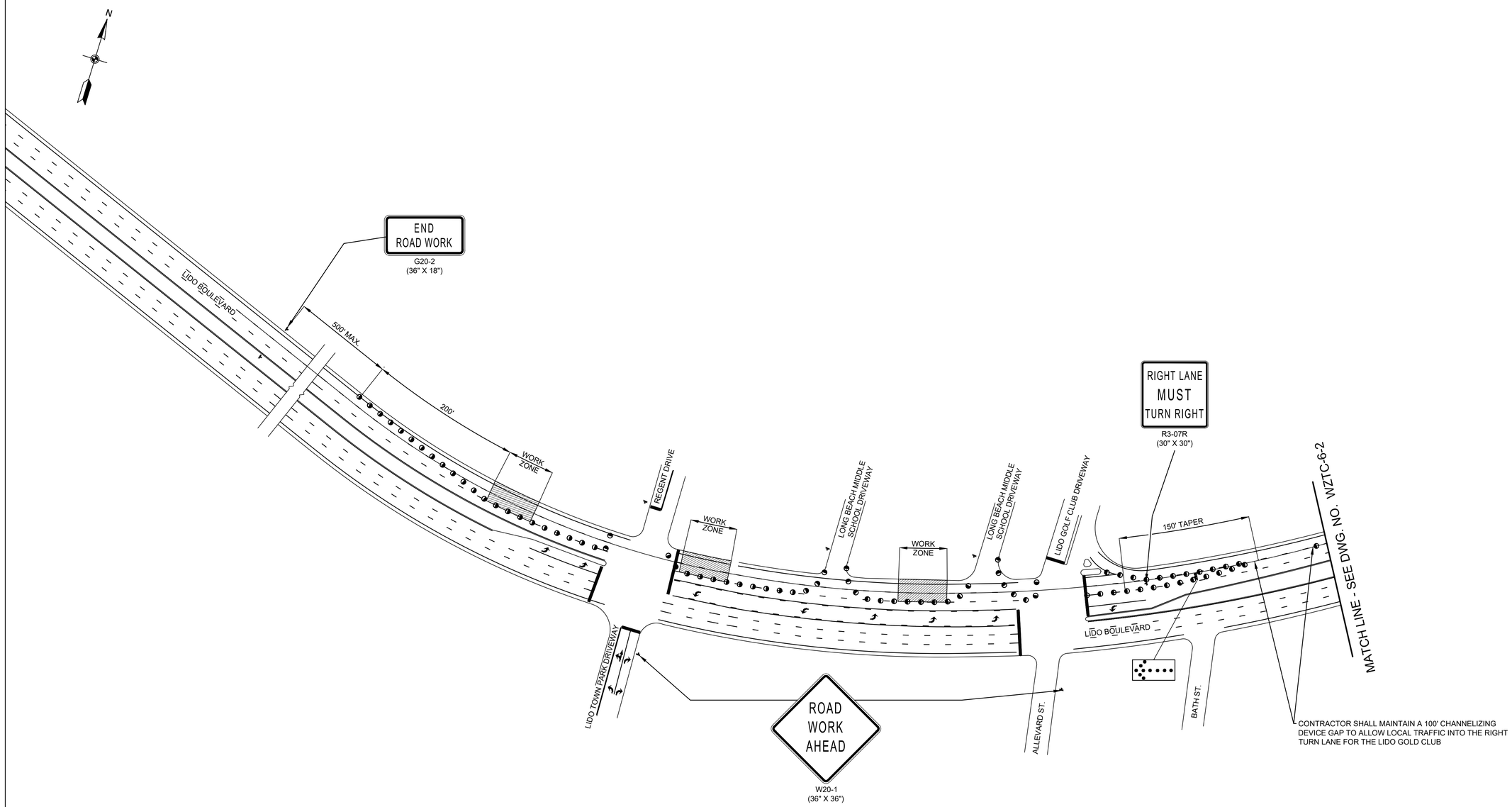
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]
DRAWING TITLE: WZTC - SEQUENCE 1 - PLAN 6

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-5-2	
SCALE: N.T.S.	SHEET NO: 37 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-5-2.DWG
Plot Date: 10/8/2019 9:40 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 6 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX

NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION.
2. NO PROPOSED BARRIER VEHICLE SET UP FOR THIS RECOMMENDED WZTC SEQUENCE.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

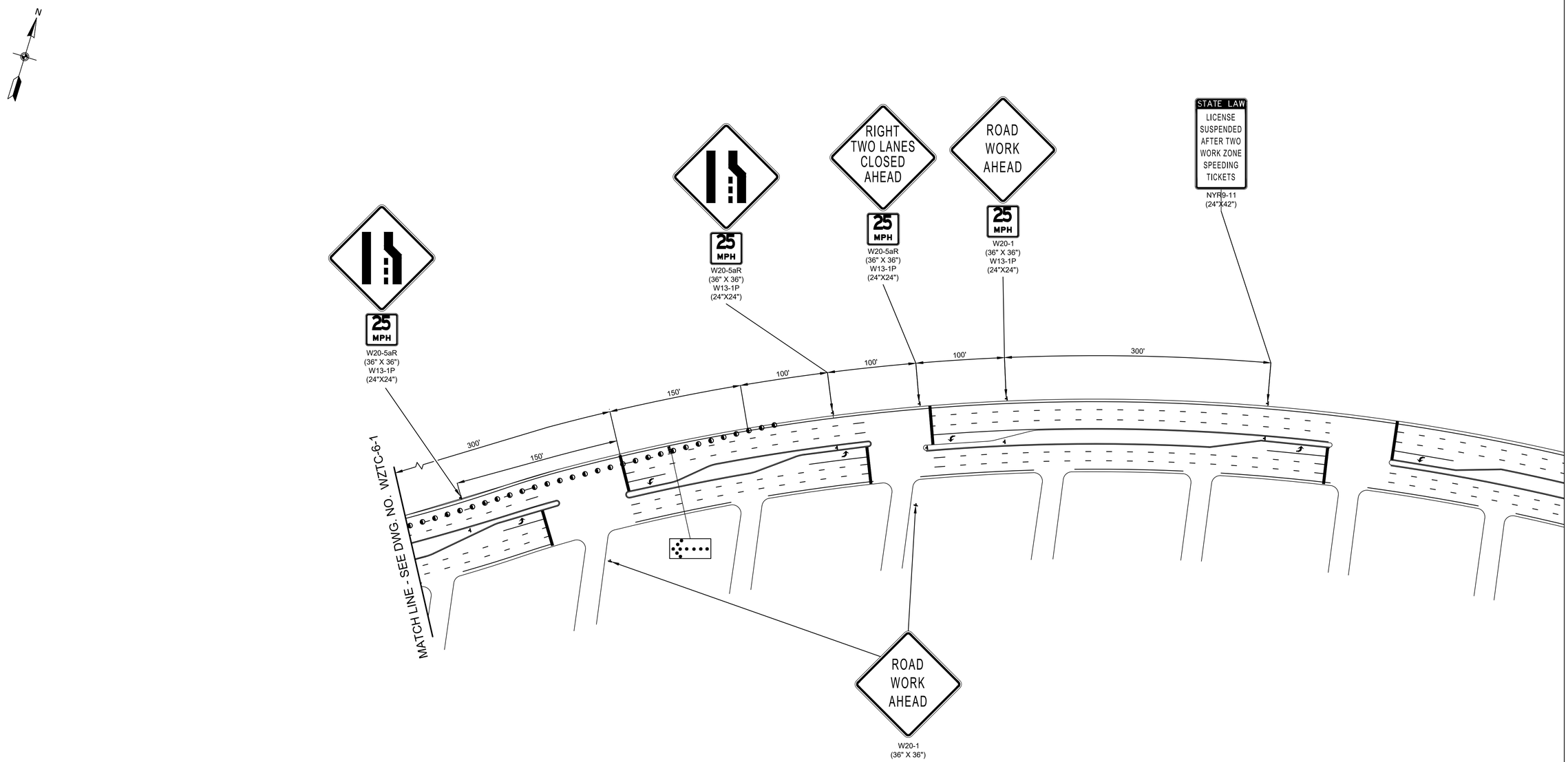
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: WZTC - SEQUENCE 1 - PLAN 7

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-6-1	
SCALE: N.T.S.	SHEET NO: 38 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-6-1.DWG
Plot Date: 10/8/2019 9:41 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 6 - PLAN 2
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION.
2. NO PROPOSED BARRIER VEHICLE SET UP FOR THIS RECOMMENDED WZTC SEQUENCE.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: WZTC - SEQUENCE 1 - PLAN 8

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-6-2	
SCALE: N.T.S.	SHEET NO: 39 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-6-2.DWG
Plot Date: 10/8/2019 9:41 AM

Attachment 3

Project Reference Maps

Airport Hazards Map
USFWS Coastal Barrier Resources System Map
NYSDEC & NPS Wild and Scenic Rivers Map
NYSDEC Potential Environmental Justice Areas Map

FEMA National Flood Hazard Layer Map

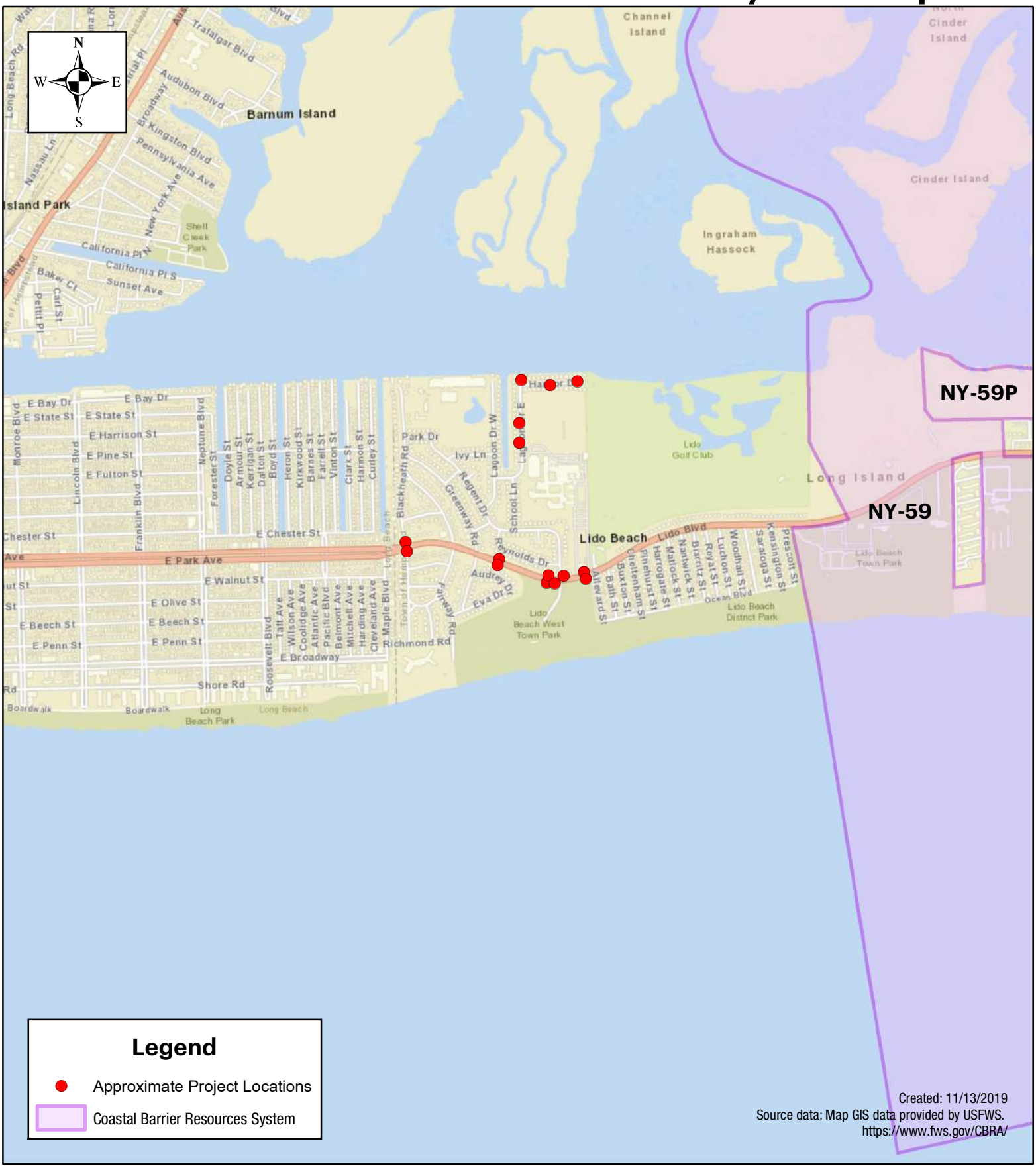
Tectonic

1:130,000

0 7,500 15,000 30,000 Feet

Lido Beach / Point Lookout Drainage Improvements Project
Hamlet of Lido Beach
Town of Hempstead
Nassau County, New York

USFWS Coastal Barrier Resources System Map



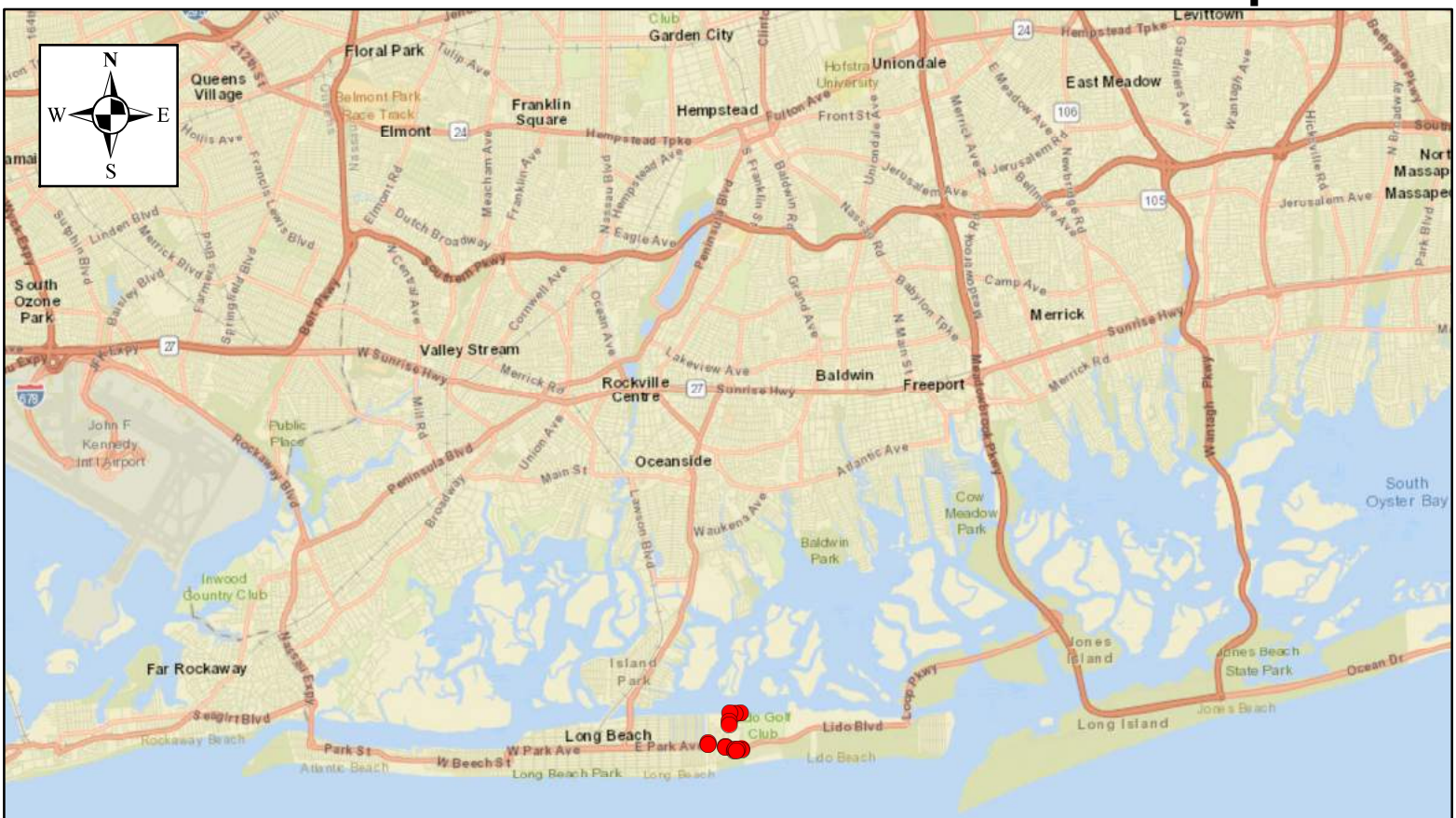
Tectonic

1:20,000

0 1,150 2,300 4,600 Feet

Lido Beach / Point Lookout Drainage Improvements Project
Hamlet of Lido Beach
Town of Hempstead
Nassau County, New York

NYSDEC & NPS Wild and Scenic Rivers Map



Legend

- Approximate Project Locations
- NRI Wild and Scenic Rivers
- National Wild and Scenic Rivers
- Nationwide Rivers Inventory

NYSDEC Wild, Scenic, and Recreational Rivers

- Recreational

Created: 11/13/2019
Data Sources: List of Wild and Scenic Rivers provided by the NYSDEC and NPS.
http://www.dec.ny.gov/permits/32739.html
https://www.nps.gov/ncrc/programs/rtca/nri/states/ny.html
https://www.nps.gov/subjects/rivers/nationwide-rivers-inventory.htm
https://www.rivers.gov/mapping-gis.php

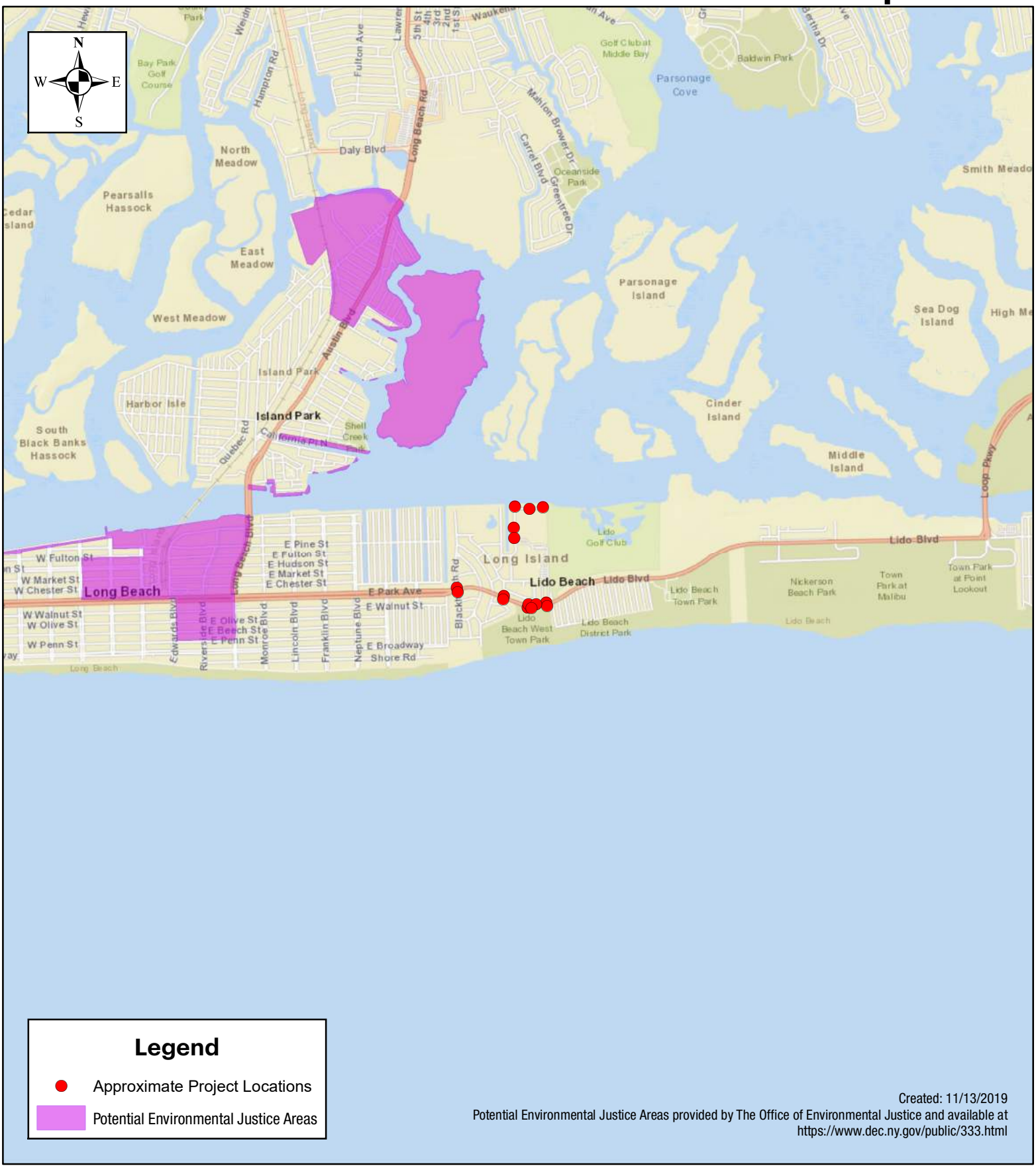
Tectonic

1:150,000

0 8,500 17,000 34,000 Feet

Lido Beach / Point Lookout Drainage Improvements Project
Hamlet of Lido Beach
Town of Hempstead
Nassau County, New York

Potential Environmental Justice Areas Map



Legend

- Approximate Project Locations
- Potential Environmental Justice Areas

Created: 11/13/2019
Potential Environmental Justice Areas provided by The Office of Environmental Justice and available at https://www.dec.ny.gov/public/333.html

Tectonic

1:40,000

0 2,350 4,700 9,400 Feet

Lido Beach / Point Lookout Drainage Improvements Project
Hamlet of Lido Beach
Town of Hempstead
Nassau County, New York

24 CFR Part 55
8-Step Determination: Floodplain Management & Wetlands Protection

<u>Lido Beach / Point Lookout Drainage Improvements Project</u>

Floodplain Management and Wetlands Protection Determination

March 26, 2020

Introduction & Overview

The purpose of Executive Order (EO) 11988 Floodplain Management is "to avoid to the extent possible the long- and short-term adverse impacts associated with occupancy and modification of floodplains and to avoid direct or indirect support of floodplain development wherever there is a practicable alternative." The purpose of EO 11990 Protection of Wetlands is "to avoid to the extent possible the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative." This report contains the analysis prescribed by 24 CFR Part 55.

The Lido Beach / Point Lookout Drainage Improvements Project (Project) involves U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant Program – Disaster Recovery (CDBG-DR) funding. The analysis that follows focuses on the direct wetland and floodplain impacts associated with this project. Based on the type of land use, facility, and other case characteristics described herein, it is concluded that there is a reasonable basis to proceed with funding for this project/ activity within floodplain and wetland. The HUD CDBG-DR funding is administered through the New York State Rising Community Reconstruction (NYRCR) Program which is using bottom-up community participation and State-provided technical expertise to develop resilient and sustainable communities. Thus, alternatives preventing or impeding the development of resilient and sustainable communities are not considered reasonable alternatives.

Description of Proposed Action & Land Use

The Lido Beach / Point Lookout Drainage Improvements Project (Project) will involve drainage improvements at approximately nineteen (19) drainage improvements at approximately fifteen (15) locations in the hamlet of Lido Beach, Town of Hempstead, Nassau County, New York. The drainage improvements will be performed on Lido Boulevard, Lagoon Drive East, Harbor Drive, and Blackheath Road. In-line check valves will be installed at three (3) locations on Harbor Drive and two (2) locations on Lagoon Drive East; three (3) catch basins will be installed at one (1) location on Blackheath Road; and fourteen (14) catch basins will be installed at nine (9) locations on Lido Boulevard. Construction activities will include the following: trench and culvert excavation; removal of existing drainage structures; installation of in-line pipe check valves, catch basins, reticuline grates with vertical face opening curb boxes, and reinforced concrete pipe for connections to the existing drainage system; restoring concrete curb, cement concrete, existing roadway pavement, concrete, and asphalt disturbed in order to perform the drainage improvements; reconstructing traffic loops; relocating buried electrical service and existing light poles; resetting existing fencing; and applying topsoil and grass seed to disturbed soil.

Lido Beach is an unincorporated hamlet located on the Long Beach Barrier Island, in the middle of the southern portion of the Town of Hempstead. Lido Beach is bounded by Reynolds Channel to the north, Point Lookout to the east, the Atlantic Ocean to the south, and the City of Long Beach to the west. Lido Boulevard, a major thoroughfare and primary evacuation route for Point Lookout, Lido Beach, and the adjacent City of Long Beach, was observed to be covered by more than a foot of water. The Community believed the flooding was exacerbated by additional water forced through the Reynolds Channel storm drain outfalls and through the stormwater system and onto neighborhood streets.

In 2012, Superstorm Sandy overwhelmed Lido Beach's stormwater drainage system. Due to its tremendous size, Sandy drove a catastrophic storm surge into the New Jersey and New York coastlines. Floodwaters inundated homes, schools, municipal buildings, and businesses and made streets impassable and areas unusable. Superstorm Sandy's tidal surge was over ten feet in areas of Lido Beach. Evacuation and

emergency response was severely hindered or impossible as a result of flooding. Recovery and resiliency of the Community was also severely impacted due to infrastructure limitations and functionality.

Applicable Regulatory Procedure Per EO 11988

The proposed action corresponds with a non-critical action not excluded under 24 CFR §55.12(b) or (c). Funding is permissible for the use in the floodplain if the proposed action is processed under §55.20 and the findings of the determination are affirmative to suggest that the Project may proceed.

According to the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (**Appendix I**), the Project is located in the 100-year floodplain. According to the U.S. Fish & Wildlife Service (USFWS) National Wetlands Inventory Map and New York Department of Environmental Conservation (NYSDEC) Wetlands and Waterways Map and Tidal Wetlands Map, (**Appendix II**), there are no documented wetlands located in the Project area. Therefore, there will be no direct construction (new or existing) in wetlands, and in accordance with the decision-making process set forth in 24 CFR Part 55, this analysis focuses exclusively on floodplains.

According to 24 CFR §55, the activity planned occurs in a community that is in the regular program of the National Flood Insurance Program (NFIP) and the community is currently in good standing. Substantial Improvement/ Substantial Damage calculations do not apply to the Project. The Project involves modification of the 100-year floodplain; therefore, the decision-making steps in §55.20 (b), (c), and (g) apply to the Project. As such, the full eight-step floodplain determination process in §55.20 is required and the following analysis examines each step in a floodplain management determination process.

***Step 1.* Determine Whether the Proposed Action is Located in the 100-year Floodplain (500-year for Critical Actions) or results in New Construction in Wetlands.**

According to the Federal Emergency Management Agency (FEMA) National Flood Hazard Layer (**Appendix I**), the Project is located in the 100-year floodplain. The activity planned occurs in a community that is in the regular program of the National Flood Insurance Program (NFIP) and the community is currently in good standing. Substantial Improvement/ Substantial Damage calculations do not apply to the Project.

According to the U.S. Fish & Wildlife Service (USFWS) National Wetlands Inventory Map and New York Department of Environmental Conservation (NYSDEC) Wetlands and Waterways Map and Tidal Wetlands Map, (**Appendix II**), there are no documented wetlands located in the Project area. Thus, there will be no direct construction (new or existing) in wetlands. Thus, in accordance with the decision-making process set forth in 24 CFR Part 55, this analysis focuses exclusively on floodplains.

The proposed Project will result in approximately 0.06 acres of temporary impacts in the 100-year floodplain. The Project will not result in the creation of additional impervious surfaces and there would be a negligible change to the existing impermeable surface. The proposed impacts are solely associated with the installation of drainage improvements on existing roadways.

***Step 2.* Initiate Public Notice for Early Review of Proposal.**

Because the proposed Project is located in the floodplain, the Governor's Office of Storm Recovery (GOSR) published an early notice that allowed for public and public agency input on the decision to provide funding for reconstruction and development activities. The early public notice and 15-day comment period is complete. No public comments were received.

An "Early Notice of a Proposed Project in a 100-Year Floodplain and Wetlands" for the Project was published on February 13, 2020 in the Long Beach Herald edition of the Long Island Herald newspaper. The 15-day comment period expired at 5 pm on February 28, 2020. The notice targeted local residents,

including those in the floodplain. The notice was also sent to the following state and federal agencies on February 13, 2020: FEMA; USFWS; U.S. Environmental Protection Agency (EPA); U.S. Department of Housing and Urban Development; NYSDEC; New York State Office of Parks, Recreation, and Historic Preservation; New York State Department of State; and New York State Office of Homeland Security & Emergency Services. The notice was also sent to Nassau County and the Town of Hempstead. (See **Appendixes III and IV** of this 8-Step Determination for the letter distributed to these agencies and the associated newspaper notice affidavit).

***Step 3.* Identify and Evaluate Practicable Alternatives to Locating the Proposed Action in a 100-year Floodplain (or 500-year Floodplain if a Critical Action) or Wetland.**

The "no action" alternative means that there would be no work undertaken to alleviate the flood problem, rehabilitate the Project area, or mitigate the future flooding. This would leave the surrounding community vulnerable to future flood damage. The "no action" alternative would provide no protection to the residential neighborhoods and greater community from future flood events, as mitigation would be compromised due to lack of financial support. Thus, the "no action" alternative is not feasible in relation to the desired objective of creating area resiliency to future flooding events.

Under the no action alternative, the area would continue to flood during rain events, creating issues on the surrounding roadways and adjoining properties. Continued flooding will lead to a deterioration of infrastructure in the surrounding area. The Project represents the optimal opportunity to improve infrastructure, which will minimize flooding of Lido Boulevard and other locations as a result of storm events.

The NYRCR Planning Committee (Committee), with input from the public, developed goals for enhancing the resiliency of Community assets that were aligned with the Community's core values. A Community Vision Statement and NYRCR recommendations were shaped in a public engagement process that identified locations in total that the Committee and Lido Beach/Point Lookout residents believed to be the most problematic, flood-prone areas in the Lido Beach/Point Lookout area. Subsequently, a Drainage Study that identified and evaluated the most problematic, flood prone areas in Lido Beach and Point Lookout was completed on February 9, 2018. The Drainage Study involved comprehensive engineering hydraulic modeling, analysis of the existing stormwater system, and the presentation of alternative proposed improvements for consideration. The Drainage Study offered six (6) proposed alternative improvements for consideration, providing probable construction costs for each. The primary alternative improvements proposed and identified in this report were selected after careful review of detailed hydraulic analysis of the existing drainage systems within the project locations. The proposed alternatives present improvements which would provide efficient and reliable stormwater system infrastructure and stormwater management.

A Technical Design Report, which focused on improvements suggested in the Drainage Study and identified by Nassau County as priority locations, was then completed on July 15, 2019. The proposed Project, which was derived from the Drainage Study and Technical Design Report, is intended to reduce flooding around this critical geographic area. The proposed improvements were developed as potential alternatives for consideration and evaluation against the Project budget and were analyzed based on a site selection process, where alternative locations were prioritized and selected to be part of the proposed Project based on the extent to which they would accomplish the goal of the proposed Project. The goal of the proposed improvements is to enhance the ability of water to enter the existing drainage infrastructure and be removed from the roadway. The alternative improvements selected by Nassau County are the proposed improvements that would increase hydraulic efficiency to the greatest extent at the locations that are most in need of drainage improvements.

The installation of check valves (tidal backflow prevention) will prohibit the rising tide from entering the upland piping system and more importantly permit the draining of the upland piping system into

downstream surface waters during low tide events. The draining of the upland piping systems will increase upland storage capacity between storm events. This in turn will help to attenuate or lessen the impacts of certain storm events by providing a time delay for the piping system to fill up with surface collected storm water prior to discharge, thereby minimizing or eliminating potential flooding and increasing the resiliency of the drainage system.

The use of backflow prevention devices will effectively provide additional stormwater storage within the existing drainage pipe network and mitigate the negative effects of rising tides, without creating additional storage. The use of tidal check valves offers the greatest positive effects to flooding mitigation, aside from raising the topography of the land above flood elevation, which generally results in the greatest impacts to private property.

To reduce stormwater ponding occurrences along Lido Boulevard, selected aged and inefficient single-curb inlet opening drainage structures will be removed and more hydraulically efficient drainage structure inlets will be installed. Existing single curb inlet drainage structures will be replaced with two (2) standard reticuline grates and curb boxes. This will increase the surface inlet capacity and the ability of stormwater runoff to be collected and enter the drainage system. This action will decrease the gutter spread width of slow-moving stormwater runoff travelling against the curb line of the relatively flat Lido Boulevard roadway profile gradients by intercepting and collecting the water with a larger inlet area and minimizing water ponding into the adjacent travel lanes. Given the critical function of Lido Boulevard as a coastal evacuation route, the redundancy provided by the combination inlets (noted above) and their improved maintenance access are advantageous drainage system characteristics consistent with Lido Boulevard's critical function. Implementation of this drainage improvement project would provide improved stormwater drainage for the residents living in the area and significantly reduce the risk of future flooding.

Due to the nature of the proposed action, prohibition of this work within floodplain is not practicable. The identified alternatives will be re-evaluated in response to public comments received.

***Step 4.* Identify & Evaluate Potential Direct & Indirect Impacts Associated with Occupancy or Modification of 100-year Floodplain and Potential Direct & Indirect Support of Floodplain and Wetland Development that Could Result from Proposed Action.**

The focus of floodplain evaluation should be on adverse impacts to lives and property, and on natural and beneficial floodplain values. Natural and beneficial values include consideration of potential for adverse impacts on water resources such as natural moderation of floods, water quality maintenance, and groundwater recharge.

According to the FEMA Report - A Unified National Program for Floodplain Management, two definitions commonly used in evaluating actions in floodplain are "structural" and "non-structural" activities. Per the report, structural activity is usually intended to mean adjustments that modify the behavior of floodwaters through the use of measures such as public works dams, levees and channel work. Non-structural is usually intended to include all other adjustments (e.g., regulations, insurance, etc.) in the way society acts when occupying or modifying a floodplain. These definitions are used in describing impacts that may arise in association with potential advancement of the Project.

Natural moderation of floods

The Project will not result in the creation of additional impervious surfaces and there would be a negligible change to the existing impermeable surface. The proposed impacts are solely associated with the installation of drainage improvements on existing roadways. The proposed Project has been designed to minimize flooding in the Project area and in the surrounding community. Implementation of this drainage

improvement project would provide improved stormwater drainage for the residents living in the area and significantly reduce the risk of future flooding.

Living resources such as flora and fauna
The proposed Project is located in a developed residential/commercial area and will involve disturbance to an existing road and adjacent driveways and lawns. The Project will not result in adverse impacts to living resources such as flora and fauna.

Impacts to Property & Lives
Occupancy of this floodplain in this developed area has taken place since World War II. Considering the context of the area, this action represents an activity in an area that is located within contiguous floodplain. Thus, funding the Project activity does constitute indirect continued support of floodplain occupancy and development.

The Project will involve drainage improvements to reduce flood risk to Lido Boulevard and surrounding neighborhoods during major storm events and regular non-catastrophic rain or tidal events. A reduced flood risk in these areas also translates to a reduced public safety risk following future disasters. By reducing flooding on roads, emergency responders and community members will maintain better access to these areas during tidal or extreme flooding events.

Cultural resources such as archaeological, historic & recreational aspects
There are no recorded historic properties listed on or deemed eligible for the State and National Register of Historic Places in the Project area. The New York State Historic Preservation Office confirmed on February 27, 2020 that the Project would have "No Adverse Effect" on historic resources. Without support, adjacent neighborhood resources could degrade and there could be loss of development character and identity for the area.

Given the critical function of Lido Boulevard as a coastal evacuation route, the redundancy provided by the combination inlets (noted above) and their improved maintenance access are advantageous drainage system characteristics consistent with Lido Boulevard's critical function. Implementation of the proposed drainage improvements would provide improved stormwater drainage for the residents living in the area and significantly reduce the risk of future flooding.

Agricultural, aquacultural, & forestry resources
The Nassau County area has several agricultural sites located in the flood zone, as well as undeveloped woodlands. There is substantial agriculture and fishing industry in Nassau and Suffolk Counties on Long Island, including aquaculture in the form of oyster farming. While there appears to be a higher concentration of aquaculture on Eastern Long Island, per the 2012 State Comptrollers Report Agriculture in Long Island and Agricultural Production by Commodity Group in Long Island (2007), aquaculture represents 2.9% of the economy at a $7.5 million sales revenue. It is possible that if there is a materials release from this property, it could potentially affect natural resources including agricultural and forestry. However, while it is conceivable that flooding of the Project area could be part of a cumulative influence on such resources, the impact attributable to this use could not have been quantitatively derived, and the potential impact, with planning for and practice of non-structural management practices, is considered minor.

***Step 5.* Where Practicable, Design or Modify the Proposed Action to Minimize the Potential Adverse Impacts To and From the 100-Year Floodplain and to Restore and Preserve its Natural and Beneficial Functions and Values.**

The purpose of the proposed Project is to restore and preserve the natural and beneficial functions and values of the floodplain. During the inventory phase of the Project and prior to the development of

alternatives, public meetings were held to identify known flooding locations and to address concerns of residents. Improved flood management and resilience will improve the protection of community assets, including public infrastructure, open spaces, houses, and businesses. By reducing the risk of flooding to these assets, future costs of reconstruction and recovery can be reduced. The proposed resilient design standards will enable Nassau County and community homeowners and businesses to reduce maintenance and flood repair costs.

***Step 6.* Reevaluate the Alternatives and Proposed Action.**
The "no action" alternative for not funding the Project would not address the purpose and need of the proposed action. Without the proposed action, the impacted community would be left more susceptible to future flooding events in this area than it would after the implementation of the proposed action. Therefore, the "no action" alternative examined is not considered desirable and the proposed action is still practicable in light of exposure to flood hazards in floodplain, possible adverse impacts on floodplain, the extent to which it may aggravate current hazards to other floodplains, and the potential to disrupt natural and beneficial functions and values of floodplains. Additionally, implementation of the proposed action will abide by all applicable state and local codes for floodplain development. As such, the impact of the proposed action on a floodplain would be less the "no action" alternative.

A Drainage Study and Technical Design Report were performed to identify feasible project design components that could be implemented within the available Project budget. It was determined that the Project components currently proposed are the most feasible design components that would significantly improve drainage capacity in the vicinity of Lido Boulevard.

***Step 7.* Issue Findings and Public Explanation.**
A final notice, formally known as "Final Notice and Public Review of a Proposed Activity in a 100-Year Floodplain and Wetland", was published in accordance with 24 CFR 55. This public notice was published in the Long Beach Herald edition of the Long Island Herald newspaper on March 26, 2020, and will publish for 15 days. The comment period started with the Final Notice publishing newspaper on March 26, 2020 and the 15-day comment period expires at 5pm on April 10, 2020. The combined notice describes the reasons why the Project must be located in the floodplain, alternatives considered, and all mitigation measures to be taken to minimize adverse impacts and preserve natural and beneficial floodplain values.

***Step 8.* The Proposed Action Can Be Implemented After the Above Steps Have Been Completed.**
GOSR, operating under the auspices of the New York State Homes and Community Renewal's (NYSHCR) Housing Trust Fund Corporation as the responsible entity, will ensure that the Proposed Action, as described above, is executed and necessary language will be included in all agreements with participating parties. Implementation of the proposed action may require additional local and state permits, which could place additional design modifications or mitigation requirements on the Project. It is acknowledged there is a continuing responsibility by the responsible entity to ensure, to the extent feasible and necessary, compliance with the steps herein.

Appendix I

FEMA National Flood Hazard Map

FEMA National Flood Hazard Layer Map

Legend

- Approximate Project Locations
- Base Flood Elevations

Flood Hazard Zones

- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Special Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Future Conditions 1% Annual Chance Flood Hazard
- Area with Reduced Risk Due to Levee

Created: 11/13/2019
Data Sources: NFHL boundaries provided by FEMA.
https://www.fema.gov/national-flood-hazard-layer-nfhl

Tectonic

1:16,000

0 900 1,800 3,600 Feet

Lido Beach / Point Lookout Drainage Improvements Project
Hamlet of Lido Beach
Town of Hempstead
Nassau County, New York

Appendix II

USFWS NWI Map
NYSDEC Freshwater Wetlands and Waterways Map
NYSDEC Tidal Wetlands Map

USFWS National Wetlands Inventory Map

Tectonic

1:12,000

0 700 1,400 2,800 Feet

Lido Beach / Point Lookout Drainage Improvements Project
Hamlet of Lido Beach
Town of Hempstead
Nassau County, New York

NYSDEC Wetlands and Waterways Map

Tectonic

1:15,000

0 875 1,750 3,500 Feet

Lido Beach / Point Lookout Drainage Improvements Project
Hamlet of Lido Beach
Town of Hempstead
Nassau County, New York

NYSDEC Tidal Wetlands Map

Tectonic

1:15,000

0 875 1,750 3,500 Feet

Lido Beach / Point Lookout Drainage Improvements Project
Hamlet of Lido Beach
Town of Hempstead
Nassau County, New York

Appendix III

Early Notice Of A Proposed Activity In A 100-Year Floodplain

EARLY NOTICE OF A PROPOSED ACTIVITY
IN A 100-YEAR FLOODPLAIN

LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS PROJECT
LIDO BOULEVARD, LAGOON DRIVE EAST, HARBOR DRIVE,
AND BLACKHEATH ROAD
HAMLET OF LIDO BEACH, TOWN OF HEMPSTEAD
NASSAU COUNTY, NEW YORK
FEBRUARY 13, 2020

To: All Interested Agencies, Groups, and Individuals

This is to give notice that the Governor's Office of Storm Recovery (GOSR), an office of the New York State Housing Trust Fund Corporation (HTFC), has received an application to fund the Lido Beach / Point Lookout Drainage Improvements Project (hereinafter, the "Proposed Activity") and is conducting an evaluation as required by Executive Order 11988 and Executive Order 11990 in accordance with U.S. Department of Housing and Urban Renewal (HUD) regulations (24 CFR Part 55). There are three primary purposes for this notice. First, to provide the public an opportunity to express their concerns and share information about the Proposed Activity. Second, adequate public notice is an important public education tool. The dissemination of information about floodplains facilitates and enhances governmental efforts to reduce the risks associated with the occupancy and modification of these special areas. Third, as a matter of fairness, when the government determines it will participate in actions taking place in floodplains, it must inform those who may be put at greater or continued risk. Funding for the Proposed Activity will be provided by the HUD Community Development Block Grant – Disaster Recovery (CDBG-DR) program for storm recovery activities in New York State.

In 2012, Superstorm Sandy overwhelmed Lido Beach's stormwater drainage system. Evacuation and emergency response was severely hindered or impossible as a result of flooding. Recovery and resiliency of the community was also severely impacted due to infrastructure limitations and functionality. Implementation of the Proposed Activity would provide improved stormwater drainage for the residents living in the area and significantly reduce the risk of future flooding.

The Proposed Activity will involve nineteen (19) drainage improvements at approximately fifteen (15) locations in the hamlet of Lido Beach, Town of Hempstead, Nassau County, New York. The drainage improvements will be performed on Lido Boulevard, Lagoon Drive East, Harbor Drive, and Blackheath Road. In-line check valves will be installed at three (3) locations on Harbor Drive and two (2) locations on Lagoon Drive East; and three (3) catch basins will be installed at one (1) location on Blackheath Road and fourteen (14) catch basins will be installed at nine (9) locations on Lido Boulevard. Construction activities will include the following: trench and culvert excavation; removal of existing drainage structures; installation of in-line pipe check valves, catch basins, reticuline grates with vertical face opening curb boxes, and reinforced concrete pipe for connections to the existing drainage system; restoring concrete curb, cement concrete, existing roadway pavement, concrete, and asphalt disturbed in order to perform the drainage improvements; reconstructing traffic loops; relocating buried electrical service and existing light poles; resetting existing fencing; and applying topsoil and grass seed to disturbed soil.

The Proposed Activity will result in approximately 0.06 acres of temporary impacts in the 100-year floodplain. The Proposed Activity will not result in the creation of additional impervious surfaces and there would be a negligible change to the existing impermeable surface. The proposed impacts

are solely associated with the installation of drainage improvements on existing roadways.

A floodplain map based on the FEMA Base Flood Elevation Map has been prepared and is available for review with additional information at http://www.stormrecovery.ny.gov/environmental-docs.

Any individual, group, or agency may submit written comments on the Proposed Activity or request further information by contacting James P. McAllister, Bureau of Environmental Review and Assessment Governor's Office of Storm Recovery, 500 Bi-County Boulevard, Suite 300, Farmingdale, NY 11735; email: James.McAllister@stormrecovery.ny.gov. Standard office hours are 9:00 AM to 5:00 PM Monday through Friday. For more information, call: (646) 256-9485. All comments received by February 28, 2020 will be considered.

Appendix IV

Early Notice Of A Proposed Activity In A 100-Year Floodplain Affidavit

RICHNER COMMUNICATIONS INC

www.liherald.com

Affidavit of Publication

State Of New York,
Nassau County

James Slater being duly sworn, deposes and says that he/she is the principal clerk of Richner Communications, Inc., publishers of the

Long Beach Herald

A weekly newspaper published and mailed at

Long Beach

New York and the attached notice of

Drainage Improvements Project

was published in the issue(s) of that paper as follows:

2/13/20

James Slater

Subscribed and sworn to before me this 13 February 2020.

Notary Public

STUART RICHNER
NOTARY PUBLIC, STATE OF NEW YORK
Registration No. 02RI6155489
Qualified in NASSAU County
Commission Expires 11/13/22

2 Endo Boulevard • Garden City, NY 11530 • Voice: 516-569-4000 • Fax: 516-569-4631

LEGAL NOTICE
EARLY NOTICE OF A PROPOSED ACTIVITY
IN A 100-YEAR FLOODPLAIN
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS PROJECT
LIDO BOULEVARD, LAGOON DRIVE EAST, HARBOR DRIVE,
AND BLACKHEATH ROAD
HAMLET OF LIDO BEACH, TOWN OF HEMPSTEAD
NASSAU COUNTY, NEW YORK
FEBRUARY 13, 2020
To:All Interested Agencies, Groups, and Individuals

This is to give notice that the Governor's Office of Storm Recovery (GOSR), an office of the New York State Housing Trust Fund Corporation (HTFC), has received an application to fund the Lido Beach / Point Lookout Drainage Improvements Project (hereinafter, the "Proposed Activity") and is conducting an evaluation as required by Executive Order 11988 and Executive Order 11990 in accordance with U.S. Department of Housing and Urban Renewal (HUD) regulations (24 CFR Part 55). There are three primary purposes for this notice. First, to provide the public an opportunity to express their concerns and share information about the Proposed Activity. Second, adequate public notice is an important public education tool. The dissemination of information about floodplains facilitates and enhances governmental efforts to reduce the risks associated with the occupancy and modification of these special areas. Third, as a matter of fairness, when the government determines it will participate in actions taking place in floodplains, it must inform those who may be put at greater or continued risk. Funding for the Proposed Activity will be provided by the HUD Community Development Block Grant - Disaster Recovery (CDBG-DR) program for storm recovery activities in New York State.

In 2012, Superstorm Sandy overwhelmed Lido Beach's stormwater drainage system. Evacuation and emergency response was severely hindered or impossible as a result of flooding. Recovery and resiliency of the community was also severely impacted due to infrastructure limitations and functionality. Implementation of the Proposed Activity would provide improved stormwater drainage for the residents living in the area and significantly reduce the risk of future flooding.

The Proposed Activity will involve nineteen (19) drainage improvements at approximately fifteen (15) locations in the hamlet of Lido Beach, Town of Hempstead, Nassau County, New York. The drainage improvements will be performed on Lido Boulevard, Lagoon Drive East, Harbor Drive, and Blackheath Road. In-line check valves will be installed at three (3) locations on Harbor Drive and two (2) locations on Lagoon Drive East; and three (3) catch basins will be installed at one (1) location on Blackheath Road and fourteen (14) catch basins will be installed at nine (9) locations on Lido Boulevard. Construction activities will include the following: trench and culvert excavation; removal of existing drainage structures; installation of in-line pipe check valves, catch basins, reticuline grates with vertical face opening curb boxes, and reinforced concrete pipe for connections to the existing drainage system; restoring concrete curb, cement concrete, existing roadway pavement, concrete, and asphalt disturbed in order to perform the drainage improvements; reconstructing traffic loops; relocating buried electrical service and existing light poles; resetting existing fencing; and applying topsoil and grass seed to disturbed soil.

The Proposed Activity will result in approximately 0.06 acres of temporary impacts in the 100-year floodplain. The Proposed Activity will not result in the creation of additional impervious surfaces and there would be a negligible change to the existing impermeable surface. The proposed impacts are solely associated with the installation of drainage improvements on existing roadways.

A floodplain map based on the FEMA Base Flood Elevation Map has been prepared and is available for review with additional information at http://www.stormrecovery.ny.gov/environmental-docs.

Any individual, group, or agency may submit written comments on the Proposed Activity or request further information by contacting James P. McAllister, Bureau of Environmental Review and Assessment Governor's Office of Storm Recovery, 500 Bi-County Boulevard, Suite 300, Farmingdale, NY 11735; email: James.McAllister@stormrecovery.ny.gov. Standard office hours are 9:00 AM to 5:00 PM Monday through Friday. For more information, call: (646) 256-9485. All comments received by February 28, 2020 will be considered.

119880

Attachment 5

CAA De Minimis Threshold Analysis & General Conformity Worksheet

Evaluation of de minimis Levels for General Conformity of Construction Projects with New York State Implementation Plans

The conformity requirements of the CAA and regulations promulgated thereunder (conformity requirements) limit the ability of federal agencies to assist, fund, permit, and approve projects in non-attainment areas that do not conform to the applicable SIP. When subject to this regulation, the lead agency is responsible for demonstrating conformity for its proposed action. Conformity determinations for federal actions other than those related to transportation plans, programs, and projects that are developed, funded, or approved under title 23 U.S.C. or the Federal Transit Act (49 U.S.C. 1601 et seq.) must be made according to the requirements of 40 CFR 93, Subpart B (federal general conformity regulations).

The general conformity regulations apply to those federal actions in non-attainment or maintenance areas where the action's direct and indirect emissions have the potential to emit one or more of the six criteria pollutants at rates equal to or exceeding the prescribed rates.

General conformity de minimis threshold levels for the non-attainment and maintenance areas in New York State are presented in **Table 1**.

Table 1
General Conformity Threshold Levels

Non-Attainment Area and Pollutants	Threshold (tons/year)
ozone, other non-attainment areas inside an ozone transport region:	
volatile organic compounds (VOC)	50
nitrogen oxides (NO_x)	100
carbon monoxide (CO), maintenance areas:	
direct emissions	100
inhalable particulate matter (PM_{10}), nonattainment areas:	
direct emissions	100
fine particulate matter ($PM_{2.5}$), maintenance areas:	
direct emissions	100
SO_2	100

Source: 40 CFR § 93.153(b)

Notes: NO_x and VOCs also limited at 100 tpy in $PM_{2.5}$ maintenance areas, but ozone requirements are stricter.

The general conformity requirements do not apply to federal actions that:

- Do not satisfy either one of the above conditions (where the action's direct and indirect emissions have the potential to emit one or more of the six criteria pollutants at rates

equal to or exceeding the threshold levels above within a non-attainment or maintenance area);

- Occur in an attainment area;
- Are related to transportation plans, programs, and projects developed, funded, or approved under Title 23 U.S.C. or the Federal Transit Act (49 U.S.C. 1601); or
- Qualify for exemptions established at 40 CFR Part 93.153.

The regulation assumes that a proposed federal action whose criteria pollutant emissions have already been included in the local SIP's attainment or maintenance demonstrations conforms to the SIP.

Most construction work would not require a general conformity evaluation, since construction activity in general is included in the SIP estimates, based on past activity levels and assumptions regarding growth in future years. However, there may be projects which are not considered to be included in the SIP if they were beyond the scope of what was anticipated during SIP preparation. If a project is not included in the SIP or there is uncertainty regarding its inclusion, a preliminary evaluation of emissions may be sufficient to demonstrate that the project's emissions would be de minimis under the above general conformity regulations. If that is the case, a detailed conformity analysis and determination would not be required. The following analysis provides a simplified approach to preliminary evaluation, based on construction expenditure.

As a conservative estimate, the analysis below assumes that the emissions intensity per expenditure (tons per dollar) for the project would be similar to the average intensity of the construction sector in the county. This would not be applicable for projects with higher intensity (emissions per dollar) such as large infrastructure projects or intense development projects including substantial excavation and foundations work. Given this and other limitations of this analysis, it is recommended that this approach not be seen as definitive if the results are not clearly de minimis. In such cases, a more refined approach may be needed.

Construction expenditure data is available from the U.S. Census Bureau's 2007 Survey of Business Owners.[1] Since the expenditure data represent firms by their location and not necessarily the location where construction takes place, applying this data at the county level may skew the results in some cases. As a broader estimate, we have categorized the expenditure as 'upstate' and 'downstate', reflecting the higher cost of construction in the downstate area. Downstate counties include Bronx, Kings, Nassau, New York, Orange, Queens, Richmond, Rockland, Suffolk, and Westchester. Total construction expenditure in 2007 was approximately 23.1 billion dollars in the upstate area, and 71.8 billion in the downstate area.

Construction emissions by county for the year 2007 were obtained from the New York State Department of Environmental Conservation (NYSDEC).[2] The fraction each de minimis emissions level represents of total regional emissions was calculated for each pollutant and area (upstate and downstate). The fraction of construction expenditure in each area equivalent to

[1] U.S. Census Bureau. *2007 Survey of Business Owners*, Statistics for All U.S. Firms by Industry, Gender, Ethnicity, and Race for the U.S., States, Metro Areas, Counties, and Places: 2007; SB0700CSA01.

[2] NYSDEC. 2007 SIP data. (provided by DEC, 2014)

those emission fractions were then calculated, representing de minimis project construction expenditures which would be equivalent to de minimis emissions.

For example, the downstate VOC emissions were 2,401.6 tons per year (tpy), and the relevant de minimis VOC emissions are 50 tpy; therefore—

de minimis as fraction of total emissions: $50 \text{ tpy} \div 2{,}401.6 \text{ tpy} = 2.08\%$

de minimis fraction of total expenditure: $2.08\% \times \$71.8 \text{ bn} = \$\mathbf{1.5 \text{ bn}}$

The total SIP emissions by pollutant and region and the resulting average project expenditure equivalent to de minimis levels are presented in **Table 2**.

Table 2
Regional SIP Emissions and de minimis Construction Expenditure

Pollutant	Region	2007 SIP Emissions (tpy)	De Minimis (tpy)	Average Construction De Minimis Expenditure (million $)
VOC	Downstate	2,401.6	50	1,496
	Upstate	1,464.3	50	789
NOx	Downstate	16,332.1	100	440
	Upstate	9,745.2	100	237
CO	Downstate	17,522.1	100	410
	Upstate	11,746.2	100	197
PM_{10}	Downstate	1,489.6	100	4,823
$PM_{2.5}$	Downstate	1,442.3	100	4,981
SO_2	Downstate	1,251.9	100	5,738

Notes: Only relevant pollutants by area are presented; see **Table 3** for details.

Based on the above analysis, projects with projected construction expenditure substantially lower than the average construction de minimis expenditure would clearly not exceed de minimis emissions levels for general conformity purposes. **Table 3** identifies the minimum de minimis expenditure threshold in each county, based on the lowest level for all nonattainment or attainment maintenance areas within which the county is located. For example, New York County is in 4 nonattainment/maintenance areas; of all the pollutants relevant to those areas, the CO de minimis emissions have the lowest corresponding construction expenditure of 410 million dollars. Standard construction projects in Manhattan with construction expenditure substantially lower than 410 million dollars in New York County would not exceed the de minimis level for any of the relevant pollutants and would not require any further analysis or conformity determination. For projects with components in more than one county, use the lowest threshold for all counties (if that exceeds de minimis levels, this can be refined by reviewing all appropriate pollutants based on the nonattainment/maintenance areas identified in **Table 3**, the appropriate pollutant for the area type from **Table 1**, and the de minimis expenditure for each pollutant from **Table 2)**.

Table 3
De Minimis Construction Expenditure Threshold by County

County	Nonattainment / Maintenance Area				Critical Pollutant	De Minimis Expenditure Threshold (million $)
	Ozone	CO	$PM_{2.5}$	PM_{10}		
Upstate:						
Albany	√				NO_x	237
Erie	√				NO_x	237
Genesee	√				NO_x	237
Greene	√				NO_x	237
Livingston	√				NO_x	237
Monroe	√				NO_x	237
Montgomery	√				NO_x	237
Niagara	√				NO_x	237
Onondaga		√			CO	197
Ontario	√				NO_x	237
Orleans	√				NO_x	237
Rensselaer	√				NO_x	237
Saratoga	√				NO_x	237
Schenectady	√				NO_x	237
Schoharie	√				NO_x	237
Wayne	√				NO_x	237
Downstate:						
Bronx	√	√	√		CO	410
Dutchess	√				NO_x	440
Kings	√	√	√		CO	410
Nassau	√	√	√		CO	410
New York	√	√	√	√	CO	410
Orange	√		√		NO_x	440
Putnam	√				NO_x	440
Queens	√	√	√		CO	410
Richmond	√	√	√		CO	410
Rockland	√		√		NO_x	440
Suffolk	√		√		NO_x	440
Westchester	√	√	√		CO	410

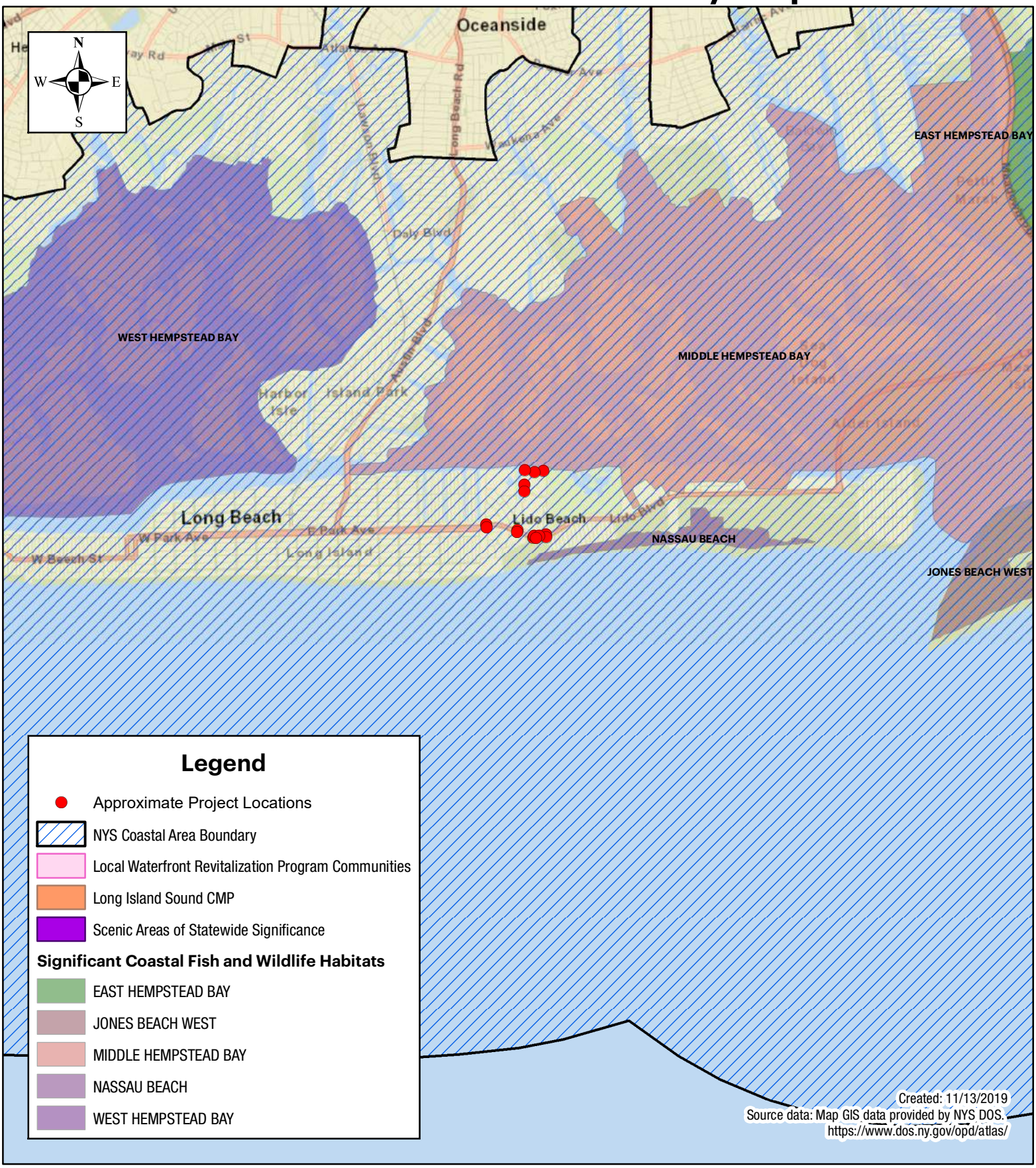
✷

Attachment 6

NYS DOS Coastal Consistency Documentation

NYS DOS Coastal Boundary Map
NYS DOS Coastal Consistency General Concurrence Letter
NYS DOS Coastal Consistency Consultation Package

NYS DOS Coastal Boundary Map



Tectonic

1:60,000

0 3,450 6,900 13,800 Feet

Lido Beach / Point Lookout Drainage Improvements Project
Hamlet of Lido Beach
Town of Hempstead
Nassau County, New York

STATE OF NEW YORK
DEPARTMENT OF STATE
ONE COMMERCE PLAZA
99 WASHINGTON AVENUE
ALBANY, NY 12231-0001
WWW.DOS.NY.GOV

ANDREW M. CUOMO
GOVERNOR

ROSSANA ROSADO
SECRETARY OF STATE

February 7, 2020

James P. McAllister
Senior Environmental Project Manager
Bureau of Environmental Review and Assessment
Governor's Office of Storm Recovery
500 Bi-County Boulevard, Suite 300
Farmingdale, New York 11735

Re: **F-2020-0039(FA)**
Governor's Office of Storm Recovery/NYS Homes and Community Renewal - Lido Beach/ Point Outlook
Drainage improvements at approximately seventeen (17) locations in the hamlet of Lido Beach to be performed on Lido Boulevard, Lagoon Drive East, Harbor Drive, and Blackheath Road. In-line check valves will be installed at three (3) locations on Harbor Drive and two (2) locations on Lagoon Drive East.
Catch basins will be installed at (3) locations on Blackheath Road and nine (9) locations on Lido Boulevard.
Town of Hempstead, Nassau County
General Concurrence - No Objection to Funding

Dear Mr. McAllister,

The Department of State (DOS) received the information you submitted regarding the above proposed federal financial assistance on 2/5/2020 and has completed its review. Based on this review, the Department of State has no objection to the release of United States Department of Housing and Urban Development (HUD) Community Development Block Grant – Disaster Recovery (CDBG-DR) funding in support of the proposed project.

This concurrence pertains to the federal financial assistance activity or activities for this project only. If certain activities may require a federal permit or other form of federal agency authorization, the Department of State would conduct separate consistency review(s) of permit activities at the time such application(s) may be made to a federal agency.

When communicating with us regarding this matter, please contact us at (518) 474-6000 and refer to our file # F-2020-0039(FA).

Sincerely,

Matthew P. Maraglio
Supervisor, Consistency Review Unit
Office of Planning, Development and
Community Infrastructure

MM/dc

NEW YORK STATE OF OPPORTUNITY. | Department of State

Governor's Office of
Storm Recovery

ANDREW M. CUOMO
Governor

February 5, 2020

Mr. Matt Maraglio
Supervisor, Consistency Review Unit
Division of Coastal Resources
New York State Department of State
One Commerce Plaza
99 Washington Avenue
Albany, New York 12231-0001

CC: Denise Caldwell

Re: **HUD CDBG-DR Program – Lido Beach / Point Lookout Drainage Improvements Project – Hamlet of Lido Beach, Town of Hempstead, Nassau County, New York**

Dear Mr. Maraglio:

The Governor's Office of Storm Recovery (GOSR), operating under the auspices of the New York State Homes and Community Renewal's Housing Trust Fund Corporation, was established to aid the statewide recovery of disaster-affected communities in New York State. GOSR is administering a U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant for Disaster Recovery (CDBG-DR), including the NY Rising Community Reconstruction Program. On behalf of GOSR, please find the enclosed coastal zone consistency materials for your review.

The Lido Beach / Point Lookout Drainage Improvements Project (Project) will involve nineteen (19) drainage improvements at approximately fifteen (15) locations in the hamlet of Lido Beach, Town of Hempstead, Nassau County, New York. The drainage improvements will be performed on Lido Boulevard, Lagoon Drive East, Harbor Drive, and Blackheath Road. In-line check valves will be installed at three (3) locations on Harbor Drive and two (2) locations on Lagoon Drive East; and three (3) catch basins will be installed at one (1) location on Blackheath Road and fourteen (14) catch basins will be installed at nine (9) locations on Lido Boulevard. Construction activities will include the following: trench and culvert excavation; removal of existing drainage structures; installation of in-line pipe check valves, catch basins, reticuline grates with vertical face opening curb boxes, and reinforced concrete pipe for connections to the existing drainage system; restoring concrete curb, cement concrete, existing roadway pavement, concrete, and asphalt disturbed in order to perform the drainage improvements; reconstructing traffic loops;

relocating buried electrical service and existing light poles; resetting existing fencing; and applying topsoil and grass seed to disturbed soil. Project location maps and Project design plans are included in **Attachment C**.

In 2012, Superstorm Sandy overwhelmed Lido Beach's stormwater drainage system. Due to its tremendous size, Sandy drove a catastrophic storm surge into the New Jersey and New York coastlines. Floodwaters inundated homes, schools, municipal buildings, and businesses and made streets impassable and areas unusable. Superstorm Sandy's tidal surge was over ten feet in areas of Lido Beach. Evacuation and emergency response was severely hindered or impossible as a result of flooding. Recovery and resiliency of the Community was also severely impacted due to infrastructure limitations and functionality.

The installation of check valves (tidal backflow prevention) will prohibit the rising tide from entering the upland piping system and more importantly permit the draining of the upland piping system into downstream surface waters during low tide events. The draining of the upland piping systems will increase upland storage capacity between storm events. This in turn will help to attenuate or lessen the impacts of certain storm events by providing a time delay for the piping system to fill up with surface collected storm water prior to discharge, thereby minimizing or eliminating potential flooding and increasing the resiliency of the drainage system.

The use of backflow prevention devices will effectively provide additional stormwater storage within the existing drainage pipe network and mitigate the negative effects of rising tides, without creating additional storage. The use of tidal check valves offers the greatest positive effects to flooding mitigation, aside from raising the topography of the land above flood elevation, which generally results in the greatest impacts to private property.

To reduce stormwater ponding occurrences along Lido Boulevard, selected aged and inefficient single-curb inlet opening drainage structures will be removed and more hydraulically efficient drainage structure inlets will be installed. Existing single curb inlet drainage structures will be replaced with two (2) standard reticuline grates and curb boxes. This will increase the surface inlet capacity and the ability of stormwater runoff to be collected and enter the drainage system. This action will decrease the gutter spread width of slow-moving stormwater runoff travelling against the curb line of the relatively flat Lido Boulevard roadway profile gradients by intercepting and collecting the water with a larger inlet area and minimizing water ponding into the adjacent travel lanes. Given the critical function of Lido Boulevard as a coastal evacuation route, the redundancy provided by the combination inlets (noted above) and their improved maintenance access are advantageous drainage system characteristics consistent with Lido Boulevard's critical function. Implementation of the drainage improvement project would provide improved stormwater drainage for the residents living in the area and significantly reduce the risk of future flooding.

Based on a review of available environmental records for the Project site and surrounding area, the Project site is unlikely to contain hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the Project site.

The Project is not located within a State-approved local waterfront revitalization program or State-approved regional coastal management program area. None of the activities are located within a Coastal Barrier Resource System Unit.

GOSR is acting as the Responsible Entity in accordance with 24 C.F.R. Part 58—Environmental Review Procedures for Entities Assuming HUD Environmental Responsibilities. GOSR has prepared the attached Federal Consistency Assessment Form to certify that the Project is consistent with New York's Coastal Management Program. At this time, we are requesting that the New York State Department of State concur with the attached certification.

Thank you for taking the time to review the enclosed materials. Please do not hesitate to contact me by email at James.McAllister@stormrecovery.ny.gov or by telephone at (631) 465-9677 should you have any questions or require additional information.

Sincerely,

James McAllister
Senior Environmental Project Manager
Bureau of Environmental Review and Assessment
Governor's Office of Storm Recovery

Attachments:
Attachment A – Federal Consistency Form
Attachment B – Detailed Project Description and Policy Analysis
Attachment C – Project Location Maps and Project Design Plans

ATTACHMENT A

Federal Consistency

Assessment Form

NEW YORK STATE DEPARTMENT OF STATE
COASTAL MANAGEMENT PROGRAM

Federal Consistency Assessment Form

An applicant, seeking a permit, license, waiver, certification or similar type of approval from a federal agency which is subject to the New York State Coastal Management Program (CMP), shall complete this assessment form for any proposed activity that will occur within and/or directly affect the State's Coastal Area. This form is intended to assist an applicant in certifying that the proposed activity is consistent with New York State's CMP as required by U.S. Department of Commerce regulations (15 CFR 930.57). It should be completed at the time when the federal application is prepared. The Department of State will use the completed form and accompanying information in its review of the applicant's certification of consistency.

A. **APPLICANT** (please print)

1. Name: James B. Dall III, Dormitory Authority of the State of New York (DASNY)
2. Address: 515 Broadway, Albany, New York 12207
3. Telephone: (212) 273-5085

B. **PROPOSED ACTIVITY:**

1. Brief description of activity:

The Lido Beach / Point Lookout Drainage Improvements Project (Project) will involve drainage improvements at approximately seventeen (17) locations in the hamlet of Lido Beach, Town of Hempstead, Nassau County, New York. The drainage improvements will be performed on Lido Boulevard, Lagoon Drive East, Harbor Drive, and Blackheath Road. In-line check valves will be installed at three (3) locations on Harbor Drive and two (2) locations on Lagoon Drive East; and catch basins will be installed at (3) locations on Blackheath Road and nine (9) locations on Lido Boulevard.

2. Purpose of activity:

In 2012, Superstorm Sandy overwhelmed Lido Beach's stormwater drainage system. Evacuation and emergency response was severely hindered or impossible as a result of flooding. Recovery and resiliency of the Community was also severely impacted due to infrastructure limitations and functionality. Implementation of the drainage improvement project would provide improved stormwater drainage for the residents living in the area and significantly reduce the risk of future flooding.

3. Location of activity:

Nassau	Town of Hempstead	Lido Boulevard, Lagoon Drive East, Harbor Drive, and Blackheath Road See Project Location Maps
County	City, Town, or Village	Street or Site Description

4. Type of federal permit/license required: HUD CDBG-DR funding from NYS as Responsible Entity

5. Federal application number, if known: _____

6. If a state permit/license was issued or is required for the proposed activity, identify the state agency and provide the application or permit number, if known:

NYSDEC Tidal Wetlands Permit - Under Article 25 (possibly needed)

C. **COASTAL ASSESSMENT** Check either "YES" or "NO" for each of these questions. The numbers following each question refer to the policies described in the CMP document (see footnote on page 2) which may be affected by the proposed activity.

1. Will the proposed activity result in any of the following:	YES	NO
a. Large physical change to a site within the coastal area which will require the preparation of an environmental impact statement? (11, 22, 25, 32, 37, 38, 41, 43)		✔
b. Physical alteration of more than two acres of land along the shoreline, land under water or coastal waters? (2, 11, 12, 20, 28, 35, 44)		✔
c. Revitalization/redevelopment of a deteriorated or underutilized waterfront site? (1)		✔
d. Reduction of existing or potential public access to or along coastal waters? (19, 20)		✔
e. Adverse effect upon the commercial or recreational use of coastal fish resources? (9,10)		✔
f. Siting of a facility essential to the exploration, development and production of energy resources in coastal waters or on the Outer Continental Shelf? (29)		✔
g. Siting of a facility essential to the generation or transmission of energy? (27)		✔
h. Mining, excavation, or dredging activities, or the placement of dredged or fill material in coastal waters? (15, 35)		✔
i. Discharge of toxics, hazardous substances or other pollutants into coastal waters? (8, 15, 35)		✔
j. Draining of stormwater runoff or sewer overflows into coastal waters? (33)	✔	
k. Transport, storage, treatment, or disposal of solid wastes or hazardous materials? (36, 39)		✔
l. Adverse effect upon land or water uses within the State's small harbors? (4)		✔

2. Will the proposed activity affect or be located in, on, or adjacent to any of the following:	YES	NO
a. State designated freshwater or tidal wetland? (44)	✔	
b. Federally designated flood and/or state designated erosion hazard area? (11, 12, 17)	✔	
c. State designated significant fish and/or wildlife habitat? (7)	✔	
d. State designated significant scenic resource or area? (24)		✔
e. State designated important agricultural lands? (26)		✔
f. Beach, dune or Barrier Island? (12)	✔	
g. Major ports of Albany, Buffalo, Ogdensburg, Oswego or New York? (3)		✔
h. State, county, or local park? (19, 20)	✔	
i. Historic resource listed on the National or State Register of Historic Places? (23)		✔

3. Will the proposed activity require any of the following:	YES	NO
a. Waterfront site? (2, 21, 22)		✔
b. Provision of new public services or infrastructure in undeveloped or sparsely populated sections of the coastal area? (5)		✔
c. Construction or reconstruction of a flood or erosion control structure? (13, 14, 16)		✔
d. State water quality permit or certification? (30, 38, 40)		✔
e. State air quality permit or certification? (41, 43)		✔

4. Will the proposed activity occur within and/or affect an area covered by a State-approved local waterfront revitalization program, or State-approved regional coastal management program? (see policies in program document*)		✔

D. **ADDITIONAL STEPS**

1. If all of the questions in Section C are answered "NO", then the applicant or agency shall complete Section E and submit the documentation required by Section F.

2. If any of the questions in Section C are answered "YES", then the applicant or agent is advised to consult the CMP, or where appropriate, the local waterfront revitalization program document*. The proposed activity must be analyzed in more detail with respect to the applicable state or local coastal policies. On a separate page(s), the applicant or agent shall: (a) identify, by their policy numbers, which coastal policies are affected by the activity, (b) briefly assess the effects of the activity upon the policy; and, (c) state how the activity is consistent with each policy. Following the completion of this written assessment, the applicant or agency shall complete Section E and submit the documentation required by Section F.

E. **CERTIFICATION**

The applicant or agent must certify that the proposed activity is consistent with the State's CMP or the approved local waterfront revitalization program, as appropriate. If this certification cannot be made, the proposed activity shall not be undertaken. If this certification can be made, complete this Section.

"The proposed activity complies with New York State's approved Coastal Management Program, or with the applicable approved local waterfront revitalization program, and will be conducted in a manner consistent with such program."

Applicant/Agent's Name: James McAllister

Address: 500 Bi-County Boulevard, Suite 300, Farmingdale, NY 11735

Telephone: Area Code (631) 465-9677

Applicant/Agent's Signature: _____ Date: 2/5/2020

F. **SUBMISSION REQUIREMENTS**

1. The applicant or agent shall submit the following documents to the **New York State Department of State, Office of Planning and Development, Attn: Consistency Review Unit, One Commerce Plaza-Suite 1010, 99 Washington Avenue, Albany, New York 12231.**

a. Copy of original signed form.
b. Copy of the completed federal agency application.
c. Other available information which would support the certification of consistency.

2. The applicant or agent shall also submit a copy of this completed form along with his/her application to the federal agency.

3. If there are any questions regarding the submission of this form, contact the Department of State at (518) 474-6000.

*These state and local documents are available for inspection at the offices of many federal agencies, Department of environmental Conservation and Department of State regional offices, and the appropriate regional and county planning agencies. Local program documents are also available for inspection at the offices of the appropriate local government.

ATTACHMENT B

Detailed Project Description and Policy Analysis

Project: Lido Beach / Point Lookout Drainage Improvements Project (Project)
Location: Lido Boulevard, Lagoon Drive East, Harbor Drive, and Blackheath Drive, hamlet of Lido Beach, Town of Hempstead, Nassau County, New York

Introduction
The project analyzed herein is proposed to receive U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant Program–Disaster Recovery (CDBG-DR) funding would provide the Town of Islip (Recipient) funding for drainage improvements in the hamlet of Lido Beach. Funding for the proposed Project is from the New York Rising Community Reconstruction (NYRCR) Program.

Background and Existing Conditions
In 2012, Superstorm Sandy overwhelmed Lido Beach's stormwater drainage system. Due to its tremendous size, Sandy drove a catastrophic storm surge into the New Jersey and New York coastlines. Floodwaters inundated homes, schools, municipal buildings, and businesses and made streets impassable and areas unusable. Superstorm Sandy's tidal surge was over ten feet in areas of Lido Beach. Evacuation and emergency response was severely hindered or impossible as a result of flooding. Recovery and resiliency of the Community was also severely impacted due to infrastructure limitations and functionality.

The Governor's Office of Storm Recovery (GOSR), operating under the auspices of New York State Homes and Community Renewal's Housing Trust Fund Corporation, is the responsible entity for the direct administration of this HUD CDBG-DR program. An environmental review is being prepared to assist GOSR in its determination whether to grant CDBG-DR funding for the proposed project. The decision to grant CDBG-DR funding will be dependent on the environmental review required under the National Environmental Policy Act of 1969 pursuant to 24 CFR Part 58.

Purpose and Need
The installation of check valves (tidal backflow prevention) will prohibit the rising tide from entering the upland piping system and more importantly permit the draining of the upland piping system into downstream surface waters during low tide events. The draining of the upland piping systems will increase upland storage capacity between storm events. This in turn will help to attenuate or lessen the impacts of certain storm events by providing a time delay for the piping system to fill up with surface collected storm water prior to discharge, thereby minimizing or eliminating potential flooding and increasing the resiliency of the drainage system.

The use of backflow prevention devices will effectively provide additional stormwater storage within the existing drainage pipe network and mitigate the negative effects of rising tides, without creating additional storage. The use of tidal check valves offers the greatest positive effects to flooding mitigation, aside from raising the topography of the land above flood elevation, which generally results in the greatest impacts to private property.

To reduce stormwater ponding occurrences along Lido Boulevard, selected aged and inefficient single-curb inlet opening drainage structures will be removed and more hydraulically efficient drainage structure inlets will be installed. Existing single curb inlet drainage structures will be replaced with two (2) standard reticuline grates and curb boxes. This will increase the surface inlet

capacity and the ability of stormwater runoff to be collected and enter the drainage system. This action will decrease the gutter spread width of slow-moving stormwater runoff travelling against the curb line of the relatively flat Lido Boulevard roadway profile gradients by intercepting and collecting the water with a larger inlet area and minimizing water ponding into the adjacent travel lanes. Given the critical function of Lido Boulevard as a coastal evacuation route, the redundancy provided by the combination inlets (noted above) and their improved maintenance access are advantageous drainage system characteristics consistent with Lido Boulevard's critical function. Implementation of the drainage improvement project would provide improved stormwater drainage for the residents living in the area and significantly reduce the risk of future flooding.

Project Description

The Lido Beach / Point Lookout Drainage Improvements Project (Project) will involve drainage improvements at approximately seventeen (17) locations in the hamlet of Lido Beach, Town of Hempstead, Nassau County, New York. The drainage improvements will be performed on Lido Boulevard, Lagoon Drive East, Harbor Drive, and Blackheath Road. In-line check valves will be installed at three (3) locations on Harbor Drive and two (2) locations on Lagoon Drive East; and catch basins will be installed at (3) locations on Blackheath Road and nine (9) locations on Lido Boulevard. Construction activities will include the following: trench and culvert excavation; removal of existing drainage structures; installation of in-line pipe check valves, catch basins, reticuline grates with vertical face opening curb boxes, and reinforced concrete pipe for connections to the existing drainage system; restoring concrete curb, cement concrete, existing roadway pavement, concrete, and asphalt disturbed in order to perform the drainage improvements; reconstructing traffic loops; relocating buried electrical service and existing light poles; resetting existing fencing; and applying topsoil and grass seed to disturbed soil.

The Project is located within the 100-year floodplain. The Project is not located within a State-approved local waterfront revitalization program area or State-approved regional coastal management program area. None of the proposed Project activities are located within a Coastal Barrier Resource System Unit.

Lido Beach / Point Lookout Drainage Improvements Project

FCAF Section	Coastal Management Plan (CMP) Policy	Project Consistency with CMP
1J	33 – Best management practices will be used to ensure the control of stormwater runoff and combined sewer overflows draining into coastal waters.	The purpose of the proposed Project is to reduce the risk of flooding and flood damage, improve safety, and provide more resilient drainage infrastructure for residents of the area. Additionally, the proposed Project will be constructed using best management practices. All catch basins will be protected prior to the start of work and all necessary precautions will be taken to prevent direct or indirect contamination of all water bodies by silt, sediment, roadway millings, fuels solvents, lubricants, concrete leachate, or any other pollutant associated with construction. Therefore, the Project is consistent with this policy.
2A	44 – Preserve and protect tidal and freshwater wetlands and preserve the benefits derived from these areas.	Project activities will not result in the destruction of any tidal wetlands or freshwater, or negatively impact the benefits derived from these areas. The proposed Project may be partially located within the NYSDEC regulated Tidal Wetlands "adjacent area." If necessary, a Tidal Wetlands Permit will be obtained from the NYSDEC prior to commencing work, and work will be performed in compliance with all permit requirements and conditions to ensure that tidal wetlands are preserved and protected. Therefore, the Project is consistent with this policy.
2B, 2F	11 - Buildings and other structures will be sited in the coastal area so as to minimize damage to property and the endangering of human lives caused by flooding and erosion. 12 - Activities or development in the coastal area will be undertaken so as to minimize damage to natural resources and property from flooding and erosion by protecting natural protective features including beaches, dunes, barrier islands and bluffs.	The proposed Project is located in a FEMA designated 100-year floodplain. The proposed Project does not involve the siting of buildings within identified flood hazard areas. The proposed Project does not involve construction of buildings in a coastal erosion or coastal high hazard area. Therefore, the Project is consistent with this policy. The purpose of the proposed Project is to minimize damage to natural resources and property from flooding. The proposed Project is located along roadways in a developed residential and commercial area. The proposed Project will not impact beaches, dunes, or bluffs, or barrier islands.

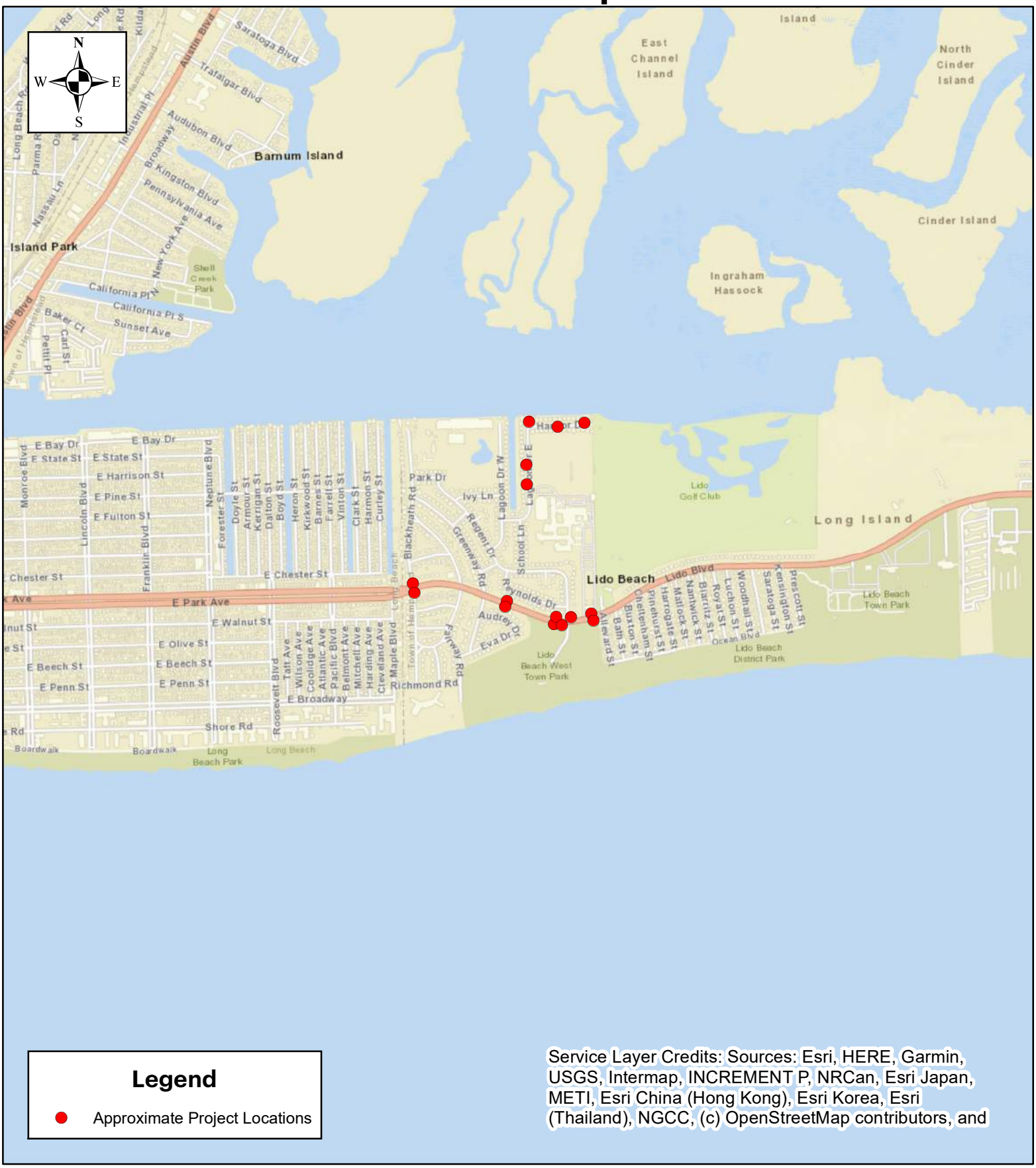
	17 - Non-structural measures to minimize damage to natural resources and property from flooding and erosion shall be used whenever possible.	The Project is designed to reduce the frequency, duration, and extent of flooding in Lido Beach. Reducing flooding in Lido Beach is expected to assist with a more orderly evacuation prior to storm events and improve access for emergency vehicles/first responders on established evacuation routes prior to major storms. Therefore, the Project is in consistent with these policies.
2C	7 – Significant fish and wildlife habitats will be protected, preserved, and where practical, restored so as to maintain their viability as habitats.	The Project is located adjacent to the New York State designated Middle Hempstead Bay and Nassau Beach Significant Fish and Wildlife Habitat. However, the proposed Project is located along roadways in a developed residential and commercial area and the Project will not destroy the habitat; significantly impair the viability of the habitat; degrade water quality; increase turbidity; increase sedimentation; alter flows, temperature, or water depths; or affect the biological productivity of this area. The Project will be constructed using best management practices to ensure adjacent areas are not impacted by an increase in sedimentation or turbidity. Therefore, the Project is consistent with this policy.
2H	19 – Protect, maintain, and increase the level and types of access to public water-related recreation resources and facilities 20 – Access to the publicly-owned foreshore and to lands immediately adjacent to the foreshore or the water's edge that are publicly-owned shall be provided and it shall be provided in a manner compatible with adjoining uses.	The purpose of the proposed Project is to better control stormwater runoff, reduce the risk of flooding and flood damage, improve safety, and provide more resilient drainage infrastructure for residents of the area. The proposed Project involves improvements to drainage infrastructure located on existing roadways. By reducing the amount of standing water on roadways, the Project will also improve traffic safety and minimize road congestion, which will make the area more accessible following storm events. Therefore, the Project is consistent with these policies.

ATTACHMENT C

Project Location Maps

Project Design Plans

Street Map



Legend

- Approximate Project Locations

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and

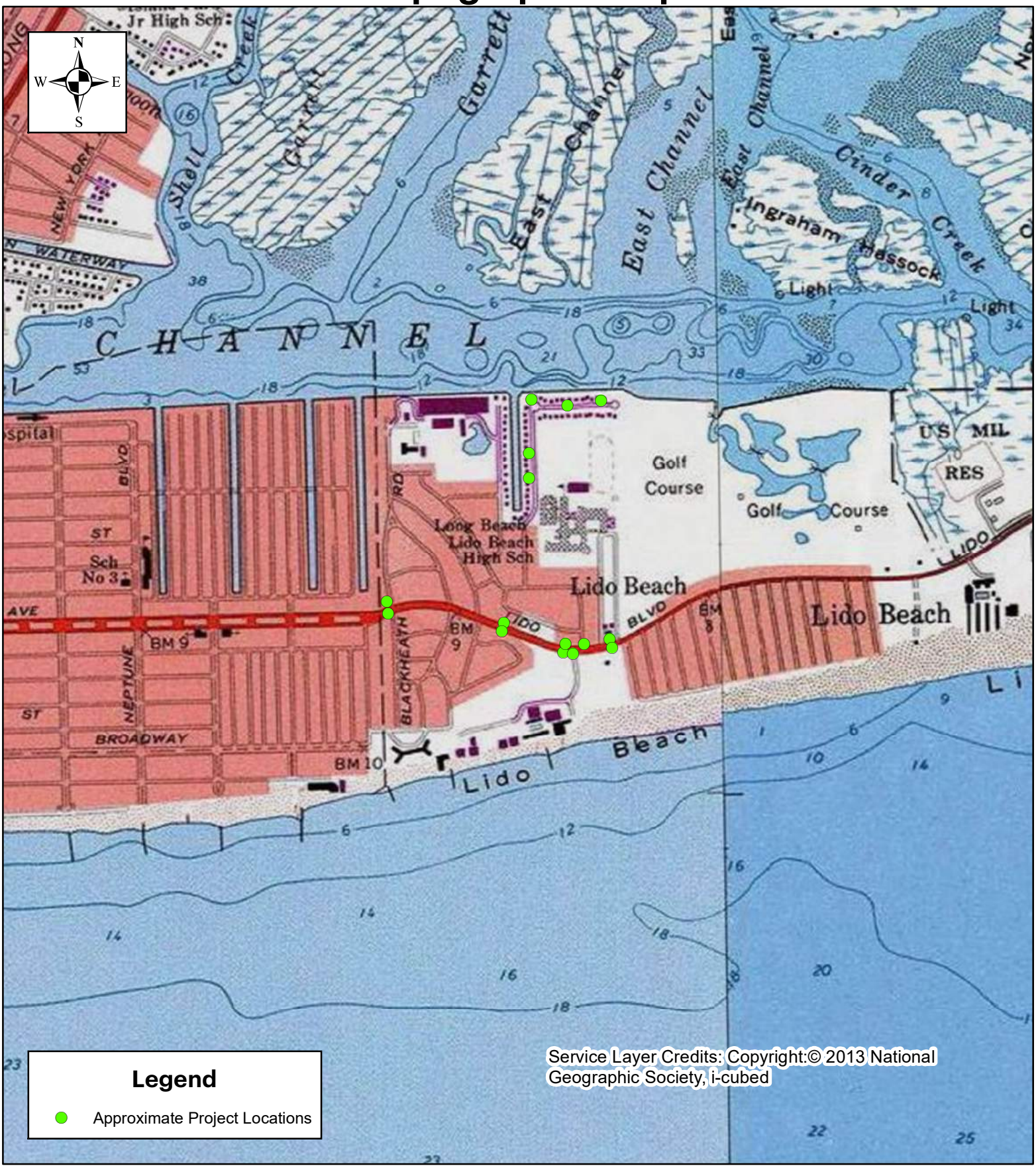
Tectonic

1:20,000

0 1,150 2,300 4,600 Feet

Lido Beach / Point Lookout Drainage Improvements Project
CDP of Lido Beach
Town of Hempstead
Nassau County, New York

Topographic Map



Tectonic

1:16,000

0 900 1,800 3,600 Feet

Lido Beach / Point Lookout Drainage Improvements Project
CDP of Lido Beach
Town of Hempstead
Nassau County, New York

Aerial Map

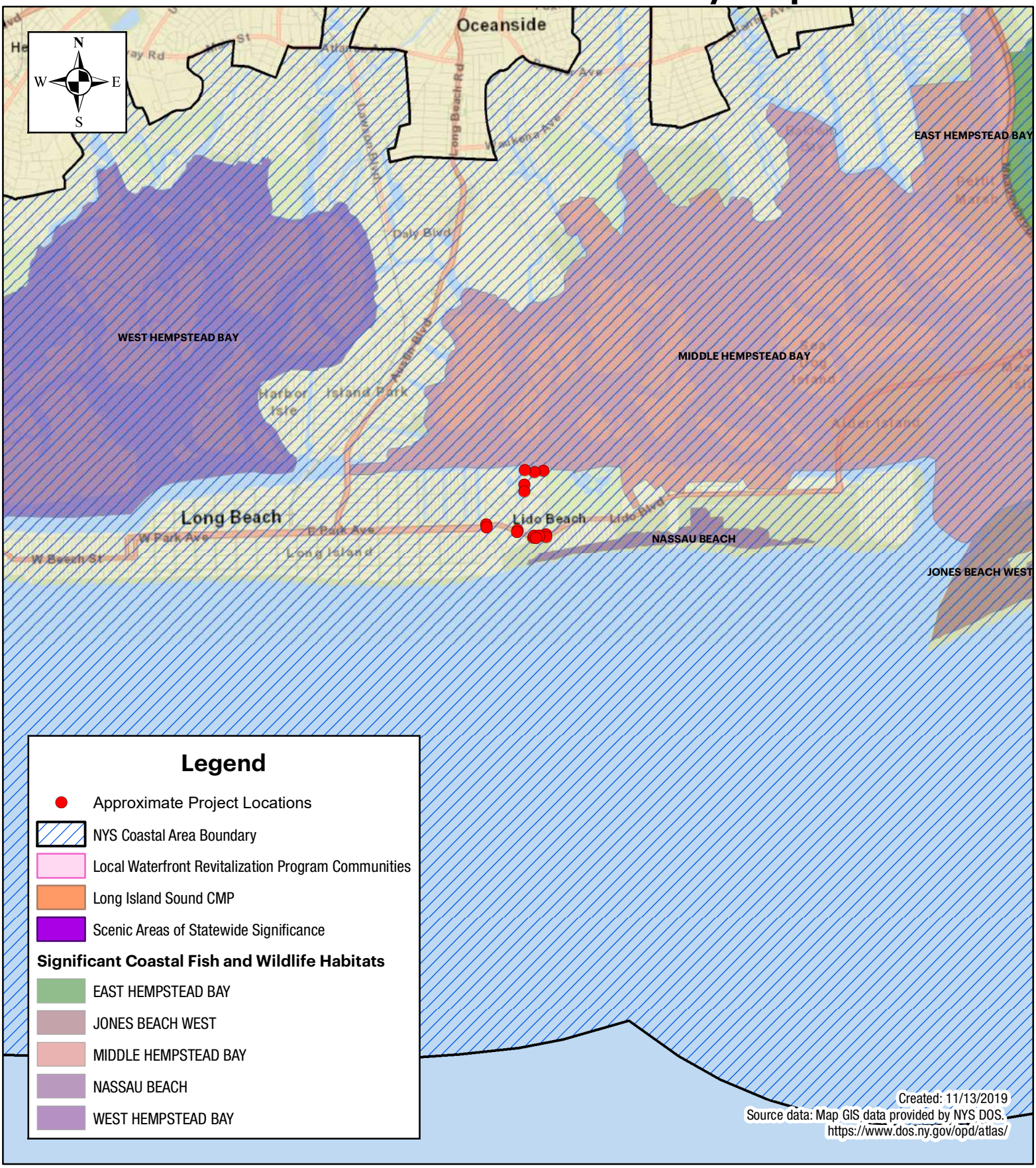
Tectonic

1:8,000

0 462.5 925 1,850 Feet

Lido Beach / Point Lookout Drainage Improvements Project
CDP of Lido Beach
Town of Hempstead
Nassau County, New York

NYS DOS Coastal Boundary Map



Tectonic

1:60,000

0 3,450 6,900 13,800 Feet

Lido Beach / Point Lookout Drainage Improvements Project
CDP of Lido Beach
Town of Hempstead
Nassau County, New York

DEPARTMENT OF PUBLIC WORKS
NASSAU COUNTY

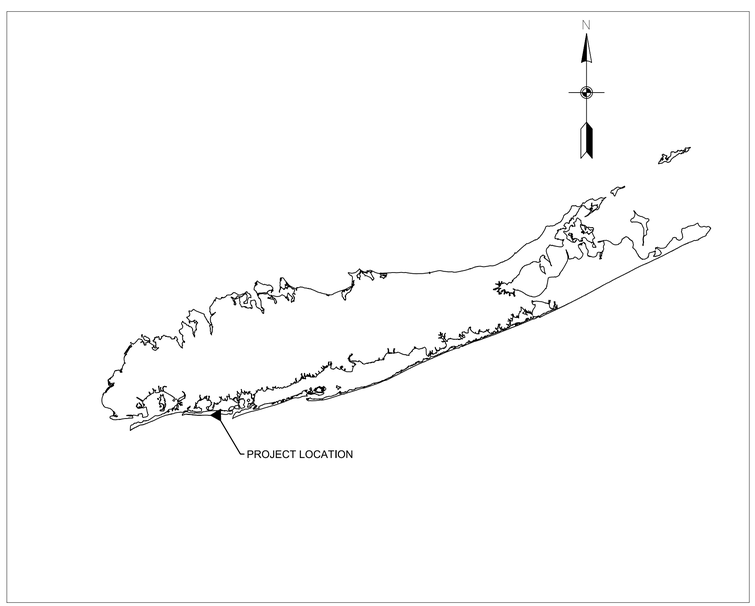
SUBMITTED FOR
REVIEW AND COMMENT

ADVANCED PLANS
60% COMPLETE

NOT FOR CONSTRUCTION

LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

LIDO BEACH, NY
TOWN OF HEMPSTEAD
NASSAU COUNTY
PHASE 60%
CONTRACT No. H60052-01D
OCTOBER 2019



LOCATION MAP
NOT TO SCALE

SURVEY PREPARED BY:

GAYRON DE BRUIN, LAND SURVEYING AND ENGINEERING, PC

PREPARED BY:

JAMES M. BAZATA, P.E, ENV SP — DATE
DIRECTOR OF CIVIL ENGINEERING

RECOMMENDED FOR APPROVAL BY:

GARRY DESYR — DATE
SENIOR DESIGN ENGINEER

HAROLD T. LUTZ, P.E. — DATE
UNIT HEAD TRAFFIC ENGINEER

RICHARD IADEVAIO — DATE
UNIT HEAD CONSTRUCTION

MICHAEL FASANO — DATE
UNIT HEAD ROAD MAINTENANCE

RAKHAL MAITRA, P.E. — DATE
DEPUTY COMMISSIONER OF PUBLIC WORKS

APPROVED BY

KENNETH G. ARNOLD, P.E.COMMISSIONER — DATE
OF PUBLIC WORKS

Existing Legend

Manholes

- Communications
- Drain
- Electric
- Fiber Optic
- Fire Department
- Gas
- Water High Temperature Hot
- Record Only
- Sewer
- Sewer - Drop (COMB; DIAMETER, MATERIAL, DEPTH)
- Sewer Cleanout
- Traffic
- Telephone
- Unknown
- Water

Utility Hardware

- Electric Pullbox
- Electric Vault
- Gas Main Valve
- Gas Marker
- Gas Meter
- Gas Service Valve
- Gas Test Station
- Gas Vent
- Hydrant
- Hydrant Valve
- Irrigation Valve
- Monitoring Well
- Oil Filler Valve
- Pole Riser - Electric
- Pole Riser - Telephone
- Pole Riser - T.V.
- Pole Riser - Traffic
- Roof Drain
- Sewer Vent
- Stand Pipe
- Traffic Detector
- Traffic Loop
- Unidentified Vault
- Unknown Valve
- Unknown Pullbox
- Water Main Valve
- Water Meter
- Water Service Valve

Utility Poles

- Guy Wire and Ancor
- Light Pole Base
- Metal Pole with Light
- Metal Pole with Traffic
- Pedestrian Signal
- Wooden Utility Pole
- Wooden Utility Pole with Light

Utility Pole Abbreviations

F	Fire Box
P	Pedestrian Signal
T	Traffic

Fences

- Guard Rail
- Chain Link Fence
- Wooden Fence
- Metal Fence
- Retaining Wall
- Vinyl Fence

Vegetation

- Bush
- Hedge
- Tree (with Size) Located At Center
- Tree (with Size) Located At Face
- Treeline

Catch Basins

- Type "A"
- Type 1
- Type 3
- Flush Grate
- Round Grate
- Small Rectangle Grate
- Square Grate

Utility Lines and Paint Marks

- Dead End
- End of Information
- Automated Vacuum
- Cable (CATVU)
- Drain (SD)
- Drain (24" or Greater) (SD)
- Electric
- Electric Offset
- Fiber Optic (Fiber)
- Fire (Fire)
- Gas (G)
- Gas offset (G)
- Gas Service (G)
- Oil (Oil)
- Overhead
- Sewer (SAN)
- Sewer (24" Or Greater) (SAN)
- Sewer House Connection (SHC 6.1" Cov.)
- Steam
- Street Lighting
- Telephone (TU_A)
- Telephone Offset (TU_A)
- Traffic (Traffic)
- Unknown Utility
- Water (W)
- Water (24" Or Greater) (W)
- Water Offset (W)
- Water Service (W)
- Water Chilled (Chilled Water)
- Water High Temperature Hot

Miscellaneous

- Aerial Target
- Baseline & Station (0+00, 1+00)
- Basketball Backboard Post
- Bench
- Benchmark
- Bike Rack
- Boring
- Cellar Door
- Column
- Communications Pullbox
- Communications Box - Round
- Curb - Concrete
- Curb - Belgian Block
- Curb - Brick
- Curb & Gutter
- Edge Of Pavement
- First Floor Entrance
- Flagpole
- Fountain
- Garage Entrance
- Grill
- Guardpost
- Handicap Ramp
- Mailbox
- Material Change
- Multi-Meter
- Parking Meter
- Piling
- Police Box
- Sign - Single Post
- Sign - Double Post
- Steps
- Sprinkler (underground)
- Telephone Booth
- Test Hole
- Traffic Control Cabinet
- Trash Can
- Turnstile
- WiFi
- Yard Light

Property Markers

- Cross Cut
- Drill Hole
- Disk
- Iron Pipe
- Iron Rod/ Rebar/ Pin
- L Cut
- Misc. Marker
- Monument
- Monument - Not Found
- PK/Mag Nail
- Railroad Spike
- Spike
- Stake

Property Lines

- ROW Line (HB)
- Lot Lines (PL)

Abbreviations

AOBE	As Ordered By Engineer
Aband.	Abandoned
Alum.	Aluminum
Apt.	Apartment
Asph.	Asphalt
B.O.P.	Beginning Of Profile
B. Blk.	Belgian Block
B.T.	Blacktop
Bit.	Bituminous
Blk.	Block
Brk.	Brick
CB	Catch Basin
C.O.C.	Center Of Cable
Conc.	Concrete
Ch. Lk. Fe.	Chain Link Fence
C.L.F.	Chain Link Fence
DE	Dead End
D.I.C.B.	Double Inlet Catch Basin
Dilap.	Dilapidated
El	Elevation
EOI	End Of Information
EOP	End Of Profile
Exist.	Existing
FF=7.25	First Floor Elevation
Fr.	Frame
GF=18.30	Garage Floor Elevation
I=1.6	Invert Elevation
Inv.	Invert Elevation
L.	Left
L/C	Left Curb
MH	Manhole
PC	Point Of Curvature
Rail Fe.	Post And Rail Fence
Rec.	Record
#107	Residence No. 107
R.	Right
R/C	Right Curb
R=32.65	Rim Elevation Of Manhole
Rim	Rim Elevation Of Manhole
Sew.	Sewer
S.I.C.B.	Single Inlet Catch Basin
SSHC	Sanitary Sewer House Connection
Slt.	Slate
Sta.	Station
Stock. Fe.	Stockade Fence
Sty.	Story
T/G	Top Of Gutter
Th #3	Test Hole
TOP	Top Of Pipe
TW	Top Of Wall
Typ.	Typical
U.G.	Underground
Vac.	Vacant
VPI	Vertical Point Of Intersection
Wd.	Wood

Pipe Material Abbreviations

ACPP	Asbestos Cement Pressure Pipe
ACP	Asbestos Cement Pipe
CI	Cast Iron
CIBS	Cast Iron Bare Steel
CLDI	Cement Lined Ductile Iron
CLMP	Cement Lined Metal Pipe
CMP	Corrugated Metal Pipe
CP	Clay Pipe
CPP	Corrugated Polyethylene Pipe
CS	Carbon Steel
DB	Double Barrel
DI	Ductile Iron
ESVP	Extra Strength Vitrified Pipe
FTRC	Flat Top Reinforced Concrete
FRP	Fiberglass Reinforced Pipe
HERCP	Horizontal Elliptical Reinforced Concrete Pipe
HDPP	High Density Polyethylene Pipe
PE	Polyethylene
PRCP	Precast Reinforced Concrete Pipe
PVC	Polyvinyl Chloride Pipe
RCP	Reinforced Concrete Pipe
SS	Stainless Steel
ST	Steel
VCP	Vitrified Clay Pipe

Directional Abbreviations

(E)	East
(N)	North
(NE)	North East
(NW)	North West
(S)	South
(SE)	South East
(SW)	South West
(W)	West
E/S	East Side
N/S	North Side
S/S	South Side
W/S	West Side

Northing-Easing

N= 155885.200
E= 1085414.106

Proposed Legend

DRAINAGE

- MANHOLE (TYPE AS SPECIFIED)
- STORM DRAINAGE PIPE (DIAMETER AS SPECIFIED) (SD)
- CATCH BASIN (TYPE AS SPECIFIED)
- NASSAU COUNTY TYPE A FRAME AND GRATE WITH CURB BOX

EXCAVATION LIMITS

- TRENCH & CULVERT
- UNCLASSIFIED (FOR RESTORATION ACTIVITIES)

RESTORATION

- CONCRETE SIDEWALK (ITEM 27)
- TOPSOIL & SEED (ITEM 368)
- ASPHALT RESTORATION (ITEM 36D)
- RESETTING EXISTING BRICK PAVERS (ITEM 40R) (OR)
- LANDSCAPING CRUSHED STONES (ITEM 20)

RESTORATION LIMITS

- CONCRETE CURB (ITEM 26)
- SAW CUT ASPHALT PAVEMENT AND CONCRETE (ITEM 58RPC)
- REMOVE AND RESET EXISTING VINYL FENCE (ITEM 64)
- REMOVE AND RESET EXISTING TIMBER FENCE (ITEM 64)
- PROPOSED TREE (ITEM XX)
- RELOCATE EXISTING LIGHT POLE (ITEM 120SS)

EASMENTS

- TEMPORARY EASEMENT (TE)

INDEX OF DRAWINGS (60% SUBMISSION):

C-01	COVER
I-01	INDEX, LEGEND AND ABBREVIATIONS
GN-01	GENERAL NOTES 01
GN-02	GENERAL NOTES 02
SC-01	SURVEY CONTROL
MST-01	MISCELLANEOUS TABLES 01
MST-02	MISCELLANEOUS TABLES 02
MST-03	MISCELLANEOUS TABLES 03
MSD-01	MISCELLANEOUS DETAILS 01
MSD-02	MISCELLANEOUS DETAILS 02
MSD-03	MISCELLANEOUS DETAILS 03
MSD-04	MISCELLANEOUS DETAILS 04
MSD-05	MISCELLANEOUS DETAILS 05
MSD-06	MISCELLANEOUS DETAILS 06
KP-01	KEY PLAN

CONSTRUCTION PLANS

CP-01	CONSTRUCTION PLAN 01
CP-02	CONSTRUCTION PLAN 02
CP-03	CONSTRUCTION PLAN 03
CP-04	CONSTRUCTION PLAN 04
CP-05	CONSTRUCTION PLAN 05
CP-06	CONSTRUCTION PLAN 06
CP-07	CONSTRUCTION PLAN 07
CP-08	CONSTRUCTION PLAN 08
CP-09	CONSTRUCTION PLAN 09
CP-10	CONSTRUCTION PLAN 10
CP-11	CONSTRUCTION PLAN 11
CP-12	CONSTRUCTION PLAN 12
CP-13	CONSTRUCTION PLAN 13
CP-14	CONSTRUCTION PLAN 14
CP-15	CONSTRUCTION PLAN 15

WORK ZONE TRAFFIC CONTROL PLANS

WZTCN-01	WORK ZONE TRAFFIC CONTROL NOTES
WZTC-1-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 1 - PLAN 1
WZTC-2-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 2 - PLAN 1
WZTC-3-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 3 - PLAN 1
WZTC-4-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 4 - PLAN 1
WZTC-5-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 5 - PLAN 1
WZTC-5-2	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 5 - PLAN 2
WZTC-6-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 6 - PLAN 1
WZTC-6-2	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 6 - PLAN 2

NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS SANITARY SEWER NOTES:

1. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO WORK INVOLVING ANY SANITARY SEWER FACILITIES. NOTIFICATION IS TO BE MADE BY CALLING 516-571-7502 OR 7505.

2. ALL WORK SHALL BE IN ACCORDANCE WITH NCDPW STANDARD SPECIFICATIONS AND DETAILS FOR THE CONSTRUCTION OF SANITARY SEWERS, LATEST EDITION 2003. ALL WORK MUST BE PERFORMED IN THE PRESENCE OF A NASSAU COUNTY INSPECTOR.

3. ALL SANITARY SEWER HOUSE CONNECTIONS AND LATERALS SHALL BE LOCATED PRIOR TO ANY EXCAVATION BY THE CONTRACTOR.

4. THE HORIZONTAL/VERTICAL SEPARATION OF SEWER AND DRAINAGE PIPE WATER MAINS/SERVICES SHALL MEET OR EXCEED THE REQUIREMENTS OUTLINED IN THE RECOMMENDED STANDARDS FOR SEWAGE WORKS (TEN STATE STANDARDS), LATEST EDITION.

5. WHERE SANITARY OR HOUSE CONNECTION SEWERS CROSS OVER A DRAINAGE TRENCH AREA, THE SEWER SHALL BE REPLACED WITH DUCTILE IRON EXTENDING A MINIMUM OF FIVE (5) FEET EACH SIDE OF CROSSING TO UNDISTURBED SOIL. THE SAME PLACEMENT SHALL APPLY FOR SEWERS UNDER A DRAINAGE TRENCH AREA WITHIN TWELVE (12) INCHES CLEARANCE, BOTTOM OF DRAIN TO TOP OF SEWER.

6. ALL PIPES, MANHOLES AND APPURTENANCES SHALL HAVE THE COUNTY APPROVAL STAMP THEREON OR WRITTEN CERTIFICATION ACCEPTABLE TO THE COUNTY BEFORE THE MATERIAL CAN BE INSTALLED.

7. WHERE IT IS NECESSARY TO RAISE SANITARY SEWER MANHOLE CASTINGS TO GRADE FOR REPAVING, FIXED FRAME CASTINGS MUST BE RAISED EITHER BY ADJUSTING THE HEIGHT OF THE BRICK MASONRY OR USING AN APPROVED INSERT (METAL INSERTS ARE NOT PERMITTED). ADJUSTABLE FRAME TYPE MANHOLES MAY BE RAISED BY ADDING UP TO A MAXIMUM OF TWO (2), ONE (1) INCH ADJUSTMENT RINGS TO ACHIEVE FINAL GRADE.

8. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS FOR ENTRY INTO A CONFINED SPACE WHENEVER IT IS NECESSARY FOR A CONTRACTOR'S EMPLOYEE TO ENTER A NASSAU COUNTY SANITARY SEWER MANHOLE. THE MINIMUM REQUIREMENTS THE CONTRACTOR MUST COMPLY WITH ARE:

   A. A CONTRACTOR ISSUED "ENTRY PERMIT".

   B. A CONFINED SPACE ENTRY MONITOR TO TEST FOR TOXIC, EXPLOSIVE AND OXYGEN DEFICIENT ATMOSPHERE.

   C. CONFINED SPACE RESCUE AND RETRIEVAL EQUIPMENT.

   THE CONTRACTOR WILL NOT BE PERMITTED TO WORK IN A NASSAU COUNTY SANITARY SEWER MANHOLE UNLESS HE/SHE COMPLIES WITH ALL APPLICABLE OSHA REQUIREMENTS.

SPECIFICATIONS AND STANDARDS:

ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE IN CONFORMITY WITH THE FOLLOWING NASSAU COUNTY DRAWINGS AND ADDITIONAL STANDARDS (AS MODIFIED IN THE CONTRACT PLANS AND SPECIFICATIONS ADDENDA):

A. COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS AND STANDARD SHEETS FOR CIVIL ENGINEERING AND SITE DEVELOPMENT CONSTRUCTION, PRINTED 2009; INCLUDING ALL ADDENDA, NOTES, MODIFICATIONS AND CORRECTIONS OF THE NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS SHALL APPLY WITH THE AMENDMENTS AND ADDED SPECIAL SPECIFICATIONS CONTAINED WITHIN THE PROJECT MANUAL.

B. COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF SANITARY SEWERS, 2003.

C. COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS STANDARD SHEETS FOR THE CONSTRUCTION OF SANITARY SEWERS, 2003.

D. COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS, TRAFFIC SIGNAL SPECIFIC, AND STANDARD DRAWINGS, NOVEMBER 1998.

E. NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT), STANDARD SPECIFICATIONS OF CONSTRUCTION AND MATERIALS, OFFICE OF ENGINEERING, DATED MAY 1, 2008 WITH CURRENT ADDITIONS AND MODIFICATIONS, AS REFERENCED AND/OR AS DESCRIBED IN THE CONTRACT DOCUMENTS.

F. THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

G. NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) US CUSTOMARY STANDARD SHEETS, CURRENT ADDITIONS AND MODIFICATIONS, AS REFERENCED AND/OR AS DESCRIBED IN THE CONTRACT DOCUMENTS.

TREE REMOVAL NOTES:

1. THE CONTRACTOR SHALL EXERCISE EXTREME CARE TO AVOID DAMAGE TO NATURAL GROWTH WITHIN THE PROJECT AREA. THE CONTRACTOR WILL BE REQUIRED TO REPLACE AT HIS OWN EXPENSE TREE, SHRUBBERY AND OTHER NATURAL FEATURES DESTROYED OR DAMAGED THROUGH CARELESSNESS.

2. TREES SPECIFICALLY CALLED FOR TO BE REMOVED ARE INDICATED ON THE PLANS. IT IS NOTED THAT ADDITIONAL TREES AND OTHER FORMS OF VEGETATION WILL BE REMOVED AS ORDERED BY ENGINEER (AOBE). PAYMENT FOR ALL REMOVALS WILL BE MADE UNDER THE APPROPRIATE TREE REMOVAL ITEM.

SAWCUTTING NOTES:

1. ALL SAWCUTTING REQUIRED FOR PAVEMENT AND JOINT REPAIR WORK IS INCLUDED IN THE BID PRICE FOR THE RESPECTIVE REPAIR ITEMS.

2. ALL SAWCUTTING NECESSARY FOR MEETING EXISTING CONDITION IN CONNECTION WITH RESTORATION WORK AREAS INCLUDING PAVEMENT ADJACENT TO PROPOSED CURB, MEET LINES AT EXISTING SIDEWALK ASSOCIATED WITH SIDEWALK RAMP WORK, SIDEWALK, AND DRIVEWAYS, ROADWAYS AND OTHER MEET LINES ASSOCIATED WITH RESTORATION WORK, SHALL BE PAID FOR UNDER ITEM 58RPC.

3. NO SEPARATE PAYMENT WILL BE PAID UNDER THE SAW CUT ITEMS, IF THE PAYMENT FOR SAW CUT IS INCLUDED IN OTHER ITEMS.

ARCHAEOLOGICAL NOTES:

1. WHEN ITEMS HAVING POSSIBLE ARCHAEOLOGICAL VALUE ARE ENCOUNTERED IN THE COURSE OF THE WORK, THE CONTRACTOR SHALL IMMEDIATELY HALT WORK IN THE VICINITY AND CALL TO THE ATTENTION OF THE ENGINEER THE PRESENCE OF SUCH ITEMS. THE ENGINEER WILL EITHER ORDER WORK TO PROCEED OR INSTRUCT THAT THE WORK HALT, BE EXTENDED UNTIL THE COUNTY ARCHAEOLOGIST CAN BE CONSULTED, AND PROPER STEPS CAN BE EMPLOYED TO PROTECT AND EXTRACT THE SPECIMENS. THE CONTRACTOR SHALL HAVE NO CLAIM TO THE OWNERSHIP OF ANY SUCH ITEM, OR TO EXTRA PAYMENT FOR DELAY WHICH MAY RESULT.

SUBGRADE EXCAVATION NOTES:

1. ALL UNDESIRABLE MATERIAL IN THE SUBGRADE SHALL BE EXCAVATED UNDER ITEM 2 AND BACKFILLED WITH EXCESS SUITABLE ITEM 2 MATERIAL WHERE AVAILABLE, OR ITEM 5C AND STABILIZED TO THE SATISFACTION OF THE ENGINEER.

2. PRIOR TO EXCAVATING WITHIN A 20 FEET RADIUS OF A TRAFFIC SIGNAL POLE, TEMPORARY GUY CABLES, TEMPORARY SHEETING AND BRACING, OR OTHER MEANS MAY BE REQUIRED TO ENSURE THAT THERE IS NOT MOVEMENT OF THE POLE FOUNDATION AS A RESULT OF THE EXCAVATION. WHERE REQUIRED TEMPORARY SHEETING AND BRACING SHALL BE FURNISHED, INSTALLED AND PAID UNDER ITEM 10A OR ITEM 10B (AS DETERMINED BY THE ENGINEER IN CHARGE OF INSPECTION), AS INCLUDED IN THE CONTRACT.

3. TEMPORARY GUY CABLES OR OTHER MEANS OF SUPPORT THAT ENTAIL AN ATTACHMENT TO THE TRAFFIC SIGNAL POLE WILL BE THE RESPONSIBILITY OF NASSAU COUNTY DPW TRAFFIC DIVISION.

4. PRIOR TO EXCAVATING WITHIN A 20 FEET RADIUS OF A UTILITY POLE, THE CONTRACTOR SHALL COORDINATE HIS/HER ACTIVITIES WITH THE OWNER TO DETERMINE WHETHER TEMPORARY SUPPORT OF THE POLE IS REQUIRED. WHERE DESIRED BY THE OWNER, TEMPORARY SHEETING AND BRACING SHALL BE FURNISHED, INSTALLED AND PAID UNDER ITEM 10A OR ITEM 10B (AS DETERMINED BY THE ENGINEER IN CHARGE OF INSPECTION), AS INCLUDED IN THE CONTRACT.

5. TEMPORARY GUY CABLES OR ANY OTHER MEANS OF SUPPORT THAT ENTAIL AN ATTACHMENT TO THE UTILITY POLE WILL BE THE RESPONSIBILITY OF THE OWNER.

SURVEY DATUM NOTES:

1. ALL ELEVATIONS SHOWN ON THESE PLANS REFER TO THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88).

2. THE HORIZONTAL DATUM USED ON THIS PROJECT IS NORTH AMERICAN DATUM 1983 (2011) EPOCH 2010.00 (NEW YORK STATE PLANE COORDINATE SYSTEM, LONG ISLAND ZONE0. ALL LINEAR MEASUREMENTS ARE IN U.S. SURVEY FEET.

PROTECTION OF FACILITIES NOTES:

1. THE CONTRACTOR SHALL PROTECT ALL WORK DONE UNDER THIS CONTRACT FROM POSSIBLE DAMAGE FOR THE DURATION OF THE CONTRACT. HE SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT, TO THE SATISFACTION OF THE ENGINEER, OF ANY MATERIAL, STRUCTURE, OR PROPERTY ON OR ADJACENT TO THE SITE AND DAMAGED BY HIM OR HIS EMPLOYEES THROUGH THE CONSTRUCTION OPERATIONS UP TO THE TIME OF ACCEPTANCE BY THE COUNTY.

MISCELLANEOUS NOTES:

1. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT, DUE TO THE NATURE OF RECONSTRUCTION PROJECTS, THE EXACT EXTENT OF RECONSTRUCTION WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER INFORMATION AVAILABLE AT THE TIME. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE WITH FIELD CONDITIONS AS DIRECTED BY THE ENGINEER RESPONSIBLE FOR CONSTRUCTION INSPECTION.

2. THE CONTRACTOR SHALL TAKE PRECAUTIONS NOT TO LEAVE DEBRIS, MATERIALS, AND TOOLS, ETC., ON THE ROADWAY SURFACE WHEN LEAVING THE WORK AREA. IN ADDITION, THE CONTRACTOR SHALL TAKE PRECAUTIONS THAT NO DEBRIS, ETC., INTERFERES WITH ADJACENT OPEN TRAFFIC LANES AND PEDESTRIAN WALKS.

3. THE CONTRACTOR SHALL TAKE POSITIVE STEPS TO PREVENT THE SPLATTERING OF VEHICLES. THE CONTRACTOR SHALL PROVIDE FOR THE PROMPT CLEANING OF ANY VEHICLES SPLATTERED BY CONTRACTORS OPERATIONS AND SHALL PAY FOR THE CLEANING. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS IN THE CONTRACT.

4. ALL OPERATIONS SHALL BE CONDUCTED SO AS NOT TO INTERFERE WITH, INTERRUPT, OR ENDANGER THE OPERATION OF TRAFFIC, NOR DAMAGE, DESTROY, OR ENDANGER THE INTEGRITY OF COUNTY OR STATE FACILITIES OR ADJACENT PROPERTIES.

5. NCDPW WILL NOT UNDERTAKE OR ACCEPT FINANCIAL RESPONSIBILITY FOR ANY REMEDIATION OR SIMILAR ACTIVITY WITH RESPECT TO THE REMOVAL OF HAZARDOUS WASTES (6 NYCRR PART 373 AND 374) AND NON-HAZARDOUS SOLID INDUSTRIAL WASTES (6 NYCRR PART 360), WHICH UNDER LAW WOULD NOT BE REQUIRED AT THE TIME BUT FOR THE ACCOMMODATION OF UTILITY FACILITIES WITHIN THE RIGHT-OF-WAY. SUCH RESPONSIBILITY AND COSTS SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

6. PAVEMENT AND SHOULDER REMOVAL SHALL BE DONE IN A MANNER THAT PROVIDES FOR PROPER RESTORATION OF THE REPLACEMENT SECTION. GENERALLY, STRAIGHT, VERTICAL CUTS OF THE PAVEMENT AND SHOULDER WILL BE REQUIRED. SHEETING MAY BE REQUIRED. PAVEMENT THAT BECOMES UNDERMINED SHALL BE CUT BACK AND REMOVED. ALTERNATIVE REPAIR METHODS MAY BE USED IF PRIOR APPROVAL IS GRANTED BY THE COUNTY.

7. THE LIMIT OF PAVEMENT REPLACEMENT SHALL BE SUCH THAT THE REPLACED PAVEMENT IS SUPPORTED BY THOROUGHLY COMPACTED SUBBASE MATERIAL AND THE PAVEMENT IS RESTORED TO THE PROPER GRADE, SURFACE TOLERANCE AND SURFACE TEXTURE.

8. EXCAVATIONS SHALL BE CONDUCTED IN COMPLIANCE WITH New York STATE INDUSTRIAL CODE PART (RULE NO. 23) AND INDUSTRIAL CODE PART (RULE NO. 53).

9. A CONSTRUCTION TRAILER SHALL BE PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH CONTRACT ITEM 1M/F - MOBILIZATION WITH FIELD OFFICE.

10. THE CONTRACTOR IS NOTIFIED THAT PROPOSED WORK AREAS SHALL BE CONFINED TO NASSAU COUNTY RIGHT-OF-WAY, UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER. IF IT IS NOT FEASIBLE TO PERFORM THE PROPOSED WORK WITHOUT ENTERING PRIVATE PROPERTY, THE WORK IN QUESTION MAY BE ELIMINATED FROM THE PROJECT, AS DIRECTED BY THE COUNTY ENGINEER. NASSAU COUNTY MUST BE ADVISED PRIOR TO THE ENCROACHMENT ONTO PRIVATE PROPERTY, IN THE EVENT THAT ANY WORK AREAS BEYOND THE RIGHT-OF-WAY BECOME NECESSARY.

CURBS AND SIDEWALK NOTES:

1. NEW CURBS NOT ABUTTING EXISTING CURB SHALL BE RAMPED DOWN TO ZERO HEIGHT REVEAL IN THE LAST 10 FT, AT LOCATIONS FACING TRAFFIC. AT EXIT GORES CURB SHALL BE RAMPED DOWN IN 20 FT ON BOTH SIDES OF THE GORE.

2. THE PLANS SPECIFICALLY CALL FOR THE REMOVAL AND REPLACEMENT OF EXISTING CURBS DETERMINED TO BE DAMAGED AND/OR IN DIRECT CONFLICT WITH THE PROPOSED WORK. OTHER EXISTING CURBS ARE TO BE REMOVED IN AREAS OF OBVIOUS CONFLICT WITH THE PROPOSED WORK, NOT SHOWN ON THE PLANS OR WHERE ORDERED BY THE ENGINEER.

UTILITY NOTES:

1. THE LOCATIONS AND SIZES OF EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND ARE NOT GUARANTEED. THE CONTRACTOR IS FOREWARNED TO ASCERTAIN AND DETERMINE THE PRECISE LOCATIONS PREPARATORY TO EXCAVATION.

   THE CONTRACTOR SHALL CONTACT UTILITY COMPANIES AND "ONE-CALL CENTER" AT TELEPHONE NUMBER 1-800-272-4480 OR "NEW YORK 811" (TELEPHONE NUMBER IS 811) FOR MARK-OUT OF ALL FACILITIES PRIOR TO CONSTRUCTION. THE UTILITY COMPANIES AND "ONE-CALL CENTER" SHALL BE NOTIFIED A MINIMUM OF FIVE (5) WORKING DAYS BEFORE THE CONTRACTOR COMMENCES WORK. ANY UTILITY RELOCATIONS OR CROSSINGS SHALL BE COORDINATED WITH THE UTILITY COMPANY OWNING THE FACILITY.

   NASSAU COUNTY OWNED UTILITIES SHALL BE LOCATED BY TONING, TEST HOLES & OTHER METHODS AS APPROVED BY THE ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO REPAIR OR REPLACE UTILITIES DAMAGED BY CARELESSNESS.

2. EXISTING UTILITY FACILITIES REMOVAL, RELOCATION, OR MODIFICATION SHALL BE COMPLETED PRIOR TO COMMENCING WORK. CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THE MODIFICATION OF ALL UTILITIES.

3. EXISTING UNDERGROUND AND OVERHEAD UTILITIES AS SHOWN HEREIN HAVE BEEN DETERMINED BY STANDARD SURVEYING METHODS AND AVAILABLE RECORDS. NEITHER THE EXACT LOCATION NOR THE INFORMATION OF THESE EXISTING UTILITIES IS GUARANTEED TO BE COMPLETE OR CORRECT.

4. THE UTILITY LOCATION QUALITY LEVEL LABELING CONVENTION SHOWN ON THE PLANS DOES NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATIONS.

   THE QUALITY LEVEL DEFINITIONS ARE:

   QUALITY LEVEL A - THE HIGHEST DEGREE OF ACCURACY: THE UTILITY INFORMATION ON THE CONTRACT PLANS HAS BEEN FIELD LOCATED AND VERIFIED BY EXCAVATION, WHEN APPROPRIATE. (SHOWN AS QLA).

   QUALITY LEVEL B - SUBSURFACE GEOPHYSICAL LOCATING TECHNIQUES (THAT IS, UNDERGROUND CAMERAS, RADAR, SONAR, TONE OUTS, ETC.) AND EXISTING RECORD PLANS HAVE BEEN USED TO LOCATE UTILITIES. NO EXCAVATIONS WERE PERFORMED. (SHOWN AS QLB).

   QUALITY LEVEL C - RECORD INFORMATION PROVIDED BY UTILITY OWNERS WAS PLOTTED ON THE CONTRACT PLANS. DEPTHS WERE NOT FIELD VERIFIED. PHYSICAL SURFACE FEATURES LIKE MANHOLES, VALVE BOXES AND HYDRANTS HAVE BEEN FIELD LOCATED. (SHOWN AS QLC).

   QUALITY LEVEL D - EXISTING NYSDOT, NCDPW AND UTILITY COMPANY RECORDS WERE USED TO LOCATE SUBSURFACE UTILITIES. (SHOWN AS QLC).

5. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND FACILITIES TO AVOID CONFLICTS WITH ANY NEW UNDERGROUND WORK. THE CONTRACTOR SHALL DIG TEST HOLES AS DIRECTED BY THE ENGINEER RESPONSIBLE FOR CONSTRUCTION INSPECTION TO DETERMINE EXACT LOCATIONS OF EXISTING UTILITIES, AS DEEMED APPROPRIATE. THE WORK SHALL BE PROGRESSED AND PAID UNDER ITEM 122 - TEST HOLES.

6. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF AND COST OF ALL UTILITY RELOCATIONS OR ADJUSTMENTS THAT ARE SHOWN TO BE DONE BY OTHERS.

7. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH ALL VOLTAGES CARRIED IN OVERHEAD OR UNDERGROUND UTILITY SERVICES. PSEG-LI WILL FURNISH ELECTRIC SERVICE INFORMATION UPON REQUEST. NATIONAL GRID WILL FURNISH APPROXIMATE LOCATIONS AND DEPTHS OF GAS MAINS UPON REQUEST. THIS INFORMATION IS NOT GUARANTEED. THE CONTRACTOR SHALL INDEPENDENTLY DETERMINE WHETHER INTERFERENCE EXISTS IN ALL CRITICAL AREAS.

8. ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH CODE RULE 57 ("HIGH VOLTAGE PROXIMITY ACT") OF THE New York STATE LABOR LAW.

9. PRIOR TO EXCAVATING IN THE VICINITY OF UTILITY POLES, THE CONTRACTOR SHALL CONTACT THE POLE'S OWNER TO DETERMINE THE TYPE OF TEMPORARY POLE SUPPORT REQUIRED. NO SEPARATE PAYMENT WILL BE MADE FOR TEMPORARY SUPPORT OF UTILITY POLES, WHERE REQUIRED. THE COST OF TEMPORARY POLE SUPPORT SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

10. THE CONTRACTOR SHALL NOTIFY THE TRAFFIC ENGINEERING (SHELIA DUKACZ) AT 516-572-0465 TWO DAYS PRIOR TO ANY WORK ADJACENT TO TRAFFIC SIGNALS.

SURVEY NOTES:

1. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROTECT SURVEY MONUMENTS FROM DISTURBANCE, OR DAMAGE. IF ANY MONUMENT IS DISTURBED IT WILL BE THE CONTRACTORS RESPONSIBILITY TO REPLACE THE MONUMENT AND TO ESTABLISH THE REVISED COORDINATES BY FIRST ORDER SURVEY METHODS. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.

2. ANY EXPENSE INCURRED IN REPLACING MONUMENTS OR BENCHMARKS THAT THE CONTRACTOR, OR ANY EMPLOYEE, MAY HAVE FAILED TO PRESERVE SHALL BE CHARGED DIRECTLY TO THE CONTRACTOR OR DEDUCTED FROM THE TOTAL AMOUNT OF THE POST PERFORMANCE BOND.

3. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION SURVEY LAYOUT AND STAKEOUT. THE COST SHALL BE PAID FOR UNDER THE UNIT PRICE BID FOR ITEM 136.

4. THE SURVEY BASELINE SHOWN ON THESE PLANS IS APPROXIMATE AND IS SHOWN FOR TABULATING AND FILING PURPOSES ONLY. THE BASELINE/SURVEY CONTROL DATA IS FURNISHED ON THE PLAN DRAWINGS (UNDER MISCELLANEOUS TABLES). PAYMENT SHALL BE INCLUDED IN THE SURVEY STAKEOUT ITEM 136.

DRAINAGE NOTES:

1. EXISTING DRAINAGE PIPE INVERTS ARE TO BE VERIFIED BY THE CONTRACTOR WHERE REQUIRED TO FACILITATE REPAIRS AS SHOWN ON THE PLANS OR WHERE DIRECTED BY THE ENGINEER. WHERE NEW DRAINAGE PIPE INVERTS ARE SHOWN ON THE PLANS, THEY SHALL BE MODIFIED AS FIELD CONDITIONS REQUIRE AND AS DIRECTED BY THE ENGINEER RESPONSIBLE FOR CONSTRUCTION INSPECTION.

2. ALL DRAINAGE STRUCTURES WITHIN THE PROJECT LIMITS MUST BE MAINTAINED AND BE OPERABLE AT ALL TIMES DURING CONSTRUCTION.

3. THE CONTRACTOR SHALL FURNISH AND INSTALL EXCAVATION AND PROTECTION SYSTEMS AS REQUIRED FOR THE INSTALLATION OF NEW, AND MODIFICATIONS TO EXISTING DRAINAGE STRUCTURES. COSTS FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 10A-1-EXCAVATION PROTECTION SYSTEM, WHEN INCLUDED IN THE CONTRACT.

4. THE CONTRACTOR SHALL VERIFY EXISTING DRAINAGE STRUCTURE SIZES AND TYPES PRIOR TO MAKING ANY MODIFICATIONS TO TOP SLAB, CASTINGS, OR ANY OTHER MODIFICATIONS THAT MAY BE REQUIRED.

5. PRIOR TO THE INSTALLATION OF NEW DRAINAGE, THE CONTRACTOR SHALL DIG TEST HOLES AT NEW STRUCTURE LOCATIONS TO DETERMINE THE EXACT LOCATION OF THE EXISTING UNDERGROUND UTILITIES. IF IT IS DETERMINED BY THE ENGINEER RESPONSIBLE FOR CONSTRUCTION INSPECTION THAT A CONFLICT EXISTS BETWEEN THE EXISTING UTILITIES AND THE NEW DRAINAGE STRUCTURE LOCATIONS, THE CONTRACTOR SHALL SUBSTITUTE AND INSTALL OFFSET OR OTHER TYPE OF CATCH BASINS IN LIEU OF THE STRUCTURES SHOWN ON THE PLANS.TEST HOLES SHALL BE PAID FOR UNDER ITEM 122-TEST HOLES.

6. CURB BOX AND FRAME TYPE "A" AND GRATE TYPE "A" SHALL BE USED FOR CATCH BASINS TYPES "A", "C" AND "11" UNLESS OTHERWISE NOTED. PAYMENT SHALL BE MADE UNDER ITEM 34-MISCELLANEOUS METALS.

7. ALL EXISTING DRAINAGE CASTINGS ARE THE PROPERTY OF THE COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS AND UPON REMOVAL FROM STRUCTURES, THEY SHALL BE PROPERLY STORED AND PROTECTED, UNTIL SUCH TIME THAT THEY MAY BE REMOVED BY THE NASSAU COUNTY HIGHWAY DEPARTMENT. THE CONTRACTOR WILL NOTIFY THE HIGHWAY DEPARTMENT IN WRITING WHERE AND WHEN THESE CASTINGS MAY BE REMOVED FROM THE JOB SITE.

SILT PROTECTION/EROSION CONTROL

1. ALL CATCH BASINS MUST BE PROTECTED PRIOR TO THE START OF WORK - ITEM 141B & ITEM 141C, UNLESS OTHERWISE DIRECTED BY THE ENGINEER RESPONSIBLE FOR THE CONSTRUCTION INSPECTION.

2. GROUND WATER MAY BE ENCOUNTERED DURING THE INSTALLATION OF THE VARIOUS CONTRACT ITEMS. THE COST FOR NECESSARY DEWATERING SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

3. ALL NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PREVENT DIRECT OR INDIRECT CONTAMINATION OF ALL WATER BODIES BY SILT, SEDIMENT, ROADWAY MILLINGS, FUELS SOLVENTS, LUBRICANTS, CONCRETE LEACHATE, OR ANY OTHER POLLUTANT ASSOCIATED WITH CONSTRUCTION AND CONSTRUCTION PROCEDURES. DURING CONSTRUCTION, NO WET OR FRESH CONCRETE OR LEACHATE SHALL BE ALLOWED TO ESCAPE DIRECTLY OR INDIRECTLY INTO ANY WATER BODIES, NOR SHALL WASHINGS FROM CONCRETE TRUCKS, MIXERS, OR OTHER DEVISES BE ALLOWED TO ESCAPE DIRECTLY OR INDIRECTLY INTO ANY WATER BODIES. THE CONTRACTOR SHALL TAKE CARE TO REMOVE ALL MILLINGS AT THE END OF EACH WORK DAY, BY METHODS OUTLINED UNDER THE PAVING SECTION OF THESE GENERAL NOTES OR METHODS AS APPROVED BY THE ENGINEER, SO AS NOT TO DIRECTLY OR INDIRECTLY CAUSE SAID MILLINGS TO BE DEPOSITED INTO SURFACE WATERS. THE COST TO PERFORM THIS WORK IS TO BE INCLUDED IN THE UNIT PRICES BID FOR THE VARIOUS CONTRACT ITEMS, UNLESS OTHER METHODS OF PAYMENT ARE SPECIFIED WITHIN THE CONTRACT DOCUMENTS.

CLEANING OF EXISTING DRAINAGE

1. ALL EXISTING CATCH BASINS THAT LIE WITHIN THE CONTRACT LIMITS, AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER SHALL BE CLEANED UNDER ITEM 12H. CONNECTING PIPES SHALL BE CLEANED FOR A DISTANCE OF 3 FT FROM THE INSIDE WALL OF EACH STRUCTURE. THE COST OF THIS CLEANING SHALL BE INCLUDED UNDER ITEM 12H, UNLESS THE REMAINING PIPE (BEYOND 3 FT) IS MORE THAN 25% FULL AS DETERMINED BY THE ENGINEER. IF IT IS MORE THAN 25% FULL, THE ENTIRE PIPE SHALL BE CLEANED UNDER ITEM 12H, AND MEASUREMENT FOR PAYMENT WILL BE MADE BETWEEN THE INSIDE WALL SURFACES OF ADJACENT MANHOLES OR OTHER DRAINAGE STRUCTURES

2. EXISTING DRAINAGE PIPE SHALL BE CLEANED AS DIRECTED BY THE ENGINEER ON AN AS NEEDED BASIS. A DETAILED LISTING OF THE EXISTING DRAINAGE PIPES WITHIN THE PROJECT IS NOT PROVIDED ON THE PLANS OR KNOWN AT THIS TIME. HOWEVER, AN ESTIMATE OF THE QUANTITY OF LINEAR FEET OF PIPE TO BE CLEANED IS PROVIDED FOR BIDDING PURPOSES, AND MAY BE INCREASED OR DECREASED BASED ON ACTUAL FIELD CONDITIONS ENCOUNTERED AND AS DIRECTED BY THE ENGINEER. THE QUANTITY PROVIDED IS BASED ON THAT ESTIMATE. PAYMENT FOR CLEANING EXISTING PIPE AS ORDERED BY THE ENGINEER SHALL BE PAID FOR UNDER BID ITEM 12H.

3. THE WORK INVOLVED IN CLEANING THE EXISTING DRAINAGE BASINS, ITEM 12H-X, IS TO BE DONE IMMEDIATELY PRIOR TO MILLING. AT EACH BASIN THE CONTRACTOR IS TO PROGRESS THE CLEANING WHILE OBSERVING THE BASIN WALLS. IF PORTIONS OF ANY BASINS WALLS ARE SIGNIFICANTLY DETERIORATED, AS DETERMINED BY THE ENGINEER, CLEANING SHALL TERMINATE. PAYMENT WILL BE MADE UNDER ITEM 12 H-X REGARDLESS OF THE EXTENT TO WHICH THE BASIN HAS BEEN CLEANED. THE ENGINEER WILL THEN DETERMINE IF THE BASIN CAN REMAIN AS IS OR IS TO BE ABANDONED, REPAIRED, OR REPLACED. AS THIS DETERMINATION CANNOT BE MADE BY THE ENGINEER UNTIL THE CLEANING OF THE DRAINAGE STRUCTURE IS ADVANCED, CERTAIN ITEMS AND QUANTITY OF WORK RELATED TO THE POTENTIAL NEED TO ABANDON, REPAIR, OR REPLACE EXISTING DRAINAGE STRUCTURES HAS BEEN ADDED TO THIS CONTRACT AS CONTINGENCY ITEMS.

REMOVAL AND REINSTALLATION OF SIGNS NOTES

1. WORK TO BE DONE UNDER THIS CONTRACT SHALL INCLUDE THE REMOVAL, SAFE STORAGE AND REPLACEMENT OF ALL STREET NAME SIGNS, REGULATORY OR OTHER TRAFFIC SIGNS WHERE SUCH REMOVAL AND REPLACEMENT IS NECESSARY TO COMPLETE THE WORK. THE CONTRACTOR SHALL SUPPLY AND INSTALL A 3" DIAMETER PVC SLEEVE OF NECESSARY LENGTH TO FACILITATE THE REINSTALLATION OF STREET NAME SIGNS, REGULATORY AND PARKING SIGNS IN PAVED AREAS, (CONCRETE OR ASPHALT). THE COST SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS.

MAINTENANCE OF TRAFFIC NOTES

1. THE CONTRACTOR SHALL PERFORM HIS WORK IN SUCH A MANNER AND SEQUENCE THAT INTERFERENCE, RESTRICTIONS AND DELAYS TO THE TRAVELING PUBLIC WILL BE KEPT TO AN ABSOLUTE MINIMUM.

2. THE CONTRACTOR SHALL PROVIDE SAFE AND PASSABLE WALKWAYS THAT ARE ADA COMPLIANT, FOR PEDESTRIAN TRAFFIC WITHIN THE PROJECT LIMITS.

3. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE PROVISIONS OF THE NEW YORK STATE SUPPLEMENT TO THE NATIONAL MUTCD. IN ADDITION, WORK ZONE TRAFFIC CONTROL DRAWINGS AS MAY BE REQUIRED SHALL BE IN ACCORDANCE WITH THE APPLICABLE NYSDOT STANDARD DRAWINGS FOR SECTION 619-WORK ZONE TRAFFIC CONTROL AND SHALL BE SUBMITTED TO NCDPW FOR REVIEW AND ACCEPTANCE. WORK ZONE TRAFFIC CONTROL DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR FOR ANY AND ALL PROJECT ROADWAY SEGMENTS REQUIRING DETOURS AND/OR LANE CLOSURES TO SAFELY EXECUTE THE PROJECT WORK, AS DETERMINED BY THE COUNTY AND/OR THEIR REPRESENTATIVES.

4. SEE ADDITIONAL NOTES FOR MAITENANCE OF TRAFFIC ON DRAWING NO. XX - WORK ZONE TRAFFIC CONTROL.

ADA CURB RAMP NOTES

1. ALL CURB RAMPS TO BE INSTALLED WHERE SHOWN ON THE PLANS OR AS ORDERED BY THE ENGINEER SHALL BE IN COMPLIANCE WITH ADA, PROWAG, AND NCDPW STANDARDS.

2. THE CONTRACTOR SHALL VERIFY THE PLACEMENT OF ALL NEW RAMP CONFIGURATIONS PRIOR TO INSTALLATION. THE CONTRACTOR MUST GIVE 48HRS (2 BUSINESS DAYS) NOTIFICATION FOR NCDPW APPROVAL.

3. A NCDPW INSPECTOR MUST BE PRESENT DURING THE INSTALLATION OF ANY CURB RAMP.

4. IT IS RECOMMENDED THAT A SMART LEVEL TOOL (OR EQUIVALENT) IS USED TO CHECK THE SLOPES ON ALL FORM WORK PRIOR TO THE PLACEMENT OF CONCRETE.

5. NCDPW CIVIL ENGINEERING UNIT MUST BE NOTIFIED IN WRITING OF ANY WORK DONE TO CURB EXISTING CURB RAMPS SO THAT NASSAU COUNTY OR THEIR REPRESENTATIVES CAN UPDATE THE COUNTY'S TRANSITION PLAN INVENTORY.

PAVING

1. TACK COAT SHALL BE APPLIED WHENEVER RESURFACING:(1) ANY PORTLAND CEMENT CONCRETE PAVEMENT RECEIVING AN OVERLAY; 2) ANY MILLED PAVEMENT; AND (3) ANY ASPHALT CONCRETE PAVEMENT EXCEPT WHEN THE EXISTING SURFACE IS EXCESSIVELY FLUSHED, AS DETERMINED BY THE ENGINEER. IN ADDITION, TACK COAT SHALL BE APPLIED TO CONTACT SURFACES BETWEEN ALL HOT MIX ASPHALT PAVEMENT LIFTS REGARDLESS OF TIME PERIOD BETWEEN LIFTS OR CONSTRUCTION VEHICLE USE.

2. WHERE NOTCHES ARE CUT INTO THE EXISTING PAVEMENT IN PREPARATION FOR THE PAVEMENT RESTORATION, THE CONTRACTOR SHALL SAW CUT AND TAKE CARE TO MAINTAIN THE VERTICAL EDGE OF THE RESTORATION LIMIT PRIOR TO PAVING. SAW CUTTING SHALL BE PAID FOR ONCE UNDER ITEM 58RPC. ADDITIONAL SAW CUTTING REQUIRED TO MAINTAIN A VERTICAL EDGE PRIOR TO PAVING SHALL BE DONE AT THE CONTRACTORS EXPENSE. THE CONTRACTOR SHALL EITHER PLACE THE PROPOSED ASPHALT RESTORATION IMMEDIATELY OR PLACE A TEMPORARY WEDGE (1 ON 60) OF ASPHALT TO ELIMINATE THE BUMP CREATED BY THE NOTCH. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE PAVING ITEMS.

3. DURING PAVING OPERATIONS, THE CONTRACTOR SHALL ENSURE THAT THE VERTICAL CHANGE (BETWEEN THE FINISHED PAVEMENT AND THE RAMP) AT ALL THE SIDEWALK CURB RAMPS WITHIN THE PROJECT LIMITS IS LESS THAN ONE-EIGHT INCH (1/8") ACROSS THE ENTIRE RAMP WIDTH.

4. THE CONTRACTOR SHALL FULLY RESTORE ALL ON-STREET PARKING ON ALL ROADWAYS AND AFFECTED SIDE STREETS WITHIN THE PROJECT LIMITS BEFORE THE END OF EACH WORK SHIFT. LOCAL AGENCIES AND AFFECTED BUSINESS ESTABLISHMENTS SHALL BE GIVEN A MINIMUM OF SEVENTY-TWO (72) HOUR ADVANCED NOTICE PRIOR TO THE PLANNED CLOSURES OF THE ON-STREET PARKING AREAS.

CONCRETE PAVEMENT REPAIR NOTES:

1. IN AREAS WHERE COMPOSITE PAVEMENT REPAIRS ARE NOTED ON THE PLANS OR WHERE DIRECTED BY THE ENGINEER, AND CONCRETE PAVEMENT REPAIRS ARE TO BE MADE UNDER ITEM 23SP-CONCRETE FOUNDATION FOR PAVEMENT, THE CONTRACTOR SHALL USE CLASS F HIGH EARLY STRENGTH CONCRETE. THE USE OF STEEL PLATES TO PROTECT THE CONCRETE REPAIR DURING ITS CURING TIME AND TO PERMIT OPENING OF THE ROADWAY TO TRAFFIC AT THE END OF THE WORK DAY SHALL BE PERMITTED. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE COUNTY FOR APPROVAL DEPICTING THE STEEL PLATE TO BE USED AND THE METHOD PROPOSED TO POSITION AND SECURE THE PLATE AT THE REPAIR LOCATION SO AS TO AVOID DISLOCATION OF THE STEEL PLATE DURING ITS USE.

PAVEMENT MARKING NOTES:

1. AFTER THE PAVEMENT RESTORATION IS COMPLETE, THE CONTRACTOR SHALL PLACE PERMANENT PAVEMENT MARKINGS TO MATCH EXISTING ADJACENT MARKINGS.

AS THIS WORK IS MINIMAL IN NATURE, PAYMENT RESTORING MISSING PAVEMENT MARKINGS AS A RESULT OF THE PROPOSED WORK SHALL BE INCLUDED UNDER THE VARIOUS CONTRACT BID FOR THE PROJECT.

WORK HOURS NOTES:

1. FOR THIS PROJECT, NORMAL WORK HOURS SHALL BE 8:00 AM TO 4:30 PM. HOURS FOR WORK ON ROADWAYS SHALL BE 9:00 AM TO 4:00 PM UNLESS OTHERWISE NOTED OR APPROVED BY THE COUNTY. LANE CLOSURES ARE ONLY PERMITTED ON NON-HOLIDAY WEEKDAYS BETWEEN 10:00 AM AND 3:00 PM IN ACCORDANCE WITH THE APPROVED SCHEDULE. UNLESS OTHERWISE PROVIDED IN THE CONTRACT DOCUMENTS OR APPROVED BY THE COUNTY, NO LANE CLOSURES WILL BE PERMITTED ON WEEKENDS.

2. WORK IS NOT PERMITTED ON ALL HOLIDAYS UNLESS PRIOR COUNTY APPROVAL IS OBTAINED. THIS INCLUDES MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, VETERANS DAY, FROM NOON BEFORE THANKSGIVING DAY THROUGH THE SUNDAY FOLLOWING THANKSGIVING DAY, CHRISTMAS EVE, CHRISTMAS DAY, NEW YEAR'S EVE, NEW YEAR'S DAY; AND THE JEWISH HOLIDAYS, INCLUDING: ROSH HASHANA, SUKKOT, SHMINI ATZERET, SIMCHAT TORAH, AND YOM KIPUR. SIMILAR PROVISIONS SHALL APPLY TO CONSTRUCTION DURING OTHER OBSERVED HOLIDAYS NOT SPECIFICALLY LISTED HEREIN.

3. SEE WORK ZONE TRAFFIC CONTROL DRAWINGS FOR ADDITIONAL NOTES AND PERMITTIED WORK TIMES.

SPECIAL NOTES:

1. THE CONTRACTOR IS REQUIRED TO COORDINATE HIS WORK WITH PUBLIC AGENCIES AND PRIVATE UTILITY COMPANIES TO AVOID CONFLICTS AND TO ARRANGE FOR CASTINGS AND APPURTENANCES WHICH ARE TO BE ADJUSTED BY OTHERS IN ADVANCE OF PERFORMING ANY FINAL PAVEMENT OVERLAY WORK.

2. THE AREAS AND TYPES OF PAVEMENT REPAIRS SHOWN ON THE PLANS WERE THE RESULT OF A FIELD INSPECTION TO ASSESS THE CONDITIONS AND TYPE OF THE EXISTING ROADWAY SURFACE AND UNDERLAYMENT PAVEMENT TO BE DISRUPTED BY THE PROPOSED WORK AND SUBSEQUENTLY REPAIRED.

3. THE CONTRACTOR IS REQUIRED TO OBTAIN APPROVAL FOR PROPOSED SIDEWALK RAMP TYPE AND LAYOUT FROM THE COUNTY REPRESENTATIVE PRIOR TO CONSTRUCTING ANY NEW SIDEWALK RAMPS.

4. THE CONTRACTOR IS REQUIRED TO OBTAIN APPROVAL OF LAYOUT OF PROPOSED PAVEMENT MARKINGS FROM THE COUNTY REPRESENTATIVE PRIOR TO STRIPING THE PERMANENT PAVEMENT MARKINGS.

5. THE CONTRACTOR SHALL PREPARE AND SUBMIT A PROJECT SCHEDULE INDICATING ANTICIPATED DURATION OF EACH WORK OPERATIONS BY LOCATION AND TYPE AND ANY PLANNED LANE CLOSURES TO THE COUNTY FOR REVIEW AND APPROVAL PRIOR TO STARTING ANY WORK. THEREON, THE CONTRACTOR SHALL PREPARE AND SUBMIT WEEKLY PROJECT SCHEDULES, INDICATING THE SAME, TO THE COUNTY NO LATER THAN THE FRIDAY MORNING BEFORE THE SUBJECT WEEK.

THE CONTRACTOR SHALL, AT LEAST SEVENTY-TWO (72) HOURS IN ADVANCE, NOTIFY THE POLICE, SCHOOL DISTRICTS WITH BUS ROUTES IN THE AREA, FIRE DEPARTMENT, ETC. IN WRITING WITH A COPY TO THE COUNTY. IF THE CLOSURE OF A STREET OR ROAD IS NECESSARY, THE CONTRACTOR SHALL COOPERATE WITH THE POLICE DEPARTMENT IN THE ESTABLISHMENT OF ALTERNATE ROUTES AND SHALL PROVIDE ADEQUATE DETOUR SIGNS, PLAINLY MARKED AND IN ACCORDANCE WITH THE MUTCD, IN ORDER TO MINIMIZE CONFUSION. THE CONTRACTOR SHALL MAINTAIN THE ROADWAY IN A "PASSABLE" CONDITION FOR THE USE OF EMERGENCY VEHICLES AT ALL TIMES DURING THE CONSTRUCTION. ACCESSIBILITY TO FIRE HYDRANTS, POLICE AND FIRE CALL BOXES SHALL BE MAINTAINED AT ALL TIMES.

6. THE CONTRACTOR SHALL MAINTAIN SAFE AND ADEQUATE VEHICULAR AND PEDESTRIAN ACCESS TO BUSINESSES AND RESIDENCES WITHIN THE PROJECT LENGTH. THE CONTRACTOR SHALL NOTIFY, IN WRITING, PROPERTY OWNERS AT LEAST TWO (2) WORKING DAYS IN ADVANCE OF CLOSING DRIVEWAYS. THIS WORK MAY INCLUDE PROVIDING TEMPORARY PLYWOOD OR ASPHALT WALKWAYS OR INSTALLING TEMPORARY RAMPS AND/OR STEEL PLATES TO OPEN DRIVEWAYS DURING OR AT THE END OF EACH DAY.

7. ALL CASTINGS OVER 1" ABOVE SURROUNDING PAVEMENT SHALL PROTECTED BY THE CONTRACTOR BY A CONSTRUCTION DRUM AND FLASHING LIGHT. THE CONTRACTOR, AT THEIR OPTION, MAY RAMP THE PROTRUDING CASTING ON A 1 ON 10 SLOPE WITH THE TEMPORARY ASPHALT ITEM.

8. WITH REGARD TO ITEM 102PVMS (PORTABLE VARIABLE MESSAGE SIGN - LED ENHANCED DISK MATRIX) THE NUMBER OF DAYS PER PVMS SHALL BE MEASURED AS THE NUMBER OF DAYS A PVMS IS IN-PLACE AND OPERATIONAL (I.E., DISPLAYING A MESSAGE). ANY PVMS THAT IS NOT IN-PLACE SHALL NOT BE MEASURED FOR PAYMENT. ADDITIONALLY, ANY PVMS THAT IS IN-PLACE, BUT NOT DISPLAYING A MESSAGE SHALL NOT BE MEASURED FOR PAYMENT.

9. DEWATERING - THE CONTRACTOR SHALL AT ALL TIMES DURING THE PROGRESS OF THE WORK KEEP THE TRENCHES AND EXCAVATIONS FREE FROM WATER. THE WATER FROM THE TRENCHES AND EXCAVATIONS SHALL BE DISPOSED OF IN SUCH A MANNER AS WILL NOT CAUSE INJURY TO THE PUBLIC HEALTH, NOR TO PUBLIC OR PRIVATE PROPERTY, NOR TO THE WORK COMPLETED OR IN PROGRESS, NOR TO THE SURFACE OF THE STREETS, SURFACE WATERS WHERE APPLICABLE, NOR CAUSE ANY INTERFERENCE WITH THE USE OF THE SAME BY THE PUBLIC. ALL STORM DRAINS AND PIPES USED FOR DISPOSAL OF WATER FROM THE TRENCHES AND EXCAVATION DURING CONSTRUCTION SHALL BE ACCEPTABLY CLEANED AND PROTECTED FROM SILT DEPOSITS.

WHEN IN ORDER TO COMPLY WITH THE ABOVE, IT IS DEEMED NECESSARY TO WIDEN THE TRENCH BEYOND THE ALLOWABLE MAXIMUM WIDTH, TO PERMIT THE INSTALLATION OF WELL-POINTS, THE CONTRACTOR SHALL, AS DIRECTED BY THE ENGINEER, PROVIDE EITHER PIPE OF ADDITIONAL STRENGTH OR CONCRETE ENCASEMENT AT NO ADDITIONAL COST TO THE COUNTY.

THE CONTRACTOR SHALL, WITH HIS OWN EQUIPMENT, PROVIDE DEWATERING WHERE REQUIRED AT NO ADDITIONAL COST TO THE COUNTY. THE COST FOR ALL LABOR, EQUIPMENT, MATERIALS, ETC. REQUIRED TO DISPOSE OF WATER FROM THE EXCAVTIONS SHALL BE DEEMED INCLUDED IN THE PRICES BID FOR ALL ITEMS OF THE CONTRACT.

ALL DEWATERING AND DISCHARGE PIPES AND HOSES WHICH CROSS TRAVELED ROADWAYS SHALL BE PLACED IN SUCH A MANNER SO AS TO ELIMINATE ANY DISRUPTION OF TRAFFIC FLOW. IF ORDERED BY THE ENGINEER, THE CONTRACTOR SHALL PLACE THE PIPES AND HOSES IN SHALLOW TRENCHES WHICH WILL THEN BE PLATED OVER. ALL HEADER PIPE SHALL BE BURIED BELOW EXISTING ROADWAY GRADE AT DRIVEWAYS IN ORDER TO MAINTAIN ACCESS TO DRIVEWAYS. ALL PLATES SHALL BE FIRMLY SECURED SO AS TO ELIMINATE ANY POSSIBLE SHIFT OR MOVEMENT.

DEWATERING BY MEANS OF WELL POINTS OR DEEP WELLS WILL NOT BE ALLOWED WHERE THE RATE OF PUMPING EXCEEDS FORTY-FIVE (45) GALLONS PER MINUTE UNLESS THE APPROPRIATE PERMIT HAS BEEN SECURED FROM THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

WHERE THE SUBGRADE OF THE TRENCH CANNOT BE MAINTAINED IN A DRY CONDITION, THE CONTRACTOR SHALL EXCAVATE THE TRENCH TO AN ADDITIONAL DEPTH OF SIX (6") INCHES BELOW THE SUBGRADE OF THE SEWER AND BACKFILL THE TRENCH TO THE SUBGRADE OF THE SEWER WITH STONE BALLAST. THE COST FOR THIS ADDITIONAL EXCAVATION, SHEETING, INSTALLATION OF STONE BALLAST, LABOR, MATERIALS, PLANT, EQUIPMENT AND INSURANCE REQUIRED OR NECESSARY TO COMPLETE THIS WORK SHALL BE DEEMED INCLUDED IN THE PRICES BID FOR THE RESPECTIVE DRAINAGE ITEMS.

SURVEY CONTROL TO BE ADDED POST 60% SUBMISSION

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC SHEETS\SC-01.DWG
Plot Date: 10/8/2019 9:31 AM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: SURVEY CONTROL 01

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: SC-01	
SCALE: -	SHEET NO: 5 OF 39	

TABLE OF WORK

ITEM	DESCRIPTION:	UNITS	QUANTITY BY LOCATION															AOBE	ITEM TOTAL
			CP-01	CP-02	CP-03	CP-04	CP-05	CP-06	CP-07	CP-08	CP-09	CP-10	CP-11	CP-12	CP-13	CP-14	CP-15		
1 M / F	MOBILIZATION WITH FIELD OFFICE	LS / NEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1S	JOB INFORMATION SIGN	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	TRENCH, CULVERT AND BRIDGE EXCAVATION	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4A	CEMENT CONCRETE BREAKING (PAVEMENT)	SY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4B	CEMENT CONCRETE BREAKING (STRUCTURES)	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5D	SELECT GRANULAR FILL	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	PREARING FINE GRADING	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10A-1	EXCAVATION PROTECTION SYSTEM	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-TF-15SS	15" TIDEFLEX IN-LINE CHECK VALVE	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-TF-24SS	24" TIDEFLEX IN-LINE CHECK VALVE	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-TF-48SS	48" TIDEFLEX IN-LINE CHECK VALVE	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12A-4-18	18" CLASS IV REINFORCED CONCRETE PIPE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12A-4-24	24" CLASS IV REINFORCED CONCRETE PIPE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12A-4-48	48" CLASS IV REINFORCED CONCRETE PIPE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12DIP-15	15" DUCTILE IRON PIPE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12DIP-18	18" DUCTILE IRON PIPE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12H	CLEANING EXISTING DRAINAGE SYSTEM	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13A	CATCH BASINS	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13BP-5	PRECAST MANHOLE 5' DIAMETER	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13BP-SS-7.5	90" NYSDOT PRECAST TYPE B MANHOLE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	CONNECTIONS TO EXISTING DRAINAGE STRUCTURES	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	SCREENED GRAVEL, LOOSE MEASURE	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	BROKEN STONE, LOOSE MATERIAL	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23SP	CONCRETE FOUNDATION FOR PAVEMENT	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	CEMENT CONCRETE PAVEMENT	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	CONCRETE CURB	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	CONCRETE CURB & GUTTER	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	CEMENT CONCRETE SIDEWALK	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	CEMENT CONCRETE DRIVEWAY AND APRONS	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	MISCELLANEOUS METALS	LB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)	TON	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40R	RESET EXISTING STONE BLOCK PAVEMENT	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	ALTER WATER SERVICE CONNECTIONS	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62SS	RELOCATE BURIED ELECTRICAL SERVICE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64	RESET EXISTING FENCE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65B	TRANSPLANTING EXISTING TREES AND SHRUBS	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102	WORK ZONE TRAFFIC CONTROL	LS / NEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102PVMS	PORTABLE MESSAGE SIGN	DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120-SS	RELOCATION OF EXISTING LIGHT POLES (COMPLETE)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
121	DRYBOUND BASE COURSE	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122	TEST HOLES	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
136	SURVEY STAKEOUT	LS/NEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141B	SILT PROTECTION FOR SURFACE INLET DRAINAGE STRUCTURES	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141C	SILT PROTECTION FOR CURB INLET DRAINAGE STRUCTURES	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
368	TOPSOIL AND GRASS SEED	SY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
372	TREE REMOVAL	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
419S-075	FURNISH AND INSTALL 3/4" DIAMETER STEEL CONDUIT	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
419Z	CLEAN EXISTING CONDUIT	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
422L	FURNISH AND INSTALL LOOP WIRE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
422LS	FURNISH AND INSTALL LOOP SAW CUT	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC TABLES\MST-01.DWG
Plot Date: 10/8/2019 9:31 AM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: MISCELLANEOUS TABLES 01 TABLE OF WORK

GPI JOB NO: 2018042.00
CONTRACT NO: H60052-01D
PHASE: 60%
DATE: 10/08/2019
DRAWING NO: MST-01
SCALE: -
SHEET NO: 6 OF 39

TABLE OF DRAINAGE STRUCTURES

STRUCTURE NO.	STRUCTURE TYPE	STATION	OFFSET	FRAME TYPE	GRATE / COVER	EXISTING RIM	PROPOSED RIM	PIPE INVERT ELEVATION	CONNECT TO STRUCTURE NO.	PIPE SIZE	REMARKS
LOCATION - DRAWING NO. CP-01											
MH 6043**	EXISTING MH			-	-	6.42	-	-2.60 (W) N/A	PROPOSED MH 1 MH 13011**	48" RCP 30" RCP	CLEAN AND INVENTORY EXISTING DRAINAGE MANHOLE TO CONFIRM OR DETERMINE THE PROPOSED INVERT OF PROPOSED MH 1
MH 1	7'-6" NYSDOT PRECAST Type B Manhole			STD. NCDPW MH FRAME	NCDPW EMBOSSED MH COVER	N/A	6.5	-2.95 (W) -2.87 (E)	OUTFALL 7005** MH 6043**	48" RCP 48" RCP	PROPOSED MH TO RECEIVE CHECK VALVE
LOCATION - DRAWING NO. CP-02											
CB 6045**	EXISTING CB			-	-	4.77	-	1.6	OUTFALL 7006**	15" RCP	EXISTING CB TO RECEIVE CHECK VALVE
LOCATION - DRAWING NO. CP-03											
CB 6047**	EXISTING CB			-	-	4.79	-	2.1	OUTFALL 7003**	15" RCP	EXISTING CB TO RECEIVE CHECK VALVE
LOCATION - DRAWING NO. CP-04											
MH 11005**	EXISTING MH			-	-	5.37	-	-4.05 (N) -2.5 (S) 1.9 (E)	OUTFALL 13076** MH 13002** CB 6049**	24" RCP 24" RCP 15" RCP	CLEAN AND INVENTORY EXISTING DRAINAGE MANHOLE PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED MH 2, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
MH 2	7'-6" NYSDOT PRECAST Type B Manhole			STD. NCDPW MH FRAME	NCDPW EMBOSSED MH COVER	N/A	5.37	-4.05 (N) -2.5 (S) 1.9 (E)	OUTFALL 13076** MH 13002** CB 6049**	24" RCP 24" RCP 15" RCP	PROPOSED MH TO RECEIVE CHECK VALVE
LOCATION - DRAWING NO. CP-05											
CB 11004**	EXISTING CB			-	-	4.87	-	1.6	OUTFALL 7004**	15" RCP	EXISTING CB TO RECEIVE CHECK VALVE
LOCATION - DRAWING NO. CP-06											
CB 2098**	EXISTING CB			-	-	5.85	-	2.2	MH 6097**	15" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 3, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 2096**	EXISTING CB			-	-	5.96	-	3.2	MH 6097**	15" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 4, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 2095**	EXISTING CB			-	-	5.84	-	3.16	MH 6099**	18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 5, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 3	NCDPW TYPE C			TYPE F3 CAST CURB BOX FRAME	RETICULINE TYPE A GRATE	5.85	5.85	2.2	MH 6097**	15" RCP	
CB 4	NCDPW TYPE C			TYPE F3 CAST CURB BOX FRAME	RETICULINE TYPE A GRATE	5.96	5.96	3.2	MH 6097**	15" RCP	
CB 5	NCDPW TYPE C			TYPE F3 WELDED CURB BOX FRAME	RETICULINE TYPE A GRATE	5.84	5.84	3.16	MH 6099**	18" DIP	
LOCATION - DRAWING NO. CP-07											
CB 3074**	EXISTING CB			-	-	6.15	-	2.04	MH 3075**	18" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 6, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 6	NCDPW TYPE C			TYPE F3 CAST CURB BOX FRAME	RETICULINE TYPE A GRATE	6.15	6.15	2.06	MH 3075**	18" RCP	
LOCATION - DRAWING NO. CP-08											
CB 2085**	EXISTING CB			-	-	4.92	-	2.04 (N) 2.04 (E)	MH 2084** CB 2087**	18" DIP 18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 7, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 7	NCDPW TYPE C			TYPE F3 WELDED CURB BOX FRAME	RETICULINE TYPE A GRATE	4.92	4.92	2.04 (N) 2.04 (E)	MH 2084** PROPOSED CB 8	18" DIP 18" DIP	

**REFERS TO DRAINAGE STRUCTURES OR OUTFALL NUMBERS THAT ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC TABLES\MST-02.DWG
Plot Date: 10/8/2019 9:31 AM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT: NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: MISCELLANEOUS TABLES 02
DRAINAGE TABLE PART 1

GPI JOB NO: 2018042.00
CONTRACT NO: H60052-01D
PHASE: 60%
DATE: 10/08/2019
DRAWING NO: MST-02
SCALE: -
SHEET NO: 7 OF 39

TABLE OF DRAINAGE STRUCTURES

STRUCTURE NO.	STRUCTURE TYPE	STATION	OFFSET	FRAME TYPE	GRATE / COVER	EXISTING RIM	PROPOSED RIM	PIPE INVERT ELEVATION	CONNECT TO STRUCTURE NO.	PIPE SIZE	REMARKS
LOCATION - DRAWING NO. CP-09											
CB 2087**	EXISTING CB			-	-	5.35	-	2.70	CB 2085**	18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 8, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 8	NCDPW TYPE C			TYPE F3 WELDED CURB BOX FRAME	RETICULINE TYPE A GRATE	5.35	5.35	2.68	PROPOSED CB 7	18" DIP	
LOCATION - DRAWING NO. CP-10											
CB 2083**	EXISTING CB			-	-	5.26	-	1.6 (E)	MH 2082**	18" DIP 18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB'S 9 & 10, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 9	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	4.63	4.63	1.75	PROPOSED CB 10	18" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
CB 10	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	-	4.63	1.6 (E) 1.70 (W)	MH 2082** PROPOSED CB 9	18" DIP 18" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
LOCATION - DRAWING NO. CP-11											
CB 2081**	EXISTING CB			-	-	4.92	-	1.30 (W)	MH 2082**	18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB'S 11 & 12, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 11	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	4.92	4.92	1.27 (W) 1.30 (E)	MH 2082** PROPOSED CB 12	18" DIP 18" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
CB 12	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	-	5.1	1.4	PROPOSED CB 11	18" RCP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
LOCATION - DRAWING NO. CP-12											
CB 3059**	EXISTING CB			-	-	4.87	-	1.9 (E)	MH 3060**	18" DIP 18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB'S 13 & 14, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 13	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	4.87	4.87	2.02	PROPOSED CB 14	18" RCP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
CB 14	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	-	4.73	1.9 (E) 2.00 (W)	MH 3060** PROPOSED CB 13	18" DIP 18" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
LOCATION - DRAWING NO. CP-13											
CB 2074**	EXISTING CB			-	-	5.36	-	2.50 (W) 2.40 (E)	MH 3061** MH 2075**	18" DIP 18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB'S 15 & 16, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 15	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	5.36	5.36	2.51 (W) 2.40 (E)	MH 3061** PROPOSED CB 16	18" DIP 18" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
CB 16	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	-	5.4	2.40 (W) 2.40 (E)	PROPOSED CB 15 MH 2075**	18" DIP 18" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
LOCATION - DRAWING NO. CP-14											
CB 3039**	EXISTING CB			-	-	5.22	-	1.93 (N)	CB 2087**	15" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 17, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 17	NCDPW TYPE C			TYPE F3 CAST CURB BOX FRAME	RETICULINE TYPE A GRATE	5.22	5.22	1.92	PROPOSED CB 19	15" RCP	
LOCATION - DRAWING NO. CP-15											
CB 2078**	EXISTING CB			-	-	5.36	-	2.90 (W) 2.30 (S)	MH 2076** CB 3039**	18" DIP 18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB'S 18 & 19, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 18	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	5.42	5.42	2.88 (W) 2.88 (E)	MH 2076** PROPOSED CB 19	15" DIP 15" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
CB 19	NCDPW TYPE A			TYPE F3 WELDED CURB BOX FRAME	RETICULINE TYPE A GRATE	-	5.42	2.88 (W) 2.28 (S)	PROPOSED CB 18 PROPOSED CB 17	15" DIP 15" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE

**REFERS TO DRAINAGE STRUCTURES OR OUTFALL NUMBERS THAT ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC TABLES\MST-03.DWG
Plot Date: 10/8/2019 9:31 AM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

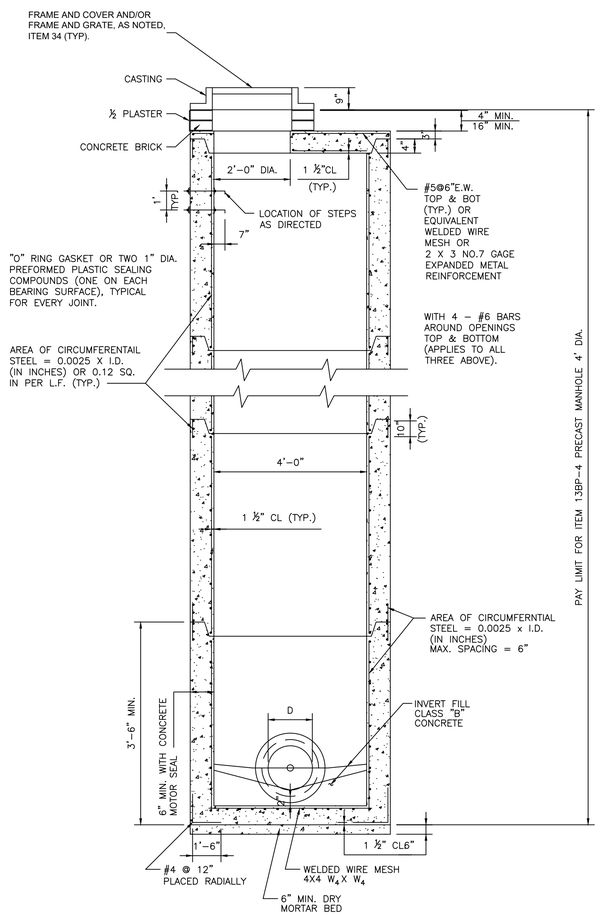
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: MISCELLANEOUS TABLES 03 DRAINAGE TABLE PART 2

GPI JOB NO: 2018042.00
CONTRACT NO: H60052-01D
PHASE: 60%
DATE: 10/08/2019
DRAWING NO: MST-03
SCALE: -
SHEET NO: 8 OF 39



4'-0" DIAMETER PRECAST MANHOLE, ITEM 13BP-4

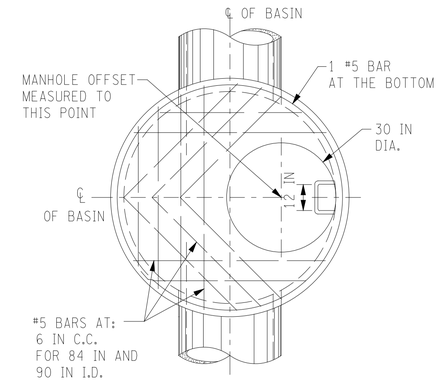
5'-0" DIA. PRECAST MANHOLE, ITEM 13BP-5
6'-0" DIA. PRECAST MANHOLE, ITEM 13BP-6

NOTES:

1. A NO. 2 STEEL HOOP SHALL BE PLACED AROUND ALL PIPE OPENINGS WITH A 1-1/2" CLEARANCE.
2. MIN. COVER ON BAR REINFORCEMENT SHALL BE 2", UNLESS OTHERWISE NOTED.
3. INVERT TO BE CAST IN PLACE.
4. PIPE OPENINGS, IF SQUARE ARE 3" LARGER THAN O.D. OF PIPE, IF ROUND ARE 2" LARGER THAN O.D. OF PIPE.

ESTIMATING NOTES:

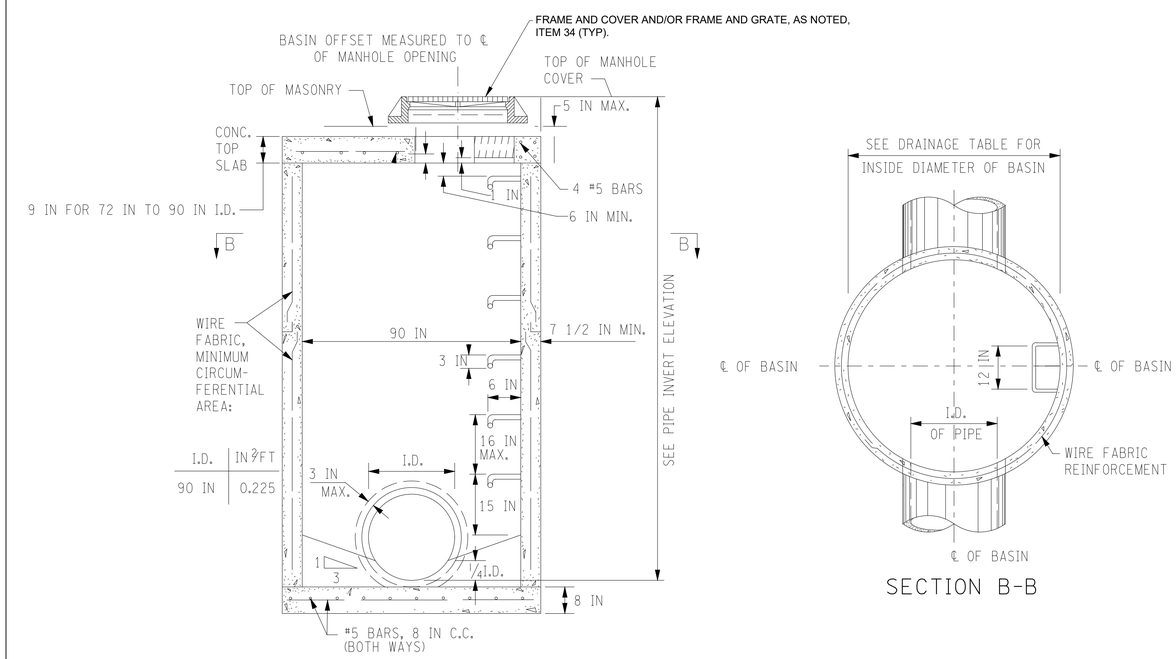
USE THE FOLLOWING ITEM NUMBERS WHEN ESTIMATING THE INSTALLATION OF ALL PROPOSED DRAINAGE STRUCTURES (CATCH BASINS AND/OR MANHOLES)(TYP): ITEM NO'S. 10A, 13BP-5, 13BP-SS-7.5, 34(TYP)



TYPE B MANHOLE

TYPE B DRAINAGE BASINS REQUIRED HORIZONTAL STEEL REINFORCEMENT

DEPTH IN FT	48 IN X 48 IN	48 IN X 60 IN	48 IN X 72 IN	48 IN X 84 IN	48 IN X 90 IN
7 FT – 8 FT		NO REINFORCEMENT REQUIRED			
8 FT – 12 FT					
12 FT – 14 FT					
14 FT – 18 FT			0.25 IN ²/FT		
18 FT – 19 FT					
19 FT – 21 FT					
21 FT – 23.5 FT				0.37 IN ²/FT	
23.5 FT – 26 FT					
26 FT – 29.5 FT					0.5 IN ²/FT



SECTION B-B

7'-6" DIAMETER PRECAST NYSDOT MANHOLE, ITEM 13BP-90SS

NYSDOT TYPE B DRAINAGE BASIN

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

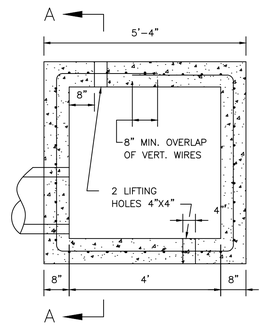
CLIENT:
NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: MISCELLANEOUS DETAILS 01

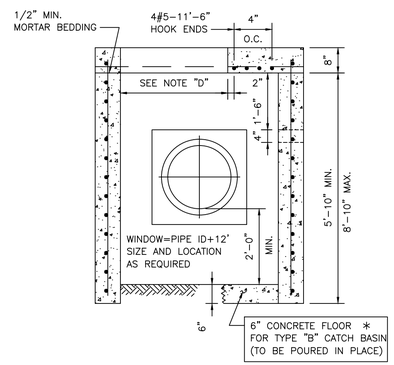
GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: MSD-01	
SCALE: -	SHEET NO: 9 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-01.DWG
Plot Date: 10/8/2019 9:31 AM



PLAN TYPE A

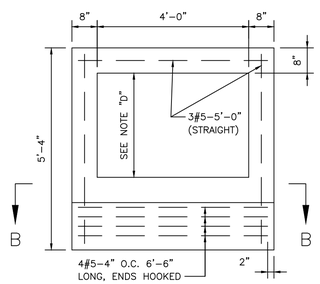
SCALE: 3/8"=1'-0"



SECTION A-A

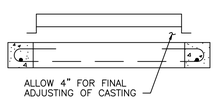
SCALE: 3/8"=1'-0"

"D"=2'-1 1/2" TYPES 1 & 2 FRAME
"D"=2'-7 1/2" TYPE A FRAME



PLAN COVER

SCALE: 3/8"=1'-0"



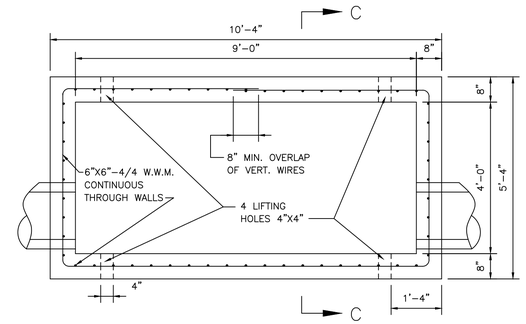
SECTION B-B

SCALE: 3/8"=1'-0"

NOTES:

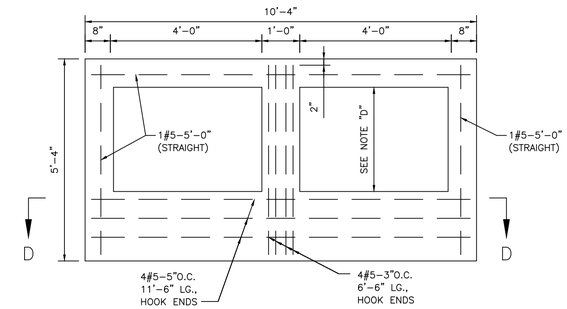
1. REBARS: Fs = 40,000psi A.S.T.M. A-615.
2. W.W.M.; 6"X6"-4/4 Fs = 60,000psi, A.S.T.M. A-185 PROVIDE 1 $\frac{1}{2}$" COVER AT ENDS OF VERTICAL WIRES, 1" RADIUS BENS AT CORNERS.
3. CONCRETE: CLASS "A" AS PER NASSAU CO. SPEC.
4. WINDOW TO BE CAST IN STRUCTURE AS REQUIRED. KNOCK-OUT PANELS WILL NOT BE PERMITTED.

NCDPW TYPE A CATCH BASIN, ITEM 13A



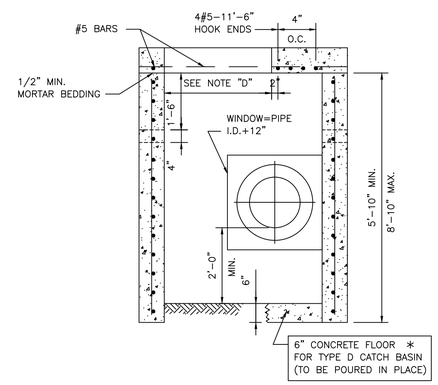
PLAN TYPE C

SCALE: 3/8"=1'-0"



PLAN COVER

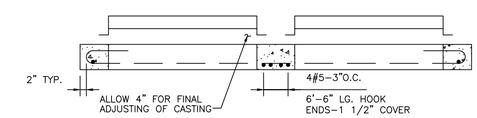
SCALE: 3/8"=1'-0"



SECTION C-C

SCALE: 3/8"=1'-0"

"D"=2'-1 1/2" TYPES 1 & 2 FRAME
"D"=2'-7 1/2" TYPE A FRAME



SECTION D-D

SCALE: 3/8"=1'-0"

NOTES:

1. REBARS: Fs = 40,000psi A.S.T.M. A-615.
2. W.W.M.; 6"X6"-4/4 Fs = 60,000psi, A.S.T.M. A-185 PROVIDE 1 $\frac{1}{2}$" COVER AT ENDS OF VERTICAL WIRES, 1" RADIUS BENS AT CORNERS.
3. CONCRETE: CLASS "A" AS PER NASSAU CO. SPEC.
4. UTILIZE 4 LIFT HOLES FOR HANDLING.
5. WINDOW TO BE CAST IN STRUCTURE AS REQUIRED. KNOCK-OUT PANELS WILL NOT BE PERMITTED.

NCDPW TYPE C CATCH BASIN, ITEM 13A

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-02.DWG
Plot Date: 10/8/2019 9:31 AM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

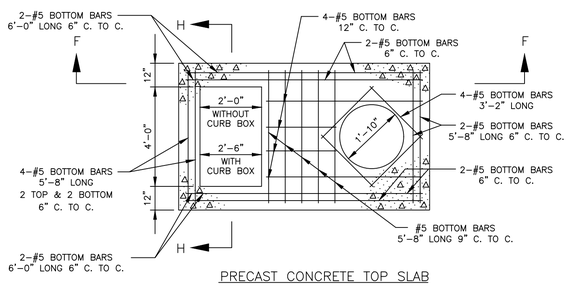
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

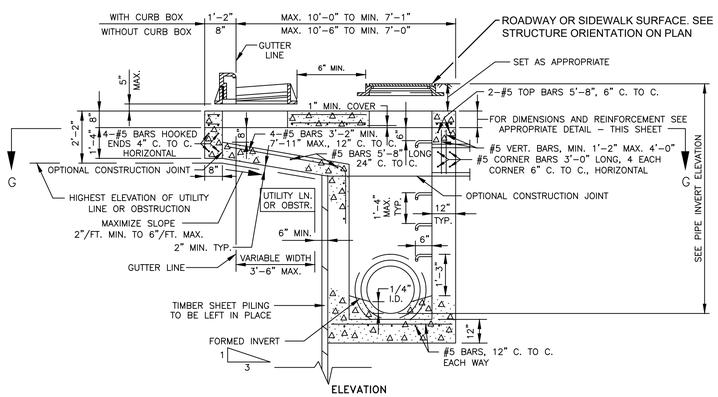
PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: MISCELLANEOUS DETAILS 02

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: MSD-02	
SCALE: -	SHEET NO: 10 OF 39	



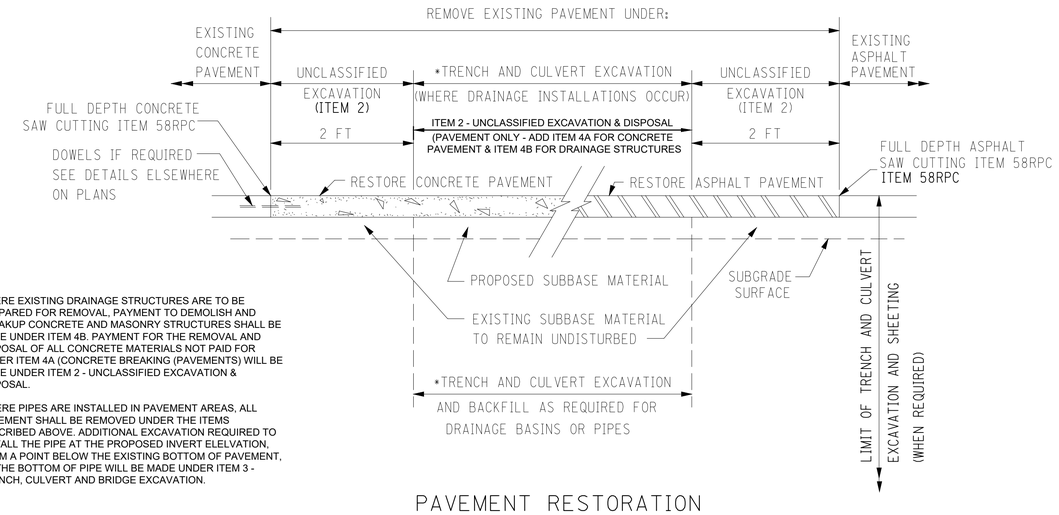
PRECAST CONCRETE TOP SLAB



OFFSET CATCH BASIN WITH MANHOLE

NOTE: SECTIONS F-F, G-G AND H-H APPLY TO BOTH TYPES 11 & 12 CATCH BASINS
N.T.S.

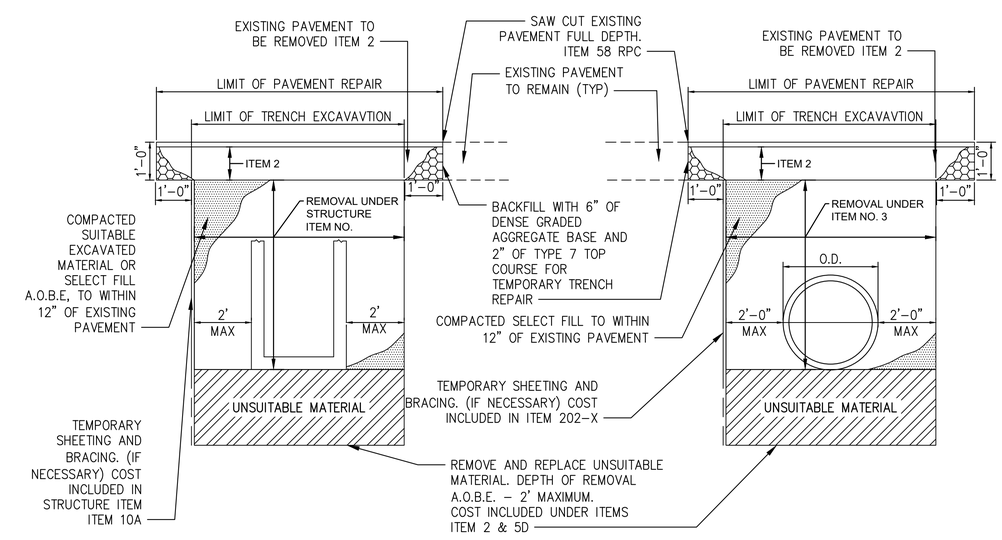
NCDPW TYPE 11 CATCH BASIN, ITEM 13A



* WHERE EXISTING DRAINAGE STRUCTURES ARE TO BE PREPARED FOR REMOVAL, PAYMENT TO DEMOLISH AND BREAKUP CONCRETE AND MASONRY STRUCTURES SHALL BE MADE UNDER ITEM 4B. PAYMENT FOR THE REMOVAL AND DISPOSAL OF ALL CONCRETE MATERIALS NOT PAID FOR UNDER ITEM 4A (CONCRETE BREAKING (PAVEMENTS) WILL BE MADE UNDER ITEM 2 - UNCLASSIFIED EXCAVATION & DISPOSAL.

WHERE PIPES ARE INSTALLED IN PAVEMENT AREAS, ALL PAVEMENT SHALL BE REMOVED UNDER THE ITEMS DESCRIBED ABOVE. ADDITIONAL EXCAVATION REQUIRED TO INSTALL THE PIPE AT THE PROPOSED INVERT ELELVATION, FROM A POINT BELOW THE EXISTING BOTTOM OF PAVEMENT, TO THE BOTTOM OF PIPE WILL BE MADE UNDER ITEM 3 - TRENCH, CULVERT AND BRIDGE EXCAVATION.

PAVEMENT RESTORATION



DRAINAGE STRUCTURE INSTALLATION AND PIPE INSTALLATION DETAIL
NOT TO SCALE

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

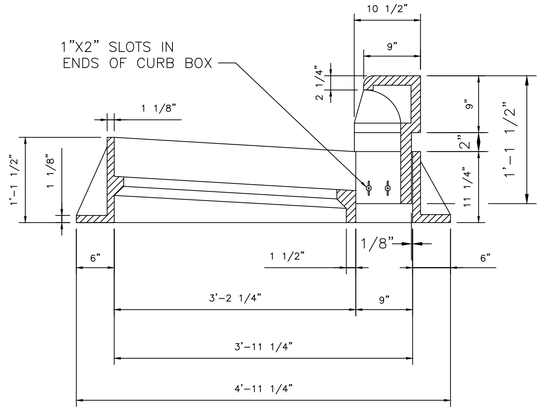
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]
DRAWING TITLE: MISCELLANEOUS DETAILS 03

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: MSD-05	
SCALE: -	SHEET NO: 11 OF 39	

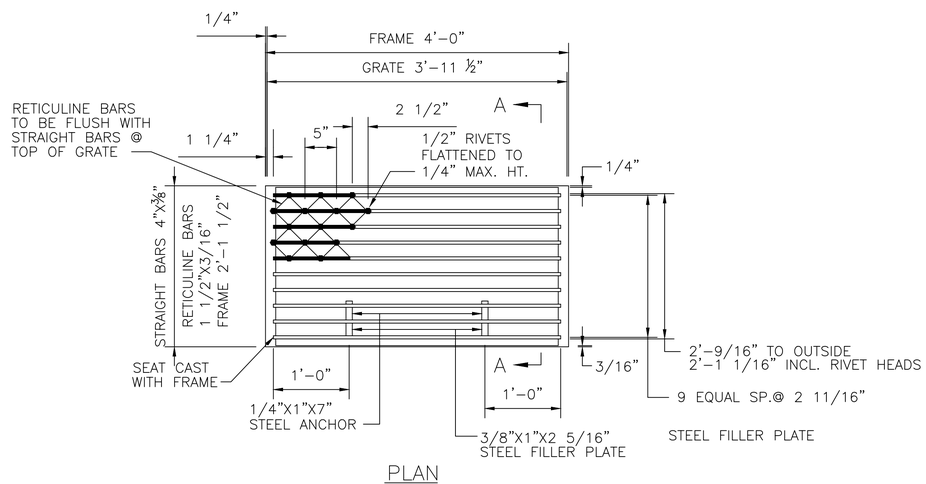
File Name: O:\2018\8AB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-03.DWG
Plot Date: 10/8/2019 9:31 AM



SECTION C–C

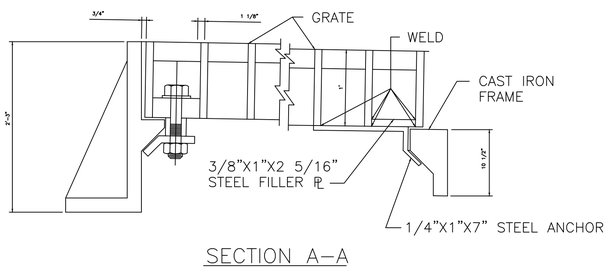
C.I. CURB BOX & FRAME TYPE A

SCALE: 1/2" = 1'-0"



PLAN

SCALE 1/2" = 1'-0"

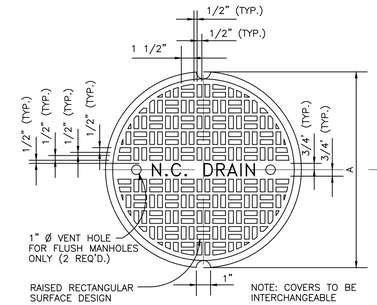


SECTION A–A

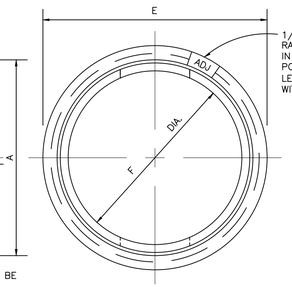
SCALE: 1 1/2" = 1'-0"

FABRICATED STEEL GRATE TYPE A, ITEM 34

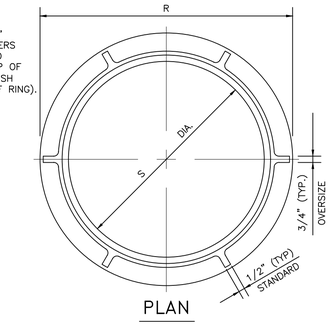
**APPROXIMATE WEIGHT OF GRATE IS 265LB



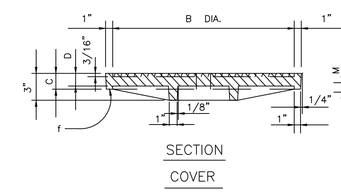
PLAN VIEW



PLAN

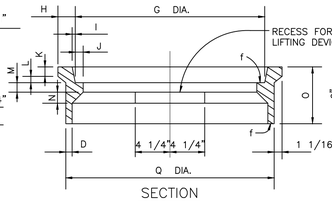


PLAN



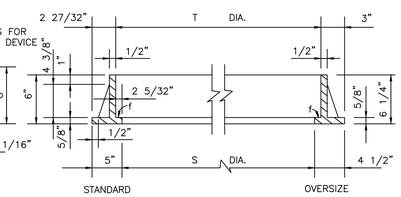
SECTION

COVER



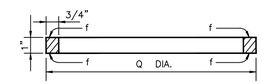
SECTION

INNER FRAME



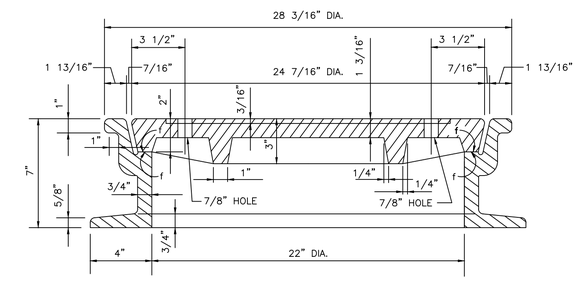
SECTION

OUTER FRAME



FILLER RING (ONE PIECE)

ADJUSTABLE MANHOLE CASTINGS



FIXED CASTING

NCDPW MANHOLE COVER DETAIL, ITEM 34

CASTING COMPONENT	WEIGHT (LBS)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
STANDARD COVER	175	24 7/16	22 7/16	2	1 3/16																
OVERSIZED COVER	300	31 7/8	29 7/8	1 3/8	1 1/8																
STANDARD INNER FRAME	180					28 3/16	22	24	1 13/16	9/32	1	1	1	1 1/4	1 3/8	7 3/8	3/4	26 1/16			
OVERSIZED INNER FRAME	290					36 1/4	30	31 1/2	2 1/8	1/4	3/4	3/4	3/4	7/8	1 1/2	7 1/2	5/8	34 1/4			
STANDARD FILLER RING	——																	26 1/16			
OVERSIZED FILLER RING	——																	34 1/4			
STANDARD OUTER FRAME	130																		32	22	26 5/16
OVERSIZED OUTER FRAME	227																		41	32	35

NOTES:

1) f = MACHINED FINISH

2) MANUFACTURER AND DATE OF MANUFACTURE TO BE PLACED ON UNDERSIDE OF FRAMES AND COVERS.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

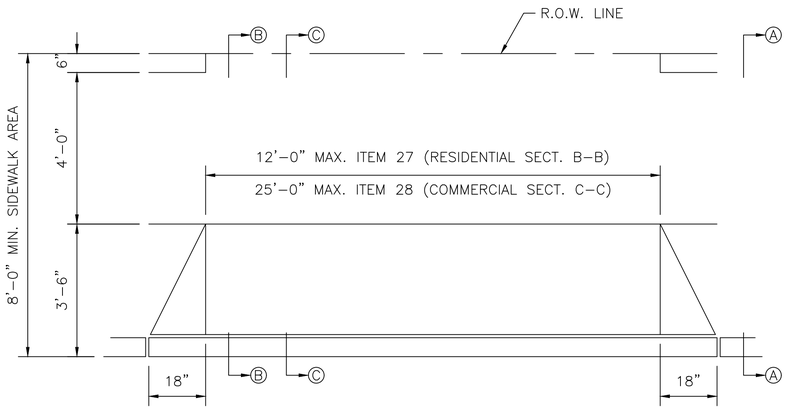
CLIENT: NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

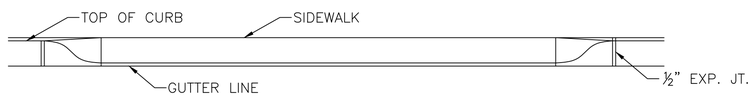
DRAWING TITLE: MISCELLANEOUS DETAILS 04

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: MSD-04	
SCALE: -	SHEET NO: 12 OF 39	

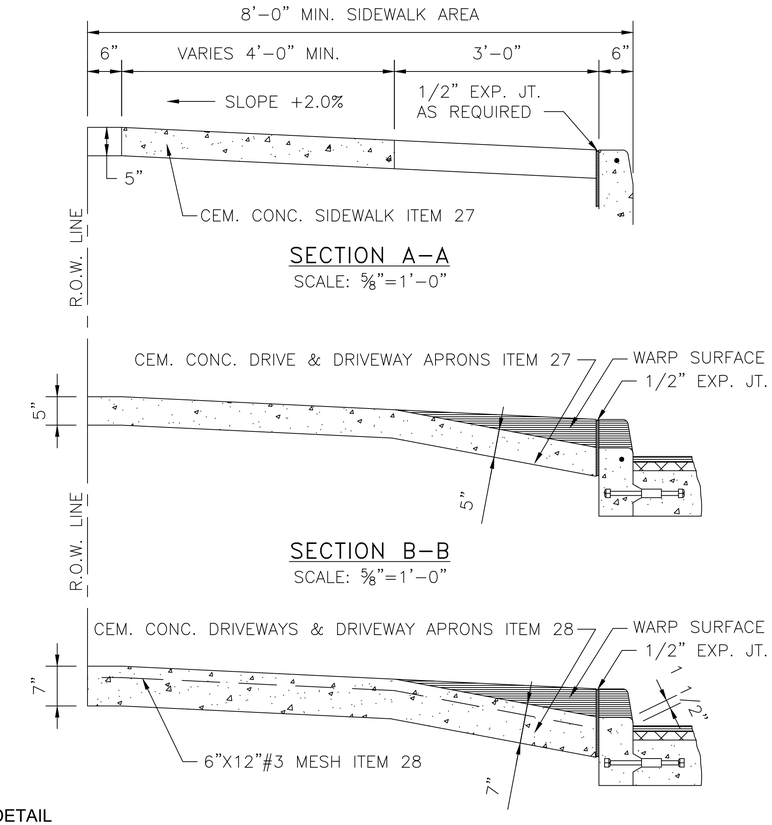
File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-04.DWG
Plot Date: 10/8/2019 9:31 AM



PLAN
SCALE 5/16"=1'-0"



FRONT ELEVATION
SCALE 5/16"=1'-0"

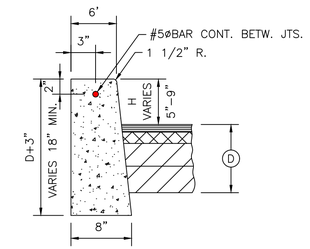


SECTION A-A
SCALE: 5/8"=1'-0"

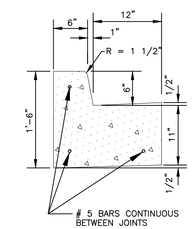
SECTION B-B
SCALE: 5/8"=1'-0"

SECTION C-C
SCALE: 5/8"=1'-0"

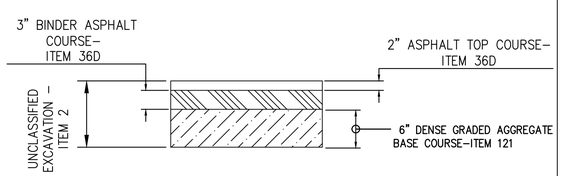
DRIVEWAY APRON RESTORATION DETAIL
ITEM 28



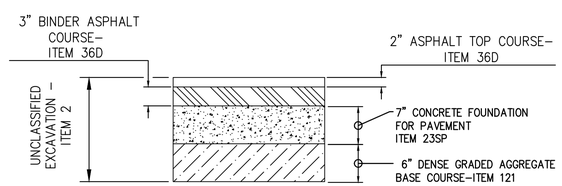
CONCRETE CURB
ITEM 26



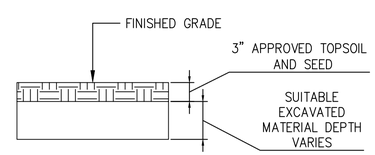
MONOLITHIC CONCRETE CURB AND GUTTER
ITEM 26CG
NTS



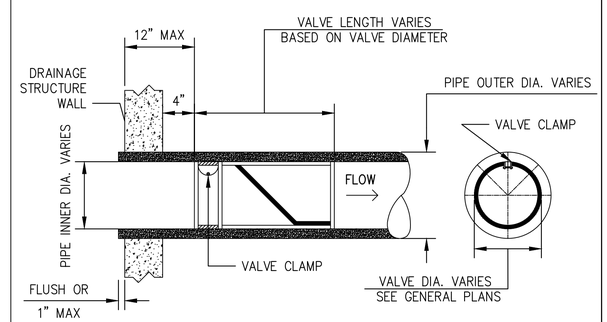
PAVEMENT REPAIR DETAIL
TYPICAL TOWN OF HEMPSTEAD ASPHALT
ROAD



PAVEMENT REPAIR DETAIL
ALONG LIDO BOULEVARD



TURF AND SEED DETAIL
ITEM 368



CHECKMATE IN-LINE CHECK VALVE DETAIL
(UPSTREAM CLAMP)
ITEM 12-TF-15SS
ITEM 12-TF-24SS
ITEM 12-TF-48SS

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]
DRAWING TITLE: MISCELLANEOUS DETAILS 05

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: MSD-03	
SCALE: -	SHEET NO: 13 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-05.DWG
Plot Date: 10/8/2019 9:32 AM

ADDITIONAL DETAILS
TO BE ADDED POST 60%:

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC.DETAILS\MSD-06.DWG
Plot Date: 10/8/2019 9:32 AM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

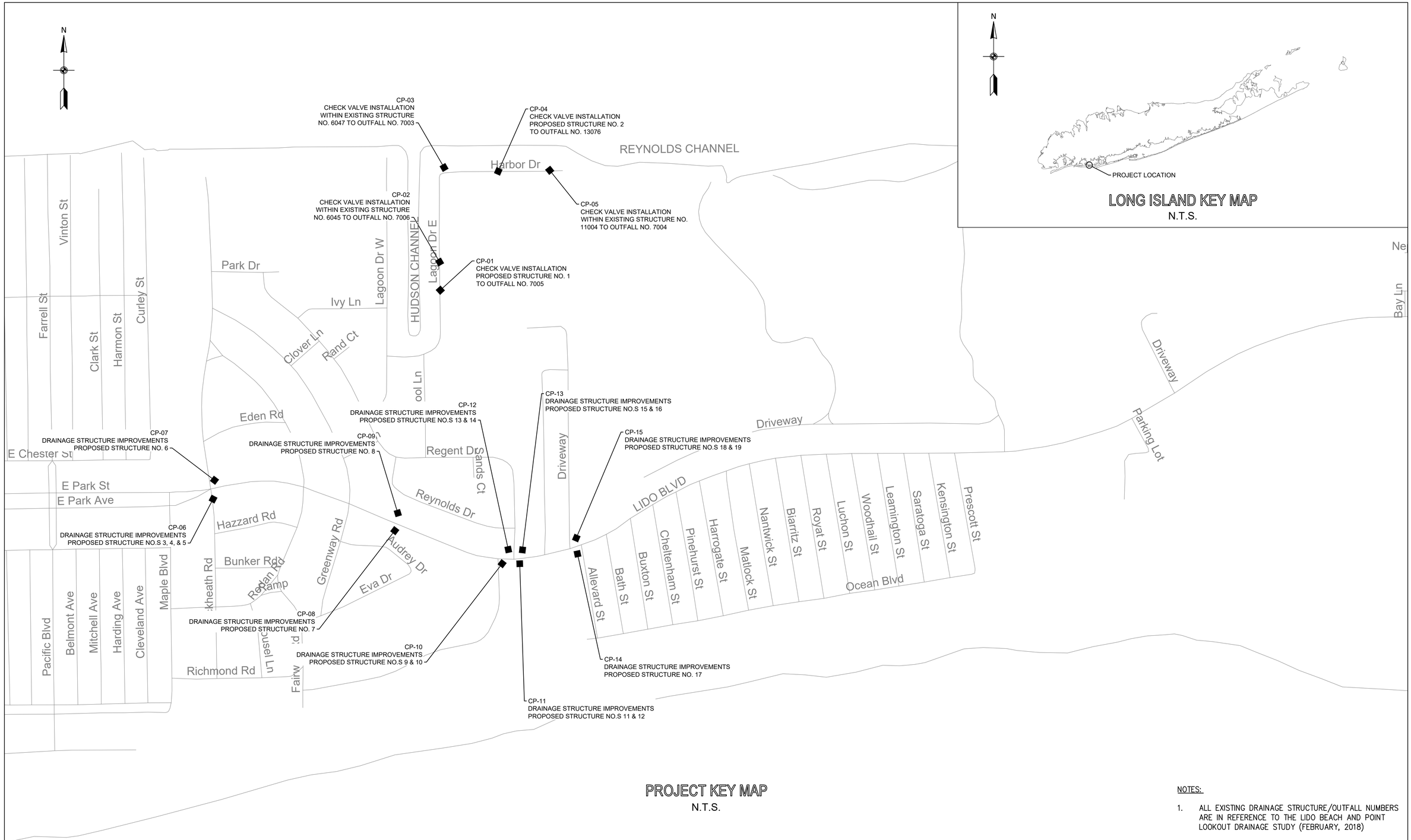
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: MISCELLANEOUS DETAILS 06

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: MSD-06	
SCALE: -	SHEET NO: 14 OF 39	



PROJECT KEY MAP

N.T.S.

NOTES:

1. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

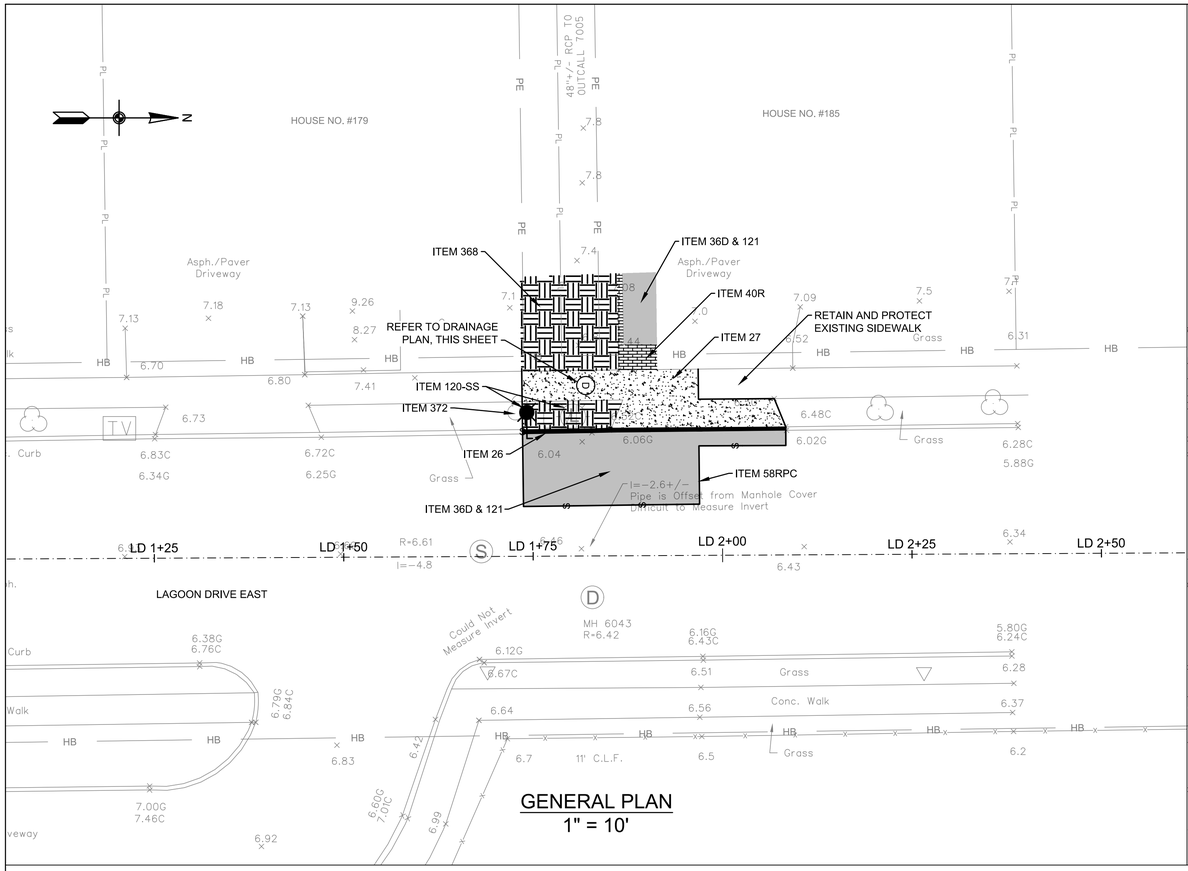
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

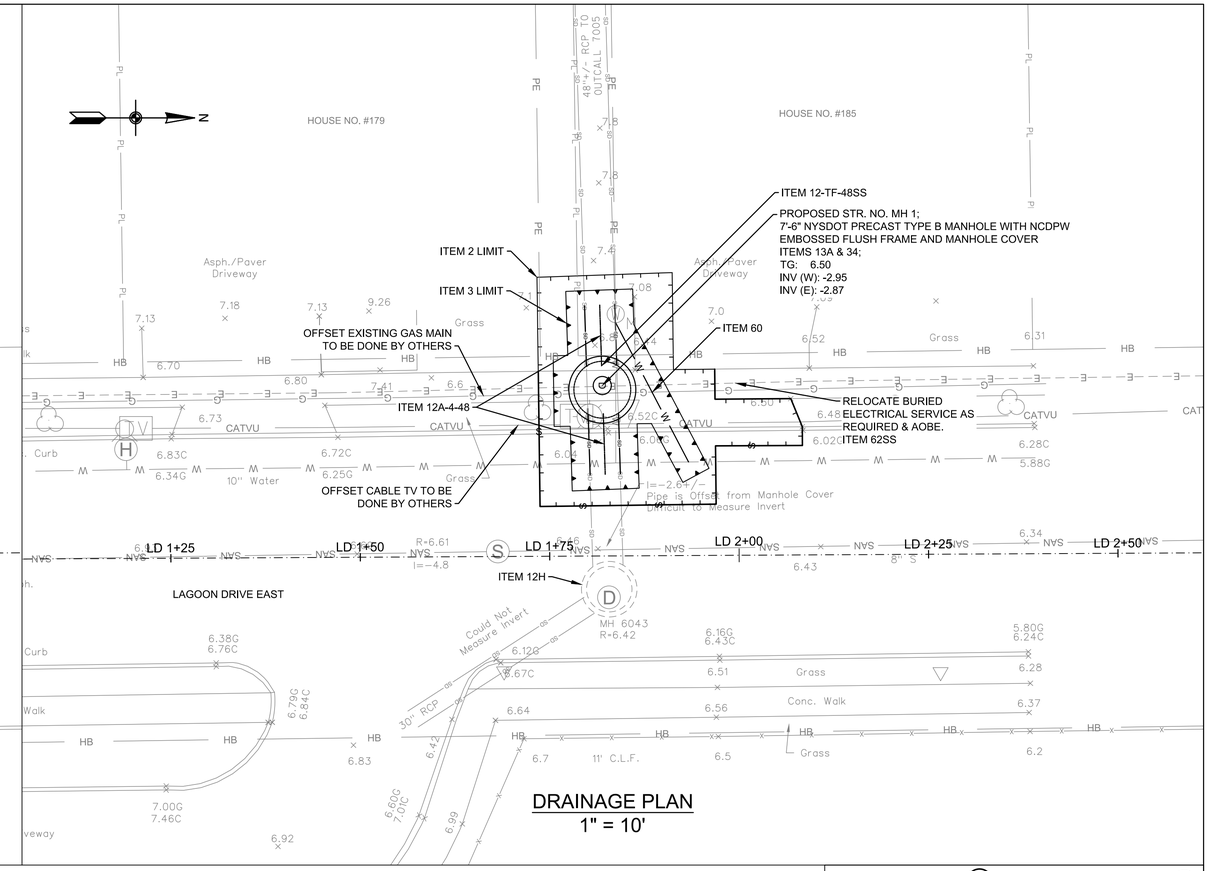
DRAWING TITLE:
KEY PLAN

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: KP-01	
SCALE: N.T.S.	SHEET NO: 15 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC SHEETS\KP-01.DWG
Plot Date: 10/8/2019 9:32 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

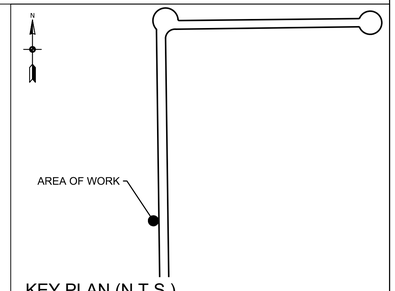
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12-TF-48SS	48" TIDEFLEX IN-LINE CHECK VALVE		SF
12A-4-48	48" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12H	CLEANING EXISTING DRAINAGE SYSTEM		EA
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
40R	RESET EXISTING STONE BLOCK PAVEMENT		SF
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
60	ALTER WATER SERVICE CONNECTIONS		LF
62SS	RELOCATE BURIED ELECTRICAL SERVICE		LF
120-SS	RELOCATION OF EXISTING LIGHT POLES (COMPLETE)		EA
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY
372	TREE REMOVAL		EA



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

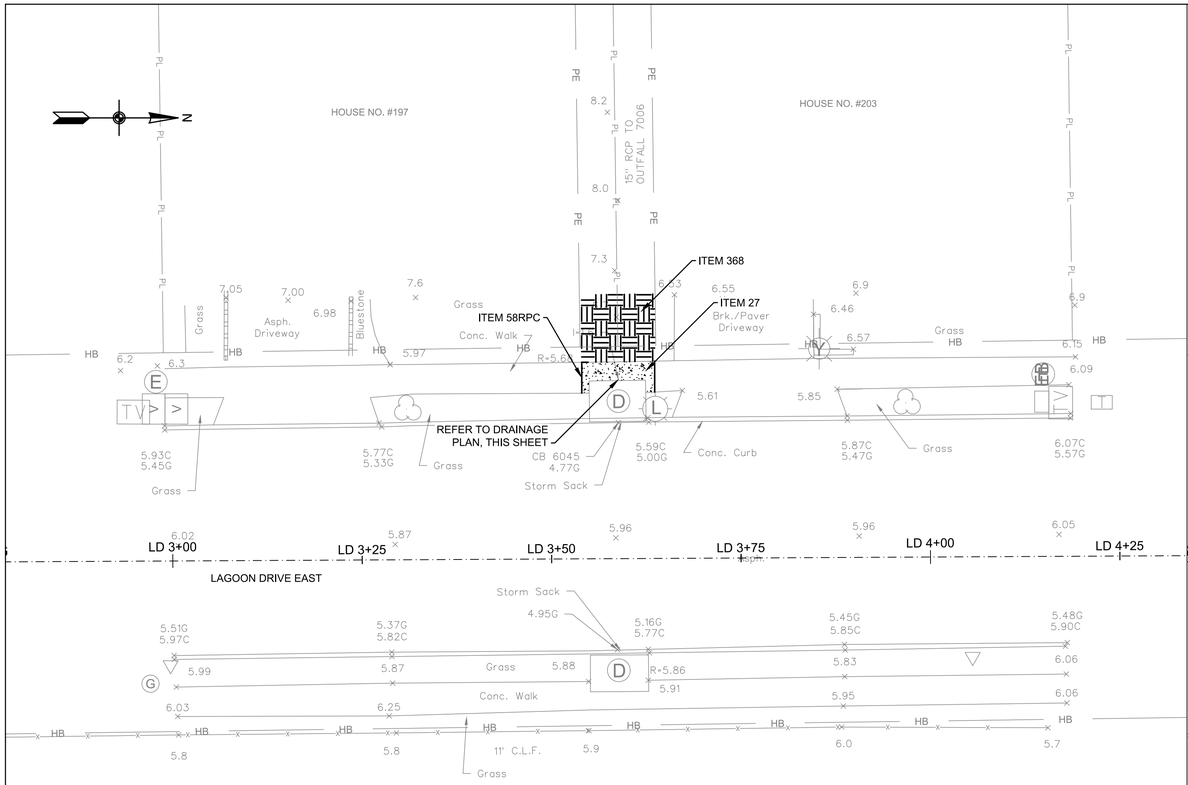
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

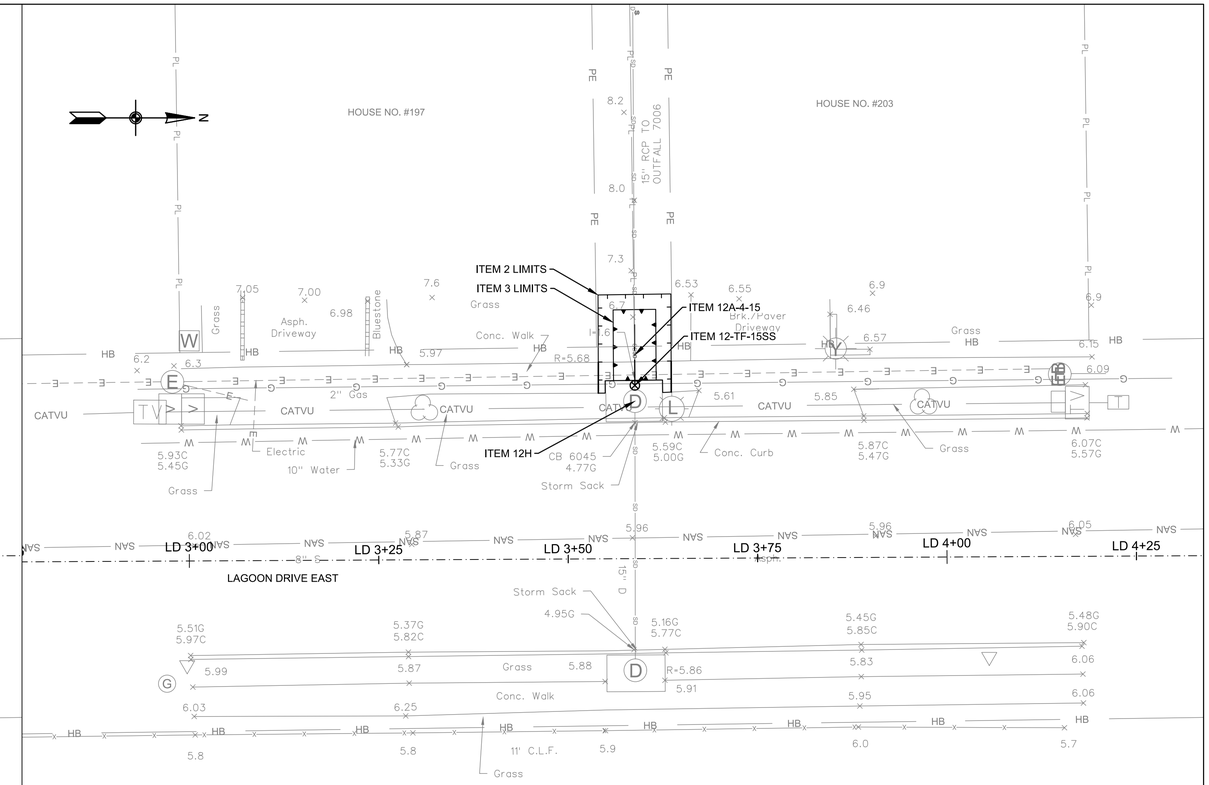
DRAWING TITLE:
CONSTRUCTION PLAN
CHECK VALVE INSTALLATION
179 AND 185 LAGOON DR. E., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-01	
SCALE: 1" = 10'	SHEET NO: 16 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-01.DWG
Plot Date: 10/8/2019 9:32 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

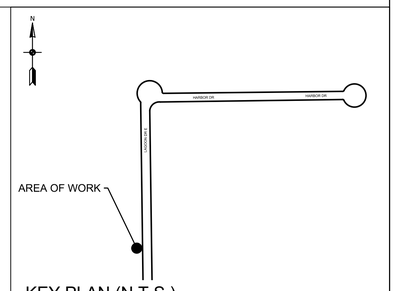
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12-TF-15SS	15" TIDEFLEX IN-LINE CHECK VALVE		SF
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12H	CLEANING EXISTING DRAINAGE SYSTEM		EA
27	CEMENT CONCRETE SIDEWALK		SF
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

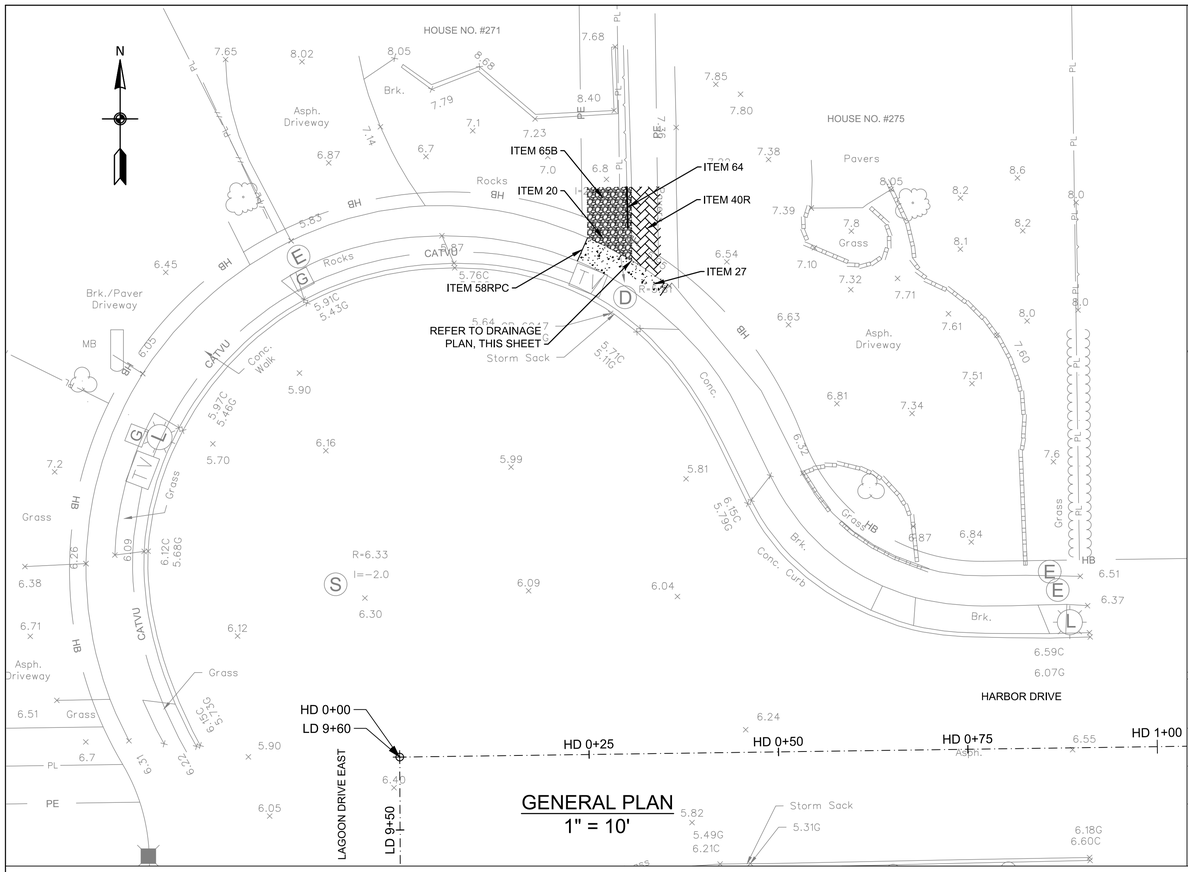
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

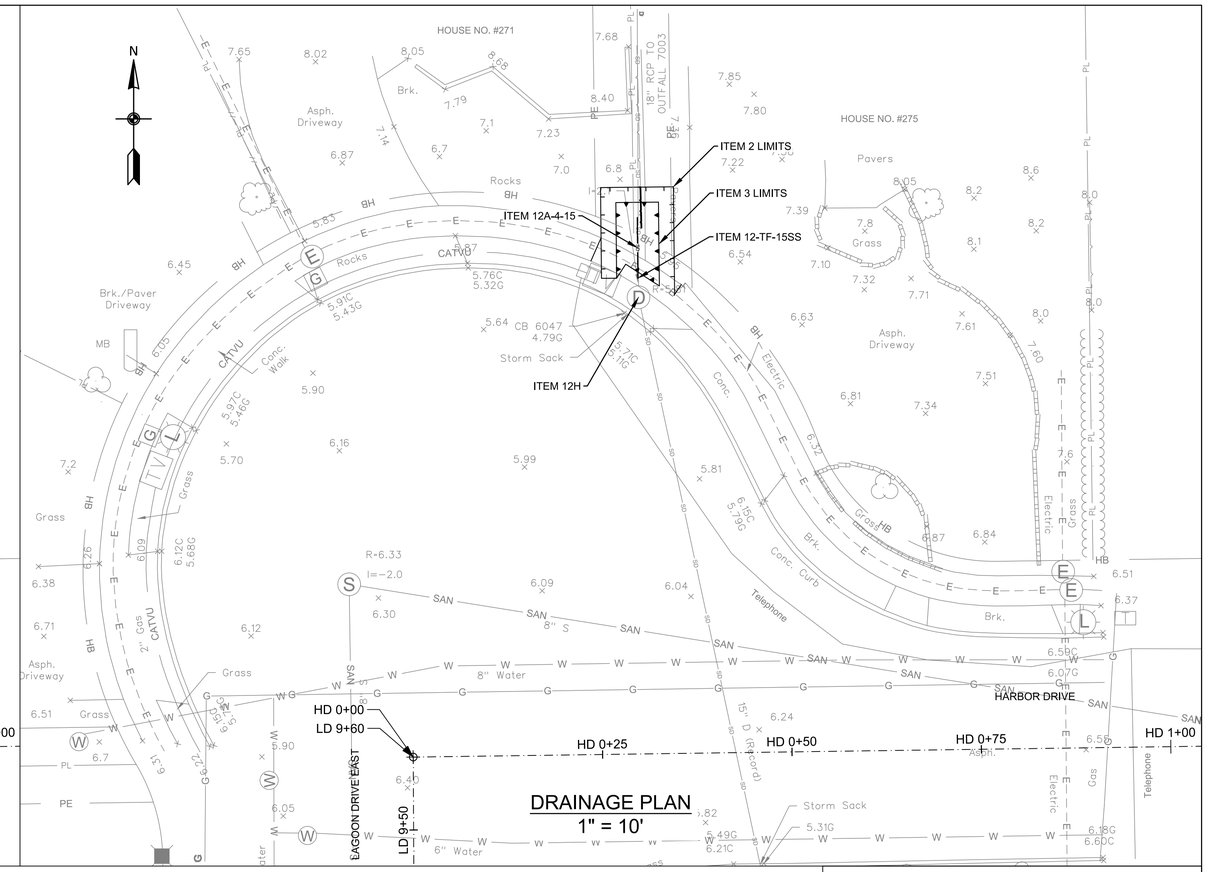
DRAWING TITLE:
CONSTRUCTION PLAN
CHECK VALVE INSTALLATION
197 AND 203 LAGOON DR. E., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-02	
SCALE: 1" = 10'	SHEET NO: 17 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-02.DWG
Plot Date: 10/8/2019 9:33 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

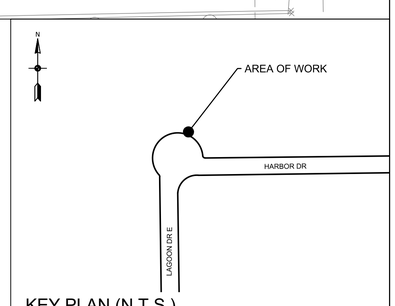
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12-TF-15SS	15" TIDEFLEX IN-LINE CHECK VALVE		SF
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12H	CLEANING EXISTING DRAINAGE SYSTEM		EA
20	BROKEN STONE, LOOSE MATERIAL		CY
27	CEMENT CONCRETE SIDEWALK		SF
40R	RESET EXISTING STONE BLOCK PAVEMENT		SF
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
64	RESET EXISTING FENCE		LF
65B	TRANSPLANT EXISTING SHRUBS		EA



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

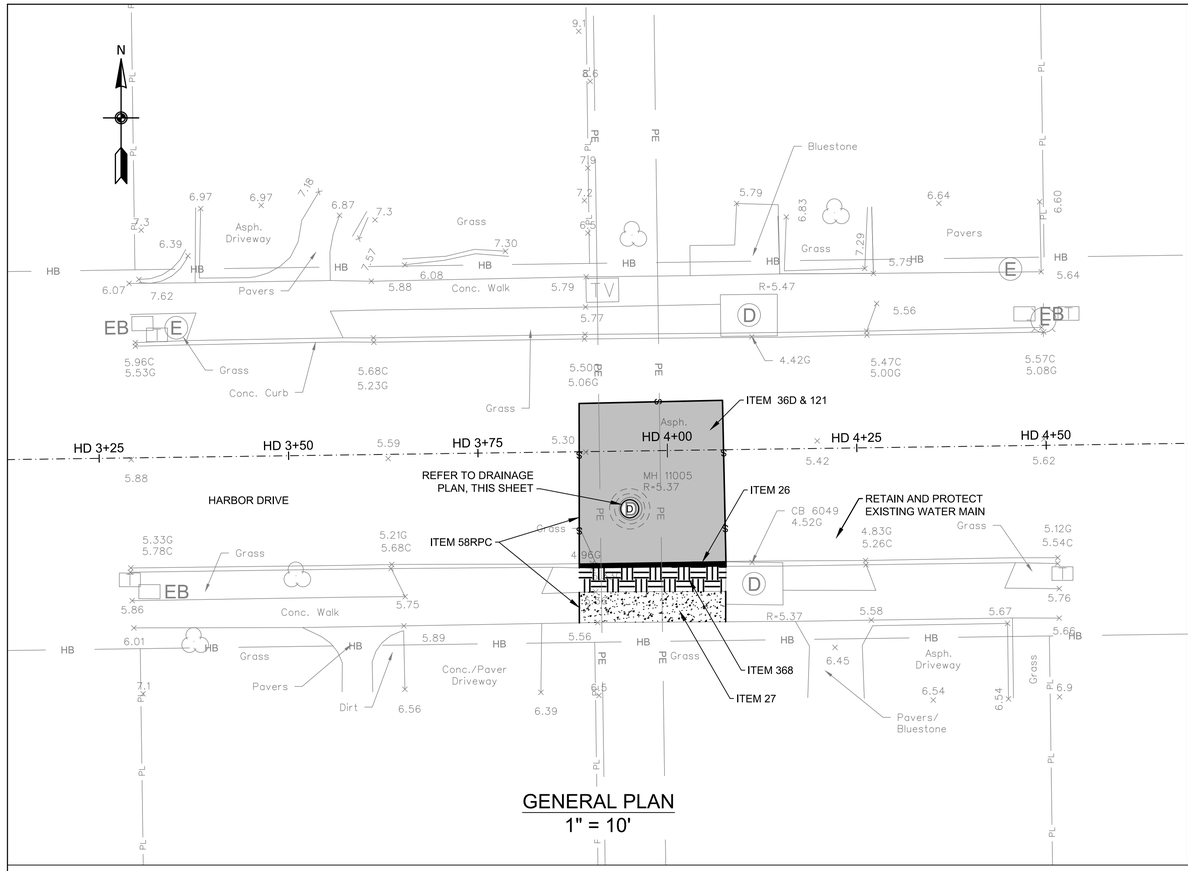
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

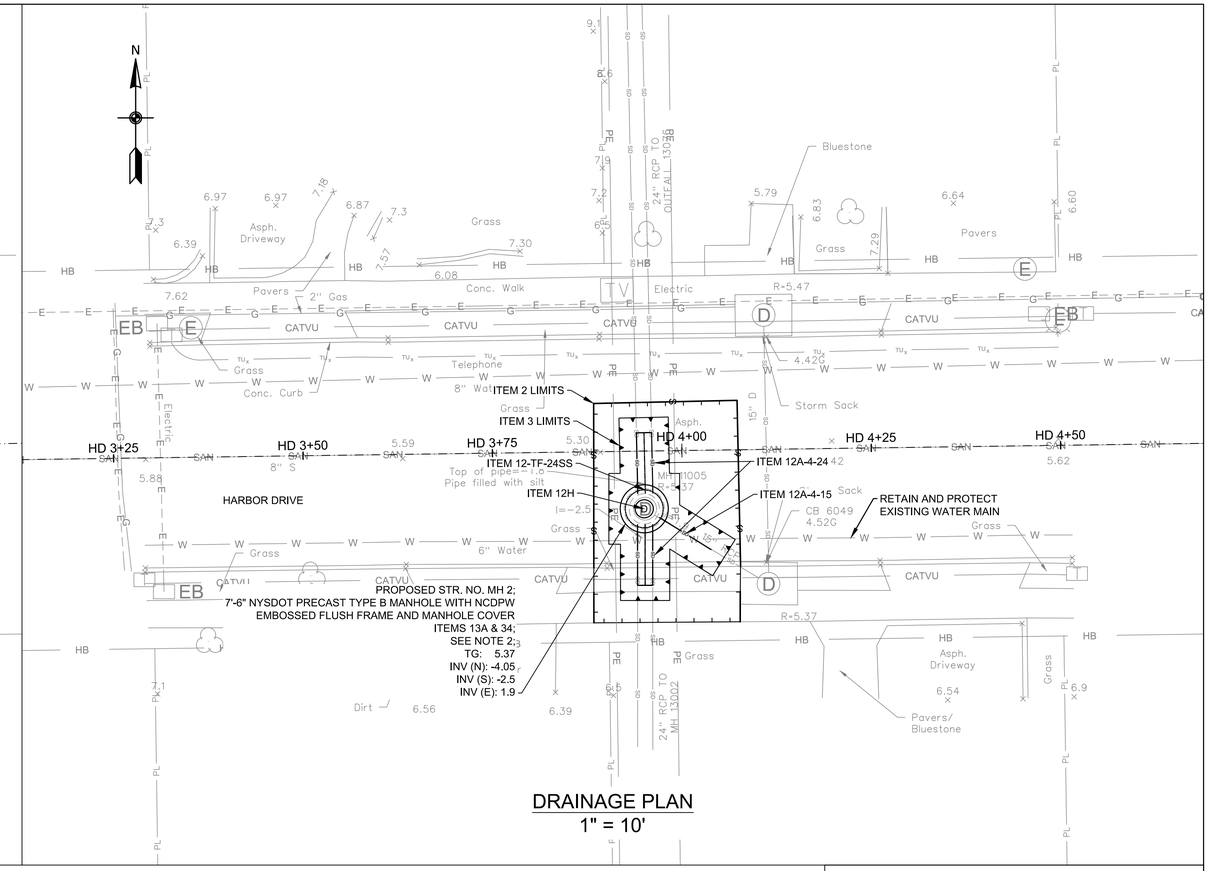
DRAWING TITLE:
CONSTRUCTION PLAN
CHECK VALVE INSTALLATION
271 AND 275 HARBOR DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-03	
SCALE: 1" = 10'	SHEET NO: 18 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-03.DWG
Plot Date: 10/8/2019 9:33 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

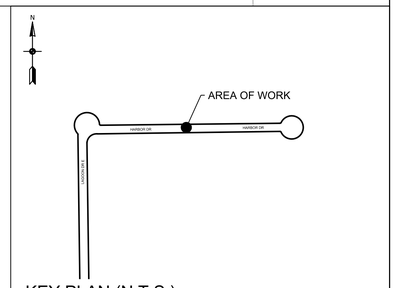
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12-TF-24SS	24" TIDEFLEX IN-LINE CHECK VALVE		SF
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12A-4-24	24" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12H	CLEANING EXISTING DRAINAGE SYSTEM		EA
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

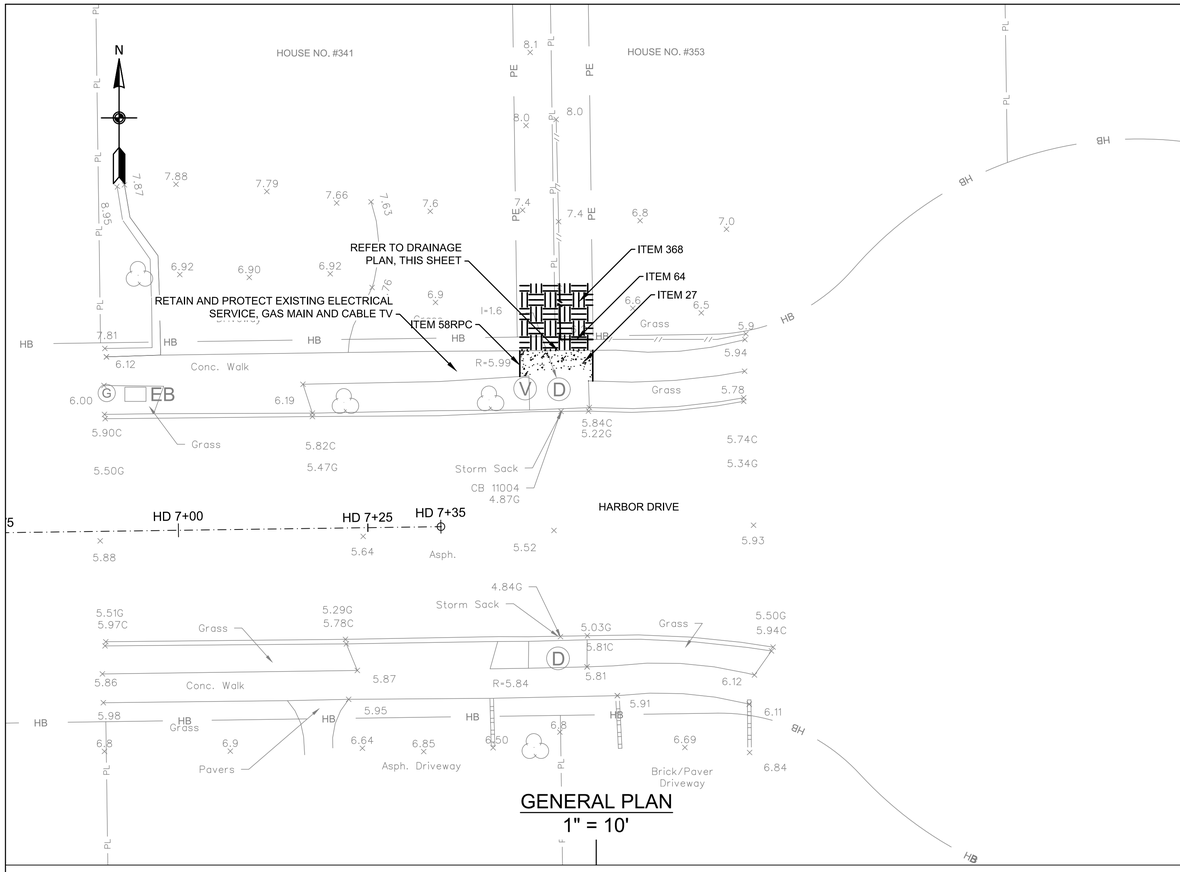
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

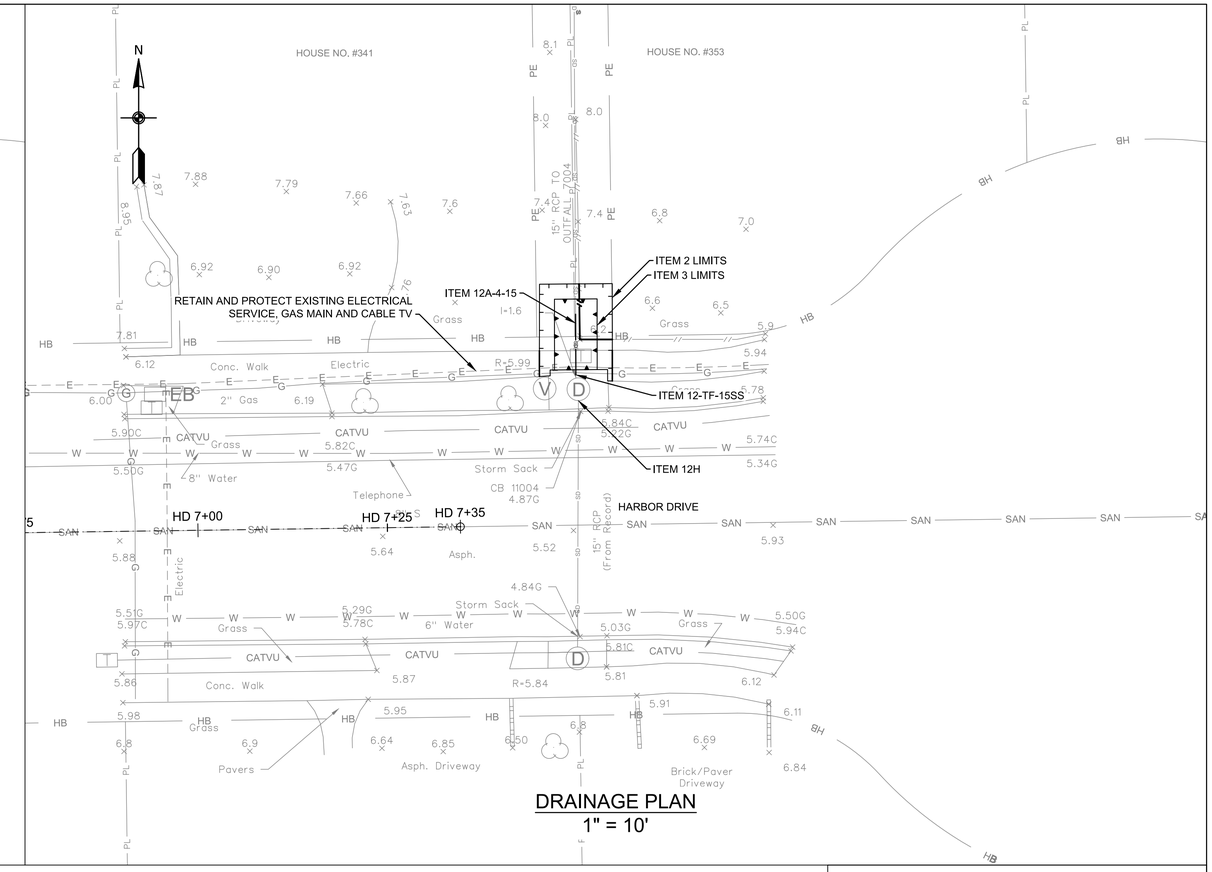
DRAWING TITLE:
CONSTRUCTION PLAN
CHECK VALVE INSTALLATION
311 HARBOR DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-04	
SCALE: 1" = 10'	SHEET NO: 19 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-04.DWG
Plot Date: 10/8/2019 9:34 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

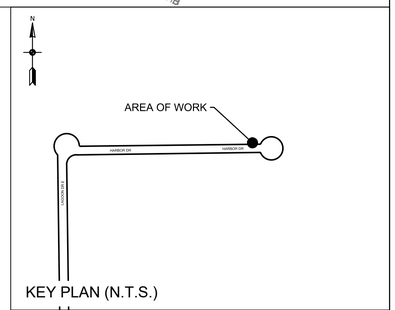
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12-TF-15SS	15" TIDEFLEX IN-LINE CHECK VALVE		SF
12DIP-15	15" DUCTILE IRON PIPE (DIP)		LF
12H	CLEANING EXISTING DRAINAGE SYSTEM		EA
27	CEMENT CONCRETE SIDEWALK		SF
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
64	RESET EXISTING FENCE		LF
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

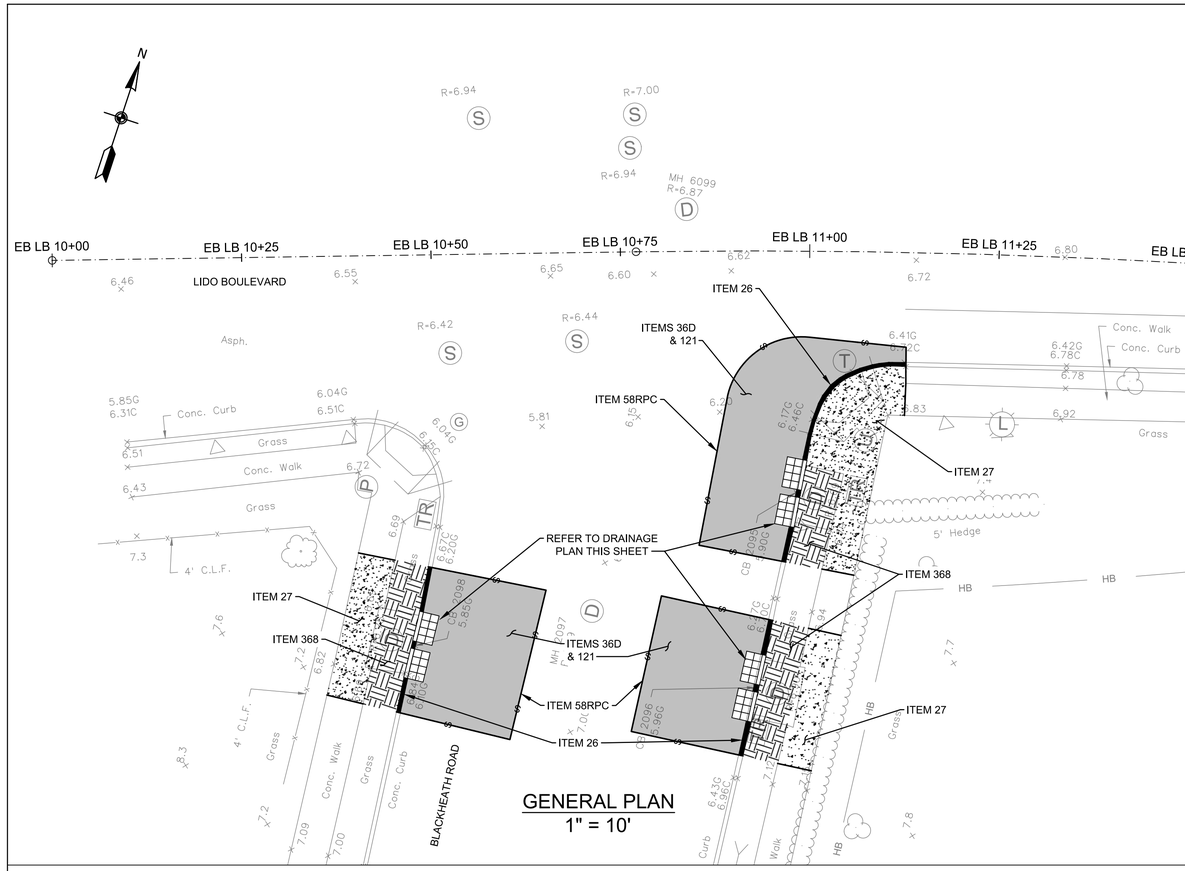
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

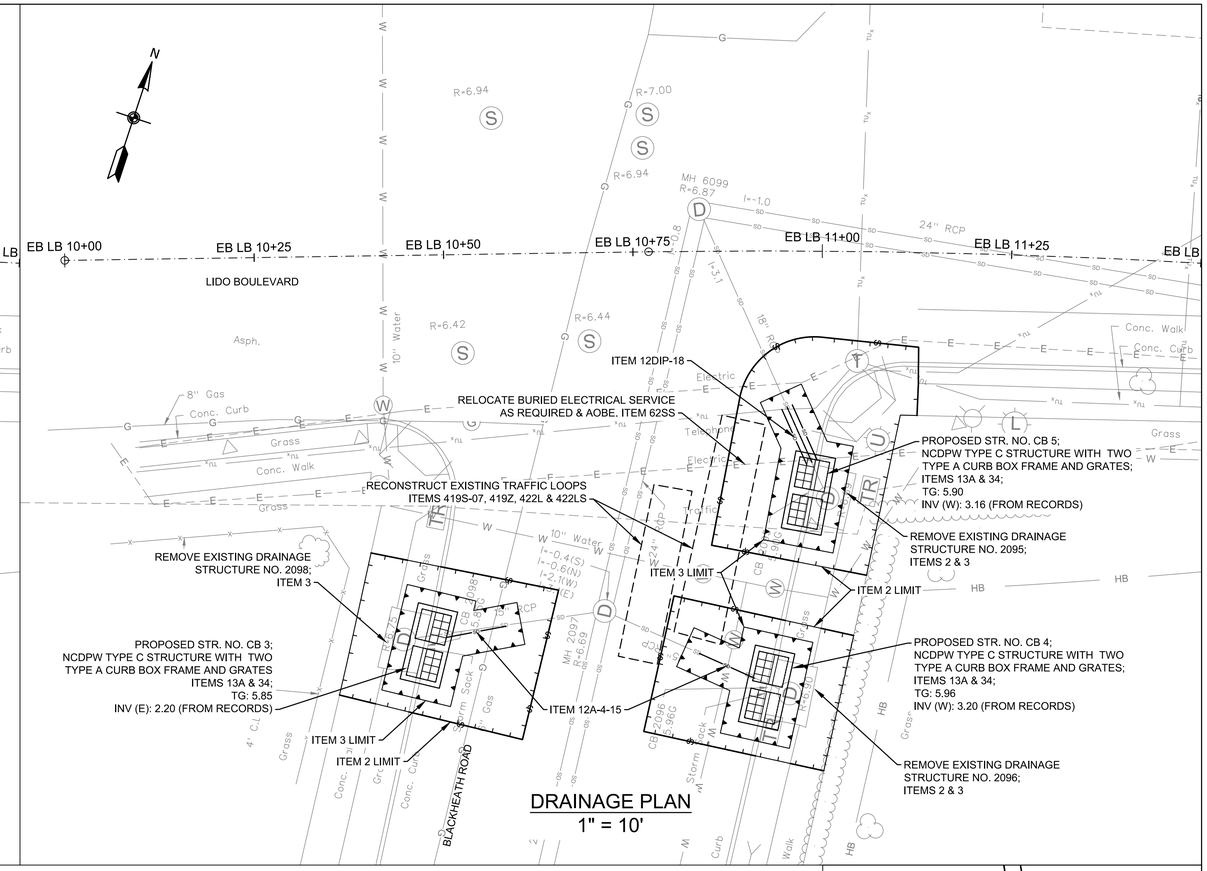
DRAWING TITLE:
CONSTRUCTION PLAN
CHECK VALVE INSTALLATION
341 AND 353 HARBOR DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-05	
SCALE: 1" = 10'	SHEET NO: 20 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-05.DWG
Plot Date: 10/8/2019 9:35 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

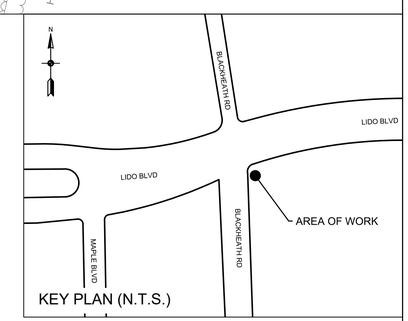
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 AND WZTC-1-1 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12A-4-18	18" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12DIP-18	18" DUCTILE IRON PIPE (DIP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

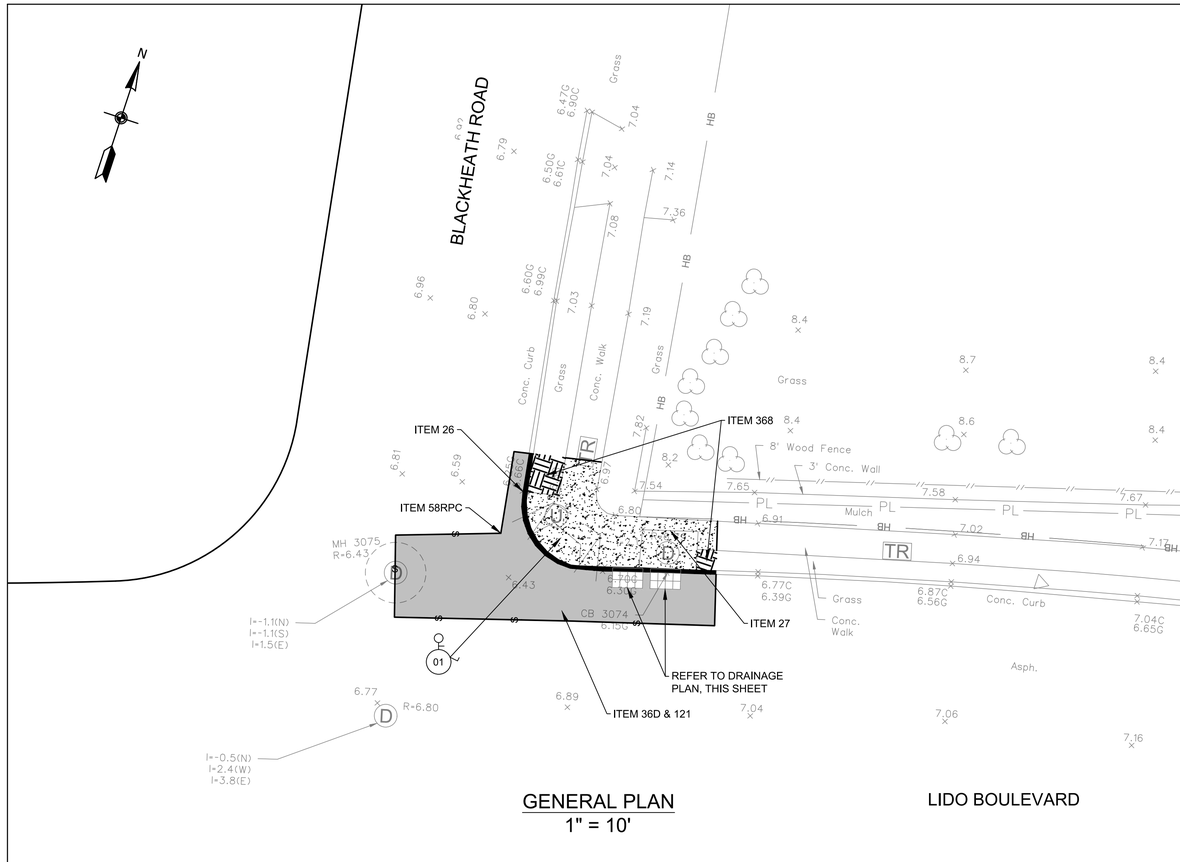
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
117 & 135 LIDO BLVD., LIDO BEACH, NY

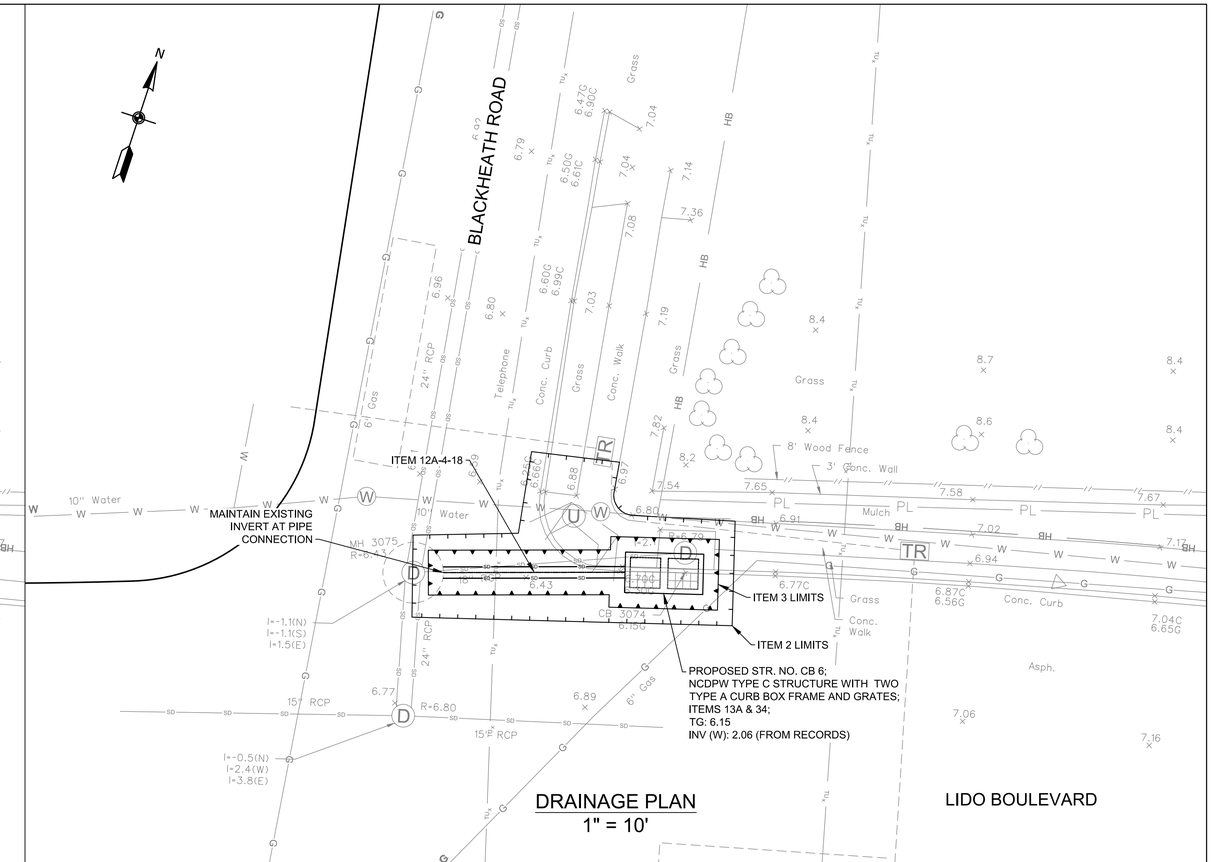
GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-06	
SCALE: 1" = 10'	SHEET NO: 21 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-06.DWG
Plot Date: 10/8/2019 9:35 AM



GENERAL PLAN
1" = 10'

LIDO BOULEVARD



DRAINAGE PLAN
1" = 10'

LIDO BOULEVARD

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

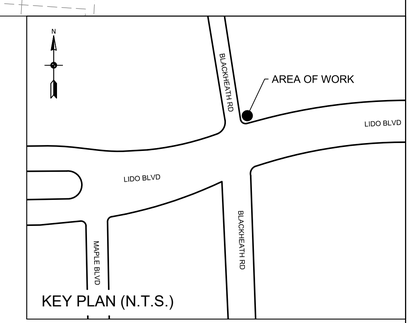
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 AND WZTC-2-1 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-18	18" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CONCRETE SIDEWALK		CY
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

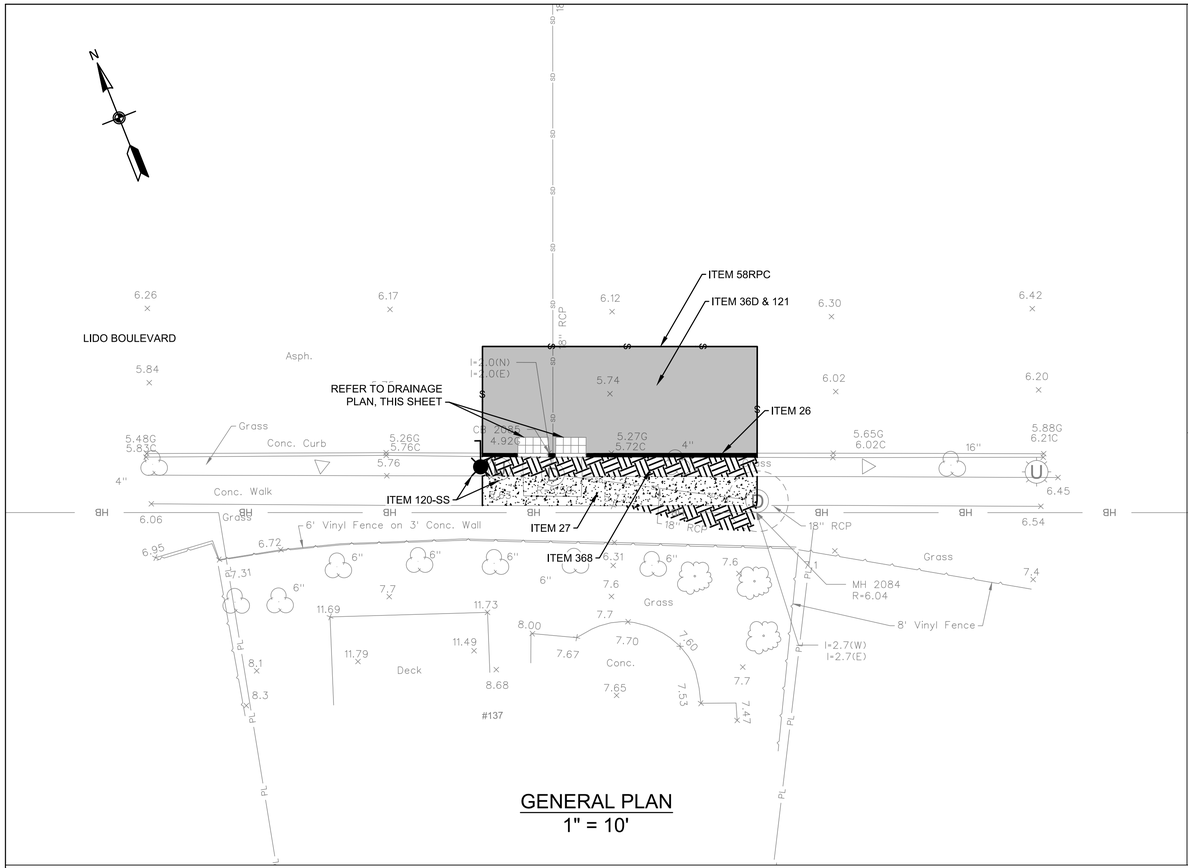
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

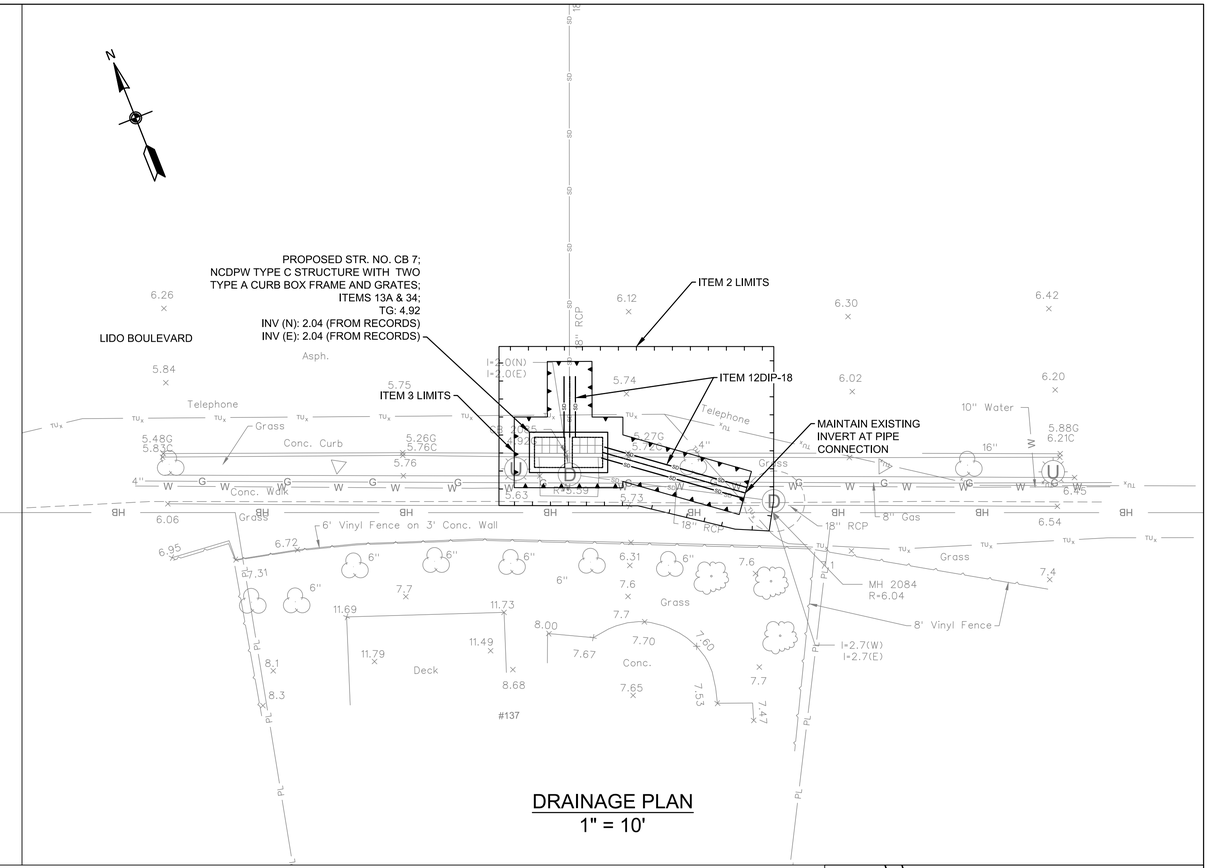
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
132 BLACKHEATH RD., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-07	
SCALE: 1" = 10'	SHEET NO: 22 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-07.DWG
Plot Date: 10/8/2019 9:35 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

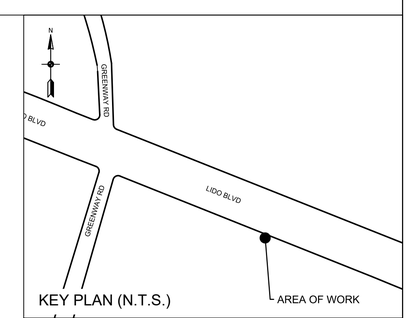
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 AND WZTC-3-1 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12DIP-18	18" DUCTILE IRON PIPE (DIP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
120-SS	RELOCATION OF EXISTING LIGHT POLES (COMPLETE)		EA
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

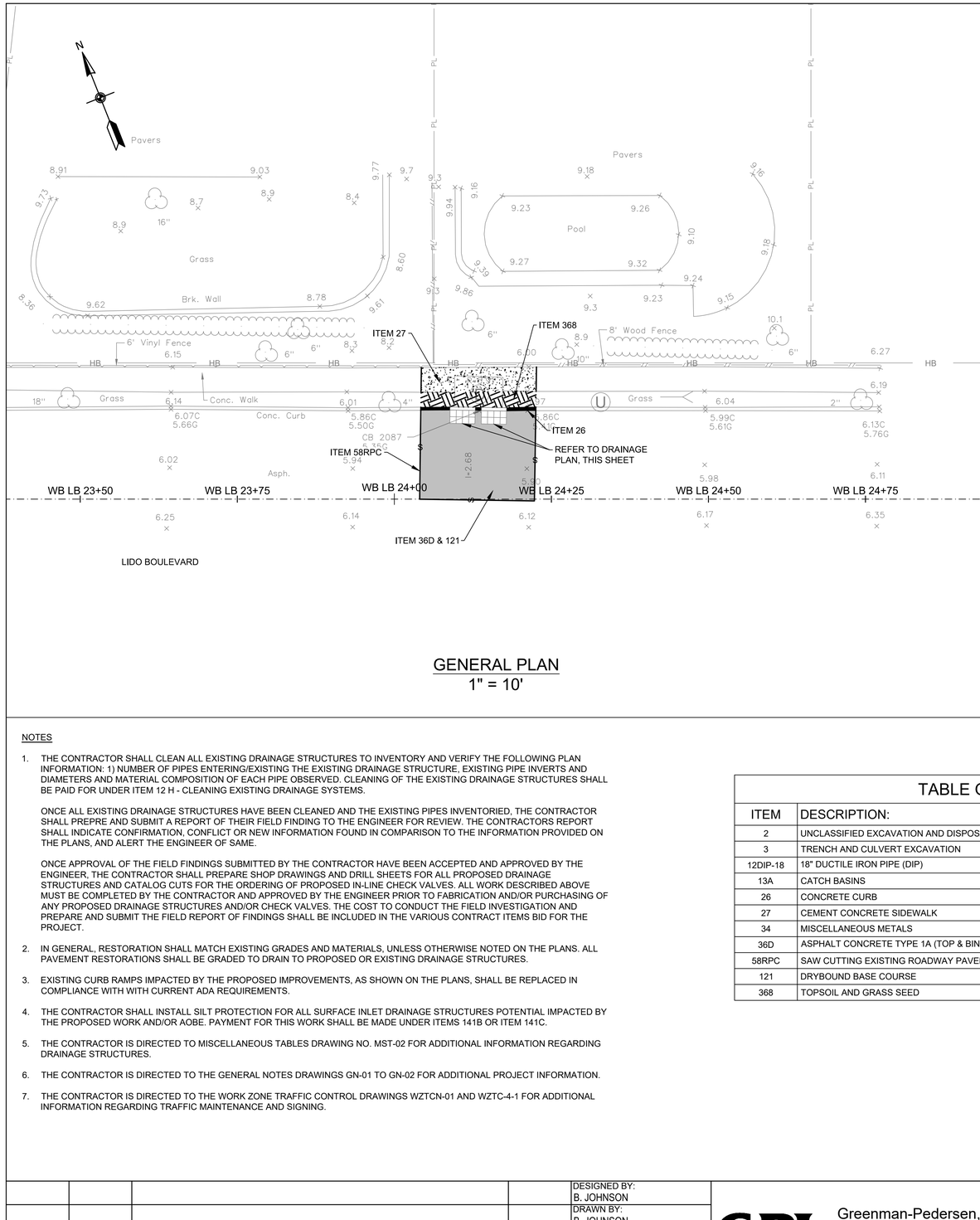
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

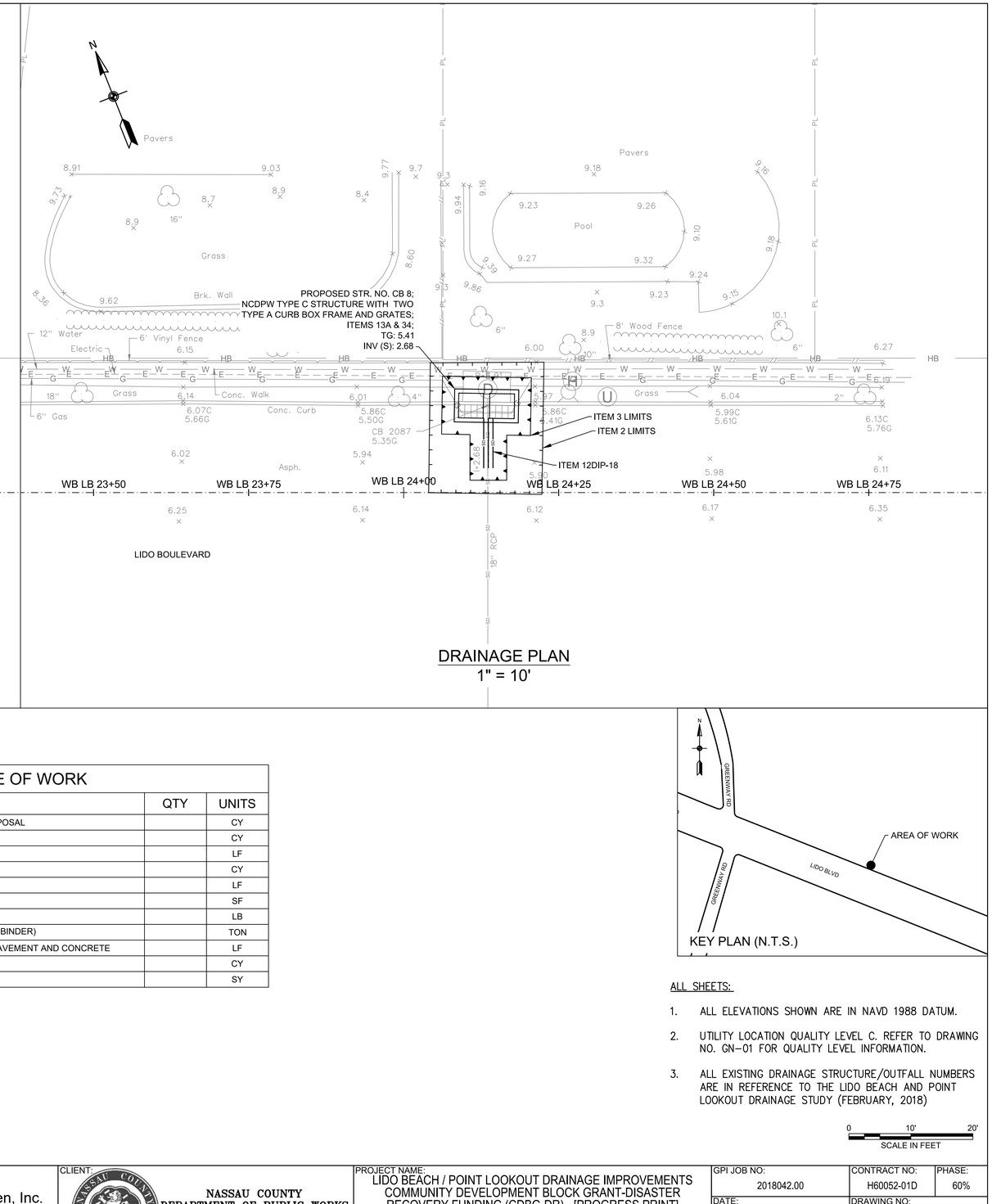
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
137 AUDREY DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-08	
SCALE: 1" = 10'	SHEET NO: 23 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-08.DWG
Plot Date: 10/8/2019 9:36 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 AND WZTC-4-1 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12DIP-18	18" DUCTILE IRON PIPE (DIP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY

KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

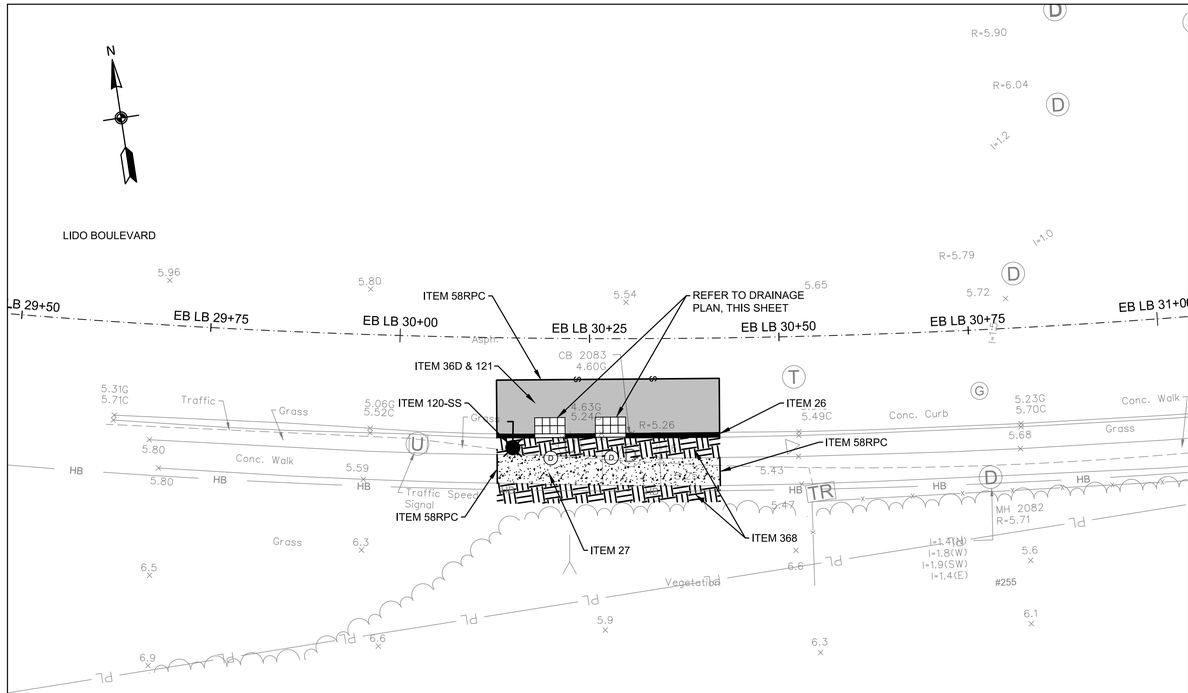
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

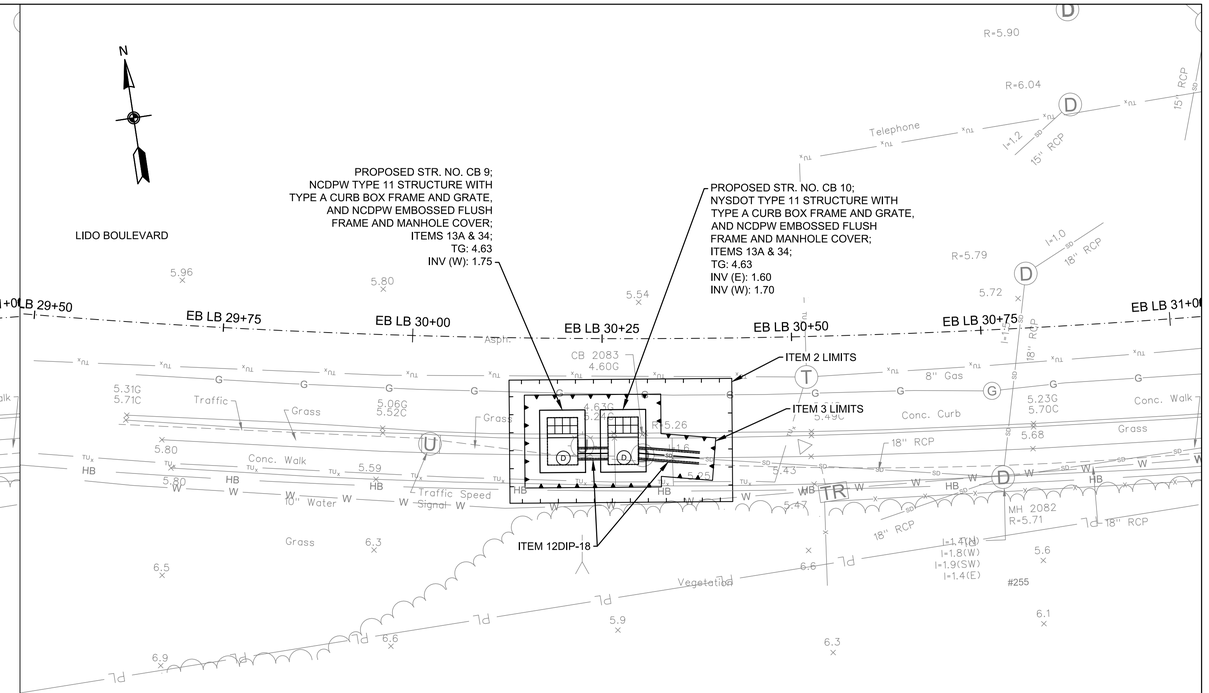
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
67 & 73 REYNOLDS DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-09	
SCALE: 1" = 10'	SHEET NO: 24 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-09.DWG
Plot Date: 10/8/2019 9:36 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

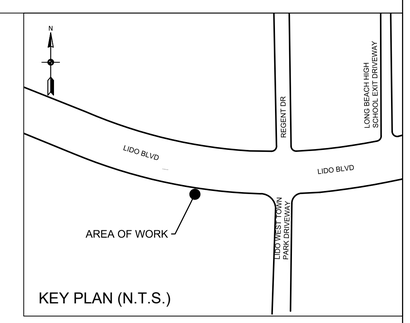
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01, WZTC-5-1 AND WZTC-5-2 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12DIP-18	18" DUCTILE IRON PIPE (DIP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
120-SS	RELOCATION OF EXISTING LIGHT POLES (COMPLETE)		EA
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

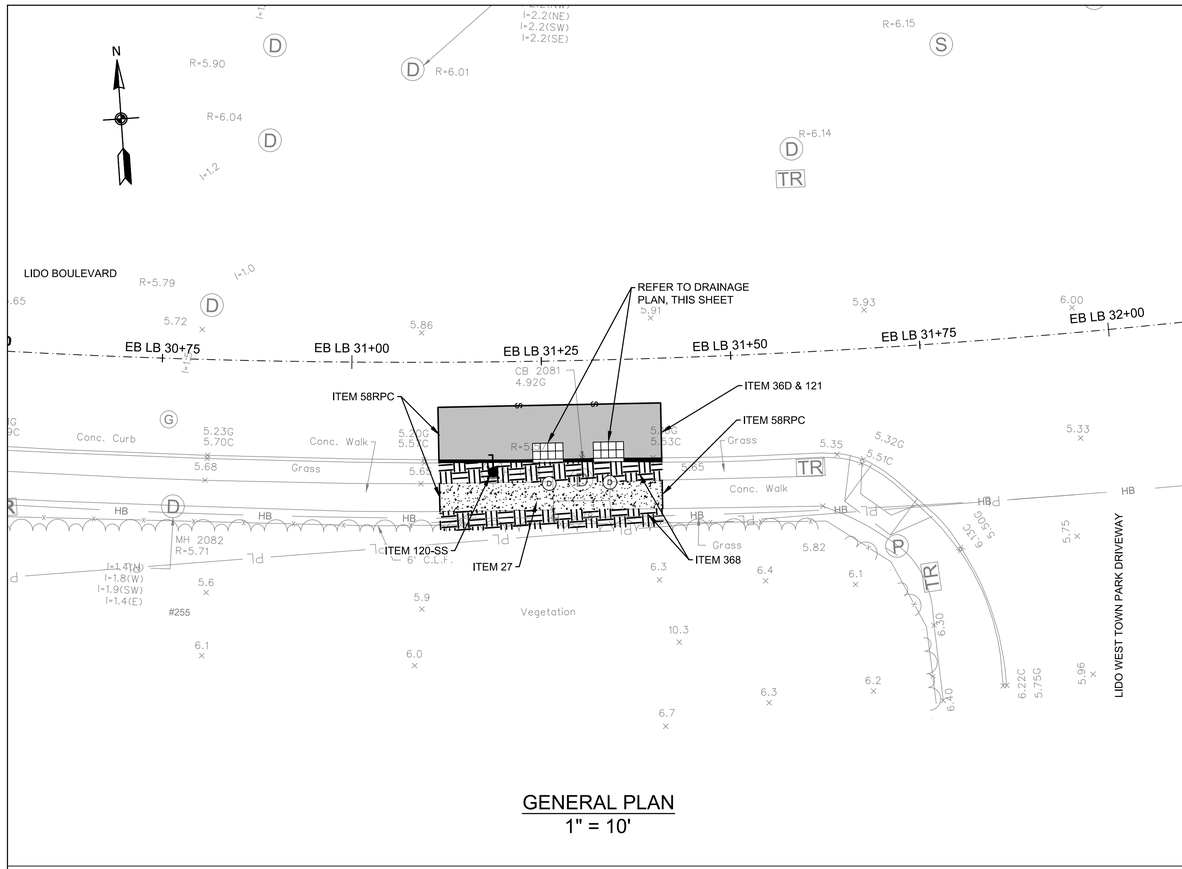
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

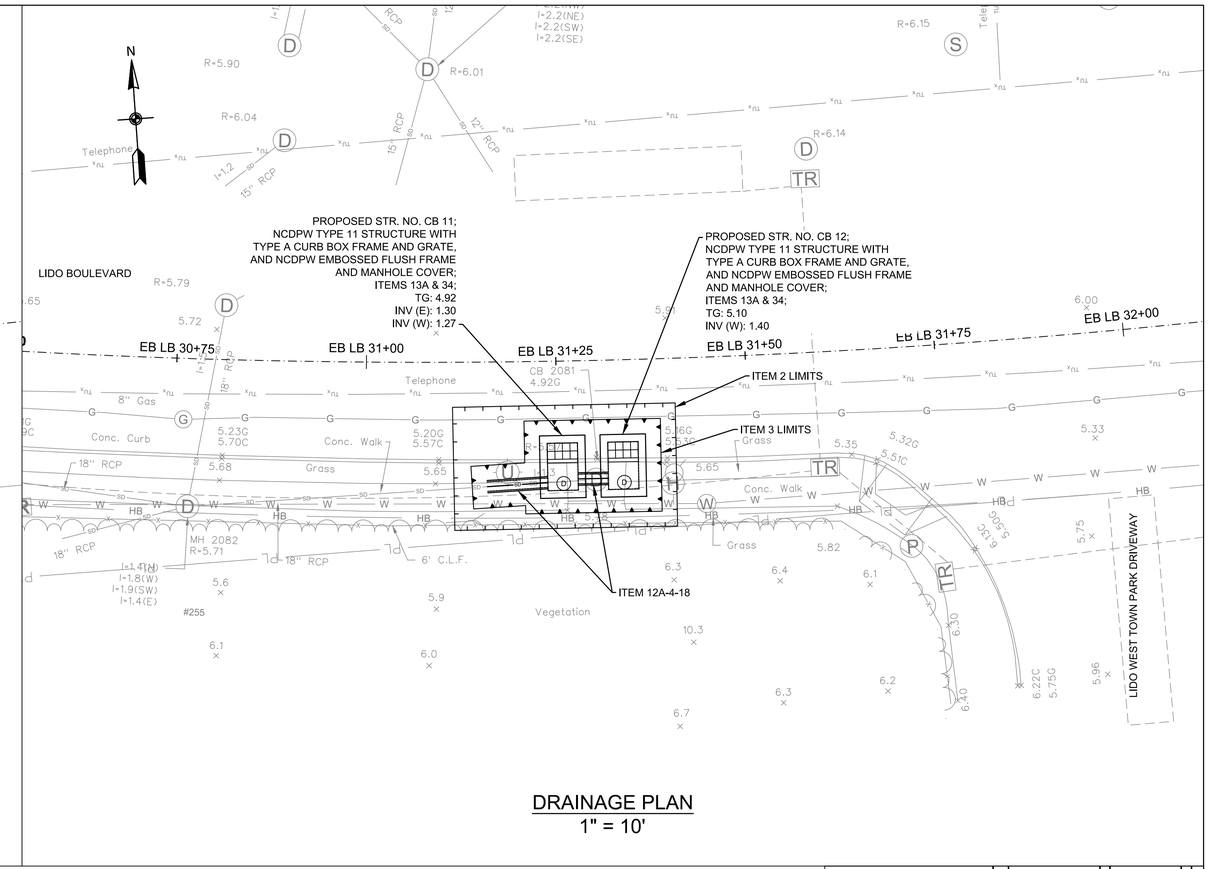
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
255 LIDO BLVD., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-10	
SCALE: 1" = 10'	SHEET NO: 25 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-10.DWG
Plot Date: 10/8/2019 9:37 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

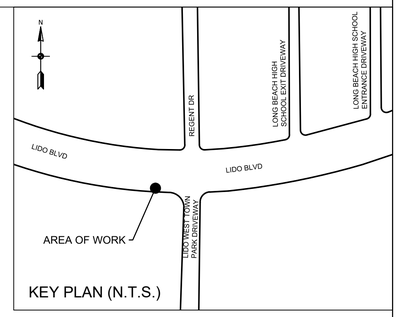
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01, WZTC-5-1 AND WZTC-5-2 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-18	18" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
13A	CATCH BASINS		CY
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
120-SS	RELOCATION OF EXISTING LIGHT POLES (COMPLETE)		EA
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

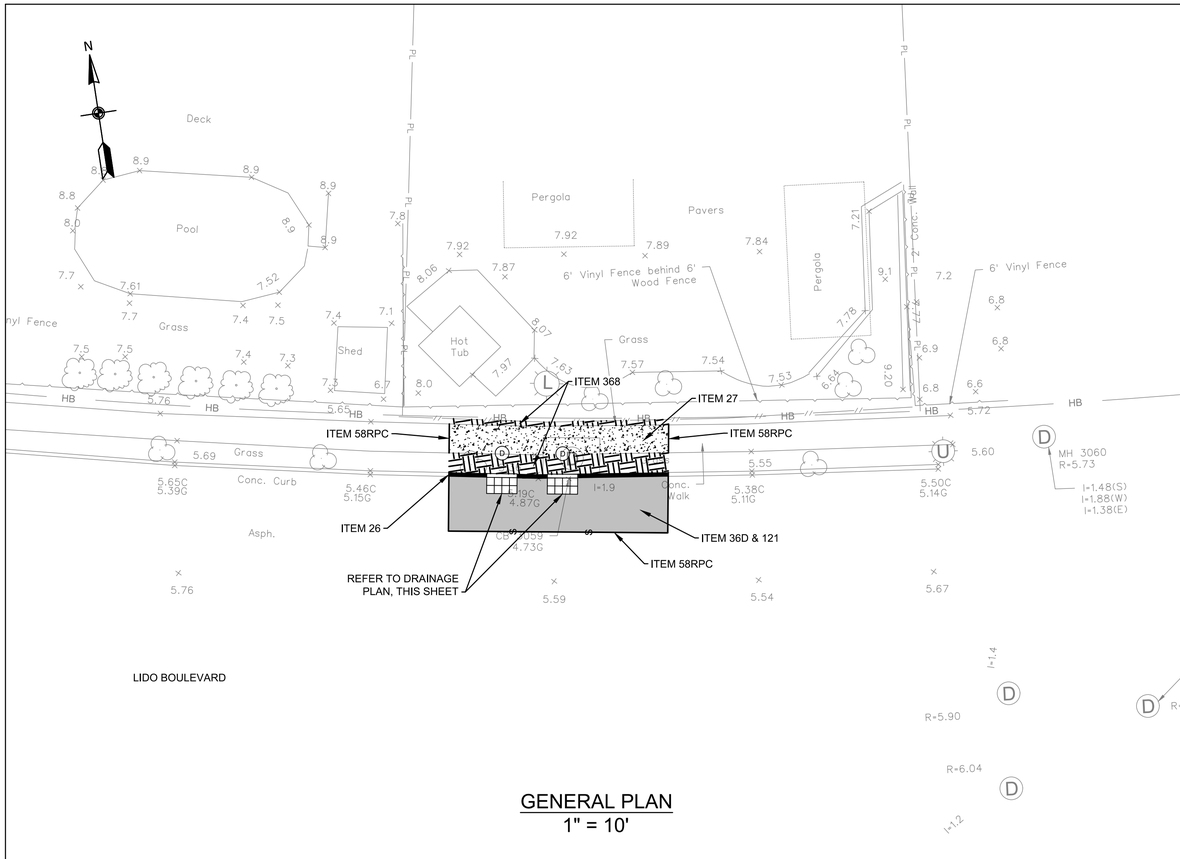
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

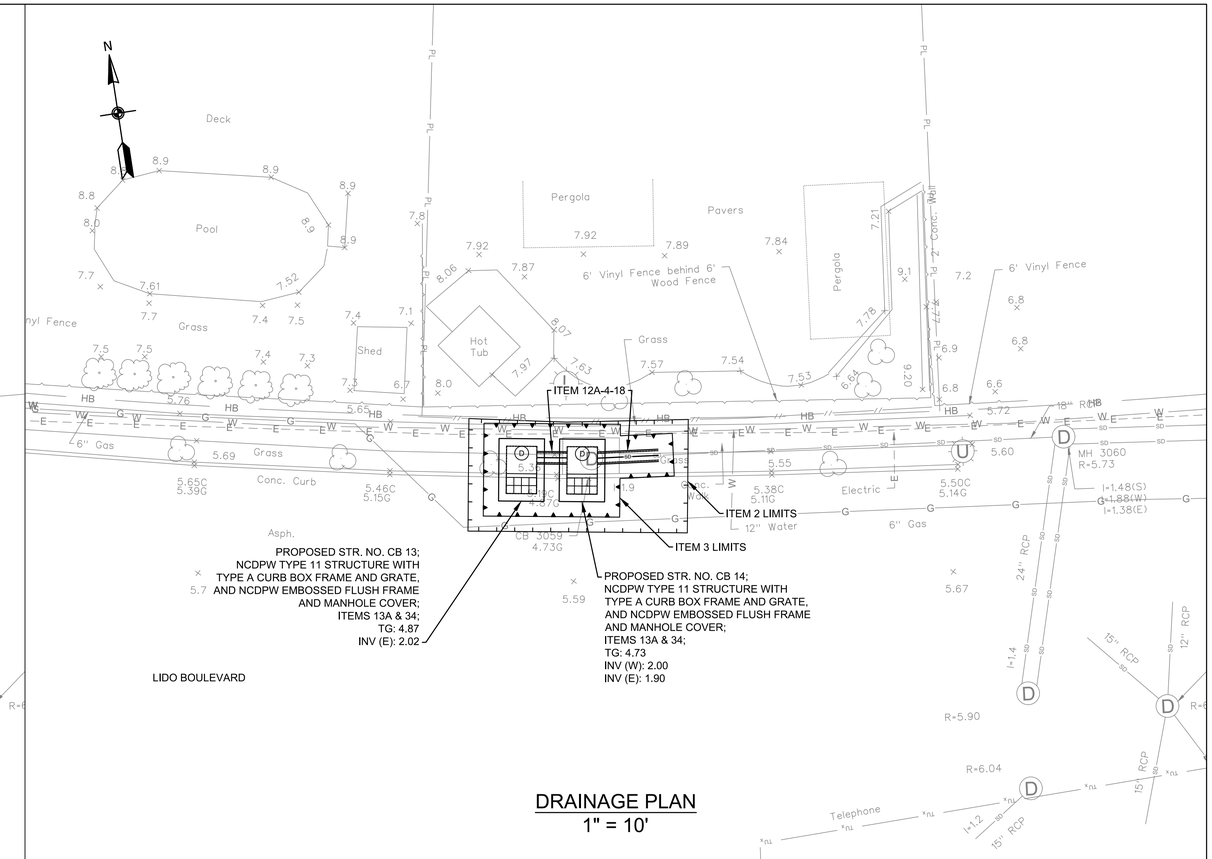
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
255 LIDO BLVD., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-11	
SCALE: 1" = 10'	SHEET NO: 26 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-11.DWG
Plot Date: 10/8/2019 9:37 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

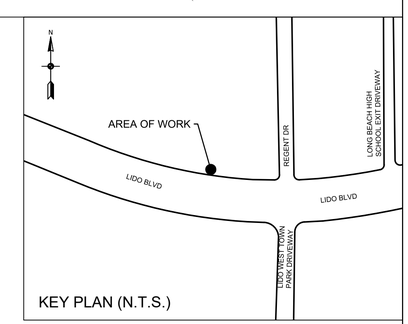
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01, WZTC-6-1 AND WZTC-6-2 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-18	18" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

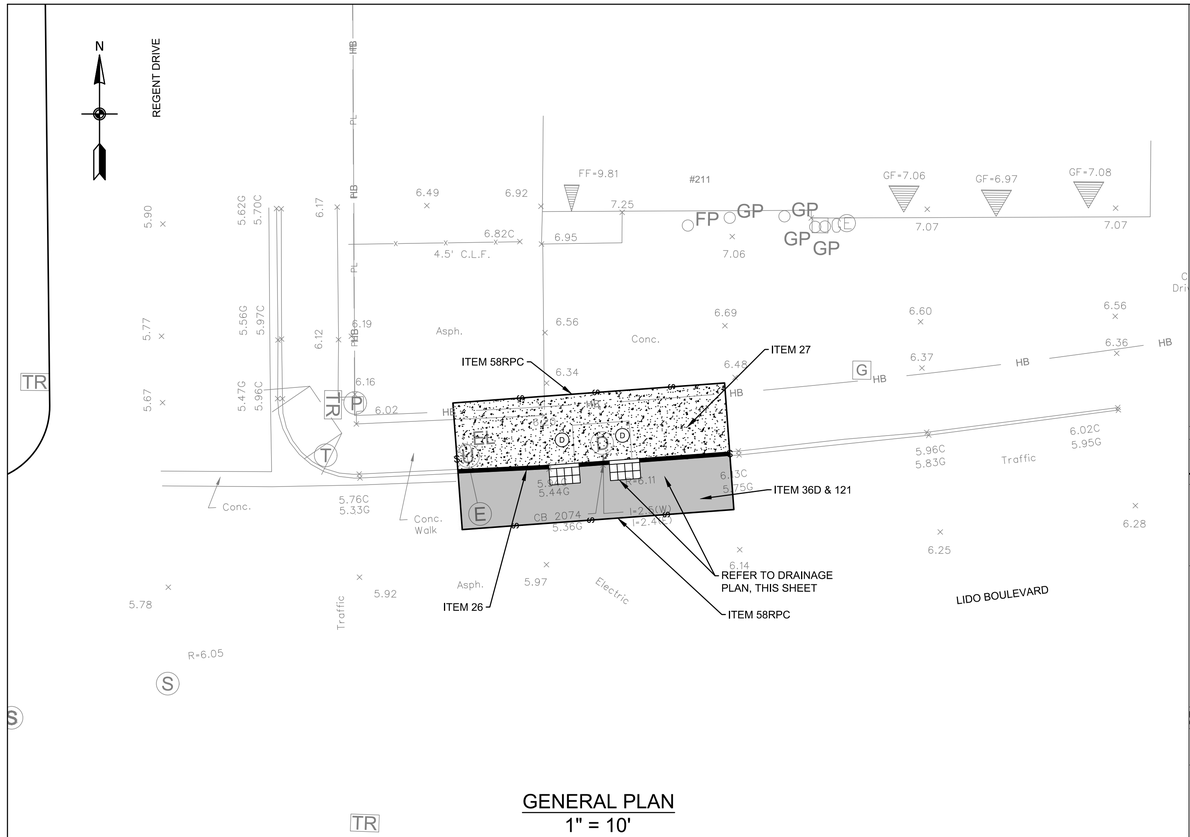
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

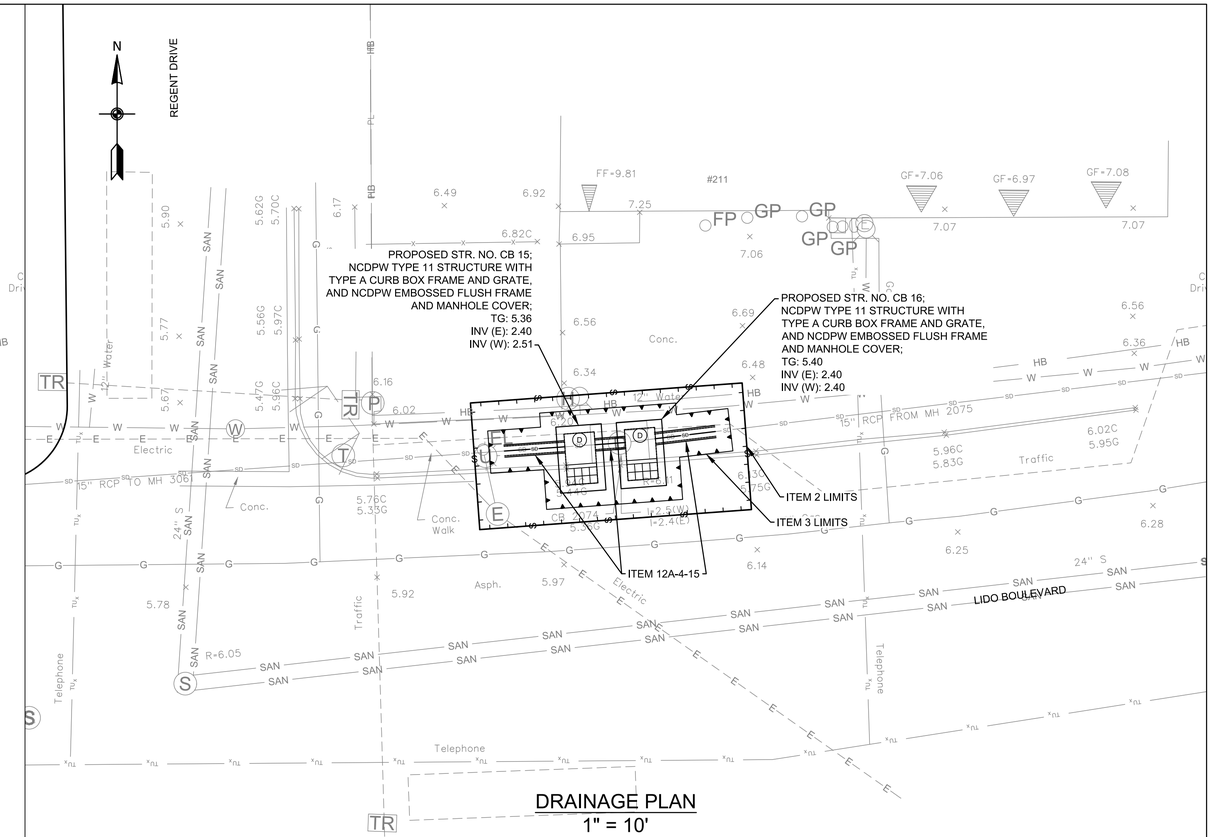
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
9 REYNOLDS DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-12	
SCALE: 1" = 10'	SHEET NO: 27 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-12.DWG
Plot Date: 10/8/2019 9:38 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

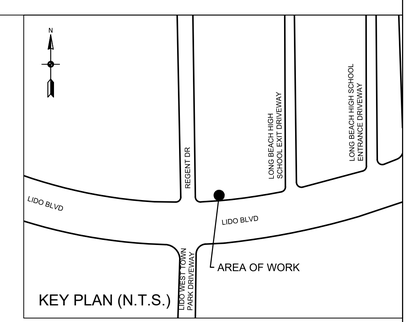
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01, WZTC-6-1 AND WZTC-6-2 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-18	18" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

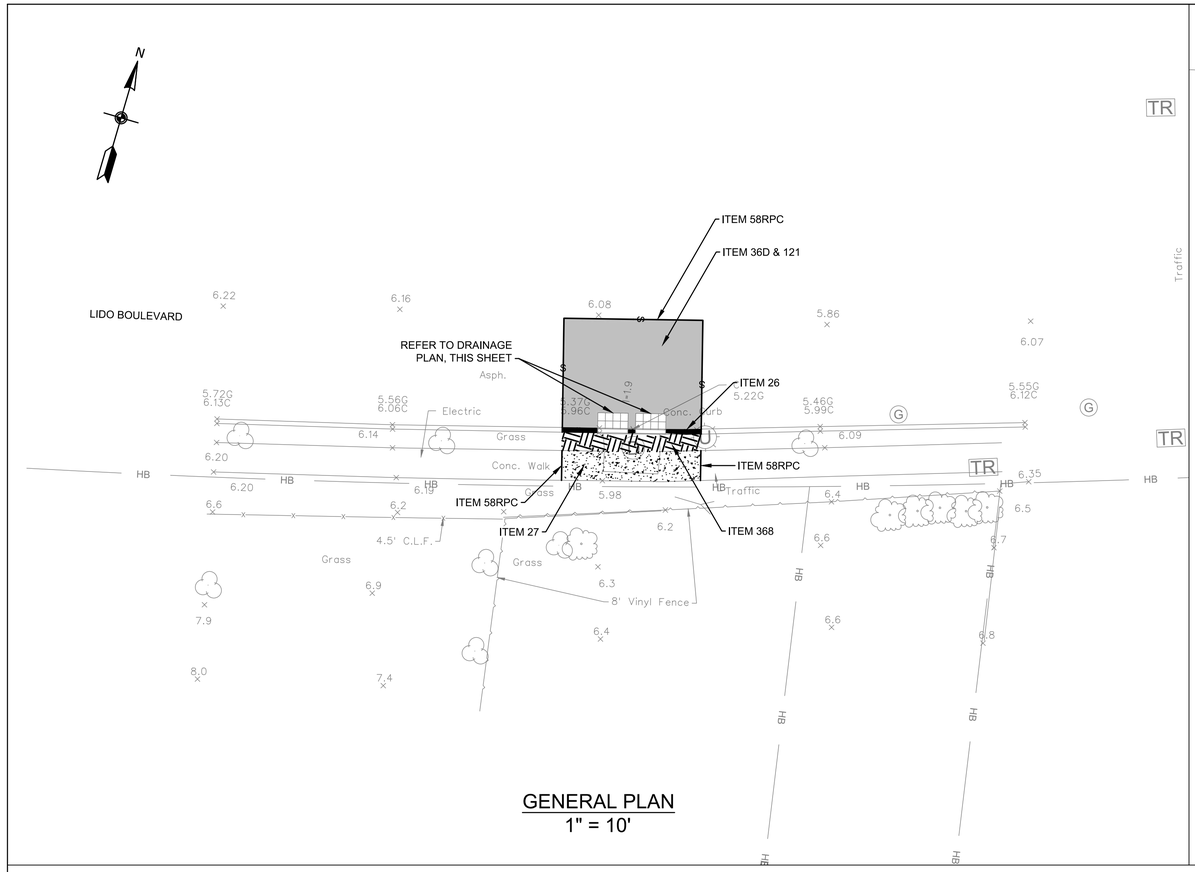
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

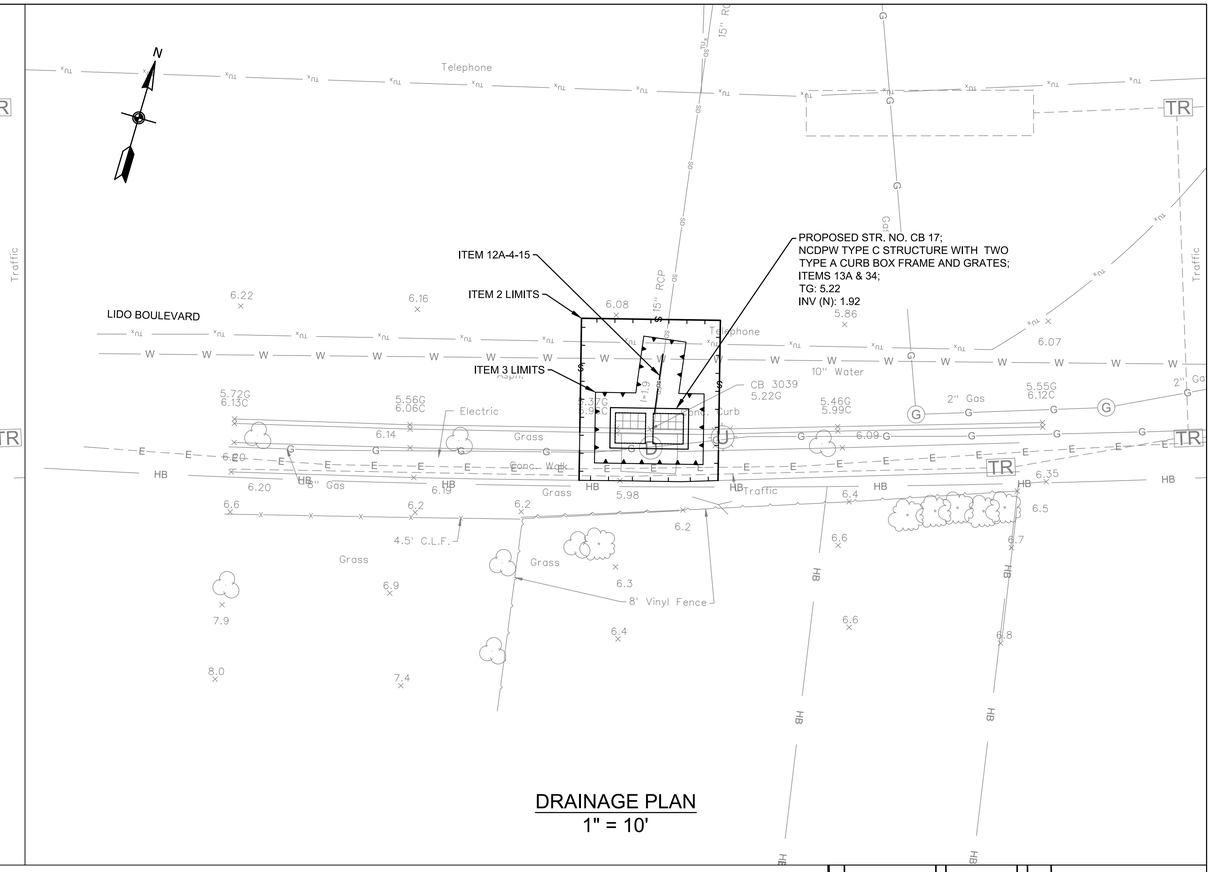
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
211 LIDO BLVD., LIDO BEACH, NY

GPI JOB NO: 2018042.00
CONTRACT NO: H60052-01D
PHASE: 60%
DATE: 10/08/2019
DRAWING NO: CP-13
SCALE: 1" = 10'
SHEET NO: 28 OF 39

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-13.DWG
Plot Date: 10/8/2019 9:38 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

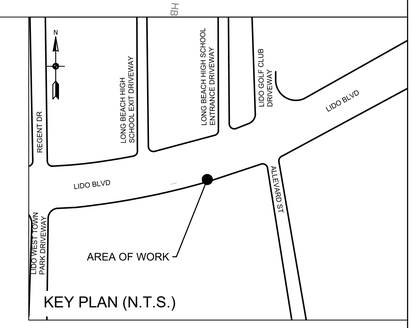
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01, WZTC-5-1 AND WZTC-5-2 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

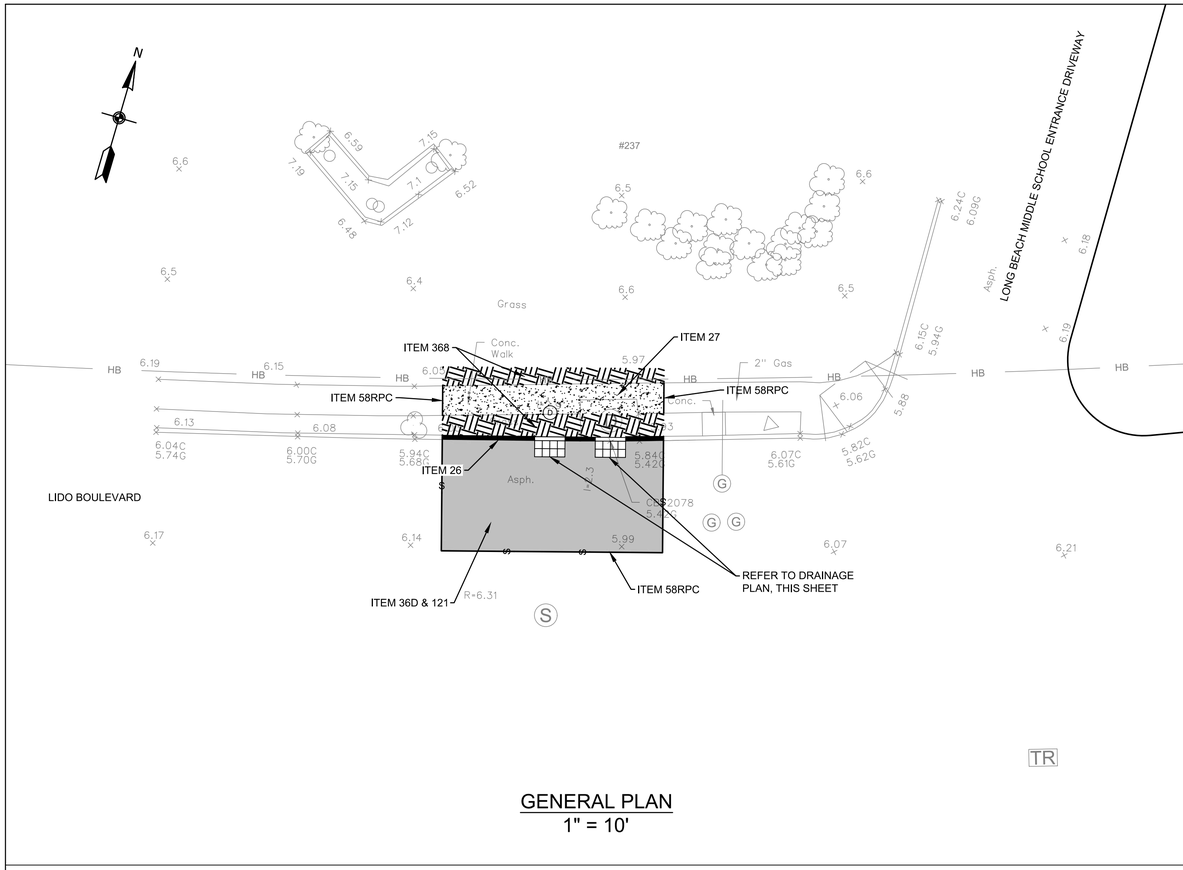
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

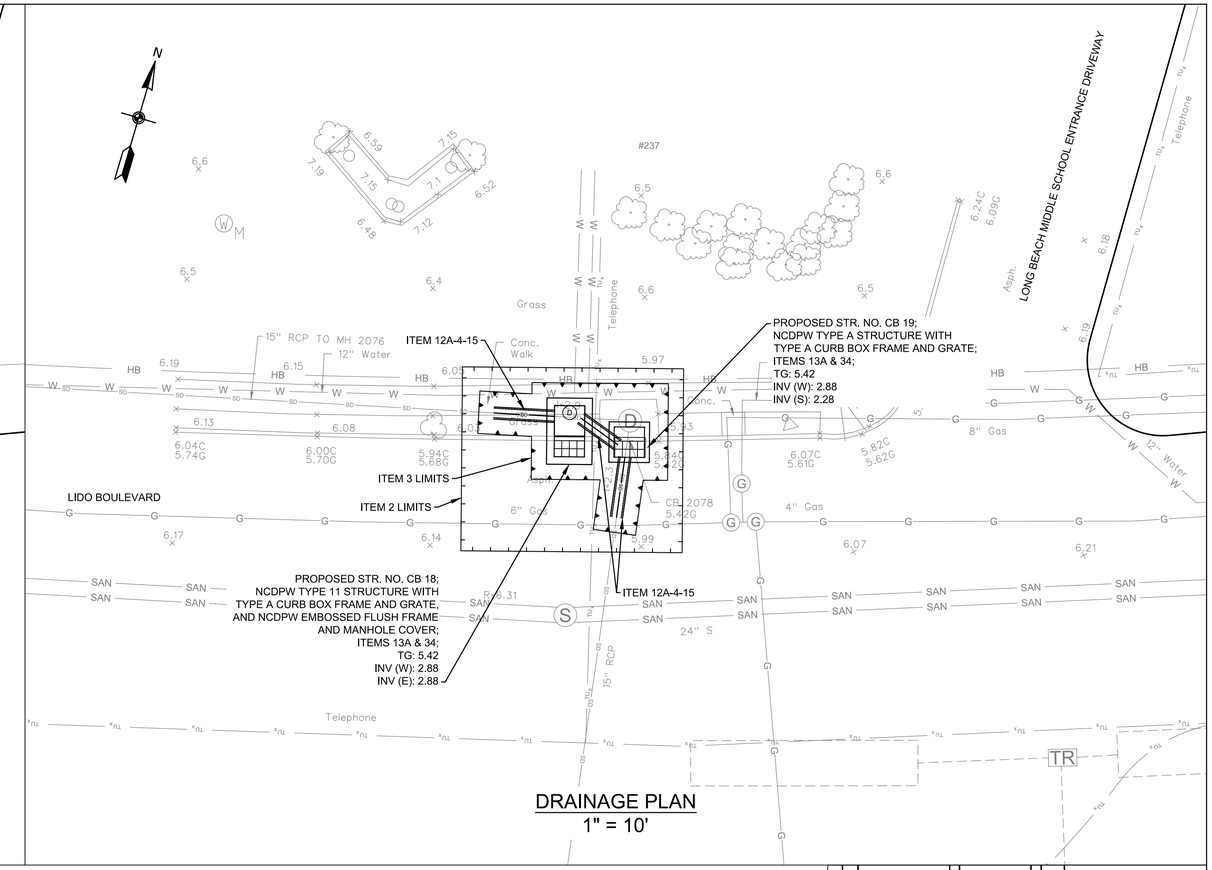
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
250 LIDO BLVD., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-14	
SCALE: 1" = 10'	SHEET NO: 29 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-14.DWG
Plot Date: 10/8/2019 9:38 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

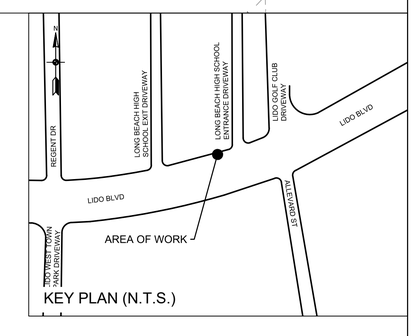
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01, WZTC-6-1 AND WZTC-6-2 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12DIP-15	15" DUCTILE IRON PIPE (DIP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
235 LIDO BLVD., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-15	
SCALE: 1" = 10'	SHEET NO: 30 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-15.DWG
Plot Date: 10/8/2019 9:39 AM

WORK ZONE TRAFFIC CONTROL NOTES:

1.0 THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FOLLOWING TWO SPECIAL NOTES IN THE CONTRACT DOCUMENTS SPECIFICALLY REGARDING WORK ON LIDO BOULEVARD:

SPECIAL NOTE "TEMPORARY LANE/SHOULDER CLOSURE RESTRICTIONS FOR MAJOR HOLIDAYS". NO LANE CLOSURES WILL BE ALLOWED ON WEEKENDS AND ON THE FOLLOWING DAYS:

-NEW YEARS DAY
-MEMORIAL DAY
-INDEPENDENCE DAY
-LABOR DAY
-THANKSGIVING DAY
-CHRISTMAS DAY

1.0.1 FOR THE HOLIDAY RESTRICTIONS NOTED IN THE SPECIAL NOTE THERE CAN BE NO PRESENCE ON THE ROAD UNLESS OTHERWISE NOTED ON CONTRACT PLANS.

1.0.2 UNLESS OTHERWISE STATED ON THE CONTRACT DOCUMENTS, PLANS OR ADVISED, NO LANE CLOSURES WILL BE ALLOWED ON WEEKENDS.

1.1 FOR ALL REGIONAL NON-LIMITED ACCESS STATE ROUTES:

1.1.1 A SINGLE LANE CLOSURE ON ALL NON-LIMITED ACCESS STATE ROUTES WITH TWO (2) OR MORE LANES IN EACH DIRECTION IS ALLOWED BETWEEN 10 AM AND 3 PM AS WELL AS BETWEEN 10 PM AND 6 AM

1.1.2 FULL ROAD OR MULTI LANE CLOSURES ON ALL NON-LIMITED ACCESS STATE ROUTES ARE ALLOWED BETWEEN 10 PM AND 6 AM UNLESS OTHERWISE SPECIFIED ON THE CONTRACT PLANS OR AS DIRECTED BY THE REGIONAL DIRECTOR OR HIS/HER DESIGNEE.

1.2 CONTRACTORS MUST PLACE PORTABLE VMS, AT APPROPRIATE PLACE(S) WITHIN THE CONTRACT LIMIT, AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE, TO PROVIDE ADVANCE NOTIFICATION TO MOTORISTS ABOUT POSSIBLE FULL OR MULTI LANE CLOSURE.

2.0 WORK ZONE TRAFFIC CONTROL GUIDELINES

2.1 WORK ZONE TRAFFIC CONTROL SCHEMES SHALL BE IN ACCORDANCE WITH THE PLANS, NYSDOT STANDARD SHEETS, THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (MUTCD) AND 17 NYCRR CHAPTER V (NEW YORK SUPPLEMENT), SIGN DRAWINGS AND OTHER EXHIBITS OF THE DOCUMENT AS ORDERED BY THE ENGINEER (AOBE).

2.2 THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC CONTROL. WORK ZONE TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE PLANS, NYSDOT STANDARD SHEETS, THE MUTCD, AND AS APPROVED OR DIRECTED BY THE ENGINEER. TRAFFIC SCHEMES SHOWN ON THE PLANS OR IN THE MUTCD ARE TO BE CONSIDERED MINIMUM REQUIREMENTS. THE ENGINEER MAY ORDER ADDITIONAL SIGNS, FLAGGERS, CONES, REFLECTORIZATION ETC., IF NECESSARY, AT NO ADDITIONAL COST TO THE STATE. PAYMENT FOR ALL SUCH WORK SHALL BE INCLUDED IN THE ITEMS FOR WORK ZONE TRAFFIC CONTROL AS APPROPRIATE.

2.3 THE CONTRACTOR MAY SUBMIT REVISIONS TO THIS PLAN FOR THE FOR APPROVAL BY THE COUNTY OR THE ENGINEER. THIS SHALL BE AT NO ADDITIONAL COST TO THE STATE.

2.4 UNDIVIDED HIGHWAYS: THE CONTRACTOR SHALL NOT WORK ON BOTH SIDES OF THE ROADWAY IN THE SAME AREA AT THE SAME TIME.

2.5 DIVIDED HIGHWAYS: THE CONTRACTOR SHALL NOT WORK ON BOTH SIDES OF ONE-WAY TRAFFIC (e.g. ON THE SHOULDER AND IN THE MEDIAN) IN THE SAME AREA AT THE SAME TIME.

2.6 WHEN THE CONTRACTOR IS WORKING WITHIN 15 FT OF A TRAVELED LANE, THE ENGINEER MAY REQUIRE THE ADJACENT TRAVEL LANE TO BE CLOSED.

2.7 THE FOLLOWING SHALL APPLY WHEN TRAVEL LANES ARE CLOSED: THE CONTRACTOR SHALL PLACE TWO PLASTIC DRUMS OR VERTICAL PANELS, AT MAXIMUM 400 FT INTERVALS, ADJACENT TO EACH OTHER IN THE MIDDLE OF EACH CLOSED LANE TO DISCOURAGE USE OF THE LANE BY VEHICLES. FOR THE FIRST 1000 FT OF CLOSURE, AND FOR THE FIRST 1000 FT AFTER EACH ENTRANCE RAMP WITHIN THE CLOSURE, THIS INTERVAL SHALL BE REDUCED TO 200 FT. PLACEMENT OF THESE DRUMS OR VERTICAL PANELS SHALL BE IN ADDITION TO THE DEVICES SHOWN IN WORK ZONE TRAFFIC CONTROL SCHEMES OF THE MUTCD AND THOSE SHOWN ON THE PLANS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR WORK ZONE TRAFFIC CONTROL.

2.8 WHENEVER WORK ZONE TRAFFIC CONTROL SCHEMES PROVIDING FOR ONE_LANE ROAD OPERATION ARE IN EFFECT, THE CONTRACTOR SHALL POSITION FLAGGERS, AT THE LIMITS OF THE ONE_LANE ROAD OPERATION, AT ALL CROSS STREETS WITHIN THE ONE_LANE ROAD OPERATION, AT MAJOR DRIVEWAYS AND SUCH OTHER LOCATIONS AS REQUIRED BY THE ENGINEER TO CONTROL TRAFFIC. FLAGGERS SHALL BE EQUIPPED WITH TWO_WAY RADIOS, IN ACCORDANCE WITH CHAPTER 6E OF THE MUTCD AND SUBSECTION 619-3.02L OF THE STANDARD SPECIFICATIONS, WHERE IN THE OPINION OF THE ENGINEER THE USAGE OF SUCH RADIOS IS NECESSARY TO CONTROL TRAFFIC. SUCH RADIOS SHALL HAVE SUFFICIENT TRANSMITTING POWER TO REACH ALL POINTS WITHIN THE LENGTH OF THE ONE_LANE ROAD OPERATION. PAYMENT FOR THE USE OF SUCH RADIOS SHALL BE INCLUDED IN THE BASIC WORK ZONE TRAFFIC CONTROL ITEM 102.

2.9 WHEN CONES ARE USED IN CONTROLLING THE MOVEMENT OF TRAFFIC THROUGH WORK AREAS, THE CONTRACTOR SHALL TAKE STEPS AS NECESSARY TO PREVENT THE CONES FROM BEING BLOWN OVER OR DISPLACED BY PASSING VEHICLES.

2.10 NOTWITHSTANDING THE PROVISIONS OF SUBSECTION 619-3.19 AND 619-3.02J OF THE STANDARD SPECIFICATIONS AND SECTION 6F.64 OF MUTCD, USE OF CONES WILL NOT BE PERMITTED DURING NIGHTTIME OPERATIONS.

2.11 THE CONTRACTOR MUST NOTIFY THE ENGINEER, NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS, NASSAU COUNTY POLICE DEPARTMENT, TOWN OF HEPSTEAD, POLICE, FIRE DEPARTMENTS AND LIDO BEACH SCHOOL DISTRICT OF ALL DETOURS, PROPOSED STREET CLOSINGS, OR ANY WORK THAT MIGHT AFFECT THE MOBILITY OR ACCESS OF THE FIRE OR POLICE DEPARTMENT 72 HOURS IN ADVANCE OF THEIR IMPLEMENTATION. IN ADDITION, THE CONTRACTOR SHALL ENSURE THAT HYDRANTS AND ALARM BOXES ARE KEPT CLEAR AND AVAILABLE.

2.12 ALONG THE DETOUR ROUTE, THE CONTRACTOR'S RESPONSIBILITY IS LIMITED TO THE PLACEMENT, MAINTENANCE AND REMOVAL OF DETOUR SIGNS AND DEVICES AND A DAILY PATROL TO MAKE SURE THEY ARE IN GOOD CONDITION. WHEN THE DETOUR IS NOT IN EFFECT, THE CONTRACTOR SHALL IMMEDIATELY MOVE, REMOVE OR TEMPORARILY COVER ALL DETOUR SIGNS, TO REFLECT ACTUAL CONDITIONS.

2.13 ALONG THE DETOUR ROUTE, THE CONTRACTOR IS RESPONSIBLE FOR IMPROVING AND REPAIRING, AND MAINTAINING THE PAVEMENT AND FOR THE INSTALLATION, MAINTENANCE, AND REMOVAL OF TRAFFIC CONTROL DEVICES AS SHOWN ON THE PLANS OR AOBE. THE CONTRACTOR SHALL ALSO MAKE PERIODIC PATROLS TO MAKE SURE THE DETOUR IS OPERATING SAFELY AND EFFICIENTLY. WHEN THE DETOUR IS NOT IN EFFECT, THE CONTRACTOR SHALL IMMEDIATELY MOVE, REMOVE OR TEMPORARILY COVER ALL DETOUR SIGNS, TO REFLECT ACTUAL CONDITIONS.

2.14 VARIOUS MAINTENANCE AND CONSTRUCTION SIGNS SPECIFIED IN PART 6 OF THE MUTCD ARE AVAILABLE IN THE STANDARD DIAMOND SHAPE AND AN ALTERNATE RECTANGULAR SHAPE. WHENEVER SUCH SIGNS ARE INCLUDED IN THIS CONTRACT, THE DIAMOND SHAPE SIGN SHALL BE USED, DESPITE OTHER INDICATIONS IN CHAPTER 6F.

2.15 NOT USED.

2.16 THE CONTRACTOR'S ATTENTION IS DIRECTED TO CHAPTER 6F, SECTION 6F.02 OF THE MUTCD, WHICH REQUIRES THAT WITH THE EXCEPTION OF THE RAILROAD ADVANCED WARNING SIGN, WARNING SIGNS USED IN CONJUNCTION WITH WORK ZONE ACTIVITIES SHOULD HAVE ORANGE BACKGROUNDS.

2.17 IN ADDITION TO THE SIGNING SHOWN ON THE PLANS, THE CONTRACTOR SHALL ERECT W20-1 "ROAD WORK AHEAD" SIGNS AT INTERSECTING CROSS STREETS OR ENTERING RAMPS WITHIN THE CONTRACT LIMITS. PAYMENT FOR THESE SIGNS WILL BE MADE UNDER THE ITEM 102.

2.18 NOT USED.

2.19 USE OF SIGN OVERLAYS WILL NOT BE PERMITTED DURING NIGHTTIME OPERATIONS.

2.20 THE CONTRACTOR IS ADVISED THAT EXISTING TRAFFIC SIGNS AND CONSTRUCTION SIGNS WITHIN THE WORK AREA, WHICH ARE NO LONGER NEEDED, EVEN TEMPORARILY, OR ARE CONFLICTING, INAPPROPRIATE OR CONFUSING, SHALL BE REMOVED (SUBJECT TO THE APPROVAL OF THE ENGINEER) OR SHALL BE COVERED COMPLETELY WITH AN OPAQUE MATERIAL. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE WORK ZONE TRAFFIC CONTROL ITEM.

2.21 IN ADDITION TO THE SIGNING REQUIRED IN THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE CONTRACTOR SHALL USE A FLASHING ARROW PANEL, PAID UNDER ITEM 102, POSITIONED AT THE BEGINNING OF TAPER FOR ALL TRAVEL LANE CLOSINGS. ONE FLASHING ARROW PANEL/BOARD WILL BE REQUIRED IN CONJUNCTION WITH THE LANE CLOSURE SHOWN IN THE MUTCD, FIGURE 6H-33 OR OTHER ARRANGEMENTS, WHICHEVER IS APPLICABLE. THE FLASHING ARROW PANEL WILL NOT BE REQUIRED IN CONNECTION WITH SHOULDER CLOSINGS OR SIDE STREET LANE CLOSURES UNLESS THE ENGINEER ORDERS ITS USE.

2.22 ARROW PANELS SHALL DISPLAY A FLASHING ARROW FOR LANE CLOSURES. OTHER OPERATIONAL MODES SUCH AS SEQUENTIAL CHEVRONS, SEQUENTIAL ARROWS OR STEM ARROWS, ARE EXPLICITLY PROHIBITED FOR THESE APPLICATIONS, AND SHALL NOT BE USED ON DEPARTMENT PROJECTS.

ARROW PANELS SHALL NOT BE USED FOR LANE SHIFTS. A LANE SHIFT IS DEFINED AS A LATERAL SHIFT IN THE TRAVEL PATH WITHOUT A REDUCTION IN NUMBER OF LANES.

2.23 UNDER THE PROVISIONS OF ITEM 102, THE LAMPS OF FLASHING ARROW PANELS TO BE EQUIPPED WITH AN AUTOMATIC SOLAR CELL CONTROLLED DIMMING SWITCH AND THAT THE DIMMING VOLTAGE BE MANUALLY CONTROLLABLE. AT NIGHT, FLASHING ARROW PANELS MUST NOT BE PERMITTED TO OPERATE AT SUCH BRIGHTNESS THAT SIGNS, DRUMS, IMPACT ATTENUATION DEVICES OR OTHER TRAFFIC CONTROL DEVICES NEAR THE FLASHING ARROW PANEL CANNOT EASILY BE SEEN BY APPROACHING MOTORISTS. TO ENSURE THAT FLASHING ARROW PANELS ARE NOT TOO BRIGHT FOR NIGHTTIME OPERATION, THE CONTRACTOR SHALL MAKE AN ON SITE INSPECTION OF EACH ARROW PANEL/BOARD AT THE BEGINNING OF ITS FIRST NIGHT OF OPERATION. IN THE EVENT THIS INSPECTION REVEALS THE ARROW PANEL IS TOO BRIGHT, THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO REDUCE LAMP INTENSITIES. IN ADDITION, THE CONTRACTOR SHALL PROMPTLY REDUCE THE LAMP INTENSITY OF ANY ARROW PANEL UPON BEING INFORMED BY THE ENGINEER THAT IT IS TOO BRIGHT. IN THIS CONTEXT, PROMPTLY SHALL MEAN NO LATER THAN THE BEGINNING OF THE NEXT NIGHT OF THE ARROW PANEL'S OPERATION.

THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 102. FAILURE TO COMPLY WITH THIS NOTE SHALL BE CONSIDERED AS UNSATISFACTORY MAINTENANCE AND PROTECTION OF TRAFFIC WITH PAYMENT DEDUCTIONS MADE IN ACCORDANCE WITH THE APPROPRIATE SUBSECTION OF ITEM 102.

2.24 IN ADDITION TO THE DEVICES SHOWN IN THE MUTCD AND THE PLANS, BARRIER VEHICLES (AS PROVIDED FOR UNDER SUBSECTION 619_1.02G) AND MOBILE CONSTRUCTION ZONE IMPACT ATTENUATORS (AS SPECIFIED UNDER SECTION 729-12 OF THE SPECIFICATIONS) SHALL BE PROVIDED WHERE WORK IS LOCATED IN A CLOSED SHOULDER OR TRAVEL LANE ADJACENT TO TRAFFIC AT ISOLATED OR FIXED LOCATIONS WITHIN THE WORK ZONE. THE BARRIER VEHICLE SHALL ONLY BE USED WHEN WORKERS AND/OR EQUIPMENT ARE ACTUALLY OCCUPYING THE SITE OF WORK. THE BARRIER VEHICLE SHALL BE POSITIONED TO PROTECT THE WORKERS IN THE EVENT OF A WORK ZONE INTRUSION. BARRIER VEHICLES MAY NOT BE REQUIRED WHERE THE WORK OPERATION TAKES PLACE OVER AN EXTENDED AREA SUCH AS FOR PAVING, JOINT SEALING, OR PAVEMENT REPAIR OPERATIONS (EXCEPT WHEN SUCH WORK TAKES PLACE WITHIN 1200 FT OF THE BEGINNING OF A LANE CLOSURE) OR WHERE WORKERS ARE PROTECTED BY THE USE OF CONCRETE BARRIER OR ON SIDE STREET LANE CLOSURES. THE COST OF THIS WORK IS TO BE INCLUDED UNDER THE ITEM FOR WORK ZONE TRAFFIC CONTROL.

2.25 THE CONTRACTOR SHALL SCHEDULE HIS/HER OPERATIONS TO MINIMIZE THE INTERRUPTION OF PEDESTRIAN TRAFFIC. THE SIDEWALK ON ONE SIDE OF THE ROADWAY SHALL REMAIN OPEN AND PASSABLE AT ALL TIMES. DURING THE RECONSTRUCTION OF SIDEWALKS, PEDESTRIAN SAFETY AND PROPERTY ACCESS MUST BE MAINTAINED AT ALL TIMES TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL PLACE ALL UNDERGROUND APPURTENANCES UNDER THE SIDEWALK FIRST.

AT LOCATIONS WHERE EXISTING SIDEWALK IS CLOSED, THE CONTRACTOR SHALL PLACE A TYPE III BARRICADE WITH MUTCD R9-9 "SIDEWALK CLOSED" SIGN. WHEN SIDEWALK IS CLOSED IN THE MIDDLE OF A STREET, THE CONTRACTOR SHALL PLACE MUTCD R9-11 "SIDEWALK CLOSED AHEAD", (ARROW) "CROSS HERE" SIGN AT THE CLOSEST SAFE CROSSING.

2.26 ADA COMPLIANT ACCESSIBILITY FOR PEDESTRIANS SHALL BE MAINTAINED AT ALL TIMES, AS PER STANDARD SHEETS 619-50 AND 619-51.

2.27 WHERE NECESSARY, OR AS REQUIRED BY THE ENGINEER, THE CONTRACTOR SHALL UTILIZE FLAGGERS AT DRIVEWAYS TO CONTROL TRAFFIC ENTERING THE TRAVEL WAY.

2.28 THE CONTRACTOR SHALL FURNISH 2-WAY RADIOS AND TRAINED WZTC FLAGGERS IN ACCORDANCE WITH THE FOLLOWING: A TRAINED WZTC FLAGGER EQUIPPED WITH A 2-WAY RADIO SHALL ATTEND EACH POINT OF ACCESS FOR THE ENTIRE TIME THE CLOSURE IS IN PLACE. THE ENGINEER-IN-CHARGE, AND EACH OF THE CONTRACTOR'S AND SUBCONTRACTOR'S WORK CREWS' RADIOS SHALL HAVE SUFFICIENT RANGE TO REACH ALL POINTS IN THE CLOSED SECTION OF THE ROADWAY, AND THEY SHALL BE USED TO WARN THE WORK CREWS, IF ANY UNAUTHORIZED VEHICLE ENTERS THE CLOSED SECTION OF THE ROADWAY. NO WORK MAY PROCEED UNTIL THE VEHICLE ARRESTING BARRIER AND TRAINED WZTC FLAGGERS ARE IN PLACE. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 102.

3.0 PROVISIONS FOR SNOW AND ICE REMOVAL OPERATION

A. INTERFERENCE WITH SNOW PLOWING OPERATIONS BY DRUMS, BARRICADES AND OTHER TRAFFIC CONTROL EQUIPMENT SHALL BE KEPT TO A MINIMUM. ANY DEVICES DISTURBED OR DAMAGED BY SNOW AND ICE CONTROL OPERATIONS SHALL BE REPLACED AND/OR RESET AS NECESSARY AND AS SOON AS POSSIBLE BY THE CONTRACTOR.

B. DRAINAGE FRAMES, GRATES AND COVERS AND OTHER CASTINGS SHALL NOT BE ADJUSTED IN A TRAVEL LANE UNLESS THE FINAL PAVEMENT COURSE IS TO BE PLACED PRIOR TO THE ONSET OF SNOW AND ICE WEATHER. STEEL PLATES, ETC. SHALL NOT PROTRUDE ABOVE THE ADJACENT PAVEMENT. IF ANY OF THESE PROTRUSIONS EXIST IN A NON_TRAVEL LANE PRIOR TO A SNOW AND ICE CONDITION, THEN TEMPORARY ASPHALT RAMPS MUST BE PLACED SO THAT FOR EVERY 1 INCH OF RISE, THERE IS A 6 FT RUN OF RAMP.

C. ALL PAVEMENT CUTS SHALL BE RESTORED TO THE ADJACENT PAVEMENT GRADE TO ELIMINATE RECESSED AREAS WHERE SNOW CANNOT BE PLOWED OR WHERE THE PLOWS MAY SNAG.

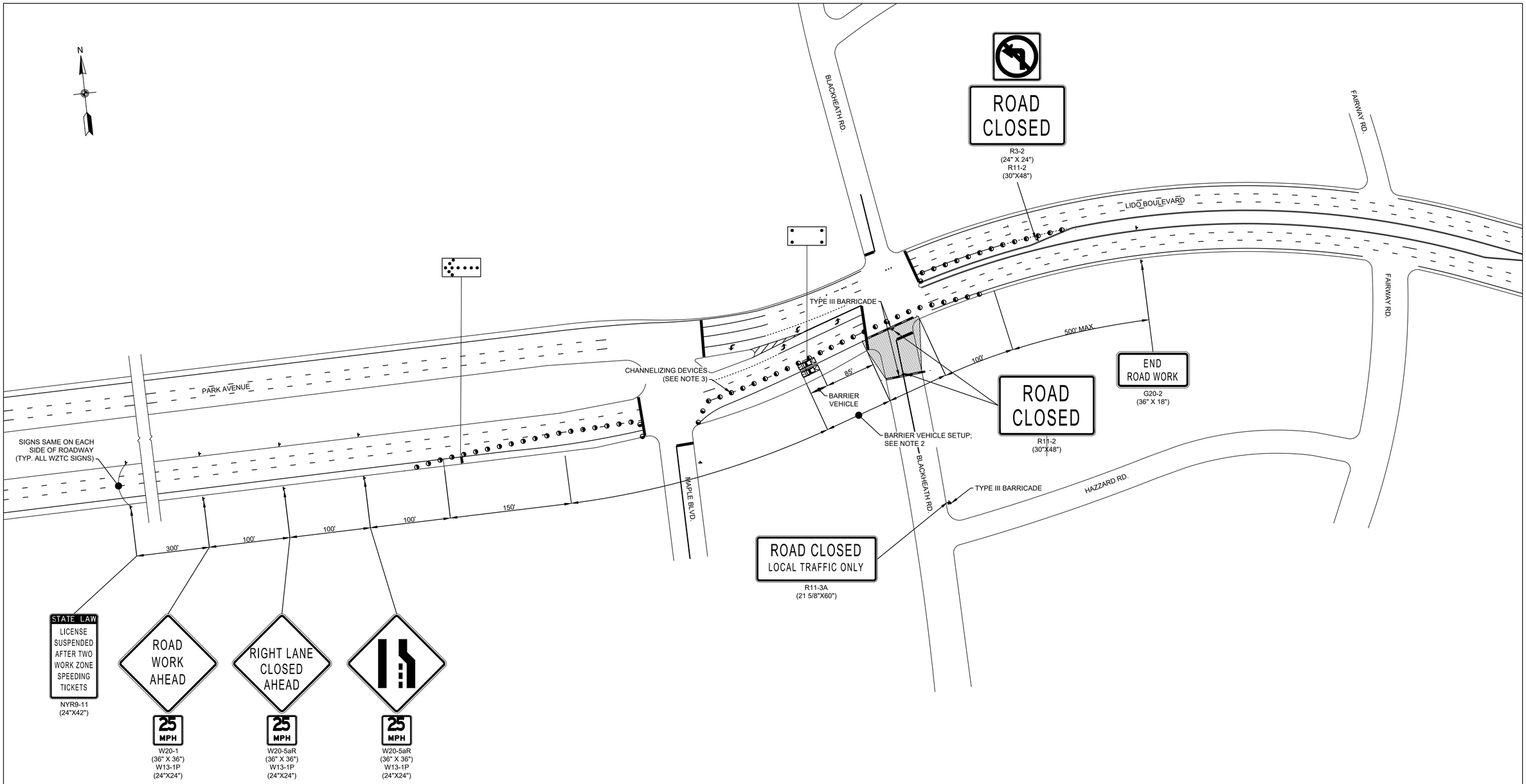
NON-COMPLIANCE WITH THIS NOTE SHALL RESULT IN NON-PAYMENT FOR ITEM 102 FOR THE FIRST DAY AND ASSESSMENT OF LIQUIDATED DAMAGES AS MAY BE APPROPRIATE IN ADDITION TO THE NON-PAYMENT OF ITEM 102 FOR SUBSEQUENT DA

WORK ZONE TRAFFIC CONTROL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	ARROW PANEL		DIRECTION OF TRAFFIC
	ARROW PANEL, CAUTION MODE		SIGN, TEMPORARY
	ARROW PANEL TRAILER OR SUPPORT		TYPE III BARRICADE
	CHANGEABLE MESSAGE SIGN (PVMS)		WORK SPACE
	CHANNELIZING DEVICE		WORK VEHICLE WITH TRUCK MOUNTED ATTENUATOR

SUGGESTED CONSTRUCTION SEQUENCING ALONG LIDO BLVD

SEQUENCE	WZTC DRAWINGS	APPLICABLE CONSTRUCTION PLAN
1	WZTC-1-1	CP-06
2	WZTC-2-1	CP-07
3	WZTC-3-1	CP-08
4	WZTC-4-1	CP-09
5	WZTC-5-1 TO WZTC-5-2	CP-10,11 & 14
6	WZTC-6-1 TO WZTC-6-2	CP-12, 13 & 15



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 1 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX
NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BARRIER VEHICLE SET UP AT ANY TIME
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

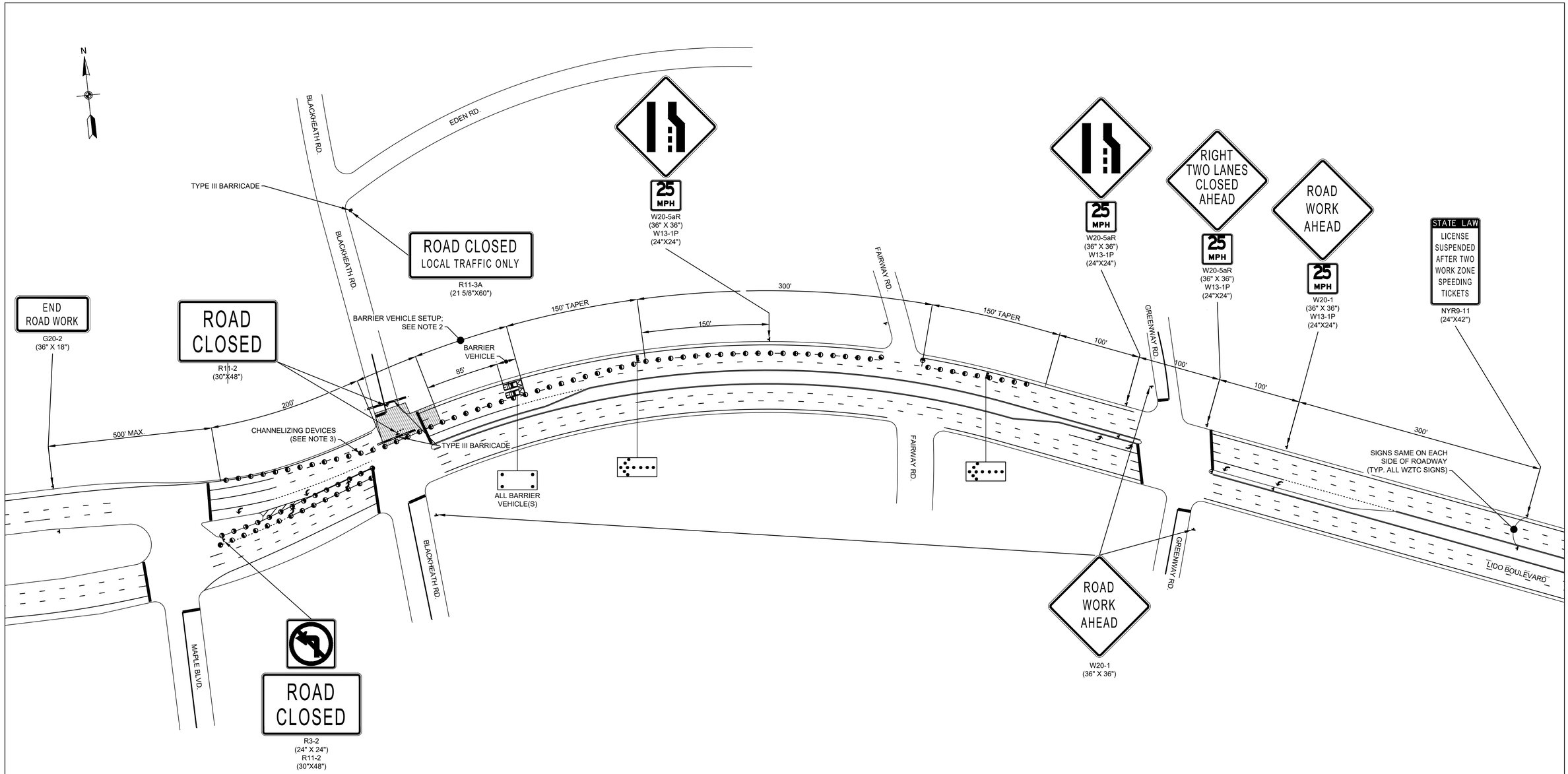
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]
DRAWING TITLE: WZTC - SEQUENCE 1 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-1-1	
SCALE: N.T.S.	SHEET NO: 32 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-1-1.DWG
Plot Date: 10/8/2019 9:39 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 2 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX
NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BARRIER VEHICLE SET UP AT ANY TIME
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

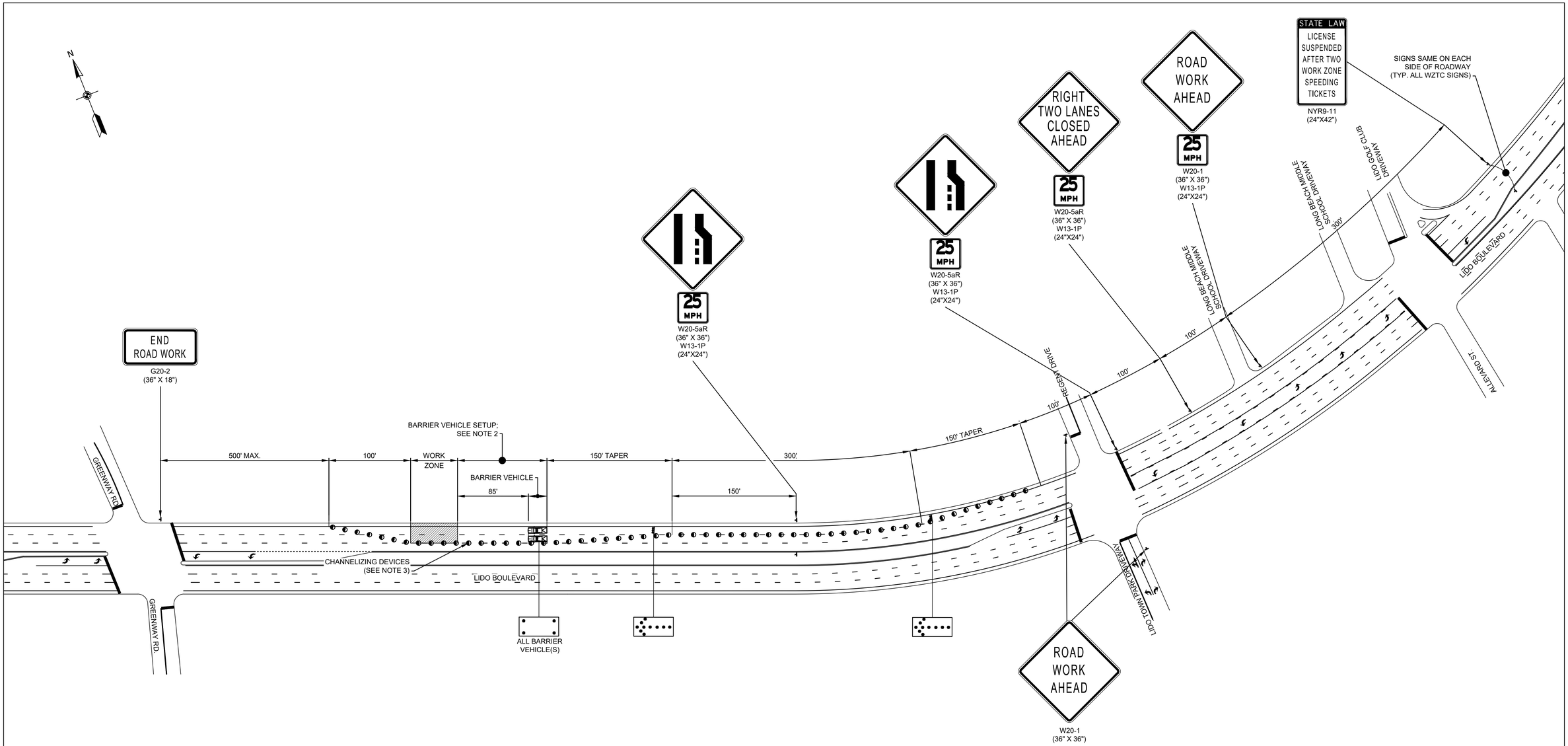
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: WZTC - SEQUENCE 2 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-2-1	
SCALE: N.T.S.	SHEET NO: 33 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-2-1.DWG
Plot Date: 10/8/2019 9:39 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 3 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX
NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BARRIER VEHICLE SET UP AT ANY TIME
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

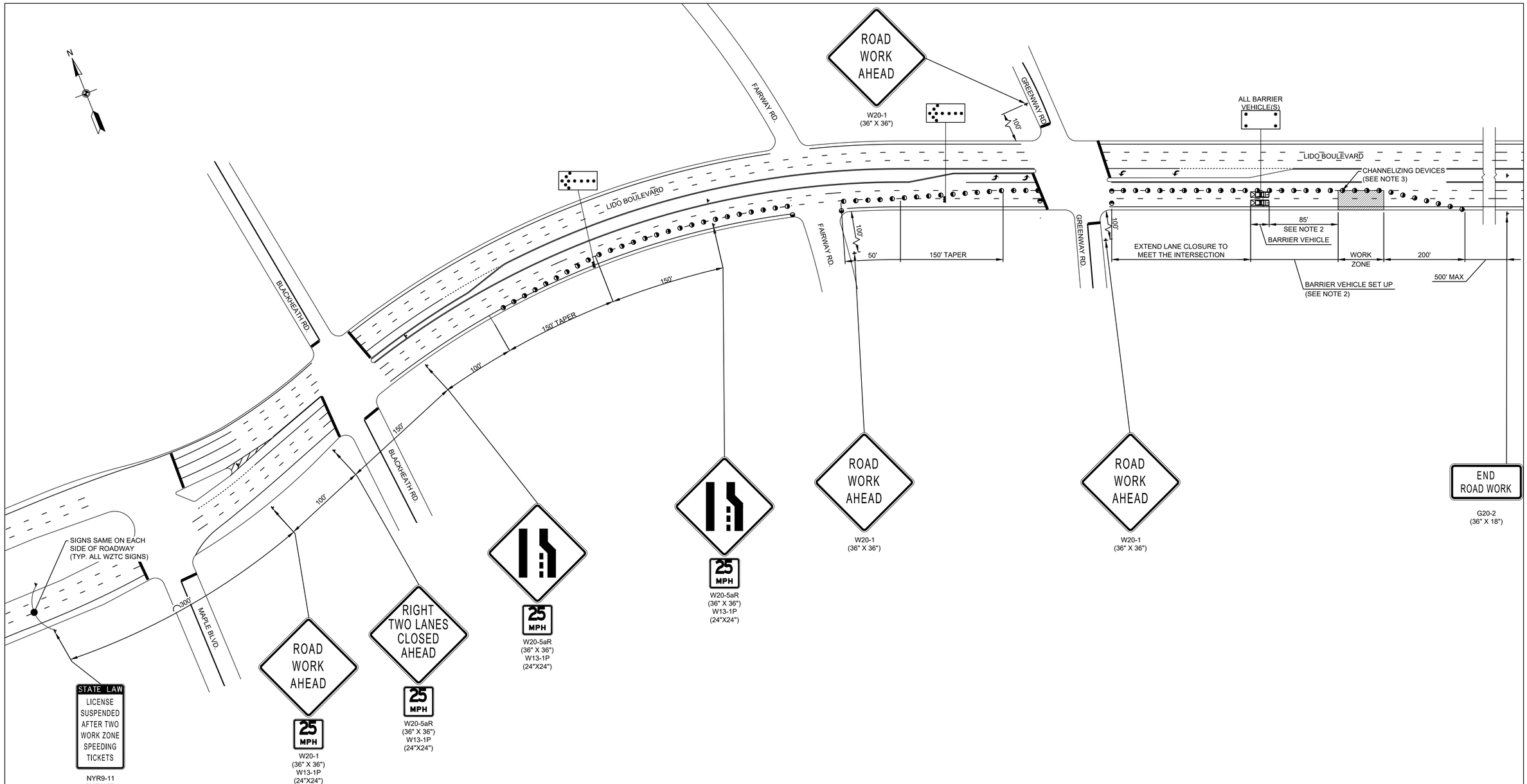
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: WZTC - SEQUENCE 3 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-3-1	
SCALE: N.T.S.	SHEET NO: 34 OF 39	

File Name: O:\2018\BAB-20180042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-3-1.DWG
Plot Date: 10/8/2019 9:40 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 4 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX
NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BARRIER VEHICLE SET UP AT ANY TIME
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

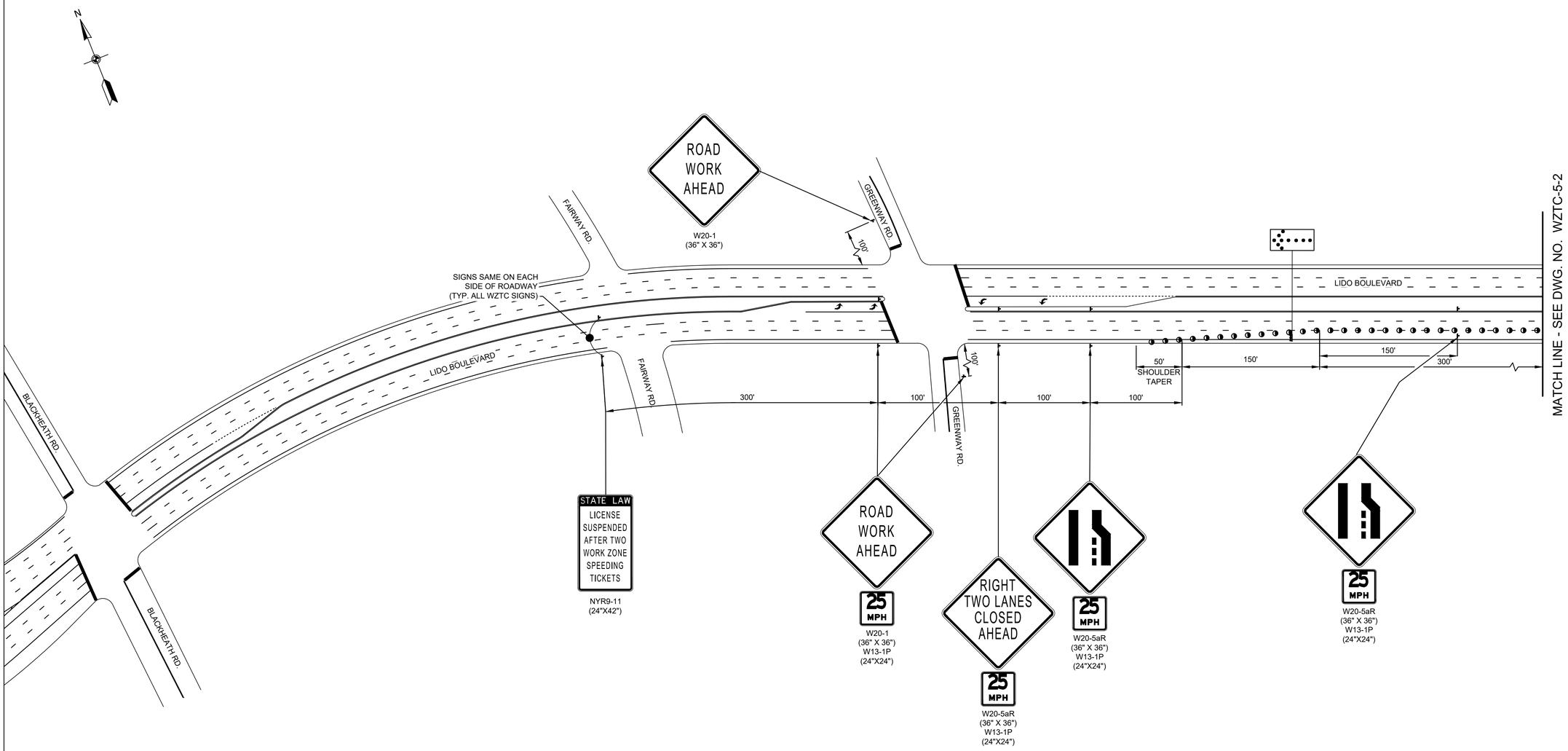
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: WZTC - SEQUENCE 4 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-4-1	
SCALE: N.T.S.	SHEET NO: 35 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-4-1.DWG
Plot Date: 10/8/2019 9:40 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 5 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX
NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BARRIER VEHICLE SET UP AT ANY TIME
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

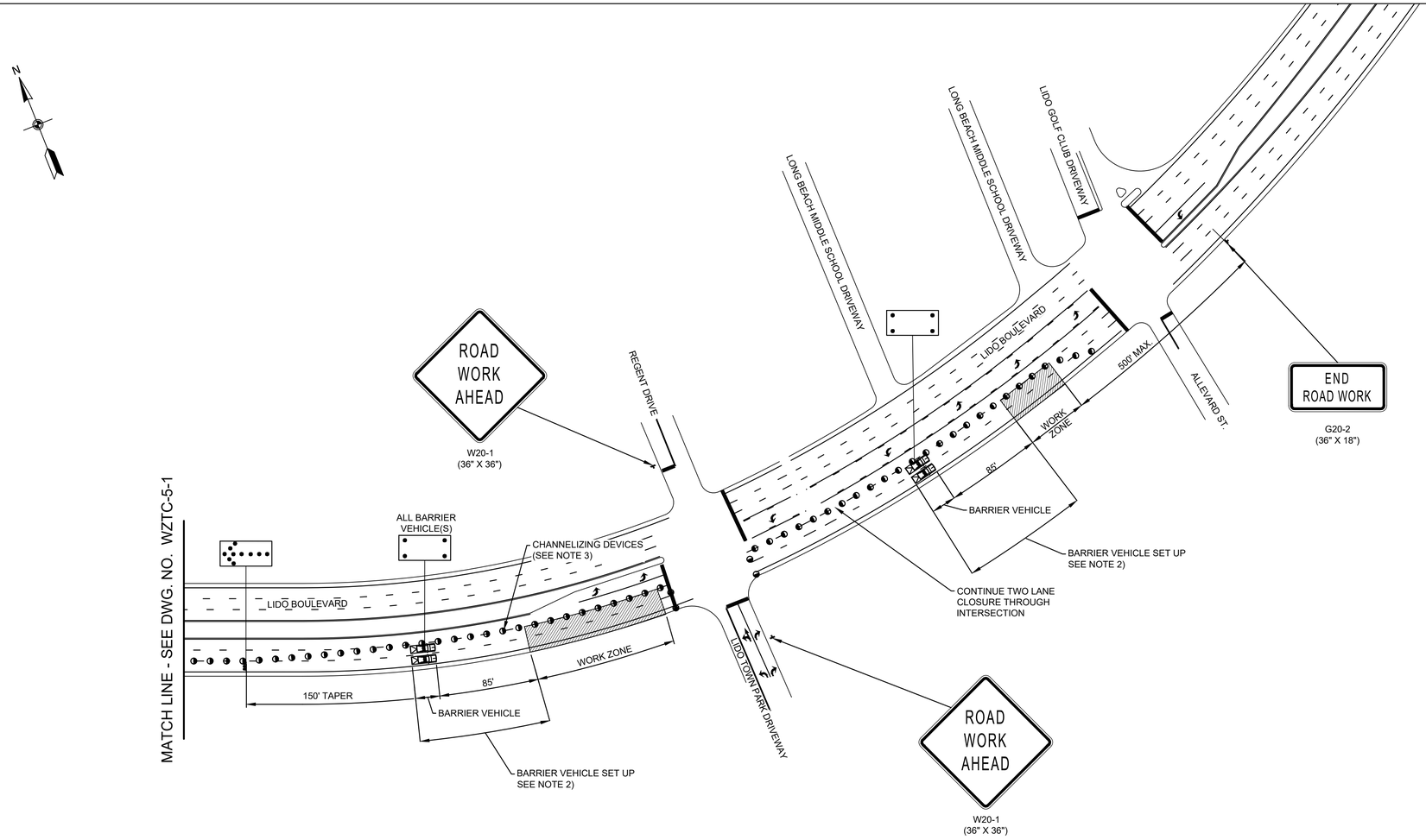
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]
DRAWING TITLE: WZTC - SEQUENCE 5 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-5-1	
SCALE: N.T.S.	SHEET NO: 36 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-5-1.DWG
Plot Date: 10/8/2019 9:40 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 5 - PLAN 2
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX
NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BARRIER VEHICLE SET UP AT ANY TIME
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

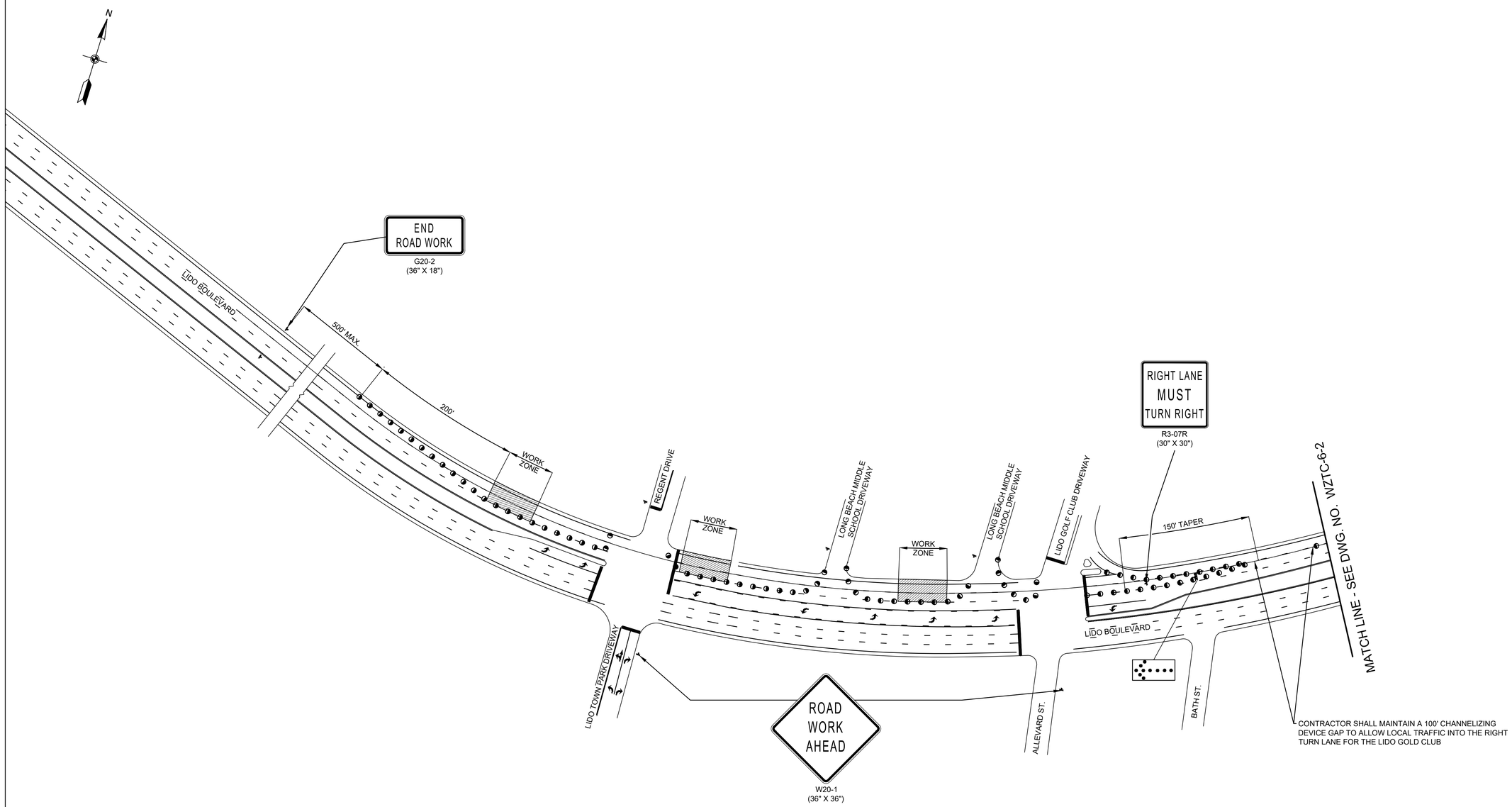
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]
DRAWING TITLE: WZTC - SEQUENCE 1 - PLAN 6

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-5-2	
SCALE: N.T.S.	SHEET NO: 37 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-5-2.DWG
Plot Date: 10/8/2019 9:40 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 6 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX

NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION.
2. NO PROPOSED BARRIER VEHICLE SET UP FOR THIS RECOMMENDED WZTC SEQUENCE.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

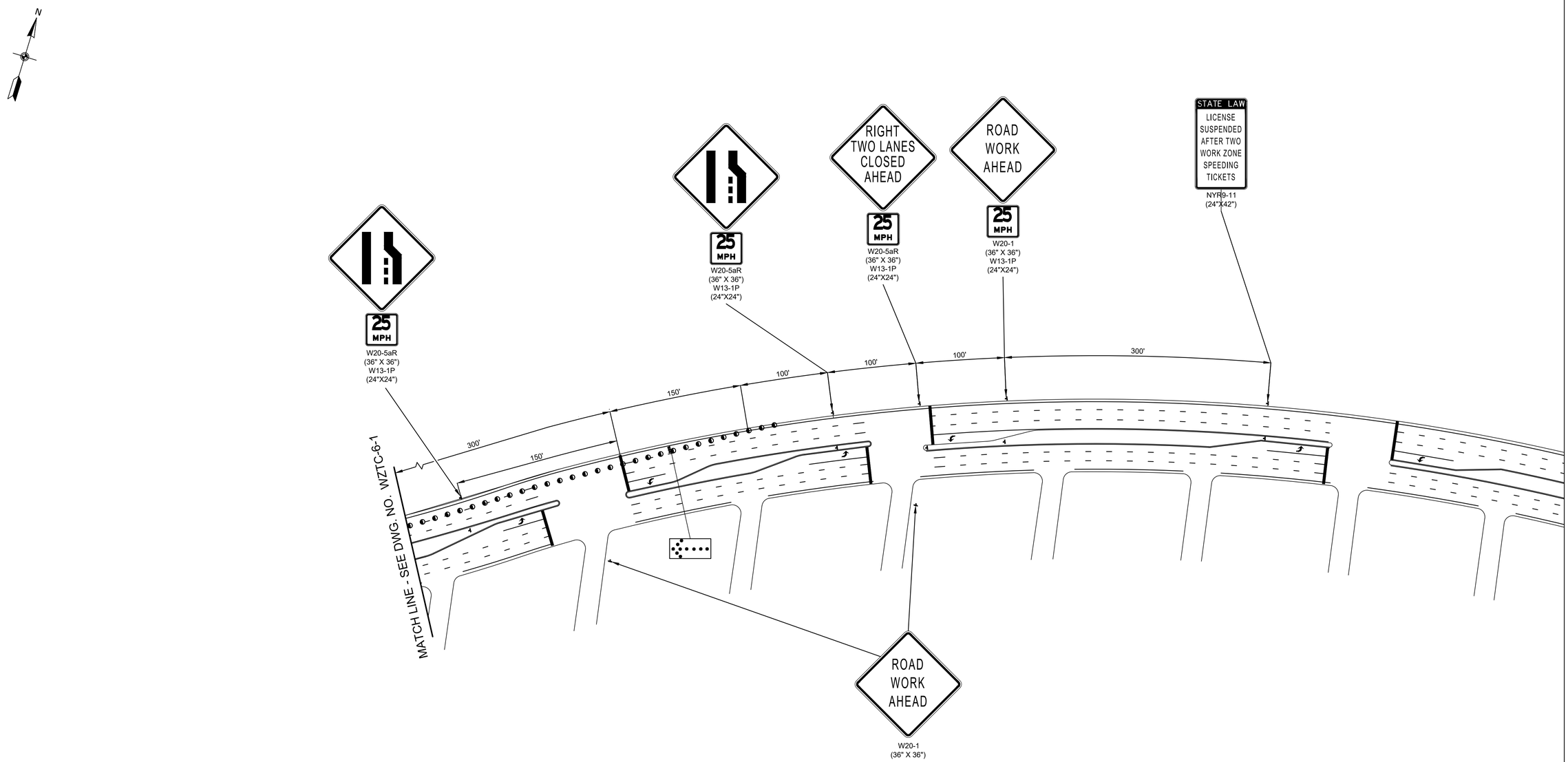
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: WZTC - SEQUENCE 1 - PLAN 7

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-6-1	
SCALE: N.T.S.	SHEET NO: 38 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-6-1.DWG
Plot Date: 10/8/2019 9:41 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 6 - PLAN 2
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION.
2. NO PROPOSED BARRIER VEHICLE SET UP FOR THIS RECOMMENDED WZTC SEQUENCE.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: WZTC - SEQUENCE 1 - PLAN 8

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-6-2	
SCALE: N.T.S.	SHEET NO: 39 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-6-2.DWG
Plot Date: 10/8/2019 9:41 AM

Attachment 7

HUD Environmental Standards Review

<u>Lido Beach / Point Lookout Drainage Improvements Project</u>

HUD Environmental Standards Review

Project Site: Lido Boulevard, Lagoon Drive East, Harbor Drive, and Blackheath Road, Hamlet of Lido Beach, Town of Hempstead, Nassau County, NY

Introduction

The purpose of this review is to ensure that the project complies with U.S. Department of Housing and Urban Development (HUD) environmental standards in relation to 24 CFR Part 58.5. Properties that are proposed for use in HUD programs "must be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances, where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the property."

A desktop review was performed to identify whether the Project Site referenced in the title of this document complies with the following criteria:

(i) is not Listed on an U.S. Environmental Protection Agency (EPA) Superfund National Priorities or Comprehensive Environmental Response Superfund National Priorities or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) List, or equivalent State list;
(ii) is not located within 3,000 feet of a toxic or solid waste landfill site;
(iii) does not have an underground storage tank;
(iv) is not known or suspected to be contaminated by toxic chemicals or radioactive materials.

Summary of Findings

<u>Records Review for the Project Site</u>

The Proposed Project activities are located along Lido Boulevard, Lagoon Drive East, Harbor Drive, and Blackheath Road in the hamlet of Lido Beach. These roadways will be collectively known as the Project Site, or Site, in this report unless otherwise noted.

EPA Records:

The Project Site is not listed on an EPA Superfund National Priorities or CERCLA list or equivalent State list. A review of the EPA Facilities Database provides no indication of past uses of the Project Site that could have contaminated the Project Site, or potentially adversely affect the occupants of the Project Site.

New York State Department of Environmental Conservation (NYSDEC) and County Records:

The Project Site is not located within 3,000 feet of a toxic or solid waste landfill site. The NYSDEC Spills Database indicates that there were two (2) closed spills located along Lido Boulevard, potentially at or immediately adjacent to areas of disturbance associated with the Project Site. While these spill reports do not include specific locations along Lido Blvd., it should be noted that these spill reports have been closed by the NYSDEC. A spill closure means that the records and the data submitted indicate that the necessary cleanup and removal actions have been completed and no further remedial actions are necessary or the case was closed for administrative reasons (e.g. multiple reports of a single spill consolidated into a single spill number). As such, these spills are not considered a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the Project Site.

The NYSDEC reports that there are no bulk storage facilities located on the Project Site and the Site is not listed as an environmental remediation site.

Records Review for the Surrounding Properties

EPA Records:

There are nine (9) EPA permitted hazardous waste facilities and one (1) air emissions facilities located within 3,000 feet of the Project Site. All 10 permitted facilities have no reported violations. As such, these facilities are not considered a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the Project Site. Facilities with no permit violations are not considered a hazard because the facilities are in compliance with permit conditions that are enforced and meet standards that protect public health and the environment by preventing releases to the environment.

NYSDEC Records:

According to the NYSDEC Environmental Site Remediation Database, there are no environmental remediation sites located within 3,000 feet of the Project Site. The NYSDEC reports that there are no bulk storage facilities located within 3,000 feet of the Project Site.

According to the NYSDEC Spill Incidents Database, 15 spills have been reported within 1,000 feet of the Project Site; all 15 spills have been closed by the NYSDEC. A spill being closed means that the records and data submitted indicate that the necessary cleanup and removal actions have been completed and no further remedial activities are necessary, or the case was closed for administrative reasons (e.g., multiple reports of a single spill consolidated into a single spill number). If the case has been administratively closed and did not meet NYSDEC closure criteria, then another spill report number would have been identified covering the case. As such, these closed spills are not considered a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the Project Site.

In Summary:

Based on a review of available environmental records for the Project Area and surrounding area, the Project Area is unlikely to contain hazardous materials, contamination, toxic chemicals and gases, or radioactive substances, which would constitute a hazard that could affect the health and safety of occupants or conflict with the intended utilization of the Project Area. Therefore, a Phase I Environmental Site Assessment (ESA) or Phase II Investigation is not warranted. Maps and NYSDEC reports are included at the end of this report.

Data Sources:

Tectonic Engineering and Surveying Consultants, P.C. (Tectonic) has reviewed the following sources to make the above determinations: Hazardous Waste records contained in the Resource Conservation and Recovery Act (RCRA) Information System, the Superfund Enterprise Management System (SEMS) for sites listed under CERCLA (otherwise known as Superfund), EPA's Toxic Release Inventory database (TRI), and the EPA Radiation Information Database (RADInfo). RCRA includes data on small and large quantity hazardous waste material generators and handlers. EPA's Toxic Release Inventory provides information on toxic chemical releases and waste management activities by certain industries. The RADInfo database provides information about facilities that are regulated by the U.S. EPA for radiation and radioactivity.

Tectonic reviewed the NYSDEC Environmental Site Remediation Database to assess whether the site is registered as a NYS Superfund or Environmental Restoration site. The NYSDEC Environmental Site Remediation Database includes records of sites that are part of the NYS Superfund, Brownfield Cleanup, Environmental Restoration, and Voluntary Cleanup Programs. The Database also includes a Registry of Inactive Hazardous Waste Disposal Sites. Tectonic reviewed the Small Business Program Supplemental Environmental Checklist to determine if the Project Site has an underground storage tank (which is not a residential fuel tank), or other registered storage tanks. The NYSDEC Bulk Storage Database was reviewed for records of facilities that are or have been regulated according to one of the Bulk Storage Programs - Petroleum Bulk Storage, Chemical Bulk Storage, or Major Oil Facility. The NYSDEC Spill Incidents

Database was used to determine the potential effects of spills on or near the Project Site. A desktop review of Google Earth was used in conjunction with a map of active municipal landfills (provided by the NYSDEC), and a list of landfills provided by the NYSDEC to determine whether a non-active or active landfill is located within 3,000 feet of the Project Site.

Maps

HUD Environmental Report Maps
EPA NEPAssist Map

HUD Environmental Report Maps

Legend

- Approximate Project Locations
- Approximate Project Locations (3,000ft Buffer)

NYS Bulk Storage

- Petroleum Bulk Storage
- Chemical Bulk Storage
- Major Oil Storage
- Active Municipal Solid Waste Landfills
- Solid Waste Landfill Buffer(3,000 ft)

Created: 1/8/2020
Source data: Environmental remediation sites listed in the NYSDEC Environmental Remediation Database. Properties listed on the NYSDEC Bulk Storage Database. Solid waste landfill information provide by NYSDEC. Brownfields (ACRES) information provided by EPA.

Tectonic

1:17,000

0 750 1,500 3,000 Feet

Lido Beach / Point Lookout Drainage Improvements Project
CDP of Lido Beach
Town of Hempstead
Nassau County, New York

HUD Environmental Report Maps

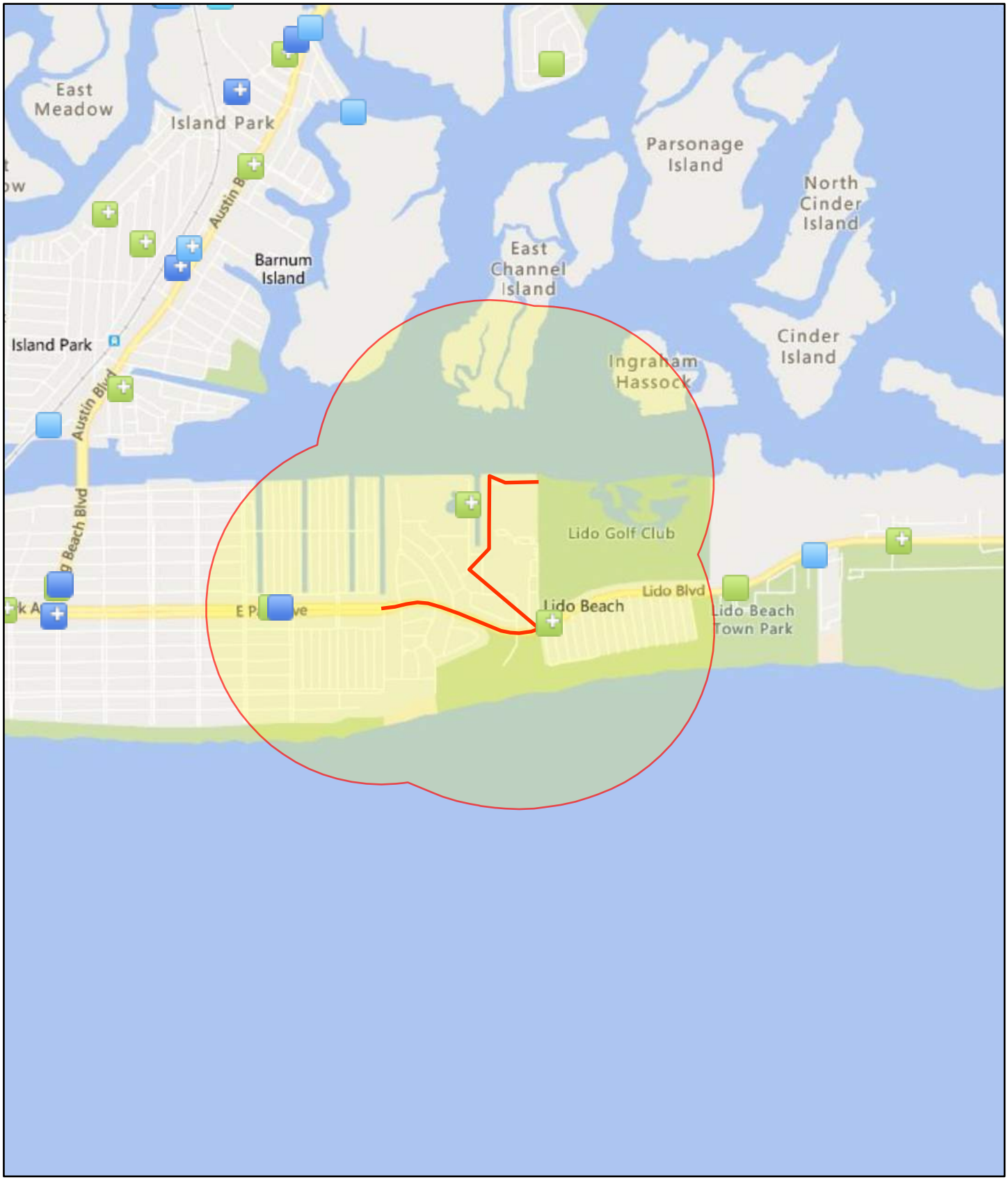
Tectonic

1:17,000

0 750 1,500 3,000 Feet

Lido Beach / Point Lookout Drainage Improvements Project
CDP of Lido Beach
Town of Hempstead
Nassau County, New York

LIDO Beach Drainage Improvements



January 8, 2020

1:36,112

0 0.23 0.45 0.9 mi

0 0.38 0.75 1.5 km

- Water Dischargers (NPDES)
- Water Dischargers (NPDES)
- Toxic Releases (TRI)
- Air Pollution (ICIS-AIR)
- Air Pollution (ICIS-AIR)
- Hazardous Waste (RCRAInfo)
- Hazardous Waste (RCRAInfo)
- Project 1

© 2020 Microsoft Corporation © 2019 HERE

Environmental Reports

NYSDEC Reports for Spills, Environmental Remediation Sites, or Bulk Storage Sites Located on, or within close proximity to, the Project Area

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Spill Incidents Database Search Results

Record Count: 28 Rows: 1 to 28

Export XLS Export CSV

	Spill Number	Date Spill Reported	Spill Name	County	City/Town	Address
1.	9407545	09/06/1994	RESIDENCE	Nassau	LONG BEACH	16 HARMON STREET
2.	0402923	06/16/2004	COHEN RESIDENCE	Nassau	LONG BEACH	56 HARMON STREET
3.	0850006	04/01/2008	RESIDENCE	Nassau	LONG BEACH	70 HARMON STREET
4.	1208312	11/01/2012	GREENBERG RESIDENCE	Nassau	LONG BEACH	64 HARMON ST
5.	1208770	11/03/2012	RESIDENCE	Nassau	LONG BEACH	68 HARMON ST
6.	1209298	11/05/2012	STORM RESIDENCE	Nassau	LONG BEACH	2 HARMON STREET
7.	1210444	11/13/2012	68 HARMON ST (HURRICANE SANDY)	Nassau	LONG BEACH	68 HARMON ST
8.	1210722	11/13/2012	64 HARMON ST. (HURRICANE SANDY)	Nassau	LONG BEACH	64 HARMON ST.
9.	1210755	11/13/2012	26 HARMON ST. (HURRICANE SANDY)	Nassau	LONG BEACH	26 HARMON ST.
10.	1210756	11/13/2012	26 HARMON ST. (HURRICANE SANDY)	Nassau	LONG BEACH	26 HARMON ST.
11.	1210757	11/13/2012	26 HARMON ST. (HURRICANE SANDY)	Nassau	LONG BEACH	26 HARMON ST.
12.	1210758	11/13/2012	26 HARMON ST. (HURRICANE SANDY)	Nassau	LONG BEACH	26 HARMON ST.
13.	1210764	11/13/2012	64 HARMON ST. (HURRICANE SANDY)	Nassau	LONG BEACH	64 HARMON ST.
14.	1210765	11/13/2012	64 HARMON ST. (HURRICANE SANDY)	Nassau	LONG BEACH	64 HARMON ST.
15.	1210766	11/13/2012	64 HARMON ST. (HURRICANE SANDY)	Nassau	LONG BEACH	64 HARMON ST.
16.	1210767	11/13/2012	35 HARMON ST. (HURRICANE SANDY)	Nassau	LONG BEACH	35 HARMON ST.
17.	1210768	11/13/2012	35 HARMON ST. (HURRICANE SANDY)	Nassau	LONG BEACH	35 HARMON ST.
18.	1210769	11/13/2012	35 HARMON ST. (HURRICANE SANDY)	Nassau	LONG BEACH	35 HARMON ST.
19.	1210770	11/13/2012	35 HARMON ST. (HURRICANE SANDY)	Nassau	LONG BEACH	35 HARMON ST.
20.	1210782	11/13/2012	21 HARMON ST. (HURRICANE SANDY)	Nassau	LONG BEACH	21 HARMON ST.
21.	1210783	11/13/2012	21 HARMON ST. (HURRICANE SANDY)	Nassau	LONG BEACH	21 HARMON ST.
22.	1210785	11/13/2012	21 HARMON ST. (HURRICANE SANDY)	Nassau	LONG BEACH	21 HARMON ST.
23.	1210786	11/13/2012	39 HARMON ST. (HURRICANE SANDY)	Nassau	LONG BEACH	39 HARMON ST.
24.	1210787	11/13/2012	39 HARMON ST. (HURRICANE SANDY)	Nassau	LONG BEACH	39 HARMON ST.
25.	1210788	11/13/2012	39 HARMON ST. (HURRICANE SANDY)	Nassau	LONG BEACH	39 HARMON ST.
26.	1210789	11/13/2012	39 HARMON ST. (HURRICANE SANDY)	Nassau	LONG BEACH	39 HARMON ST.
27.	1300984	04/30/2013	ADLESON RESIDENCE	Nassau	LONG BEACH	74 HARMON STREET
28.	1710656	02/26/2018	RESIDENCE	Nassau	LONG BEACH	70 HARMON STREET

Refine This Search

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Spill Incidents Database Search Results

Record Count: 1 Rows: 1 to 1

Export XLS Export CSV

	Spill Number	Date Spill Reported	Spill Name	County	City/Town	Address
1.	9706539	08/30/1997	UNKNOWN	Nassau	WEST HEMPSTEAD	WALNUT ST/HEMPSTEAD TPKE

Refine This Search

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Spill Incidents Database Search Results

Record Count: 9 Rows: 1 to 9

Export XLS Export CSV

	Spill Number	Date Spill Reported	Spill Name	County	City/Town	Address
1.	9402872	05/27/1994	JAMES SCHAEFER RESIDENCE	Nassau	LONG BEACH	155 EAST WALNUT STREET
2.	9611490	12/18/1996	LEIBO RESIDENCE	Nassau	LONG BEACH	211 EAST WALNUT STREET
3.	9708704	10/24/1997	OCHS ESTATE	Nassau	LONG BEACH	635 EAST WALNUT STREET
4.	0506251	08/21/2005	UNKNOWN	Nassau	LONG BEACH	605 EAST WALNUT STREET
5.	0508457	10/15/2005	JANKUS RESIDENCE	Nassau	LONG BEACH	125 EAST WALNUT STREET
6.	0508581	10/18/2005	FREISER RESIDENCE	Nassau	LONG BEACH	129 EAST WALNUT
7.	0508735	10/21/2005	GALLOW RESIDENCE	Nassau	LONG BEACH	837 EAST WALNUT AND MAPLE
8.	0611332	01/11/2007	AZOULAY RESIDENCE	Nassau	LONG BEACH	249 EAST WALNUT STREET
9.	1908250	11/17/2019	MILAZZO RESIDENCE	Nassau	LONG BEACH	651 EAST WALNUT STREET

Refine This Search

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Spill Incidents Database Search Results

Record Count: 5 Rows: 1 to 5

Export XLS Export CSV

	Spill Number	Date Spill Reported	Spill Name	County	City/Town	Address
1.	9410792	11/14/1994	ROBB RESIDENCE	Nassau	WEST HEMPSTEAD	628 PARK AVENUE
2.	9502434	05/26/1995	UNK	Nassau	WEST HEMPSTEAD	PARK AVE/EAGLE AVE
3.	1109488	10/29/2011	UNKNOWN	Nassau	WEST HEMPSTEAD	629 PARK AVE
4.	1209722	11/08/2012	UNKNOWN	Nassau	WEST HEMPSTEAD	665 WADLEIGH AVENUE/PARK AVE
5.	1706653	10/09/2017	SIDEWALK AREA	Nassau	HEMPSTEAD	HOWARD AVE/PARK AVE

Refine This Search

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Spill Incidents Database Search Results

Record Count: 16 Rows: 1 to 16

Export XLS Export CSV

	Spill Number	Date Spill Reported	Spill Name	County	City/Town	Address
1.	0511426	01/03/2006	PHILIPS RESIDENCE	Nassau	LONG BEACH	51 CURLEY STREET
2.	1208822	11/03/2012	PAWLOWSKI RESIDENCE	Nassau	LONG BEACH	18 CURLEY STREET
3.	1208926	11/04/2012	PHILLIPS RESIDENCE	Nassau	LONG BEACH	51 CURLEY STREET
4.	1210750	11/13/2012	51 CURLEY ST. (HURRICANE SANDY)	Nassau	LONG BEACH	51 CURLEY ST.
5.	1210751	11/13/2012	51 CURLEY ST. (HURRICANE SANDY)	Nassau	LONG BEACH	51 CURLEY ST.
6.	1210753	11/13/2012	34 CURLEY ST. (HURRICANE SANDY)	Nassau	LONG BEACH	34 CURLEY ST.
7.	1210759	11/13/2012	18 CURLEY ST. (HURRICANE SANDY)	Nassau	LONG BEACH	18 CURLEY ST.
8.	1210760	11/13/2012	18 CURLEY ST. (HURRICANE SANDY)	Nassau	LONG BEACH	18 CURLEY ST.
9.	1210761	11/13/2012	18 CURLEY ST. (HURRICANE SANDY)	Nassau	LONG BEACH	18 CURLEY ST.
10.	1210762	11/13/2012	18 CURLEY ST. (HURRICANE SANDY)	Nassau	LONG BEACH	18 CURLEY ST.
11.	1210771	11/13/2012	51 CURLEY ST. (HURRICANE SANDY)	Nassau	LONG BEACH	51 CURLEY ST.
12.	1210772	11/13/2012	51 CURLEY ST. (HURRICANE SANDY)	Nassau	LONG BEACH	51 CURLEY ST.
13.	1210773	11/13/2012	34 CURLEY ST. (HURRICANE SANDY)	Nassau	LONG BEACH	34 CURLEY ST.
14.	1210774	11/13/2012	34 CURLEY ST. (HURRICANE SANDY)	Nassau	LONG BEACH	34 CURLEY ST.
15.	1210775	11/13/2012	34 CURLEY ST. (HURRICANE SANDY)	Nassau	LONG BEACH	34 CURLEY ST.
16.	1300242	04/08/2013	BLUM RESIDENCE	Nassau	LONG BEACH	68 CURLEY STREET

Refine This Search

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Spill Incidents Database Search Results

Record Count: 8 Rows: 1 to 8

Export XLS Export CSV

	Spill Number	Date Spill Reported	Spill Name	County	City/Town	Address
1.	9407296	08/30/1994	LONG BEACH SD MAINT YARD	Nassau	LONG BEACH	130 MAPLE BLVD
2.	9609059	10/21/1996	Spill Number 9609059	Nassau	LONG BEACH	BROADWAY W/O MAPLE BLVD
3.	0508680	10/19/2005	UNKNOWN	Nassau	LONG BEACH	MAPLE BLVD/WALNUT STREET
4.	0508735	10/21/2005	GALLOW RESIDENCE	Nassau	LONG BEACH	837 EAST WALNUT AND MAPLE
5.	0613224	03/09/2007	MILLER RESIDENCE	Nassau	LONG BEACH	212 MAPLE BLVD
6.	1011173	02/06/2011	UNKNOWN	Nassau	LONG BEACH	MAPLE BLVD/PARK AVE
7.	1202569	06/14/2012	UNKNOWN	Nassau	LONG BEACH	118 MAPLE BLVD
8.	1303576	07/03/2013	MILLER RESIDENCE	Nassau	LONG BEACH	212 MAPLE BLVD

Refine This Search

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Spill Incidents Database Search Results

Record Count: 4 Rows: 1 to 4

Export XLS Export CSV

	Spill Number	Date Spill Reported	Spill Name	County	City/Town	Address
1.	8800922	04/29/1988	LONG BEACH SCHOOL DISTRICT	Nassau	LONG BEACH	BLACKHEATH ROAD
2.	8801988	06/03/1988	LONG BEACH SCHOOL DISTRICT	Nassau	LONG BEACH	BLACKHEATH ROAD
3.	9113262	03/30/1992	LONG BEACH CITY SCHOOL	Nassau	LONG BEACH	BLACKHEATH ROAD
4.	1210803	11/13/2012	189 BLACK HEATH RD (HURRICANE SANDY)	Nassau	LONG BEACH	189 BLACKHEATH RD

Refine This Search

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Spill Incidents Database Search Results

Record Count: 2 Rows: 1 to 2

Export XLS Export CSV

	Spill Number	Date Spill Reported	Spill Name	County	City/Town	Address
1.	9210901	12/21/1992	MARSHALL RESIDENCE	Nassau	HEMPSTEAD	125 FAIRWAY
2.	0706414	09/07/2007	LIDO BEACH	Nassau	HEMPSTEAD	LIDO BLVD /BATH ST/FAIRWAY

Refine This Search

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Spill Incidents Database Search Results

Record Count: 2 Rows: 1 to 2

Export XLS Export CSV

	Spill Number	Date Spill Reported	Spill Name	County	City/Town	Address
1.	0706414	09/07/2007	LIDO BEACH	Nassau	HEMPSTEAD	LIDO BLVD /BATH ST/FAIRWAY
2.	1505652	08/26/2015	ROCKYARD	Nassau	HEMPSTEAD	LIDO BLVD/LOOP PKWY

Refine This Search

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Spill Incidents Database Search Results

Record Count: 4 Rows: 1 to 4

Export XLS Export CSV

	Spill Number	Date Spill Reported	Spill Name	County	City/Town	Address
1.	9509680	11/04/1995	KLEIN RESIDENCE	Nassau	WEST HEMPSTEAD	543 BUXTON AVENUE
2.	9512056	12/24/1995	TORCASI RESIDENCE	Nassau	WEST HEMPSTEAD	542 BUXTON AVENUE
3.	9907372	09/19/1999	CENTOLA RESIDENCE	Nassau	WEST HEMPSTEAD	591 BUXTON AVENUE
4.	0604360	07/19/2006	NEWMARK RESIDENCE	Nassau	WEST HEMPSTEAD	549 BUXTON AVENUE

Refine This Search

Attachment 8

Endangered Species Compliance Documents

NYNHP Records Request Response
USFWS Section 7 No Effect Letter

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

February 18, 2020

James McAllister
Governor's Office of Storm Recovery (GOSR)
500 Bi-county Boulevard, Suite 300
Farmingdale, NY 11735

Re: Lido Beach / Point Lookout Drainage Improvements Project
County: Nassau Town/City: Hempstead

Dear Mr. McAllister:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities at the project sites.

Enclosed is a list of the rare or state-listed animals and of significant natural communities documented within 1/3 mile of the project sites. We recommend that project work be conducted so as to avoid run-off and other off-site impacts, and to avoid any impacts to beach habitat and to water quality. For information about any permit considerations for your project in relation to state-listed animals, please contact the Permits staff at the NYSDEC Region 1 Office, Division of Environmental Permits, at dep.r1@dec.ny.gov, (631) 444-0365.

For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

For information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the Permits staff at the NYSDEC Region 1 Office as described above.

Sincerely,

Nicholas Conrad
Information Resources Coordinator
New York Natural Heritage Program

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

The following state-listed or rare animals, and significant natural communities have been documented in the vicinity of the project site.

The following list includes animals that are listed by NYS as Endangered, Threatened, or Special Concern; and/or that are federally listed. The list also contains animals that, while unlisted by NYS, are rare in New York and of conservation concern.

For information about any permit considerations for the project related to state-listed animals, contact the NYSDEC Region 1 Office, Division of Environmental Permits, at dep.r1@dec.ny.gov, (631) 444-0365.

The following species have been documented on the beach at Lido Beach, within 0.1 mile south of the southernmost project sites.

COMMON NAME	*SCIENTIFIC NAME*	*NY STATE LISTING*	*FEDERAL LISTING*
Piping Plover *Breeding*	*Charadrius melodus*	Endangered	Threatened
Least Tern *Breeding*	*Sternula antillarum*	Threatened	

The following species and significant natural communities have been documented at salt marsh islands across Reynolds Channel, within .3 mile north of the project sites on Harbor Drive.

COMMON NAME	*SCIENTIFIC NAME*	*NY STATE LISTING*	*FEDERAL LISTING*
Common Tern *Breeding*	*Sterna hirundo*	Threatened	
Gull-billed Tern *Breeding*	*Gelochelidon nilotica*	Unlisted	
Forster's Tern *Breeding*	*Sterna forsteri*	Unlisted	

Low Salt Marsh	High Quality Occurrence of Uncommon Community Type
High Salt Marsh	High Quality Occurrence of Uncommon Community Type
Salt Panne	High Quality Occurrence of Uncommon Community Type

This report only includes records from the NY Natural Heritage database.

If any rare plants or animals are documented during site visits, we request that information on the observations be provided to the New York Natural Heritage Program so that we may update our database.

Information about many of the listed animals in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage's Conservation Guides at www.guides.nynhp.org, and from NYSDEC at www.dec.ny.gov/animals/7494.html.

Governor's Office of
Storm Recovery

ANDREW M. CUOMO
Governor

February 5, 2020

Mr. Steve Papa
U.S. Fish and Wildlife Service
Long Island Field Office
340 Smith Road
Shirley, NY 11967

VIA EMAIL: steve_papa@fws.gov

Re: ESA/MBTA/BGEPA consultation for the Lido Beach / Point Lookout Drainage Improvements Project – Hamlet of Lido Beach, Town of Hempstead, Nassau County, New York

Dear Mr. Papa:

The Governor's Office of Storm Recovery (GOSR), operating under the auspices of the New York State Homes and Community Renewal's (NYSHCR) Housing Trust Fund Corporation, was established to aid the statewide recovery of disaster-affected communities in New York State. GOSR is administering a U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant for Disaster Recovery (CDBG-DR), including the New York Rising Community Reconstruction (NYRCR) Program. The environmental review for projects funded under the NYRCR Program are processed on a case by case basis in accordance with the United States Fish and Wildlife Service (USFWS) New York Field Office's online project review process.

The purpose of this letter is to provide the USFWS Long Island Field Office notice of the proposed project and to document compliance with Section 7 of the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), as well as the Migratory Bird Treaty Act of 1918 (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703-712), and the Bald and Golden Eagle Protection Act of 1940 (BGEPA) (54 Stat. 240, as amended; 16 U.S.C. 668-668c). As discussed below, we have reviewed the project and found that the project does not jeopardize the continued existence of ESA species or destroy or adversely modify their critical habitat. We are submitting project materials to document that GOSR has made a "**No Effect**" determination for the project described herein. If the USFWS does not respond within 30 days from submittal of this form, then GOSR may presume that its determination for the project is informed by the best available information and its project responsibilities under Section 7 of the ESA have been fulfilled.

1.0 PROJECT DESCRIPTION

The Lido Beach / Point Lookout Drainage Improvements Project (Project) will involve nineteen (19) drainage improvements at approximately fifteen (15) locations in the hamlet of Lido Beach, Town of Hempstead, Nassau County, New York. The drainage improvements will be performed on Lido Boulevard, Lagoon Drive East, Harbor Drive, and Blackheath Road. In-line check valves will be installed at three (3) locations on Harbor Drive and two (2) locations on Lagoon Drive East; and three (3) catch basins will be installed at one (1) location on Blackheath Road and fourteen (14) catch basins will be installed at nine (9) locations on Lido Boulevard. Construction activities will include the following: trench and culvert excavation; removal of existing drainage structures; installation of in-line pipe check valves, catch basins, reticuline grates with vertical face opening curb boxes, and reinforced concrete pipe for connections to the existing drainage system; restoring concrete curb, cement concrete, existing roadway pavement, concrete, and asphalt disturbed in order to perform the drainage improvements; reconstructing traffic loops; relocating buried electrical service and existing light poles; resetting existing fencing; and applying topsoil and grass seed to disturbed soil. Project location maps are included in **Appendix A**. Project design plans are included in **Appendix B**.

In 2012, Superstorm Sandy overwhelmed Lido Beach's stormwater drainage system. Due to its tremendous size, Sandy drove a catastrophic storm surge into the New Jersey and New York coastlines. Floodwaters inundated homes, schools, municipal buildings, and businesses and made streets impassable and areas unusable. Superstorm Sandy's tidal surge was over ten feet in areas of Lido Beach. Evacuation and emergency response was severely hindered or impossible as a result of flooding. Recovery and resiliency of the Community was also severely impacted due to infrastructure limitations and functionality.

The installation of check valves (tidal backflow prevention) will prohibit the rising tide from entering the upland piping system and more importantly permit the draining of the upland piping system into downstream surface waters during low tide events. The draining of the upland piping systems will increase upland storage capacity between storm events. This in turn will help to attenuate or lessen the impacts of certain storm events by providing a time delay for the piping system to fill up with surface collected storm water prior to discharge, thereby minimizing or eliminating potential flooding and increasing the resiliency of the drainage system.

The use of backflow prevention devices will effectively provide additional stormwater storage within the existing drainage pipe network and mitigate the negative effects of rising tides, without creating additional storage. The use of tidal check valves offers the greatest positive effects to flooding mitigation, aside from raising the topography of the land above flood elevation, which generally results in the greatest impacts to private property.

To reduce stormwater ponding occurrences along Lido Boulevard, selected aged and inefficient single-curb inlet opening drainage structures will be removed and more hydraulically efficient drainage structure inlets will be installed. Existing single curb inlet drainage structures will be replaced with two (2) standard reticuline grates and curb boxes. This will increase the surface inlet capacity and the ability of stormwater runoff to be collected and enter the drainage system. This action will decrease the gutter spread width of slow-moving stormwater runoff travelling against the curb line of the relatively flat Lido Boulevard roadway profile gradients by intercepting and collecting the water with a larger inlet area and minimizing water ponding into the adjacent travel lanes. Given the critical function of Lido Boulevard as a coastal evacuation route, the redundancy provided by the combination inlets (noted above) and their improved maintenance access are advantageous drainage system characteristics consistent with Lido Boulevard's

critical function. Implementation of the drainage improvement project would provide improved stormwater drainage for the residents living in the area and significantly reduce the risk of future flooding.

2.0 ENDANGERED SPECIES ACT, MIGRATORY BIRD TREATY ACT, AND BALD AND GOLDEN EAGLE PROTECTION ACT PROTECTED SPECIES

The USFWS Long Island Field Office was contacted through the Information, Planning, and Conservation System (IPaC) regarding the potential presence of species under the jurisdiction of the USFWS within the Project area. According to the USFWS Official Species List, four (4) federally threatened species (northern long-eared bat, piping plover, red knot, and seabeach amaranth) and two (2) federally endangered species (roseate tern and sandplain gerardia) may potentially be associated with the Project area (see USFWS Official Species List in **Appendix C**). According to the USFWS Official Species List, there is no critical habitat for federally protected threatened and endangered species in the Project area.

The IPaC Resource List indicates that there are migratory birds protected under the Migratory Bird Treaty Act and/or the Bald and Golden Eagle Protection Act that could potentially be affected by the Project (see USFWS IPaC Resource List in **Appendix D**). Any transient migratory birds that may be found within the Project area would temporarily leave the area during construction. GOSR has determined that Project activities will have "**No Effect"** on migratory birds. There are no known breeding bald eagles within the vicinity of the Project area; therefore, no adverse impacts to breeding bald eagles are expected as a result of the Project.

According to the New York State Department of Environmental Conservation (NYSDEC) Environmental Resource Map (ERM) and NYSDEC Environmental Assessment Form (EAF) Summary Report, the Project is located in the vicinity of records of the piping plover, least tern, and common tern. NYSDEC review materials are included in **Appendix E**.

Descriptions of the northern long-eared bat (NLEB), piping plover, red knot, roseate tern, sandplain gerardia, and seabeach amaranth and an evaluation of the likelihood that these species occur within the Project area and would be affected by the Project is provided below. The species descriptions are summarized from the NYSDEC fact sheet and USFWS species profiles.

2.1 NORTHERN LONG-EARED BAT (NLEB)

The NLEB is a medium-sized bat that is distinguished by its long ears, particularly as compared to other bats in its genus. The NLEB is found across much of the eastern and north central United States. White-nose syndrome is the predominant threat to this bat, especially throughout the northeast where the species has declined by up to 99 percent from pre-white-nose syndrome levels at many hibernation sites. During summer, NLEBs roost singly or in colonies underneath bark, in cavities, or in crevices of both live and dead trees, using tree species based on suitability to retain bark or provide cavities or crevices. They emerge at dusk to fly through the understory of forested hillsides and ridges feeding on moths, flies, leafhoppers, caddisflies, and beetles or by gleaning insects from vegetation and water surfaces. NLEBs spend winter hibernating in caves and mines. This bat prefers habitat with abundant stands of trees with sufficient bark crevices and snags for roosting habitat.

The proposed Project involves construction activities in a developed residential/commercial area. The Project will not involve tree removal. Also, according to the NYSDEC, there are no records of the northern long-eared bat in the vicinity of the proposed Project area (**Appendix D**). Therefore, GOSR has determined that the proposed Project would have "**No Effect**" on the NLEB.

2.2 PIPING PLOVER

The piping plover is a small shorebird that is listed as federally threatened and state endangered. Habitat is only found at the shore, on barrier islands, sandy beaches, and dredged material disposal islands. In New York, this species breeds on Long Island's sandy beaches, from Queens to the Hamptons, in the eastern bays and in the harbors of northern Suffolk County. Piping plovers arrive to the New York area in early to mid-March and establish nesting territories by early April. Nests are usually placed well above the high tide line on open sandy beaches or in areas that have been filled with dredged sand, often near dunes in areas with little or no beach grass. By early September, most have departed for their wintering areas.

Although the piping plover has been documented in the vicinity of the Project area, the proposed Project involves construction activities in a developed residential/commercial area. There are no open sandy beaches or otherwise suitable piping plover habitats that will be disturbed by Project activities and noise during construction would be negligible relative to existing noise from residential and commercial activity in the vicinity of the Project area. Therefore, GOSR has determined that the proposed Project would have "**No Effect**" on the piping plover.

2.3 RED KNOT

The red knot is a large, bulky sandpiper that is listed as federally threatened. The red knot breeds in the tundra region. During migration, the red knot prefers coastal beaches that are usually at or near the mouth of bays, estuaries, or tidal inlets. Wintering areas are generally intertidal habitats such as beaches with significant wave action or currents. The red knot can fly more than 9,300 miles from south to north every spring and repeat the trip in reverse every autumn, making this bird one of the longest-distance migrants in the animal kingdom. Red knots need to encounter favorable habitat, food, and weather conditions within narrow seasonal windows because the birds stopover between wintering and breeding areas. The red knot is sensitive to human disturbance.

The proposed Project is located in a developed residential/commercial area and will involve disturbance to an existing road and adjacent driveways and lawns. There are no coastal beaches, tidal flats, or coastal mudflats or otherwise suitable red knot habitats that will be disturbed by Project activities. Therefore, GOSR has determined that the proposed Project would have "**No Effect**" on the red knot.

2.4 ROSEATE TERN

The roseate tern is a waterbird listed as federally and state endangered. The roseate tern prefers coastal beach and island habitats along salt bays, estuaries, and oceans. Roseate terns nest on sandy or rocky islands, especially in protected bays and estuaries, with some low plant cover that is close to shallow waters for feeding. It forages in coastal waters and sometimes well offshore. The roseate tern is sensitive to human disturbance.

The proposed Project is located in a developed residential/commercial area and will involve disturbance to an existing road and adjacent driveways and lawns. There are no sandy or rocky islands, protected bays and estuaries, or otherwise suitable roseate tern habitats that will be disturbed by Project activities. Therefore, GOSR has determined that the proposed Project would have "**No Effect**" on the roseate tern.

2.5 SANDPLAIN GERARDIA

The sandplain gerardia is a flowering plant that is listed as federally and state endangered. The sandplain gerardia can be found on Long Island in dry, sandy soils and in sandy plains. It was traditionally a maritime grassland species maintained by fire and grazing. In New York, it currently occurs in remnant grasslands, shrublands, and along roadsides and railroads.

The proposed Project is located in a developed residential/commercial area and will involve disturbance to an existing road and adjacent driveways and lawns. No sandy dune, beach, or otherwise suitable seabeach amaranth habitats will be disturbed by Project activities. Therefore, GOSR has determined that the proposed Project would have "**No Effect**" on the seabeach amaranth.

2.6 SEABEACH AMARANTH

The seabeach amaranth is an annual plant that is listed as federally endangered and state threatened. The seabeach amaranth is a flowering plant that usually grows on a nearly pure sand substrate. It is primarily found on overwash flats at accreting ends of islands, lower fore-dunes, and upper strands of non-eroding beaches.

The proposed Project is located in a developed residential/commercial area and will involve disturbance to an existing road and adjacent driveways and lawns. No sandy dune, beach, or otherwise suitable seabeach amaranth habitats will be disturbed by Project activities. Therefore, GOSR has determined that the Project would have "**No Effect**" on the seabeach amaranth.

3.0 CONCLUSION

Project implementation would be conditioned upon issuance of applicable federal, state and local permits. The Project would be constructed in accordance with federal and state permit requirements and their conditions. The Project would not jeopardize the continued existence of ESA species or destroy or adversely modify their critical habitat. GOSR is submitting the above information as notification of its "**No Effect**" determination and requests acknowledgement from USFWS that they have received this determination that the Project would have "**No Effect"** on endangered/threatened species, migratory birds, or critical habitat for species under USFWS jurisdiction.

For additional information, please contact me by e-mail at James.McAllister@stormrecovery.ny.gov or by telephone at (631) 465-9677.

Sincerely,

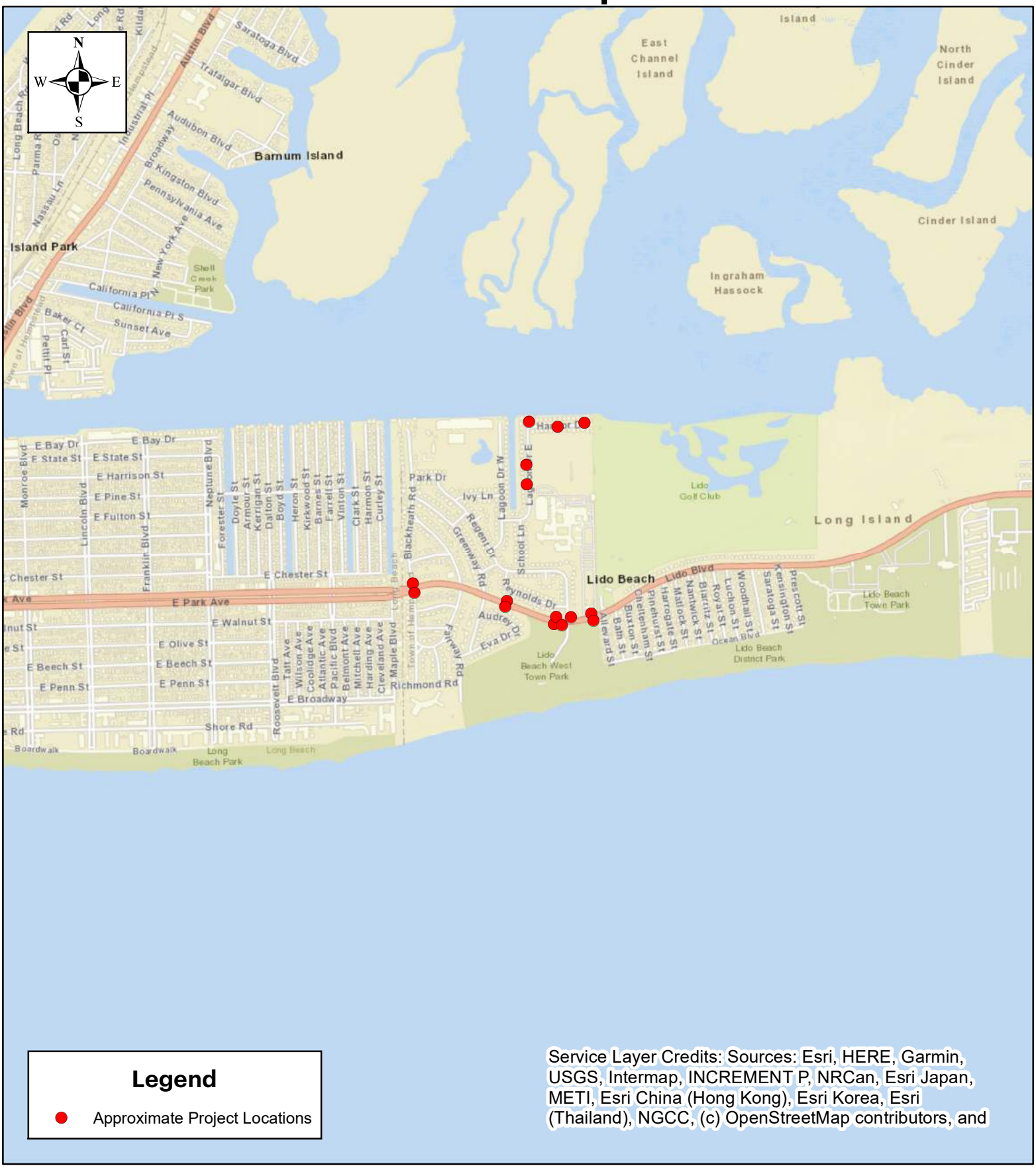
James McAllister
Senior Environmental Project Manager
Bureau of Environmental Review and Assessment
Governor's Office of Storm Recovery

Attachments:

Appendix A: Project Location Maps
(Street Map, Topographic Map, and Aerial Map)
Appendix B: Project Design Plans
Appendix C: USFWS Official Species List
Appendix D: USFWS IPaC Resource List
Appendix E: NYSDEC Environmental Resource Map and Environmental Assessment Form Summary Report

Appendix A

Street Map



Legend

- Approximate Project Locations

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and

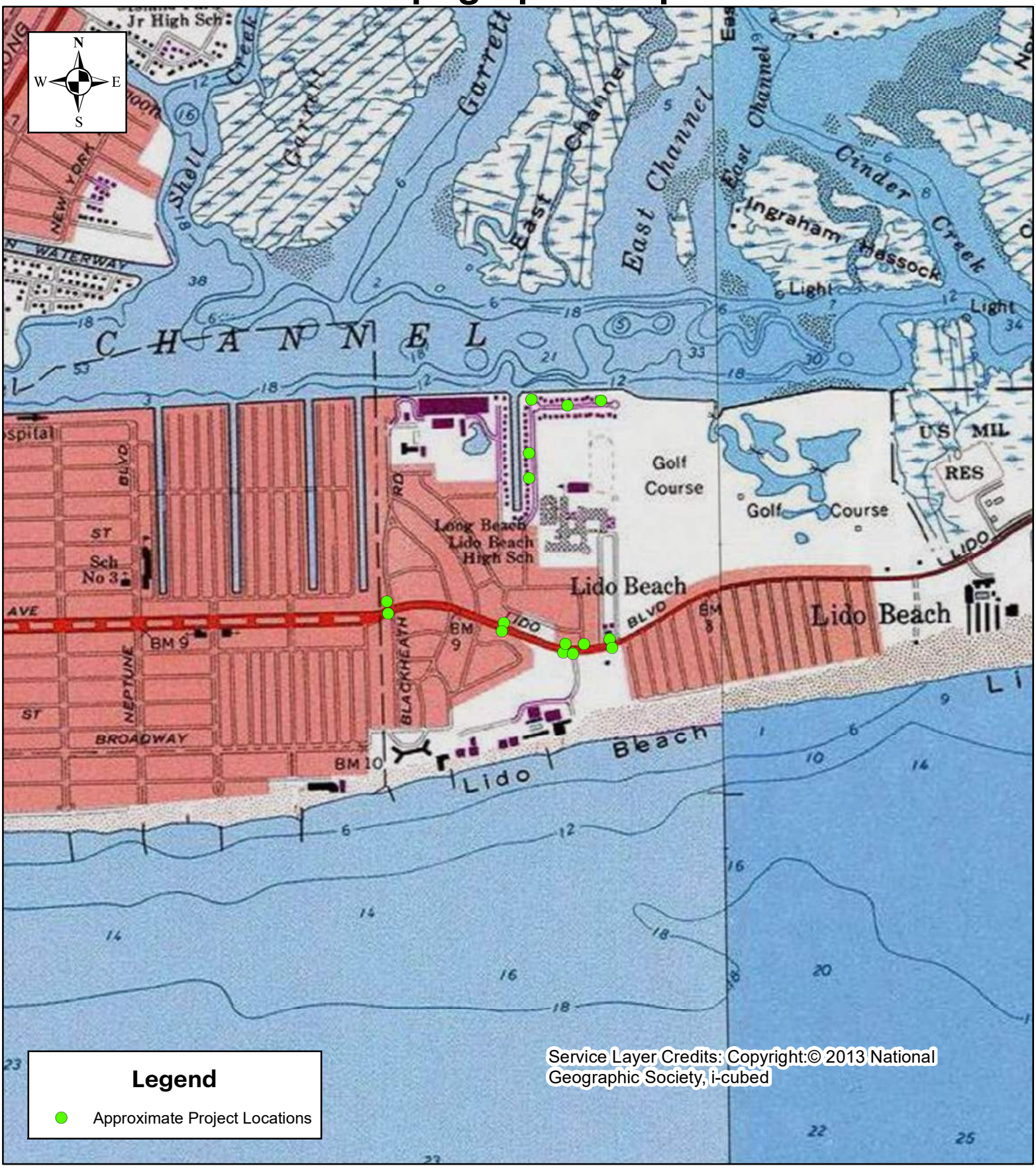
Tectonic

1:20,000

0 1,150 2,300 4,600 Feet

Lido Beach / Point Lookout Drainage Improvements Project
CDP of Lido Beach
Town of Hempstead
Nassau County, New York

Topographic Map



Tectonic

1:16,000

0 900 1,800 3,600 Feet

Lido Beach / Point Lookout Drainage Improvements Project
CDP of Lido Beach
Town of Hempstead
Nassau County, New York

Aerial Map

Tectonic

1:8,000

0 462.5 925 1,850 Feet

Lido Beach / Point Lookout Drainage Improvements Project
CDP of Lido Beach
Town of Hempstead
Nassau County, New York

Appendix B

DEPARTMENT OF PUBLIC WORKS
NASSAU COUNTY

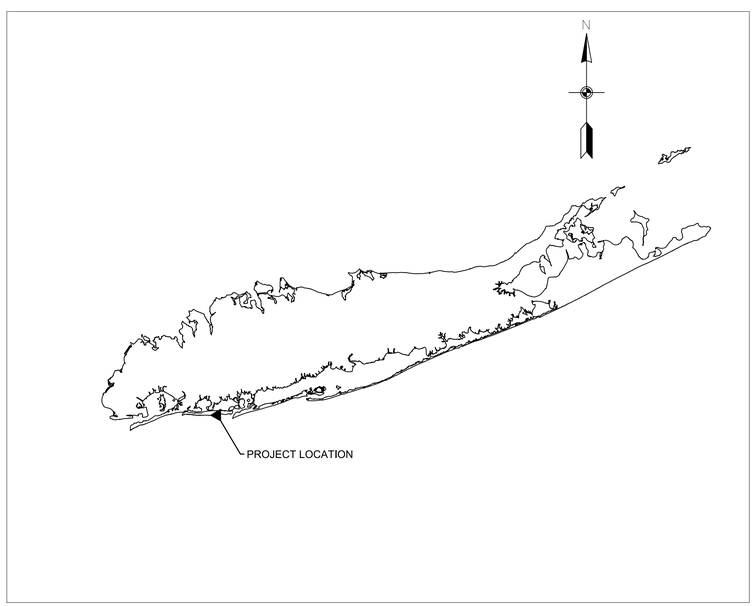
SUBMITTED FOR
REVIEW AND COMMENT

ADVANCED PLANS
60% COMPLETE

NOT FOR CONSTRUCTION

LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

LIDO BEACH, NY
TOWN OF HEMPSTEAD
NASSAU COUNTY
PHASE 60%
CONTRACT No. H60052-01D
OCTOBER 2019



LOCATION MAP
NOT TO SCALE

SURVEY PREPARED BY:

GAYRON DE BRUIN, LAND SURVEYING AND ENGINEERING, PC

PREPARED BY:

JAMES M. BAZATA, P.E, ENV SP — DATE
DIRECTOR OF CIVIL ENGINEERING

RECOMMENDED FOR APPROVAL BY:

GARRY DESYR — DATE
SENIOR DESIGN ENGINEER

HAROLD T. LUTZ, P.E. — DATE
UNIT HEAD TRAFFIC ENGINEER

RICHARD IADEVAIO — DATE
UNIT HEAD CONSTRUCTION

MICHAEL FASANO — DATE
UNIT HEAD ROAD MAINTENANCE

RAKHAL MAITRA, P.E. — DATE
DEPUTY COMMISSIONER OF PUBLIC WORKS

APPROVED BY

KENNETH G. ARNOLD, P.E.COMMISSIONER — DATE
OF PUBLIC WORKS

Existing Legend

Manholes

- Communications
- Drain
- Electric
- Fiber Optic
- Fire Department
- Gas
- Water High Temperature Hot
- Record Only
- Sewer
- Sewer - Drop (COMB; DIAMETER, MATERIAL, DEPTH)
- Sewer Cleanout
- Traffic
- Telephone
- Unknown
- Water

Utility Hardware

- Electric Pullbox
- Electric Vault
- Gas Main Valve
- Gas Marker
- Gas Meter
- Gas Service Valve
- Gas Test Station
- Gas Vent
- Hydrant
- Hydrant Valve
- Irrigation Valve
- Monitoring Well
- Oil Filler Valve
- Pole Riser - Electric
- Pole Riser - Telephone
- Pole Riser - T.V.
- Pole Riser - Traffic
- Roof Drain
- Sewer Vent
- Stand Pipe
- Traffic Detector
- Traffic Loop
- Unidentified Vault
- Unknown Valve
- Unknown Pullbox
- Water Main Valve
- Water Meter
- Water Service Valve

Utility Poles

- Guy Wire and Ancor
- Light Pole Base
- Metal Pole with Light
- Metal Pole with Traffic
- Pedestrian Signal
- Wooden Utility Pole
- Wooden Utility Pole with Light

Utility Pole Abbreviations

F	Fire Box
P	Pedestrian Signal
T	Traffic

Fences

- Guard Rail
- Chain Link Fence
- Wooden Fence
- Metal Fence
- Retaining Wall
- Vinyl Fence

Vegetation

- Bush
- Hedge
- Tree (with Size) Located At Center
- Tree (with Size) Located At Face
- Treeline

Catch Basins

- Type "A"
- Type 1
- Type 3
- Flush Grate
- Round Grate
- Small Rectangle Grate
- Square Grate

Utility Lines and Paint Marks

- Dead End
- End of Information
- Automated Vacuum
- Cable (CATVU)
- Drain (SD)
- Drain (24" or Greater) (SD)
- Electric
- Electric Offset
- Fiber Optic (Fiber)
- Fire (Fire)
- Gas (G)
- Gas offset (G)
- Gas Service (G)
- Oil (Oil)
- Overhead
- Sewer (SAN)
- Sewer (24" Or Greater) (SAN)
- Sewer House Connection (SHC 6.1" Cov.)
- Steam
- Street Lighting
- Telephone (TU_A)
- Telephone Offset (TU_A)
- Traffic (Traffic)
- Unknown Utility
- Water (W)
- Water (24" Or Greater) (W)
- Water Offset (W)
- Water Service (W)
- Water Chilled (Chilled Water)
- Water High Temperature Hot

Miscellaneous

- Aerial Target
- Baseline & Station (0+00, 1+00)
- Basketball Backboard Post
- Bench
- Benchmark
- Bike Rack
- Boring
- Cellar Door
- Column
- Communications Pullbox
- Communications Box - Round
- Curb - Concrete
- Curb - Belgian Block
- Curb - Brick
- Curb & Gutter
- Edge Of Pavement
- First Floor Entrance
- Flagpole
- Fountain
- Garage Entrance
- Grill
- Guardpost
- Handicap Ramp
- Mailbox
- Material Change
- Multi-Meter
- Parking Meter
- Piling
- Police Box
- Sign - Single Post
- Sign - Double Post
- Steps
- Sprinkler (underground)
- Telephone Booth
- Test Hole
- Traffic Control Cabinet
- Trash Can
- Turnstile
- WiFi
- Yard Light

Property Markers

- Cross Cut
- Drill Hole
- Disk
- Iron Pipe
- Iron Rod/ Rebar/ Pin
- L Cut
- Misc. Marker
- Monument
- Monument - Not Found
- PK/Mag Nail
- Railroad Spike
- Spike
- Stake

Property Lines

- ROW Line (HB)
- Lot Lines (PL)

Abbreviations

AOBE	As Ordered By Engineer
Aband.	Abandoned
Alum.	Aluminum
Apt.	Apartment
Asph.	Asphalt
B.O.P.	Beginning Of Profile
B. Blk.	Belgian Block
B.T.	Blacktop
Bit.	Bituminous
Blk.	Block
Brk.	Brick
CB	Catch Basin
C.O.C.	Center Of Cable
Conc.	Concrete
Ch. Lk. Fe.	Chain Link Fence
C.L.F.	Chain Link Fence
DE	Dead End
D.I.C.B.	Double Inlet Catch Basin
Dilap.	Dilapidated
El	Elevation
EOI	End Of Information
EOP	End Of Profile
Exist.	Existing
FF=7.25	First Floor Elevation
Fr.	Frame
GF=18.30	Garage Floor Elevation
I=1.6	Invert Elevation
Inv.	Invert Elevation
L.	Left
L/C	Left Curb
MH	Manhole
PC	Point Of Curvature
Rail Fe.	Post And Rail Fence
Rec.	Record
#107	Residence No. 107
R.	Right
R/C	Right Curb
R=32.65	Rim Elevation Of Manhole
Rim	Rim Elevation Of Manhole
Sew.	Sewer
S.I.C.B.	Single Inlet Catch Basin
SSHC	Sanitary Sewer House Connection
Slt.	Slate
Sta.	Station
Stock. Fe.	Stockade Fence
Sty.	Story
T/G	Top Of Gutter
Th #3	Test Hole
TOP	Top Of Pipe
TW	Top Of Wall
Typ.	Typical
U.G.	Underground
Vac.	Vacant
VPI	Vertical Point Of Intersection
Wd.	Wood

Pipe Material Abbreviations

ACPP	Asbestos Cement Pressure Pipe
ACP	Asbestos Cement Pipe
CI	Cast Iron
CIBS	Cast Iron Bare Steel
CLDI	Cement Lined Ductile Iron
CLMP	Cement Lined Metal Pipe
CMP	Corrugated Metal Pipe
CP	Clay Pipe
CPP	Corrugated Polyethylene Pipe
CS	Carbon Steel
DB	Double Barrel
DI	Ductile Iron
ESVP	Extra Strength Vitrified Pipe
FTRC	Flat Top Reinforced Concrete
FRP	Fiberglass Reinforced Pipe
HERCP	Horizontal Elliptical Reinforced Concrete Pipe
HDPP	High Density Polyethylene Pipe
PE	Polyethylene
PRCP	Precast Reinforced Concrete Pipe
PVC	Polyvinyl Chloride Pipe
RCP	Reinforced Concrete Pipe
SS	Stainless Steel
ST	Steel
VCP	Vitrified Clay Pipe

Directional Abbreviations

(E)	East
(N)	North
(NE)	North East
(NW)	North West
(S)	South
(SE)	South East
(SW)	South West
(W)	West
E/S	East Side
N/S	North Side
S/S	South Side
W/S	West Side

Northing-Easing

N= 155885.200
E= 1085414.106

Proposed Legend

DRAINAGE

- MANHOLE (TYPE AS SPECIFIED)
- STORM DRAINAGE PIPE (DIAMETER AS SPECIFIED) (SD)
- CATCH BASIN (TYPE AS SPECIFIED)
- NASSAU COUNTY TYPE A FRAME AND GRATE WITH CURB BOX

EXCAVATION LIMITS

- TRENCH & CULVERT
- UNCLASSIFIED (FOR RESTORATION ACTIVITIES)

RESTORATION

- CONCRETE SIDEWALK (ITEM 27)
- TOPSOIL & SEED (ITEM 368)
- ASPHALT RESTORATION (ITEM 36D)
- RESETTING EXISTING BRICK PAVERS (ITEM 40R) (OR)
- LANDSCAPING CRUSHED STONES (ITEM 20)

RESTORATION LIMITS

- CONCRETE CURB (ITEM 26)
- SAW CUT ASPHALT PAVEMENT AND CONCRETE (ITEM 58RPC)
- REMOVE AND RESET EXISTING VINYL FENCE (ITEM 64)
- REMOVE AND RESET EXISTING TIMBER FENCE (ITEM 64)
- PROPOSED TREE (ITEM XX)
- RELOCATE EXISTING LIGHT POLE (ITEM 120SS)

EASMENTS

- TEMPORARY EASEMENT (TE)

INDEX OF DRAWINGS (60% SUBMISSION):

C-01	COVER
I-01	INDEX, LEGEND AND ABBREVIATIONS
GN-01	GENERAL NOTES 01
GN-02	GENERAL NOTES 02
SC-01	SURVEY CONTROL
MST-01	MISCELLANEOUS TABLES 01
MST-02	MISCELLANEOUS TABLES 02
MST-03	MISCELLANEOUS TABLES 03
MSD-01	MISCELLANEOUS DETAILS 01
MSD-02	MISCELLANEOUS DETAILS 02
MSD-03	MISCELLANEOUS DETAILS 03
MSD-04	MISCELLANEOUS DETAILS 04
MSD-05	MISCELLANEOUS DETAILS 05
MSD-06	MISCELLANEOUS DETAILS 06
KP-01	KEY PLAN

CONSTRUCTION PLANS

CP-01	CONSTRUCTION PLAN 01
CP-02	CONSTRUCTION PLAN 02
CP-03	CONSTRUCTION PLAN 03
CP-04	CONSTRUCTION PLAN 04
CP-05	CONSTRUCTION PLAN 05
CP-06	CONSTRUCTION PLAN 06
CP-07	CONSTRUCTION PLAN 07
CP-08	CONSTRUCTION PLAN 08
CP-09	CONSTRUCTION PLAN 09
CP-10	CONSTRUCTION PLAN 10
CP-11	CONSTRUCTION PLAN 11
CP-12	CONSTRUCTION PLAN 12
CP-13	CONSTRUCTION PLAN 13
CP-14	CONSTRUCTION PLAN 14
CP-15	CONSTRUCTION PLAN 15

WORK ZONE TRAFFIC CONTROL PLANS

WZTCN-01	WORK ZONE TRAFFIC CONTROL NOTES
WZTC-1-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 1 - PLAN 1
WZTC-2-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 2 - PLAN 1
WZTC-3-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 3 - PLAN 1
WZTC-4-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 4 - PLAN 1
WZTC-5-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 5 - PLAN 1
WZTC-5-2	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 5 - PLAN 2
WZTC-6-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 6 - PLAN 1
WZTC-6-2	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 6 - PLAN 2

NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS SANITARY SEWER NOTES:

1. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO WORK INVOLVING ANY SANITARY SEWER FACILITIES. NOTIFICATION IS TO BE MADE BY CALLING 516-571-7502 OR 7505.

2. ALL WORK SHALL BE IN ACCORDANCE WITH NCDPW STANDARD SPECIFICATIONS AND DETAILS FOR THE CONSTRUCTION OF SANITARY SEWERS, LATEST EDITION 2003. ALL WORK MUST BE PERFORMED IN THE PRESENCE OF A NASSAU COUNTY INSPECTOR.

3. ALL SANITARY SEWER HOUSE CONNECTIONS AND LATERALS SHALL BE LOCATED PRIOR TO ANY EXCAVATION BY THE CONTRACTOR.

4. THE HORIZONTAL/VERTICAL SEPARATION OF SEWER AND DRAINAGE PIPE WATER MAINS/SERVICES SHALL MEET OR EXCEED THE REQUIREMENTS OUTLINED IN THE RECOMMENDED STANDARDS FOR SEWAGE WORKS (TEN STATE STANDARDS), LATEST EDITION.

5. WHERE SANITARY OR HOUSE CONNECTION SEWERS CROSS OVER A DRAINAGE TRENCH AREA, THE SEWER SHALL BE REPLACED WITH DUCTILE IRON EXTENDING A MINIMUM OF FIVE (5) FEET EACH SIDE OF CROSSING TO UNDISTURBED SOIL. THE SAME PLACEMENT SHALL APPLY FOR SEWERS UNDER A DRAINAGE TRENCH AREA WITHIN TWELVE (12) INCHES CLEARANCE, BOTTOM OF DRAIN TO TOP OF SEWER.

6. ALL PIPES, MANHOLES AND APPURTENANCES SHALL HAVE THE COUNTY APPROVAL STAMP THEREON OR WRITTEN CERTIFICATION ACCEPTABLE TO THE COUNTY BEFORE THE MATERIAL CAN BE INSTALLED.

7. WHERE IT IS NECESSARY TO RAISE SANITARY SEWER MANHOLE CASTINGS TO GRADE FOR REPAVING, FIXED FRAME CASTINGS MUST BE RAISED EITHER BY ADJUSTING THE HEIGHT OF THE BRICK MASONRY OR USING AN APPROVED INSERT (METAL INSERTS ARE NOT PERMITTED). ADJUSTABLE FRAME TYPE MANHOLES MAY BE RAISED BY ADDING UP TO A MAXIMUM OF TWO (2), ONE (1) INCH ADJUSTMENT RINGS TO ACHIEVE FINAL GRADE.

8. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS FOR ENTRY INTO A CONFINED SPACE WHENEVER IT IS NECESSARY FOR A CONTRACTOR'S EMPLOYEE TO ENTER A NASSAU COUNTY SANITARY SEWER MANHOLE. THE MINIMUM REQUIREMENTS THE CONTRACTOR MUST COMPLY WITH ARE:

   A. A CONTRACTOR ISSUED "ENTRY PERMIT".

   B. A CONFINED SPACE ENTRY MONITOR TO TEST FOR TOXIC, EXPLOSIVE AND OXYGEN DEFICIENT ATMOSPHERE.

   C. CONFINED SPACE RESCUE AND RETRIEVAL EQUIPMENT.

   THE CONTRACTOR WILL NOT BE PERMITTED TO WORK IN A NASSAU COUNTY SANITARY SEWER MANHOLE UNLESS HE/SHE COMPLIES WITH ALL APPLICABLE OSHA REQUIREMENTS.

SPECIFICATIONS AND STANDARDS:

ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE IN CONFORMITY WITH THE FOLLOWING NASSAU COUNTY DRAWINGS AND ADDITIONAL STANDARDS (AS MODIFIED IN THE CONTRACT PLANS AND SPECIFICATIONS ADDENDA):

A. COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS AND STANDARD SHEETS FOR CIVIL ENGINEERING AND SITE DEVELOPMENT CONSTRUCTION, PRINTED 2009; INCLUDING ALL ADDENDA, NOTES, MODIFICATIONS AND CORRECTIONS OF THE NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS SHALL APPLY WITH THE AMENDMENTS AND ADDED SPECIAL SPECIFICATIONS CONTAINED WITHIN THE PROJECT MANUAL.

B. COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF SANITARY SEWERS, 2003.

C. COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS STANDARD SHEETS FOR THE CONSTRUCTION OF SANITARY SEWERS, 2003.

D. COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS, TRAFFIC SIGNAL SPECIFIC, AND STANDARD DRAWINGS, NOVEMBER 1998.

E. NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT), STANDARD SPECIFICATIONS OF CONSTRUCTION AND MATERIALS, OFFICE OF ENGINEERING, DATED MAY 1, 2008 WITH CURRENT ADDITIONS AND MODIFICATIONS, AS REFERENCED AND/OR AS DESCRIBED IN THE CONTRACT DOCUMENTS.

F. THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

G. NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) US CUSTOMARY STANDARD SHEETS, CURRENT ADDITIONS AND MODIFICATIONS, AS REFERENCED AND/OR AS DESCRIBED IN THE CONTRACT DOCUMENTS.

TREE REMOVAL NOTES:

1. THE CONTRACTOR SHALL EXERCISE EXTREME CARE TO AVOID DAMAGE TO NATURAL GROWTH WITHIN THE PROJECT AREA. THE CONTRACTOR WILL BE REQUIRED TO REPLACE AT HIS OWN EXPENSE TREE, SHRUBBERY AND OTHER NATURAL FEATURES DESTROYED OR DAMAGED THROUGH CARELESSNESS.

2. TREES SPECIFICALLY CALLED FOR TO BE REMOVED ARE INDICATED ON THE PLANS. IT IS NOTED THAT ADDITIONAL TREES AND OTHER FORMS OF VEGETATION WILL BE REMOVED AS ORDERED BY ENGINEER (AOBE). PAYMENT FOR ALL REMOVALS WILL BE MADE UNDER THE APPROPRIATE TREE REMOVAL ITEM.

SAWCUTTING NOTES:

1. ALL SAWCUTTING REQUIRED FOR PAVEMENT AND JOINT REPAIR WORK IS INCLUDED IN THE BID PRICE FOR THE RESPECTIVE REPAIR ITEMS.

2. ALL SAWCUTTING NECESSARY FOR MEETING EXISTING CONDITION IN CONNECTION WITH RESTORATION WORK AREAS INCLUDING PAVEMENT ADJACENT TO PROPOSED CURB, MEET LINES AT EXISTING SIDEWALK ASSOCIATED WITH SIDEWALK RAMP WORK, SIDEWALK, AND DRIVEWAYS, ROADWAYS AND OTHER MEET LINES ASSOCIATED WITH RESTORATION WORK, SHALL BE PAID FOR UNDER ITEM 58RPC.

3. NO SEPARATE PAYMENT WILL BE PAID UNDER THE SAW CUT ITEMS, IF THE PAYMENT FOR SAW CUT IS INCLUDED IN OTHER ITEMS.

ARCHAEOLOGICAL NOTES:

1. WHEN ITEMS HAVING POSSIBLE ARCHAEOLOGICAL VALUE ARE ENCOUNTERED IN THE COURSE OF THE WORK, THE CONTRACTOR SHALL IMMEDIATELY HALT WORK IN THE VICINITY AND CALL TO THE ATTENTION OF THE ENGINEER THE PRESENCE OF SUCH ITEMS. THE ENGINEER WILL EITHER ORDER WORK TO PROCEED OR INSTRUCT THAT THE WORK HALT, BE EXTENDED UNTIL THE COUNTY ARCHAEOLOGIST CAN BE CONSULTED, AND PROPER STEPS CAN BE EMPLOYED TO PROTECT AND EXTRACT THE SPECIMENS. THE CONTRACTOR SHALL HAVE NO CLAIM TO THE OWNERSHIP OF ANY SUCH ITEM, OR TO EXTRA PAYMENT FOR DELAY WHICH MAY RESULT.

SUBGRADE EXCAVATION NOTES:

1. ALL UNDESIRABLE MATERIAL IN THE SUBGRADE SHALL BE EXCAVATED UNDER ITEM 2 AND BACKFILLED WITH EXCESS SUITABLE ITEM 2 MATERIAL WHERE AVAILABLE, OR ITEM 5C AND STABILIZED TO THE SATISFACTION OF THE ENGINEER.

2. PRIOR TO EXCAVATING WITHIN A 20 FEET RADIUS OF A TRAFFIC SIGNAL POLE, TEMPORARY GUY CABLES, TEMPORARY SHEETING AND BRACING, OR OTHER MEANS MAY BE REQUIRED TO ENSURE THAT THERE IS NOT MOVEMENT OF THE POLE FOUNDATION AS A RESULT OF THE EXCAVATION. WHERE REQUIRED TEMPORARY SHEETING AND BRACING SHALL BE FURNISHED, INSTALLED AND PAID UNDER ITEM 10A OR ITEM 10B (AS DETERMINED BY THE ENGINEER IN CHARGE OF INSPECTION), AS INCLUDED IN THE CONTRACT.

3. TEMPORARY GUY CABLES OR OTHER MEANS OF SUPPORT THAT ENTAIL AN ATTACHMENT TO THE TRAFFIC SIGNAL POLE WILL BE THE RESPONSIBILITY OF NASSAU COUNTY DPW TRAFFIC DIVISION.

4. PRIOR TO EXCAVATING WITHIN A 20 FEET RADIUS OF A UTILITY POLE, THE CONTRACTOR SHALL COORDINATE HIS/HER ACTIVITIES WITH THE OWNER TO DETERMINE WHETHER TEMPORARY SUPPORT OF THE POLE IS REQUIRED. WHERE DESIRED BY THE OWNER, TEMPORARY SHEETING AND BRACING SHALL BE FURNISHED, INSTALLED AND PAID UNDER ITEM 10A OR ITEM 10B (AS DETERMINED BY THE ENGINEER IN CHARGE OF INSPECTION), AS INCLUDED IN THE CONTRACT.

5. TEMPORARY GUY CABLES OR ANY OTHER MEANS OF SUPPORT THAT ENTAIL AN ATTACHMENT TO THE UTILITY POLE WILL BE THE RESPONSIBILITY OF THE OWNER.

SURVEY DATUM NOTES:

1. ALL ELEVATIONS SHOWN ON THESE PLANS REFER TO THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88).

2. THE HORIZONTAL DATUM USED ON THIS PROJECT IS NORTH AMERICAN DATUM 1983 (2011) EPOCH 2010.00 (NEW YORK STATE PLANE COORDINATE SYSTEM, LONG ISLAND ZONE0. ALL LINEAR MEASUREMENTS ARE IN U.S. SURVEY FEET.

PROTECTION OF FACILITIES NOTES:

1. THE CONTRACTOR SHALL PROTECT ALL WORK DONE UNDER THIS CONTRACT FROM POSSIBLE DAMAGE FOR THE DURATION OF THE CONTRACT. HE SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT, TO THE SATISFACTION OF THE ENGINEER, OF ANY MATERIAL, STRUCTURE, OR PROPERTY ON OR ADJACENT TO THE SITE AND DAMAGED BY HIM OR HIS EMPLOYEES THROUGH THE CONSTRUCTION OPERATIONS UP TO THE TIME OF ACCEPTANCE BY THE COUNTY.

MISCELLANEOUS NOTES:

1. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT, DUE TO THE NATURE OF RECONSTRUCTION PROJECTS, THE EXACT EXTENT OF RECONSTRUCTION WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER INFORMATION AVAILABLE AT THE TIME. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE WITH FIELD CONDITIONS AS DIRECTED BY THE ENGINEER RESPONSIBLE FOR CONSTRUCTION INSPECTION.

2. THE CONTRACTOR SHALL TAKE PRECAUTIONS NOT TO LEAVE DEBRIS, MATERIALS, AND TOOLS, ETC., ON THE ROADWAY SURFACE WHEN LEAVING THE WORK AREA. IN ADDITION, THE CONTRACTOR SHALL TAKE PRECAUTIONS THAT NO DEBRIS, ETC., INTERFERES WITH ADJACENT OPEN TRAFFIC LANES AND PEDESTRIAN WALKS.

3. THE CONTRACTOR SHALL TAKE POSITIVE STEPS TO PREVENT THE SPLATTERING OF VEHICLES. THE CONTRACTOR SHALL PROVIDE FOR THE PROMPT CLEANING OF ANY VEHICLES SPLATTERED BY CONTRACTORS OPERATIONS AND SHALL PAY FOR THE CLEANING. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS IN THE CONTRACT.

4. ALL OPERATIONS SHALL BE CONDUCTED SO AS NOT TO INTERFERE WITH, INTERRUPT, OR ENDANGER THE OPERATION OF TRAFFIC, NOR DAMAGE, DESTROY, OR ENDANGER THE INTEGRITY OF COUNTY OR STATE FACILITIES OR ADJACENT PROPERTIES.

5. NCDPW WILL NOT UNDERTAKE OR ACCEPT FINANCIAL RESPONSIBILITY FOR ANY REMEDIATION OR SIMILAR ACTIVITY WITH RESPECT TO THE REMOVAL OF HAZARDOUS WASTES (6 NYCRR PART 373 AND 374) AND NON-HAZARDOUS SOLID INDUSTRIAL WASTES (6 NYCRR PART 360), WHICH UNDER LAW WOULD NOT BE REQUIRED AT THE TIME BUT FOR THE ACCOMMODATION OF UTILITY FACILITIES WITHIN THE RIGHT-OF-WAY. SUCH RESPONSIBILITY AND COSTS SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

6. PAVEMENT AND SHOULDER REMOVAL SHALL BE DONE IN A MANNER THAT PROVIDES FOR PROPER RESTORATION OF THE REPLACEMENT SECTION. GENERALLY, STRAIGHT, VERTICAL CUTS OF THE PAVEMENT AND SHOULDER WILL BE REQUIRED. SHEETING MAY BE REQUIRED. PAVEMENT THAT BECOMES UNDERMINED SHALL BE CUT BACK AND REMOVED. ALTERNATIVE REPAIR METHODS MAY BE USED IF PRIOR APPROVAL IS GRANTED BY THE COUNTY.

7. THE LIMIT OF PAVEMENT REPLACEMENT SHALL BE SUCH THAT THE REPLACED PAVEMENT IS SUPPORTED BY THOROUGHLY COMPACTED SUBBASE MATERIAL AND THE PAVEMENT IS RESTORED TO THE PROPER GRADE, SURFACE TOLERANCE AND SURFACE TEXTURE.

8. EXCAVATIONS SHALL BE CONDUCTED IN COMPLIANCE WITH New York STATE INDUSTRIAL CODE PART (RULE NO. 23) AND INDUSTRIAL CODE PART (RULE NO. 53).

9. A CONSTRUCTION TRAILER SHALL BE PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH CONTRACT ITEM 1M/F - MOBILIZATION WITH FIELD OFFICE.

10. THE CONTRACTOR IS NOTIFIED THAT PROPOSED WORK AREAS SHALL BE CONFINED TO NASSAU COUNTY RIGHT-OF-WAY, UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER. IF IT IS NOT FEASIBLE TO PERFORM THE PROPOSED WORK WITHOUT ENTERING PRIVATE PROPERTY, THE WORK IN QUESTION MAY BE ELIMINATED FROM THE PROJECT, AS DIRECTED BY THE COUNTY ENGINEER. NASSAU COUNTY MUST BE ADVISED PRIOR TO THE ENCROACHMENT ONTO PRIVATE PROPERTY, IN THE EVENT THAT ANY WORK AREAS BEYOND THE RIGHT-OF-WAY BECOME NECESSARY.

CURBS AND SIDEWALK NOTES:

1. NEW CURBS NOT ABUTTING EXISTING CURB SHALL BE RAMPED DOWN TO ZERO HEIGHT REVEAL IN THE LAST 10 FT, AT LOCATIONS FACING TRAFFIC. AT EXIT GORES CURB SHALL BE RAMPED DOWN IN 20 FT ON BOTH SIDES OF THE GORE.

2. THE PLANS SPECIFICALLY CALL FOR THE REMOVAL AND REPLACEMENT OF EXISTING CURBS DETERMINED TO BE DAMAGED AND/OR IN DIRECT CONFLICT WITH THE PROPOSED WORK. OTHER EXISTING CURBS ARE TO BE REMOVED IN AREAS OF OBVIOUS CONFLICT WITH THE PROPOSED WORK, NOT SHOWN ON THE PLANS OR WHERE ORDERED BY THE ENGINEER.

UTILITY NOTES:

1. THE LOCATIONS AND SIZES OF EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND ARE NOT GUARANTEED. THE CONTRACTOR IS FOREWARNED TO ASCERTAIN AND DETERMINE THE PRECISE LOCATIONS PREPARATORY TO EXCAVATION.

   THE CONTRACTOR SHALL CONTACT UTILITY COMPANIES AND "ONE-CALL CENTER" AT TELEPHONE NUMBER 1-800-272-4480 OR "NEW YORK 811" (TELEPHONE NUMBER IS 811) FOR MARK-OUT OF ALL FACILITIES PRIOR TO CONSTRUCTION. THE UTILITY COMPANIES AND "ONE-CALL CENTER" SHALL BE NOTIFIED A MINIMUM OF FIVE (5) WORKING DAYS BEFORE THE CONTRACTOR COMMENCES WORK. ANY UTILITY RELOCATIONS OR CROSSINGS SHALL BE COORDINATED WITH THE UTILITY COMPANY OWNING THE FACILITY.

   NASSAU COUNTY OWNED UTILITIES SHALL BE LOCATED BY TONING, TEST HOLES & OTHER METHODS AS APPROVED BY THE ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO REPAIR OR REPLACE UTILITIES DAMAGED BY CARELESSNESS.

2. EXISTING UTILITY FACILITIES REMOVAL, RELOCATION, OR MODIFICATION SHALL BE COMPLETED PRIOR TO COMMENCING WORK. CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THE MODIFICATION OF ALL UTILITIES.

3. EXISTING UNDERGROUND AND OVERHEAD UTILITIES AS SHOWN HEREIN HAVE BEEN DETERMINED BY STANDARD SURVEYING METHODS AND AVAILABLE RECORDS. NEITHER THE EXACT LOCATION NOR THE INFORMATION OF THESE EXISTING UTILITIES IS GUARANTEED TO BE COMPLETE OR CORRECT.

4. THE UTILITY LOCATION QUALITY LEVEL LABELING CONVENTION SHOWN ON THE PLANS DOES NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATIONS.

   THE QUALITY LEVEL DEFINITIONS ARE:

   QUALITY LEVEL A - THE HIGHEST DEGREE OF ACCURACY: THE UTILITY INFORMATION ON THE CONTRACT PLANS HAS BEEN FIELD LOCATED AND VERIFIED BY EXCAVATION, WHEN APPROPRIATE. (SHOWN AS QLA).

   QUALITY LEVEL B - SUBSURFACE GEOPHYSICAL LOCATING TECHNIQUES (THAT IS, UNDERGROUND CAMERAS, RADAR, SONAR, TONE OUTS, ETC.) AND EXISTING RECORD PLANS HAVE BEEN USED TO LOCATE UTILITIES. NO EXCAVATIONS WERE PERFORMED. (SHOWN AS QLB).

   QUALITY LEVEL C - RECORD INFORMATION PROVIDED BY UTILITY OWNERS WAS PLOTTED ON THE CONTRACT PLANS. DEPTHS WERE NOT FIELD VERIFIED. PHYSICAL SURFACE FEATURES LIKE MANHOLES, VALVE BOXES AND HYDRANTS HAVE BEEN FIELD LOCATED. (SHOWN AS QLC).

   QUALITY LEVEL D - EXISTING NYSDOT, NCDPW AND UTILITY COMPANY RECORDS WERE USED TO LOCATE SUBSURFACE UTILITIES. (SHOWN AS QLC).

5. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND FACILITIES TO AVOID CONFLICTS WITH ANY NEW UNDERGROUND WORK. THE CONTRACTOR SHALL DIG TEST HOLES AS DIRECTED BY THE ENGINEER RESPONSIBLE FOR CONSTRUCTION INSPECTION TO DETERMINE EXACT LOCATIONS OF EXISTING UTILITIES, AS DEEMED APPROPRIATE. THE WORK SHALL BE PROGRESSED AND PAID UNDER ITEM 122 - TEST HOLES.

6. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF AND COST OF ALL UTILITY RELOCATIONS OR ADJUSTMENTS THAT ARE SHOWN TO BE DONE BY OTHERS.

7. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH ALL VOLTAGES CARRIED IN OVERHEAD OR UNDERGROUND UTILITY SERVICES. PSEG-LI WILL FURNISH ELECTRIC SERVICE INFORMATION UPON REQUEST. NATIONAL GRID WILL FURNISH APPROXIMATE LOCATIONS AND DEPTHS OF GAS MAINS UPON REQUEST. THIS INFORMATION IS NOT GUARANTEED. THE CONTRACTOR SHALL INDEPENDENTLY DETERMINE WHETHER INTERFERENCE EXISTS IN ALL CRITICAL AREAS.

8. ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH CODE RULE 57 ("HIGH VOLTAGE PROXIMITY ACT") OF THE New York STATE LABOR LAW.

9. PRIOR TO EXCAVATING IN THE VICINITY OF UTILITY POLES, THE CONTRACTOR SHALL CONTACT THE POLE'S OWNER TO DETERMINE THE TYPE OF TEMPORARY POLE SUPPORT REQUIRED. NO SEPARATE PAYMENT WILL BE MADE FOR TEMPORARY SUPPORT OF UTILITY POLES, WHERE REQUIRED. THE COST OF TEMPORARY POLE SUPPORT SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

10. THE CONTRACTOR SHALL NOTIFY THE TRAFFIC ENGINEERING (SHELIA DUKACZ) AT 516-572-0465 TWO DAYS PRIOR TO ANY WORK ADJACENT TO TRAFFIC SIGNALS.

SURVEY NOTES:

1. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROTECT SURVEY MONUMENTS FROM DISTURBANCE, OR DAMAGE. IF ANY MONUMENT IS DISTURBED IT WILL BE THE CONTRACTORS RESPONSIBILITY TO REPLACE THE MONUMENT AND TO ESTABLISH THE REVISED COORDINATES BY FIRST ORDER SURVEY METHODS. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.

2. ANY EXPENSE INCURRED IN REPLACING MONUMENTS OR BENCHMARKS THAT THE CONTRACTOR, OR ANY EMPLOYEE, MAY HAVE FAILED TO PRESERVE SHALL BE CHARGED DIRECTLY TO THE CONTRACTOR OR DEDUCTED FROM THE TOTAL AMOUNT OF THE POST PERFORMANCE BOND.

3. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION SURVEY LAYOUT AND STAKEOUT. THE COST SHALL BE PAID FOR UNDER THE UNIT PRICE BID FOR ITEM 136.

4. THE SURVEY BASELINE SHOWN ON THESE PLANS IS APPROXIMATE AND IS SHOWN FOR TABULATING AND FILING PURPOSES ONLY. THE BASELINE/SURVEY CONTROL DATA IS FURNISHED ON THE PLAN DRAWINGS (UNDER MISCELLANEOUS TABLES). PAYMENT SHALL BE INCLUDED IN THE SURVEY STAKEOUT ITEM 136.

DRAINAGE NOTES:

1. EXISTING DRAINAGE PIPE INVERTS ARE TO BE VERIFIED BY THE CONTRACTOR WHERE REQUIRED TO FACILITATE REPAIRS AS SHOWN ON THE PLANS OR WHERE DIRECTED BY THE ENGINEER. WHERE NEW DRAINAGE PIPE INVERTS ARE SHOWN ON THE PLANS, THEY SHALL BE MODIFIED AS FIELD CONDITIONS REQUIRE AND AS DIRECTED BY THE ENGINEER RESPONSIBLE FOR CONSTRUCTION INSPECTION.

2. ALL DRAINAGE STRUCTURES WITHIN THE PROJECT LIMITS MUST BE MAINTAINED AND BE OPERABLE AT ALL TIMES DURING CONSTRUCTION.

3. THE CONTRACTOR SHALL FURNISH AND INSTALL EXCAVATION AND PROTECTION SYSTEMS AS REQUIRED FOR THE INSTALLATION OF NEW, AND MODIFICATIONS TO EXISTING DRAINAGE STRUCTURES. COSTS FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 10A-1-EXCAVATION PROTECTION SYSTEM, WHEN INCLUDED IN THE CONTRACT.

4. THE CONTRACTOR SHALL VERIFY EXISTING DRAINAGE STRUCTURE SIZES AND TYPES PRIOR TO MAKING ANY MODIFICATIONS TO TOP SLAB, CASTINGS, OR ANY OTHER MODIFICATIONS THAT MAY BE REQUIRED.

5. PRIOR TO THE INSTALLATION OF NEW DRAINAGE, THE CONTRACTOR SHALL DIG TEST HOLES AT NEW STRUCTURE LOCATIONS TO DETERMINE THE EXACT LOCATION OF THE EXISTING UNDERGROUND UTILITIES. IF IT IS DETERMINED BY THE ENGINEER RESPONSIBLE FOR CONSTRUCTION INSPECTION THAT A CONFLICT EXISTS BETWEEN THE EXISTING UTILITIES AND THE NEW DRAINAGE STRUCTURE LOCATIONS, THE CONTRACTOR SHALL SUBSTITUTE AND INSTALL OFFSET OR OTHER TYPE OF CATCH BASINS IN LIEU OF THE STRUCTURES SHOWN ON THE PLANS.TEST HOLES SHALL BE PAID FOR UNDER ITEM 122-TEST HOLES.

6. CURB BOX AND FRAME TYPE "A" AND GRATE TYPE "A" SHALL BE USED FOR CATCH BASINS TYPES "A", "C" AND "11" UNLESS OTHERWISE NOTED. PAYMENT SHALL BE MADE UNDER ITEM 34-MISCELLANEOUS METALS.

7. ALL EXISTING DRAINAGE CASTINGS ARE THE PROPERTY OF THE COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS AND UPON REMOVAL FROM STRUCTURES, THEY SHALL BE PROPERLY STORED AND PROTECTED, UNTIL SUCH TIME THAT THEY MAY BE REMOVED BY THE NASSAU COUNTY HIGHWAY DEPARTMENT. THE CONTRACTOR WILL NOTIFY THE HIGHWAY DEPARTMENT IN WRITING WHERE AND WHEN THESE CASTINGS MAY BE REMOVED FROM THE JOB SITE.

SILT PROTECTION/EROSION CONTROL

1. ALL CATCH BASINS MUST BE PROTECTED PRIOR TO THE START OF WORK - ITEM 141B & ITEM 141C, UNLESS OTHERWISE DIRECTED BY THE ENGINEER RESPONSIBLE FOR THE CONSTRUCTION INSPECTION.

2. GROUND WATER MAY BE ENCOUNTERED DURING THE INSTALLATION OF THE VARIOUS CONTRACT ITEMS. THE COST FOR NECESSARY DEWATERING SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

3. ALL NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PREVENT DIRECT OR INDIRECT CONTAMINATION OF ALL WATER BODIES BY SILT, SEDIMENT, ROADWAY MILLINGS, FUELS SOLVENTS, LUBRICANTS, CONCRETE LEACHATE, OR ANY OTHER POLLUTANT ASSOCIATED WITH CONSTRUCTION AND CONSTRUCTION PROCEDURES. DURING CONSTRUCTION, NO WET OR FRESH CONCRETE OR LEACHATE SHALL BE ALLOWED TO ESCAPE DIRECTLY OR INDIRECTLY INTO ANY WATER BODIES, NOR SHALL WASHINGS FROM CONCRETE TRUCKS, MIXERS, OR OTHER DEVISES BE ALLOWED TO ESCAPE DIRECTLY OR INDIRECTLY INTO ANY WATER BODIES. THE CONTRACTOR SHALL TAKE CARE TO REMOVE ALL MILLINGS AT THE END OF EACH WORK DAY, BY METHODS OUTLINED UNDER THE PAVING SECTION OF THESE GENERAL NOTES OR METHODS AS APPROVED BY THE ENGINEER, SO AS NOT TO DIRECTLY OR INDIRECTLY CAUSE SAID MILLINGS TO BE DEPOSITED INTO SURFACE WATERS. THE COST TO PERFORM THIS WORK IS TO BE INCLUDED IN THE UNIT PRICES BID FOR THE VARIOUS CONTRACT ITEMS, UNLESS OTHER METHODS OF PAYMENT ARE SPECIFIED WITHIN THE CONTRACT DOCUMENTS.

CLEANING OF EXISTING DRAINAGE

1. ALL EXISTING CATCH BASINS THAT LIE WITHIN THE CONTRACT LIMITS, AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER SHALL BE CLEANED UNDER ITEM 12H. CONNECTING PIPES SHALL BE CLEANED FOR A DISTANCE OF 3 FT FROM THE INSIDE WALL OF EACH STRUCTURE. THE COST OF THIS CLEANING SHALL BE INCLUDED UNDER ITEM 12H, UNLESS THE REMAINING PIPE (BEYOND 3 FT) IS MORE THAN 25% FULL AS DETERMINED BY THE ENGINEER. IF IT IS MORE THAN 25% FULL, THE ENTIRE PIPE SHALL BE CLEANED UNDER ITEM 12H, AND MEASUREMENT FOR PAYMENT WILL BE MADE BETWEEN THE INSIDE WALL SURFACES OF ADJACENT MANHOLES OR OTHER DRAINAGE STRUCTURES

2. EXISTING DRAINAGE PIPE SHALL BE CLEANED AS DIRECTED BY THE ENGINEER ON AN AS NEEDED BASIS. A DETAILED LISTING OF THE EXISTING DRAINAGE PIPES WITHIN THE PROJECT IS NOT PROVIDED ON THE PLANS OR KNOWN AT THIS TIME. HOWEVER, AN ESTIMATE OF THE QUANTITY OF LINEAR FEET OF PIPE TO BE CLEANED IS PROVIDED FOR BIDDING PURPOSES, AND MAY BE INCREASED OR DECREASED BASED ON ACTUAL FIELD CONDITIONS ENCOUNTERED AND AS DIRECTED BY THE ENGINEER. THE QUANTITY PROVIDED IS BASED ON THAT ESTIMATE. PAYMENT FOR CLEANING EXISTING PIPE AS ORDERED BY THE ENGINEER SHALL BE PAID FOR UNDER BID ITEM 12H.

3. THE WORK INVOLVED IN CLEANING THE EXISTING DRAINAGE BASINS, ITEM 12H-X, IS TO BE DONE IMMEDIATELY PRIOR TO MILLING. AT EACH BASIN THE CONTRACTOR IS TO PROGRESS THE CLEANING WHILE OBSERVING THE BASIN WALLS. IF PORTIONS OF ANY BASINS WALLS ARE SIGNIFICANTLY DETERIORATED, AS DETERMINED BY THE ENGINEER, CLEANING SHALL TERMINATE. PAYMENT WILL BE MADE UNDER ITEM 12 H-X REGARDLESS OF THE EXTENT TO WHICH THE BASIN HAS BEEN CLEANED. THE ENGINEER WILL THEN DETERMINE IF THE BASIN CAN REMAIN AS IS OR IS TO BE ABANDONED, REPAIRED, OR REPLACED. AS THIS DETERMINATION CANNOT BE MADE BY THE ENGINEER UNTIL THE CLEANING OF THE DRAINAGE STRUCTURE IS ADVANCED, CERTAIN ITEMS AND QUANTITY OF WORK RELATED TO THE POTENTIAL NEED TO ABANDON, REPAIR, OR REPLACE EXISTING DRAINAGE STRUCTURES HAS BEEN ADDED TO THIS CONTRACT AS CONTINGENCY ITEMS.

REMOVAL AND REINSTALLATION OF SIGNS NOTES

1. WORK TO BE DONE UNDER THIS CONTRACT SHALL INCLUDE THE REMOVAL, SAFE STORAGE AND REPLACEMENT OF ALL STREET NAME SIGNS, REGULATORY OR OTHER TRAFFIC SIGNS WHERE SUCH REMOVAL AND REPLACEMENT IS NECESSARY TO COMPLETE THE WORK. THE CONTRACTOR SHALL SUPPLY AND INSTALL A 3" DIAMETER PVC SLEEVE OF NECESSARY LENGTH TO FACILITATE THE REINSTALLATION OF STREET NAME SIGNS, REGULATORY AND PARKING SIGNS IN PAVED AREAS, (CONCRETE OR ASPHALT). THE COST SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS.

MAINTENANCE OF TRAFFIC NOTES

1. THE CONTRACTOR SHALL PERFORM HIS WORK IN SUCH A MANNER AND SEQUENCE THAT INTERFERENCE, RESTRICTIONS AND DELAYS TO THE TRAVELING PUBLIC WILL BE KEPT TO AN ABSOLUTE MINIMUM.

2. THE CONTRACTOR SHALL PROVIDE SAFE AND PASSABLE WALKWAYS THAT ARE ADA COMPLIANT, FOR PEDESTRIAN TRAFFIC WITHIN THE PROJECT LIMITS.

3. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE PROVISIONS OF THE NEW YORK STATE SUPPLEMENT TO THE NATIONAL MUTCD. IN ADDITION, WORK ZONE TRAFFIC CONTROL DRAWINGS AS MAY BE REQUIRED SHALL BE IN ACCORDANCE WITH THE APPLICABLE NYSDOT STANDARD DRAWINGS FOR SECTION 619-WORK ZONE TRAFFIC CONTROL AND SHALL BE SUBMITTED TO NCDPW FOR REVIEW AND ACCEPTANCE. WORK ZONE TRAFFIC CONTROL DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR FOR ANY AND ALL PROJECT ROADWAY SEGMENTS REQUIRING DETOURS AND/OR LANE CLOSURES TO SAFELY EXECUTE THE PROJECT WORK, AS DETERMINED BY THE COUNTY AND/OR THEIR REPRESENTATIVES.

4. SEE ADDITIONAL NOTES FOR MAITENANCE OF TRAFFIC ON DRAWING NO. XX - WORK ZONE TRAFFIC CONTROL.

ADA CURB RAMP NOTES

1. ALL CURB RAMPS TO BE INSTALLED WHERE SHOWN ON THE PLANS OR AS ORDERED BY THE ENGINEER SHALL BE IN COMPLIANCE WITH ADA, PROWAG, AND NCDPW STANDARDS.

2. THE CONTRACTOR SHALL VERIFY THE PLACEMENT OF ALL NEW RAMP CONFIGURATIONS PRIOR TO INSTALLATION. THE CONTRACTOR MUST GIVE 48HRS (2 BUSINESS DAYS) NOTIFICATION FOR NCDPW APPROVAL.

3. A NCDPW INSPECTOR MUST BE PRESENT DURING THE INSTALLATION OF ANY CURB RAMP.

4. IT IS RECOMMENDED THAT A SMART LEVEL TOOL (OR EQUIVALENT) IS USED TO CHECK THE SLOPES ON ALL FORM WORK PRIOR TO THE PLACEMENT OF CONCRETE.

5. NCDPW CIVIL ENGINEERING UNIT MUST BE NOTIFIED IN WRITING OF ANY WORK DONE TO CURB EXISTING CURB RAMPS SO THAT NASSAU COUNTY OR THEIR REPRESENTATIVES CAN UPDATE THE COUNTY'S TRANSITION PLAN INVENTORY.

PAVING

1. TACK COAT SHALL BE APPLIED WHENEVER RESURFACING:(1) ANY PORTLAND CEMENT CONCRETE PAVEMENT RECEIVING AN OVERLAY; 2) ANY MILLED PAVEMENT; AND (3) ANY ASPHALT CONCRETE PAVEMENT EXCEPT WHEN THE EXISTING SURFACE IS EXCESSIVELY FLUSHED, AS DETERMINED BY THE ENGINEER. IN ADDITION, TACK COAT SHALL BE APPLIED TO CONTACT SURFACES BETWEEN ALL HOT MIX ASPHALT PAVEMENT LIFTS REGARDLESS OF TIME PERIOD BETWEEN LIFTS OR CONSTRUCTION VEHICLE USE.

2. WHERE NOTCHES ARE CUT INTO THE EXISTING PAVEMENT IN PREPARATION FOR THE PAVEMENT RESTORATION, THE CONTRACTOR SHALL SAW CUT AND TAKE CARE TO MAINTAIN THE VERTICAL EDGE OF THE RESTORATION LIMIT PRIOR TO PAVING. SAW CUTTING SHALL BE PAID FOR ONCE UNDER ITEM 58RPC. ADDITIONAL SAW CUTTING REQUIRED TO MAINTAIN A VERTICAL EDGE PRIOR TO PAVING SHALL BE DONE AT THE CONTRACTORS EXPENSE. THE CONTRACTOR SHALL EITHER PLACE THE PROPOSED ASPHALT RESTORATION IMMEDIATELY OR PLACE A TEMPORARY WEDGE (1 ON 60) OF ASPHALT TO ELIMINATE THE BUMP CREATED BY THE NOTCH. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE PAVING ITEMS.

3. DURING PAVING OPERATIONS, THE CONTRACTOR SHALL ENSURE THAT THE VERTICAL CHANGE (BETWEEN THE FINISHED PAVEMENT AND THE RAMP) AT ALL THE SIDEWALK CURB RAMPS WITHIN THE PROJECT LIMITS IS LESS THAN ONE-EIGHT INCH (1/8") ACROSS THE ENTIRE RAMP WIDTH.

4. THE CONTRACTOR SHALL FULLY RESTORE ALL ON-STREET PARKING ON ALL ROADWAYS AND AFFECTED SIDE STREETS WITHIN THE PROJECT LIMITS BEFORE THE END OF EACH WORK SHIFT. LOCAL AGENCIES AND AFFECTED BUSINESS ESTABLISHMENTS SHALL BE GIVEN A MINIMUM OF SEVENTY-TWO (72) HOUR ADVANCED NOTICE PRIOR TO THE PLANNED CLOSURES OF THE ON-STREET PARKING AREAS.

CONCRETE PAVEMENT REPAIR NOTES:

1. IN AREAS WHERE COMPOSITE PAVEMENT REPAIRS ARE NOTED ON THE PLANS OR WHERE DIRECTED BY THE ENGINEER, AND CONCRETE PAVEMENT REPAIRS ARE TO BE MADE UNDER ITEM 23SP-CONCRETE FOUNDATION FOR PAVEMENT, THE CONTRACTOR SHALL USE CLASS F HIGH EARLY STRENGTH CONCRETE. THE USE OF STEEL PLATES TO PROTECT THE CONCRETE REPAIR DURING ITS CURING TIME AND TO PERMIT OPENING OF THE ROADWAY TO TRAFFIC AT THE END OF THE WORK DAY SHALL BE PERMITTED. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE COUNTY FOR APPROVAL DEPICTING THE STEEL PLATE TO BE USED AND THE METHOD PROPOSED TO POSITION AND SECURE THE PLATE AT THE REPAIR LOCATION SO AS TO AVOID DISLOCATION OF THE STEEL PLATE DURING ITS USE.

PAVEMENT MARKING NOTES:

1. AFTER THE PAVEMENT RESTORATION IS COMPLETE, THE CONTRACTOR SHALL PLACE PERMANENT PAVEMENT MARKINGS TO MATCH EXISTING ADJACENT MARKINGS.

AS THIS WORK IS MINIMAL IN NATURE, PAYMENT RESTORING MISSING PAVEMENT MARKINGS AS A RESULT OF THE PROPOSED WORK SHALL BE INCLUDED UNDER THE VARIOUS CONTRACT BID FOR THE PROJECT.

WORK HOURS NOTES:

1. FOR THIS PROJECT, NORMAL WORK HOURS SHALL BE 8:00 AM TO 4:30 PM. HOURS FOR WORK ON ROADWAYS SHALL BE 9:00 AM TO 4:00 PM UNLESS OTHERWISE NOTED OR APPROVED BY THE COUNTY. LANE CLOSURES ARE ONLY PERMITTED ON NON-HOLIDAY WEEKDAYS BETWEEN 10:00 AM AND 3:00 PM IN ACCORDANCE WITH THE APPROVED SCHEDULE. UNLESS OTHERWISE PROVIDED IN THE CONTRACT DOCUMENTS OR APPROVED BY THE COUNTY, NO LANE CLOSURES WILL BE PERMITTED ON WEEKENDS.

2. WORK IS NOT PERMITTED ON ALL HOLIDAYS UNLESS PRIOR COUNTY APPROVAL IS OBTAINED. THIS INCLUDES MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, VETERANS DAY, FROM NOON BEFORE THANKSGIVING DAY THROUGH THE SUNDAY FOLLOWING THANKSGIVING DAY, CHRISTMAS EVE, CHRISTMAS DAY, NEW YEAR'S EVE, NEW YEAR'S DAY; AND THE JEWISH HOLIDAYS, INCLUDING: ROSH HASHANA, SUKKOT, SHMINI ATZERET, SIMCHAT TORAH, AND YOM KIPUR. SIMILAR PROVISIONS SHALL APPLY TO CONSTRUCTION DURING OTHER OBSERVED HOLIDAYS NOT SPECIFICALLY LISTED HEREIN.

3. SEE WORK ZONE TRAFFIC CONTROL DRAWINGS FOR ADDITIONAL NOTES AND PERMITTIED WORK TIMES.

SPECIAL NOTES:

1. THE CONTRACTOR IS REQUIRED TO COORDINATE HIS WORK WITH PUBLIC AGENCIES AND PRIVATE UTILITY COMPANIES TO AVOID CONFLICTS AND TO ARRANGE FOR CASTINGS AND APPURTENANCES WHICH ARE TO BE ADJUSTED BY OTHERS IN ADVANCE OF PERFORMING ANY FINAL PAVEMENT OVERLAY WORK.

2. THE AREAS AND TYPES OF PAVEMENT REPAIRS SHOWN ON THE PLANS WERE THE RESULT OF A FIELD INSPECTION TO ASSESS THE CONDITIONS AND TYPE OF THE EXISTING ROADWAY SURFACE AND UNDERLAYMENT PAVEMENT TO BE DISRUPTED BY THE PROPOSED WORK AND SUBSEQUENTLY REPAIRED.

3. THE CONTRACTOR IS REQUIRED TO OBTAIN APPROVAL FOR PROPOSED SIDEWALK RAMP TYPE AND LAYOUT FROM THE COUNTY REPRESENTATIVE PRIOR TO CONSTRUCTING ANY NEW SIDEWALK RAMPS.

4. THE CONTRACTOR IS REQUIRED TO OBTAIN APPROVAL OF LAYOUT OF PROPOSED PAVEMENT MARKINGS FROM THE COUNTY REPRESENTATIVE PRIOR TO STRIPING THE PERMANENT PAVEMENT MARKINGS.

5. THE CONTRACTOR SHALL PREPARE AND SUBMIT A PROJECT SCHEDULE INDICATING ANTICIPATED DURATION OF EACH WORK OPERATIONS BY LOCATION AND TYPE AND ANY PLANNED LANE CLOSURES TO THE COUNTY FOR REVIEW AND APPROVAL PRIOR TO STARTING ANY WORK. THEREON, THE CONTRACTOR SHALL PREPARE AND SUBMIT WEEKLY PROJECT SCHEDULES, INDICATING THE SAME, TO THE COUNTY NO LATER THAN THE FRIDAY MORNING BEFORE THE SUBJECT WEEK.

THE CONTRACTOR SHALL, AT LEAST SEVENTY-TWO (72) HOURS IN ADVANCE, NOTIFY THE POLICE, SCHOOL DISTRICTS WITH BUS ROUTES IN THE AREA, FIRE DEPARTMENT, ETC. IN WRITING WITH A COPY TO THE COUNTY. IF THE CLOSURE OF A STREET OR ROAD IS NECESSARY, THE CONTRACTOR SHALL COOPERATE WITH THE POLICE DEPARTMENT IN THE ESTABLISHMENT OF ALTERNATE ROUTES AND SHALL PROVIDE ADEQUATE DETOUR SIGNS, PLAINLY MARKED AND IN ACCORDANCE WITH THE MUTCD, IN ORDER TO MINIMIZE CONFUSION. THE CONTRACTOR SHALL MAINTAIN THE ROADWAY IN A "PASSABLE" CONDITION FOR THE USE OF EMERGENCY VEHICLES AT ALL TIMES DURING THE CONSTRUCTION. ACCESSIBILITY TO FIRE HYDRANTS, POLICE AND FIRE CALL BOXES SHALL BE MAINTAINED AT ALL TIMES.

6. THE CONTRACTOR SHALL MAINTAIN SAFE AND ADEQUATE VEHICULAR AND PEDESTRIAN ACCESS TO BUSINESSES AND RESIDENCES WITHIN THE PROJECT LENGTH. THE CONTRACTOR SHALL NOTIFY, IN WRITING, PROPERTY OWNERS AT LEAST TWO (2) WORKING DAYS IN ADVANCE OF CLOSING DRIVEWAYS. THIS WORK MAY INCLUDE PROVIDING TEMPORARY PLYWOOD OR ASPHALT WALKWAYS OR INSTALLING TEMPORARY RAMPS AND/OR STEEL PLATES TO OPEN DRIVEWAYS DURING OR AT THE END OF EACH DAY.

7. ALL CASTINGS OVER 1" ABOVE SURROUNDING PAVEMENT SHALL PROTECTED BY THE CONTRACTOR BY A CONSTRUCTION DRUM AND FLASHING LIGHT. THE CONTRACTOR, AT THEIR OPTION, MAY RAMP THE PROTRUDING CASTING ON A 1 ON 10 SLOPE WITH THE TEMPORARY ASPHALT ITEM.

8. WITH REGARD TO ITEM 102PVMS (PORTABLE VARIABLE MESSAGE SIGN - LED ENHANCED DISK MATRIX) THE NUMBER OF DAYS PER PVMS SHALL BE MEASURED AS THE NUMBER OF DAYS A PVMS IS IN-PLACE AND OPERATIONAL (I.E., DISPLAYING A MESSAGE). ANY PVMS THAT IS NOT IN-PLACE SHALL NOT BE MEASURED FOR PAYMENT. ADDITIONALLY, ANY PVMS THAT IS IN-PLACE, BUT NOT DISPLAYING A MESSAGE SHALL NOT BE MEASURED FOR PAYMENT.

9. DEWATERING - THE CONTRACTOR SHALL AT ALL TIMES DURING THE PROGRESS OF THE WORK KEEP THE TRENCHES AND EXCAVATIONS FREE FROM WATER. THE WATER FROM THE TRENCHES AND EXCAVATIONS SHALL BE DISPOSED OF IN SUCH A MANNER AS WILL NOT CAUSE INJURY TO THE PUBLIC HEALTH, NOR TO PUBLIC OR PRIVATE PROPERTY, NOR TO THE WORK COMPLETED OR IN PROGRESS, NOR TO THE SURFACE OF THE STREETS, SURFACE WATERS WHERE APPLICABLE, NOR CAUSE ANY INTERFERENCE WITH THE USE OF THE SAME BY THE PUBLIC. ALL STORM DRAINS AND PIPES USED FOR DISPOSAL OF WATER FROM THE TRENCHES AND EXCAVATION DURING CONSTRUCTION SHALL BE ACCEPTABLY CLEANED AND PROTECTED FROM SILT DEPOSITS.

WHEN IN ORDER TO COMPLY WITH THE ABOVE, IT IS DEEMED NECESSARY TO WIDEN THE TRENCH BEYOND THE ALLOWABLE MAXIMUM WIDTH, TO PERMIT THE INSTALLATION OF WELL-POINTS, THE CONTRACTOR SHALL, AS DIRECTED BY THE ENGINEER, PROVIDE EITHER PIPE OF ADDITIONAL STRENGTH OR CONCRETE ENCASEMENT AT NO ADDITIONAL COST TO THE COUNTY.

THE CONTRACTOR SHALL, WITH HIS OWN EQUIPMENT, PROVIDE DEWATERING WHERE REQUIRED AT NO ADDITIONAL COST TO THE COUNTY. THE COST FOR ALL LABOR, EQUIPMENT, MATERIALS, ETC. REQUIRED TO DISPOSE OF WATER FROM THE EXCAVTIONS SHALL BE DEEMED INCLUDED IN THE PRICES BID FOR ALL ITEMS OF THE CONTRACT.

ALL DEWATERING AND DISCHARGE PIPES AND HOSES WHICH CROSS TRAVELED ROADWAYS SHALL BE PLACED IN SUCH A MANNER SO AS TO ELIMINATE ANY DISRUPTION OF TRAFFIC FLOW. IF ORDERED BY THE ENGINEER, THE CONTRACTOR SHALL PLACE THE PIPES AND HOSES IN SHALLOW TRENCHES WHICH WILL THEN BE PLATED OVER. ALL HEADER PIPE SHALL BE BURIED BELOW EXISTING ROADWAY GRADE AT DRIVEWAYS IN ORDER TO MAINTAIN ACCESS TO DRIVEWAYS. ALL PLATES SHALL BE FIRMLY SECURED SO AS TO ELIMINATE ANY POSSIBLE SHIFT OR MOVEMENT.

DEWATERING BY MEANS OF WELL POINTS OR DEEP WELLS WILL NOT BE ALLOWED WHERE THE RATE OF PUMPING EXCEEDS FORTY-FIVE (45) GALLONS PER MINUTE UNLESS THE APPROPRIATE PERMIT HAS BEEN SECURED FROM THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

WHERE THE SUBGRADE OF THE TRENCH CANNOT BE MAINTAINED IN A DRY CONDITION, THE CONTRACTOR SHALL EXCAVATE THE TRENCH TO AN ADDITIONAL DEPTH OF SIX (6") INCHES BELOW THE SUBGRADE OF THE SEWER AND BACKFILL THE TRENCH TO THE SUBGRADE OF THE SEWER WITH STONE BALLAST. THE COST FOR THIS ADDITIONAL EXCAVATION, SHEETING, INSTALLATION OF STONE BALLAST, LABOR, MATERIALS, PLANT, EQUIPMENT AND INSURANCE REQUIRED OR NECESSARY TO COMPLETE THIS WORK SHALL BE DEEMED INCLUDED IN THE PRICES BID FOR THE RESPECTIVE DRAINAGE ITEMS.

SURVEY CONTROL TO BE ADDED POST 60% SUBMISSION

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC SHEETS\SC-01.DWG
Plot Date: 10/8/2019 9:31 AM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: SURVEY CONTROL 01

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: SC-01	
SCALE: -	SHEET NO: 5 OF 39	

TABLE OF WORK

ITEM	DESCRIPTION:	UNITS	QUANTITY BY LOCATION															AOBE	ITEM TOTAL
			CP-01	CP-02	CP-03	CP-04	CP-05	CP-06	CP-07	CP-08	CP-09	CP-10	CP-11	CP-12	CP-13	CP-14	CP-15		
1 M / F	MOBILIZATION WITH FIELD OFFICE	LS / NEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1S	JOB INFORMATION SIGN	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	UNCLASSIFIED EXCAVATION AND DISPOSAL	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	TRENCH, CULVERT AND BRIDGE EXCAVATION	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4A	CEMENT CONCRETE BREAKING (PAVEMENT)	SY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4B	CEMENT CONCRETE BREAKING (STRUCTURES)	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5D	SELECT GRANULAR FILL	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7	PREARING FINE GRADING	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10A-1	EXCAVATION PROTECTION SYSTEM	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-TF-15SS	15" TIDEFLEX IN-LINE CHECK VALVE	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-TF-24SS	24" TIDEFLEX IN-LINE CHECK VALVE	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12-TF-48SS	48" TIDEFLEX IN-LINE CHECK VALVE	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12A-4-18	18" CLASS IV REINFORCED CONCRETE PIPE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12A-4-24	24" CLASS IV REINFORCED CONCRETE PIPE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12A-4-48	48" CLASS IV REINFORCED CONCRETE PIPE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12DIP-15	15" DUCTILE IRON PIPE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12DIP-18	18" DUCTILE IRON PIPE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12H	CLEANING EXISTING DRAINAGE SYSTEM	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13A	CATCH BASINS	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13BP-5	PRECAST MANHOLE 5' DIAMETER	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13BP-SS-7.5	90" NYSDOT PRECAST TYPE B MANHOLE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	CONNECTIONS TO EXISTING DRAINAGE STRUCTURES	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
19	SCREENED GRAVEL, LOOSE MEASURE	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
20	BROKEN STONE, LOOSE MATERIAL	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
23SP	CONCRETE FOUNDATION FOR PAVEMENT	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	CEMENT CONCRETE PAVEMENT	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	CONCRETE CURB	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
26	CONCRETE CURB & GUTTER	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
27	CEMENT CONCRETE SIDEWALK	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	CEMENT CONCRETE DRIVEWAY AND APRONS	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
34	MISCELLANEOUS METALS	LB	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)	TON	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
40R	RESET EXISTING STONE BLOCK PAVEMENT	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
60	ALTER WATER SERVICE CONNECTIONS	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
62SS	RELOCATE BURIED ELECTRICAL SERVICE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
64	RESET EXISTING FENCE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
65B	TRANSPLANTING EXISTING TREES AND SHRUBS	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102	WORK ZONE TRAFFIC CONTROL	LS / NEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102PVMS	PORTABLE MESSAGE SIGN	DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120-SS	RELOCATION OF EXISTING LIGHT POLES (COMPLETE)	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
121	DRYBOUND BASE COURSE	CY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
122	TEST HOLES	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
136	SURVEY STAKEOUT	LS/NEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141B	SILT PROTECTION FOR SURFACE INLET DRAINAGE STRUCTURES	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
141C	SILT PROTECTION FOR CURB INLET DRAINAGE STRUCTURES	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
368	TOPSOIL AND GRASS SEED	SY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
372	TREE REMOVAL	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
419S-075	FURNISH AND INSTALL 3/4" DIAMETER STEEL CONDUIT	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
419Z	CLEAN EXISTING CONDUIT	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
422L	FURNISH AND INSTALL LOOP WIRE	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
422LS	FURNISH AND INSTALL LOOP SAW CUT	LF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC TABLES\MST-01.DWG
Plot Date: 10/8/2019 9:31 AM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: MISCELLANEOUS TABLES 01 TABLE OF WORK

GPI JOB NO: 2018042.00
CONTRACT NO: H60052-01D
PHASE: 60%
DATE: 10/08/2019
DRAWING NO: MST-01
SCALE: -
SHEET NO: 6 OF 39

TABLE OF DRAINAGE STRUCTURES

STRUCTURE NO.	STRUCTURE TYPE	STATION	OFFSET	FRAME TYPE	GRATE / COVER	EXISTING RIM	PROPOSED RIM	PIPE INVERT ELEVATION	CONNECT TO STRUCTURE NO.	PIPE SIZE	REMARKS
LOCATION - DRAWING NO. CP-01											
MH 6043**	EXISTING MH			-	-	6.42	-	-2.60 (W) N/A	PROPOSED MH 1 MH 13011**	48" RCP 30" RCP	CLEAN AND INVENTORY EXISTING DRAINAGE MANHOLE TO CONFIRM OR DETERMINE THE PROPOSED INVERT OF PROPOSED MH 1
MH 1	7'-6" NYSDOT PRECAST Type B Manhole			STD. NCDPW MH FRAME	NCDPW EMBOSSED MH COVER	N/A	6.5	-2.95 (W) -2.87 (E)	OUTFALL 7005** MH 6043**	48" RCP 48" RCP	PROPOSED MH TO RECEIVE CHECK VALVE
LOCATION - DRAWING NO. CP-02											
CB 6045**	EXISTING CB			-	-	4.77	-	1.6	OUTFALL 7006**	15" RCP	EXISTING CB TO RECEIVE CHECK VALVE
LOCATION - DRAWING NO. CP-03											
CB 6047**	EXISTING CB			-	-	4.79	-	2.1	OUTFALL 7003**	15" RCP	EXISTING CB TO RECEIVE CHECK VALVE
LOCATION - DRAWING NO. CP-04											
MH 11005**	EXISTING MH			-	-	5.37	-	-4.05 (N) -2.5 (S) 1.9 (E)	OUTFALL 13076** MH 13002** CB 6049**	24" RCP 24" RCP 15" RCP	CLEAN AND INVENTORY EXISTING DRAINAGE MANHOLE PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED MH 2, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
MH 2	7'-6" NYSDOT PRECAST Type B Manhole			STD. NCDPW MH FRAME	NCDPW EMBOSSED MH COVER	N/A	5.37	-4.05 (N) -2.5 (S) 1.9 (E)	OUTFALL 13076** MH 13002** CB 6049**	24" RCP 24" RCP 15" RCP	PROPOSED MH TO RECEIVE CHECK VALVE
LOCATION - DRAWING NO. CP-05											
CB 11004**	EXISTING CB			-	-	4.87	-	1.6	OUTFALL 7004**	15" RCP	EXISTING CB TO RECEIVE CHECK VALVE
LOCATION - DRAWING NO. CP-06											
CB 2098**	EXISTING CB			-	-	5.85	-	2.2	MH 6097**	15" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 3, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 2096**	EXISTING CB			-	-	5.96	-	3.2	MH 6097**	15" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 4, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 2095**	EXISTING CB			-	-	5.84	-	3.16	MH 6099**	18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 5, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 3	NCDPW TYPE C			TYPE F3 CAST CURB BOX FRAME	RETICULINE TYPE A GRATE	5.85	5.85	2.2	MH 6097**	15" RCP	
CB 4	NCDPW TYPE C			TYPE F3 CAST CURB BOX FRAME	RETICULINE TYPE A GRATE	5.96	5.96	3.2	MH 6097**	15" RCP	
CB 5	NCDPW TYPE C			TYPE F3 WELDED CURB BOX FRAME	RETICULINE TYPE A GRATE	5.84	5.84	3.16	MH 6099**	18" DIP	
LOCATION - DRAWING NO. CP-07											
CB 3074**	EXISTING CB			-	-	6.15	-	2.04	MH 3075**	18" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 6, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 6	NCDPW TYPE C			TYPE F3 CAST CURB BOX FRAME	RETICULINE TYPE A GRATE	6.15	6.15	2.06	MH 3075**	18" RCP	
LOCATION - DRAWING NO. CP-08											
CB 2085**	EXISTING CB			-	-	4.92	-	2.04 (N) 2.04 (E)	MH 2084** CB 2087**	18" DIP 18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 7, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 7	NCDPW TYPE C			TYPE F3 WELDED CURB BOX FRAME	RETICULINE TYPE A GRATE	4.92	4.92	2.04 (N) 2.04 (E)	MH 2084** PROPOSED CB 8	18" DIP 18" DIP	

**REFERS TO DRAINAGE STRUCTURES OR OUTFALL NUMBERS THAT ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC TABLES\MST-02.DWG
Plot Date: 10/8/2019 9:31 AM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT: NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: MISCELLANEOUS TABLES 02
DRAINAGE TABLE PART 1

GPI JOB NO: 2018042.00
CONTRACT NO: H60052-01D
PHASE: 60%
DATE: 10/08/2019
DRAWING NO: MST-02
SCALE: -
SHEET NO: 7 OF 39

TABLE OF DRAINAGE STRUCTURES

STRUCTURE NO.	STRUCTURE TYPE	STATION	OFFSET	FRAME TYPE	GRATE / COVER	EXISTING RIM	PROPOSED RIM	PIPE INVERT ELEVATION	CONNECT TO STRUCTURE NO.	PIPE SIZE	REMARKS
LOCATION - DRAWING NO. CP-09											
CB 2087**	EXISTING CB			-	-	5.35	-	2.70	CB 2085**	18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 8, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 8	NCDPW TYPE C			TYPE F3 WELDED CURB BOX FRAME	RETICULINE TYPE A GRATE	5.35	5.35	2.68	PROPOSED CB 7	18" DIP	
LOCATION - DRAWING NO. CP-10											
CB 2083**	EXISTING CB			-	-	5.26	-	1.6 (E)	MH 2082**	18" DIP 18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB'S 9 & 10, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 9	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	4.63	4.63	1.75	PROPOSED CB 10	18" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
CB 10	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	-	4.63	1.6 (E) 1.70 (W)	MH 2082** PROPOSED CB 9	18" DIP 18" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
LOCATION - DRAWING NO. CP-11											
CB 2081**	EXISTING CB			-	-	4.92	-	1.30 (W)	MH 2082**	18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB'S 11 & 12, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 11	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	4.92	4.92	1.27 (W) 1.30 (E)	MH 2082** PROPOSED CB 12	18" DIP 18" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
CB 12	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	-	5.1	1.4	PROPOSED CB 11	18" RCP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
LOCATION - DRAWING NO. CP-12											
CB 3059**	EXISTING CB			-	-	4.87	-	1.9 (E)	MH 3060**	18" DIP 18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB'S 13 & 14, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 13	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	4.87	4.87	2.02	PROPOSED CB 14	18" RCP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
CB 14	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	-	4.73	1.9 (E) 2.00 (W)	MH 3060** PROPOSED CB 13	18" DIP 18" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
LOCATION - DRAWING NO. CP-13											
CB 2074**	EXISTING CB			-	-	5.36	-	2.50 (W) 2.40 (E)	MH 3061** MH 2075**	18" DIP 18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB'S 15 & 16, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 15	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	5.36	5.36	2.51 (W) 2.40 (E)	MH 3061** PROPOSED CB 16	18" DIP 18" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
CB 16	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	-	5.4	2.40 (W) 2.40 (E)	PROPOSED CB 15 MH 2075**	18" DIP 18" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
LOCATION - DRAWING NO. CP-14											
CB 3039**	EXISTING CB			-	-	5.22	-	1.93 (N)	CB 2087**	15" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 17, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 17	NCDPW TYPE C			TYPE F3 CAST CURB BOX FRAME	RETICULINE TYPE A GRATE	5.22	5.22	1.92	PROPOSED CB 19	15" RCP	
LOCATION - DRAWING NO. CP-15											
CB 2078**	EXISTING CB			-	-	5.36	-	2.90 (W) 2.30 (S)	MH 2076** CB 3039**	18" DIP 18" DIP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB'S 18 & 19, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
CB 18	NCDPW TYPE 11			TYPE F3 WELDED CURB BOX FRAME & STD. NCDPW MH FRAME	RETICULINE TYPE A GRATE	5.42	5.42	2.88 (W) 2.88 (E)	MH 2076** PROPOSED CB 19	15" DIP 15" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
CB 19	NCDPW TYPE A			TYPE F3 WELDED CURB BOX FRAME	RETICULINE TYPE A GRATE	-	5.42	2.88 (W) 2.28 (S)	PROPOSED CB 18 PROPOSED CB 17	15" DIP 15" DIP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE

**REFERS TO DRAINAGE STRUCTURES OR OUTFALL NUMBERS THAT ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC TABLES\MST-03.DWG
Plot Date: 10/8/2019 9:31 AM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

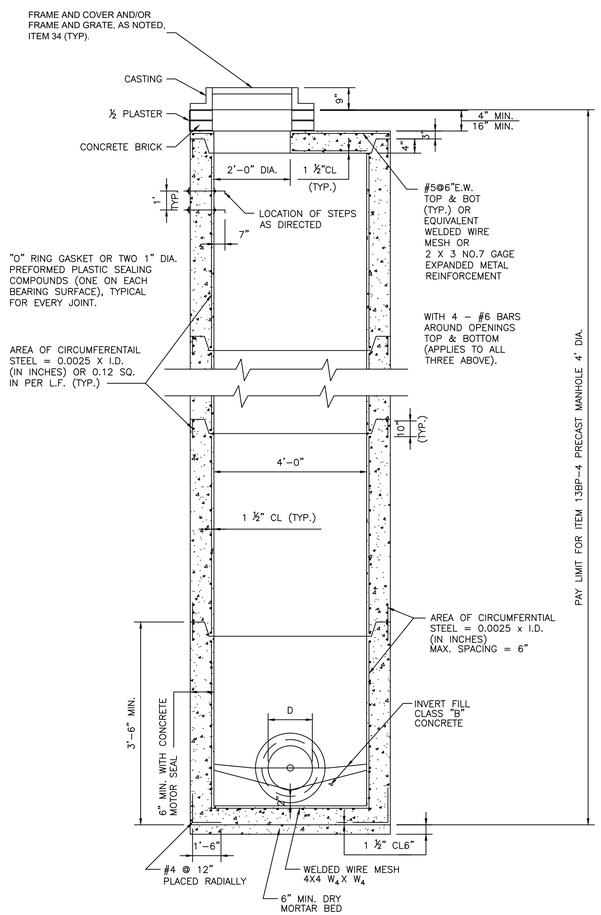
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: MISCELLANEOUS TABLES 03 DRAINAGE TABLE PART 2

GPI JOB NO: 2018042.00
CONTRACT NO: H60052-01D
PHASE: 60%
DATE: 10/08/2019
DRAWING NO: MST-03
SCALE: -
SHEET NO: 8 OF 39



4'-0" DIAMETER PRECAST MANHOLE, ITEM 13BP-4

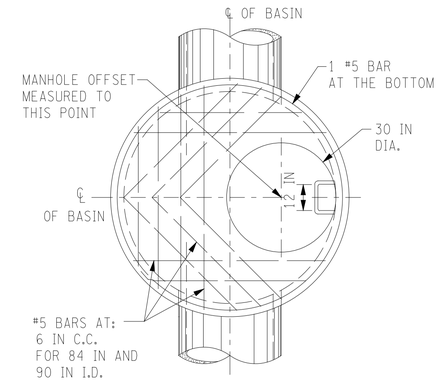
5'-0" DIA. PRECAST MANHOLE, ITEM 13BP-5
6'-0" DIA. PRECAST MANHOLE, ITEM 13BP-6

NOTES:

1. A NO. 2 STEEL HOOP SHALL BE PLACED AROUND ALL PIPE OPENINGS WITH A 1-1/2" CLEARANCE.
2. MIN. COVER ON BAR REINFORCEMENT SHALL BE 2", UNLESS OTHERWISE NOTED.
3. INVERT TO BE CAST IN PLACE.
4. PIPE OPENINGS, IF SQUARE ARE 3" LARGER THAN O.D. OF PIPE, IF ROUND ARE 2" LARGER THAN O.D. OF PIPE.

ESTIMATING NOTES:

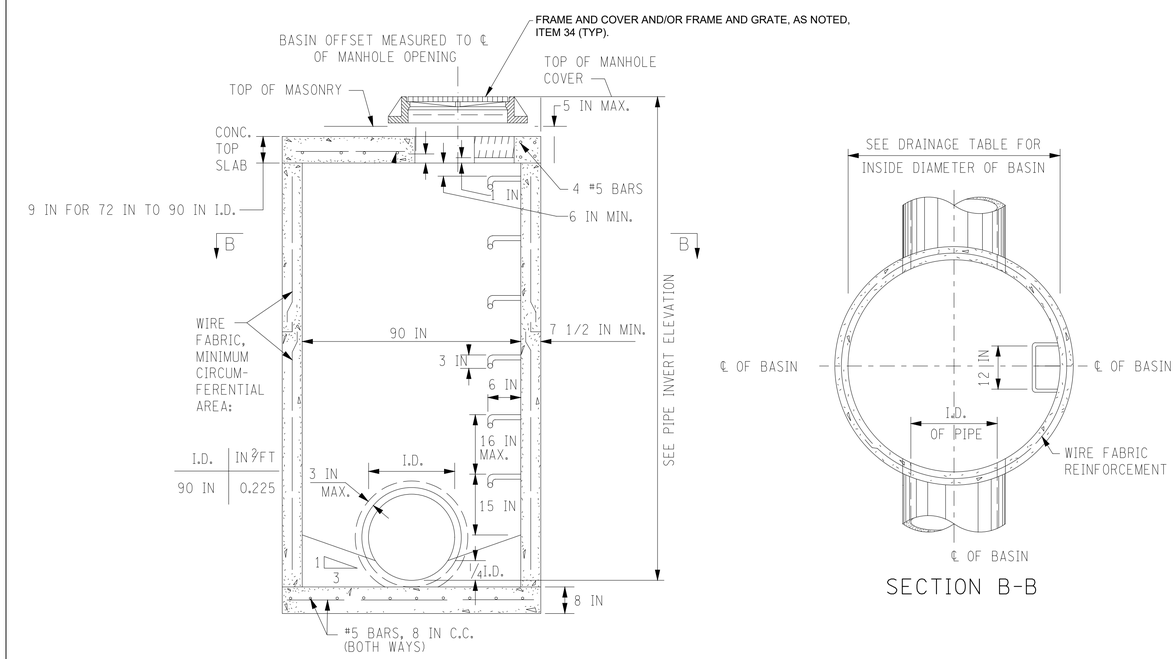
USE THE FOLLOWING ITEM NUMBERS WHEN ESTIMATING THE INSTALLATION OF ALL PROPOSED DRAINAGE STRUCTURES (CATCH BASINS AND/OR MANHOLES)(TYP): ITEM NO'S. 10A, 13BP-5, 13BP-SS-7.5, 34(TYP)



TYPE B MANHOLE

TYPE B DRAINAGE BASINS REQUIRED HORIZONTAL STEEL REINFORCEMENT

DEPTH IN FT	48 IN X 48 IN	48 IN X 60 IN	48 IN X 72 IN	48 IN X 84 IN	48 IN X 90 IN
7 FT – 8 FT		NO REINFORCEMENT REQUIRED			
8 FT – 12 FT					
12 FT – 14 FT					
14 FT – 18 FT			0.25 IN ²/FT		
18 FT – 19 FT					
19 FT – 21 FT					
21 FT – 23.5 FT				0.37 IN ²/FT	
23.5 FT – 26 FT					
26 FT – 29.5 FT					0.5 IN ²/FT



SECTION B-B

7'-6" DIAMETER PRECAST NYSDOT MANHOLE, ITEM 13BP-90SS

NYSDOT TYPE B DRAINAGE BASIN

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

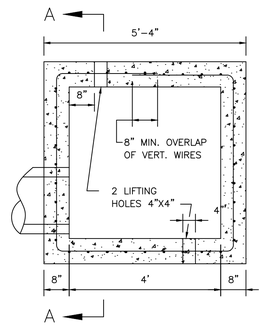
CLIENT:
NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: MISCELLANEOUS DETAILS 01

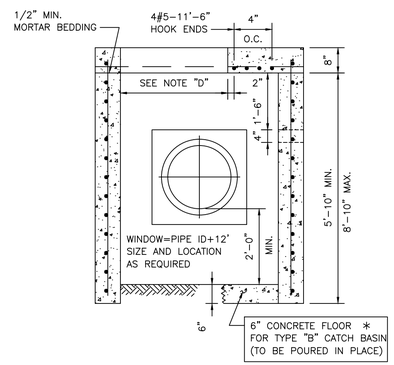
GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: MSD-01	
SCALE: -	SHEET NO: 9 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-01.DWG
Plot Date: 10/8/2019 9:31 AM



PLAN TYPE A

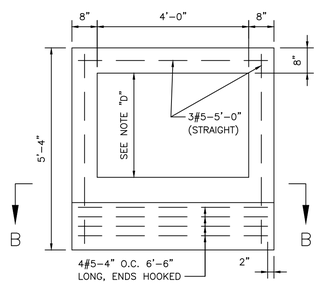
SCALE: 3/8"=1'-0"



SECTION A-A

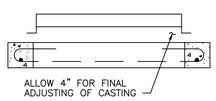
SCALE: 3/8"=1'-0"

"D"=2'-1 1/2" TYPES 1 & 2 FRAME
"D"=2'-7 1/2" TYPE A FRAME



PLAN COVER

SCALE: 3/8"=1'-0"



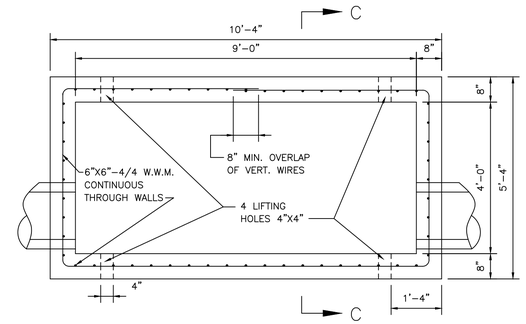
SECTION B-B

SCALE: 3/8"=1'-0"

NOTES:

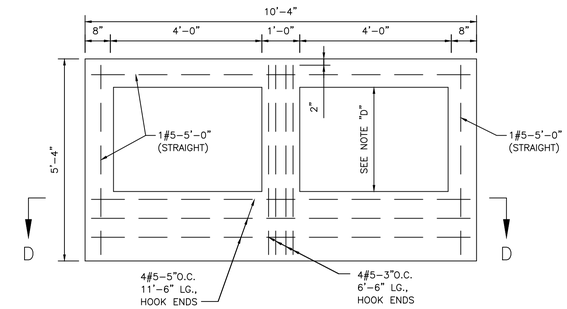
1. REBARS: Fs = 40,000psi A.S.T.M. A-615.
2. W.W.M.; 6"X6"-4/4 Fs = 60,000psi, A.S.T.M. A-185 PROVIDE 1 $\frac{1}{2}$" COVER AT ENDS OF VERTICAL WIRES, 1" RADIUS BENS AT CORNERS.
3. CONCRETE: CLASS "A" AS PER NASSAU CO. SPEC.
4. WINDOW TO BE CAST IN STRUCTURE AS REQUIRED. KNOCK-OUT PANELS WILL NOT BE PERMITTED.

NCDPW TYPE A CATCH BASIN, ITEM 13A



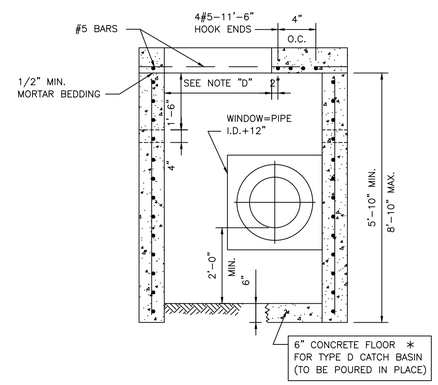
PLAN TYPE C

SCALE: 3/8"=1'-0"



PLAN COVER

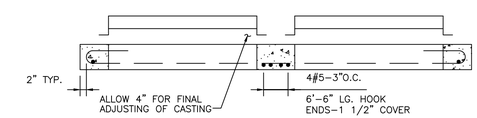
SCALE: 3/8"=1'-0"



SECTION C-C

SCALE: 3/8"=1'-0"

"D"=2'-1 1/2" TYPES 1 & 2 FRAME
"D"=2'-7 1/2" TYPE A FRAME



SECTION D-D

SCALE: 3/8"=1'-0"

NOTES:

1. REBARS: Fs = 40,000psi A.S.T.M. A-615.
2. W.W.M.; 6"X6"-4/4 Fs = 60,000psi, A.S.T.M. A-185 PROVIDE 1 $\frac{1}{2}$" COVER AT ENDS OF VERTICAL WIRES, 1" RADIUS BENS AT CORNERS.
3. CONCRETE: CLASS "A" AS PER NASSAU CO. SPEC.
4. UTILIZE 4 LIFT HOLES FOR HANDLING.
5. WINDOW TO BE CAST IN STRUCTURE AS REQUIRED. KNOCK-OUT PANELS WILL NOT BE PERMITTED.

NCDPW TYPE C CATCH BASIN, ITEM 13A

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-02.DWG
Plot Date: 10/8/2019 9:31 AM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

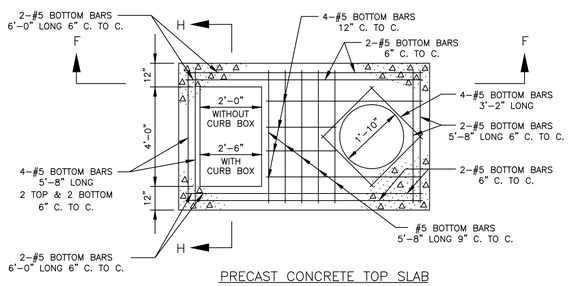
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

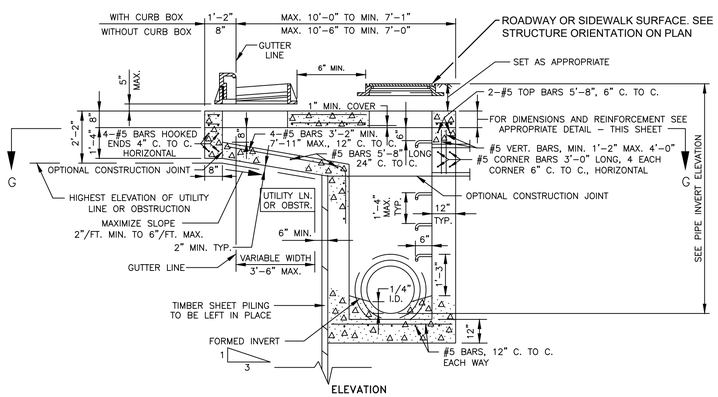
PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: MISCELLANEOUS DETAILS 02

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: MSD-02	
SCALE: -	SHEET NO: 10 OF 39	



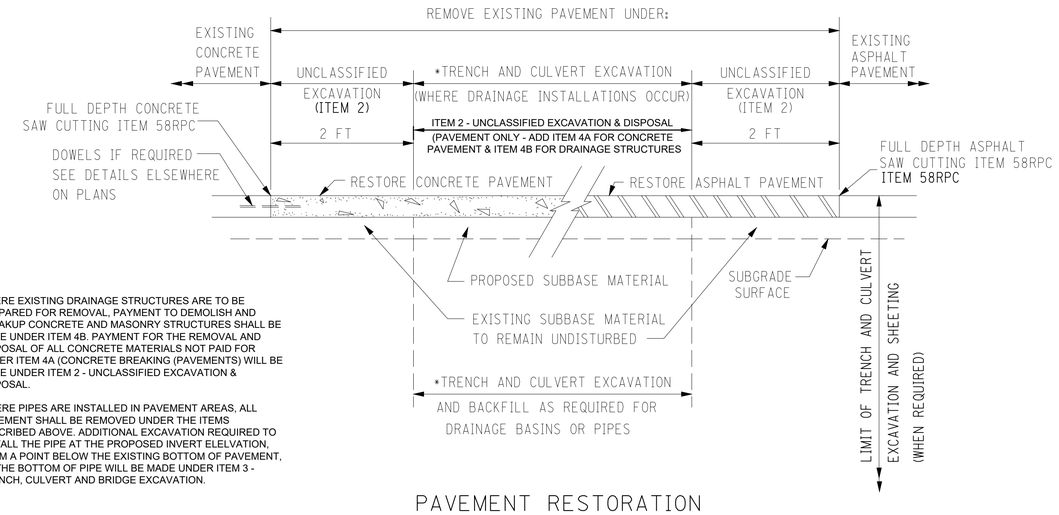
PRECAST CONCRETE TOP SLAB



OFFSET CATCH BASIN WITH MANHOLE

NOTE: SECTIONS F-F, G-G AND H-H APPLY TO BOTH TYPES 11 & 12 CATCH BASINS
N.T.S.

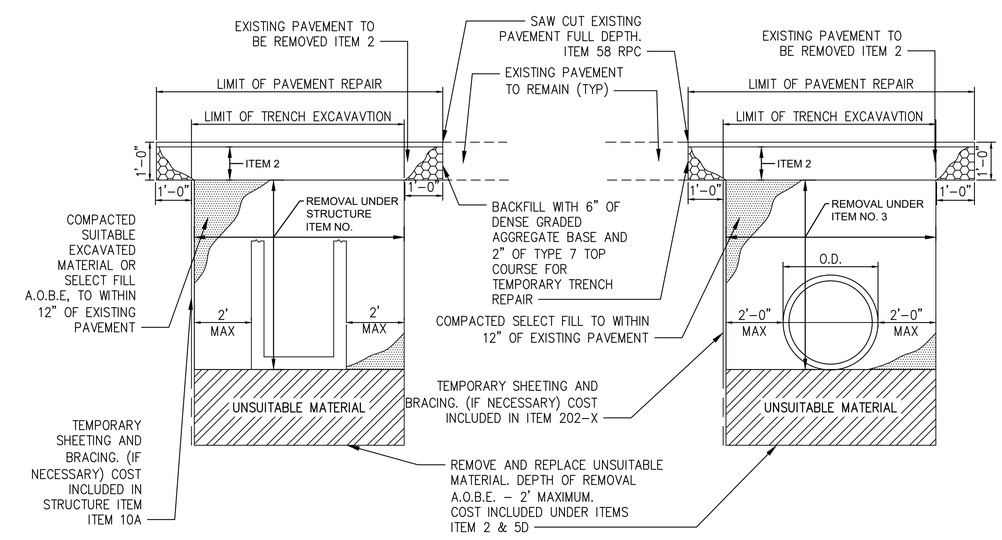
NCDPW TYPE 11 CATCH BASIN, ITEM 13A



* WHERE EXISTING DRAINAGE STRUCTURES ARE TO BE PREPARED FOR REMOVAL, PAYMENT TO DEMOLISH AND BREAKUP CONCRETE AND MASONRY STRUCTURES SHALL BE MADE UNDER ITEM 4B. PAYMENT FOR THE REMOVAL AND DISPOSAL OF ALL CONCRETE MATERIALS NOT PAID FOR UNDER ITEM 4A (CONCRETE BREAKING (PAVEMENTS) WILL BE MADE UNDER ITEM 2 - UNCLASSIFIED EXCAVATION & DISPOSAL.

WHERE PIPES ARE INSTALLED IN PAVEMENT AREAS, ALL PAVEMENT SHALL BE REMOVED UNDER THE ITEMS DESCRIBED ABOVE. ADDITIONAL EXCAVATION REQUIRED TO INSTALL THE PIPE AT THE PROPOSED INVERT ELELVATION, FROM A POINT BELOW THE EXISTING BOTTOM OF PAVEMENT, TO THE BOTTOM OF PIPE WILL BE MADE UNDER ITEM 3 - TRENCH, CULVERT AND BRIDGE EXCAVATION.

PAVEMENT RESTORATION



DRAINAGE STRUCTURE INSTALLATION AND PIPE INSTALLATION DETAIL
NOT TO SCALE

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

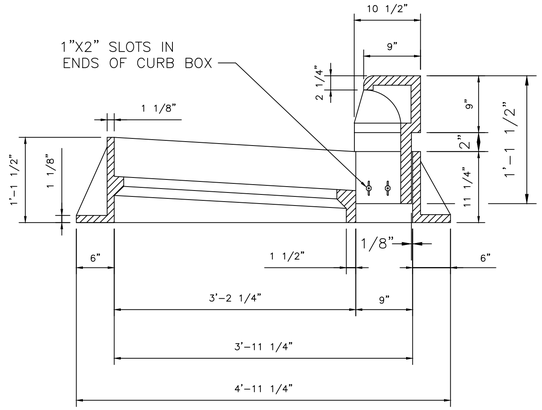
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]
DRAWING TITLE: MISCELLANEOUS DETAILS 03

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: MSD-05	
SCALE: -	SHEET NO: 11 OF 39	

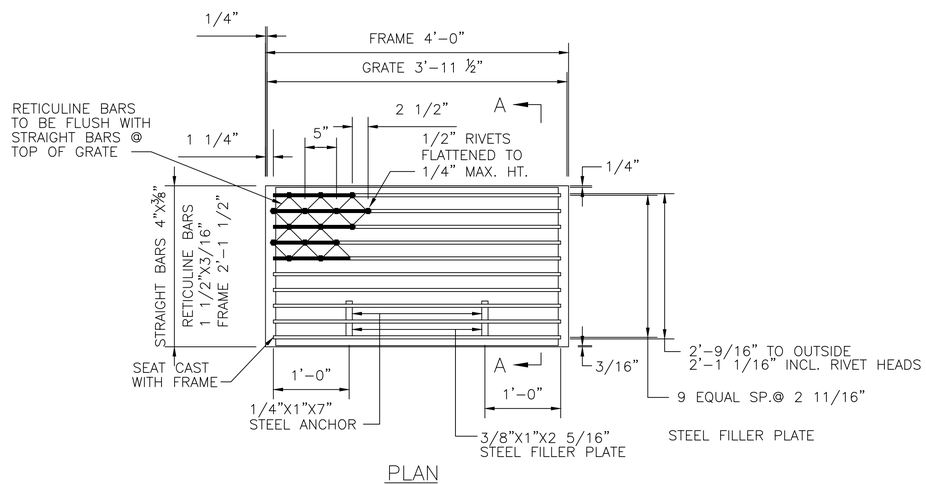
File Name: O:\2018\8AB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-03.DWG
Plot Date: 10/8/2019 9:31 AM



SECTION C–C

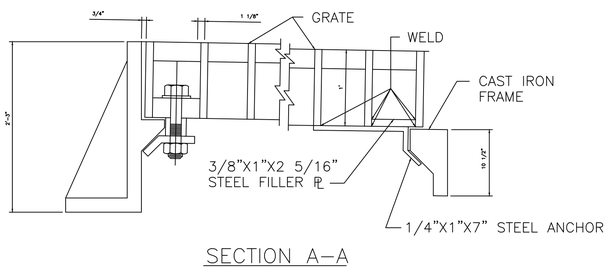
C.I. CURB BOX & FRAME TYPE A

SCALE: 1/2" = 1'-0"



PLAN

SCALE 1/2" = 1'-0"

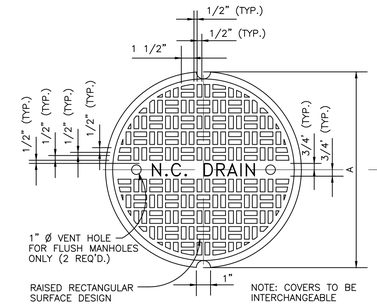


SECTION A–A

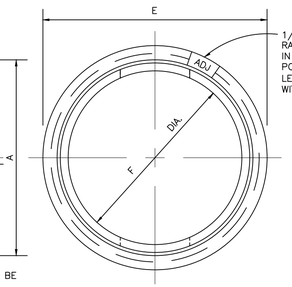
SCALE: 1 1/2" = 1'-0"

FABRICATED STEEL GRATE TYPE A, ITEM 34

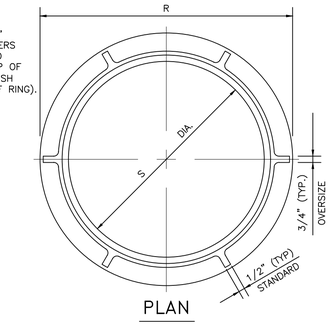
**APPROXIMATE WEIGHT OF GRATE IS 265LB



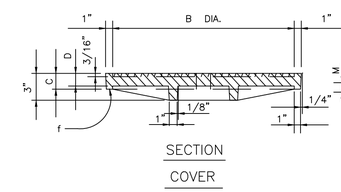
PLAN VIEW



PLAN

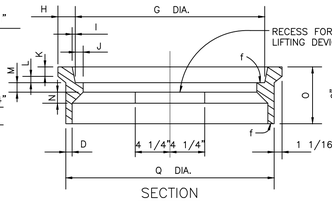


PLAN



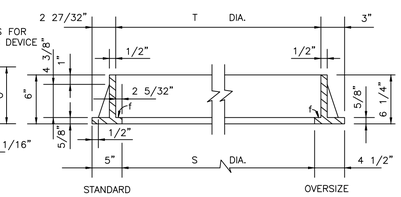
SECTION

COVER



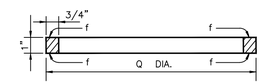
SECTION

INNER FRAME



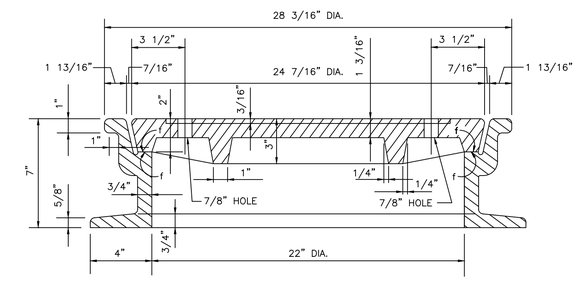
SECTION

OUTER FRAME



FILLER RING (ONE PIECE)

ADJUSTABLE MANHOLE CASTINGS



FIXED CASTING

NCDPW MANHOLE COVER DETAIL, ITEM 34

CASTING COMPONENT	WEIGHT (LBS)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
STANDARD COVER	175	24 7/16	22 7/16	2	1 3/16																
OVERSIZED COVER	300	31 7/8	29 7/8	1 3/8	1 1/8																
STANDARD INNER FRAME	180					28 3/16	22	24	1 13/16	9/32	1	1	1	1 1/4	1 3/8	7 3/8	3/4	26 1/16			
OVERSIZED INNER FRAME	290					36 1/4	30	31 1/2	2 1/8	1/4	3/4	3/4	3/4	7/8	1 1/2	7 1/2	5/8	34 1/4			
STANDARD FILLER RING	——																	26 1/16			
OVERSIZED FILLER RING	——																	34 1/4			
STANDARD OUTER FRAME	130																		32	22	26 5/16
OVERSIZED OUTER FRAME	227																		41	32	35

NOTES:

1) f = MACHINED FINISH

2) MANUFACTURER AND DATE OF MANUFACTURE TO BE PLACED ON UNDERSIDE OF FRAMES AND COVERS.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

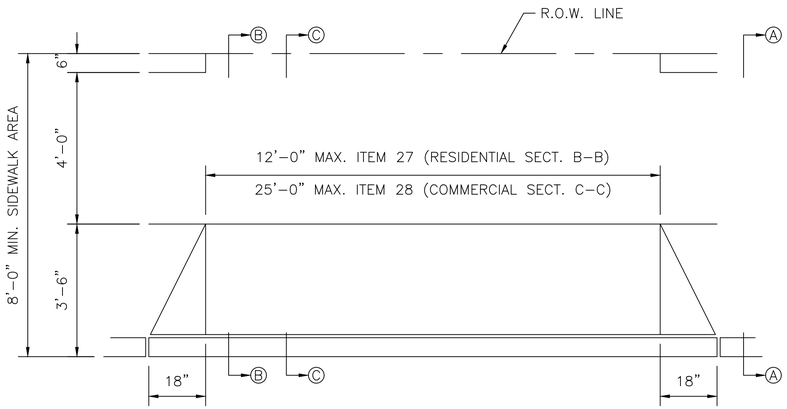
CLIENT: NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

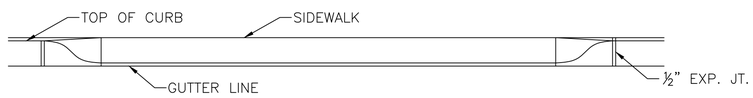
DRAWING TITLE: MISCELLANEOUS DETAILS 04

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: MSD-04	
SCALE: -	SHEET NO: 12 OF 39	

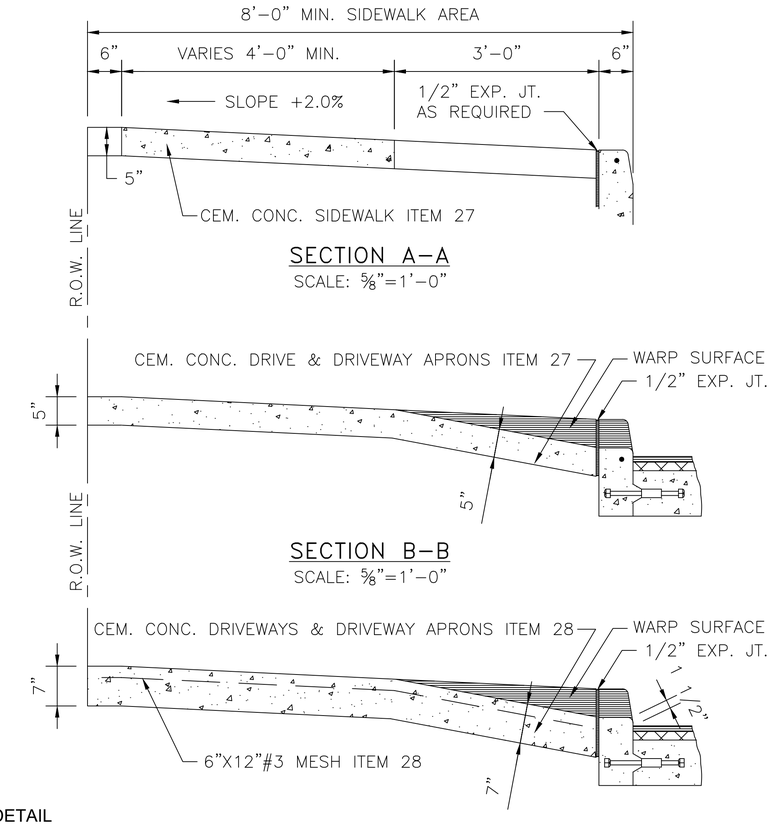
File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-04.DWG
Plot Date: 10/8/2019 9:31 AM



PLAN
SCALE 5/16"=1'-0"



FRONT ELEVATION
SCALE 5/16"=1'-0"

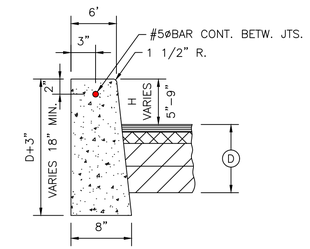


SECTION A-A
SCALE: 5/8"=1'-0"

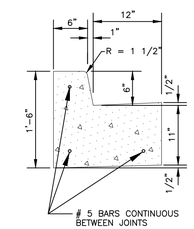
SECTION B-B
SCALE: 5/8"=1'-0"

SECTION C-C
SCALE: 5/8"=1'-0"

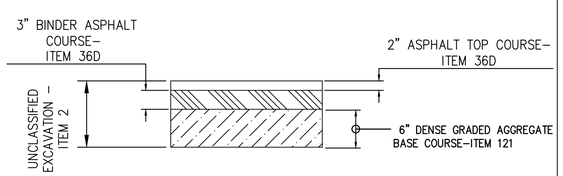
DRIVEWAY APRON RESTORATION DETAIL
ITEM 28



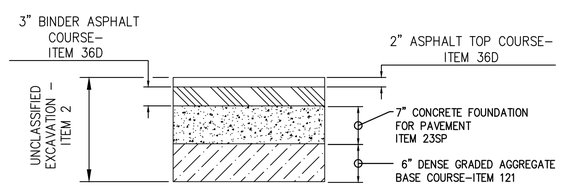
CONCRETE CURB
ITEM 26



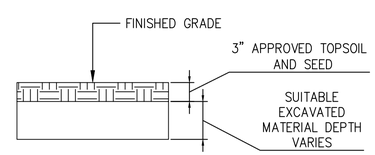
MONOLITHIC CONCRETE CURB AND GUTTER
ITEM 26CG
NTS



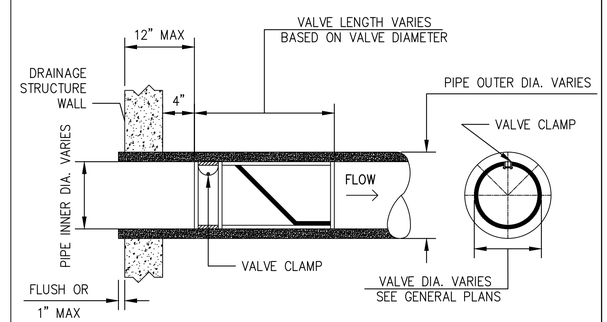
PAVEMENT REPAIR DETAIL
TYPICAL TOWN OF HEMPSTEAD ASPHALT
ROAD



PAVEMENT REPAIR DETAIL
ALONG LIDO BOULEVARD



TURF AND SEED DETAIL
ITEM 368



CHECKMATE IN-LINE CHECK VALVE DETAIL
(UPSTREAM CLAMP)
ITEM 12-TF-15SS
ITEM 12-TF-24SS
ITEM 12-TF-48SS

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]
DRAWING TITLE: MISCELLANEOUS DETAILS 05

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: MSD-03	
SCALE: -	SHEET NO: 13 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-05.DWG
Plot Date: 10/8/2019 9:32 AM

ADDITIONAL DETAILS
TO BE ADDED POST 60%:

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC.DETAILS\MSD-06.DWG
Plot Date: 10/8/2019 9:32 AM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

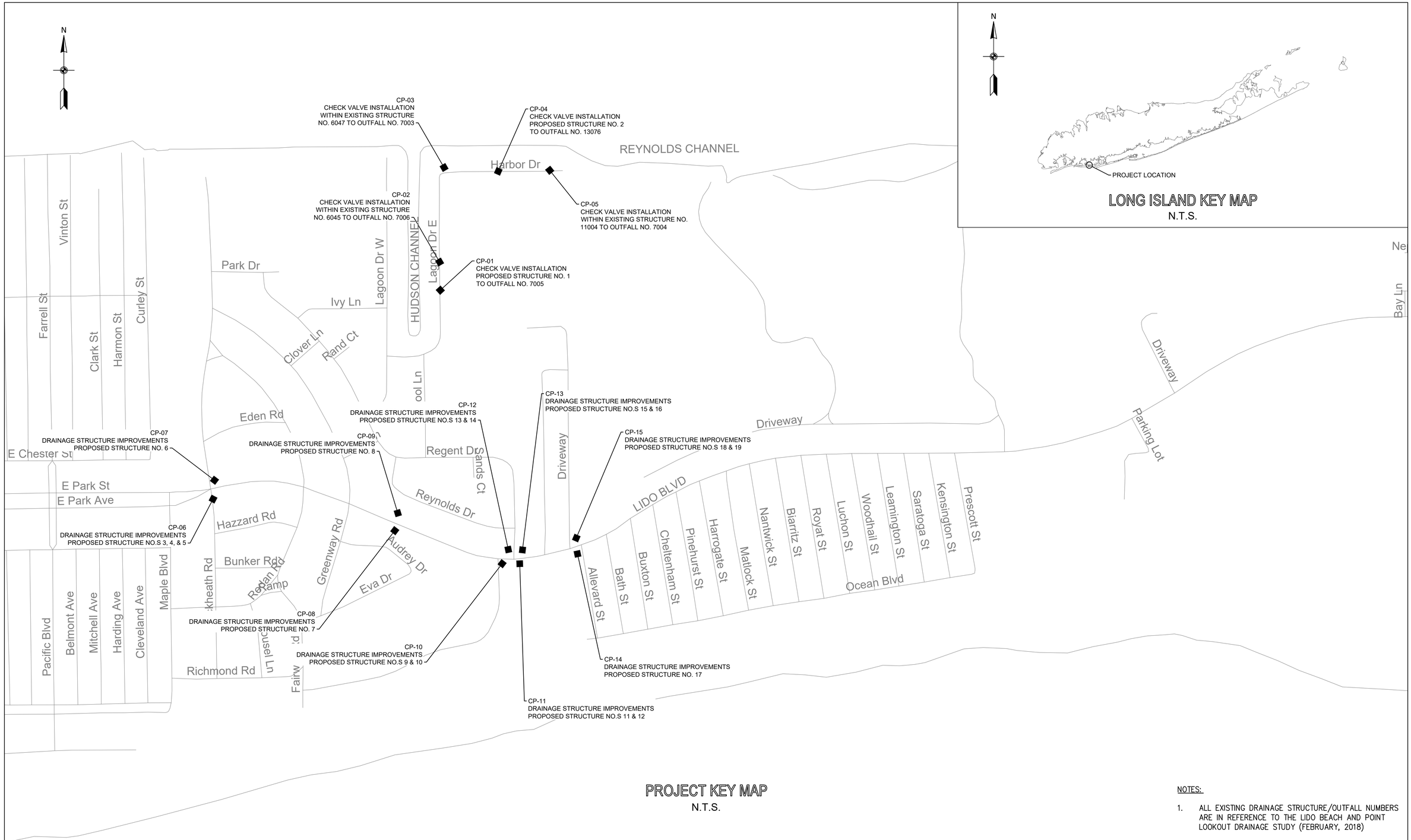
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: MISCELLANEOUS DETAILS 06

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: MSD-06	
SCALE: -	SHEET NO: 14 OF 39	



PROJECT KEY MAP

N.T.S.

NOTES:

1. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

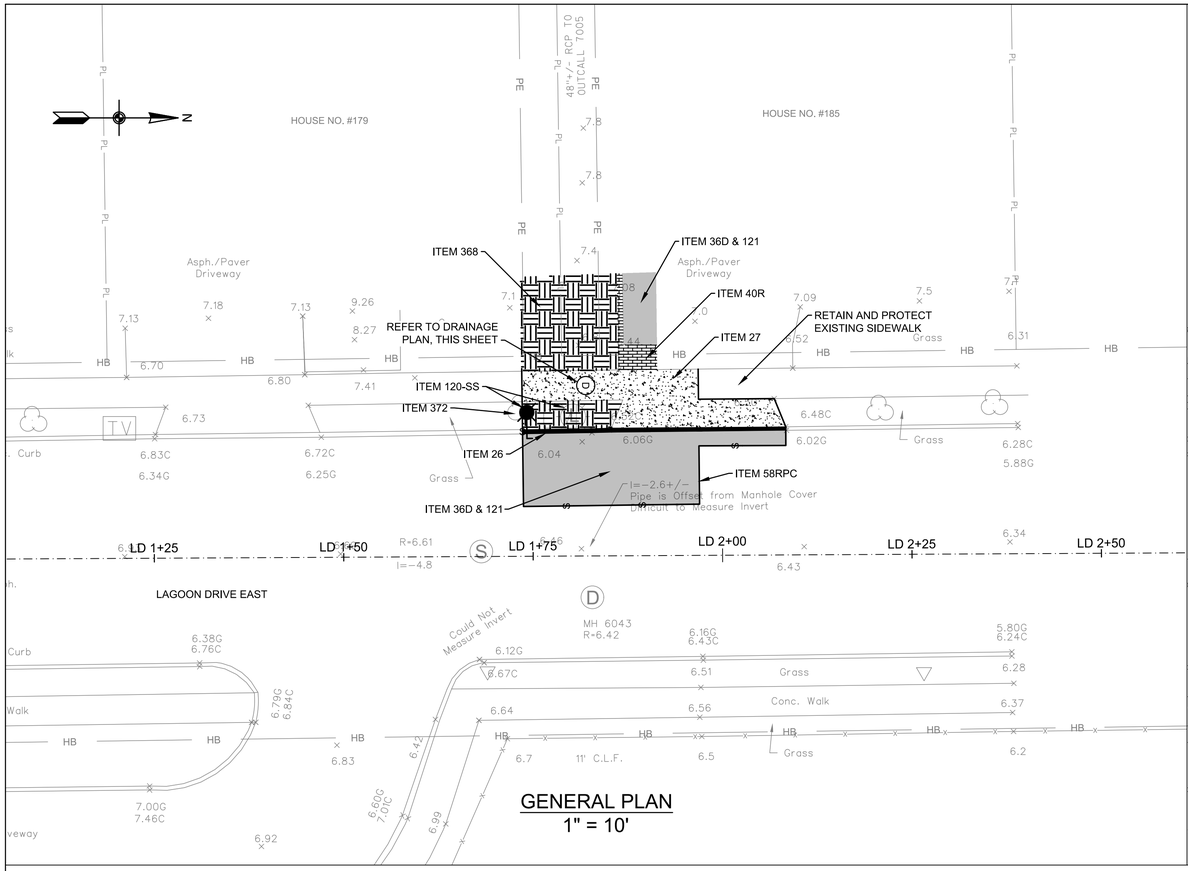
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

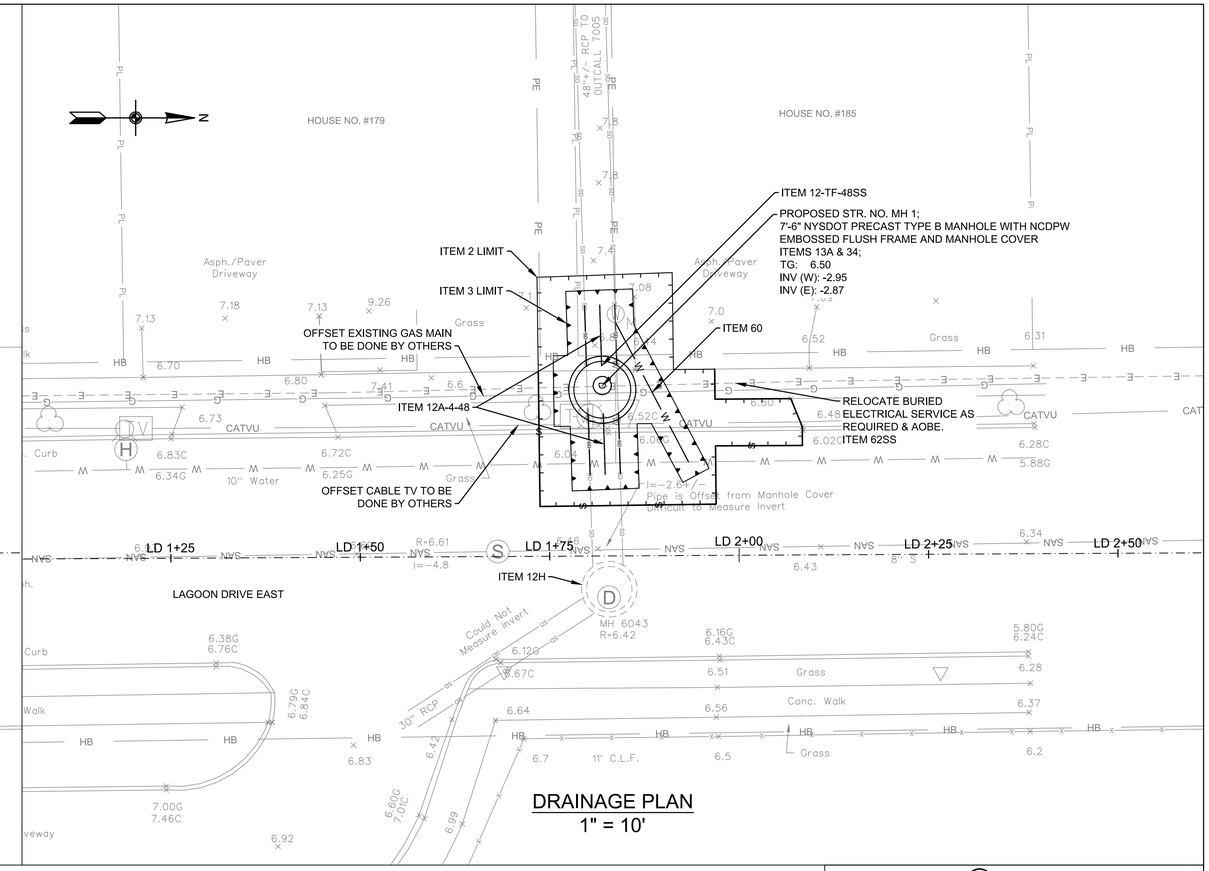
DRAWING TITLE:
KEY PLAN

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: KP-01	
SCALE: N.T.S.	SHEET NO: 15 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC SHEETS\KP-01.DWG
Plot Date: 10/8/2019 9:32 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

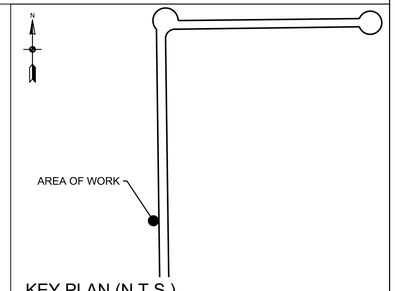
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12-TF-48SS	48" TIDEFLEX IN-LINE CHECK VALVE		SF
12A-4-48	48" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12H	CLEANING EXISTING DRAINAGE SYSTEM		EA
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
40R	RESET EXISTING STONE BLOCK PAVEMENT		SF
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
60	ALTER WATER SERVICE CONNECTIONS		LF
62SS	RELOCATE BURIED ELECTRICAL SERVICE		LF
120-SS	RELOCATION OF EXISTING LIGHT POLES (COMPLETE)		EA
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY
372	TREE REMOVAL		EA



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

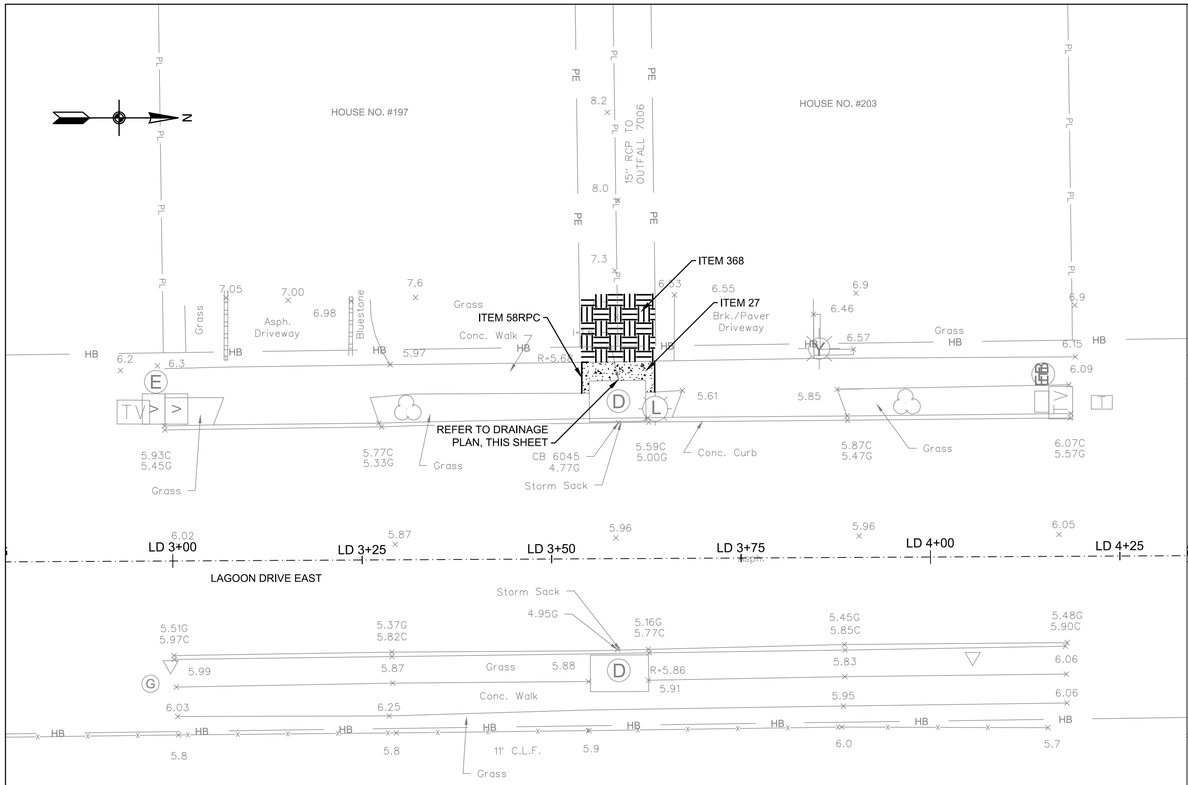
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

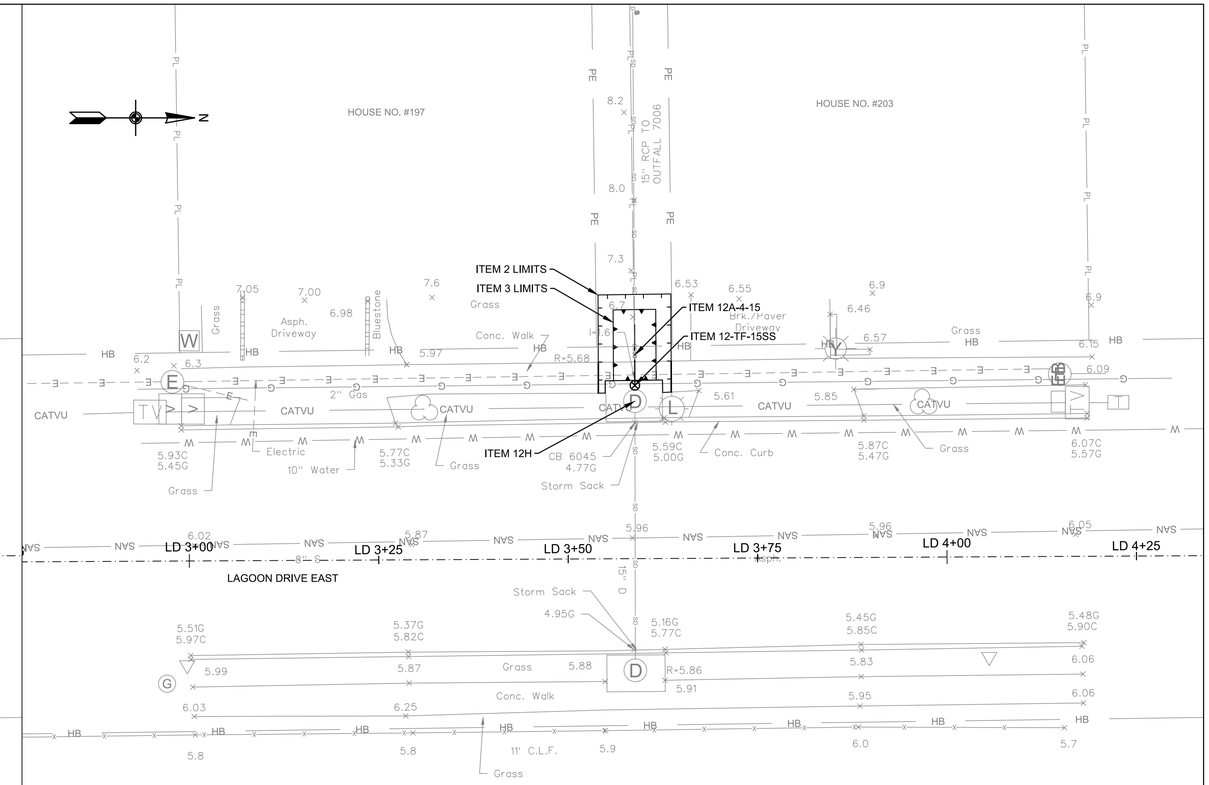
DRAWING TITLE:
CONSTRUCTION PLAN
CHECK VALVE INSTALLATION
179 AND 185 LAGOON DR. E., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-01	
SCALE: 1" = 10'	SHEET NO: 16 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-01.DWG
Plot Date: 10/8/2019 9:32 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

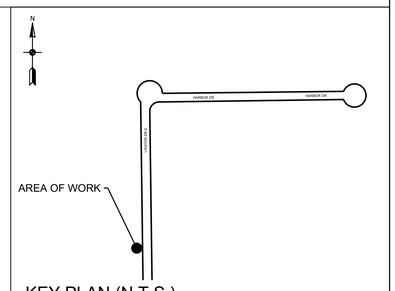
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12-TF-15SS	15" TIDEFLEX IN-LINE CHECK VALVE		SF
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12H	CLEANING EXISTING DRAINAGE SYSTEM		EA
27	CEMENT CONCRETE SIDEWALK		SF
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

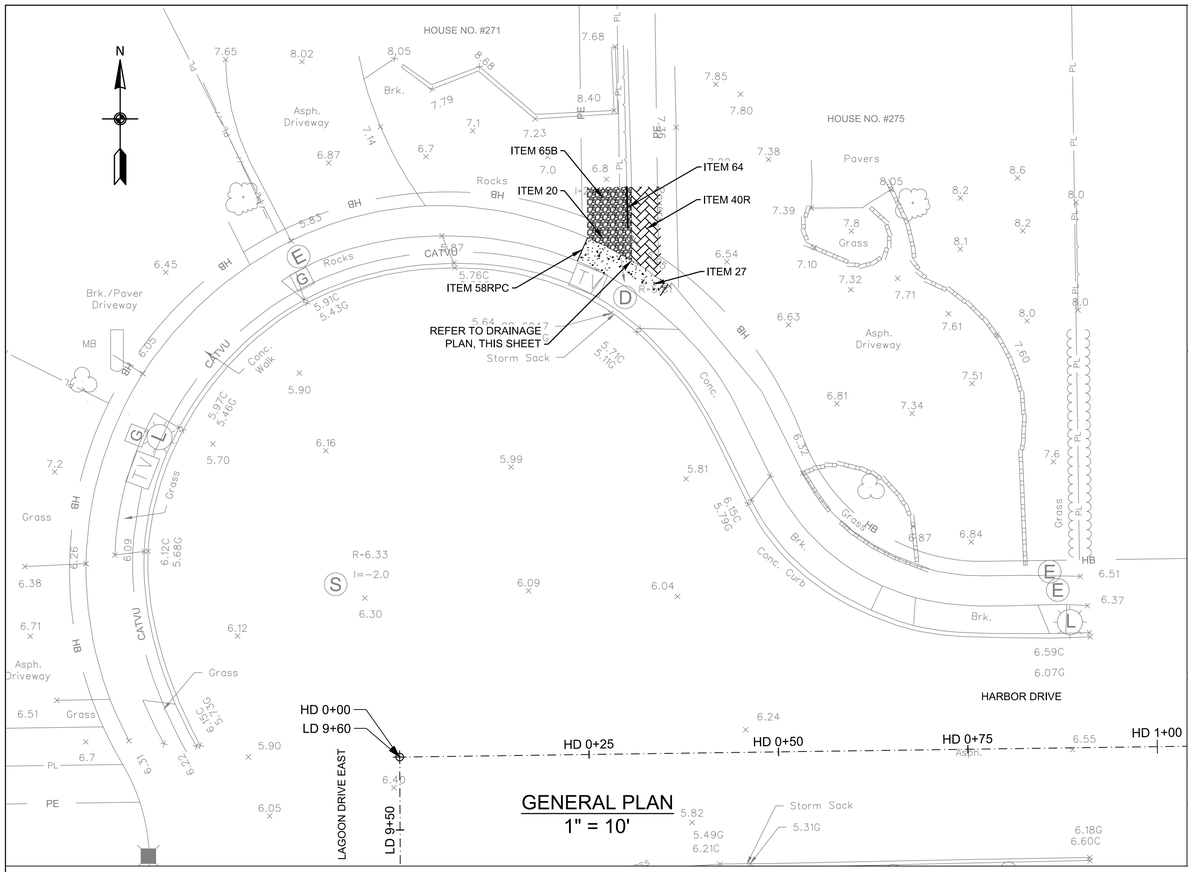
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

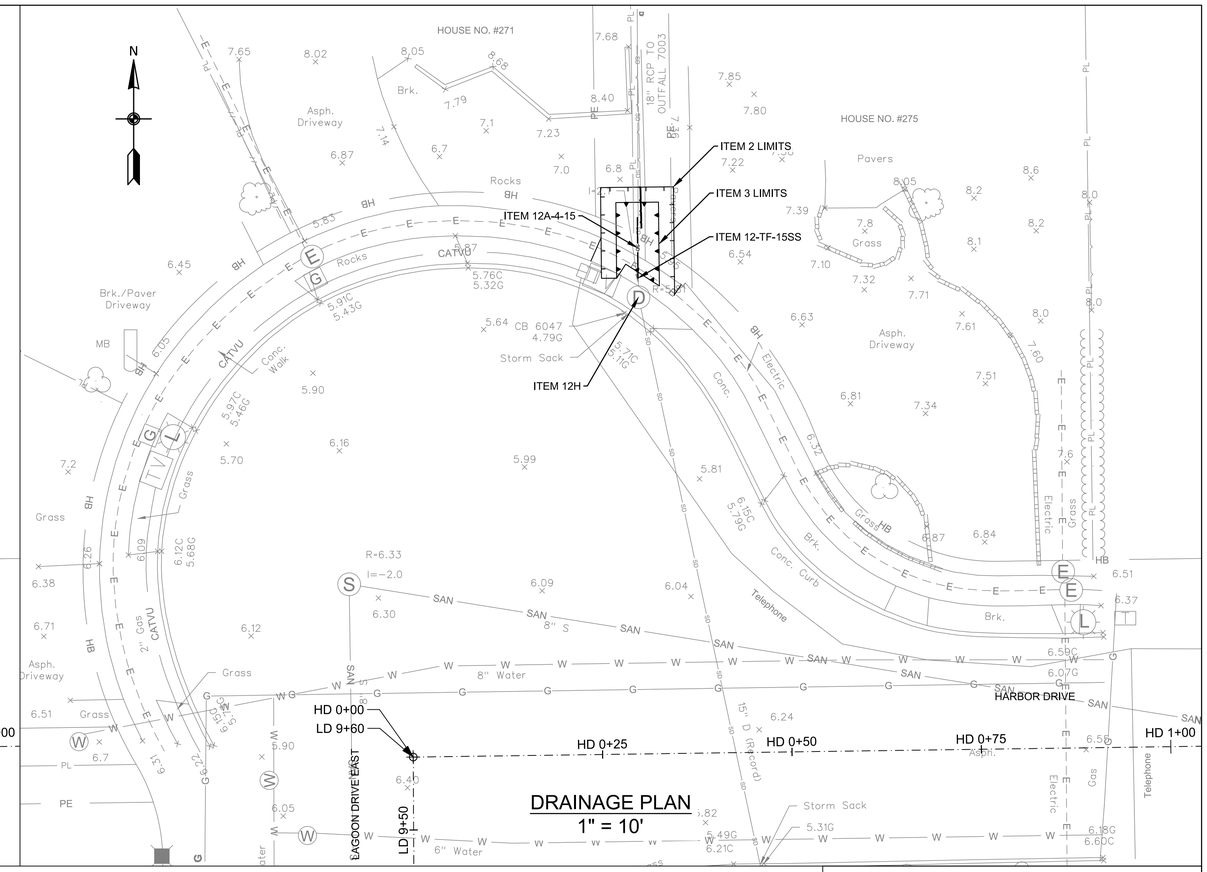
DRAWING TITLE:
CONSTRUCTION PLAN
CHECK VALVE INSTALLATION
197 AND 203 LAGOON DR. E., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-02	
SCALE: 1" = 10'	SHEET NO: 17 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-02.DWG
Plot Date: 10/8/2019 9:33 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

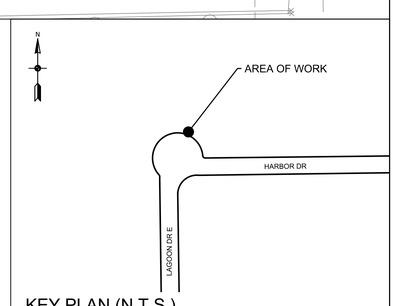
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12-TF-15SS	15" TIDEFLEX IN-LINE CHECK VALVE		SF
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12H	CLEANING EXISTING DRAINAGE SYSTEM		EA
20	BROKEN STONE, LOOSE MATERIAL		CY
27	CEMENT CONCRETE SIDEWALK		SF
40R	RESET EXISTING STONE BLOCK PAVEMENT		SF
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
64	RESET EXISTING FENCE		LF
65B	TRANSPLANT EXISTING SHRUBS		EA



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

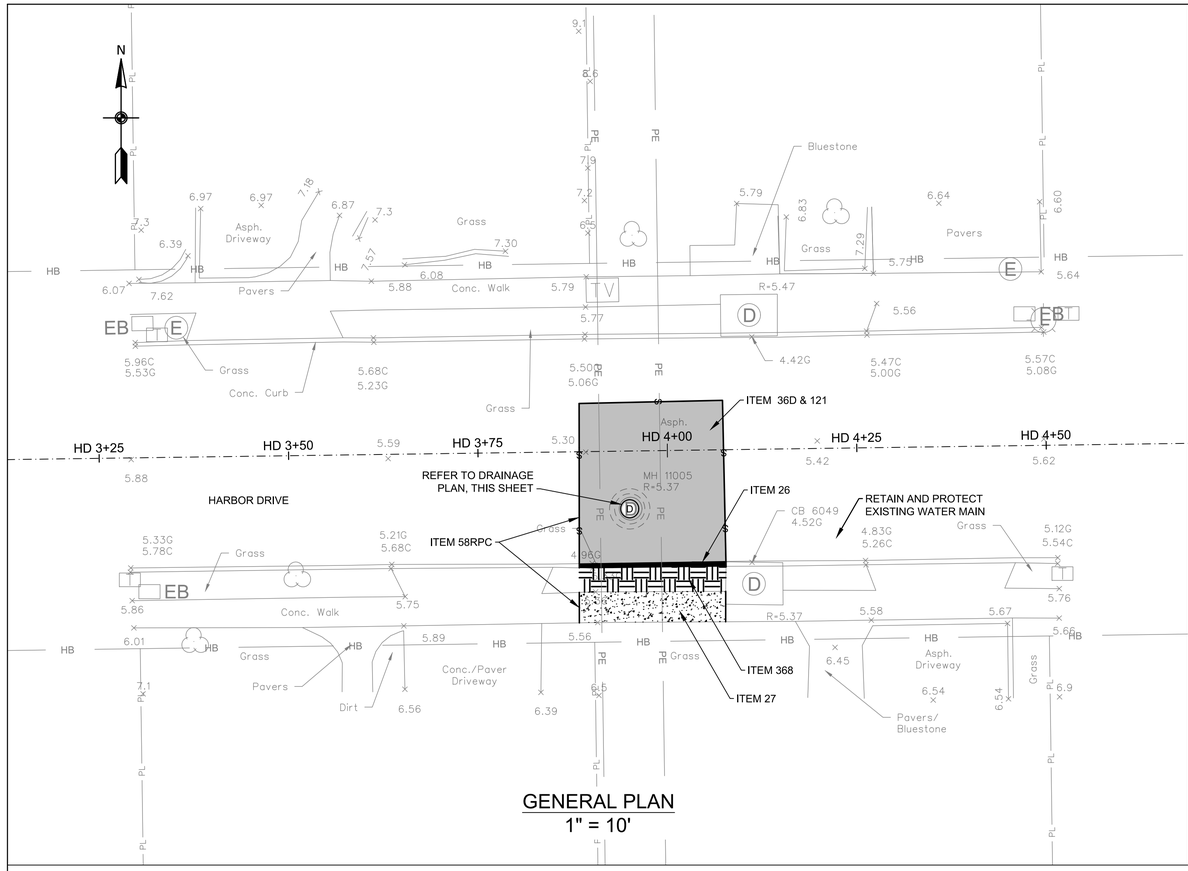
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

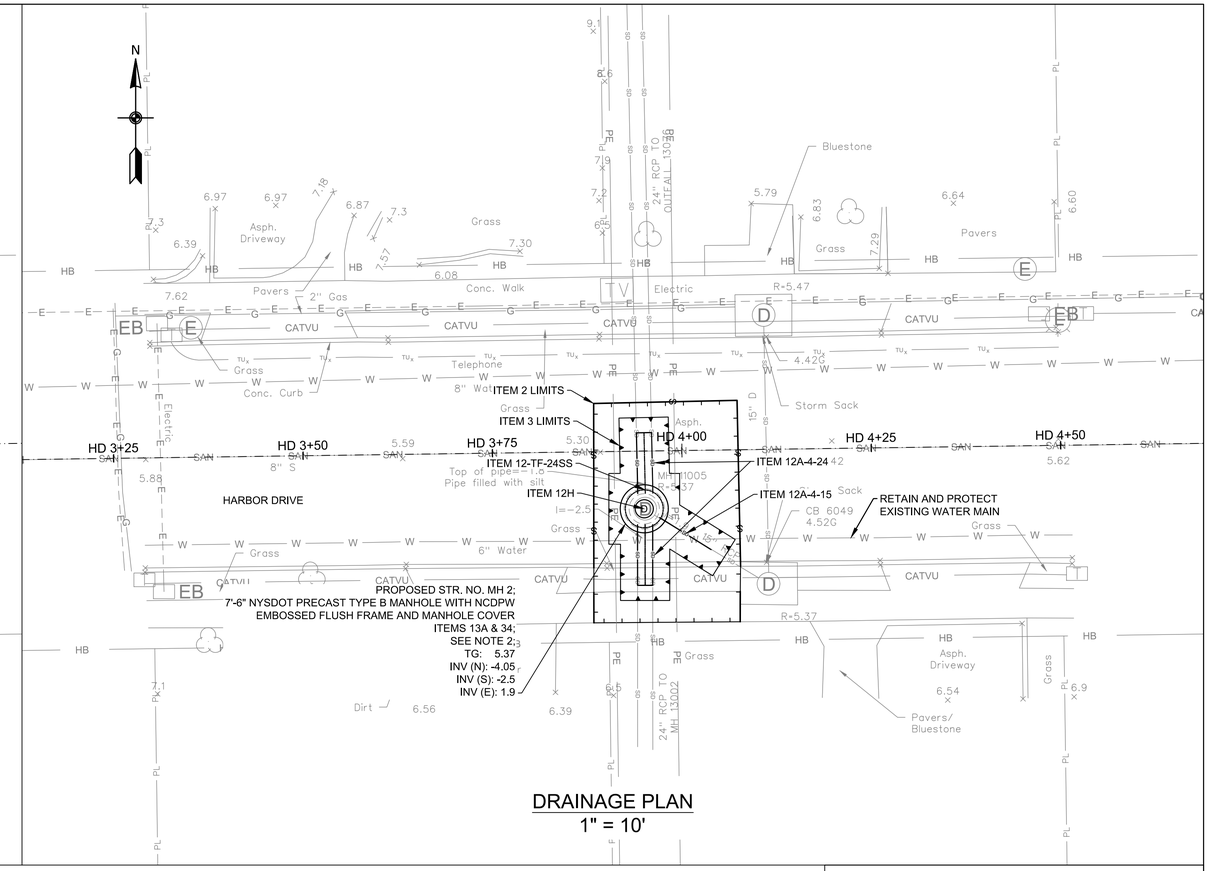
DRAWING TITLE:
CONSTRUCTION PLAN
CHECK VALVE INSTALLATION
271 AND 275 HARBOR DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-03	
SCALE: 1" = 10'	SHEET NO: 18 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-03.DWG
Plot Date: 10/8/2019 9:33 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

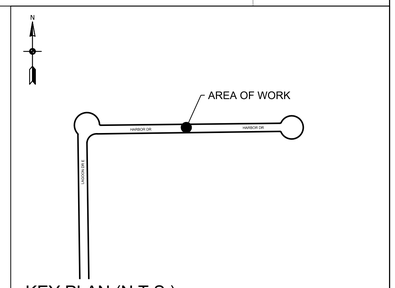
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12-TF-24SS	24" TIDEFLEX IN-LINE CHECK VALVE		SF
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12A-4-24	24" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12H	CLEANING EXISTING DRAINAGE SYSTEM		EA
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

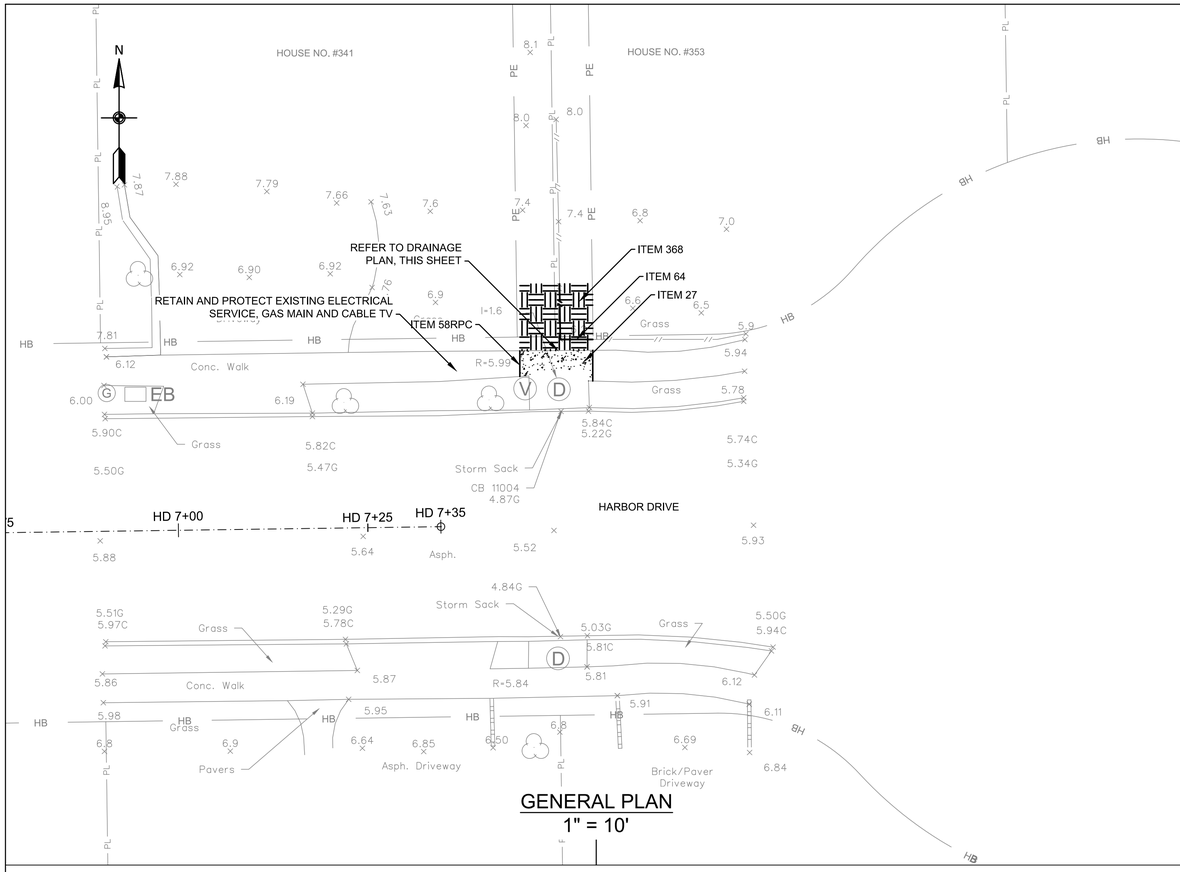
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

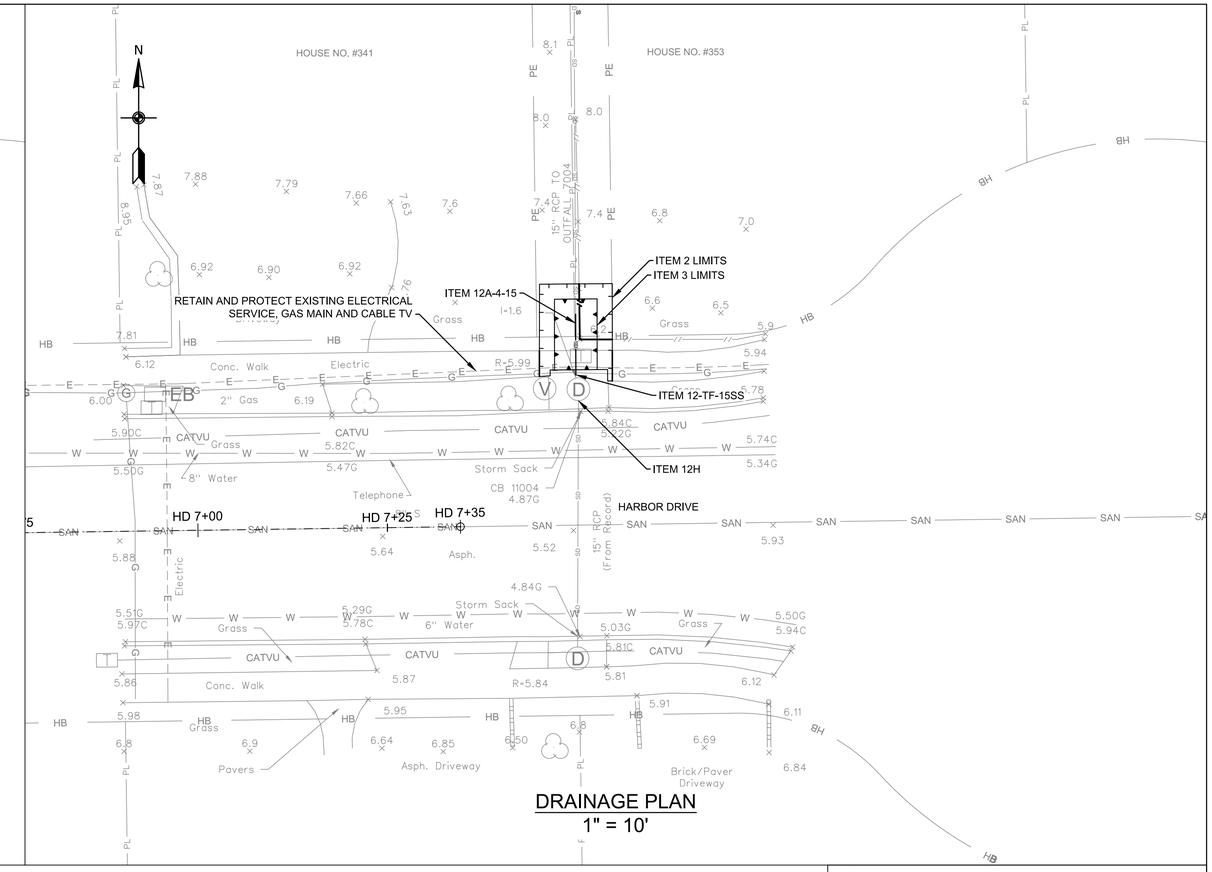
DRAWING TITLE:
CONSTRUCTION PLAN
CHECK VALVE INSTALLATION
311 HARBOR DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-04	
SCALE: 1" = 10'	SHEET NO: 19 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-04.DWG
Plot Date: 10/8/2019 9:34 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

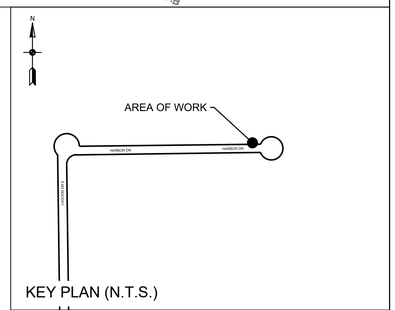
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12-TF-15SS	15" TIDEFLEX IN-LINE CHECK VALVE		SF
12DIP-15	15" DUCTILE IRON PIPE (DIP)		LF
12H	CLEANING EXISTING DRAINAGE SYSTEM		EA
27	CEMENT CONCRETE SIDEWALK		SF
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
64	RESET EXISTING FENCE		LF
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

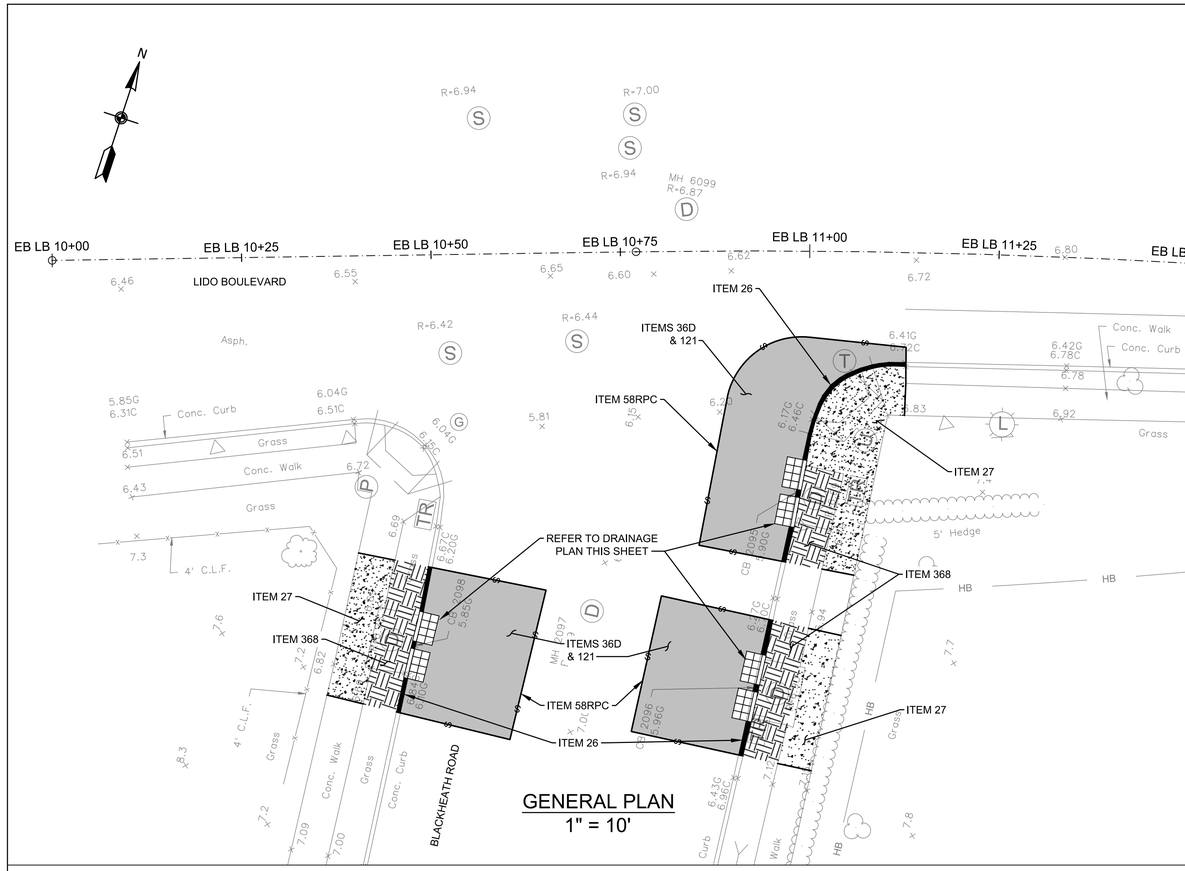
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

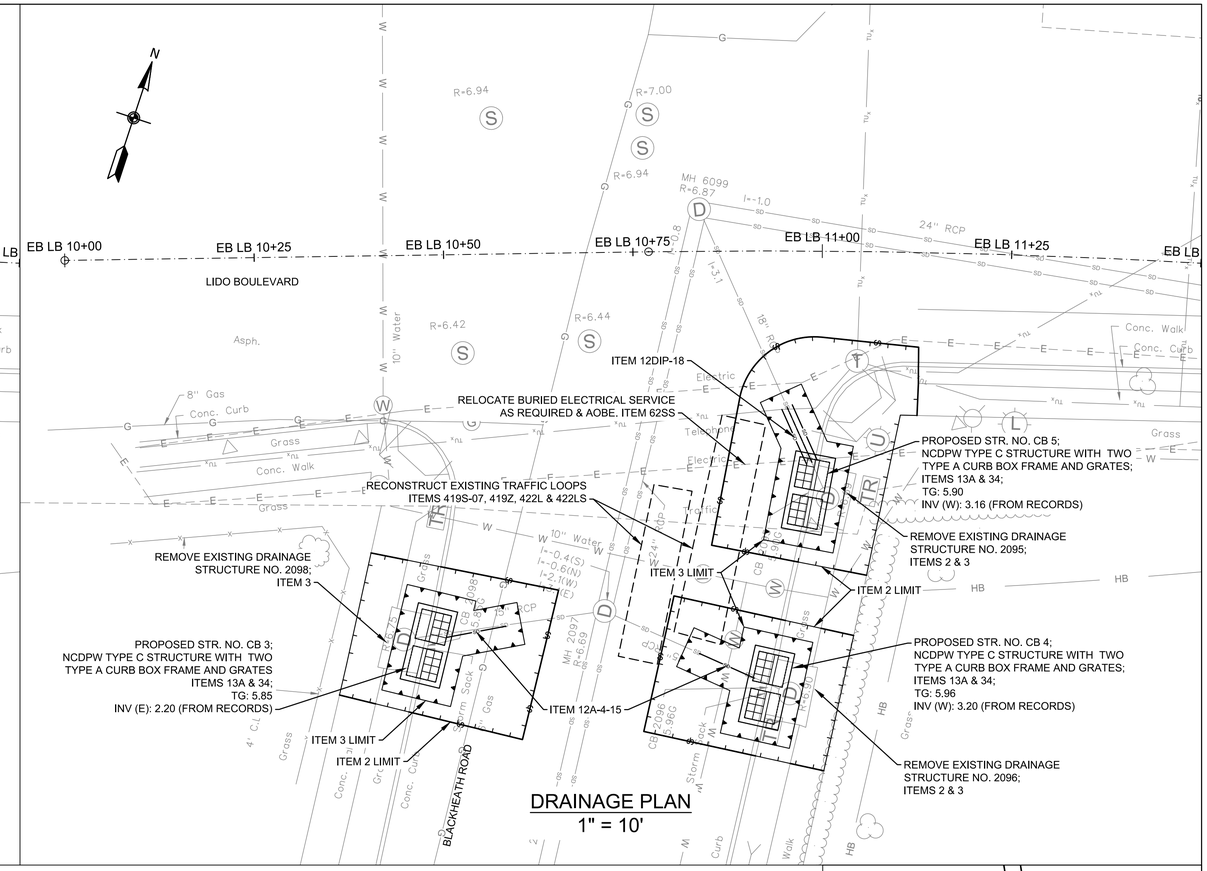
DRAWING TITLE:
CONSTRUCTION PLAN
CHECK VALVE INSTALLATION
341 AND 353 HARBOR DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-05	
SCALE: 1" = 10'	SHEET NO: 20 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-05.DWG
Plot Date: 10/8/2019 9:35 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

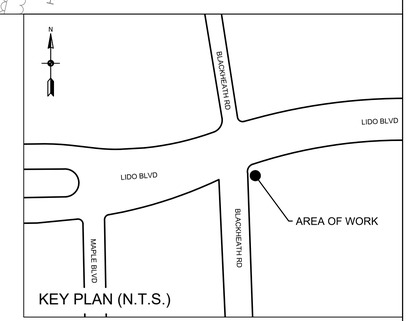
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 AND WZTC-1-1 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12A-4-18	18" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12DIP-18	18" DUCTILE IRON PIPE (DIP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

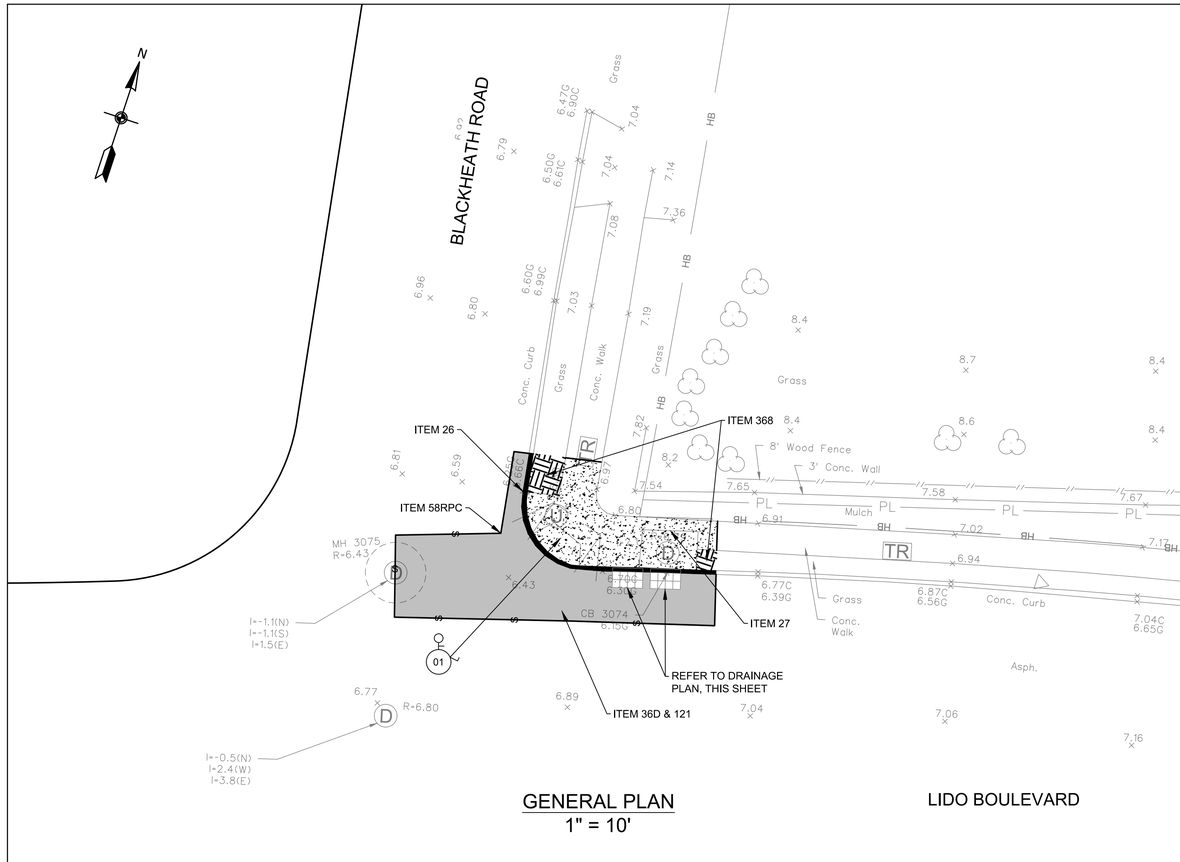
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
117 & 135 LIDO BLVD., LIDO BEACH, NY

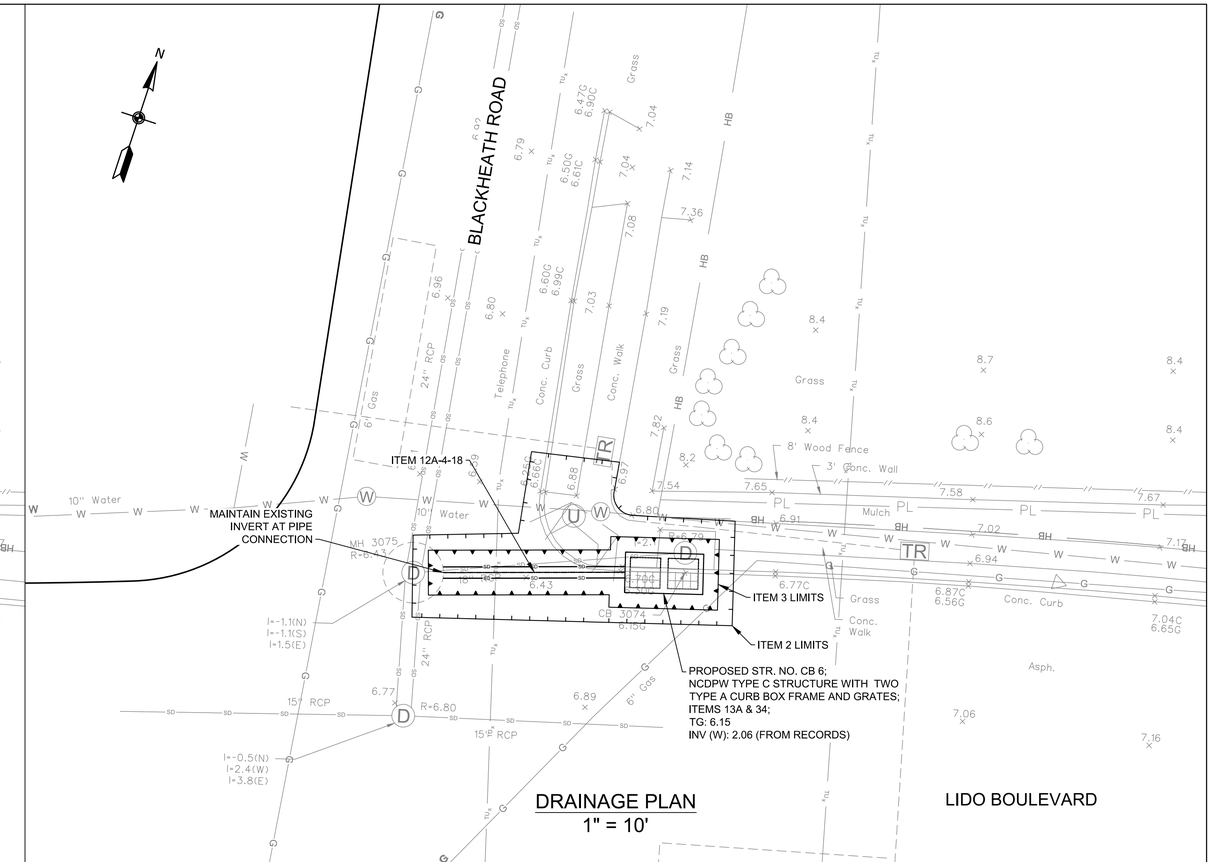
GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-06	
SCALE: 1" = 10'	SHEET NO: 21 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-06.DWG
Plot Date: 10/8/2019 9:35 AM



GENERAL PLAN
1" = 10'

LIDO BOULEVARD



DRAINAGE PLAN
1" = 10'

LIDO BOULEVARD

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

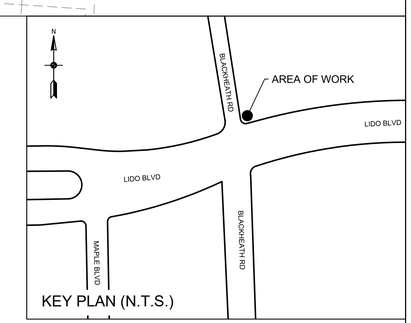
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 AND WZTC-2-1 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-18	18" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CONCRETE SIDEWALK		CY
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

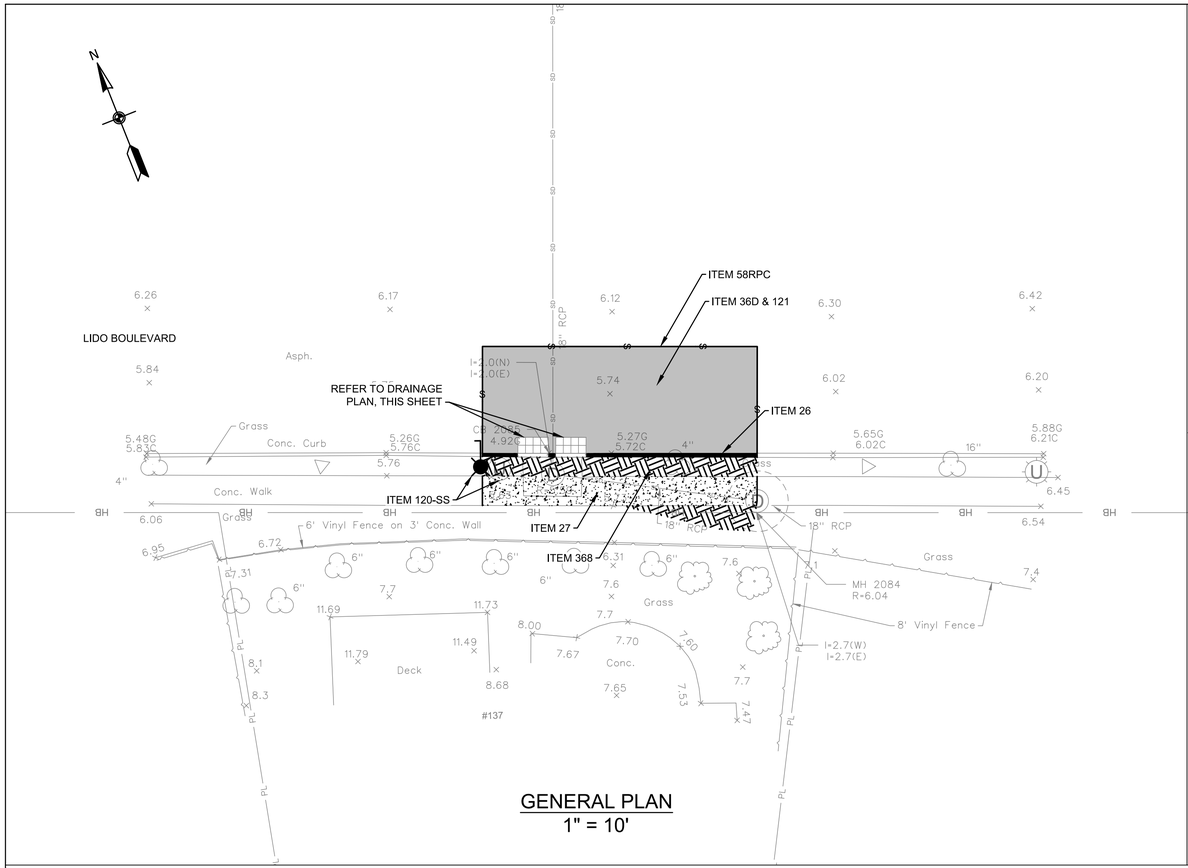
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

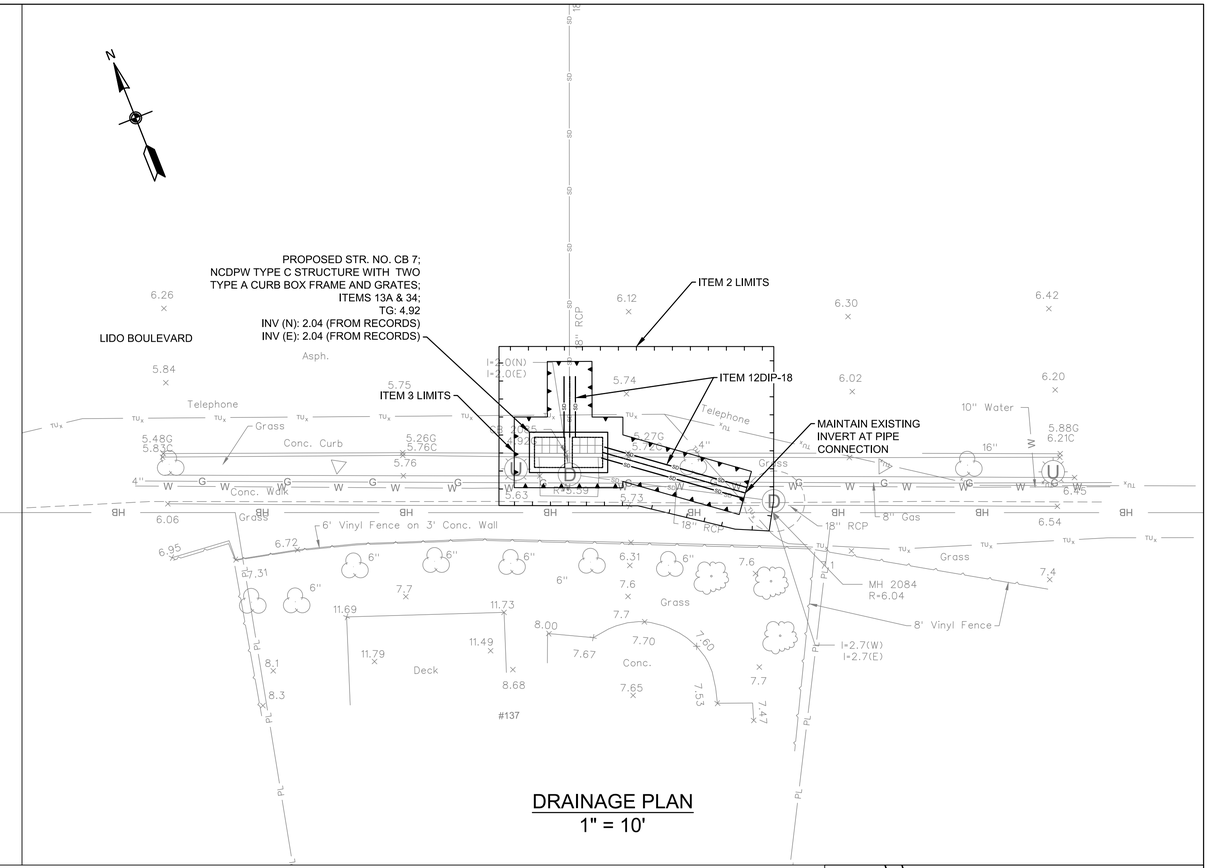
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
132 BLACKHEATH RD., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-07	
SCALE: 1" = 10'	SHEET NO: 22 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-07.DWG
Plot Date: 10/8/2019 9:35 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

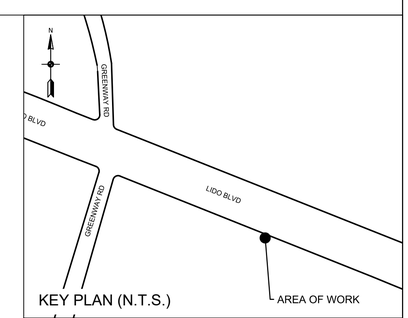
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 AND WZTC-3-1 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12DIP-18	18" DUCTILE IRON PIPE (DIP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
120-SS	RELOCATION OF EXISTING LIGHT POLES (COMPLETE)		EA
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

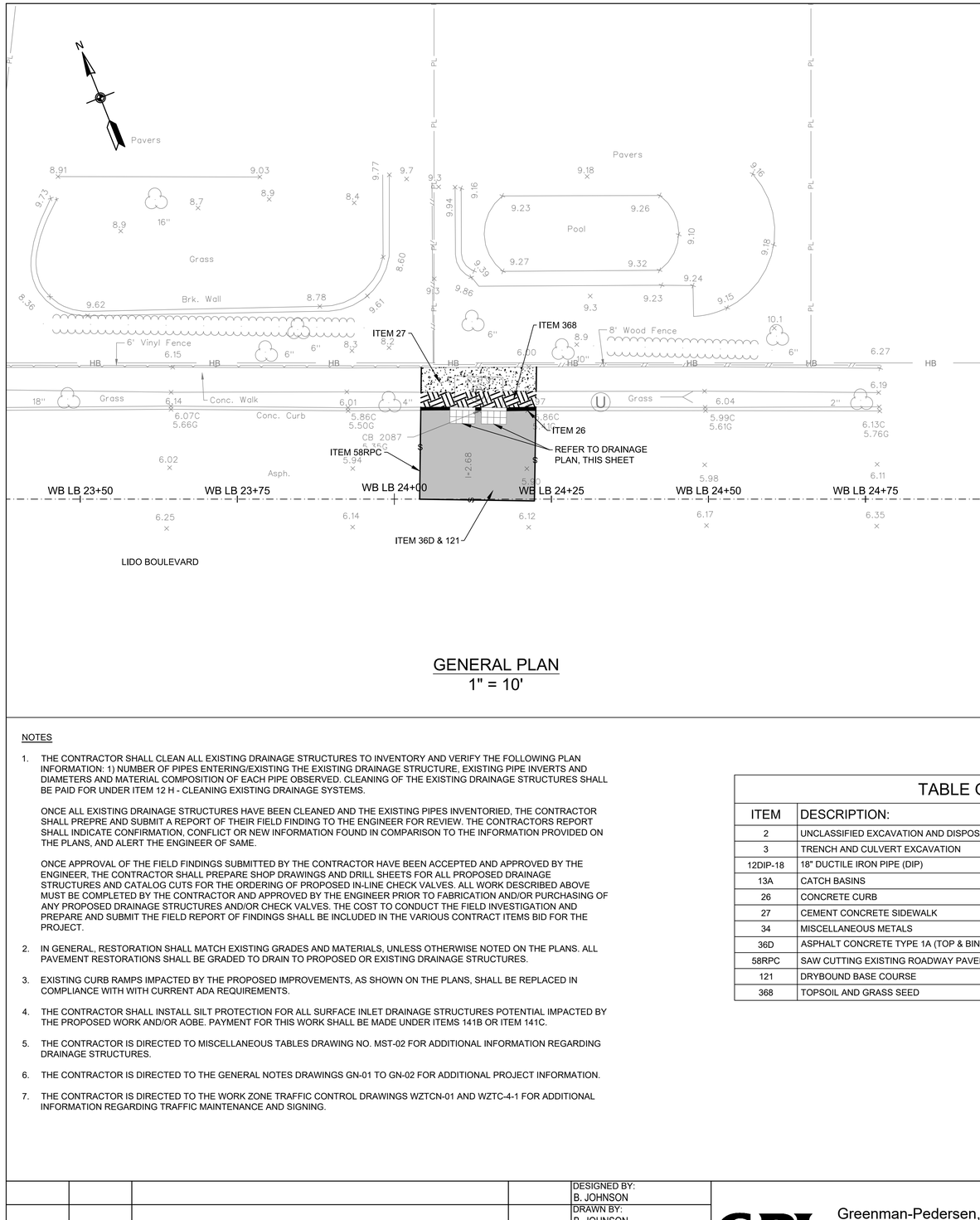
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

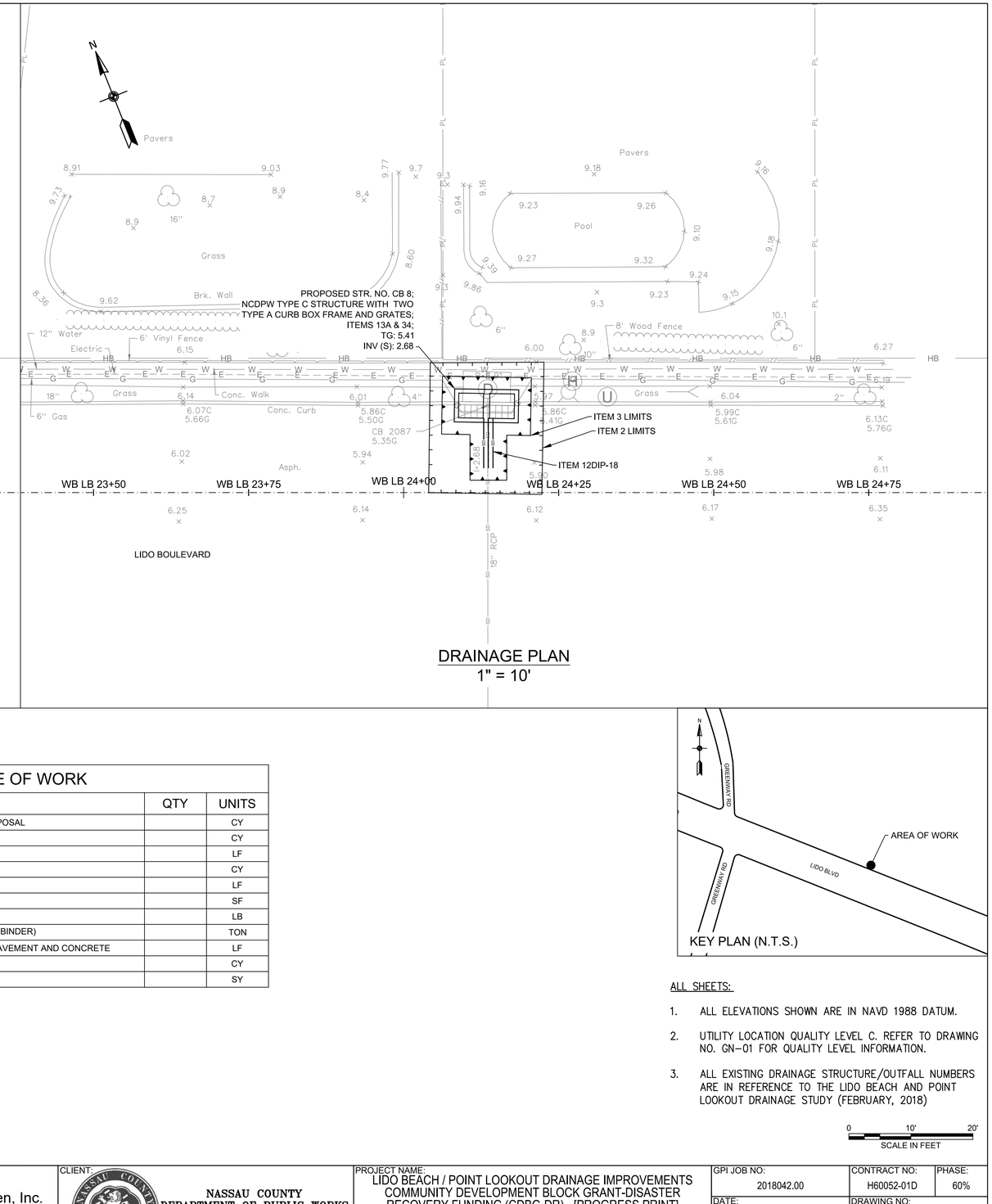
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
137 AUDREY DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-08	
SCALE: 1" = 10'	SHEET NO: 23 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-08.DWG
Plot Date: 10/8/2019 9:36 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 AND WZTC-4-1 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12DIP-18	18" DUCTILE IRON PIPE (DIP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY

KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

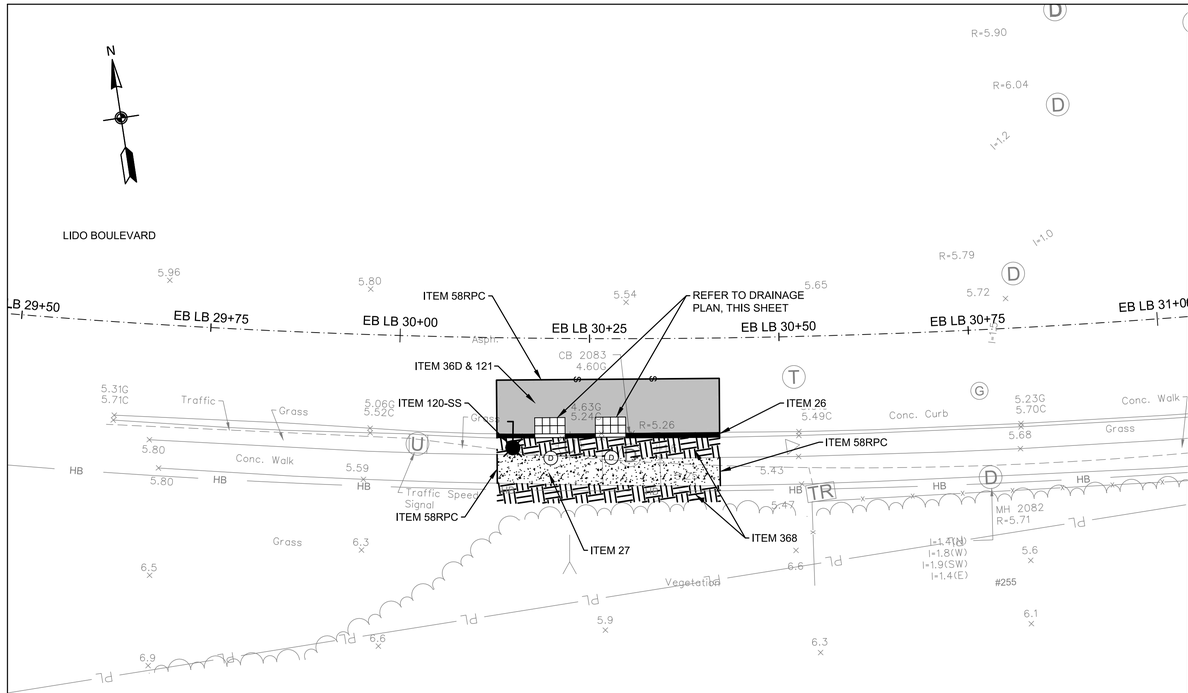
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

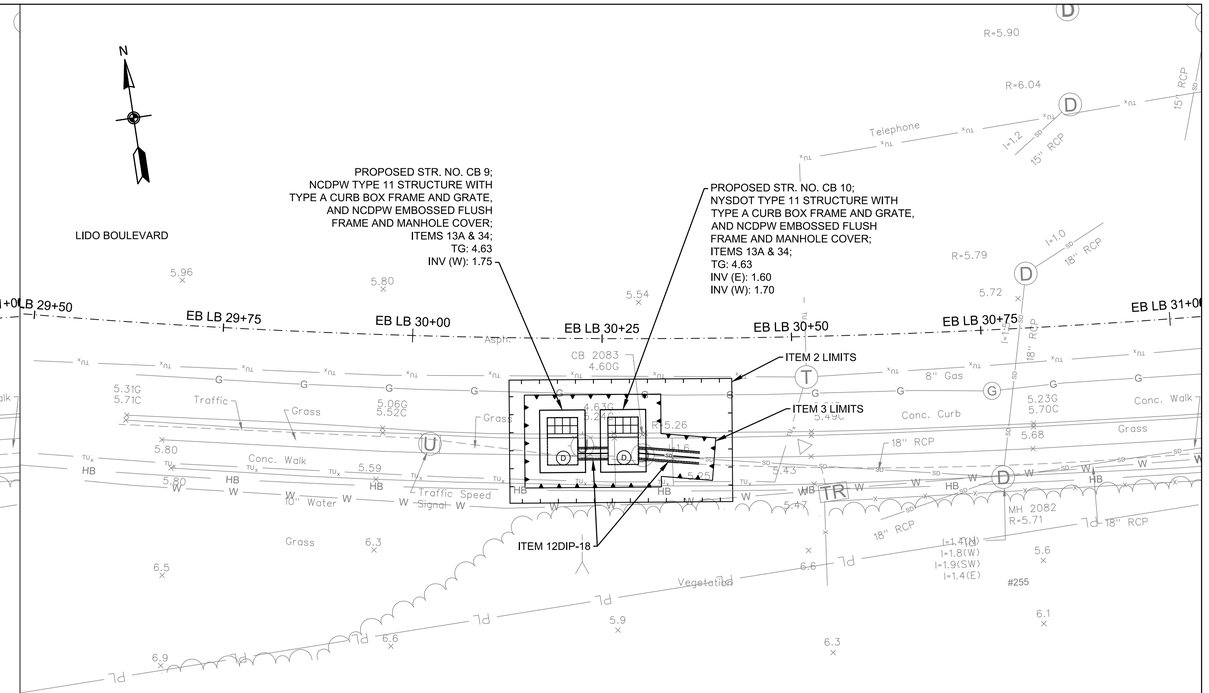
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
67 & 73 REYNOLDS DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-09	
SCALE: 1" = 10'	SHEET NO: 24 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-09.DWG
Plot Date: 10/8/2019 9:36 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

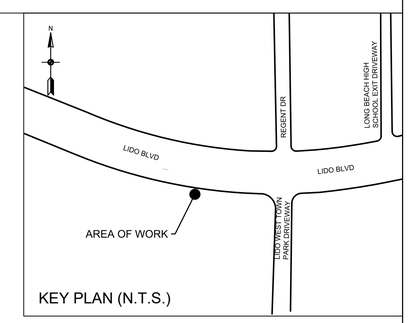
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01, WZTC-5-1 AND WZTC-5-2 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12DIP-18	18" DUCTILE IRON PIPE (DIP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
120-SS	RELOCATION OF EXISTING LIGHT POLES (COMPLETE)		EA
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

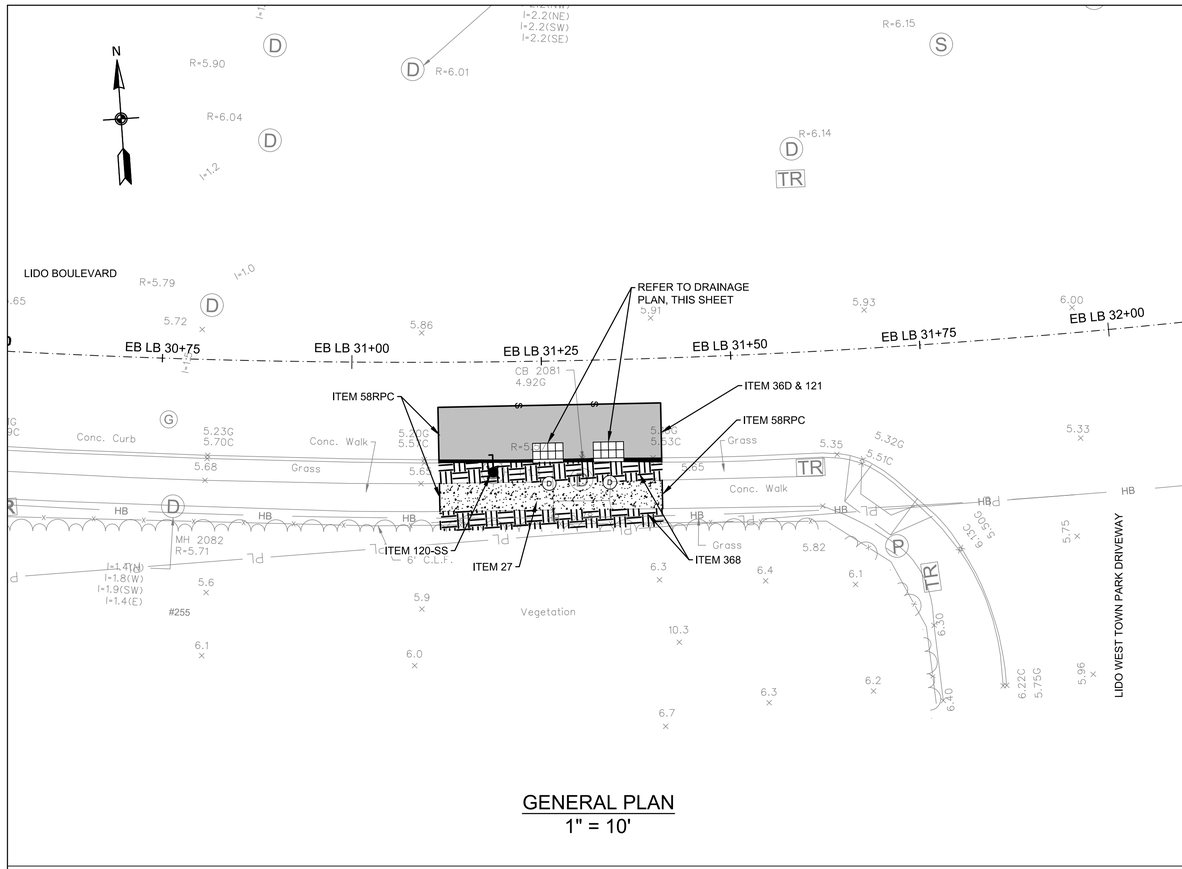
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

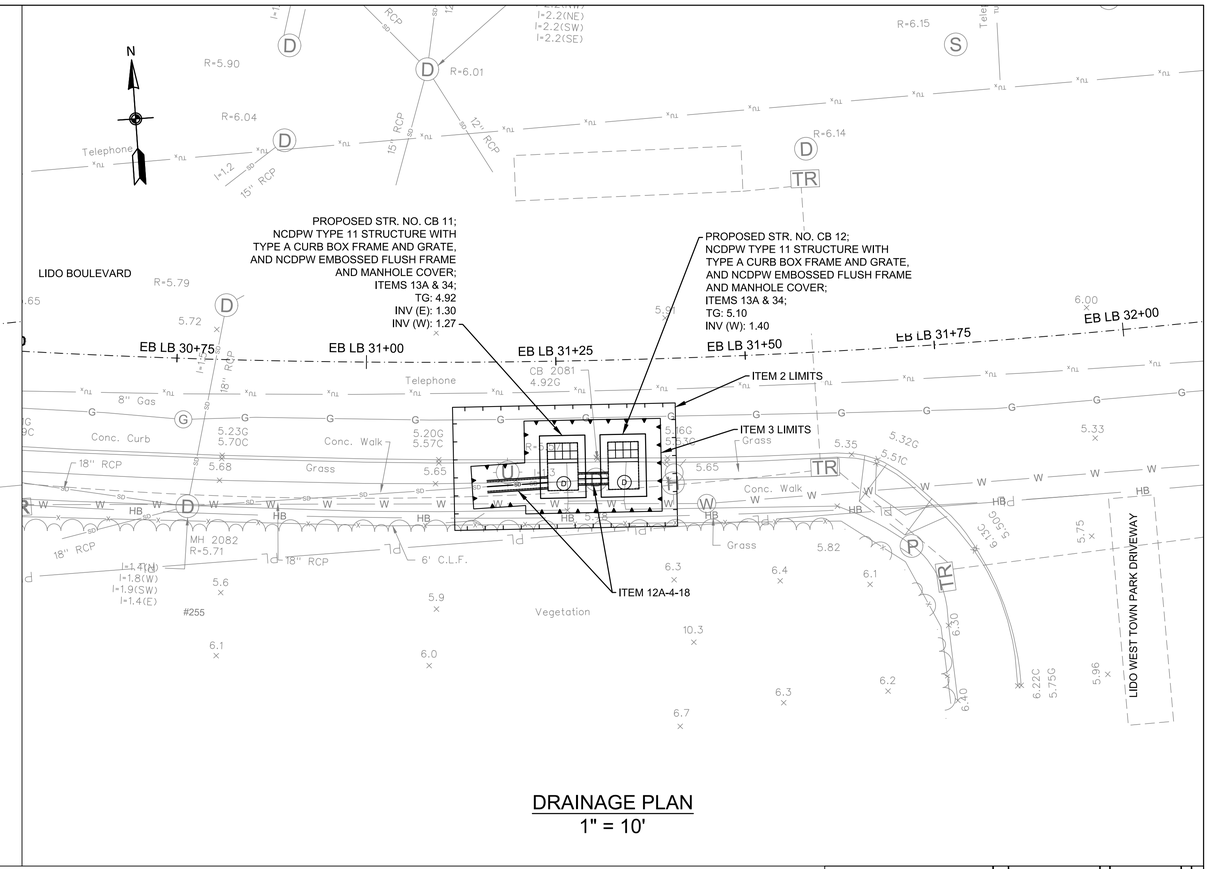
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
255 LIDO BLVD., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-10	
SCALE: 1" = 10'	SHEET NO: 25 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-10.DWG
Plot Date: 10/8/2019 9:37 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

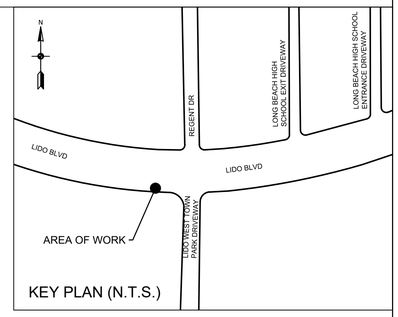
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01, WZTC-5-1 AND WZTC-5-2 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-18	18" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
13A	CATCH BASINS		CY
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
120-SS	RELOCATION OF EXISTING LIGHT POLES (COMPLETE)		EA
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

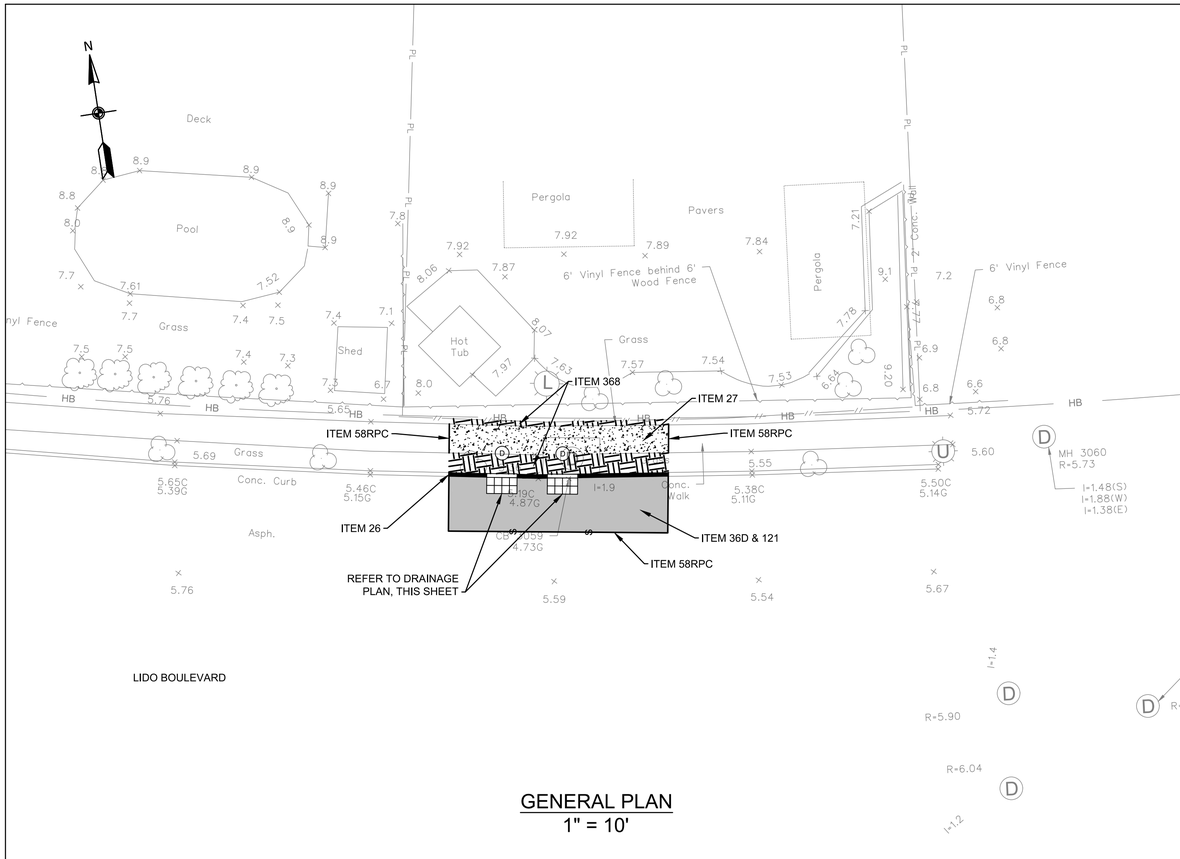
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

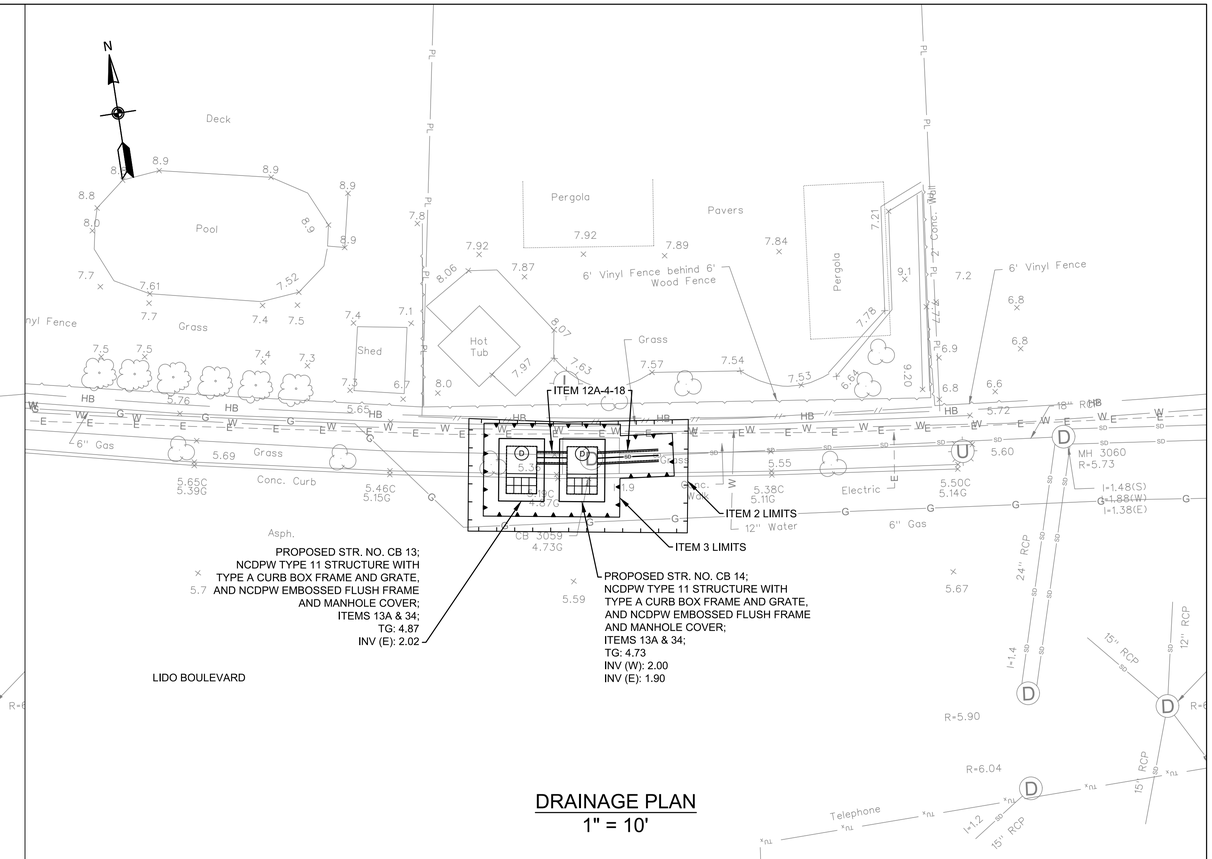
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
255 LIDO BLVD., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-11	
SCALE: 1" = 10'	SHEET NO: 26 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-11.DWG
Plot Date: 10/8/2019 9:37 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

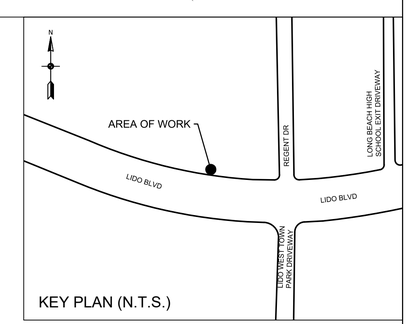
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01, WZTC-6-1 AND WZTC-6-2 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-18	18" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

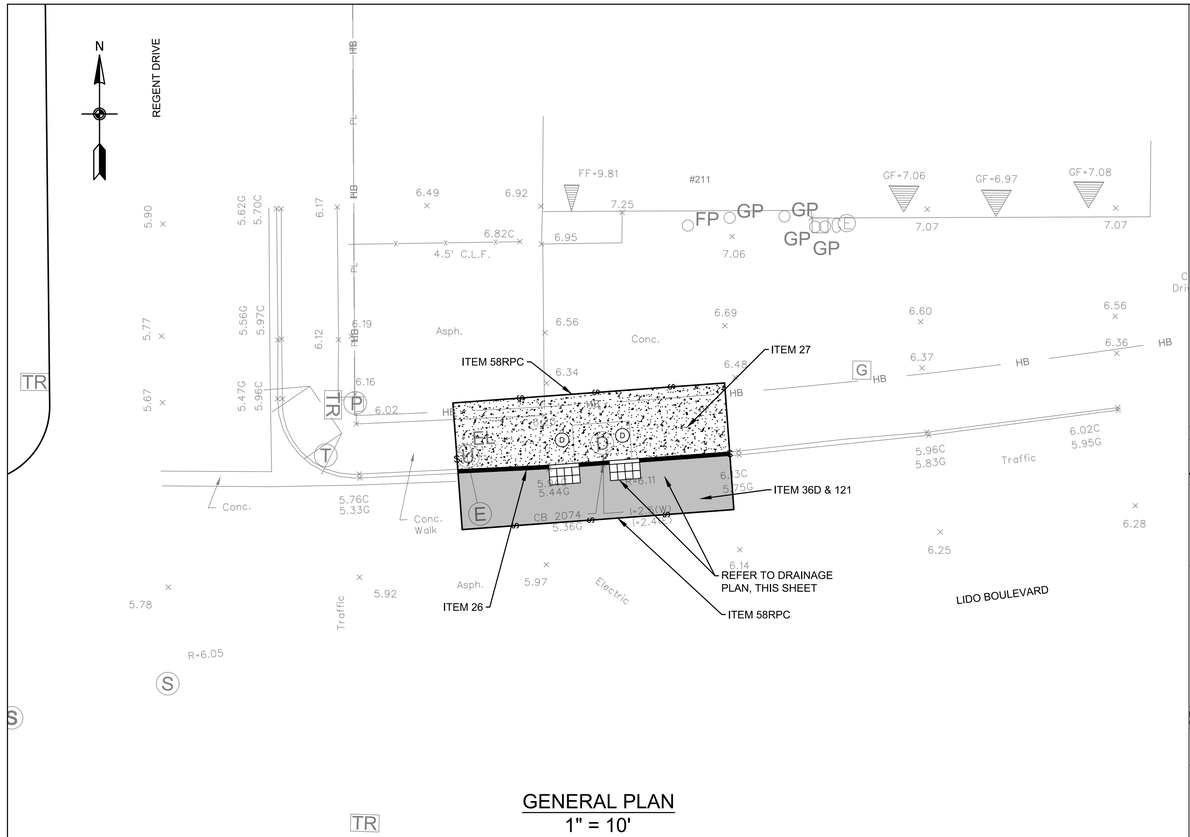
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

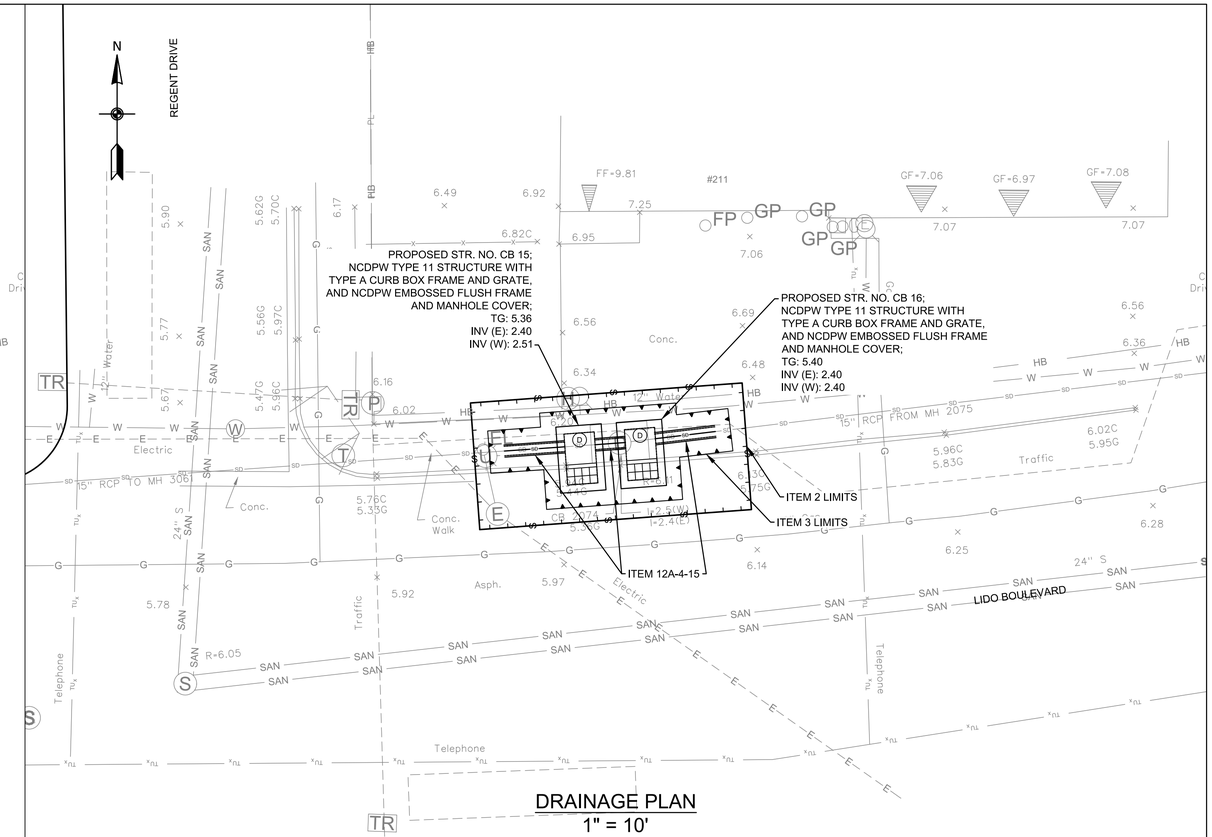
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
9 REYNOLDS DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-12	
SCALE: 1" = 10'	SHEET NO: 27 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-12.DWG
Plot Date: 10/8/2019 9:38 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

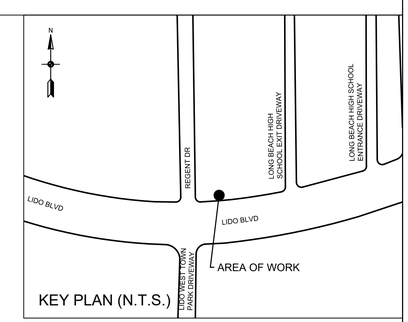
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01, WZTC-6-1 AND WZTC-6-2 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-18	18" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

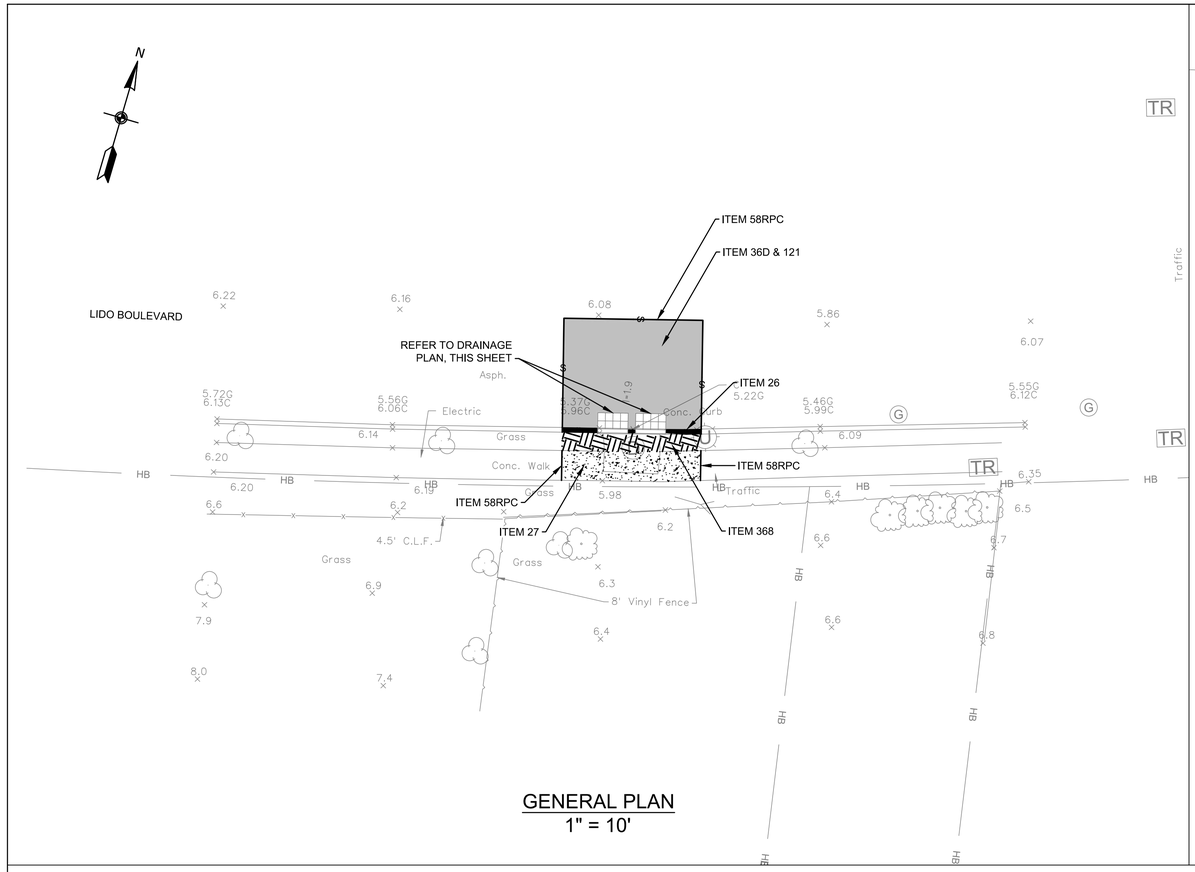
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

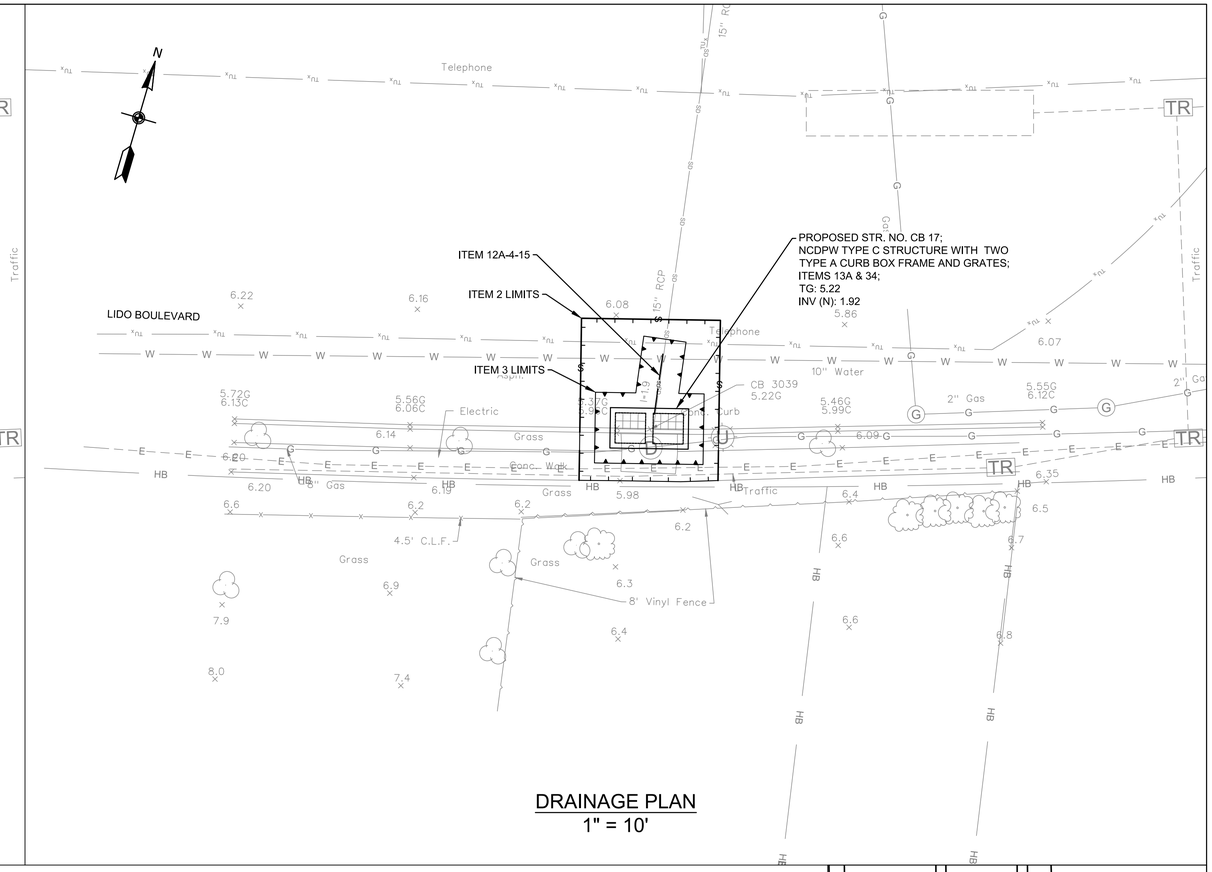
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
211 LIDO BLVD., LIDO BEACH, NY

GPI JOB NO: 2018042.00
CONTRACT NO: H60052-01D
PHASE: 60%
DATE: 10/08/2019
DRAWING NO: CP-13
SCALE: 1" = 10'
SHEET NO: 28 OF 39

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-13.DWG
Plot Date: 10/8/2019 9:38 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

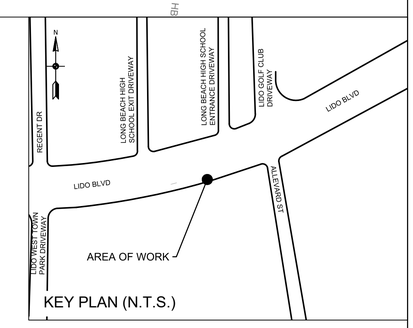
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01, WZTC-5-1 AND WZTC-5-2 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

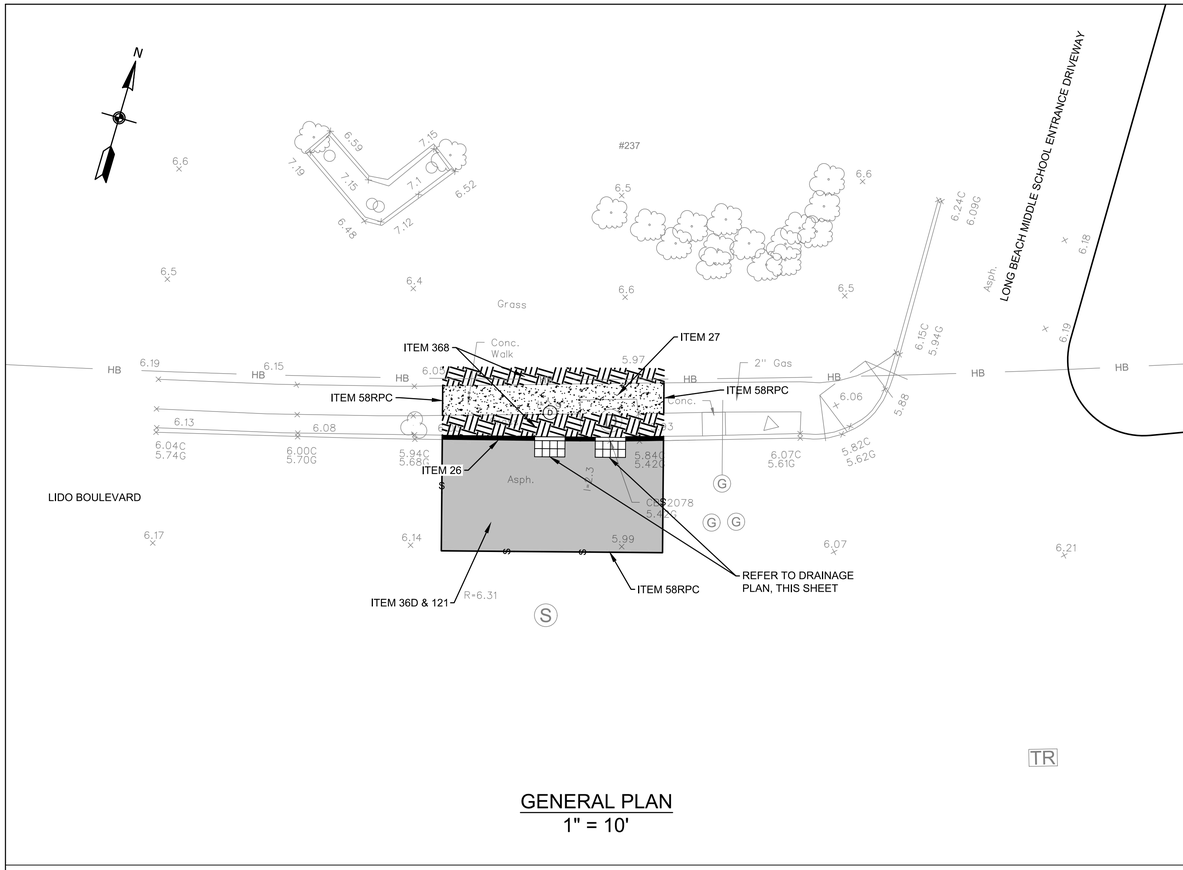
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

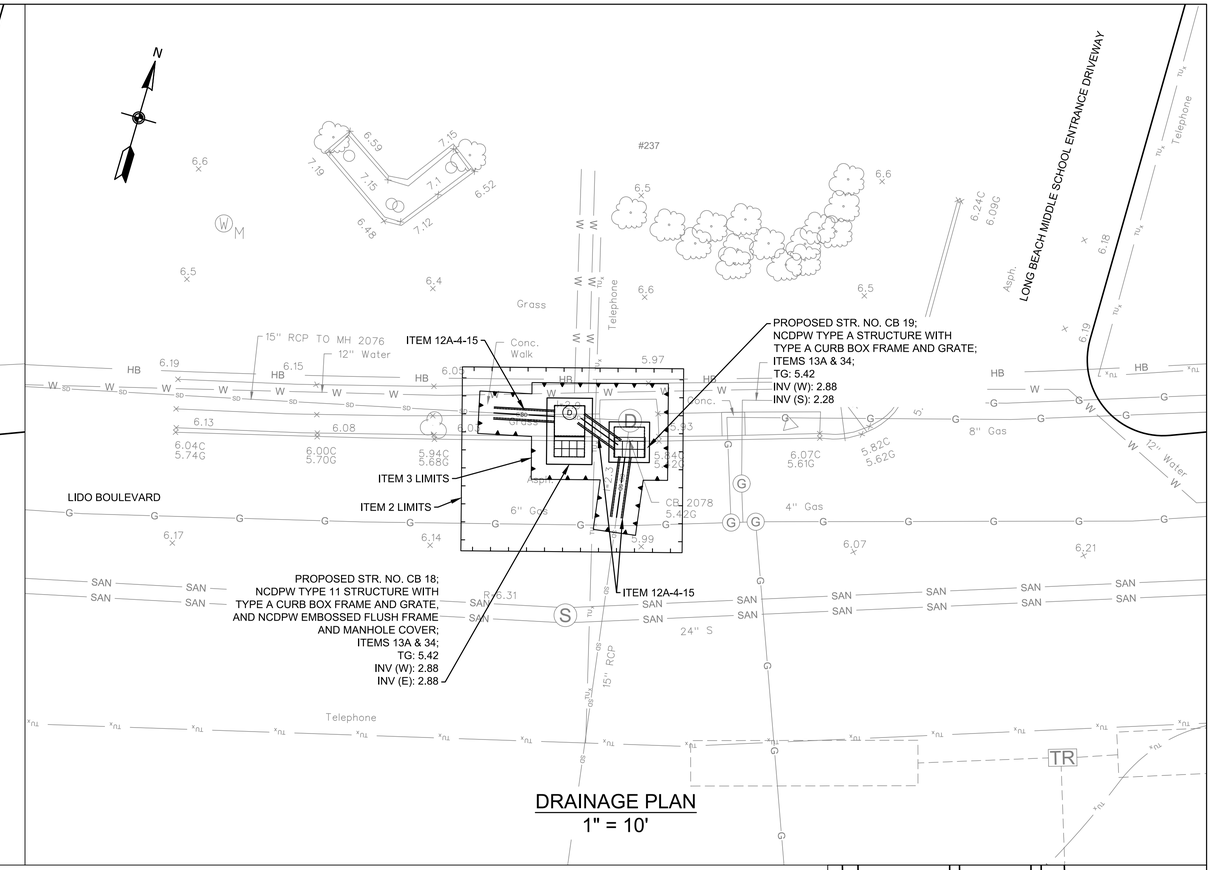
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
250 LIDO BLVD., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-14	
SCALE: 1" = 10'	SHEET NO: 29 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-14.DWG
Plot Date: 10/8/2019 9:38 AM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

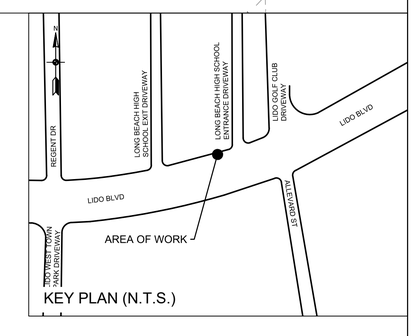
5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01, WZTC-6-1 AND WZTC-6-2 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL		CY
3	TRENCH AND CULVERT EXCAVATION		CY
12A-4-15	15" CLASS IV REINFORCED CONCRETE PIPE (RCP)		LF
12DIP-15	15" DUCTILE IRON PIPE (DIP)		LF
13A	CATCH BASINS		CY
26	CONCRETE CURB		LF
27	CEMENT CONCRETE SIDEWALK		SF
34	MISCELLANEOUS METALS		LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)		TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE		LF
121	DRYBOUND BASE COURSE		CY
368	TOPSOIL AND GRASS SEED		SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
235 LIDO BLVD., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: CP-15	
SCALE: 1" = 10'	SHEET NO: 30 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-15.DWG
Plot Date: 10/8/2019 9:39 AM

WORK ZONE TRAFFIC CONTROL NOTES:

1.0 THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FOLLOWING TWO SPECIAL NOTES IN THE CONTRACT DOCUMENTS SPECIFICALLY REGARDING WORK ON LIDO BOULEVARD:

SPECIAL NOTE "TEMPORARY LANE/SHOULDER CLOSURE RESTRICTIONS FOR MAJOR HOLIDAYS". NO LANE CLOSURES WILL BE ALLOWED ON WEEKENDS AND ON THE FOLLOWING DAYS:

-NEW YEARS DAY
-MEMORIAL DAY
-INDEPENDENCE DAY
-LABOR DAY
-THANKSGIVING DAY
-CHRISTMAS DAY

1.0.1 FOR THE HOLIDAY RESTRICTIONS NOTED IN THE SPECIAL NOTE THERE CAN BE NO PRESENCE ON THE ROAD UNLESS OTHERWISE NOTED ON CONTRACT PLANS.

1.0.2 UNLESS OTHERWISE STATED ON THE CONTRACT DOCUMENTS, PLANS OR ADVISED, NO LANE CLOSURES WILL BE ALLOWED ON WEEKENDS.

1.1 FOR ALL REGIONAL NON-LIMITED ACCESS STATE ROUTES:

1.1.1 A SINGLE LANE CLOSURE ON ALL NON-LIMITED ACCESS STATE ROUTES WITH TWO (2) OR MORE LANES IN EACH DIRECTION IS ALLOWED BETWEEN 10 AM AND 3 PM AS WELL AS BETWEEN 10 PM AND 6 AM

1.1.2 FULL ROAD OR MULTI LANE CLOSURES ON ALL NON-LIMITED ACCESS STATE ROUTES ARE ALLOWED BETWEEN 10 PM AND 6 AM UNLESS OTHERWISE SPECIFIED ON THE CONTRACT PLANS OR AS DIRECTED BY THE REGIONAL DIRECTOR OR HIS/HER DESIGNEE.

1.2 CONTRACTORS MUST PLACE PORTABLE VMS, AT APPROPRIATE PLACE(S) WITHIN THE CONTRACT LIMIT, AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE, TO PROVIDE ADVANCE NOTIFICATION TO MOTORISTS ABOUT POSSIBLE FULL OR MULTI LANE CLOSURE.

2.0 WORK ZONE TRAFFIC CONTROL GUIDELINES

2.1 WORK ZONE TRAFFIC CONTROL SCHEMES SHALL BE IN ACCORDANCE WITH THE PLANS, NYSDOT STANDARD SHEETS, THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (MUTCD) AND 17 NYCRR CHAPTER V (NEW YORK SUPPLEMENT), SIGN DRAWINGS AND OTHER EXHIBITS OF THE DOCUMENT AS ORDERED BY THE ENGINEER (AOBE).

2.2 THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC CONTROL. WORK ZONE TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE PLANS, NYSDOT STANDARD SHEETS, THE MUTCD, AND AS APPROVED OR DIRECTED BY THE ENGINEER. TRAFFIC SCHEMES SHOWN ON THE PLANS OR IN THE MUTCD ARE TO BE CONSIDERED MINIMUM REQUIREMENTS. THE ENGINEER MAY ORDER ADDITIONAL SIGNS, FLAGGERS, CONES, REFLECTORIZATION ETC., IF NECESSARY, AT NO ADDITIONAL COST TO THE STATE. PAYMENT FOR ALL SUCH WORK SHALL BE INCLUDED IN THE ITEMS FOR WORK ZONE TRAFFIC CONTROL AS APPROPRIATE.

2.3 THE CONTRACTOR MAY SUBMIT REVISIONS TO THIS PLAN FOR THE FOR APPROVAL BY THE COUNTY OR THE ENGINEER. THIS SHALL BE AT NO ADDITIONAL COST TO THE STATE.

2.4 UNDIVIDED HIGHWAYS: THE CONTRACTOR SHALL NOT WORK ON BOTH SIDES OF THE ROADWAY IN THE SAME AREA AT THE SAME TIME.

2.5 DIVIDED HIGHWAYS: THE CONTRACTOR SHALL NOT WORK ON BOTH SIDES OF ONE-WAY TRAFFIC (e.g. ON THE SHOULDER AND IN THE MEDIAN) IN THE SAME AREA AT THE SAME TIME.

2.6 WHEN THE CONTRACTOR IS WORKING WITHIN 15 FT OF A TRAVELED LANE, THE ENGINEER MAY REQUIRE THE ADJACENT TRAVEL LANE TO BE CLOSED.

2.7 THE FOLLOWING SHALL APPLY WHEN TRAVEL LANES ARE CLOSED: THE CONTRACTOR SHALL PLACE TWO PLASTIC DRUMS OR VERTICAL PANELS, AT MAXIMUM 400 FT INTERVALS, ADJACENT TO EACH OTHER IN THE MIDDLE OF EACH CLOSED LANE TO DISCOURAGE USE OF THE LANE BY VEHICLES. FOR THE FIRST 1000 FT OF CLOSURE, AND FOR THE FIRST 1000 FT AFTER EACH ENTRANCE RAMP WITHIN THE CLOSURE, THIS INTERVAL SHALL BE REDUCED TO 200 FT. PLACEMENT OF THESE DRUMS OR VERTICAL PANELS SHALL BE IN ADDITION TO THE DEVICES SHOWN IN WORK ZONE TRAFFIC CONTROL SCHEMES OF THE MUTCD AND THOSE SHOWN ON THE PLANS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR WORK ZONE TRAFFIC CONTROL.

2.8 WHENEVER WORK ZONE TRAFFIC CONTROL SCHEMES PROVIDING FOR ONE_LANE ROAD OPERATION ARE IN EFFECT, THE CONTRACTOR SHALL POSITION FLAGGERS, AT THE LIMITS OF THE ONE_LANE ROAD OPERATION, AT ALL CROSS STREETS WITHIN THE ONE_LANE ROAD OPERATION, AT MAJOR DRIVEWAYS AND SUCH OTHER LOCATIONS AS REQUIRED BY THE ENGINEER TO CONTROL TRAFFIC. FLAGGERS SHALL BE EQUIPPED WITH TWO_WAY RADIOS, IN ACCORDANCE WITH CHAPTER 6E OF THE MUTCD AND SUBSECTION 619-3.02L OF THE STANDARD SPECIFICATIONS, WHERE IN THE OPINION OF THE ENGINEER THE USAGE OF SUCH RADIOS IS NECESSARY TO CONTROL TRAFFIC. SUCH RADIOS SHALL HAVE SUFFICIENT TRANSMITTING POWER TO REACH ALL POINTS WITHIN THE LENGTH OF THE ONE_LANE ROAD OPERATION. PAYMENT FOR THE USE OF SUCH RADIOS SHALL BE INCLUDED IN THE BASIC WORK ZONE TRAFFIC CONTROL ITEM 102.

2.9 WHEN CONES ARE USED IN CONTROLLING THE MOVEMENT OF TRAFFIC THROUGH WORK AREAS, THE CONTRACTOR SHALL TAKE STEPS AS NECESSARY TO PREVENT THE CONES FROM BEING BLOWN OVER OR DISPLACED BY PASSING VEHICLES.

2.10 NOTWITHSTANDING THE PROVISIONS OF SUBSECTION 619-3.19 AND 619-3.02J OF THE STANDARD SPECIFICATIONS AND SECTION 6F.64 OF MUTCD, USE OF CONES WILL NOT BE PERMITTED DURING NIGHTTIME OPERATIONS.

2.11 THE CONTRACTOR MUST NOTIFY THE ENGINEER, NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS, NASSAU COUNTY POLICE DEPARTMENT, TOWN OF HEPSTEAD, POLICE, FIRE DEPARTMENTS AND LIDO BEACH SCHOOL DISTRICT OF ALL DETOURS, PROPOSED STREET CLOSINGS, OR ANY WORK THAT MIGHT AFFECT THE MOBILITY OR ACCESS OF THE FIRE OR POLICE DEPARTMENT 72 HOURS IN ADVANCE OF THEIR IMPLEMENTATION. IN ADDITION, THE CONTRACTOR SHALL ENSURE THAT HYDRANTS AND ALARM BOXES ARE KEPT CLEAR AND AVAILABLE.

2.12 ALONG THE DETOUR ROUTE, THE CONTRACTOR'S RESPONSIBILITY IS LIMITED TO THE PLACEMENT, MAINTENANCE AND REMOVAL OF DETOUR SIGNS AND DEVICES AND A DAILY PATROL TO MAKE SURE THEY ARE IN GOOD CONDITION. WHEN THE DETOUR IS NOT IN EFFECT, THE CONTRACTOR SHALL IMMEDIATELY MOVE, REMOVE OR TEMPORARILY COVER ALL DETOUR SIGNS, TO REFLECT ACTUAL CONDITIONS.

2.13 ALONG THE DETOUR ROUTE, THE CONTRACTOR IS RESPONSIBLE FOR IMPROVING AND REPAIRING, AND MAINTAINING THE PAVEMENT AND FOR THE INSTALLATION, MAINTENANCE, AND REMOVAL OF TRAFFIC CONTROL DEVICES AS SHOWN ON THE PLANS OR AOBE. THE CONTRACTOR SHALL ALSO MAKE PERIODIC PATROLS TO MAKE SURE THE DETOUR IS OPERATING SAFELY AND EFFICIENTLY. WHEN THE DETOUR IS NOT IN EFFECT, THE CONTRACTOR SHALL IMMEDIATELY MOVE, REMOVE OR TEMPORARILY COVER ALL DETOUR SIGNS, TO REFLECT ACTUAL CONDITIONS.

2.14 VARIOUS MAINTENANCE AND CONSTRUCTION SIGNS SPECIFIED IN PART 6 OF THE MUTCD ARE AVAILABLE IN THE STANDARD DIAMOND SHAPE AND AN ALTERNATE RECTANGULAR SHAPE. WHENEVER SUCH SIGNS ARE INCLUDED IN THIS CONTRACT, THE DIAMOND SHAPE SIGN SHALL BE USED, DESPITE OTHER INDICATIONS IN CHAPTER 6F.

2.15 NOT USED.

2.16 THE CONTRACTOR'S ATTENTION IS DIRECTED TO CHAPTER 6F, SECTION 6F.02 OF THE MUTCD, WHICH REQUIRES THAT WITH THE EXCEPTION OF THE RAILROAD ADVANCED WARNING SIGN, WARNING SIGNS USED IN CONJUNCTION WITH WORK ZONE ACTIVITIES SHOULD HAVE ORANGE BACKGROUNDS.

2.17 IN ADDITION TO THE SIGNING SHOWN ON THE PLANS, THE CONTRACTOR SHALL ERECT W20-1 "ROAD WORK AHEAD" SIGNS AT INTERSECTING CROSS STREETS OR ENTERING RAMPS WITHIN THE CONTRACT LIMITS. PAYMENT FOR THESE SIGNS WILL BE MADE UNDER THE ITEM 102.

2.18 NOT USED.

2.19 USE OF SIGN OVERLAYS WILL NOT BE PERMITTED DURING NIGHTTIME OPERATIONS.

2.20 THE CONTRACTOR IS ADVISED THAT EXISTING TRAFFIC SIGNS AND CONSTRUCTION SIGNS WITHIN THE WORK AREA, WHICH ARE NO LONGER NEEDED, EVEN TEMPORARILY, OR ARE CONFLICTING, INAPPROPRIATE OR CONFUSING, SHALL BE REMOVED (SUBJECT TO THE APPROVAL OF THE ENGINEER) OR SHALL BE COVERED COMPLETELY WITH AN OPAQUE MATERIAL. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE WORK ZONE TRAFFIC CONTROL ITEM.

2.21 IN ADDITION TO THE SIGNING REQUIRED IN THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE CONTRACTOR SHALL USE A FLASHING ARROW PANEL, PAID UNDER ITEM 102, POSITIONED AT THE BEGINNING OF TAPER FOR ALL TRAVEL LANE CLOSINGS. ONE FLASHING ARROW PANEL/BOARD WILL BE REQUIRED IN CONJUNCTION WITH THE LANE CLOSURE SHOWN IN THE MUTCD, FIGURE 6H-33 OR OTHER ARRANGEMENTS, WHICHEVER IS APPLICABLE. THE FLASHING ARROW PANEL WILL NOT BE REQUIRED IN CONNECTION WITH SHOULDER CLOSINGS OR SIDE STREET LANE CLOSURES UNLESS THE ENGINEER ORDERS ITS USE.

2.22 ARROW PANELS SHALL DISPLAY A FLASHING ARROW FOR LANE CLOSURES. OTHER OPERATIONAL MODES SUCH AS SEQUENTIAL CHEVRONS, SEQUENTIAL ARROWS OR STEM ARROWS, ARE EXPLICITLY PROHIBITED FOR THESE APPLICATIONS, AND SHALL NOT BE USED ON DEPARTMENT PROJECTS.

ARROW PANELS SHALL NOT BE USED FOR LANE SHIFTS. A LANE SHIFT IS DEFINED AS A LATERAL SHIFT IN THE TRAVEL PATH WITHOUT A REDUCTION IN NUMBER OF LANES.

2.23 UNDER THE PROVISIONS OF ITEM 102, THE LAMPS OF FLASHING ARROW PANELS TO BE EQUIPPED WITH AN AUTOMATIC SOLAR CELL CONTROLLED DIMMING SWITCH AND THAT THE DIMMING VOLTAGE BE MANUALLY CONTROLLABLE. AT NIGHT, FLASHING ARROW PANELS MUST NOT BE PERMITTED TO OPERATE AT SUCH BRIGHTNESS THAT SIGNS, DRUMS, IMPACT ATTENUATION DEVICES OR OTHER TRAFFIC CONTROL DEVICES NEAR THE FLASHING ARROW PANEL CANNOT EASILY BE SEEN BY APPROACHING MOTORISTS. TO ENSURE THAT FLASHING ARROW PANELS ARE NOT TOO BRIGHT FOR NIGHTTIME OPERATION, THE CONTRACTOR SHALL MAKE AN ON SITE INSPECTION OF EACH ARROW PANEL/BOARD AT THE BEGINNING OF ITS FIRST NIGHT OF OPERATION. IN THE EVENT THIS INSPECTION REVEALS THE ARROW PANEL IS TOO BRIGHT, THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO REDUCE LAMP INTENSITIES. IN ADDITION, THE CONTRACTOR SHALL PROMPTLY REDUCE THE LAMP INTENSITY OF ANY ARROW PANEL UPON BEING INFORMED BY THE ENGINEER THAT IT IS TOO BRIGHT. IN THIS CONTEXT, PROMPTLY SHALL MEAN NO LATER THAN THE BEGINNING OF THE NEXT NIGHT OF THE ARROW PANEL'S OPERATION.

THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 102. FAILURE TO COMPLY WITH THIS NOTE SHALL BE CONSIDERED AS UNSATISFACTORY MAINTENANCE AND PROTECTION OF TRAFFIC WITH PAYMENT DEDUCTIONS MADE IN ACCORDANCE WITH THE APPROPRIATE SUBSECTION OF ITEM 102.

2.24 IN ADDITION TO THE DEVICES SHOWN IN THE MUTCD AND THE PLANS, BARRIER VEHICLES (AS PROVIDED FOR UNDER SUBSECTION 619_1.02G) AND MOBILE CONSTRUCTION ZONE IMPACT ATTENUATORS (AS SPECIFIED UNDER SECTION 729-12 OF THE SPECIFICATIONS) SHALL BE PROVIDED WHERE WORK IS LOCATED IN A CLOSED SHOULDER OR TRAVEL LANE ADJACENT TO TRAFFIC AT ISOLATED OR FIXED LOCATIONS WITHIN THE WORK ZONE. THE BARRIER VEHICLE SHALL ONLY BE USED WHEN WORKERS AND/OR EQUIPMENT ARE ACTUALLY OCCUPYING THE SITE OF WORK. THE BARRIER VEHICLE SHALL BE POSITIONED TO PROTECT THE WORKERS IN THE EVENT OF A WORK ZONE INTRUSION. BARRIER VEHICLES MAY NOT BE REQUIRED WHERE THE WORK OPERATION TAKES PLACE OVER AN EXTENDED AREA SUCH AS FOR PAVING, JOINT SEALING, OR PAVEMENT REPAIR OPERATIONS (EXCEPT WHEN SUCH WORK TAKES PLACE WITHIN 1200 FT OF THE BEGINNING OF A LANE CLOSURE) OR WHERE WORKERS ARE PROTECTED BY THE USE OF CONCRETE BARRIER OR ON SIDE STREET LANE CLOSURES. THE COST OF THIS WORK IS TO BE INCLUDED UNDER THE ITEM FOR WORK ZONE TRAFFIC CONTROL.

2.25 THE CONTRACTOR SHALL SCHEDULE HIS/HER OPERATIONS TO MINIMIZE THE INTERRUPTION OF PEDESTRIAN TRAFFIC. THE SIDEWALK ON ONE SIDE OF THE ROADWAY SHALL REMAIN OPEN AND PASSABLE AT ALL TIMES. DURING THE RECONSTRUCTION OF SIDEWALKS, PEDESTRIAN SAFETY AND PROPERTY ACCESS MUST BE MAINTAINED AT ALL TIMES TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL PLACE ALL UNDERGROUND APPURTENANCES UNDER THE SIDEWALK FIRST.

AT LOCATIONS WHERE EXISTING SIDEWALK IS CLOSED, THE CONTRACTOR SHALL PLACE A TYPE III BARRICADE WITH MUTCD R9-9 "SIDEWALK CLOSED" SIGN. WHEN SIDEWALK IS CLOSED IN THE MIDDLE OF A STREET, THE CONTRACTOR SHALL PLACE MUTCD R9-11 "SIDEWALK CLOSED AHEAD", (ARROW) "CROSS HERE" SIGN AT THE CLOSEST SAFE CROSSING.

2.26 ADA COMPLIANT ACCESSIBILITY FOR PEDESTRIANS SHALL BE MAINTAINED AT ALL TIMES, AS PER STANDARD SHEETS 619-50 AND 619-51.

2.27 WHERE NECESSARY, OR AS REQUIRED BY THE ENGINEER, THE CONTRACTOR SHALL UTILIZE FLAGGERS AT DRIVEWAYS TO CONTROL TRAFFIC ENTERING THE TRAVEL WAY.

2.28 THE CONTRACTOR SHALL FURNISH 2-WAY RADIOS AND TRAINED WZTC FLAGGERS IN ACCORDANCE WITH THE FOLLOWING: A TRAINED WZTC FLAGGER EQUIPPED WITH A 2-WAY RADIO SHALL ATTEND EACH POINT OF ACCESS FOR THE ENTIRE TIME THE CLOSURE IS IN PLACE. THE ENGINEER-IN-CHARGE, AND EACH OF THE CONTRACTOR'S AND SUBCONTRACTOR'S WORK CREWS' RADIOS SHALL HAVE SUFFICIENT RANGE TO REACH ALL POINTS IN THE CLOSED SECTION OF THE ROADWAY, AND THEY SHALL BE USED TO WARN THE WORK CREWS, IF ANY UNAUTHORIZED VEHICLE ENTERS THE CLOSED SECTION OF THE ROADWAY. NO WORK MAY PROCEED UNTIL THE VEHICLE ARRESTING BARRIER AND TRAINED WZTC FLAGGERS ARE IN PLACE. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 102.

3.0 PROVISIONS FOR SNOW AND ICE REMOVAL OPERATION

A. INTERFERENCE WITH SNOW PLOWING OPERATIONS BY DRUMS, BARRICADES AND OTHER TRAFFIC CONTROL EQUIPMENT SHALL BE KEPT TO A MINIMUM. ANY DEVICES DISTURBED OR DAMAGED BY SNOW AND ICE CONTROL OPERATIONS SHALL BE REPLACED AND/OR RESET AS NECESSARY AND AS SOON AS POSSIBLE BY THE CONTRACTOR.

B. DRAINAGE FRAMES, GRATES AND COVERS AND OTHER CASTINGS SHALL NOT BE ADJUSTED IN A TRAVEL LANE UNLESS THE FINAL PAVEMENT COURSE IS TO BE PLACED PRIOR TO THE ONSET OF SNOW AND ICE WEATHER. STEEL PLATES, ETC. SHALL NOT PROTRUDE ABOVE THE ADJACENT PAVEMENT. IF ANY OF THESE PROTRUSIONS EXIST IN A NON_TRAVEL LANE PRIOR TO A SNOW AND ICE CONDITION, THEN TEMPORARY ASPHALT RAMPS MUST BE PLACED SO THAT FOR EVERY 1 INCH OF RISE, THERE IS A 6 FT RUN OF RAMP.

C. ALL PAVEMENT CUTS SHALL BE RESTORED TO THE ADJACENT PAVEMENT GRADE TO ELIMINATE RECESSED AREAS WHERE SNOW CANNOT BE PLOWED OR WHERE THE PLOWS MAY SNAG.

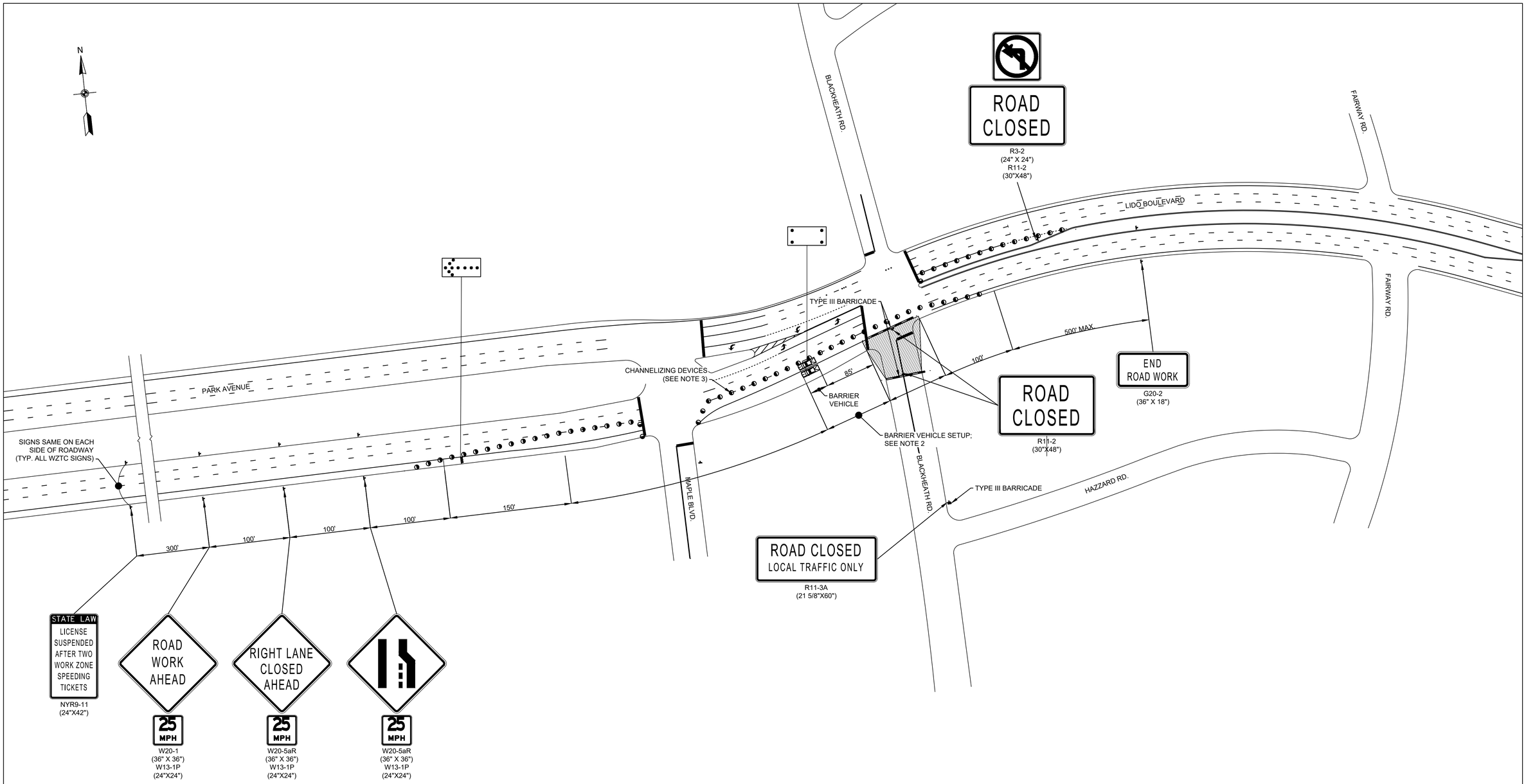
NON-COMPLIANCE WITH THIS NOTE SHALL RESULT IN NON-PAYMENT FOR ITEM 102 FOR THE FIRST DAY AND ASSESSMENT OF LIQUIDATED DAMAGES AS MAY BE APPROPRIATE IN ADDITION TO THE NON-PAYMENT OF ITEM 102 FOR SUBSEQUENT DA

WORK ZONE TRAFFIC CONTROL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	ARROW PANEL		DIRECTION OF TRAFFIC
	ARROW PANEL, CAUTION MODE		SIGN, TEMPORARY
	ARROW PANEL TRAILER OR SUPPORT		TYPE III BARRICADE
	CHANGEABLE MESSAGE SIGN (PVMS)		WORK SPACE
	CHANNELIZING DEVICE		WORK VEHICLE WITH TRUCK MOUNTED ATTENUATOR

SUGGESTED CONSTRUCTION SEQUENCING ALONG LIDO BLVD

SEQUENCE	WZTC DRAWINGS	APPLICABLE CONSTRUCTION PLAN
1	WZTC-1-1	CP-06
2	WZTC-2-1	CP-07
3	WZTC-3-1	CP-08
4	WZTC-4-1	CP-09
5	WZTC-5-1 TO WZTC-5-2	CP-10,11 & 14
6	WZTC-6-1 TO WZTC-6-2	CP-12, 13 & 15



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 1 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX
NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BARRIER VEHICLE SET UP AT ANY TIME
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

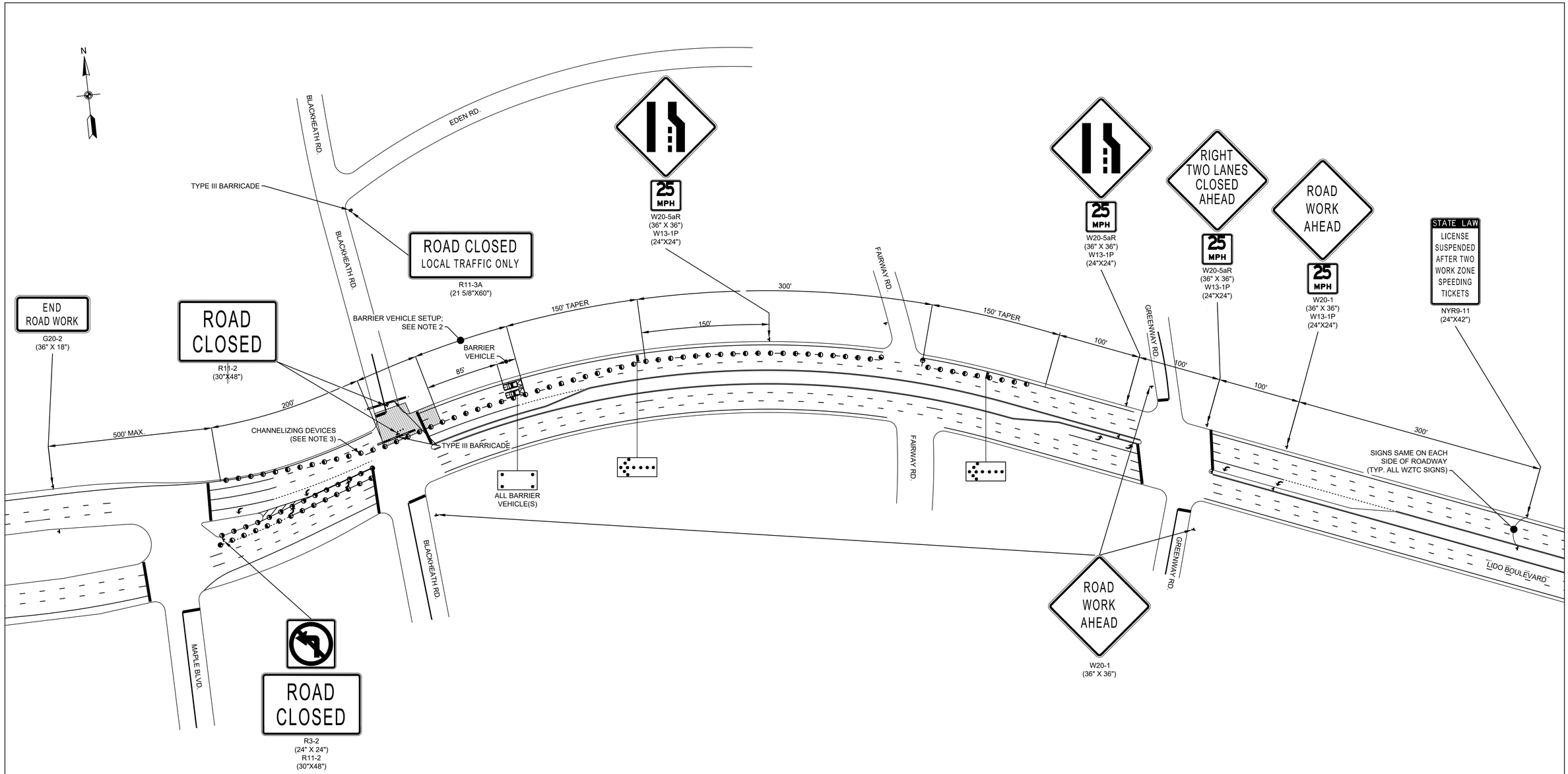
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]
DRAWING TITLE: WZTC - SEQUENCE 1 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-1-1	
SCALE: N.T.S.	SHEET NO: 32 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-1-1.DWG
Plot Date: 10/8/2019 9:39 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 2 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX
NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BARRIER VEHICLE SET UP AT ANY TIME
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

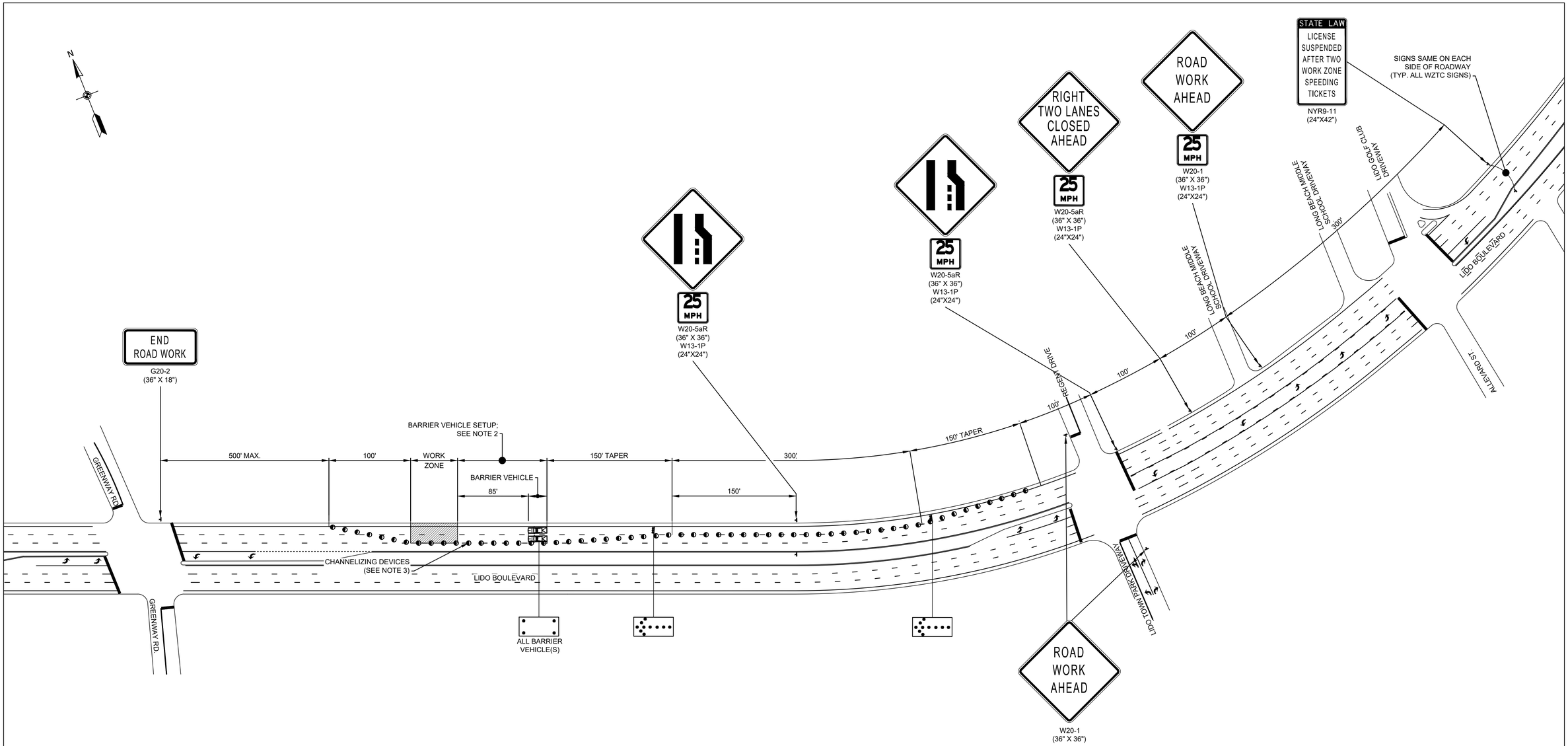
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: WZTC - SEQUENCE 2 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-2-1	
SCALE: N.T.S.	SHEET NO: 33 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-2-1.DWG
Plot Date: 10/8/2019 9:39 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 3 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX
NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BARRIER VEHICLE SET UP AT ANY TIME
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

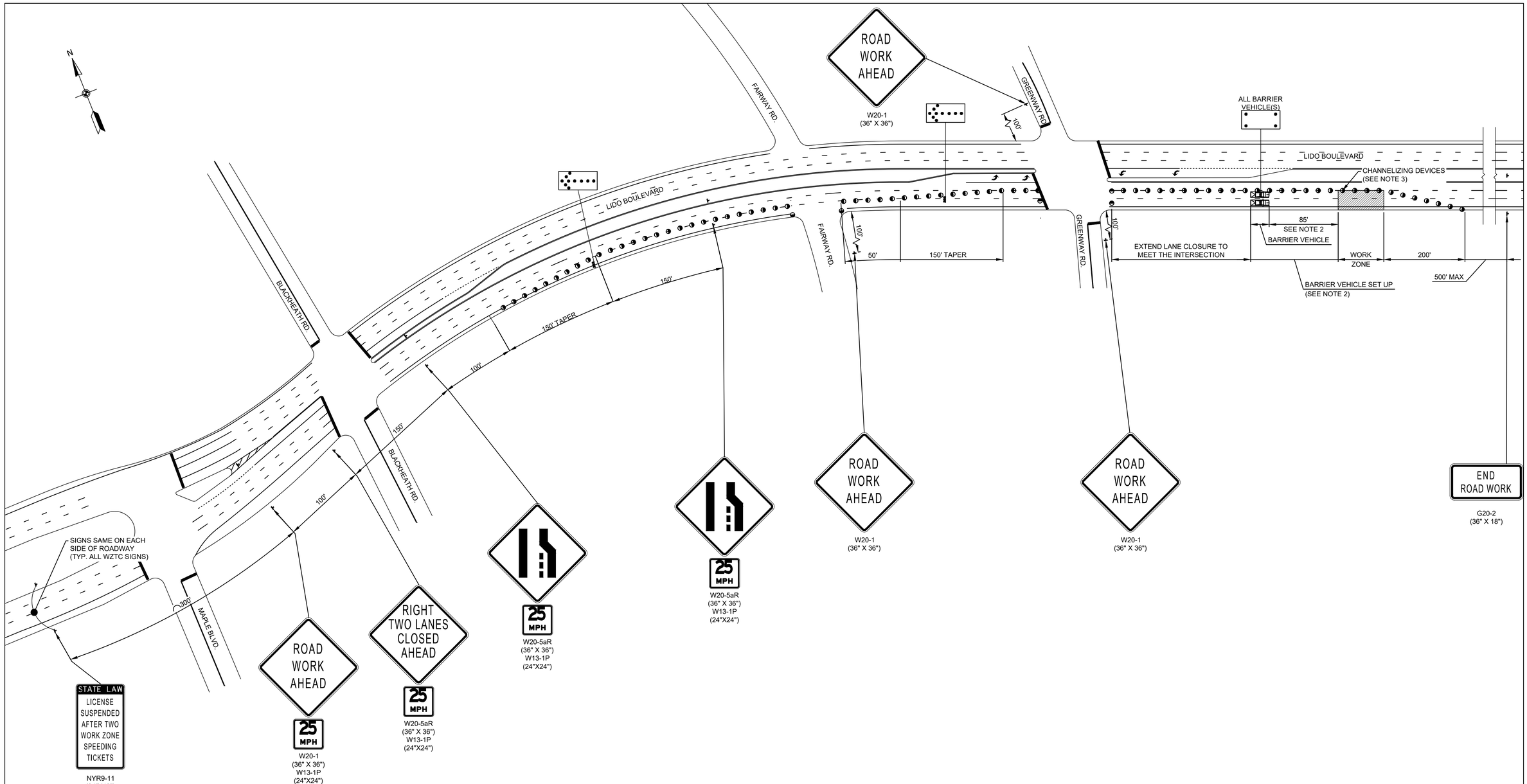
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: WZTC - SEQUENCE 3 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-3-1	
SCALE: N.T.S.	SHEET NO: 34 OF 39	

File Name: O:\2018\BAB-20180042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-3-1.DWG
Plot Date: 10/8/2019 9:40 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 4 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX
NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BARRIER VEHICLE SET UP AT ANY TIME
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

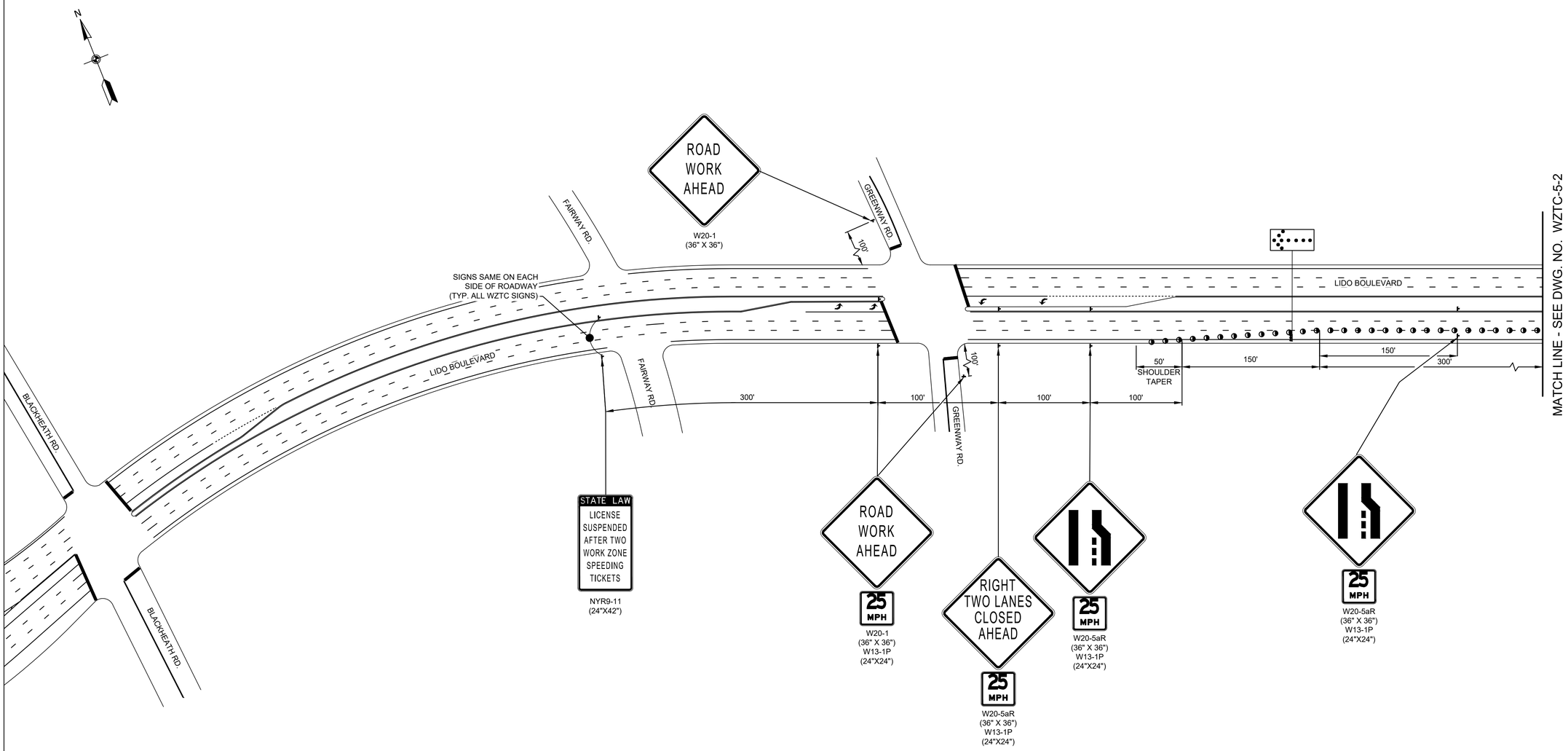
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: WZTC - SEQUENCE 4 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-4-1	
SCALE: N.T.S.	SHEET NO: 35 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-4-1.DWG
Plot Date: 10/8/2019 9:40 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 5 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX
NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BARRIER VEHICLE SET UP AT ANY TIME
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

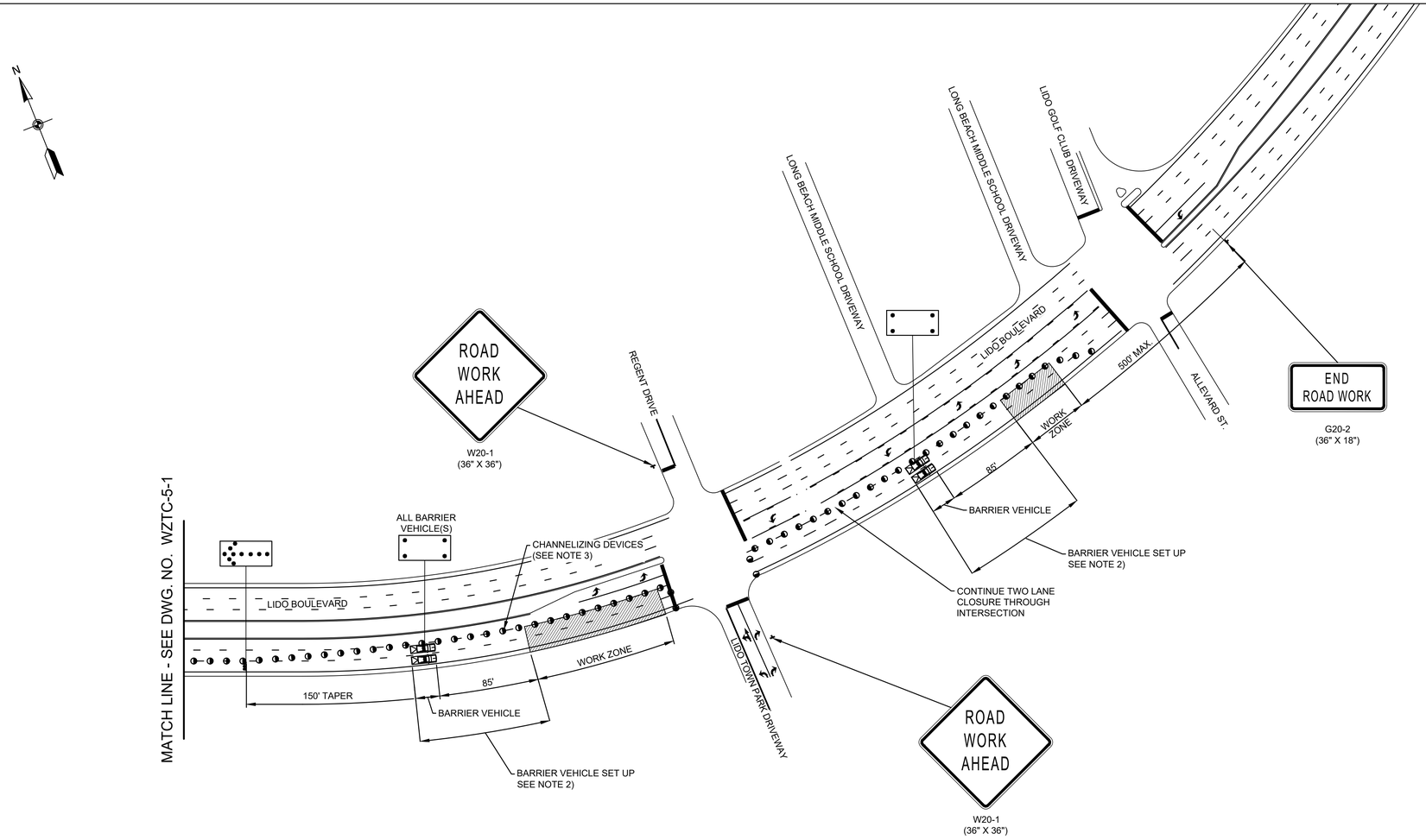
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]
DRAWING TITLE: WZTC - SEQUENCE 5 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-5-1	
SCALE: N.T.S.	SHEET NO: 36 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-5-1.DWG
Plot Date: 10/8/2019 9:40 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 5 - PLAN 2
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX
NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BARRIER VEHICLE SET UP AT ANY TIME
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

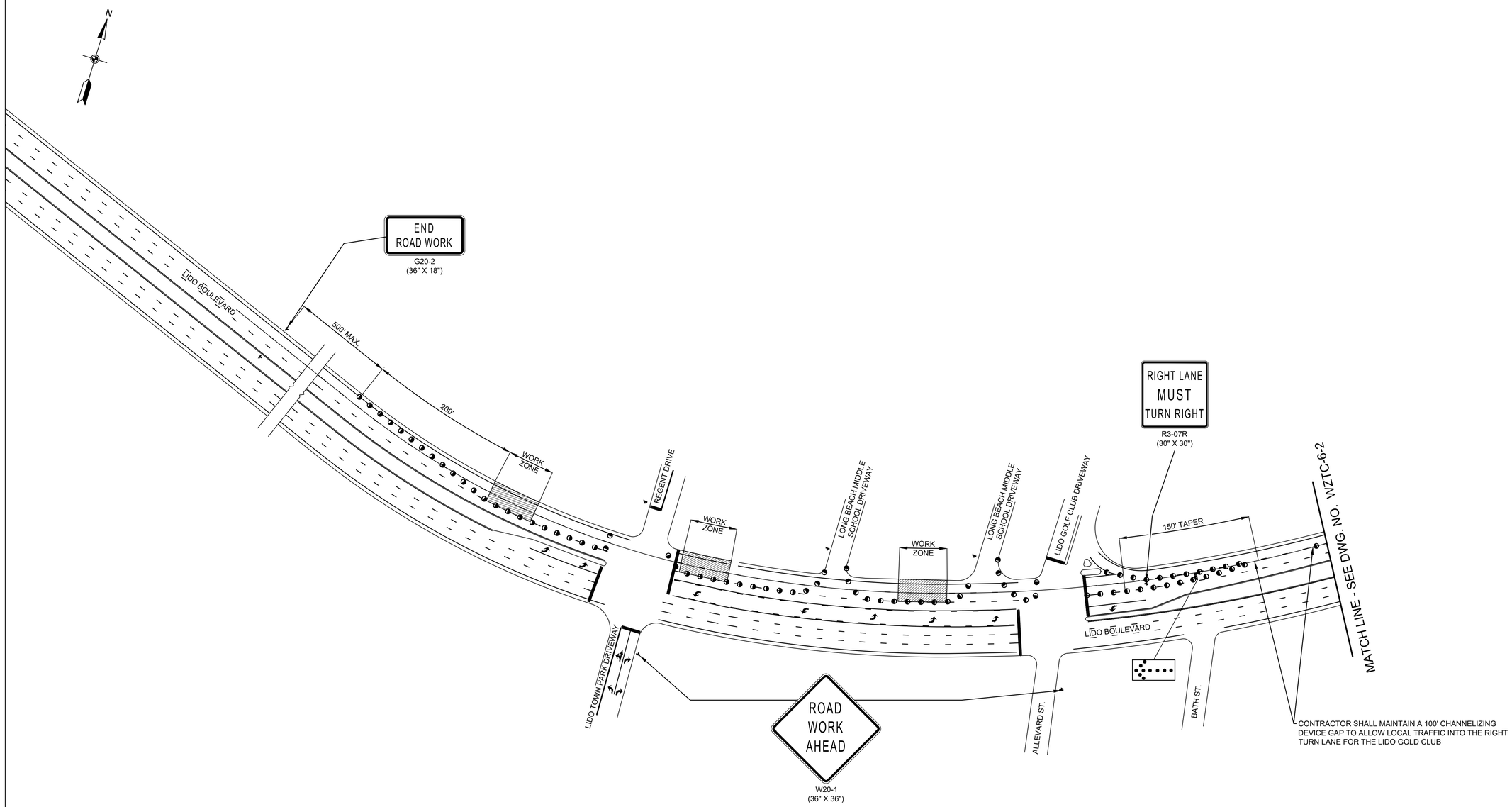
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]
DRAWING TITLE: WZTC - SEQUENCE 1 - PLAN 6

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-5-2	
SCALE: N.T.S.	SHEET NO: 37 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-5-2.DWG
Plot Date: 10/8/2019 9:40 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 6 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX

NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION.
2. NO PROPOSED BARRIER VEHICLE SET UP FOR THIS RECOMMENDED WZTC SEQUENCE.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

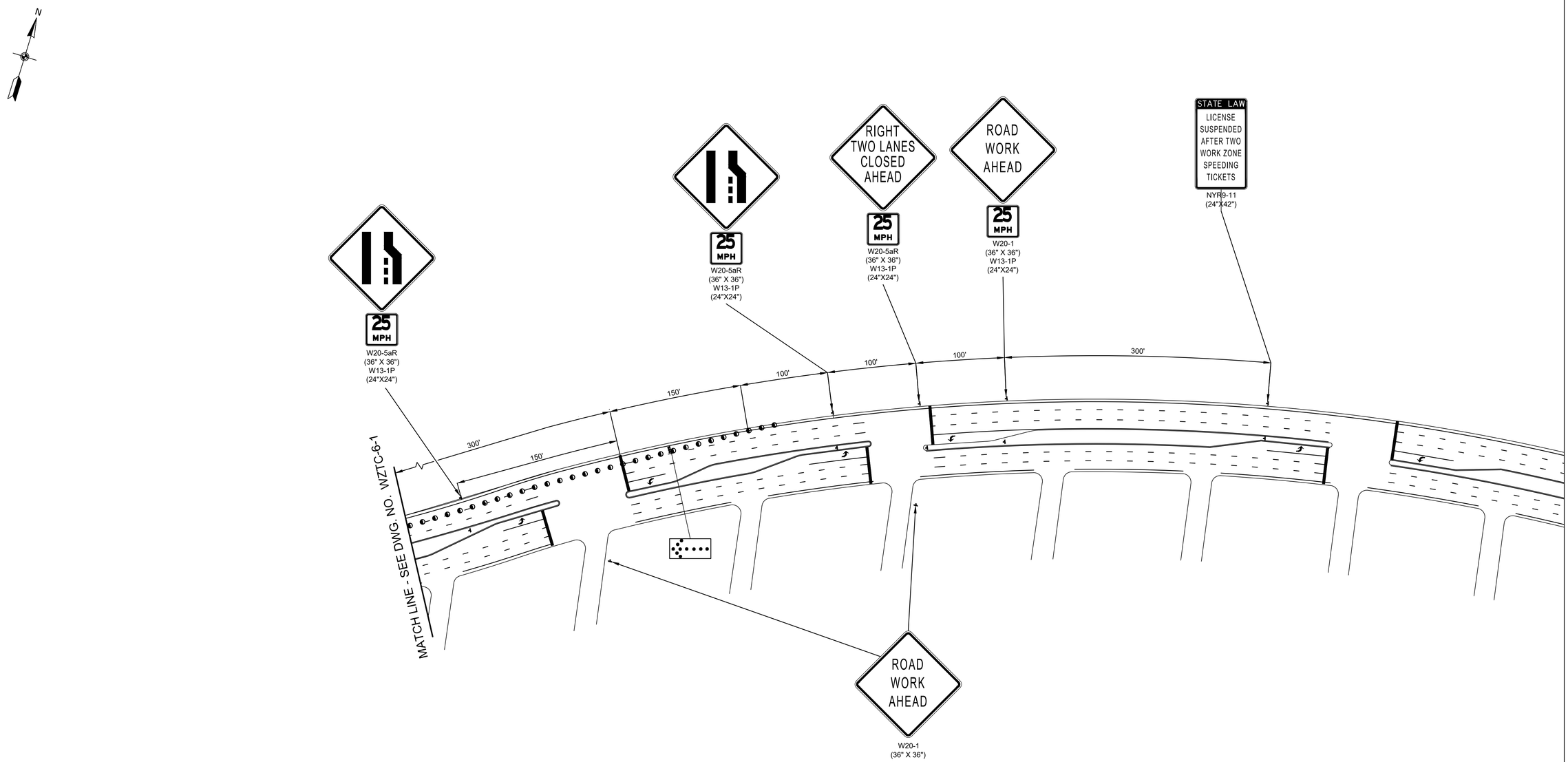
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: WZTC - SEQUENCE 1 - PLAN 7

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-6-1	
SCALE: N.T.S.	SHEET NO: 38 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-6-1.DWG
Plot Date: 10/8/2019 9:41 AM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 6 - PLAN 2
PROPOSED DRAINAGE STRUCTURE NO.S XX,XX,XX

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION.
2. NO PROPOSED BARRIER VEHICLE SET UP FOR THIS RECOMMENDED WZTC SEQUENCE.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR) - [PROGRESS PRINT]

DRAWING TITLE: WZTC - SEQUENCE 1 - PLAN 8

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	60%
DATE: 10/08/2019	DRAWING NO: WZTC-6-2	
SCALE: N.T.S.	SHEET NO: 39 OF 39	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-6-2.DWG
Plot Date: 10/8/2019 9:41 AM

Appendix C

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Long Island Ecological Services Field Office
340 Smith Road
Shirley, NY 11967-2258
Phone: (631) 286-0485 Fax: (631) 286-4003

In Reply Refer To: January 02, 2020
Consultation Code: 05E1LI00-2020-SLI-0200
Event Code: 05E1LI00-2020-E-00463
Project Name: Lido Beach / Point Lookout Drainage Improvement Project

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Long Island Ecological Services Field Office
340 Smith Road
Shirley, NY 11967-2258
(631) 286-0485

Project Summary

Consultation Code: 05E1LI00-2020-SLI-0200

Event Code: 05E1LI00-2020-E-00463

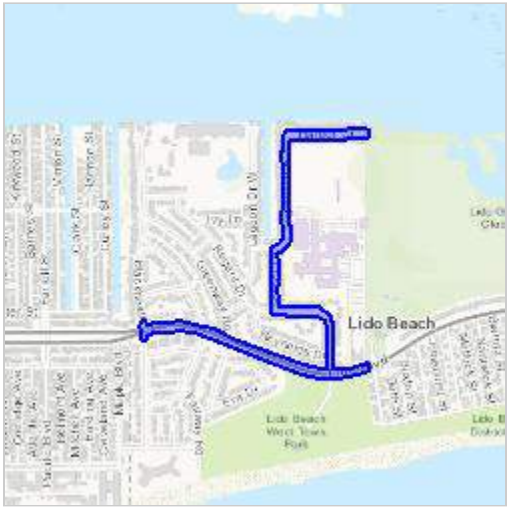
Project Name: Lido Beach / Point Lookout Drainage Improvement Project

Project Type: Federal Grant / Loan Related

Project Description: Drainage improvements

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/40.59113637010296N73.63207016879883W



Counties: Nassau, NY

Endangered Species Act Species

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Birds

NAME	STATUS
Piping Plover *Charadrius melodus* Population: [Atlantic Coast and Northern Great Plains populations] - Wherever found, except those areas where listed as endangered. There is **final** critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot *Calidris canutus rufa* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1864	Threatened
Roseate Tern *Sterna dougallii dougallii* Population: Northeast U.S. nesting population No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2083	Endangered

Flowering Plants

NAME	STATUS
Sandplain Gerardia *Agalinis acuta* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8128	Endangered
Seabeach Amaranth *Amaranthus pumilus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8549	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Appendix D

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NOT FOR CONSULTATION

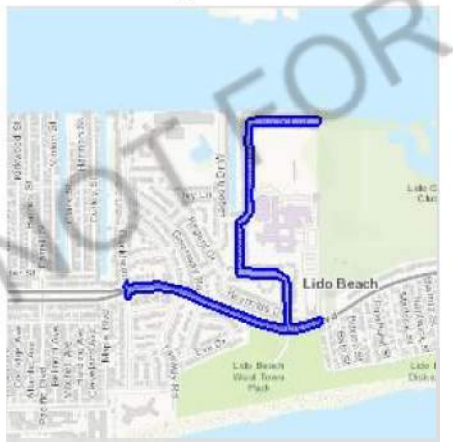
Project information

NAME

Lido Beach / Point Lookout Drainage Improvement Project

LOCATION

Nassau County, New York



DESCRIPTION

Drainage improvements

Local office

Long Island Ecological Services Field Office

(631) 286-0485
(631) 286-4003

340 Smith Road
Shirley, NY 11967-2258

NOT FOR CONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species

[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

---

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

NOT FOR CONSULTATION

Mammals

NAME	STATUS
Northern Long-eared Bat Myotis septentrionalis No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Threatened

Birds

NAME	STATUS
Piping Plover Charadrius melodus There is **final** critical habitat for this species. Your location is outside the critical habitat. https://ecos.fws.gov/ecp/species/6039	Threatened
Red Knot Calidris canutus rufa No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1864	Threatened
Roseate Tern Sterna dougallii dougallii No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2083	Endangered

Flowering Plants

NAME	STATUS
Sandplain Gerardia Agalinis acuta No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8128	Endangered
Seabeach Amaranth Amaranthus pumilus No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/8549	Threatened

NOT FOR CONSULTATION

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act

[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

---

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NOT FOR CONSULTATION

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
American Oystercatcher Haematopus palliatus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8935	Breeds Apr 15 to Aug 31
Arctic Tern Sterna paradisaea This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds May 20 to Aug 15
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Black Scoter Melanitta nigra This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Black Skimmer Rynchops niger This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/5234	Breeds May 20 to Sep 15
Black-billed Cuckoo Coccyzus erythropthalmus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10

NOT FOR CONSULTATION

Black-legged Kittiwake Rissa tridactyla This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Bobolink Dolichonyx oryzivorus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Bonaparte's Gull Chroicocephalus philadelphia This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Buff-breasted Sandpiper Calidris subruficollis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9488	Breeds elsewhere
Canada Warbler Cardellina canadensis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Clapper Rail Rallus crepitans This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 10 to Oct 31
Common Eider Somateria mollissima This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Jun 1 to Sep 30
Common Loon gavia immer This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/4464	Breeds Apr 15 to Oct 31
Common Tern Sterna hirundo This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/4963	Breeds May 10 to Sep 10

NOT FOR CONSULTATION

Cory's Shearwater Calonectris diomedea This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Double-crested Cormorant phalacrocorax auritus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/3478	Breeds Apr 20 to Aug 31
Dunlin Calidris alpina arcticola This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Great Black-backed Gull Larus marinus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Apr 15 to Aug 20
Great Shearwater Puffinus gravis This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Gull-billed Tern Gelochelidon nilotica This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9501	Breeds May 1 to Jul 31
Herring Gull Larus argentatus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Apr 20 to Aug 31
Hudsonian Godwit Limosa haemastica This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Least Tern Sterna antillarum This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 20 to Sep 10

NOT FOR CONSULTATION

Lesser Yellowlegs Tringa flavipes — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9679

Long-eared Owl asio otus — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3631

Long-tailed Duck Clangula hyemalis — Breeds elsewhere

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
https://ecos.fws.gov/ecp/species/7238

Nelson's Sparrow Ammodramus nelsoni — Breeds May 15 to Sep 5

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Northern Gannet Morus bassanus — Breeds elsewhere

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Parasitic Jaeger Stercorarius parasiticus — Breeds elsewhere

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Pomarine Jaeger Stercorarius pomarinus — Breeds elsewhere

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Prairie Warbler Dendroica discolor — Breeds May 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Purple Sandpiper Calidris maritima — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

NOT FOR CONSULTATION

Razorbill Alca torda — Breeds Jun 15 to Sep 10

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Red-breasted Merganser Mergus serrator — Breeds elsewhere

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Red-necked Phalarope Phalaropus lobatus — Breeds elsewhere

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Red-throated Loon Gavia stellata — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Ring-billed Gull Larus delawarensis — Breeds elsewhere

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Roseate Tern Sterna dougallii — Breeds May 10 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Royal Tern Thalasseus maximus — Breeds Apr 15 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

Ruddy Turnstone Arenaria interpres morinella — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA

Rusty Blackbird Euphagus carolinus — Breeds elsewhere

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

NOT FOR CONSULTATION

Seaside Sparrow Ammodramus maritimus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 20
Semipalmated Sandpiper Calidris pusilla This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Short-billed Dowitcher Limnodromus griseus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480	Breeds elsewhere
Snowy Owl Bubo scandiacus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Sooty Tern Onychoprion fuscatus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds Mar 10 to Jul 31
Surf Scoter Melanitta perspicillata This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Whimbrel Numenius phaeopus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9483	Breeds elsewhere
White-winged Scoter Melanitta fusca This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Willet Tringa semipalmata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 5

NOT FOR CONSULTATION

Wilson's Storm-petrel *Oceanites oceanicus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.	Breeds elsewhere
Wood Thrush *Hylocichla mustelina* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird

NOT FOR CONSULTATION

on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project

NOT FOR CONSULTATION

activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

NOT FOR CONSULTATION

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION

Appendix E

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Environmental Resource Mapper

Base Map: Topographical Using this map

Search

Tools

Layers and Legend

All Layers

Unique Geological Features

Waterbody Classifications for Rivers/Streams

Waterbody Classifications for Lakes

State Regulated Freshwater Wetlands

State Regulated Wetland Checkzone

Significant Natural Communities

Natural Communities Near This Location

Rare Plants or Animals

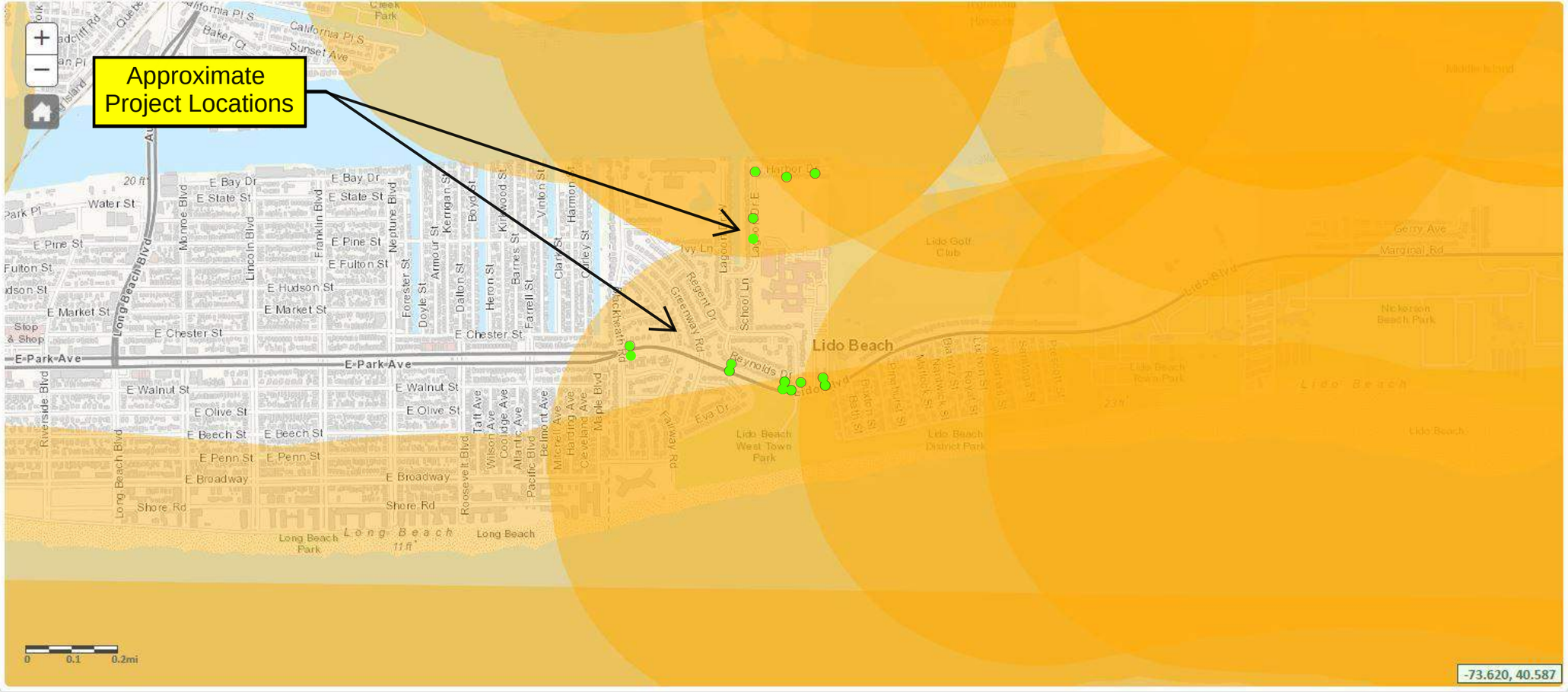
Other Wetland Layers

Reference Layers

Tell Me More...

Need A Permit?

Contacts



EAF Mapper Summary Report

Wednesday, November 13, 2019 4:07 PM

Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.

B.i.i [Coastal or Waterfront Area]	Yes
B.i.ii [Local Waterfront Revitalization Area]	No
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	No
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	Yes
E.2.h.ii [Surface Water Features]	Yes
E.2.h.iii [Surface Water Features]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
E.2.h.iv [Surface Water Features - Wetlands Name]	Tidal Wetlands
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	Yes
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	Yes
E.2.l. [Aquifer Names]	Sole Source Aquifer Names:Nassau-Suffolk SSA

E.2.n. [Natural Communities]	Yes
E.2.n.i [Natural Communities - Name]	Low Salt Marsh, High Salt Marsh, Salt Panne
E.2.n.i [Natural Communities - Acres]	0.0
E.2.o. [Endangered or Threatened Species]	Yes
E.2.o. [Endangered or Threatened Species - Name]	Piping Plover, Least Tern, Common Tern
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Yes - Digital mapping data for archaeological site boundaries are not available. Refer to EAF Workbook.
E.3.e.ii [National or State Register of Historic Places or State Eligible Sites - Name]	
E.3.f. [Archeological Sites]	No
E.3.i. [Designated River Corridor]	No

Attachment 9

Agricultural and NRCS Soil Resource Documents

New York State Agricultural Districts Map
USDA NRCS Soil Resource Report
USDA NRCS Farmland Classification Report

New York State Agricultural District Map

Created: 2/25/2020
Data Sources: NYS Agricultural District Map data provided by Cornell University Geospatial Information Repository.
http://cugir.mannlib.cornell.edu/datatheme.jsp?id=2

Tectonic

1:25,000

0 1,150 2,300 4,600 Feet

Lido Beach / Point Lookout Drainage Improvements Project
Hamlet of Lido Beach
Town of Hempstead
Nassau County, New York

United States Department of Agriculture

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for

Nassau County, New York

January 13, 2020

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

Preface.....2
How Soil Surveys Are Made.....5
Soil Map.....8
Soil Map.....9
Legend.....10
Map Unit Legend.....11
Map Unit Descriptions.....11
Nassau County, New York.....13
UdA—Udipsamments, nearly level.....13
Ue—Udipsamments, wet substratum.....14
Uu—Urban land-Udipsamments complex.....15
Uw—Urban land-Udipsamments, wet substratum complex.....15
Soil Information for All Uses.....17
Suitabilities and Limitations for Use.....17
Land Classifications.....17
Farmland Classification.....17
References.....23

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:6,050 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Nassau County, New York
Survey Area Data: Version 16, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Oct 5, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
UdA	Udipsamments, nearly level	0.1	0.6%
Ue	Udipsamments, wet substratum	0.0	0.2%
Uu	Urban land-Udipsamments complex	9.3	60.6%
Uw	Urban land-Udipsamments, wet substratum complex	5.9	38.6%
Totals for Area of Interest		**15.3**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Nassau County, New York

UdA—Udipsamments, nearly level

Map Unit Setting

National map unit symbol: 9ttn
Mean annual precipitation: 42 to 46 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 190 to 230 days
Farmland classification: Not prime farmland

Map Unit Composition

Udipsamments, nearly level, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udipsamments, Nearly Level

Typical profile

H1 - 0 to 72 inches: coarse sand

Properties and qualities

Slope: 0 to 8 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very high (19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Hempstead

Percent of map unit: 2 percent
Hydric soil rating: No

Sudbury

Percent of map unit: 2 percent
Hydric soil rating: No

Plymouth

Percent of map unit: 2 percent
Hydric soil rating: No

Montauk

Percent of map unit: 2 percent
Hydric soil rating: No

Riverhead

Percent of map unit: 2 percent

Hydric soil rating: No

Ue—Udipsamments, wet substratum

Map Unit Setting

National map unit symbol: 9ttj
Mean annual precipitation: 42 to 46 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 190 to 230 days
Farmland classification: Not prime farmland

Map Unit Composition

Udipsamments, wet substratum, and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udipsamments, Wet Substratum

Typical profile

H1 - 0 to 72 inches: coarse sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Very high (19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Unnamed soils

Percent of map unit: 10 percent
Hydric soil rating: No

Uu—Urban land-Udipsamments complex

Map Unit Setting

National map unit symbol: 9tv3
Mean annual precipitation: 42 to 46 inches
Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 190 to 230 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 70 percent
Udipsamments and similar soils: 25 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udipsamments

Typical profile

H1 - 0 to 72 inches: coarse sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very high (19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 3.6 inches)

Minor Components

Riverhead

Percent of map unit: 3 percent
Hydric soil rating: No

Sudbury

Percent of map unit: 2 percent
Hydric soil rating: No

Uw—Urban land-Udipsamments, wet substratum complex

Map Unit Setting

National map unit symbol: 9tv4
Mean annual precipitation: 42 to 46 inches

Mean annual air temperature: 50 to 54 degrees F
Frost-free period: 190 to 230 days
Farmland classification: Not prime farmland

Map Unit Composition

Urban land: 70 percent
Udipsamments, wet substratum, and similar soils: 25 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Udipsamments, Wet Substratum

Typical profile

H1 - 0 to 72 inches: coarse sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Somewhat excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very high (19.98 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water storage in profile: Low (about 3.6 inches)

Minor Components

Sudbury

Percent of map unit: 3 percent
Hydric soil rating: No

Riverhead

Percent of map unit: 2 percent
Hydric soil rating: No

Soil Information for All Uses

Suitabilities and Limitations for Use

The Suitabilities and Limitations for Use section includes various soil interpretations displayed as thematic maps with a summary table for the soil map units in the selected area of interest. A single value or rating for each map unit is generated by aggregating the interpretive ratings of individual map unit components. This aggregation process is defined for each interpretation.

Land Classifications

Land Classifications are specified land use and management groupings that are assigned to soil areas because combinations of soil have similar behavior for specified practices. Most are based on soil properties and other factors that directly influence the specific use of the soil. Example classifications include ecological site classification, farmland classification, irrigated and nonirrigated land capability classification, and hydric rating.

Farmland Classification

Farmland classification identifies map units as prime farmland, farmland of statewide importance, farmland of local importance, or unique farmland. It identifies the location and extent of the soils that are best suited to food, feed, fiber, forage, and oilseed crops. NRCS policy and procedures on prime and unique farmlands are published in the "Federal Register," Vol. 43, No. 21, January 31, 1978.

Map Scale: 1:6,050 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 50 100 200 300

Feet: 0 250 500 1000 1500

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated
- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Soil Rating Lines

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season

- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated
- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Soil Rating Points

- Not prime farmland
- All areas are prime farmland
- Prime farmland if drained
- Prime farmland if protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated
- Prime farmland if drained and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if irrigated and drained
- Prime farmland if irrigated and either protected from flooding or not frequently flooded during the growing season
- Prime farmland if subsoiled, completely removing the root inhibiting soil layer
- Prime farmland if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Prime farmland if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance
- Farmland of statewide importance, if drained
- Farmland of statewide importance, if protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated

- Farmland of statewide importance, if drained and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if irrigated and drained
- Farmland of statewide importance, if irrigated and either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if subsoiled, completely removing the root inhibiting soil layer
- Farmland of statewide importance, if irrigated and the product of I (soil erodibility) x C (climate factor) does not exceed 60
- Farmland of statewide importance, if irrigated and reclaimed of excess salts and sodium
- Farmland of statewide importance, if drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough, and either drained or either protected from flooding or not frequently flooded during the growing season
- Farmland of statewide importance, if warm enough
- Farmland of statewide importance, if thawed
- Farmland of local importance
- Farmland of local importance, if irrigated
- Farmland of unique importance
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Nassau County, New York
Survey Area Data: Version 16, Sep 16, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Oct 5, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Table—Farmland Classification

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
UdA	Udipsamments, nearly level	Not prime farmland	0.1	0.6%
Ue	Udipsamments, wet substratum	Not prime farmland	0.0	0.2%
Uu	Urban land-Udipsamments complex	Not prime farmland	9.3	60.6%
Uw	Urban land-Udipsamments, wet substratum complex	Not prime farmland	5.9	38.6%
Totals for Area of Interest			**15.3**	**100.0%**

Rating Options—Farmland Classification

Aggregation Method: No Aggregation Necessary

Tie-break Rule: Lower

References

American Association of State Highway and Transportation Officials (AASHTO). 2004. Standard specifications for transportation materials and methods of sampling and testing. 24th edition.

American Society for Testing and Materials (ASTM). 2005. Standard classification of soils for engineering purposes. ASTM Standard D2487-00.

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deep-water habitats of the United States. U.S. Fish and Wildlife Service FWS/OBS-79/31.

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.

Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

National Research Council. 1995. Wetlands: Characteristics and boundaries.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_054262

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service, U.S. Department of Agriculture Handbook 436. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053577

Soil Survey Staff. 2010. Keys to soil taxonomy. 11th edition. U.S. Department of Agriculture, Natural Resources Conservation Service. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053580

Tiner, R.W., Jr. 1985. Wetlands of Delaware. U.S. Fish and Wildlife Service and Delaware Department of Natural Resources and Environmental Control, Wetlands Section.

United States Army Corps of Engineers, Environmental Laboratory. 1987. Corps of Engineers wetlands delineation manual. Waterways Experiment Station Technical Report Y-87-1.

United States Department of Agriculture, Natural Resources Conservation Service. National forestry manual. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053374

United States Department of Agriculture, Natural Resources Conservation Service. National range and pasture handbook. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/landuse/rangepasture/?cid=stelprdb1043084

United States Department of Agriculture, Natural Resources Conservation Service. National soil survey handbook, title 430-VI. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/scientists/?cid=nrcs142p2_054242

United States Department of Agriculture, Natural Resources Conservation Service. 2006. Land resource regions and major land resource areas of the United States, the Caribbean, and the Pacific Basin. U.S. Department of Agriculture Handbook 296. http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/soils/?cid=nrcs142p2_053624

United States Department of Agriculture, Soil Conservation Service. 1961. Land capability classification. U.S. Department of Agriculture Handbook 210. http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_052290.pdf

Attachment 10

SHPO Documentation

SHPO Response

NEW YORK STATE OF OPPORTUNITY. | Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ERIK KULLESEID
Commissioner

February 27, 2020

James McAllister
Senior Environmental Project Manager
Bureau of Environmental Review and Assessment Governor's Office of Storm Recovery
500 Bi-County Boulevard, Suite 300
Farmingdale, NY 11735

Re: CD
Lido Beach / Point Lookout Drainage Improvements Project
20PR00882

Dear Mr. McAllister:

Thank you for requesting the comments of the New York State Historic Preservation Office (SHPO). We have reviewed the provided documentation in accordance with Section 106 of the National Historic Preservation Act of 1966. These comments are those of the SHPO and relate only to Historic/Cultural resources. They do not include other environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the National Environmental Policy Act and/or the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8).

We note that the project area is adjacent to the Lido Guest Houses Historic District, which is eligible for listing in the State and National Registers of Historic Places. We have reviewed the project description and supporting documentation that was provided to our office on February 6th, 2020. Based upon our review, it is SHPO's opinion that the proposed work will have No Adverse Effect upon historic resources.

If additional information or correspondence is required regarding this project it should be provided via our Cultural Resource Information System (CRIS) at https://cris.parks.ny.gov/. Once on the CRIS site, you can log in as a guest and choose "submit" at the very top menu. Next choose "submit new information for an existing project" at the very bottom of the page. You will need this project number and your e-mail address. If you have any questions, I can be reached at (518) 268-2182.

Sincerely,

Olivia Brazee
Historic Site Restoration Coordinator
olivia.brazee@parks.ny.gov

via e-mail only

cc: Kim Croshier, Tectonic Engineering
Kristofer Mierisch, Tectonic Engineering

Attachment 11

US EPA Sole Source Aquifer Analysis

US EPA Sole Source Aquifer Map
US EPA SSA Consultation Response
US EPA SSA Consultation Package

Governor's Office of
Storm Recovery

ANDREW M. CUOMO
Governor

March 5, 2020

Michael Poetzsch
U.S. Environmental Protection Agency
Region II Main Regional Office
290 Broadway, 25th Floor
New York, NY 10007

RE: Sole Source Aquifer Analysis - CDBG-DR Program
Lido Beach / Point Lookout Drainage Improvements Project
Hamlet of Lido Beach, Town of Hempstead, Nassau County, New York

Dear Mr. Poetzsch:

The Governor's Office of Storm Recovery (GOSR), operating under the auspices of the New York State Homes and Community Renewal's (NYSHCR) Housing Trust Fund Corporation, was established to aid the statewide recovery of disaster-affected communities in New York State. GOSR is administering a U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant for Disaster Recovery (CDBG-DR), including the New York Rising Community Reconstruction (NYRCR) Program. 24 C.F.R. Part 58 requires GOSR to review projects for conformance with the Safe Drinking Water Act of 1974 (42 U.S.C. 201, 300(f) et seq., and 21 U.S.C. 349) as amended, and Environmental Protection Agency ("EPA") regulations pertaining to Sole Source Aquifers found at 40 C.F.R. Part 149. On behalf of GOSR, please find enclosed the sole source aquifer review information for one such project.

Project Description

The Town of Hempstead is requesting CDBG-DR funding for the Lido Beach / Point Lookout Drainage Improvements Project (Project), which will involve drainage improvements at approximately nineteen (19) drainage improvements at approximately fifteen (15) locations in the hamlet of Lido Beach, Town of Hempstead, Nassau County, New York.

The drainage improvements will be performed on Lido Boulevard, Lagoon Drive East, Harbor Drive, and Blackheath Road. In-line check valves will be installed at three (3) locations on Harbor Drive and two (2) locations on Lagoon Drive East; three (3) catch basins will be installed at one (1) location on Blackheath Road; and fourteen (14) catch basins will be installed at nine (9) locations on Lido Boulevard. Construction activities will include the following: trench and culvert excavation; removal of existing drainage structures; installation of in-line pipe check valves, catch basins, reticuline grates with vertical face opening curb boxes, and reinforced concrete pipe for connections to the existing drainage system; restoring concrete curb, cement concrete, existing roadway pavement, concrete, and asphalt disturbed in order to perform the drainage improvements; reconstructing traffic loops; relocating buried electrical service and existing light poles; resetting existing fencing; and applying topsoil and grass seed to disturbed soil.

In 2012, Superstorm Sandy overwhelmed Lido Beach's stormwater drainage system. Due to its tremendous size, Sandy drove a catastrophic storm surge into the New Jersey and New York coastlines. Floodwaters inundated homes, schools, municipal buildings, and businesses and made streets impassable and areas unusable. Superstorm Sandy's tidal surge was over ten feet in areas of Lido Beach. Evacuation and

emergency response was severely hindered or impossible as a result of flooding. Recovery and resiliency of the Community was also severely impacted due to infrastructure limitations and functionality.

Lido Boulevard, a major thoroughfare and primary evacuation route for Point Lookout, Lido Beach, and the adjacent City of Long Beach, was observed to be covered by more than a foot of water. The Community believed the flooding was exacerbated by additional water forced through the Reynolds Channel storm drain outfalls and through the stormwater system and onto neighborhood streets.

The installation of check valves (tidal backflow prevention) will prohibit the rising tide from entering the upland piping system and more importantly permit the draining of the upland piping system into downstream surface waters during low tide events. The draining of the upland piping systems will increase upland storage capacity between storm events. This in turn will help to attenuate or lessen the impacts of certain storm events by providing a time delay for the piping system to fill up with surface collected storm water prior to discharge, thereby minimizing or eliminating potential flooding and increasing the resiliency of the drainage system.

The use of backflow prevention devices will effectively provide additional stormwater storage within the existing drainage pipe network and mitigate the negative effects of rising tides, without creating additional storage. The use of tidal check valves offers the greatest positive effects to flooding mitigation, aside from raising the topography of the land above flood elevation, which generally results in the greatest impacts to private property.

To reduce stormwater ponding occurrences along Lido Boulevard, selected aged and inefficient single-curb inlet opening drainage structures will be removed and more hydraulically efficient drainage structure inlets will be installed. Existing single curb inlet drainage structures will be replaced with two (2) standard reticuline grates and curb boxes. This will increase the surface inlet capacity and the ability of stormwater runoff to be collected and enter the drainage system. This action will decrease the gutter spread width of slow-moving stormwater runoff travelling against the curb line of the relatively flat Lido Boulevard roadway profile gradients by intercepting and collecting the water with a larger inlet area and minimizing water ponding into the adjacent travel lanes. Given the critical function of Lido Boulevard as a coastal evacuation route, the redundancy provided by the combination inlets (noted above) and their improved maintenance access are advantageous drainage system characteristics consistent with Lido Boulevard's critical function. Implementation of the drainage improvement project would provide improved stormwater drainage for the residents living in the area and significantly reduce the risk of future flooding.

In accordance with the Memorandum of Understanding ("MOU") between EPA and HUD dated August 24, 1990, GOSR hereby requests an Initial Screen/Preliminary Review for the project. Please review the attached documentation, including Attachment 2.A and 3 to the MOU. Responses can be sent to me via email at James.McAllister@stormrecovery.ny.gov. In accordance with the MOU, your response within fifteen days is greatly appreciated.

If you have any questions, please call me at (631) 465-9677.

Sincerely,

James McAllister
Senior Environmental Project Manager
Bureau of Environmental Review and Assessment
Governor's Office of Storm Recovery

***List of Enclosures and Attachments is Included on the Following Page**

Enclosures:

2.A Non-housing/Project Activity Initial Screen Criteria

3 SSA Preliminary Review Information Requirements

Attachments:

Attachment A – Street Map, Topographic Map, and Aerial Map (showing project locations)
Attachment B – Sole Source Aquifer Map, Half-mile Buffer SSA and SWAP Analysis Map
Attachment C – Project Design Plans

ATTACHMENT 2.A

NON-HOUSING/PROJECT ACTIVITY INITIAL SCREEN CRITERIA

The following list of criteria questions are to be used as an initial screen to determine which **non-housing** projects/activities should be forwarded to the Environmental Protection Agency (EPA) for Preliminary Sole Source Aquifer (SSA) Review. (For housing projects/activities, see Attachment 2.B) If any of the questions are answered affirmatively, then Attachment 3, SSA Preliminary Review Requirements, should also be completed. The application/final statement, this Attachment, Attachment 3, and any other pertinent information should then be forwarded to EPA at the address below.

Any project/activity not meeting the criteria in this Attachment, but suspected of having a potential adverse effect on the Sole Source Aquifer should also be forwarded.

CRITERIA QUESTIONS	YES	NO	N/A
1. Is the project/activity located within a currently designated or proposed groundwater sensitive area such as a special Ground Water Protection Area, Critical Supply Area, Wellhead Protection Area, etc.? [This information can be obtained from the County or Regional Planning board, the local health department, the State health department or the State environmental agency.]	☐	☒	☐
2. Is the project/activity located within a one half mile radius (2640 feet) of a current or proposed public water supply well or wellfield? [This information can be obtained from the local health department, the State health department or the State environmental agency.]	☒	☐	☐

3. Will the project/activity include or directly cause (check appropriate items):

	YES	NO	N/A
construction or expansion of solid waste disposal, recycling or conversion facilities	☐	☒	☐
construction or expansion or closure of landfills	☐	☒	☐
construction or expansion of water supply facilities	☐	☒	☐
construction or expansion of on-site wastewater treatment plants or sewage trunk lines	☐	☒	☐
construction or expansion of gas or petroleum trunk lines greater than 1320 feet	☐	☒	☐
construction or expansion of railroad spurs or similar extensions	☐	☒	☐
construction or expansion of municipal sewage treatment plants	☐	☒	☐

4. Will the project/activity include storage or handling of any hazardous constituents as listed in Attachment 4, Hazardous Constituents	☐	☒	☐
5. Will the project/activity include bulk storage of petroleum in underground or above ground tanks in excess of 1100 gallons? (Please give what assurance they are done in a proper manner.)	☐	☒	☐
6. Will the project/activity require a federal or state discharge elimination permit or modification of an existing permit?	☐	☒	☐

This attachment was completed by:

Name:	Chris Camacho
Title:	Environmental Scientist
Address:	70 Pleasant Hill Road
	Mountainville, NY 10953
Telephone number:	(845) 534-5959
Date:	February 25, 2020

ATTACHMENT 3

SSA PRELIMINARY REVIEW INFORMATION REQUIREMENTS

Where currently available, the information in this Attachment should be provided to the Environmental Protection Agency (see address below) along with the application/final statement; Attachment 2.A, Non-Housing Initial Screen Criteria or Attachment 2.B, Housing Initial Screen Criteria; and any other information which may be pertinent to a Sole Source Aquifer review. Where applicable, indicate the source of your information.

I. Project/Activity Location	**Enclosed?**	
	Yes	No
1. Provide the geographic location and total acreage of the project/activity site. Include a site map which identifies the site in relation to the surrounding area. Project location maps are included as **Attachment A**. Project design plans that depict the extent of project activities are included in **Attachment C**.	☒	☒
2. If applicable, identify which groundwater sensitive areas (Special Ground Water Protection Area, Critical Supply Area, Wellhead Protection Area, etc.) the project/activity is located within or adjacent to. See Half-mile Buffer SSA and SWAP Analysis Map in **Attachment B**.	☒	☒

II. Nature of Project/Activity	**Enclosed?**	
	Yes	No
3. Provide a general narrative describing the project/activity including but not limited to: type of facility; type of activities to be conducted; number and type of units; number of residents, etc. Provide the general layout of the project/activity site and site-plan if available. The Town of Hempstead is requesting CDBG-DR funding for the Lido Beach / Point Lookout Drainage Improvements Project (Project), which will involve drainage improvements at approximately seventeen (17) locations in the hamlet of Lido Beach, Town of Hempstead, Nassau County, New York. Project Design Plans are included as **Attachment C**. The drainage improvements will be performed on Lido Boulevard, Lagoon Drive East, Harbor Drive, and Blackheath Road. In-line check	☒	☐

valves will be installed at three (3) locations on Harbor Drive and two (2) locations on Lagoon Drive East; and catch basins will be installed at (3) locations on Blackheath Road and nine (9) locations on Lido Boulevard. Construction activities will include the following: trench and culvert excavation; removal of existing drainage structures; installation of in-line pipe check valves, catch basins, reticuline grates with vertical face opening curb boxes, and reinforced concrete pipe for connections to the existing drainage system; restoring concrete curb, cement concrete, existing roadway pavement, concrete, and asphalt disturbed in order to perform the drainage improvements; reconstructing traffic loops; relocating buried electrical service and existing light poles; resetting existing fencing; and applying topsoil and grass seed to disturbed soil.		

III. Public Water Supply	**Enclosed?**	
	Yes	No
4. Provide a description of plans to provide water supply. N/A	☐	☒
5. Provide the location of nearby existing or proposed public water supply wells or wellfields within one half mile radius (2640 feet) of the project/activity. Provide the name of the supplier(s) of those wells or wellfields. This information should be available from the local health department, State health department or the State environmental agency. See Half-mile Buffer SSA and SWAP Analysis Map in **Attachment B**.	☒	☐

IV. Wastewater and Sewage Disposal	**Enclosed?**	
	Yes	No
6. Provide a description of plans to handle wastewater and sewage disposal. If the project/activity is to be served by existing public sanitary sewers provide the name of the sewer district. The proposed project will not generate wastewater or sewage.	☐	☒
7. Provide a description of plans to handle storm water runoff. The project involves improvements to existing stormwater drainage infrastructure. All catch basins will be protected prior to the start of work.	☒	☐

All necessary precautions will be taken to prevent direct of indirect contamination of all waterbodies by silt, sediment, roadway millings, fuels, solvents, lubricants, concrete leachate, or any other pollutant associated with construction and construction procedures. Silt protection will be installed for all surface inlet drainage structures that may potentially impacted by the proposed project. See Project Design Plans in **Attachment C**.		
8. Identify the location, design, size of any on-site recharge basins, dry wells, leaching fields, retention ponds, etc. N/A	☒	☒

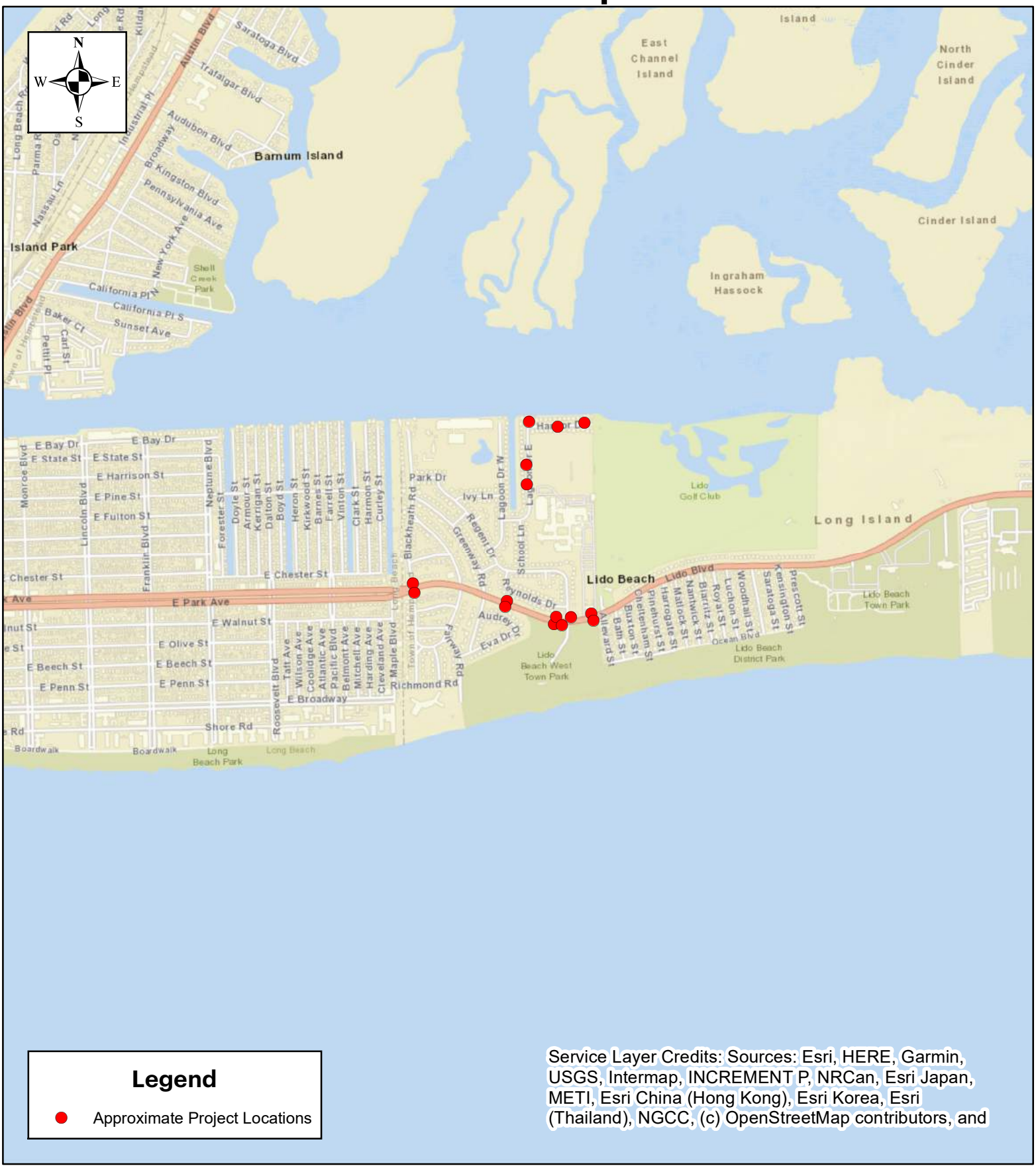
V. Use, Storage, Transport of Hazardous or Toxic Materials *(Applies only to non-housing projects/activities)*	**Enclosed?**	
	Yes	No
9. Identify any products listed in Attachment 4, Hazardous Constituents, of the Housing and Urban Development-Environmental Protection Agency Memorandum of Understanding which may be used, stored, transported, or released as a result of the project not related to construction. It is not anticipated that the project would involve the use, storage, transportation, or release of any products listed in Attachment 4, Hazardous Constituents, of the Housing and Urban Development-Environmental Protection Agency Memorandum of Understanding.	☐	☒
10. Identify the number and capacity of underground storage tanks at the project/activity site. Identify the products and volume to be stored, and the location on the site. No storage tanks are known to currently exist on-site, and none are proposed.	☐	☐
11. Identify the number and capacity of above ground storage tanks at the project/activity site. Identify the products and volume to be stored, and the location on the site. No storage tanks are known to currently exist on-site, and none are proposed.	☐	☒

This form was completed by:

Name:	Chris Camacho
Title:	Environmental Scientist
Address:	70 Pleasant Hill Road
	Mountainville, NY 10953
Telephone number:	(845) 534-5959
Date:	February 25, 2020

Attachment A

Street Map



Legend

- Approximate Project Locations

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and

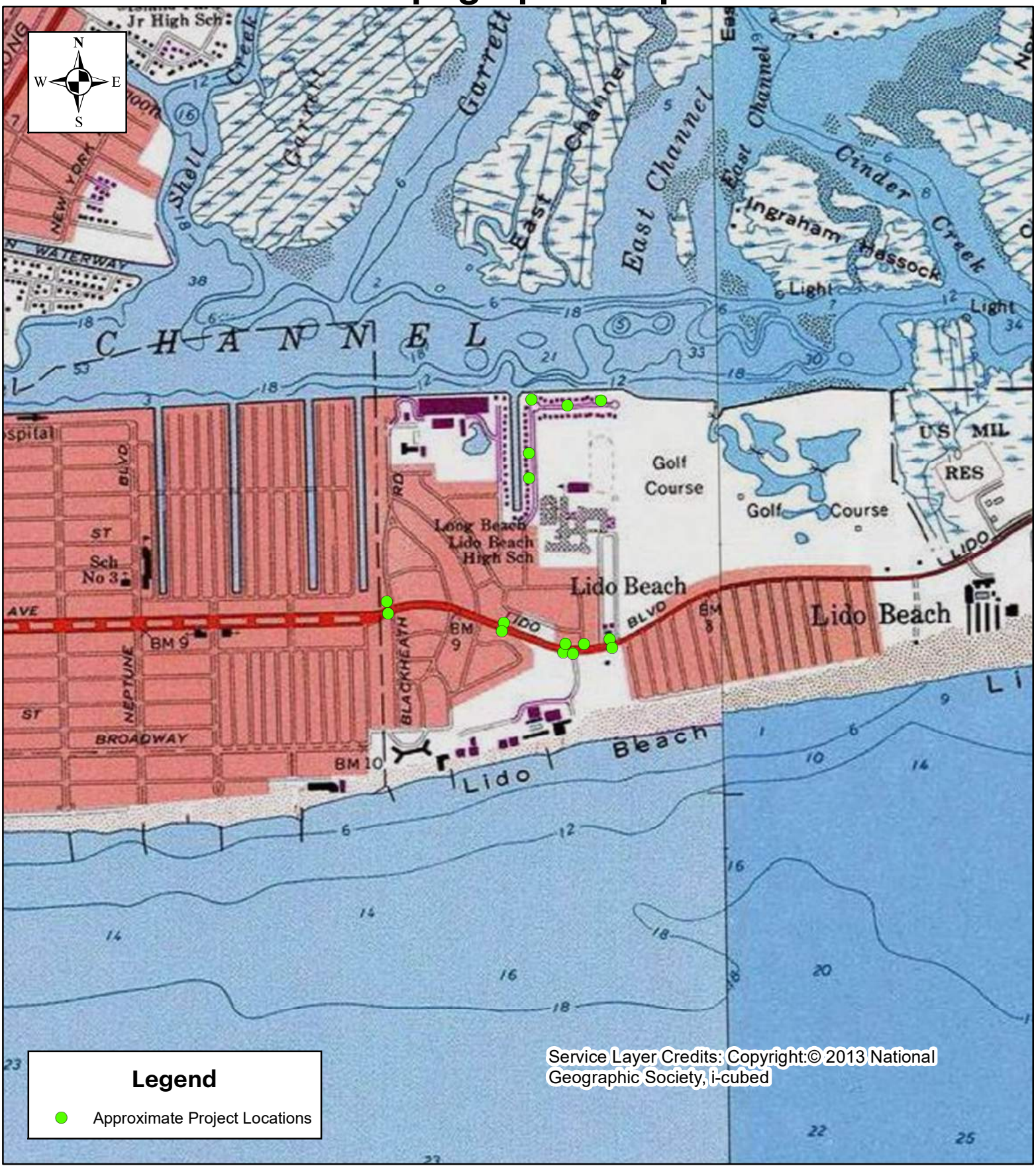
Tectonic

1:20,000

0 1,150 2,300 4,600 Feet

Lido Beach / Point Lookout Drainage Improvements Project
CDP of Lido Beach
Town of Hempstead
Nassau County, New York

Topographic Map



Tectonic

1:16,000

0 900 1,800 3,600 Feet

Lido Beach / Point Lookout Drainage Improvements Project
CDP of Lido Beach
Town of Hempstead
Nassau County, New York

Aerial Map

Tectonic

1:8,000

0 462.5 925 1,850 Feet

Lido Beach / Point Lookout Drainage Improvements Project
CDP of Lido Beach
Town of Hempstead
Nassau County, New York

Attachment B

***Map removed from Environmental Review documentation.**

Attachment C

DEPARTMENT OF PUBLIC WORKS
NASSAU COUNTY

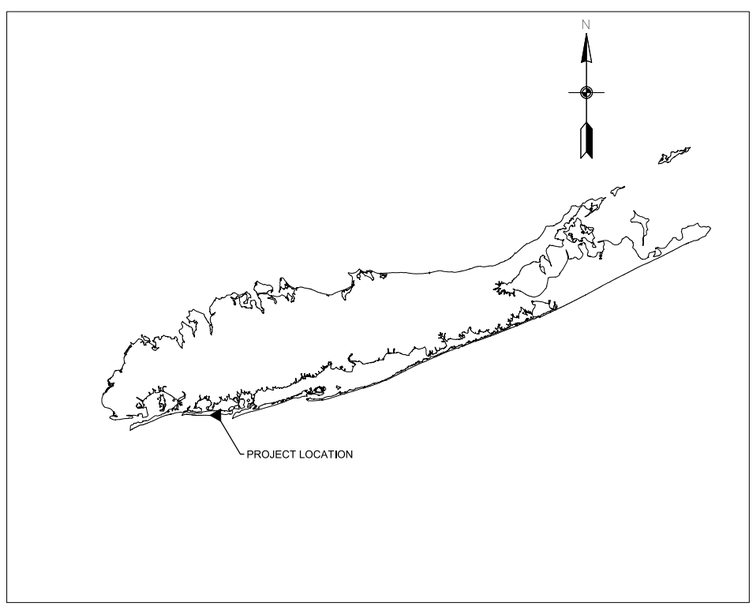
PREPARED FOR
REVIEW AND COMMENT

PRE-FINAL PLANS
95% COMPLETE

NOT FOR CONSTRUCTION

LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

LIDO BEACH, NY
TOWN OF HEMPSTEAD
NASSAU COUNTY
PHASE 95%
CONTRACT No. H60052-01D
JANUARY 2020



LOCATION MAP
NOT TO SCALE

PREPARED BY:

JAMES M. BAZATA, P.E, ENV SP — DATE
DIRECTOR OF CIVIL ENGINEERING
GREENMAN-PEDERSEN, INC.

RECOMMENDED FOR APPROVAL BY:

GARRY DESYR — DATE
SENIOR DESIGN ENGINEER

HAROLD T. LUTZ, P.E. — DATE
UNIT HEAD TRAFFIC ENGINEER

RICHARD IADEVAIO — DATE
UNIT HEAD CONSTRUCTION

MICHAEL FASANO — DATE
UNIT HEAD ROAD MAINTENANCE

RAKHAL MAITRA, P.E. — DATE
DEPUTY COMMISSIONER OF PUBLIC WORKS

APPROVED BY

KENNETH G. ARNOLD, P.E. — DATE
COMMISSIONER OF PUBLIC WORKS

SURVEY PREPARED BY:

GAYRON DE BRUIN, LAND SURVEYING AND ENGINEERING, PC

Existing Legend

Manholes

- Communications
- Drain
- Electric
- Fiber Optic
- Fire Department
- Gas
- Water High Temperature Hot
- Sewer
- Sewer - Drop — COMB — DIAMETER, MATERIAL, DEPTH
- Sewer Cleanout
- Traffic
- Telephone
- Unknown
- Water

Utility Hardware

- Electric Pullbox — EB
- Electric Vault
- Gas Main Valve
- Gas Marker — GM
- Gas Meter
- Gas Service Valve
- Gas Test Station — TEST
- Gas Vent
- Hydrant
- Hydrant Valve
- Irrigation Valve
- Monitoring Well
- Oil Filler Valve
- Pole Riser - Electric
- Pole Riser - Telephone
- Pole Riser - T.V.
- Pole Riser - Traffic
- Roof Drain
- Sewer Vent
- Stand Pipe
- Traffic Detector
- Traffic Loop
- Unidentified Vault
- Unknown Valve
- Unknown Pullbox
- Water Main Valve
- Water Meter
- Water Service Valve

Utility Poles

- Guy Wire and Anchor
- Light Pole Base
- Metal Pole with Light
- Traffic Signal Pole
- Pedestrian Push Button w/ Signal
- Wooden Utility Pole
- Wooden Utility Pole with Light

Utility Pole Abbreviations

F	Fire Box
P	Pedestrian Signal
T	Traffic

Fences

- Guide Rail
- Chain Link Fence
- Wooden Fence
- Metal Fence
- Retaining Wall
- Vinyl Fence

Vegetation

- Bush
- Hedge
- Tree (with Size) Located At Center
- Tree (with Size) Located At Face
- Treeline

Catch Basins

- Type "A"
- Type 1
- Type 3
- Flush Grate
- Round Grate
- Small Rectangle Grate
- Square Grate

Utility Lines and Paint Marks

- Underground Cable — CATVU
- Drain — SD
- Drain (24" or Greater) — SD
- Electric
- Electric Offset
- Fiber Optic — Fiber
- Fire — Fire
- Gas — G
- Gas offset — G
- Gas Service — G
- Oil — OIL
- Overhead
- Sewer — SAN
- Sewer (24" Or Greater) — SAN
- Sewer House Connection — SHC 6.7" Cov.
- Steam — STEAM
- Telephone — TU
- Underground Traffic
- Unknown Utility
- Water — W
- Water (24" Or Greater) — W
- Water Offset — W
- Water Service — W
- Water Chilled — Chilled Water
- Water High Temperature Hot — HTW

Miscellaneous

- Baseline & Station — 0+00, 1+00
- Basketball Backboard Post — BB
- Bench — B
- Benchmark
- Bike Rack
- Boring
- Cellar Door — CE
- Column
- Communications Pullbox — C
- Communications Box - Round
- Curb - Concrete
- Curb - Belgian Block
- Curb - Brick
- Curb & Gutter
- Edge Of Pavement
- First Floor Entrance
- Flagpole — FP
- Fountain
- Garage Entrance
- Grill — BBQ
- Guardpost — GP
- Handicap Ramp
- Mailbox — MB
- Material Change
- Multi-Meter — MM
- Parking Meter
- Piling
- Police Box — P
- Sign - Single Post
- Sign - Double Post
- Steps
- Sprinkler (underground) — SPLR
- Telephone Booth — TB
- Test Hole
- Traffic Control Cabinet
- Trash Can
- Turnstile — TS
- WiFi
- Yard Light

Property Markers

- Cross Cut
- Drill Hole
- Disk
- Iron Pipe
- Iron Rod/ Rebar/ Pin
- L Cut — L
- Misc. Marker
- Monument
- PK/Mag Nail
- Railroad Spike
- Spike
- Stake

Property Lines

- ROW Line — HB
- Lot Lines — PL

Abbreviations

AOBE	As Ordered By Engineer
Aband.	Abandoned
Alum.	Aluminum
Apt.	Apartment
Asph.	Asphalt
B.O.P.	Beginning Of Profile
B. Blk.	Belgian Block
B.T.	Blacktop
Bit.	Bituminous
Blk.	Block
Brk.	Brick
CB	Catch Basin
C.O.C.	Center Of Cable
Conc.	Concrete
Ch. Lk. Fe.	Chain Link Fence
C.L.F.	Chain Link Fence
DE	Dead End
D.I.C.B.	Double Inlet Catch Basin
Dilap.	Dilapidated
El	Elevation
EOI	End Of Information
EOP	End Of Profile
Exist.	Existing
FF=7.25	First Floor Elevation
Fr.	Frame
GF=18.30	Garage Floor Elevation
I=1.6	Invert Elevation
Inv.	Invert Elevation
L.	Left
L/C	Left Curb
MH	Manhole
NC	Nassau County
NCDPW	Nassau County Dep. of Public Works
PC	Point Of Curvature
Rail Fe.	Post And Rail Fence
Rec.	Record
#107	Residence No. 107
R.	Right
R/C	Right Curb
R=32.65	Rim Elevation Of Manhole
Rim	Rim Elevation Of Manhole
Sew.	Sewer
S.I.C.B.	Single Inlet Catch Basin
SSHC	Sanitary Sewer House Connection
Slt.	Slate
Sta.	Station
Stock. Fe.	Stockade Fence
Sty.	Story
T/G	Top Of Gutter
Th #3	Test Hole
TOP	Top Of Pipe
TW	Top Of Wall
Typ.	Typical
U.G.	Underground
Vac.	Vacant
VPI	Vertical Point Of Intersection
Wd.	Wood

Pipe Material Abbreviations

ACPP	Asbestos Cement Pressure Pipe
ACP	Asbestos Cement Pipe
CI	Cast Iron
CIBS	Cast Iron Bare Steel
CLDI	Cement Lined Ductile Iron
CLMP	Cement Lined Metal Pipe
CMP	Corrugated Metal Pipe
CP	Clay Pipe
CPP	Corrugated Polyethylene Pipe
CS	Carbon Steel
DB	Double Barrel
DI	Ductile Iron
ESVP	Extra Strength Vitrified Pipe
FTRC	Flat Top Reinforced Concrete
FRP	Fiberglass Reinforced Pipe
HERCP	Horizontal Eliptical Reinforced Concrete Pipe
HDPP	High Density Polyethylene Pipe
PE	Polyethylene
PRCP	Precast Reinforced Concrete Pipe
PVC	Polyvinyl Chloride Pipe
RCP	Reinforced Concrete Pipe
SS	Stainless Steel
ST	Steel
VCP	Vitrified Clay Pipe

Directional Abbreviations

(E)	East
(N)	North
(NE)	Northeast
(NW)	Northwest
(S)	South
(SE)	Southeast
(SW)	Southwest
(W)	West
E/S	East Side
N/S	North Side
S/S	South Side
W/S	West Side

Northing-Easting

N= 155894.862
E= 1085396.730

Proposed Legend

DRAINAGE

- MANHOLE (TYPE AS SPECIFIED)
- STORM DRAINAGE PIPE (DIAMETER AS SPECIFIED) — SD
- CATCH BASIN (TYPE AS SPECIFIED)
- NASSAU COUNTY TYPE A FRAME AND GRATE WITH CURB BOX

EXCAVATION LIMITS

- TRENCH & CULVERT
- UNCLASSIFIED (FOR RESTORATION ACTIVITIES)

RESTORATION

- CONCRETE SIDEWALK (ITEM 27)
- TOPSOIL & SEED (ITEM 368)
- ASPHALT RESTORATION (ITEM 36D)
- RESETTING EXISTING BRICK PAVERS (ITEM 40R) — OR
- LANDSCAPING CRUSHED STONES (ITEM 20)
- DETECTABLE WARNING SURFACE

RESTORATION LIMITS

- CONCRETE CURB (ITEM 26)
- CONCRETE DROP CURB (ITEM 26)
- SAW CUT ASPHALT PAVEMENT AND CONCRETE (ITEM 58RPC)
- REMOVE AND RESET EXISTING VINYL FENCE (ITEM 64)
- REMOVE AND RESET EXISTING TIMBER FENCE (ITEM 64)
- RELOCATE EXISTING LIGHT POLE (ITEM 120SS)
- RELOCATE EXISTING UTILITY POLE (TO BE DONE BY OTHERS)

EASMENTS

- TEMPORARY EASEMENT — TE

TRAFFIC

- TRAFFIC LOOP
- TRAFFIC CONDUIT
- TRAFFIC PULLBOX

INDEX OF DRAWINGS (95% SUBMISSION):

MISCELLANEOUS SHEETS

C-01	COVER
I-01	INDEX, LEGEND AND ABBREVIATIONS
GN-01	GENERAL NOTES 01
GN-02	GENERAL NOTES 02
ALG-01	REFERENCE ALIGNMENT PLAN 01
ALG-02	REFERENCE ALIGNMENT PLAN 02
ALG-03	REFERENCE ALIGNMENT PLAN 03
ALG-04	REFERENCE ALIGNMENT PLAN 04
MST-01	MISCELLANEOUS TABLES 01
MST-02	MISCELLANEOUS TABLES 02
MST-03	MISCELLANEOUS TABLES 03
MST-04	MISCELLANEOUS TABLES 04
MSD-01	MISCELLANEOUS DETAILS 01
MSD-02	MISCELLANEOUS DETAILS 02
MSD-03	MISCELLANEOUS DETAILS 03
MSD-04	MISCELLANEOUS DETAILS 04
MSD-05	MISCELLANEOUS DETAILS 05
MSD-06	MISCELLANEOUS DETAILS 06
MSD-07	MISCELLANEOUS DETAILS 07

PLANS

KP-01	KEY PLAN
CP-01	CONSTRUCTION PLAN 01
CP-02	CONSTRUCTION PLAN 02
CP-03	CONSTRUCTION PLAN 03
CP-04	CONSTRUCTION PLAN 04
CP-05	CONSTRUCTION PLAN 05
CP-06	CONSTRUCTION PLAN 06
CP-07	CONSTRUCTION PLAN 07
CP-08	CONSTRUCTION PLAN 08
CP-09	CONSTRUCTION PLAN 09
CP-10	CONSTRUCTION PLAN 10
CP-11	CONSTRUCTION PLAN 11
CP-12	CONSTRUCTION PLAN 12
CP-13	CONSTRUCTION PLAN 13
CP-14	CONSTRUCTION PLAN 14
CP-15	CONSTRUCTION PLAN 15
PMP-01	PAVEMENT MARKING PLAN 01
PMP-02	PAVEMENT MARKING PLAN 02
PMP-03	PAVEMENT MARKING PLAN 03

WORK ZONE TRAFFIC CONTROL PLANS

WZTCN-01	WORK ZONE TRAFFIC CONTROL NOTES
WZTC-1-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 1 - PLAN 1
WZTC-2-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 2 - PLAN 1
WZTC-3-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 3 - PLAN 1
WZTC-4-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 4 - PLAN 1
WZTC-5-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 5 - PLAN 1
WZTC-5-2	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 5 - PLAN 2
WZTC-6-1	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 6 - PLAN 1
WZTC-6-2	WORK ZONE TRAFFIC CONTROL PLAN, SEQUENCE 6 - PLAN 2

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC SHEETS\I-01.DWG
Plot Date: 1/31/2020 2:06 PM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: INDEX, LEGEND AND ABBREVIATIONS

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: I-01	
SCALE: -	SHEET NO: 2 OF 46	

NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS SANITARY SEWER NOTES:

1. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS A MINIMUM OF TWO (2) WORKING DAYS PRIOR TO WORK INVOLVING ANY SANITARY SEWER FACILITIES. NOTIFICATION IS TO BE MADE BY CALLING 516-571-7502 OR 7505.

2. ALL WORK SHALL BE IN ACCORDANCE WITH NCDPW STANDARD SPECIFICATIONS AND DETAILS FOR THE CONSTRUCTION OF SANITARY SEWERS, LATEST EDITION 2003. ALL WORK MUST BE PERFORMED IN THE PRESENCE OF A NASSAU COUNTY INSPECTOR.

3. ALL SANITARY SEWER HOUSE CONNECTIONS AND LATERALS SHALL BE LOCATED PRIOR TO ANY EXCAVATION BY THE CONTRACTOR.

4. THE HORIZONTAL/VERTICAL SEPARATION OF SEWER AND/OR DRAINAGE PIPE AND WATER MAINS/SERVICES SHALL MEET OR EXCEED THE REQUIREMENTS OUTLINED IN THE RECOMMENDED STANDARDS FOR SEWAGE WORKS (TEN STATE STANDARDS), LATEST EDITION.

5. WHERE SANITARY OR HOUSE CONNECTION SEWERS CROSS OVER A DRAINAGE TRENCH AREA, THE SEWER SHALL BE REPLACED WITH DUCTILE IRON EXTENDING A MINIMUM OF FIVE (5) FEET EACH SIDE OF CROSSING TO UNDISTURBED SOIL. THE SAME PLACEMENT SHALL APPLY FOR SEWERS UNDER A DRAINAGE TRENCH AREA WITHIN TWELVE (12) INCHES CLEARANCE, BOTTOM OF DRAIN TO TOP OF SEWER.

6. ALL PIPES, MANHOLES AND APPURTENANCES SHALL HAVE THE COUNTY APPROVAL STAMP THEREON OR WRITTEN CERTIFICATION ACCEPTABLE TO THE COUNTY BEFORE THE MATERIAL CAN BE INSTALLED.

7. WHERE IT IS NECESSARY TO RAISE SANITARY SEWER MANHOLE CASTINGS TO GRADE FOR REPAVING, FIXED FRAME CASTINGS MUST BE RAISED EITHER BY ADJUSTING THE HEIGHT OF THE BRICK MASONRY OR USING AN APPROVED INSERT (METAL INSERTS ARE NOT PERMITTED). ADJUSTABLE FRAME TYPE MANHOLES MAY BE RAISED BY ADDING UP TO A MAXIMUM OF TWO (2), ONE (1) INCH ADJUSTMENT RINGS TO ACHIEVE FINAL GRADE.

8. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS FOR ENTRY INTO A CONFINED SPACE WHENEVER IT IS NECESSARY FOR A CONTRACTOR'S EMPLOYEE TO ENTER A NASSAU COUNTY SANITARY SEWER MANHOLE. THE CONTRACTOR SHALL COMPLY WITH THE MINIMUM REQUIREMENTS NOTED BELOW:

   A. A CONTRACTOR ISSUED "ENTRY PERMIT".

   B. A CONFINED SPACE ENTRY MONITOR TO TEST FOR TOXIC, EXPLOSIVE AND OXYGEN DEFICIENT ATMOSPHERE.

   C. CONFINED SPACE RESCUE AND RETRIEVAL EQUIPMENT.

   THE CONTRACTOR WILL NOT BE PERMITTED TO WORK IN A NASSAU COUNTY SANITARY SEWER MANHOLE UNLESS HE/SHE COMPLIES WITH ALL APPLICABLE OSHA REQUIREMENTS.

SPECIFICATIONS AND STANDARDS:

ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE IN CONFORMITY WITH THE FOLLOWING NASSAU COUNTY DRAWINGS AND ADDITIONAL STANDARDS (AS MODIFIED IN THE CONTRACT PLANS AND SPECIFICATIONS ADDENDA):

   A. COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS AND DETAIL SHEETS FOR CIVIL ENGINEERING AND SITE DEVELOPMENT CONSTRUCTION, PRINTED 2009; INCLUDING ALL ADDENDA, NOTES, MODIFICATIONS AND CORRECTIONS OF THE NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS SHALL APPLY WITH THE AMENDMENTS AND ADDED SPECIAL SPECIFICATIONS CONTAINED WITHIN THE PROJECT MANUAL.

   B. COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS STANDARD SPECIFICATIONS FOR THE CONSTRUCTION OF SANITARY SEWERS, 2003.

   C. COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS STANDARD SHEETS FOR THE CONSTRUCTION OF SANITARY SEWERS, 2003.

   D. COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS, TRAFFIC SIGNAL SPECIFIC, AND STANDARD DRAWINGS, NOVEMBER 1998.

   E. NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT), STANDARD SPECIFICATIONS OF CONSTRUCTION AND MATERIALS, OFFICE OF ENGINEERING, DATED JANUARY 1, 2020 WITH CURRENT ADDITIONS AND MODIFICATIONS, AS REFERENCED AND/OR AS DESCRIBED IN THE CONTRACT DOCUMENTS.

   F. THE FEDERAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

   G. NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) US CUSTOMARY STANDARD SHEETS, CURRENT ADDITIONS AND MODIFICATIONS, AS REFERENCED AND/OR AS DESCRIBED IN THE CONTRACT DOCUMENTS.

TREE REMOVAL NOTES:

1. THE CONTRACTOR SHALL EXERCISE EXTREME CARE TO AVOID DAMAGE TO NATURAL GROWTH WITHIN THE PROJECT AREA. THE CONTRACTOR WILL BE REQUIRED TO REPLACE AT HIS OWN EXPENSE TREE, SHRUBBERY AND OTHER NATURAL FEATURES DESTROYED OR DAMAGED THROUGH CARELESSNESS.

2. TREES SPECIFICALLY CALLED FOR TO BE REMOVED ARE INDICATED ON THE PLANS. IT IS NOTED THAT ADDITIONAL TREES AND OTHER FORMS OF VEGETATION WILL BE REMOVED AS ORDERED BY ENGINEER (AOBE). PAYMENT FOR ALL REMOVALS WILL BE MADE UNDER THE APPROPRIATE TREE REMOVAL ITEM.

SAWCUTTING NOTES:

1. ALL SAWCUTTING REQUIRED FOR PAVEMENT AND JOINT REPAIR WORK IS INCLUDED IN THE BID PRICE FOR THE RESPECTIVE REPAIR ITEMS.

2. ALL SAWCUTTING NECESSARY FOR MEETING EXISTING CONDITIONS IN CONNECTION WITH RESTORATION WORK AREAS INCLUDING PAVEMENT ADJACENT TO PROPOSED CURB, MEET LINES AT EXISTING SIDEWALK ASSOCIATED WITH SIDEWALK RAMP WORK, SIDEWALK, AND DRIVEWAYS, ROADWAYS AND OTHER MEET LINES ASSOCIATED WITH RESTORATION WORK, SHALL BE PAID FOR UNDER ITEM 58RPC.

ARCHAEOLOGICAL NOTES:

1. WHEN ITEMS HAVING POSSIBLE ARCHAEOLOGICAL VALUE ARE ENCOUNTERED IN THE COURSE OF THE WORK, THE CONTRACTOR SHALL IMMEDIATELY HALT WORK IN THE VICINITY AND CALL TO THE ATTENTION OF THE ENGINEER THE PRESENCE OF SUCH ITEMS. THE ENGINEER WILL EITHER ORDER WORK TO PROCEED OR INSTRUCT THAT THE WORK HALT, BE EXTENDED UNTIL THE COUNTY ARCHAEOLOGIST CAN BE CONSULTED, AND PROPER STEPS CAN BE EMPLOYED TO PROTECT AND EXTRACT THE SPECIMENS. THE CONTRACTOR SHALL HAVE NO CLAIM TO THE OWNERSHIP OF ANY SUCH ITEM, OR TO EXTRA PAYMENT FOR DELAY WHICH MAY RESULT.

SUBGRADE EXCAVATION NOTES:

1. ALL UNDESIRABLE MATERIAL IN THE SUBGRADE SHALL BE EXCAVATED UNDER ITEM 2 AND BACKFILLED WITH EXCESS SUITABLE ITEM 2 MATERIAL WHERE AVAILABLE, OR ITEM 5C AND STABILIZED TO THE SATISFACTION OF THE ENGINEER.

2. PRIOR TO EXCAVATING WITHIN A 20 FEET RADIUS OF A TRAFFIC SIGNAL POLE, TEMPORARY GUY CABLES, TEMPORARY SHEETING AND BRACING, OR OTHER MEANS MAY BE REQUIRED TO ENSURE THAT THERE IS NOT MOVEMENT OF THE POLE FOUNDATION AS A RESULT OF THE EXCAVATION. WHERE REQUIRED TEMPORARY SHEETING AND BRACING SHALL BE FURNISHED, INSTALLED AND PAID UNDER ITEM 10A OR ITEM 10B (AS DETERMINED BY THE ENGINEER IN CHARGE OF INSPECTION), AS INCLUDED IN THE CONTRACT.

3. TEMPORARY GUY CABLES OR OTHER MEANS OF SUPPORT THAT ENTAIL AN ATTACHMENT TO THE TRAFFIC SIGNAL POLE WILL BE THE RESPONSIBILITY OF NASSAU COUNTY DPW TRAFFIC DIVISION.

4. PRIOR TO EXCAVATING WITHIN A 20 FEET RADIUS OF A UTILITY POLE, THE CONTRACTOR SHALL COORDINATE HIS/HER ACTIVITIES WITH THE OWNER TO DETERMINE WHETHER TEMPORARY SUPPORT OF THE POLE IS REQUIRED. WHERE DESIRED BY THE OWNER, TEMPORARY SHEETING AND BRACING SHALL BE FURNISHED, INSTALLED AND PAID UNDER ITEM 10A OR ITEM 10B (AS DETERMINED BY THE ENGINEER IN CHARGE OF INSPECTION), AS INCLUDED IN THE CONTRACT.

5. TEMPORARY GUY CABLES OR ANY OTHER MEANS OF SUPPORT THAT ENTAIL AN ATTACHMENT TO THE UTILITY POLE WILL BE THE RESPONSIBILITY OF THE OWNER.

SURVEY DATUM NOTES:

1. ALL ELEVATIONS SHOWN ON THESE PLANS REFER TO THE NORTH AMERICAN VERTICAL DATUM 1988 (NAVD88).

2. THE HORIZONTAL DATUM USED ON THIS PROJECT IS NORTH AMERICAN DATUM 1983 (2011) EPOCH 2010.00 (NEW YORK STATE PLANE COORDINATE SYSTEM, LONG ISLAND ZONE0. ALL LINEAR MEASUREMENTS ARE IN U.S. SURVEY FEET.

PROTECTION OF FACILITIES NOTES:

1. THE CONTRACTOR SHALL PROTECT ALL WORK DONE UNDER THIS CONTRACT FROM POSSIBLE DAMAGE FOR THE DURATION OF THE CONTRACT. HE SHALL BE RESPONSIBLE FOR THE REPAIR OR REPLACEMENT, TO THE SATISFACTION OF THE ENGINEER, OF ANY MATERIAL, STRUCTURE, OR PROPERTY ON OR ADJACENT TO THE SITE AND DAMAGED BY HIM OR HIS EMPLOYEES THROUGH THE CONSTRUCTION OPERATIONS UP TO THE TIME OF ACCEPTANCE BY THE COUNTY.

MISCELLANEOUS NOTES:

1. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FACT THAT, DUE TO THE NATURE OF RECONSTRUCTION PROJECTS, THE EXACT EXTENT OF RECONSTRUCTION WORK CANNOT ALWAYS BE ACCURATELY DETERMINED PRIOR TO THE COMMENCEMENT OF WORK. THESE CONTRACT DOCUMENTS HAVE BEEN PREPARED BASED ON FIELD INSPECTION AND OTHER INFORMATION AVAILABLE AT THE TIME. ACTUAL FIELD CONDITIONS MAY REQUIRE MODIFICATIONS TO CONSTRUCTION DETAILS AND WORK QUANTITIES. THE CONTRACTOR SHALL PERFORM WORK IN ACCORDANCE WITH FIELD CONDITIONS AS DIRECTED BY THE ENGINEER RESPONSIBLE FOR CONSTRUCTION INSPECTION.

2. THE CONTRACTOR SHALL TAKE PRECAUTIONS NOT TO LEAVE DEBRIS, MATERIALS, AND TOOLS, ETC., ON THE ROADWAY SURFACE WHEN LEAVING THE WORK AREA. IN ADDITION, THE CONTRACTOR SHALL TAKE PRECAUTIONS THAT NO DEBRIS, ETC., INTERFERES WITH ADJACENT OPEN TRAFFIC LANES AND PEDESTRIAN WALKS.

3. THE CONTRACTOR SHALL TAKE POSITIVE STEPS TO PREVENT THE SPLATTERING OF VEHICLES. THE CONTRACTOR SHALL PROVIDE FOR THE PROMPT CLEANING OF ANY VEHICLES SPLATTERED BY CONTRACTOR'S OPERATIONS AND SHALL PAY FOR THE CLEANING. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS ITEMS IN THE CONTRACT.

4. ALL OPERATIONS SHALL BE CONDUCTED SO AS NOT TO INTERFERE WITH, INTERRUPT, OR ENDANGER THE OPERATION OF TRAFFIC, NOR DAMAGE, DESTROY, OR ENDANGER THE INTEGRITY OF COUNTY OR STATE FACILITIES OR ADJACENT PROPERTIES.

5. NCDPW WILL NOT UNDERTAKE OR ACCEPT FINANCIAL RESPONSIBILITY FOR ANY REMEDIATION OR SIMILAR ACTIVITY WITH RESPECT TO THE REMOVAL OF HAZARDOUS WASTES (6 NYCRR PART 373 AND 374) AND NON-HAZARDOUS SOLID INDUSTRIAL WASTES (6 NYCRR PART 360), WHICH UNDER LAW WOULD NOT BE REQUIRED AT THE TIME BUT FOR THE ACCOMMODATION OF UTILITY FACILITIES WITHIN THE RIGHT-OF-WAY. SUCH RESPONSIBILITY AND COSTS SHALL BE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

6. PAVEMENT AND SHOULDER REMOVAL SHALL BE DONE IN A MANNER THAT PROVIDES FOR PROPER RESTORATION OF THE REPLACEMENT SECTION. GENERALLY, STRAIGHT, VERTICAL CUTS OF THE PAVEMENT AND SHOULDER WILL BE REQUIRED. SHEETING MAY BE REQUIRED. PAVEMENT THAT BECOMES UNDERMINED SHALL BE CUT BACK AND REMOVED. ALTERNATIVE REPAIR METHODS MAY BE USED IF PRIOR APPROVAL IS GRANTED BY THE COUNTY.

7. THE LIMIT OF PAVEMENT REPLACEMENT SHALL BE SUCH THAT THE REPLACED PAVEMENT IS SUPPORTED BY THOROUGHLY COMPACTED SUBBASE MATERIAL AND THE PAVEMENT IS RESTORED TO THE PROPER GRADE, SURFACE TOLERANCE AND SURFACE TEXTURE.

8. EXCAVATIONS SHALL BE CONDUCTED IN COMPLIANCE WITH NEW YORK STATE INDUSTRIAL CODE PART (RULE NO. 23) AND INDUSTRIAL CODE PART (RULE NO. 53).

9. A CONSTRUCTION TRAILER SHALL BE PROVIDED FOR THIS PROJECT IN ACCORDANCE WITH CONTRACT ITEM 1M/F - MOBILIZATION WITH FIELD OFFICE.

10. THE CONTRACTOR IS NOTIFIED THAT PROPOSED WORK AREAS SHALL BE CONFINED TO NASSAU COUNTY RIGHT-OF-WAY, UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER. IF IT IS NOT FEASIBLE TO PERFORM THE PROPOSED WORK WITHOUT ENTERING PRIVATE PROPERTY, THE WORK IN QUESTION MAY BE ELIMINATED FROM THE PROJECT, AS DIRECTED BY THE COUNTY ENGINEER. NASSAU COUNTY MUST BE ADVISED PRIOR TO THE ENCROACHMENT ONTO PRIVATE PROPERTY, IN THE EVENT THAT ANY WORK AREAS BEYOND THE RIGHT-OF-WAY BECOME NECESSARY.

CURBS AND SIDEWALK NOTES:

1. NEW CURBS NOT ABUTTING EXISTING CURB SHALL BE RAMPED DOWN TO ZERO HEIGHT REVEAL IN THE LAST 10 FT, AT LOCATIONS FACING TRAFFIC.

2. THE PLANS SPECIFICALLY CALL FOR THE REMOVAL AND REPLACEMENT OF EXISTING CURBS DETERMINED TO BE DAMAGED AND/OR IN DIRECT CONFLICT WITH THE PROPOSED WORK. OTHER EXISTING CURBS ARE TO BE REMOVED IN AREAS OF OBVIOUS CONFLICT WITH THE PROPOSED WORK, NOT SHOWN ON THE PLANS OR WHERE ORDERED BY THE ENGINEER.

UTILITY NOTES:

1. THE LOCATIONS AND SIZES OF EXISTING UNDERGROUND UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND ARE NOT GUARANTEED. THE CONTRACTOR IS FOREWARNED TO ASCERTAIN AND DETERMINE THE PRECISE LOCATIONS PREPARATORY TO EXCAVATION.

   THE CONTRACTOR SHALL CONTACT UTILITY COMPANIES AND "ONE-CALL CENTER" AT TELEPHONE NUMBER 1-800-272-4480 OR "NEW YORK 811" (TELEPHONE NUMBER IS 811) FOR MARK-OUT OF ALL FACILITIES PRIOR TO CONSTRUCTION. THE UTILITY COMPANIES AND "ONE-CALL CENTER" SHALL BE NOTIFIED A MINIMUM OF FIVE (5) WORKING DAYS BEFORE THE CONTRACTOR COMMENCES WORK. ANY UTILITY RELOCATIONS OR CROSSINGS SHALL BE COORDINATED WITH THE UTILITY COMPANY OWNING THE FACILITY.

   NASSAU COUNTY OWNED UTILITIES SHALL BE LOCATED BY TONING, TEST HOLES AND OTHER METHODS AS APPROVED BY THE ENGINEER. THE CONTRACTOR WILL BE REQUIRED TO REPAIR OR REPLACE UTILITIES DAMAGED BY CARELESSNESS.

2. EXISTING UTILITY FACILITIES REMOVAL, RELOCATION, OR MODIFICATION SHALL BE COMPLETED PRIOR TO COMMENCING WORK. CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THE MODIFICATION OF ALL UTILITIES.

3. EXISTING UNDERGROUND AND OVERHEAD UTILITIES AS SHOWN HEREIN HAVE BEEN DETERMINED BY STANDARD SURVEYING METHODS AND AVAILABLE RECORDS. NEITHER THE EXACT LOCATION NOR THE INFORMATION OF THESE EXISTING UTILITIES IS GUARANTEED TO BE COMPLETE OR CORRECT.

4. THE UTILITY LOCATION QUALITY LEVEL LABELING CONVENTION SHOWN ON THE PLANS DOES NOT RELIEVE THE CONTRACTOR OF HIS OBLIGATIONS.

   THE QUALITY LEVEL DEFINITIONS ARE:

   QUALITY LEVEL A - THE HIGHEST DEGREE OF ACCURACY: THE UTILITY INFORMATION ON THE CONTRACT PLANS HAS BEEN FIELD LOCATED AND VERIFIED BY EXCAVATION, WHEN APPROPRIATE. (SHOWN AS QLA).

   QUALITY LEVEL B - SUBSURFACE GEOPHYSICAL LOCATING TECHNIQUES (THAT IS, UNDERGROUND CAMERAS, RADAR, SONAR, TONE OUTS, ETC.) AND EXISTING RECORD PLANS HAVE BEEN USED TO LOCATE UTILITIES. NO EXCAVATIONS WERE PERFORMED. (SHOWN AS QLB).

   QUALITY LEVEL C - RECORD INFORMATION PROVIDED BY UTILITY OWNERS WAS PLOTTED ON THE CONTRACT PLANS. DEPTHS WERE NOT FIELD VERIFIED. PHYSICAL SURFACE FEATURES LIKE MANHOLES, VALVE BOXES AND HYDRANTS HAVE BEEN FIELD LOCATED. (SHOWN AS QLC).

   QUALITY LEVEL D - EXISTING NYSDOT, NCDPW AND UTILITY COMPANY RECORDS WERE USED TO LOCATE SUBSURFACE UTILITIES. (SHOWN AS QLD).

5. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL EXISTING UNDERGROUND FACILITIES TO AVOID CONFLICTS WITH ANY NEW UNDERGROUND WORK. THE CONTRACTOR SHALL DIG TEST HOLES AS DIRECTED BY THE ENGINEER RESPONSIBLE FOR CONSTRUCTION INSPECTION TO DETERMINE EXACT LOCATIONS OF EXISTING UTILITIES, AS DEEMED APPROPRIATE. THE WORK SHALL BE PROGRESSED AND PAID UNDER ITEM 122 - TEST HOLES.

6. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION AND COST OF ALL UTILITY RELOCATIONS OR ADJUSTMENTS THAT ARE SHOWN TO BE DONE BY OTHERS.

7. THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH ALL VOLTAGES CARRIED IN OVERHEAD OR UNDERGROUND UTILITY SERVICES. PSEG-LI WILL FURNISH ELECTRIC SERVICE INFORMATION UPON REQUEST. NATIONAL GRID WILL FURNISH APPROXIMATE LOCATIONS AND DEPTHS OF GAS MAINS UPON REQUEST. THIS INFORMATION IS NOT GUARANTEED. THE CONTRACTOR SHALL INDEPENDENTLY DETERMINE WHETHER INTERFERENCE EXISTS IN ALL CRITICAL AREAS.

8. ALL WORK SHALL BE CONDUCTED IN ACCORDANCE WITH CODE RULE 57 ("HIGH VOLTAGE PROXIMITY ACT") OF THE NEW YORK STATE LABOR LAW.

9. PRIOR TO EXCAVATING IN THE VICINITY OF UTILITY POLES, THE CONTRACTOR SHALL CONTACT THE POLE'S OWNER TO DETERMINE THE TYPE OF TEMPORARY POLE SUPPORT REQUIRED. NO SEPARATE PAYMENT WILL BE MADE FOR TEMPORARY SUPPORT OF UTILITY POLES, WHERE REQUIRED. THE COST OF TEMPORARY POLE SUPPORT SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

10. THE CONTRACTOR SHALL NOTIFY THE NCDPW TRAFFIC ENGINEERING UNIT (SHELIA DUKACZ) AT 516-572-0465 TWO DAYS PRIOR TO ANY WORK ADJACENT TO TRAFFIC SIGNALS.

SURVEY NOTES:

1. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO PROTECT SURVEY MONUMENTS FROM DISTURBANCE, OR DAMAGE. IF ANY MONUMENT IS DISTURBED IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO REPLACE THE MONUMENT AND TO ESTABLISH THE REVISED COORDINATES BY FIRST ORDER SURVEY METHODS. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.

2. ANY EXPENSE INCURRED IN REPLACING MONUMENTS OR BENCHMARKS THAT THE CONTRACTOR, OR ANY EMPLOYEE, MAY HAVE FAILED TO PRESERVE SHALL BE CHARGED DIRECTLY TO THE CONTRACTOR OR DEDUCTED FROM THE TOTAL AMOUNT OF THE POST PERFORMANCE BOND.

3. THE CONTRACTOR IS RESPONSIBLE FOR ALL CONSTRUCTION SURVEY LAYOUT AND STAKEOUT. THE COST SHALL BE PAID FOR UNDER THE UNIT PRICE BID FOR ITEM 136.

4. THE SURVEY BASELINE SHOWN ON THESE PLANS IS APPROXIMATE AND IS SHOWN FOR TABULATING AND FILING PURPOSES ONLY. THE BASELINE/SURVEY CONTROL DATA IS FURNISHED ON THE PLAN DRAWINGS (UNDER MISCELLANEOUS TABLES). PAYMENT SHALL BE INCLUDED IN THE SURVEY STAKEOUT ITEM 136.

DRAINAGE NOTES:

1. EXISTING DRAINAGE PIPE INVERTS ARE TO BE VERIFIED BY THE CONTRACTOR WHERE REQUIRED TO FACILITATE REPAIRS AS SHOWN ON THE PLANS OR WHERE DIRECTED BY THE ENGINEER. WHERE NEW DRAINAGE PIPE INVERTS ARE SHOWN ON THE PLANS, THEY SHALL BE MODIFIED AS FIELD CONDITIONS REQUIRE AND AS DIRECTED BY THE ENGINEER RESPONSIBLE FOR CONSTRUCTION INSPECTION.

2. ALL DRAINAGE STRUCTURES WITHIN THE PROJECT LIMITS MUST BE MAINTAINED AND BE OPERABLE AT ALL TIMES DURING CONSTRUCTION.

3. THE CONTRACTOR SHALL FURNISH AND INSTALL EXCAVATION AND PROTECTION SYSTEMS AS REQUIRED FOR THE INSTALLATION OF NEW, AND MODIFICATIONS TO EXISTING DRAINAGE STRUCTURES. COSTS FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 10A-1-EXCAVATION PROTECTION SYSTEM, WHEN INCLUDED IN THE CONTRACT.

4. THE CONTRACTOR SHALL VERIFY EXISTING DRAINAGE STRUCTURE SIZES AND TYPES PRIOR TO MAKING ANY MODIFICATIONS TO TOP SLABS, CASTINGS, OR ANY OTHER ELEMENTS THAT MAY BE REQUIRED.

5. PRIOR TO THE INSTALLATION OF NEW DRAINAGE, THE CONTRACTOR SHALL EXCAVATE TEST HOLES AT NEW STRUCTURE LOCATIONS TO DETERMINE THE EXACT LOCATION OF THE EXISTING UNDERGROUND UTILITIES. IF IT IS DETERMINED BY THE ENGINEER RESPONSIBLE FOR CONSTRUCTION INSPECTION THAT A CONFLICT EXISTS BETWEEN THE EXISTING UTILITIES AND THE NEW DRAINAGE STRUCTURE LOCATIONS, THE CONTRACTOR SHALL SUBSTITUTE AND INSTALL OFFSET OR OTHER TYPE OF CATCH BASINS IN LIEU OF THE STRUCTURES SHOWN ON THE PLANS.TEST HOLES SHALL BE PAID FOR UNDER ITEM 122-TEST HOLES.

6. CURB BOX AND FRAME TYPE "A" AND GRATE TYPE "A" , AS SHOWN IN THE NCDPW STANDARD DETAILS, SHALL BE USED FOR CATCH BASINS TYPES "A", "C" AND "11" UNLESS OTHERWISE NOTED. PAYMENT SHALL BE MADE UNDER ITEM 34-MISCELLANEOUS METALS.

7. ALL EXISTING DRAINAGE CASTINGS ARE THE PROPERTY OF THE COUNTY OF NASSAU DEPARTMENT OF PUBLIC WORKS AND UPON REMOVAL FROM STRUCTURES, THEY SHALL BE PROPERLY STORED AND PROTECTED, UNTIL SUCH TIME THAT THEY MAY BE REMOVED BY THE NASSAU COUNTY HIGHWAY DEPARTMENT. THE CONTRACTOR WILL NOTIFY THE HIGHWAY DEPARTMENT IN WRITING WHERE AND WHEN THESE CASTINGS MAY BE REMOVED FROM THE JOB SITE.

SILT PROTECTION/EROSION CONTROL

1. ALL CATCH BASINS MUST BE PROTECTED PRIOR TO THE START OF WORK - ITEM 141B & ITEM 141C, UNLESS OTHERWISE DIRECTED BY THE ENGINEER RESPONSIBLE FOR THE CONSTRUCTION INSPECTION.

2. GROUNDWATER MAY BE ENCOUNTERED DURING THE INSTALLATION OF THE VARIOUS CONTRACT ITEMS. THE COST FOR NECESSARY DEWATERING SHALL BE INCLUDED IN THE PRICE BID FOR THE VARIOUS CONTRACT ITEMS.

3. ALL NECESSARY PRECAUTIONS SHALL BE TAKEN BY THE CONTRACTOR TO PREVENT DIRECT OR INDIRECT CONTAMINATION OF ALL WATER BODIES BY SILT, SEDIMENT, ROADWAY MILLINGS, FUELS SOLVENTS, LUBRICANTS, CONCRETE LEACHATE, OR ANY OTHER POLLUTANT ASSOCIATED WITH CONSTRUCTION AND CONSTRUCTION PROCEDURES. DURING CONSTRUCTION, NO WET OR FRESH CONCRETE OR LEACHATE SHALL BE ALLOWED TO ESCAPE DIRECTLY OR INDIRECTLY INTO ANY WATER BODIES, NOR SHALL WASHINGS FROM CONCRETE TRUCKS, MIXERS, OR OTHER DEVICES BE ALLOWED TO ESCAPE DIRECTLY OR INDIRECTLY INTO ANY WATER BODIES. THE CONTRACTOR SHALL TAKE CARE TO REMOVE ALL MILLINGS AT THE END OF EACH WORK DAY, BY METHODS OUTLINED UNDER THE PAVING SECTION OF THESE GENERAL NOTES OR METHODS AS APPROVED BY THE ENGINEER, SO AS NOT TO DIRECTLY OR INDIRECTLY CAUSE SAID MILLINGS TO BE DEPOSITED INTO SURFACE WATERS. THE COST TO PERFORM THIS WORK IS TO BE INCLUDED IN THE UNIT PRICES BID FOR THE VARIOUS CONTRACT ITEMS, UNLESS OTHER METHODS OF PAYMENT ARE SPECIFIED WITHIN THE CONTRACT DOCUMENTS.

CLEANING OF EXISTING DRAINAGE NOTES:

1. ALL EXISTING CATCH BASINS THAT LIE WITHIN THE CONTRACT LIMITS, AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER SHALL BE CLEANED UNDER ITEM 12H. CONNECTING PIPES SHALL BE CLEANED FOR A DISTANCE OF 3 FT FROM THE INSIDE WALL OF EACH STRUCTURE. THE COST OF THIS CLEANING SHALL BE INCLUDED UNDER ITEM 12H, UNLESS THE REMAINING PIPE (BEYOND 3 FT) IS MORE THAN 25% FULL AS DETERMINED BY THE ENGINEER. IF IT IS MORE THAN 25% FULL, THE ENTIRE PIPE SHALL BE CLEANED UNDER ITEM 12H, AND MEASUREMENT FOR PAYMENT WILL BE MADE BETWEEN THE INSIDE WALL SURFACES OF ADJACENT MANHOLES OR OTHER DRAINAGE STRUCTURES

2. EXISTING DRAINAGE PIPE SHALL BE CLEANED AS DIRECTED BY THE ENGINEER ON AN AS NEEDED BASIS. A DETAILED LISTING OF THE EXISTING DRAINAGE PIPES WITHIN THE PROJECT IS NOT PROVIDED ON THE PLANS OR KNOWN AT THIS TIME. HOWEVER, AN ESTIMATE OF THE QUANTITY OF LINEAR FEET OF PIPE TO BE CLEANED IS PROVIDED FOR BIDDING PURPOSES, AND MAY BE INCREASED OR DECREASED BASED ON ACTUAL FIELD CONDITIONS ENCOUNTERED AND AS DIRECTED BY THE ENGINEER. THE QUANTITY PROVIDED IS BASED ON THAT ESTIMATE. PAYMENT FOR CLEANING EXISTING PIPE AS ORDERED BY THE ENGINEER SHALL BE PAID FOR UNDER BID ITEM 12H.

3. THE WORK INVOLVED IN CLEANING THE EXISTING DRAINAGE BASINS, ITEM 12H, IS TO BE DONE IMMEDIATELY PRIOR TO MILLING. AT EACH BASIN THE CONTRACTOR IS TO PROGRESS THE CLEANING WHILE OBSERVING THE BASIN WALLS. IF PORTIONS OF ANY BASINS WALLS ARE SIGNIFICANTLY DETERIORATED, AS DETERMINED BY THE ENGINEER, CLEANING SHALL TERMINATE. PAYMENT WILL BE MADE UNDER ITEM 12H REGARDLESS OF THE EXTENT TO WHICH THE BASIN HAS BEEN CLEANED. THE ENGINEER WILL THEN DETERMINE IF THE BASIN CAN REMAIN AS IS OR IS TO BE ABANDONED, REPAIRED, OR REPLACED. AS THIS DETERMINATION CANNOT BE MADE BY THE ENGINEER UNTIL THE CLEANING OF THE DRAINAGE STRUCTURE IS ADVANCED, CERTAIN ITEMS AND QUANTITY OF WORK RELATED TO THE POTENTIAL NEED TO ABANDON, REPAIR, OR REPLACE EXISTING DRAINAGE STRUCTURES HAS BEEN ADDED TO THIS CONTRACT AS CONTINGENCY ITEMS.

REMOVAL AND REINSTALLATION OF SIGNS NOTES:

1. WORK TO BE DONE UNDER THIS CONTRACT SHALL INCLUDE THE REMOVAL, SAFE STORAGE AND REPLACEMENT OF ALL STREET NAME SIGNS, REGULATORY OR OTHER TRAFFIC SIGNS WHERE SUCH REMOVAL AND REPLACEMENT IS NECESSARY TO COMPLETE THE WORK. THE CONTRACTOR SHALL SUPPLY AND INSTALL A 3" DIAMETER PVC SLEEVE OF NECESSARY LENGTH TO FACILITATE THE REINSTALLATION OF STREET NAME SIGNS, REGULATORY AND PARKING SIGNS IN PAVED AREAS, (CONCRETE OR ASPHALT). THE COST SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS.

WORK ZONE TRAFFIC CONTROL / MAINTENANCE AND PROTECTION OF TRAFFIC NOTES:

1. THE CONTRACTOR SHALL PERFORM HIS WORK IN SUCH A MANNER AND SEQUENCE THAT INTERFERENCE, RESTRICTIONS AND DELAYS TO THE TRAVELING PUBLIC WILL BE KEPT TO AN ABSOLUTE MINIMUM.

2. THE CONTRACTOR SHALL PROVIDE SAFE AND PASSABLE WALKWAYS THAT ARE ADA COMPLIANT, FOR PEDESTRIAN TRAFFIC WITHIN THE PROJECT LIMITS.

3. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE PROVISIONS OF THE NEW YORK STATE SUPPLEMENT TO THE NATIONAL MUTCD. IN ADDITION, WORK ZONE TRAFFIC CONTROL DRAWINGS AS MAY BE REQUIRED SHALL BE IN ACCORDANCE WITH THE APPLICABLE NYSDOT STANDARD DRAWINGS FOR SECTION 619-WORK ZONE TRAFFIC CONTROL AND SHALL BE SUBMITTED TO NCDPW FOR REVIEW AND ACCEPTANCE. WORK ZONE TRAFFIC CONTROL DRAWINGS SHALL BE SUBMITTED BY THE CONTRACTOR FOR ANY AND ALL PROJECT ROADWAY SEGMENTS REQUIRING DETOURS AND/OR LANE CLOSURES TO SAFELY EXECUTE THE PROJECT WORK, AS DETERMINED BY THE COUNTY AND/OR THEIR REPRESENTATIVES.

4. SEE ADDITIONAL NOTES FOR WORK ZONE TRAFFIC CONTROL / MAINTENANCE AND PROTECTION OF TRAFFIC ON DRAWING NO. WZTCN-01 - WORK ZONE TRAFFIC CONTROL NOTES.

ADA CURB RAMP NOTES:

1. ALL CURB RAMPS TO BE INSTALLED WHERE SHOWN ON THE PLANS OR AS ORDERED BY THE ENGINEER SHALL BE IN COMPLIANCE WITH ADA, PROWAG, AND NCDPW STANDARDS.

2. THE CONTRACTOR SHALL VERIFY THE PLACEMENT OF ALL NEW RAMP CONFIGURATIONS PRIOR TO INSTALLATION. THE CONTRACTOR MUST GIVE 48 HRS (2 BUSINESS DAYS) NOTIFICATION FOR NCDPW APPROVAL.

3. A NCDPW INSPECTOR MUST BE PRESENT DURING THE INSTALLATION OF ANY CURB RAMP.

4. IT IS RECOMMENDED THAT A SMART LEVEL TOOL (OR EQUIVALENT) IS USED TO CHECK THE SLOPES ON ALL FORMWORK PRIOR TO THE PLACEMENT OF CONCRETE.

5. NCDPW CIVIL ENGINEERING UNIT MUST BE NOTIFIED IN WRITING OF ANY WORK DONE TO EXISTING CURB RAMPS SO THAT NASSAU COUNTY OR THEIR REPRESENTATIVES CAN UPDATE THE COUNTY'S TRANSITION PLAN INVENTORY.

PAVING:

1. TACK COAT SHALL BE APPLIED WHENEVER RESURFACING: (1) ANY PORTLAND CEMENT CONCRETE PAVEMENT RECEIVING AN OVERLAY; 2) ANY MILLED PAVEMENT; AND (3) ANY ASPHALT CONCRETE PAVEMENT EXCEPT WHEN THE EXISTING SURFACE IS EXCESSIVELY FLUSHED, AS DETERMINED BY THE ENGINEER. IN ADDITION, TACK COAT SHALL BE APPLIED TO CONTACT SURFACES BETWEEN ALL HOT MIX ASPHALT PAVEMENT LIFTS REGARDLESS OF TIME PERIOD BETWEEN LIFTS OR CONSTRUCTION VEHICLE USE.

2. WHERE NOTCHES ARE CUT INTO THE EXISTING PAVEMENT IN PREPARATION FOR THE PAVEMENT RESTORATION, THE CONTRACTOR SHALL SAW CUT AND TAKE CARE TO MAINTAIN THE VERTICAL EDGE OF THE RESTORATION LIMIT PRIOR TO PAVING. SAW CUTTING SHALL BE INCLUDED UNDER ITEM 58RPC. ADDITIONAL SAW CUTTING REQUIRED TO MAINTAIN A VERTICAL EDGE PRIOR TO PAVING SHALL BE DONE AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR SHALL EITHER PLACE THE PROPOSED ASPHALT RESTORATION IMMEDIATELY OR PLACE A TEMPORARY WEDGE (1 ON 60) OF ASPHALT TO ELIMINATE THE BUMP CREATED BY THE NOTCH. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE PAVING ITEMS.

3. DURING PAVING OPERATIONS, THE CONTRACTOR SHALL ENSURE THAT THE VERTICAL CHANGE (BETWEEN THE FINISHED PAVEMENT AND THE RAMP) AT ALL THE SIDEWALK CURB RAMPS WITHIN THE PROJECT LIMITS IS LESS THAN ONE-EIGHT INCH (1/8") ACROSS THE ENTIRE RAMP WIDTH.

4. THE CONTRACTOR SHALL FULLY RESTORE ALL ON-STREET PARKING ON ALL ROADWAYS AND AFFECTED SIDE STREETS WITHIN THE PROJECT LIMITS BEFORE THE END OF EACH WORK SHIFT. LOCAL AGENCIES AND AFFECTED BUSINESS ESTABLISHMENTS SHALL BE GIVEN A MINIMUM OF SEVENTY-TWO (72) HOUR ADVANCED NOTICE PRIOR TO THE PLANNED CLOSURES OF THE ON-STREET PARKING AREAS.

CONCRETE PAVEMENT REPAIR NOTES:

1. IN AREAS WHERE COMPOSITE PAVEMENT REPAIRS ARE NOTED ON THE PLANS OR WHERE DIRECTED BY THE ENGINEER, CONCRETE PAVEMENT REPAIRS ARE TO BE MADE UNDER ITEM 23SP-CONCRETE FOUNDATION FOR PAVEMENT, THE CONTRACTOR SHALL USE CLASS F HIGH EARLY STRENGTH CONCRETE. THE USE OF STEEL PLATES TO PROTECT THE CONCRETE REPAIR DURING ITS CURING TIME AND TO PERMIT OPENING OF THE ROADWAY TO TRAFFIC AT THE END OF THE WORK DAY SHALL BE PERMITTED. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE COUNTY FOR APPROVAL DEPICTING THE STEEL PLATE TO BE USED AND THE METHOD PROPOSED TO POSITION AND SECURE THE PLATE AT THE REPAIR LOCATION SO AS TO AVOID DISLOCATION OF THE STEEL PLATE DURING ITS USE.

PAVEMENT MARKING NOTES:

1. AFTER THE PAVEMENT RESTORATION IS COMPLETE, THE CONTRACTOR SHALL PLACE PERMANENT PAVEMENT MARKINGS TO MATCH EXISTING ADJACENT MARKINGS.

   AS THIS WORK IS MINIMAL IN NATURE, PAYMENT FOR RESTORING MISSING PAVEMENT MARKINGS AS A RESULT OF THE PROPOSED WORK SHALL BE INCLUDED UNDER THE VARIOUS CONTRACT BID FOR THE PROJECT.

WORK HOURS NOTES:

1. FOR THIS PROJECT, NORMAL WORK HOURS SHALL BE 8:00 AM TO 4:30 PM, MONDAY THROUGH FRIDAY. HOURS FOR WORK ON ROADWAYS SHALL BE 9:00 AM TO 4:00 PM UNLESS OTHERWISE NOTED OR APPROVED BY THE COUNTY. LANE CLOSURES ARE ONLY PERMITTED ON NON-HOLIDAY WEEKDAYS BETWEEN 10:00 AM AND 3:00 PM IN ACCORDANCE WITH THE APPROVED SCHEDULE. UNLESS OTHERWISE PROVIDED IN THE CONTRACT DOCUMENTS OR APPROVED BY THE COUNTY, NO WORK OR LANE CLOSURES WILL BE PERMITTED ON WEEKENDS.

2. WORK IS NOT PERMITTED ON ALL HOLIDAYS UNLESS PRIOR COUNTY APPROVAL IS OBTAINED. THIS INCLUDES MEMORIAL DAY, INDEPENDENCE DAY, LABOR DAY, VETERANS DAY, FROM NOON BEFORE THANKSGIVING DAY THROUGH THE SUNDAY FOLLOWING THANKSGIVING DAY, CHRISTMAS EVE, CHRISTMAS DAY, NEW YEAR'S EVE, NEW YEAR'S DAY; AND THE JEWISH HOLIDAYS, INCLUDING: ROSH HASHANAH, SUKKOT, SHEMINI ATZERET, SIMCHAT TORAH, AND YOM KIPPUR. SIMILAR PROVISIONS SHALL APPLY TO CONSTRUCTION DURING OTHER OBSERVED HOLIDAYS NOT SPECIFICALLY LISTED HEREIN.

3. SEE WORK ZONE TRAFFIC CONTROL DRAWINGS FOR ADDITIONAL NOTES AND PERMITTIED WORK TIMES.

SPECIAL NOTES:

1. THE CONTRACTOR IS REQUIRED TO COORDINATE HIS WORK WITH PUBLIC AGENCIES AND PRIVATE UTILITY COMPANIES TO AVOID CONFLICTS AND TO ARRANGE FOR CASTINGS AND APPURTENANCES WHICH ARE TO BE ADJUSTED BY OTHERS IN ADVANCE OF PERFORMING ANY FINAL PAVEMENT OVERLAY WORK.

2. THE AREAS AND TYPES OF PAVEMENT REPAIRS SHOWN ON THE PLANS WERE THE RESULT OF A FIELD INSPECTION TO ASSESS THE CONDITIONS AND TYPE OF THE EXISTING ROADWAY SURFACE AND UNDERLAYMENT PAVEMENT TO BE DISRUPTED BY THE PROPOSED WORK AND SUBSEQUENTLY REPAIRED.

3. THE CONTRACTOR IS REQUIRED TO OBTAIN APPROVAL FOR PROPOSED SIDEWALK RAMP TYPE AND LAYOUT FROM THE COUNTY REPRESENTATIVE PRIOR TO CONSTRUCTING ANY NEW SIDEWALK RAMPS.

4. THE CONTRACTOR IS REQUIRED TO OBTAIN APPROVAL OF LAYOUT OF PROPOSED PAVEMENT MARKINGS FROM THE COUNTY REPRESENTATIVE PRIOR TO APPLYING THE PERMANENT PAVEMENT MARKINGS.

5. THE CONTRACTOR SHALL PREPARE AND SUBMIT A PROJECT SCHEDULE INDICATING ANTICIPATED DURATION OF EACH WORK OPERATIONS BY LOCATION AND TYPE AND ANY PLANNED LANE CLOSURES TO THE COUNTY FOR REVIEW AND APPROVAL PRIOR TO STARTING ANY WORK. THEREON, THE CONTRACTOR SHALL PREPARE AND SUBMIT WEEKLY PROJECT SCHEDULES, INDICATING THE SAME, TO THE COUNTY NO LATER THAN THE FRIDAY MORNING BEFORE THE SUBJECT WEEK.

   THE CONTRACTOR SHALL, AT LEAST SEVENTY-TWO (72) HOURS IN ADVANCE OF ANY CONSTRUCTION ACTIVITIES WHICH MAY AFFECT TRAFFIC, NOTIFY THE POLICE, SCHOOL DISTRICTS WITH BUS ROUTES IN THE AREA, FIRE DEPARTMENT, ETC. IN WRITING WITH A COPY TO THE COUNTY. IF THE CLOSURE OF A STREET OR ROAD IS NECESSARY, THE CONTRACTOR SHALL COOPERATE WITH THE POLICE DEPARTMENT IN THE ESTABLISHMENT OF ALTERNATE ROUTES AND SHALL PROVIDE ADEQUATE DETOUR SIGNS, PLAINLY MARKED AND IN ACCORDANCE WITH THE MUTCD, IN ORDER TO MINIMIZE CONFUSION. THE CONTRACTOR SHALL MAINTAIN THE ROADWAY IN A "PASSABLE" CONDITION FOR THE USE OF EMERGENCY VEHICLES AT ALL TIMES DURING THE CONSTRUCTION. ACCESSIBILITY TO FIRE HYDRANTS, POLICE AND FIRE CALL BOXES SHALL BE MAINTAINED AT ALL TIMES.

6. THE CONTRACTOR SHALL MAINTAIN SAFE AND ADEQUATE VEHICULAR AND PEDESTRIAN ACCESS TO BUSINESSES AND RESIDENCES WITHIN THE PROJECT LENGTH. THE CONTRACTOR SHALL NOTIFY, IN WRITING, PROPERTY OWNERS AT LEAST TWO (2) WORKING DAYS IN ADVANCE OF CLOSING DRIVEWAYS. THIS WORK MAY INCLUDE PROVIDING TEMPORARY PLYWOOD OR ASPHALT WALKWAYS OR INSTALLING TEMPORARY RAMPS AND/OR STEEL PLATES TO OPEN DRIVEWAYS DURING OR AT THE END OF EACH DAY.

7. FOR ALL CASTINGS OVER 1" ABOVE SURROUNDING PAVEMENT THE CONTRACTOR SHALL PROVIDE PROTECTION BY PLACING A CONSTRUCTION DRUM WITH A FLASHING LIGHT ON TOP OF THE CASTING. THE CONTRACTOR, AT HIS/HER OPTION, MAY RAMP THE PROTRUDING CASTING ON A 1 ON 10 SLOPE WITH ASPHALT CONCRETE PAVEMENT SPECIFIED IN THE TEMPORARY ASPHALT ITEM.

8. WITH REGARD TO ITEM 102PVMS (PORTABLE VARIABLE MESSAGE SIGN - LED ENHANCED DISK MATRIX) THE NUMBER OF DAYS PER PVMS SHALL BE MEASURED AS THE NUMBER OF DAYS A PVMS IS IN-PLACE AND OPERATIONAL (I.E., DISPLAYING A MESSAGE). ANY PVMS THAT IS NOT IN-PLACE SHALL NOT BE MEASURED FOR PAYMENT. ADDITIONALLY, ANY PVMS THAT IS IN-PLACE, BUT NOT DISPLAYING A MESSAGE SHALL NOT BE MEASURED FOR PAYMENT.

9. DEWATERING - THE CONTRACTOR SHALL AT ALL TIMES DURING THE PROGRESS OF THE WORK KEEP THE TRENCHES AND EXCAVATIONS FREE FROM WATER. THE WATER FROM THE TRENCHES AND EXCAVATIONS SHALL BE DISPOSED OF IN SUCH A MANNER AS WILL NOT CAUSE INJURY TO THE PUBLIC HEALTH, NOR TO PUBLIC OR PRIVATE PROPERTY, NOR TO THE WORK COMPLETED OR IN PROGRESS, NOR TO THE SURFACE OF THE STREETS, SURFACE WATERS WHERE APPLICABLE, NOR CAUSE ANY INTERFERENCE WITH THE USE OF THE SAME BY THE PUBLIC. ALL STORM DRAINS AND PIPES USED FOR DISPOSAL OF WATER FROM THE TRENCHES AND EXCAVATION DURING CONSTRUCTION SHALL BE ACCEPTABLY CLEANED AND PROTECTED FROM SILT DEPOSITS.

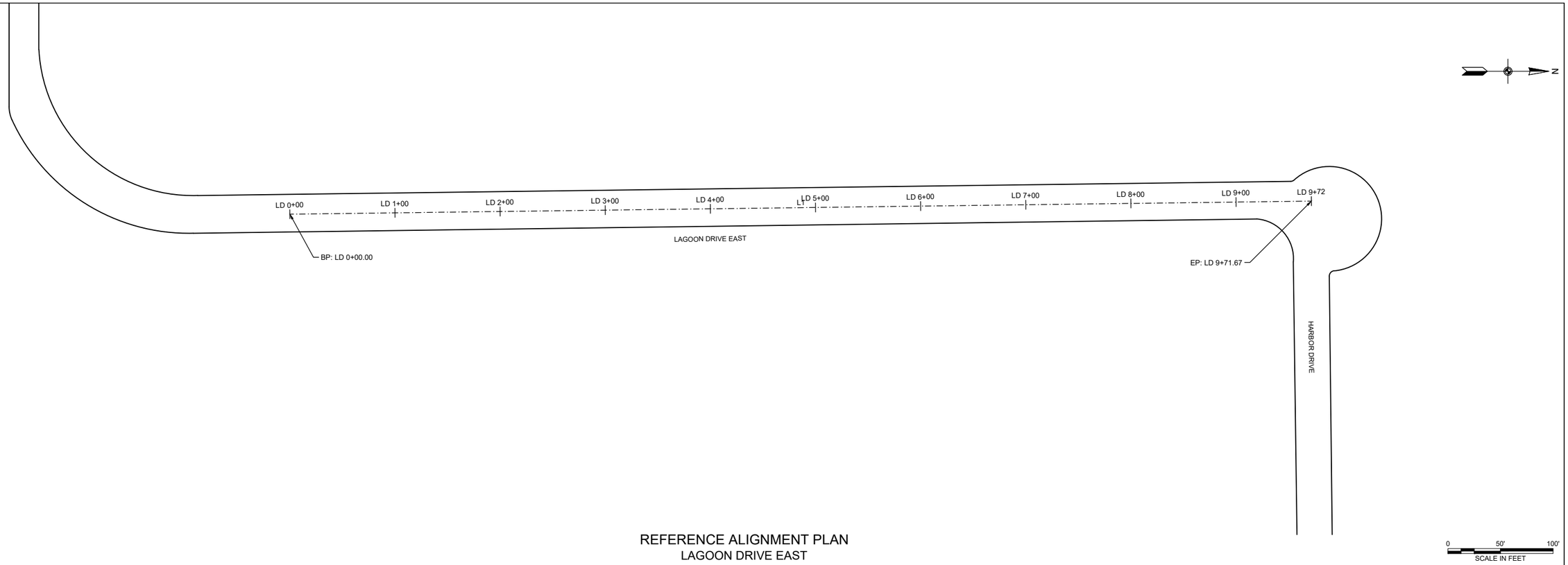
   WHEN IN ORDER TO COMPLY WITH THE ABOVE, IT IS DEEMED NECESSARY TO WIDEN THE TRENCH BEYOND THE ALLOWABLE MAXIMUM WIDTH, TO PERMIT THE INSTALLATION OF WELL-POINTS, THE CONTRACTOR SHALL, AS DIRECTED BY THE ENGINEER, PROVIDE EITHER PIPE OF ADDITIONAL STRENGTH OR CONCRETE ENCASEMENT AT NO ADDITIONAL COST TO THE COUNTY.

   THE CONTRACTOR SHALL, WITH HIS OWN EQUIPMENT, PROVIDE DEWATERING WHERE REQUIRED AT NO ADDITIONAL COST TO THE COUNTY. THE COST FOR ALL LABOR, EQUIPMENT, MATERIALS, ETC. REQUIRED TO DISPOSE OF WATER FROM THE EXCAVATIONS SHALL BE DEEMED INCLUDED IN THE PRICES BID FOR ALL ITEMS OF THE CONTRACT.

   ALL DEWATERING AND DISCHARGE PIPES AND HOSES WHICH CROSS TRAVELED ROADWAYS SHALL BE PLACED IN SUCH A MANNER SO AS TO ELIMINATE ANY DISRUPTION OF TRAFFIC FLOW. IF ORDERED BY THE ENGINEER, THE CONTRACTOR SHALL PLACE THE PIPES AND HOSES IN SHALLOW TRENCHES WHICH WILL THEN BE PLATED OVER. ALL HEADER PIPE SHALL BE BURIED BELOW EXISTING ROADWAY GRADE AT DRIVEWAYS IN ORDER TO MAINTAIN ACCESS TO DRIVEWAYS. ALL PLATES SHALL BE FIRMLY SECURED SO AS TO ELIMINATE ANY POSSIBLE SHIFT OR MOVEMENT.

   DEWATERING BY MEANS OF WELL POINTS OR DEEP WELLS WILL NOT BE ALLOWED WHERE THE RATE OF PUMPING EXCEEDS FORTY-FIVE (45) GALLONS PER MINUTE UNLESS THE APPROPRIATE PERMIT HAS BEEN SECURED FROM THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION.

   WHERE THE SUBGRADE OF THE TRENCH CANNOT BE MAINTAINED IN A DRY CONDITION, THE CONTRACTOR SHALL EXCAVATE THE TRENCH TO AN ADDITIONAL DEPTH OF SIX (6") INCHES BELOW THE SUBGRADE OF THE DRAINAGE OR SEWER PIPE AND BACKFILL THE TRENCH TO THE SUBGRADE OF THE DRAINAGE OR SEWER PIPE WITH STONE BALLAST. THE COST FOR THIS ADDITIONAL EXCAVATION, SHEETING, INSTALLATION OF STONE BALLAST, LABOR, MATERIALS, PLANT, EQUIPMENT AND INSURANCE REQUIRED OR NECESSARY TO COMPLETE THIS WORK SHALL BE DEEMED INCLUDED IN THE PRICES BID FOR THE RESPECTIVE DRAINAGE AND/OR SANITARY SEWER ITEMS.



REFERENCE ALIGNMENT PLAN
LAGOON DRIVE EAST

LAGOON DRIVE EAST REFERENCE ALIGNMENT														
ID	TANGENT LENGTH	BEARING	START STA.	START EASTING	START NORTHING	PI NORTHING	PI EASTING	END STATION	END NORTHING	END EASTING	DEGREE OF CURVATURE	RADIUS	DELTA	CURVE LENGTH
L1	971.67'	N0° 44' 03"W	LD 0+00.00	1086558.02	155174.33			LD 9+71.67	156145.93	1086545.57				

NOTES:

1. PROPOSED ALIGNMENTS ARE FOR SPATIAL REFERENCE ONLY AND DO NOT REPRESENT HISTORICAL ALIGNMENTS NOR CRITICAL HIGHWAY DESIGN ELEMENTS.
2. LAGOON DRIVE EAST REFERENCE ALIGNMENT WAS DEVELOPED USING FIELD SURVEYS AND AERIAL IMAGING ALONG THE APPARENT CENTER OF THE ROADWAY

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC SHEETS\ALG-01.DWG
Plot Date: 1/31/2020 2:07 PM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

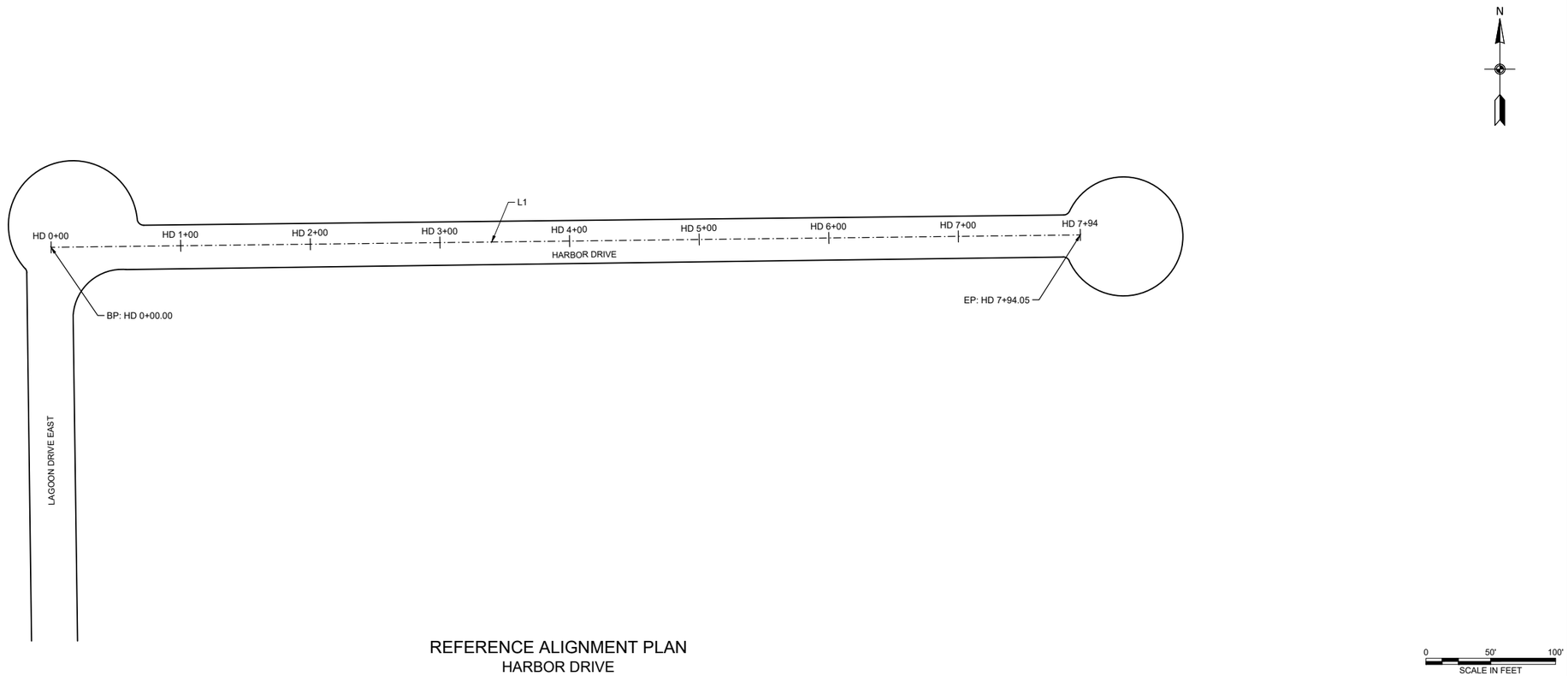
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: REFERENCE ALIGNMENT PLAN 01

GPI JOB NO: 2018042.00
CONTRACT NO: H60052-01D
PHASE: 95%
DATE: 01/31/2020
DRAWING NO: ALG-01
SCALE: 1" = 50'
SHEET NO: 5 OF 46



REFERENCE ALIGNMENT PLAN
HARBOR DRIVE

HARBOR DRIVE REFERENCE ALIGNMENT														
ID	TANGENT LENGTH	BEARING	START STA.	START EASTING	START NORTHING	PI NORTHING	PI EASTING	END STATION	END NORTHING	END EASTING	DEGREE OF CURVATURE	RADIUS	DELTA	CURVE LENGTH
L1	794.05'	N89° 18' 35"E	HD 0+00.00	1086545.57	156145.93			HD 7+94.05	156155.49	1087339.56				

NOTES:

1. PROPOSED ALIGNMENTS ARE FOR SPATIAL REFERENCE ONLY AND DO NOT REPRESENT HISTORICAL ALIGNMENTS NOR CRITICAL HIGHWAY DESIGN ELEMENTS.
2. HARBOR DRIVE REFERENCE ALIGNMENT WAS DEVELOPED USING FIELD SURVEYS AND AERIAL IMAGING ALONG THE APPARENT CENTER OF THE ROADWAY

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC SHEETS\ALG-02.DWG
Plot Date: 1/31/2020 2:07 PM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

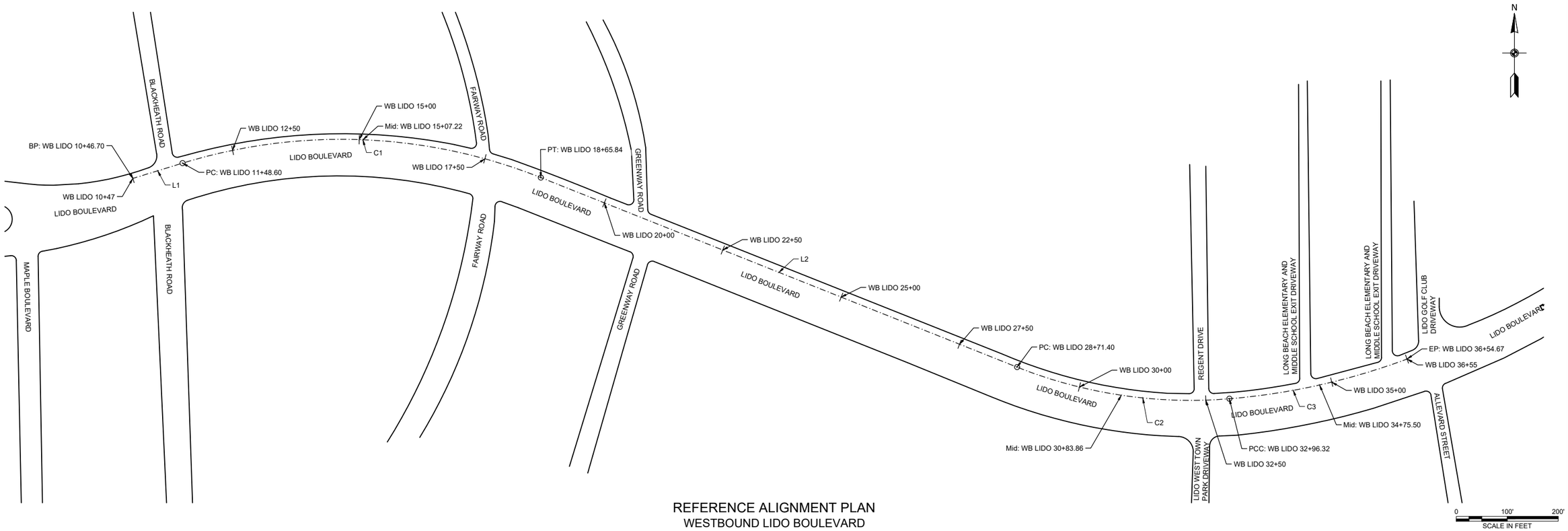
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: REFERENCE ALIGNMENT PLAN 02

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: ALG-02	
SCALE: 1" = 50'	SHEET NO: 6 OF 46	



REFERENCE ALIGNMENT PLAN
WESTBOUND LIDO BOULEVARD

WESTBOUND LIDO BOULEVARD REFERENCE ALIGNMENT														
ID	TANGENT LENGTH	BEARING	START STA.	START EASTING	START NORTHING	PI NORTHING	PI EASTING	END STATION	END NORTHING	END EASTING	DEGREE OF CURVATURE	RADIUS	DELTA	CURVE LENGTH
L1	101.90'	N72° 55' 24"E	WB LIDO 10+46.70	1084952.51	154044.64			WB LIDO 11+48.60	154074.56	1085049.91				
C1			WB LIDO 11+48.60	1085049.91	154074.56	154184.08	1085406.43	WB LIDO 18+65.84	154046.23	1085752.98	5° 24' 19"	1060.00'	38° 46' 08"	717.24'
L2	1005.56'	S68° 18' 29"E	WB LIDO 18+65.84	1085752.98	154046.23			WB LIDO 28+71.40	153674.56	1086687.33				
C2			WB LIDO 28+71.40	1086687.33	153674.56	153594.60	1086888.33	WB LIDO 32+96.32	153612.52	1087103.90	6° 13' 24"	920.67'	26° 26' 40"	424.93'
C3			WB LIDO 32+96.32	1087103.90	153612.52	153627.46	1087283.58	WB LIDO 36+54.67	153690.42	1087452.53	4° 22' 38"	1308.93'	15° 41' 09"	358.35'

NOTES:

1. PROPOSED ALIGNMENTS ARE FOR SPATIAL REFERENCE ONLY AND DO NOT REPRESENT HISTORICAL ALIGNMENTS NOR CRITICAL HIGHWAY DESIGN ELEMENTS.
2. WESTBOUND LIDO BOULEVARD REFERENCE ALIGNMENT WAS DEVELOPED USING FIELD SURVEYS AND AERIAL IMAGING ALONG THE BROKEN WHITE STRIPING LINE BETWEEN THE TWO RIGHT MOST LANES ALONG WESTBOUND LIDO BOULEVARD TRAFFIC.

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC SHEETS\ALG-03.DWG
Plot Date: 1/31/2020 2:07 PM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

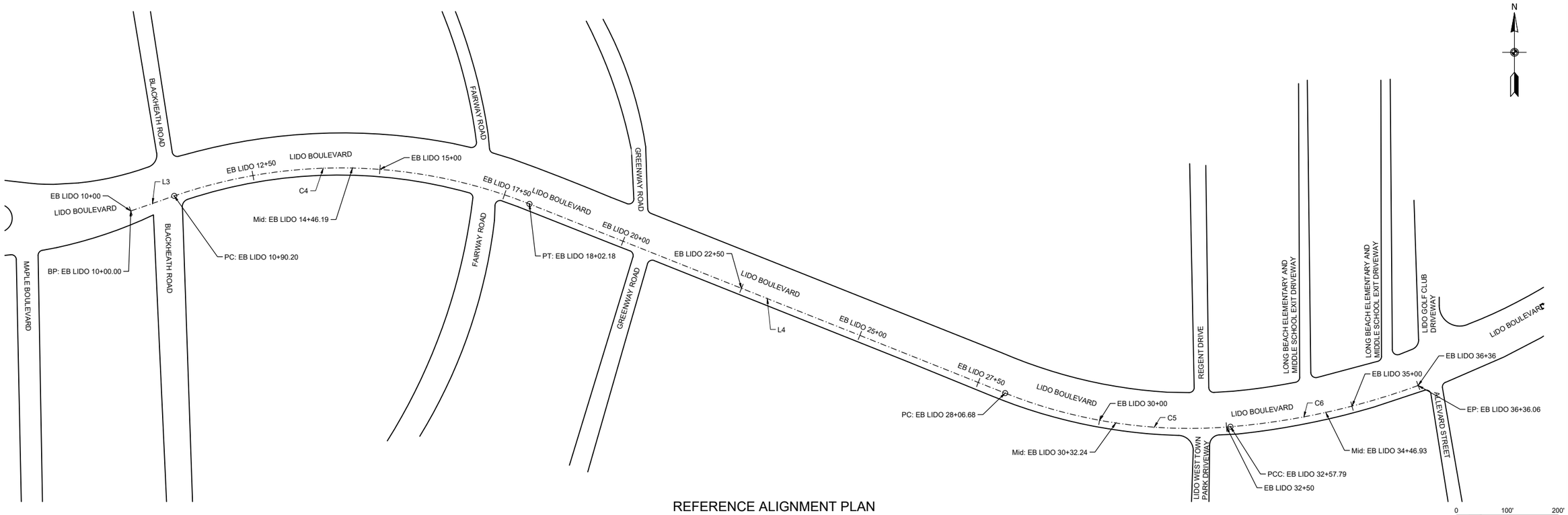
DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)
DRAWING TITLE: REFERENCE ALIGNMENT PLAN 03

GPI JOB NO: 2018042.00
CONTRACT NO: H60052-01D
PHASE: 95%
DATE: 01/31/2020
DRAWING NO: ALG-03
SCALE: 1" = 100'
SHEET NO: 7 OF 46



REFERENCE ALIGNMENT PLAN
EASTBOUND LIDO BOULEVARD

EASTBOUND LIDO BOULEVARD REFERENCE ALIGNMENT														
ID	TANGENT LENGTH	BEARING	START STA.	START EASTING	START NORTHING	PI NORTHING	PI EASTING	END STATION	END NORTHING	END EASTING	DEGREE OF CURVATURE	RADIUS	DELTA	CURVE LENGTH
L3	90.20'	N70° 53' 59"E	EB LIDO 10+00.00	1084948.40	153979.02			EB LIDO 10+90.20	154008.54	1085033.64				
C4			EB LIDO 10+90.20	1085033.64	154008.54	154130.21	1085385.00	EB LIDO 18+02.18	153992.77	1085730.50	5° 43' 46"	1000.00'	40° 47' 36"	711.98'
L4	1004.49'	S68° 18' 25"E	EB LIDO 18+02.18	1085730.50	153992.77			EB LIDO 28+06.68	153621.47	1086663.86				
C5			EB LIDO 28+06.68	1086663.86	153621.47	153536.59	1086877.23	EB LIDO 32+57.79	153555.47	1087106.09	5° 51' 15"	978.74'	26° 24' 31"	451.12'
C6			EB LIDO 32+57.79	1087106.09	153555.47	153571.11	1087295.72	EB LIDO 36+36.06	153636.49	1087474.42	4° 03' 57"	1409.22'	15° 22' 46"	378.27'

NOTES:

1. PROPOSED ALIGNMENTS ARE FOR SPATIAL REFERENCE ONLY AND DO NOT REPRESENT HISTORICAL ALIGNMENTS NOR CRITICAL HIGHWAY DESIGN ELEMENTS.
2. EASTBOUND LIDO BOULEVARD REFERENCE ALIGNMENT WAS DEVELOPED USING FIELD SURVEYS AND AERIAL IMAGING ALONG THE BROKEN WHITE STRIPING LINE BETWEEN THE TWO RIGHT MOST LANES ALONG EASTBOUND LIDO BOULEVARD TRAFFIC.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: REFERENCE ALIGNMENT PLAN 04

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: ALG-04	
SCALE: 1" = 100'	SHEET NO: 8 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC SHEETS\ALG-04.DWG
Plot Date: 1/31/2020 2:07 PM

TABLE OF WORK

ITEM	DESCRIPTION:	UNITS	QUANTITY BY LOCATION															CONTIN GENCY	ITEM TOTAL
			CP-01	CP-02	CP-03	CP-04	CP-05	CP-06	CP-07	CP-08	CP-09	CP-10	CP-11	CP-12	CP-13	CP-14	CP-15		
1 M/F	MOBILIZATION WITH FIELD OFFICE	LS / NEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	12
1S	JOB INFORMATION SIGN	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4
2	UNCLASSIFIED EXCAVATION AND DISPOSAL / PLACEMENT	CY	19	2	3	76	1	181	51	50	36	43	42	37	43	41	49	0	674
3	TRENCH, CULVERT AND BRIDGE EXCAVATION	CY	73	10	8	42	10	16	24	18	5	16	6	5	9	6	10	0	258
4A	CEMENT CONCRETE BREAKING (PAVEMENT)	SY	0	0	0	0	0	212	56	62	34	35	25	25	30	34	53	0	566
4B	CEMENT CONCRETE BREAKING (STRUCTURES)	CY	0	0	0	10	0	13	5	4	4	5	5	5	5	5	5	0	66
5D	SELECTED GRANULAR FILL	CY	65	5	4	50	5	48	27	22	15	33	32	27	29	18	31	0	411
7	PREARING FINE GRADING	SF	413	0	0	490	0	1900	500	550	300	310	220	220	270	305	470	0	5948
10A-1	EXCAVATION PROTECTION SYSTEM	SF	400	0	0	420	0	770	320	0	0	550	420	390	360	270	410	0	4310
12-TF-15SS	15" TIDEFLEX IN-LINE CHECK VALVE	EA	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2
12-TF-18SS	18" TIDEFLEX IN-LINE CHECK VALVE	EA	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12-TF-24SS	24" TIDEFLEX IN-LINE CHECK VALVE	EA	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
12-TF-48SS	48" TIDEFLEX IN-LINE CHECK VALVE	EA	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
12A-4-15	15" - REINFORCED CONCRETE PIPE, CLASS IV	LF	0	8	0	8	8	16	0	0	0	0	0	0	20	8	22	0	90
12A-4-18	18" - REINFORCED CONCRETE PIPE, CLASS IV	LF	0	0	8	0	0	8	24	28	8	24	12	12	0	0	0	0	124
12A-4-24	24" - REINFORCED CONCRETE PIPE, CLASS IV	LF	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	16
12A-4-48	48" - REINFORCED CONCRETE PIPE, CLASS IV	LF	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
12H	CLEANING EXISTING DRAINAGE SYSTEM	EA	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	0	17
13A	CATCH BASINS	CY	0	0	0	0	0	22	8	7	7	8	14	13	12	7	10	0	108
13BP-4	PRECAST MANHOLES, 4' DIAMETER	LF	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4
13BP-SS-7.5	90" NYSDOT PRECAST TYPE B MANHOLE	LF	10	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	20
14	CONNECTIONS TO EXISTING DRAINAGE FACILITIES	EA	3	1	1	3	1	3	2	3	1	5	3	3	4	1	4	0	38
20	BROKEN STONE, LOOSE MATERIAL	CY	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
23SP	CONCRETE FOUNDATION FOR PAVEMENT	CY	0	0	0	0	0	42	11	12	7	7	5	5	6	7	11	0	113
26	CONCRETE CURB	LF	35	0	0	20	0	86	75	30	11	36	22	21	28	11	21	0	396
27	CEMENT CONCRETE SIDEWALK	SF	130	30	30	80	30	390	190	140	75	170	105	105	320	75	115	0	1985
27DW	DETECTABLE WARNING SURFACE	SF	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
28	CEMENT CONCRETE DRIVEWAYS AND DRIVEWAY APRONS	SF	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80
34	MISCELLANEOUS METALS	LB	360	0	0	360	0	6120	2040	2040	2040	2400	2750	2750	2750	2040	2400	0	28050
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)	TON	15	0	0	17	0	64	17	19	11	11	8	8	10	11	16	0	207
40R	RESET EXISTING STONE BLOCK PAVEMENT	SF	25	0	45	0	0	0	0	0	0	0	0	0	0	0	0	0	70
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE	LF	75	8	6	80	8	160	115	80	60	70	60	60	115	60	70	0	1027
60	ALTER WATER SERVICE CONNECTIONS	LF	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
62SS	RELOCATE BURIED ELECTRICAL SERVICE	LF	25	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	45
64	RESET EXISTING FENCE	LF	0	0	6	0	12	0	0	0	0	0	0	0	0	0	0	0	18
65B	TRANSPLANTING EXISTING TREES AND SHRUBS	EA	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4
102	WORK ZONE TRAFFIC CONTROL	LS / NEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
102PVMS	PORTABLE MESSAGE SIGN	DAYS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	90
120-SS	RELOCATION OF EXISTING LIGHT POLES (COMPLETE)	EA	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
121	DRYBOUND BASE COURSE	CY	8	0	0	10	0	36	10	11	6	6	5	5	5	6	9	0	117

TABLE OF WORK

ITEM	DESCRIPTION:	UNITS	QUANTITY BY LOCATION															CONTIN GENCY	ITEM TOTAL
			CP-01	CP-02	CP-03	CP-04	CP-05	CP-06	CP-07	CP-08	CP-09	CP-10	CP-11	CP-12	CP-13	CP-14	CP-15		
122	TEST HOLES	EA	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	4	5
136	SURVEY STAKEOUT	LS/NEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
141B	SILT PROTECTION FOR SURFACE INLET DRAINAGE STRUCTURES	EA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
141C	SILT PROTECTION FOR CURB INLET DRAINAGE STRUCTURES	EA	0	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	5
368	TOPSOIL AND GRASS SEED	SY	25	10	0	8	10	44	4	16	6	29	18	12	0	6	18	0	206
372	TREE REMOVAL A,B,C,D,E,F	EA	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2
419S-075	FURNISH AND INSTALL 3/4" DIAMETER STEEL CONDUIT	LF	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	50
419Z	CLEAN EXISTING CONDUIT	LF	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	50
420R	REGRADE PULLBOX FRAME AND COVER	EA	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	2
420-1	FURNISH AND INSTALL STANDARD PULLBOX	EA	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
422LX	FURNISH AND INSTALL LOOP WIRE	LF	0	0	0	0	0	130	0	0	0	0	0	0	0	0	0	0	130
422LSX	FURNISH AND INSTALL LOOP SAW CUT	LF	0	0	0	0	0	130	0	0	0	0	0	0	0	0	0	0	130
450	FURNISH AND INSTALL POST MOUNTED SIGN	EA	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
504A	CATCH BASIN INSERT, TYPE A	EA	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC TABLES\MST-02.DWG
Plot Date: 1/31/2020 2:08 PM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: MISCELLANEOUS TABLES 02 TABLE OF WORK

GPI JOB NO: 2018042.00
CONTRACT NO: H60052-01D
PHASE: 95%
DATE: 01/31/2020
DRAWING NO: MST-02
SCALE: -
SHEET NO: 10 OF 46

TABLE OF DRAINAGE STRUCTURES

DRAWING NO.	STRUCTURE NO.	STRUCTURE TYPE	STATION	OFFSET	FRAME TYPE	GRATE / COVER	EXISTING RIM / TG	PROPOSED RIM / TG	PIPE INVERT ELEVATION	CONNECT TO STRUCTURE NO.	PIPE SIZE	REMARKS
CP-01	MH 6043**	EXISTING MH	LD 1 +95	7R	-	-	6.42	-	-2.60 (W) N/A	PROPOSED MH 1 MH 13011**	48" RCP 30" RCP	CLEAN AND INVENTORY EXISTING DRAINAGE MANHOLE TO CONFIRM OR DETERMINE THE PROPOSED INTERPOLATED INVERT AT PROPOSED MH 1
	MH 1	7'-6" NYSDOT PRECAST TYPE B MANHOLE	LD 1 +95	21L	STD. NCDPW MH FRAME	NCDPW EMBOSSED MH COVER	N/A	6.5	-2.95 (W) -2.87 (E)	OUTFALL 7005** (NS) MH 6043**	48" RCP 48" RCP	PROPOSED MH TO RECEIVE IN-LINE CHECK VALVE
CP-02	CB 6045**	EXISTING CB	LD 3 + 72	15L	-	-	4.77 (GUTTER) / 5.68 (RIM)	-	1.6 (N)	OUTFALL 7006** (NS)	15" RCP	EXISTING CB TO RECEIVE IN-LINE CHECK VALVE. CONTRACTOR IS TO REMOVE, CLEAN AND REINSTALL EXISTING "STORM SAC", WITHIN DRIANAGE STRUCTURE (SEE NOTE 1).
CP-03	CB 6047**	EXISTING CB	HD 0 +37	58L	-	-	4.79 (GUTTER) / 5.81 (RIM)	-	2.1 (N)	OUTFALL 7003** (NS)	18" RCP	EXISTING CB TO RECEIVE IN-LINE CHECK VALVE. CONTRACTOR IS TO REMOVE, CLEAN AND REINSTALL EXISTING "STORM SAC", WITHIN DRIANAGE STRUCTURE (SEE NOTE 1).
CP-04	MH 11005**	EXISTING MH	HD 4 +02	7R	-	-	5.37	-	-4.05 (N) -2.5 (S) 1.9 (SE)	OUTFALL 13076** (NS) MH 13002** (NS) CB 6049**	24" RCP 24" RCP 15" RCP	CLEAN AND INVENTORY EXISTING DRAINAGE MANHOLE PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED MH 2, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
	MH 2	7'-6" NYSDOT PRECAST TYPE B MANHOLE	HD 4 +02	7R	STD. NCDPW MH FRAME	NCDPW EMBOSSED MH COVER	-	5.37	-4.05 (N) -2.5 (S) 1.9 (E)	OUTFALL 13076** (NS) MH 13002** (NS) CB 6049**	24" RCP 24" RCP 15" RCP	PROPOSED MH TO RECEIVE IN-LINE CHECK VALVE
CP-05	CB 11004**	EXISTING CB	HD 7 + 58	17L	-	-	4.87 (GUTTER) / 5.99 (RIM)	-	1.6 (N)	OUTFALL 7004** (NS)	15" RCP	EXISTING CB TO RECEIVE IN-LINE CHECK VALVE. CONTRACTOR IS TO REMOVE, CLEAN AND REINSTALL EXISTING "STORM SAC", WITHIN DRIANAGE STRUCTURE (SEE NOTE 1).
CP-06	CB 2098**	EXISTING CB	EB LB 10 + 48	52R	-	-	5.85 (GUTTER) / 6.75 (RIM)	-	2.2	MH 2097**	15" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 3, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
	CB 2096**	EXISTING CB	EB LB 10 + 92	58R	-	-	5.96 (GUTTER) / 6.90 (RIM)	-	3.2	MH 2097**	15" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 4, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
	CB 2095**	EXISTING CB	EB LB 10 + 98	32R	-	-	5.90 (GUTTER) / 6.69 (RIM)	-	3.16	MH 2099**	18" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 5, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
	CB 3	NCDPW TYPE C	EB LB 10 + 48	52R	NC TYPE A FRAME	RETICULINE GRATE	-	5.85	2.2 (E)	MH 2097**	15" RCP	SEE NOTE 2
	CB 4	NCDPW TYPE C	EB LB 10 + 92	58R	NC TYPE A FRAME	RETICULINE GRATE	-	5.96	3.06 (W)	MH 2097**	15" RCP	SEE NOTE 2
	CB 5	NCDPW TYPE C	EB LB 10 + 98	32R	LOW PROFILE FRAME (SEE NOTE 4)	OBLONG GRATE	-	5.9	3.00 (W)	MH 2099**	18" RCP	SEE NOTE 2
CP-07	CB 3074**	EXISTING CB	WB LB 11 + 55	14L	-	-	6.15 (GUTTER) / 6.79 (RIM)	-	2.04	MH 3075**	24" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 6, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
	CB 6	NCDPW TYPE C	WB LB 11 + 55	14L	NC TYPE A FRAME	RETICULINE GRATE	-	6.15	2.06 (W)	MH 3075**	24" RCP	
CP-08	CB 2085**	EXISTING CB	EB LB 23 + 74	12R	-	-	4.92 (GUTTER) / 5.59 (RIM)	-	2.04 (N) 2.04 (E)	MH 2084** CB 2087**	18" RCP 18" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 7, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
	CB 7	NCDPW TYPE C	EB LB 23 + 74	12R	LOW PROFILE FRAME (SEE NOTE 4)	OBLONG GRATE	-	4.92	1.75 (N) 1.75 (E)	MH 2084** PROPOSED CB 8	18" RCP 18" RCP	
CP-09	CB 2087**	EXISTING CB	WB LB 24 + 36	14L	-	-	5.35 (GUTTER) / 5.91 (RIM)	5.35	2.70 (S)	CB 2087**	18" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 8, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
	CB 8	NCDPW TYPE C	WB LB 24 + 36	14L	NC TYPE A FRAME	RETICULINE GRATE	-	5.35	2.47 (S)	PROPOSED CB 7	18" RCP	
CP-10	CB 2083**	EXISTING CB	EB LB 30 + 32	13R	-	-	4.60 (GUTTER) / 5.26 (RIM)	-	1.6 (E)	MH 2082**	18" RCP 18" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB'S 9 & 10, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
	CB 9	NCDPW TYPE A MOD	EB LB 30 + 15	8R	NC TYPE A FRAME	RETICULINE GRATE	-	4.82	1.70 (E)	PROPOSED CB 10	18" RCP	
	CB 10	NCDPW TYPE A MOD	EB LB 30 + 32	13R	NC TYPE A FRAME	RETICULINE GRATE	-	4.6	1.6 (E) 1.70 (W)	PROPOSED MH 10A PROPOSED CB 9	18" RCP 18" RCP	
	MH 10A	NCDPW 4' DIA MH	EB LB 30 + 41	16R	STD. NCDPW MH FRAME	NCDPW EMBOSSED MH COVER	-	5.31	1.6 (E) 1.6 (W)	MH 2082** PROPOSED CB 10	18" RCP 18" RCP	

**REFERS TO EXISTING DRAINAGE STRUCTURES OR OUTFALL NUMBERS THAT ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)
(NS) - NOT SHOWN WITHIN THE PLAN DRAWINGS (OFF BASE MAPPING)

NOTES:

1. EXISTING "STORM SACK" SEDIMENT CONTROL DEVICE SHALL BE CLEANED OF ACCUMULATED DEBRIS AND LEGAL DISPOSAL OF DEBRIS SHALL BE PERFORMED. STORM SACK SHALL BE REINSTALLED WITHIN EXISTING FRAME, COST INCLUDED IN THE VARIOUS DRAINAGE ITEMS.
2. INSTALL PROPOSED STORM SACK(S) WITHIN NEW DRAINAGE STRUCTURE. PAYMENT TO BE MADE UNDER ITEM 504A - CATCH BASIN INSERT, TYPE A.
3. CONTRACTOR SHALL INSTALL PROPOSED REPLACEMENT PIPE SECTIONS TO GENERALLY MATCH THE EXISTING INVERTS, AS VERIFIED BY FIELD INVESTIGATIONS. WHERE THE PROPOSED REPLACEMENT PIPE SECTION INVERTS WOULD BE IN CONFLICT WITH THE DRAINAGE STRUCTURE TOP SLAB, IT IS THE INTENTION THAT THE CONTRACTOR SHALL ALTER THE PROPOSED PIPE INVERT IN ORDER TO FIT THE REPLACEMENT A SECTION OF PIPE BELOW THE PROPOSED DRAINAGE STRUCTURE TOP SLAB, AS APPROVED OR ORDERED BY THE ENGINEER.
4. CONTRACTOR SHALL INSTALL CAMPBELL FOUNDRY PATTERN NO. 2617 WITH OBLONG PATTERN GRATE, OR APPROVED EQUAL, FOR ALL DESIGNATED "LOW PROFILE" FRAME TYPES.

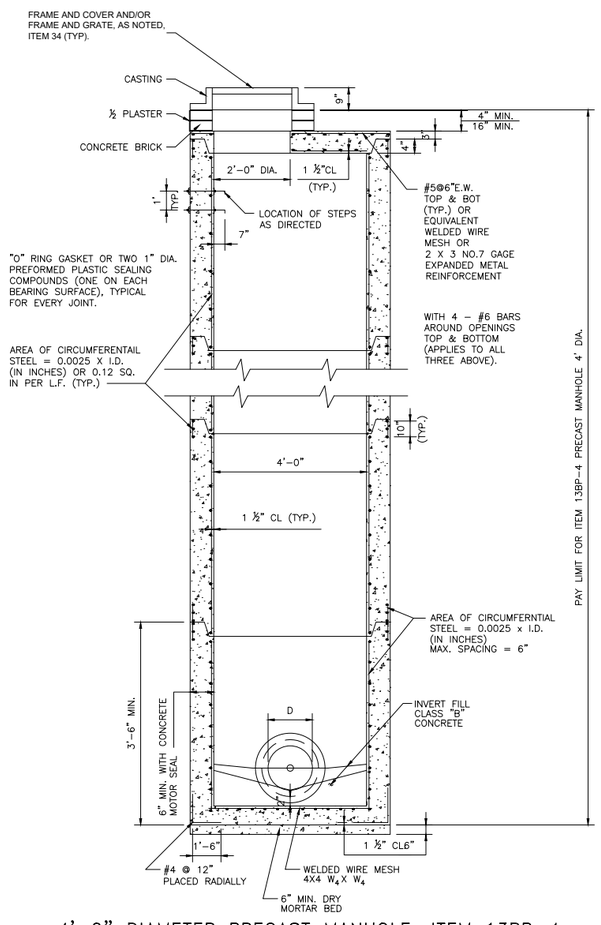
TABLE OF DRAINAGE STRUCTURES

DRAWING NO.	STRUCTURE NO.	STRUCTURE TYPE	STATION	OFFSET	FRAME TYPE	GRATE / COVER	EXISTING RIM / TG	PROPOSED RIM / TG	PIPE INVERT ELEVATION	CONNECT TO STRUCTURE NO.	PIPE SIZE	REMARKS
CP-11	CB 2081**	EXISTING CB	EB LB 31 + 31	13R	-	-	4.92 (GUTTER) / 5.57 (RIM)	-	1.30 (W)	MH 2082**	18" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB'S 11 & 12, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
	CB 11	NCDPW TYPE 11	EB LB 31 + 26	10R	NC TYPE A FRAME & STD. NCDPW MH FRAME	RETICULINE GRATE & NCDPW EMBOSSED MH COVER	-	4.92	1.3 (W) 1.30 (E)	MH 2082** PROPOSED CB 12	18" RCP 18" RCP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
	CB 12	NCDPW TYPE 11	EB LB 31 + 35	10R	NC TYPE A FRAME & STD. NCDPW MH FRAME	RETICULINE GRATE & NCDPW EMBOSSED MH COVER	-	5.1	1.4 (W)	PROPOSED CB 11	18" RCP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
CP-12	CB 3059**	EXISTING CB	WB LB 30 + 79	14L	-	-	4.73 (GUTTER) / 5.23 (RIM)	-	1.9 (E)	MH 3060**	18" RCP 18" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB'S 13 & 14, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
	CB 13	NCDPW TYPE 11	WB LB 30 + 70	11L	NC TYPE A FRAME & STD. NCDPW MH FRAME	RETICULINE GRATE & NCDPW EMBOSSED MH COVER	-	4.87	1.7 (E)	PROPOSED CB 14	18" RCP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
	CB 14	NCDPW TYPE 11	WB LB 30 + 78	11L	NC TYPE A FRAME & STD. NCDPW MH FRAME	RETICULINE GRATE & NCDPW EMBOSSED MH COVER	-	4.73	1.56 (E) 1.56 (W)	MH 3060** PROPOSED CB 13	18" RCP 18" RCP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
CP-13	CB 2074**	EXISTING CB	WB LB 33 + 02	13L	-	-	5.36 (GUTTER) / 6.11 (RIM)	-	2.50 (W) 2.40 (E)	MH 3061** (NS) MH 2075** (NS)	15" RCP 15" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB'S 15 & 16, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
	CB 15	NCDPW TYPE 11	WB LB 32 + 96	10L	NC TYPE A FRAME & STD. NCDPW MH FRAME	RETICULINE GRATE & NCDPW EMBOSSED MH COVER	-	5.36	2.46 (W) 2.40 (E)	MH 3061** (NS) PROPOSED CB 16	18" RCP 18" RCP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
	CB 16	NCDPW TYPE 11	WB LB 33 + 04	10L	NC TYPE A FRAME & STD. NCDPW MH FRAME	RETICULINE GRATE & NCDPW EMBOSSED MH COVER	-	5.4	2.40 (W) 2.40 (E)	PROPOSED CB 15 MH 2075** (NS)	18" RCP 18" RCP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
CP-14	CB 3039**	EXISTING CB	EB LB 35 + 34	13R	-	-	5.22 (GUTTER) / 6.11 (RIM)	-	1.93 (N)	CB 2078** (NS)	15" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB 17, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
	CB 17	NCDPW TYPE C	EB LB 35 + 34	13R	TYPE F3 CAST CURB BOX FRAME	RETICULINE TYPE A GRATE	-	5.22	1.93 (N)	PROPOSED CB 19	15" RCP	
CP-15	CB 2078**	EXISTING CB	WB LB 35 + 71	14L	-	-	5.42 (GUTTER) / 6.03 (RIM)	-	2.90 (W) 2.30 (S)	MH 2076** (NS) CB 3039** (NS)	15" RCP 15" RCP	CLEAN AND INVENTORY EXISTING CATCH BASIN PRIOR TO THE ORDERING AND FABRICATING OF PROPOSED CB'S 18 & 19, AND PRIOR TO THE EXCAVATION AND REMOVAL OF THIS STRUCTURE
	CB 18	NCDPW TYPE 11	WB LB 35 + 63	11L	LOW PROFILE FRAME & NCDPW MH FRAME (SEE NOTE 4)	OBLONG GRATE & NCDPW EMBOSSED MH COVER	-	5.42	2.80 (W) 2.28 (E)	MH 2076** (NS) PROPOSED CB 19	15" RCP 15" RCP	REVERSE STRUCTURE ORIENTATION TO INSTALL MANHOLE CASTING BEHIND CURB LINE
	CB 19	NCDPW TYPE A	WB LB 35 + 71	11L	LOW PROFILE FRAME (SEE NOTE 4)	OBLONG GRATE	-	5.42	2.28 (W) 2.28 (S)	PROPOSED CB 18 PROPOSED CB 17	15" RCP 15" RCP	

**REFERS TO EXISTING DRAINAGE STRUCTURES OR OUTFALL NUMBERS THAT ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)
(NS) - NOT SHOWN WITHIN THE PLAN DRAWINGS (OFF BASE MAPPING)

NOTES:

1. EXISTING "STORM SACK" SEDIMENT CONTROL DEVICE SHALL BE CLEANED OF ACCUMULATED DEBRIS AND LEGAL DISPOSAL OF DEBRIS SHALL BE PERFORMED. STORM SACK SHALL BE REINSTALLED WITHIN EXISTING FRAME, COST INCLUDED IN THE VARIOUS DRAINAGE ITEMS.
2. INSTALL PROPOSED STORM SACK(S) WITHIN NEW DRAINAGE STRUCTURE. PAYMENT TO BE MADE UNDER ITEM 504A - CATCH BASIN INSERT, TYPE A.
3. CONTRACTOR SHALL INSTALL PROPOSED REPLACEMENT PIPE SECTIONS TO GENERALLY MATCH THE EXISTING INVERTS, AS VERIFIED BY FIELD INVESTIGATIONS. WHERE THE PROPOSED REPLACEMENT PIPE SECTION INVERTS WOULD BE IN CONFLICT WITH THE DRAINAGE STRUCTURE TOP SLAB, IT IS THE INTENTION THAT THE CONTRACTOR SHALL ALTER THE PROPOSED PIPE INVERT IN ORDER TO FIT THE REPLACEMENT A SECTION OF PIPE BELOW THE PROPOSED DRAINAGE STRUCTURE TOP SLAB, AS APPROVED OR ORDERED BY THE ENGINEER.
4. CONTRACTOR SHALL INSTALL CAMPBELL FOUNDRY PATTERN NO. 2617 WITH OBLONG PATTERN GRATE, OR APPROVED EQUAL, FOR ALL DESIGNATED "LOW PROFILE" FRAME TYPES.



4'-0" DIAMETER PRECAST MANHOLE, ITEM 13BP-4

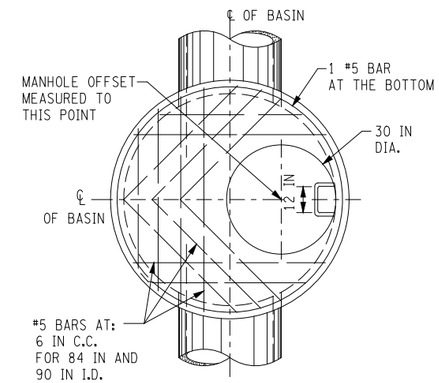
5'-0" DIA. PRECAST MANHOLE, ITEM 13BP-5
6'-0" DIA. PRECAST MANHOLE, ITEM 13BP-6

NOTES:

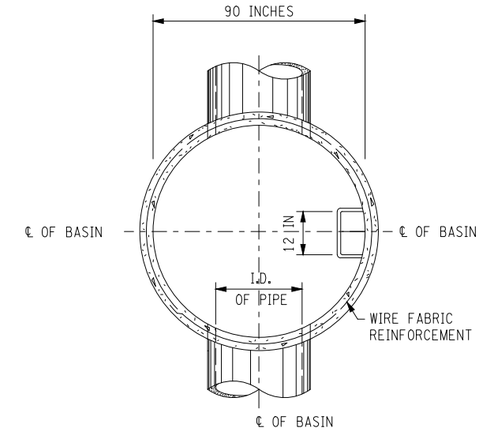
1. A NO. 2 STEEL HOOP SHALL BE PLACED AROUND ALL PIPE OPENINGS WITH A 1-1/2" CLEARANCE.
2. MIN. COVER ON BAR REINFORCEMENT SHALL BE 2", UNLESS OTHERWISE NOTED.
3. INVERT TO BE CAST IN PLACE.
4. PIPE OPENINGS, IF SQUARE ARE 3" LARGER THAN O.D. OF PIPE, IF ROUND ARE 2" LARGER THAN O.D. OF PIPE.

ESTIMATING NOTES:

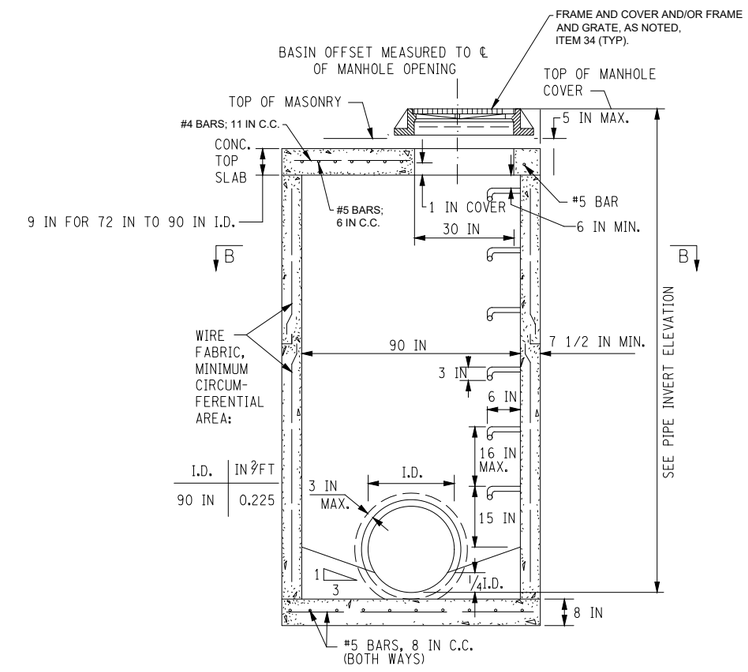
USE THE FOLLOWING ITEM NUMBERS WHEN ESTIMATING THE INSTALLATION OF ALL PROPOSED DRAINAGE STRUCTURES (CATCH BASINS AND/OR MANHOLES)(TYP): ITEM NO'S. 10A, 13BP-5, 13BP-SS-7.5, 34(TYP)



TYPE B MANHOLE



SECTION B-B



7'-6" DIAMETER PRECAST NYSDOT MANHOLE, ITEM 13BP-90SS

NYSDOT TYPE B DRAINAGE BASIN

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

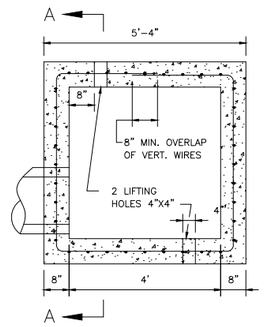
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: MISCELLANEOUS DETAILS 01 MANHOLE DETAILS

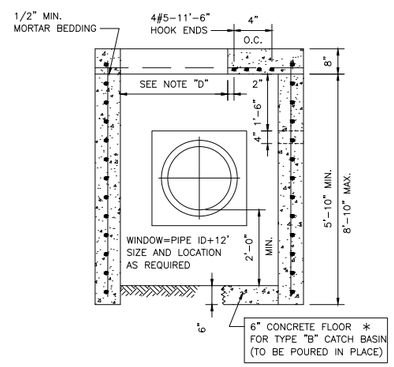
GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: MSD-01	
SCALE: N.T.S.	SHEET NO: 13 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-01.DWG
Plot Date: 1/31/2020 2:08 PM



PLAN TYPE A

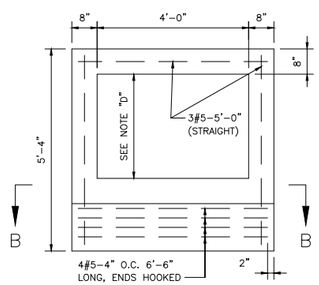
SCALE: 3/8"=1'-0"



SECTION A–A

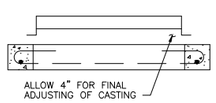
SCALE: 3/8"=1'-0"

"D"=2'-1 1/2" TYPES 1 & 2 FRAME
"D"=2'-7 1/2" TYPE A FRAME



PLAN COVER

SCALE: 3/8"=1'-0"



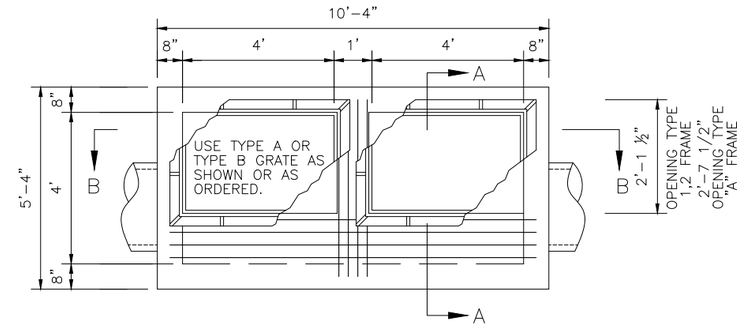
SECTION B–B

SCALE: 3/8"=1'-0"

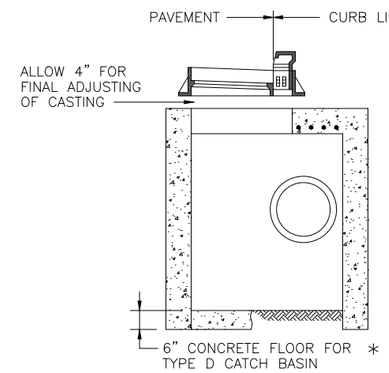
NOTES:

1. REBARS: Fs = 40,000psi A.S.T.M. A–615.
2. W.W.M.; 6"X6"–4/4 Fs = 60,000psi, A.S.T.M. A–185 PROVIDE 1 $\frac{1}{2}$" COVER AT ENDS OF VERTICAL WIRES, 1" RADIUS BENS AT CORNERS.
3. CONCRETE: CLASS "A" AS PER NASSAU CO. SPEC.
4. WINDOW TO BE CAST IN STRUCTURE AS REQUIRED. KNOCK–OUT PANELS WILL NOT BE PERMITTED.

NCDPW TYPE A CATCH BASIN, ITEM 13A

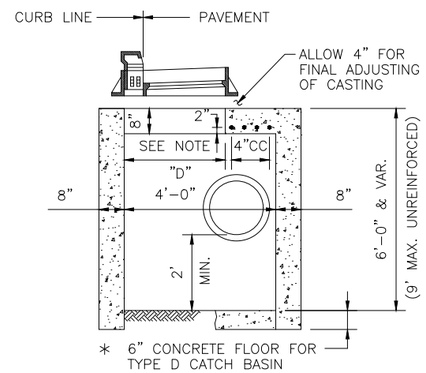


PLAN

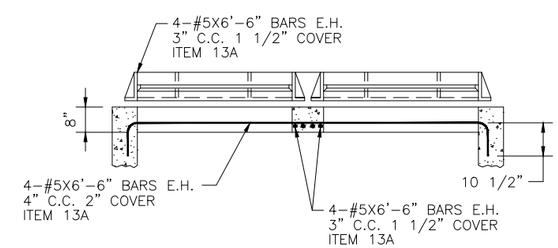


SECTION A–A

(ALTERNATE)



SECTION A–A



SECTION B–B

NCDPW TYPE C CATCH BASIN, ITEM 13A

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-02.DWG
Plot Date: 1/31/2020 2:08 PM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

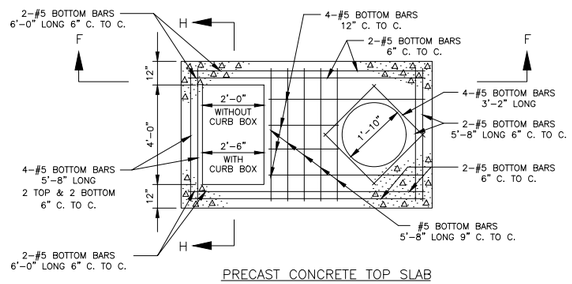
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

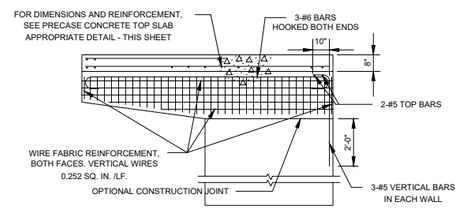
PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: MISCELLANEOUS DETAILS 02 CATCH BASIN DETAILS

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: MSD-02	
SCALE: N.T.S.	SHEET NO: 14 OF 46	

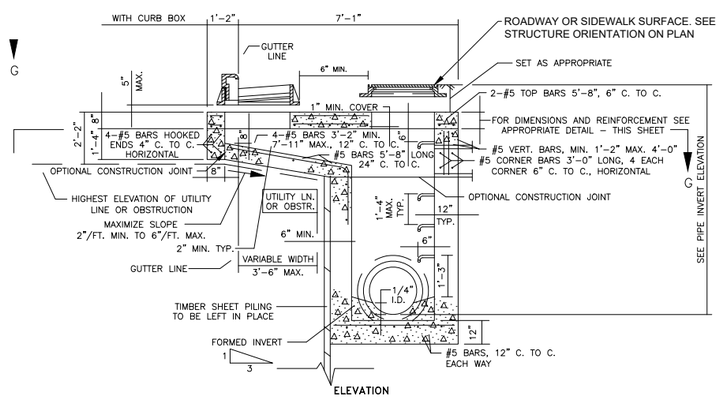


PRECAST CONCRETE TOP SLAB



SECTION F–F

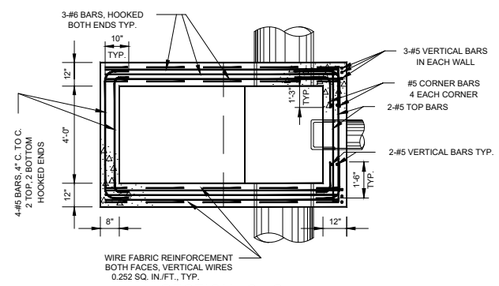
N.T.S.



OFFSET CATCH BASIN WITH MANHOLE

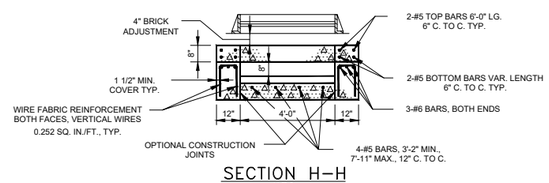
NOTE: SECTIONS F–F, G–G AND H–H APPLY TO BOTH TYPES 11 & 12 CATCH BASINS

N.T.S.



SECTION G–G

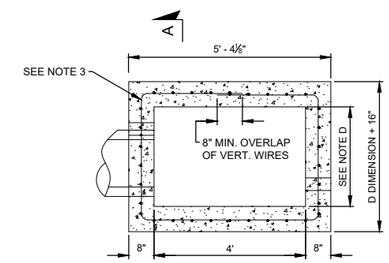
N.T.S.



SECTION H–H

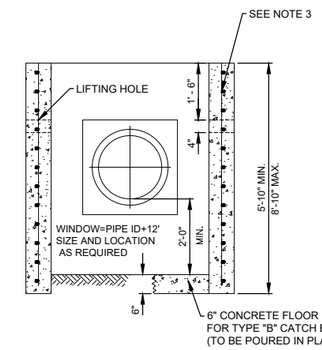
N.T.S.

NCDPW TYPE 11 CATCH BASIN, ITEM 13A



PLAN

N.T.S.



SECTION A-A

N.T.S.

NOTES:

1. REBARS: Fs = 40,000psi A.S.T.M. A–615.
2. W.W.M.; 6"X6"–4/4 Fs = 60,000psi, A.S.T.M. A–185 PROVIDE 1 ½" COVER AT ENDS OF VERTICAL WIRES, 1" RADIUS BENS AT CORNERS.
3. CONCRETE: CLASS "A" AS PER NASSAU CO. SPEC.
4. WINDOW TO BE CAST IN STRUCTURE AS REQUIRED. KNOCK–OUT PANELS WILL NOT BE PERMITTED.

NOTE "D"=2'–1 1/2" TYPES 1 & 2 FRAME
NOTE "D"=2'–7 1/2" TYPE A FRAME

CATCH BASIN TYPES A & B MODIFIED

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-03.DWG
Plot Date: 1/31/2020 2:08 PM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

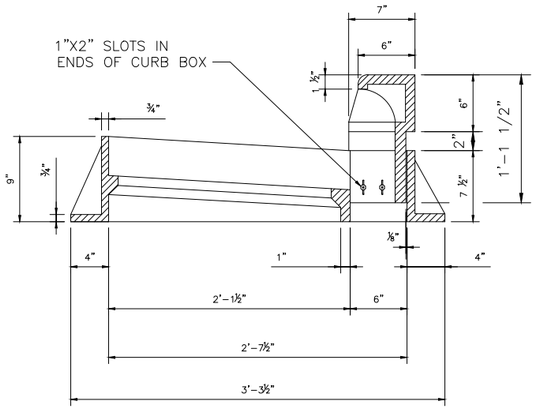
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: MISCELLANEOUS DETAILS 03 CATCH BASIN DETAILS

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: MSD-05	
SCALE: N.T.S.	SHEET NO: 15 OF 46	



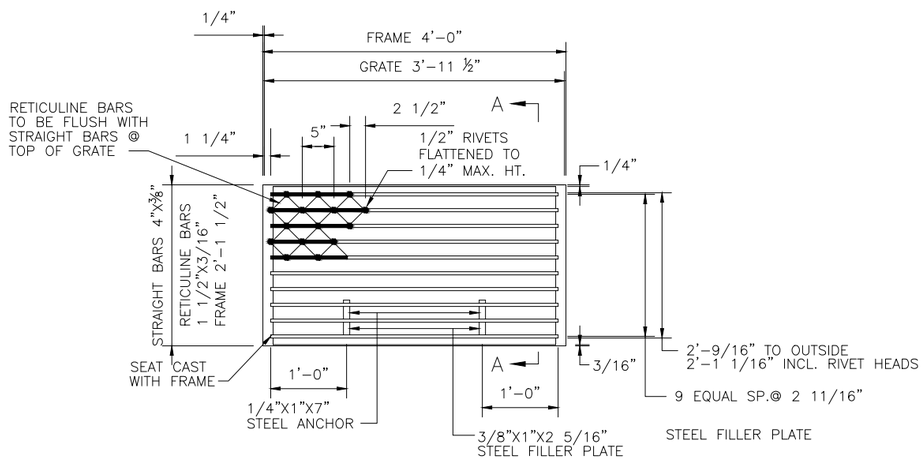
SECTION C-C

C.I. CURB BOX & FRAME TYPE A

N.T.S.

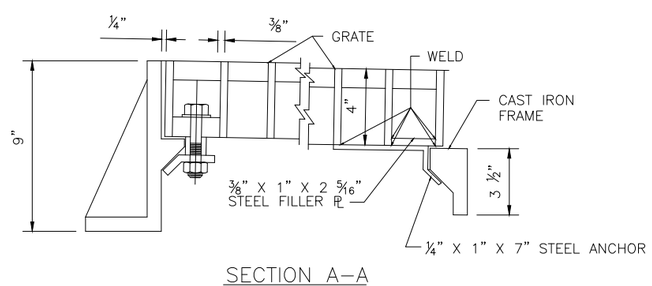
NOTES:

1. REFER TO THE DRAINAGE TABLES ON MST-01 AND MST-02 FOR INFORMATION REGARDING THE LOCATIONS OF TYPE A FRAMES AND LOW PROFILE FRAMES.



PLAN

N.T.S.

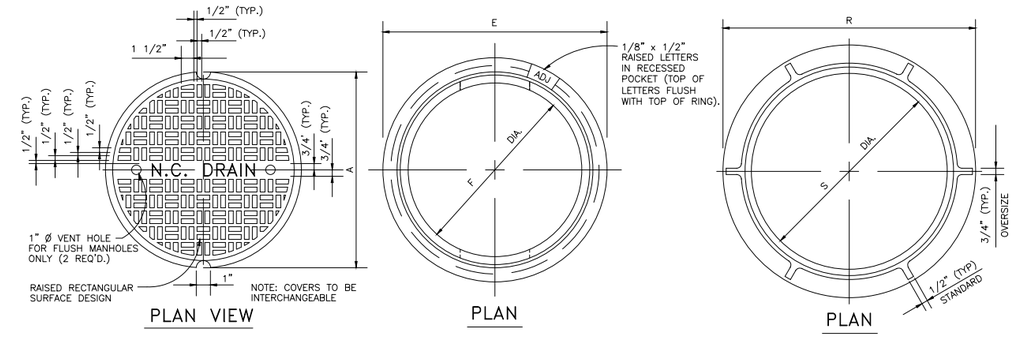


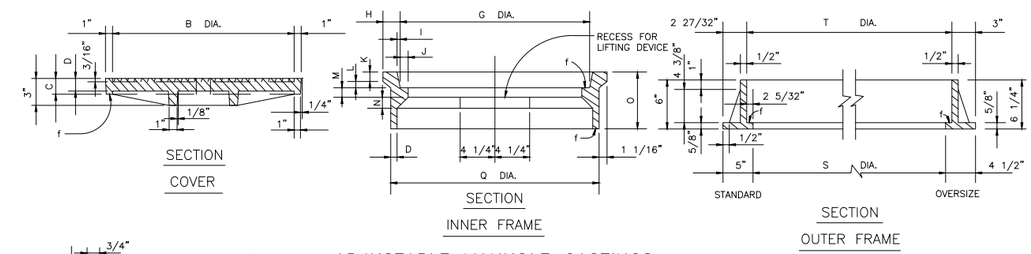
SECTION A-A

N.T.S.

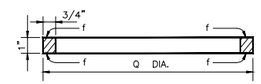
FABRICATED STEEL GRATE TYPE A, ITEM 34

**APPROXIMATE WEIGHT OF GRATE IS 265LB

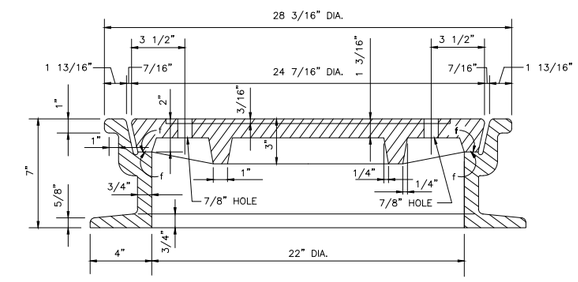




ADJUSTABLE MANHOLE CASTINGS



FILLER RING (ONE PIECE)



FIXED CASTING

NCDPW MANHOLE COVER DETAIL, ITEM 34

CASTING COMPONENT	WEIGHT (LBS)	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
STANDARD COVER	175	24 7/16	22 7/16	2	1 3/16																
OVERSIZED COVER	300	31 7/8	29 7/8	1 3/8	1 1/8																
STANDARD INNER FRAME	180					28 3/16	22	24	1 13/16	9/32	1	1	1	1 1/4	1 3/8	7 3/8	3/4	26 1/16			
OVERSIZED INNER FRAME	290					36 1/4	30	31 1/2	2 1/8	1/4	3/4	3/4	3/4	7/8	1 1/2	7 1/2	5/8	34 1/4			
STANDARD FILLER RING	——																	26 1/16			
OVERSIZED FILLER RING	——																	34 1/4			
STANDARD OUTER FRAME	130																		32	22	26 5/16
OVERSIZED OUTER FRAME	227																		41	32	35

NOTES:

1) f = MACHINED FINISH

2) MANUFACTURER AND DATE OF MANUFACTURE TO BE PLACED ON UNDERSIDE OF FRAMES AND COVERS.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

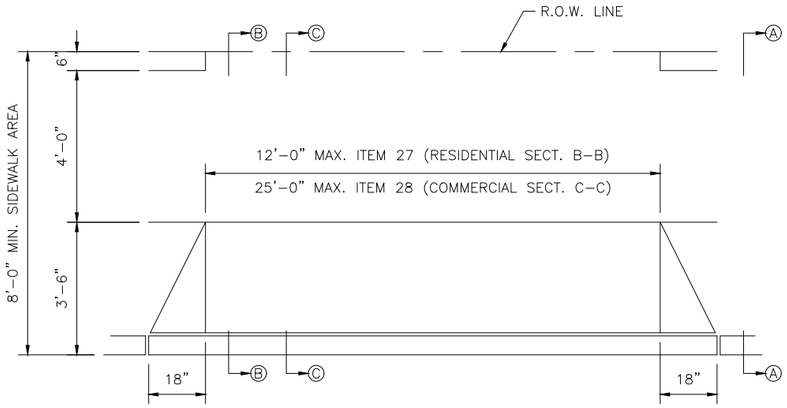
CLIENT: NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS 1194 PROSPECT AVENUE WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

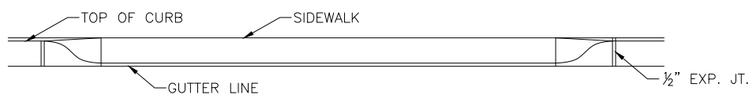
DRAWING TITLE: MISCELLANEOUS DETAILS 04 FRAMES, GRATES AND COVER DETAILS

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: MSD-04	
SCALE: N.T.S.	SHEET NO: 16 OF 46	

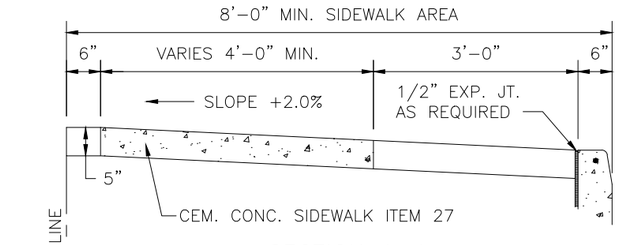
File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-04.DWG
Plot Date: 1/31/2020 2:08 PM



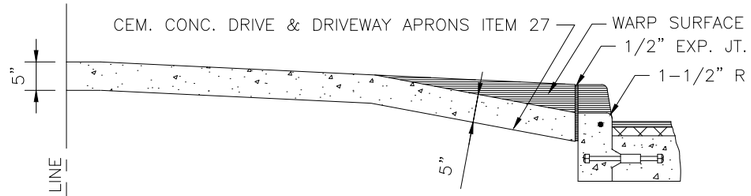
PLAN
N.T.S.



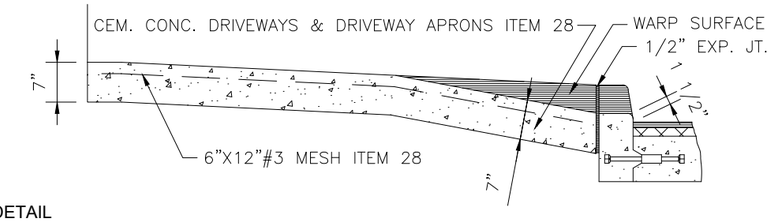
FRONT ELEVATION
N.T.S.



SECTION A-A
N.T.S.

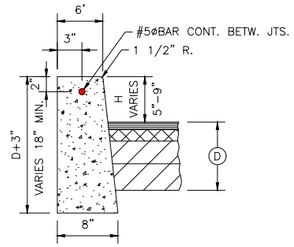


SECTION B-B
N.T.S.

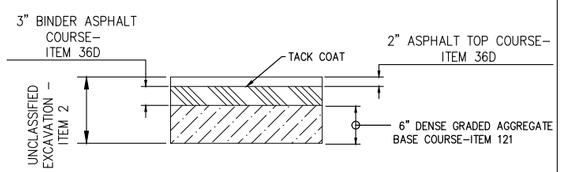


SECTION C-C
N.T.S.

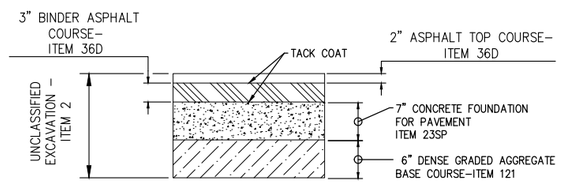
DRIVEWAY APRON RESTORATION DETAIL
ITEM 28



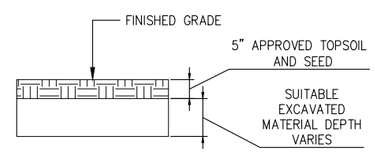
CONCRETE CURB
ITEM 26



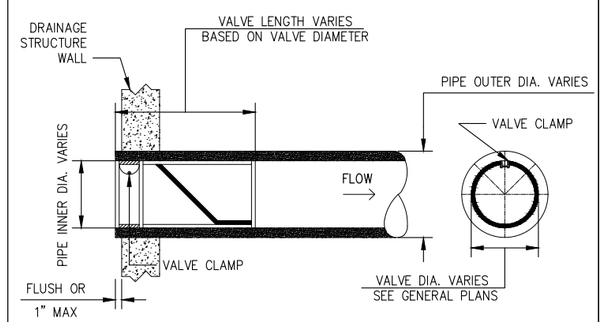
PAVEMENT REPAIR DETAIL
TYPICAL TOWN OF HEMPSTEAD ASPHALT
ROAD



PAVEMENT REPAIR DETAIL
ALONG LIDO BOULEVARD



TURF AND SEED DETAIL
ITEM 368



CHECKMATE IN-LINE CHECK VALVE DETAIL
(UPSTREAM CLAMP)
ITEM 12-TF-15SS
ITEM 12-TF-18SS
ITEM 12-TF-24SS
ITEM 12-TF-48SS

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

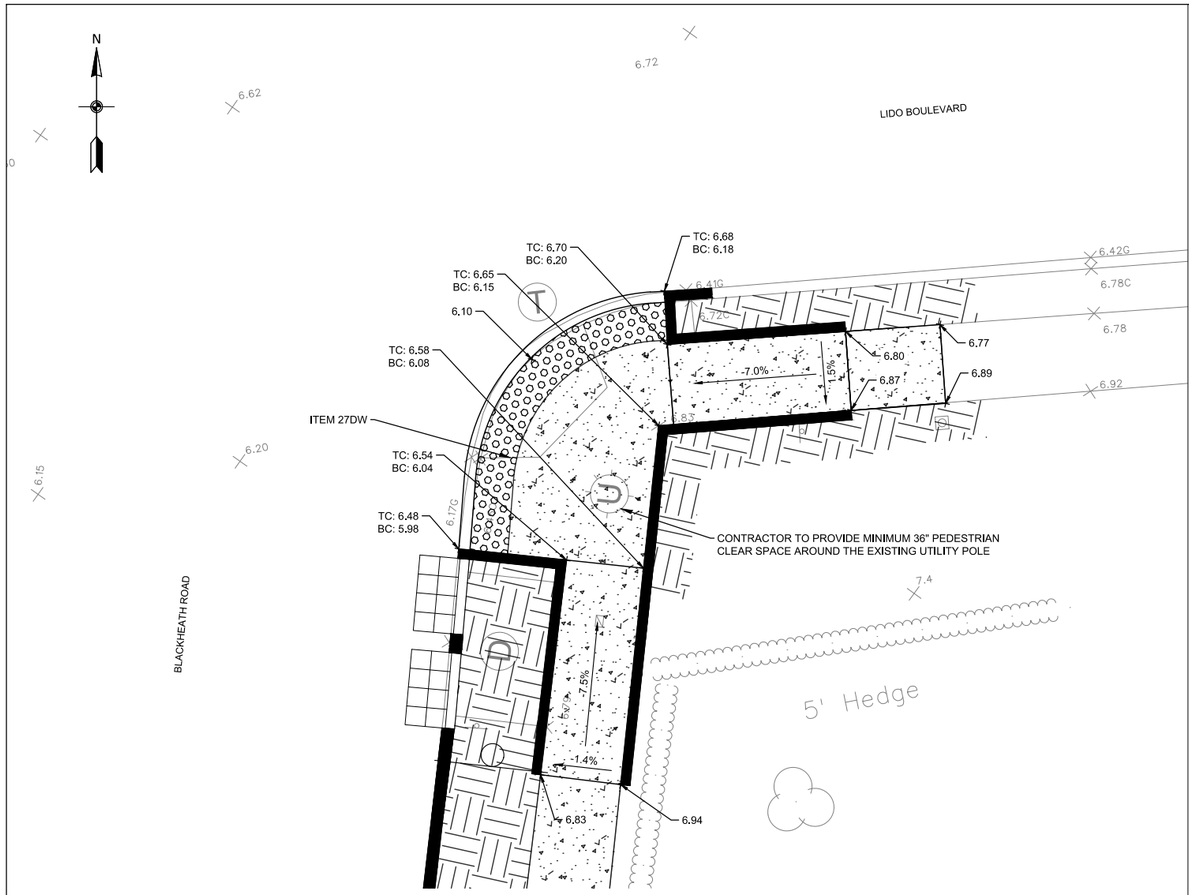
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

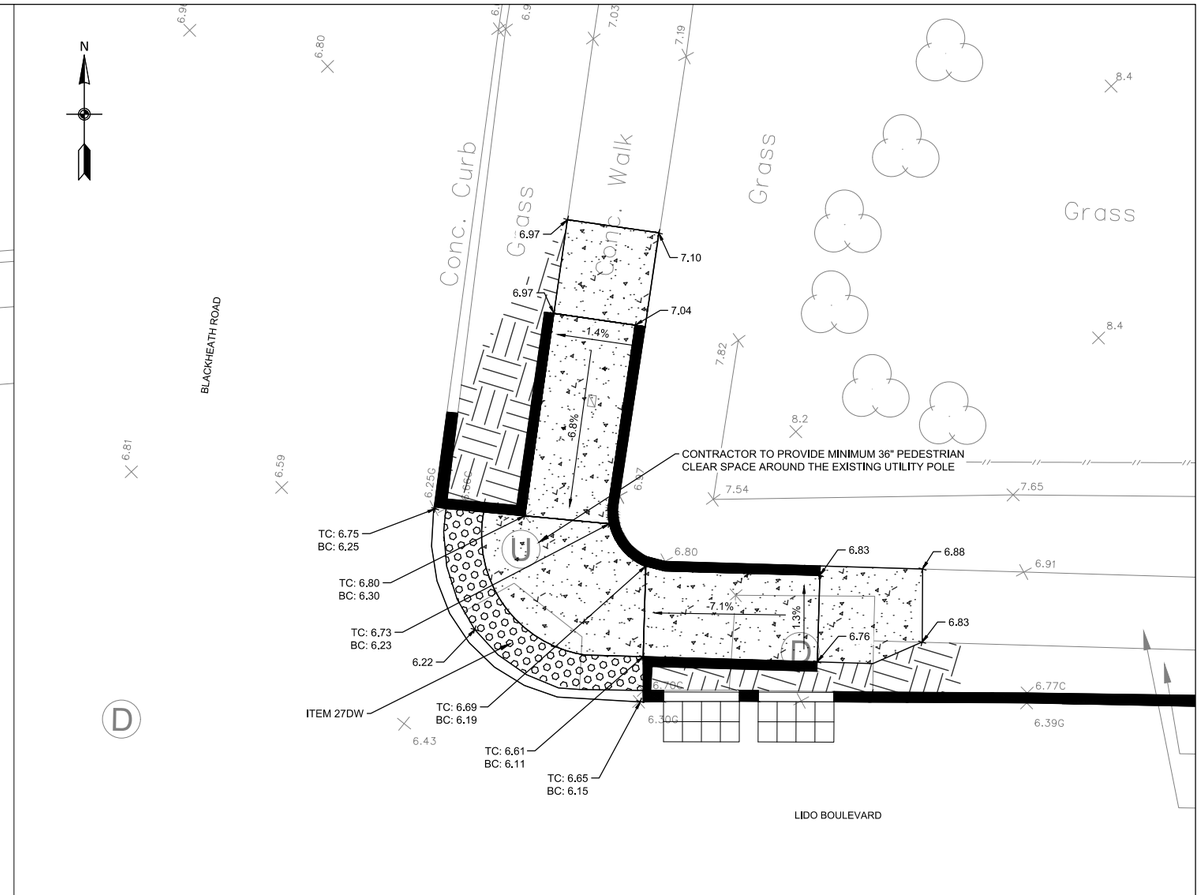
DRAWING TITLE:
MISCELLANEOUS DETAILS 05
VARIOUS DETAILS

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: MSD-03	
SCALE: N.T.S.	SHEET NO: 17 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-05.DWG
Plot Date: 1/31/2020 2:08 PM



CURB RAMP NO. R01



CURB RAMP NO. R02

0 4' 8'
SCALE IN FEET

0 4' 8'
SCALE IN FEET

ADA COMPLIANT CURB RAMP DETAILS

NOTES:

1. REFER TO CP-06 AND CP-07 FOR ADDITIONAL DRAINAGE, UTILITY AND SURFACE RESTORATION INFORMATION ON CURB RAMPS R01 AND R02, RESPECTIVELY.
2. ALL CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA), AND THE REQUIREMENTS OF THE 2011 PROPOSED ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES IN THE PUBLIC RIGHT OF WAY (PROWAG).
3. ALL CURB RAMP CONSTRUCTION SHALL COMPLY WITH THE REQUIREMENTS ON NYSDOT STANDARD SHEET 608-01.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

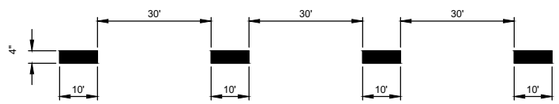
PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: MISCELLANEOUS DETAILS 06 CURB RAMP DETAILS

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: MSD-06	
SCALE: N.T.S.	SHEET NO: 18 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-06.DWG
Plot Date: 1/31/2020 2:08 PM

NORMAL LANE / EDGE LINE



NORMAL BROKEN LANE LINE

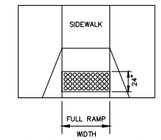
NORMAL STOP BAR LINE

PAVEMENT MARKING PLAN:

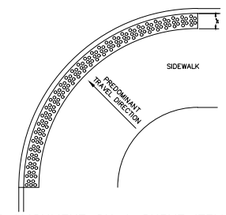
1. ALL PAVEMENT MARKINGS SHALL BE PLACED IN ACCORDANCE WITH THE MUTCD AND NYS SUPPLEMENT.
2. EDGE LINES SHALL BE YELLOW ON THE LEFT SIDE AND WHITE ON THE RIGHT SIDE IN THE DIRECTION OF TRAVEL UNLESS OTHERWISE SHOWN ON THE PLANS. IF THE CURB OFFSET IS LESS THAN 2'-0", NO EDGE LINE SHALL BE APPLIED ADJACENT TO CURBS UNLESS OTHERWISE SHOWN ON THE PLANS. EDGE LINES SHALL BE PROVIDED AT THE CURB ADJACENT TO RAISED ISLANDS (SEE DETAIL).
3. WHERE MARKINGS NORMALLY FOLLOW A PAVEMENT JOINT, SINGLE LINE MARKINGS SHALL BE PLACED ALONG ONE SIDE OF THE JOINT. DOUBLE LINE MARKINGS SHALL STRADDLE THE JOINT. LANE LINES ON ROADWAYS WHICH ARE MORE THAN TWO LANES WIDE AND HAVE LONGITUDINAL JOINTS BETWEEN ADJACENT LANES, SHALL BE PLACED ON THE SIDE OF THE JOINT WHICH WILL OBTAIN OPTIMUM LANE WIDTHS.

   AT THE JUNCTION OF SINGLE AND DOUBLE LINE MARKINGS WHICH FOLLOW A PAVEMENT JOINT, THE SINGLE LINE SHALL BE AN EXTENSION OF EITHER OF THE DOUBLE LINES AND NOT THE SPACE BETWEEN THEM. AT THE JUNCTION OF SINGLE AND DOUBLE LINE MARKINGS WHICH DO NOT FOLLOW A PAVEMENT JOINT, THE SINGLE LINE MAY BE ALIGNED WITH THE CENTER OF THE DOUBLE LINE MARKING OR WITH EITHER LINE OF THE DOUBLE LINE.

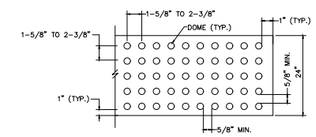
PAVEMENT MARKING DETAILS
N.T.S.



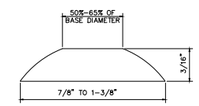
DETECTABLE WARNING SURFACE AT CURB RAMP ITEM 27DW
NOT TO SCALE



DOME ALIGNMENT ON A CURVE ITEM 27DW
NOT TO SCALE



DOME SPACING
NOT TO SCALE



DOME SECTION
NOT TO SCALE

DETECTABLE WARNING SURFACE GENERAL NOTES ITEM 27DW:

1. THE DETAILS PROVIDED ARE NOT DRAWN TO SCALE. THE QUANTITY OF DOMES DEPICTED ON THE DETECTABLE WARNING FIELD (THE DOMES AND THE ENTIRE 24" LEVEL SURFACE) IS FOR ILLUSTRATION ONLY.
2. DETECTABLE WARNINGS SHALL BE LOCATED SO THAT THE EDGE OF THE WARNING SURFACE NEAREST TO THE ROADWAY OR STREET SURFACE IS 6" TO 8" FROM THE EDGE OF THE ROADWAY/ STREET, OR FROM THE BACK OF THE DROPPED CURB, WHERE A DROPPED CURB CONTINUES ACROSS THE BOTTOM OF THE SIDEWALK CURB RAMP. THE DETECTABLE WARNINGS SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.
3. THE EDGE OF THE DETECTABLE WARNING SURFACE NEAREST TO A RAILROAD CROSSING SHALL BE 17" TO 19" FROM THE FACE OF THE GATE ARM. WHERE THERE IS NO GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE TRACKS SHALL BE 14'-9" FROM THE CENTERLINE OF THE NEAREST TRACK.
4. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL.
5. THE DETECTABLE WARNING FIELD SHALL BE THE COLOR SPECIFIED IN THE CONTRACT DOCUMENTS.

DETECTABLE WARNING DETAILS
N.T.S.

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC DETAILS\MSD-07.DWG
Plot Date: 1/31/2020 2:08 PM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

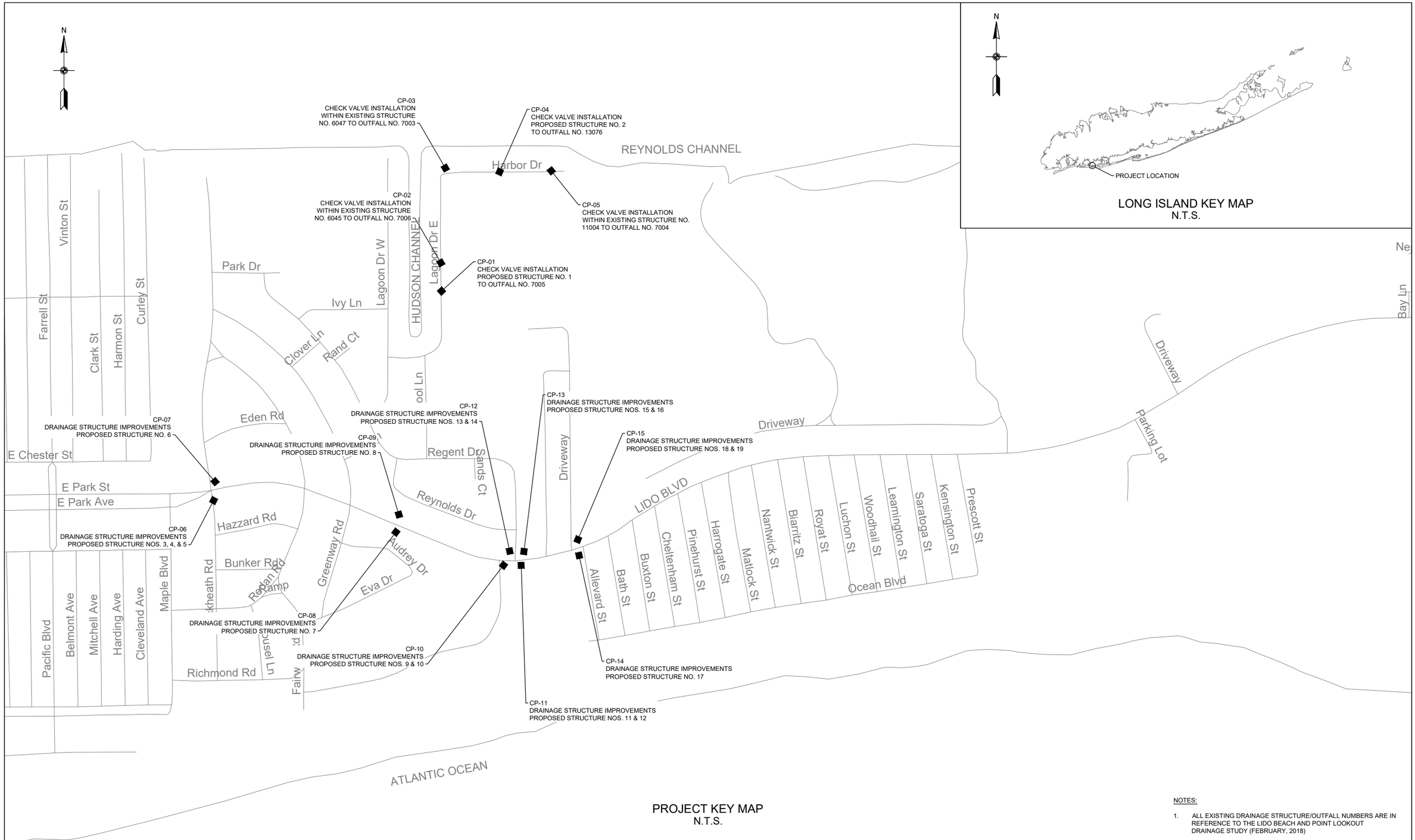
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: MISCELLANEOUS DETAILS 07 PAVEMENT MARKING DETAILS

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: MSD-07	
SCALE: N.T.S.	SHEET NO: 19 OF 46	



PROJECT KEY MAP
N.T.S.

NOTES:

1. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\MISC SHEETS\KP-01.DWG
Plot Date: 1/31/2020 2:09 PM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

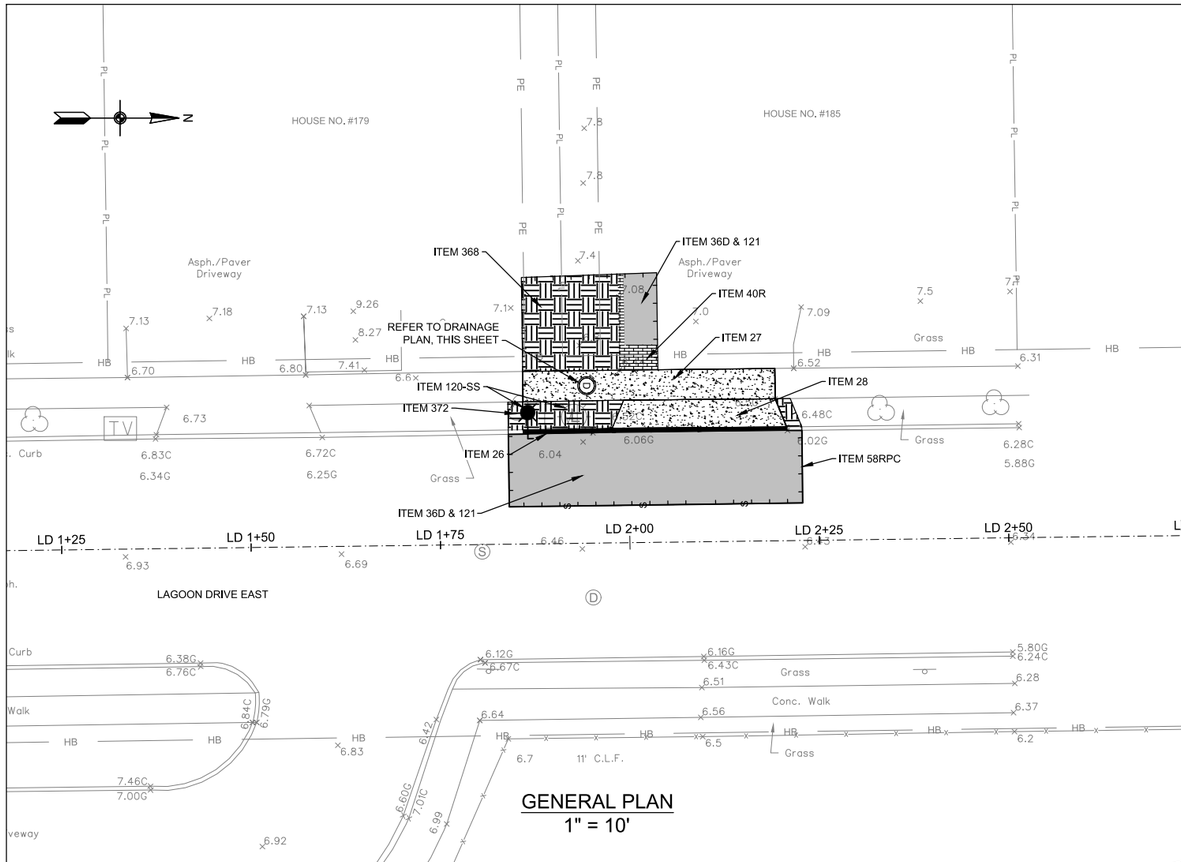
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

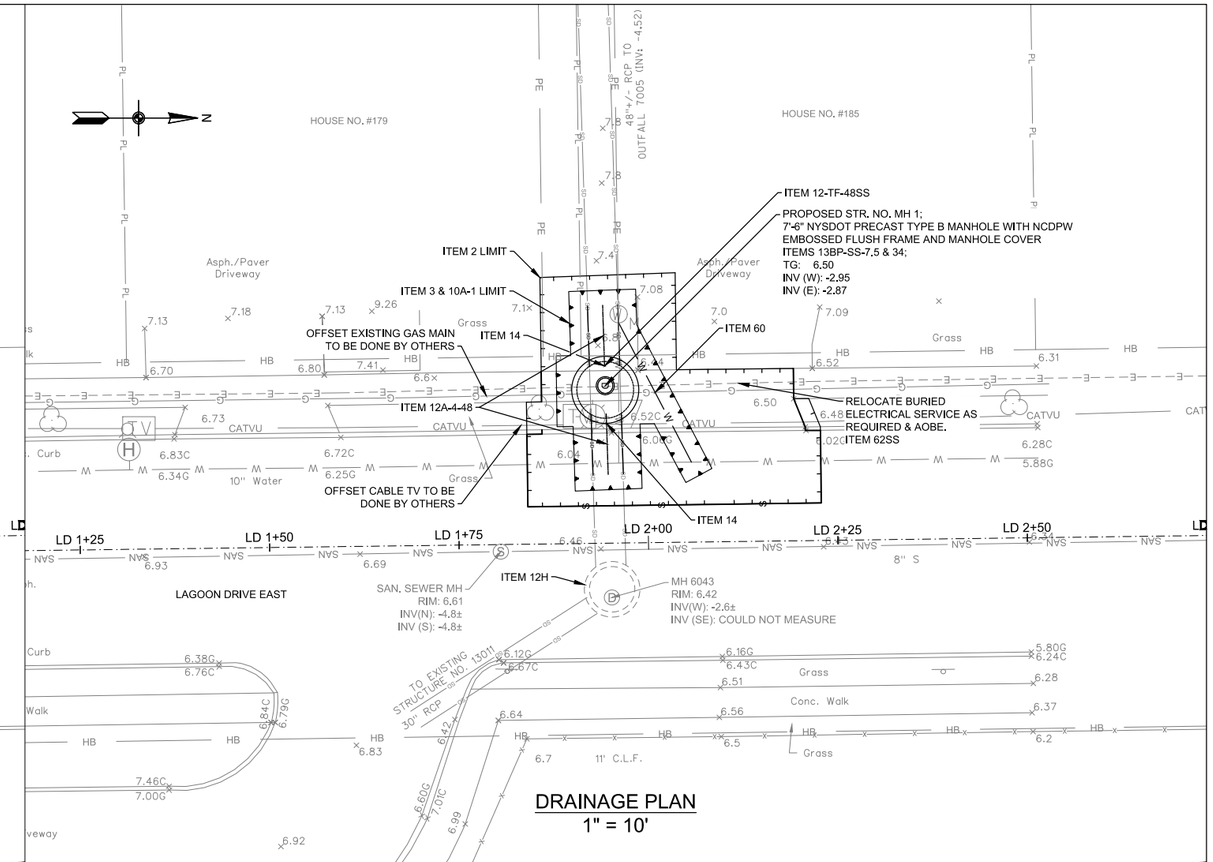
PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: KEY PLAN

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: KP-01	
SCALE: N.T.S.	SHEET NO: 20 OF 46	



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES, IMMEDIATELY UPSTREAM AND (OR) DOWNSTREAM OF THE PROPOSED WORK AREA, TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPARE AND SUBMIT A REPORT OF THEIR FIELD FINDINGS TO THE ENGINEER FOR REVIEW. THE CONTRACTOR'S REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIALLY IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

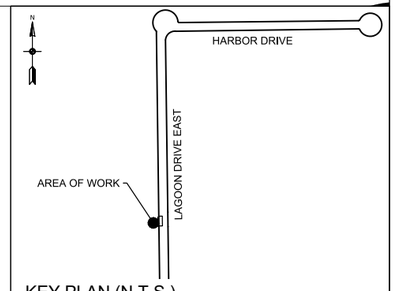
7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

8. THE CONTRACTOR IS DIRECTED TO THE TABLE OF DRAINAGE STRUCTURES FOUND ON THE MISCELLANEOUS TABLES (MST) DRAWINGS FOR ADDITIONAL INFORMATION REGARDING THE EXISTING AND PROPOSED DRAINAGE WORK.

9. REFER TO THE MISCELLANEOUS DETAILS FOR ADDITIONAL INFORMATION REGARDING ITEMS OF WORK THAT ARE NOT SHOWN IN THE GENERAL NOR DRAINAGE PLANS.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL / PLACEMENT	19	CY
3	TRENCH, CULVERT AND BRIDGE EXCAVATION	73	CY
5D	SELECTED GRANULAR FILL	65	CY
7	PREARING FINE GRADING	413	SF
10A-1	EXCAVATION PROTECTION SYSTEM	400	SF
12-TF-48SS	48" TIDEFLEX IN-LINE CHECK VALVE	1	EA
12A-4-48	48" - REINFORCED CONCRETE PIPE, CLASS IV	16	LF
12H	CLEANING EXISTING DRAINAGE SYSTEM	1	EA
13BP-SS-7.5	90" NYSDOT PRECAST TYPE B MANHOLE	10	LF
14	CONNECTIONS TO EXISTING DRAINAGE FACILITIES	3	EA
26	CONCRETE CURB	35	LF
27	CEMENT CONCRETE SIDEWALK	130	SF
28	CEMENT CONCRETE DRIVEWAYS AND DRIVEWAY APRONS	80	SF
34	MISCELLANEOUS METALS	360	LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)	15	TON
40R	RESET EXISTING STONE BLOCK PAVEMENT	25	SF
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE	75	LF
60	ALTER WATER SERVICE CONNECTIONS	21	LF
62SS	RELOCATE BURIED ELECTRICAL SERVICE	25	LF
120-SS	RELOCATION OF EXISTING LIGHT POLES (COMPLETE)	1	EA
121	DRYBOUND BASE COURSE	8	CY
368	TOPSOIL AND GRASS SEED	25	SY
372	TREE REMOVAL A,B,C,D,E,F	1	EA



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

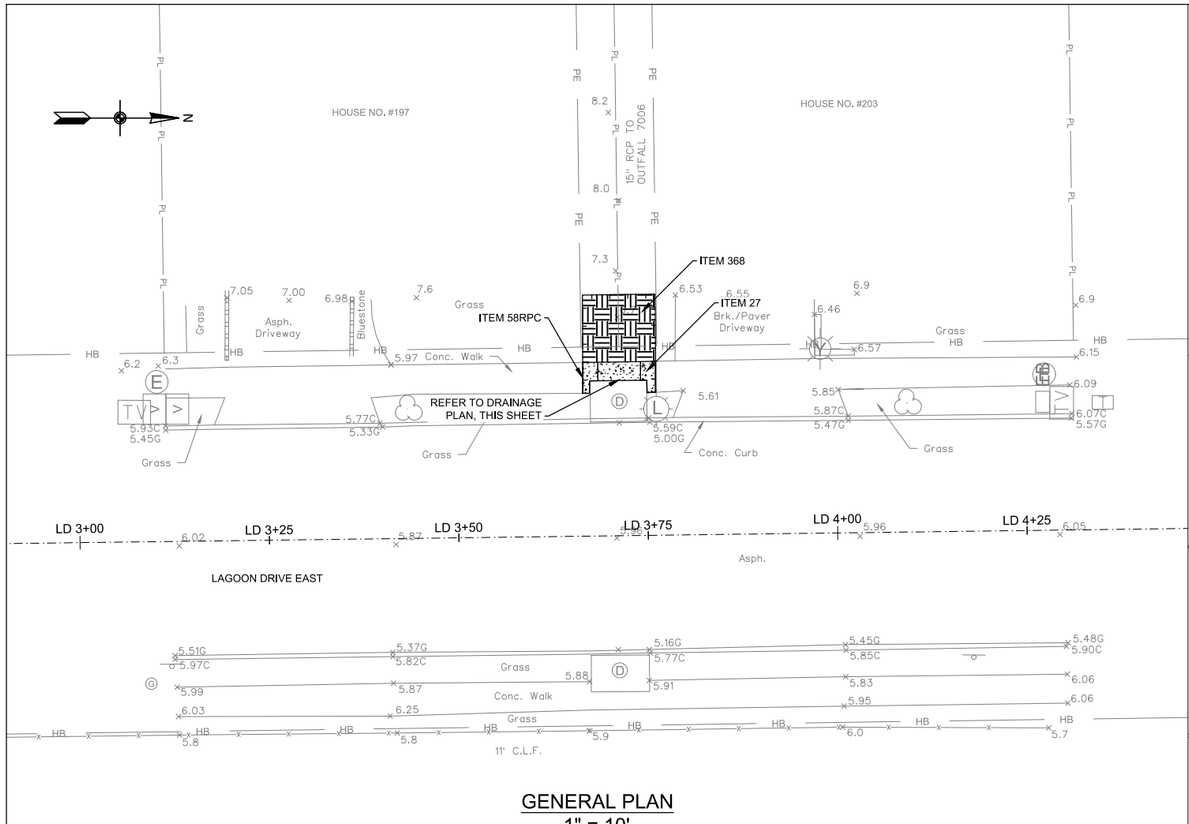
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

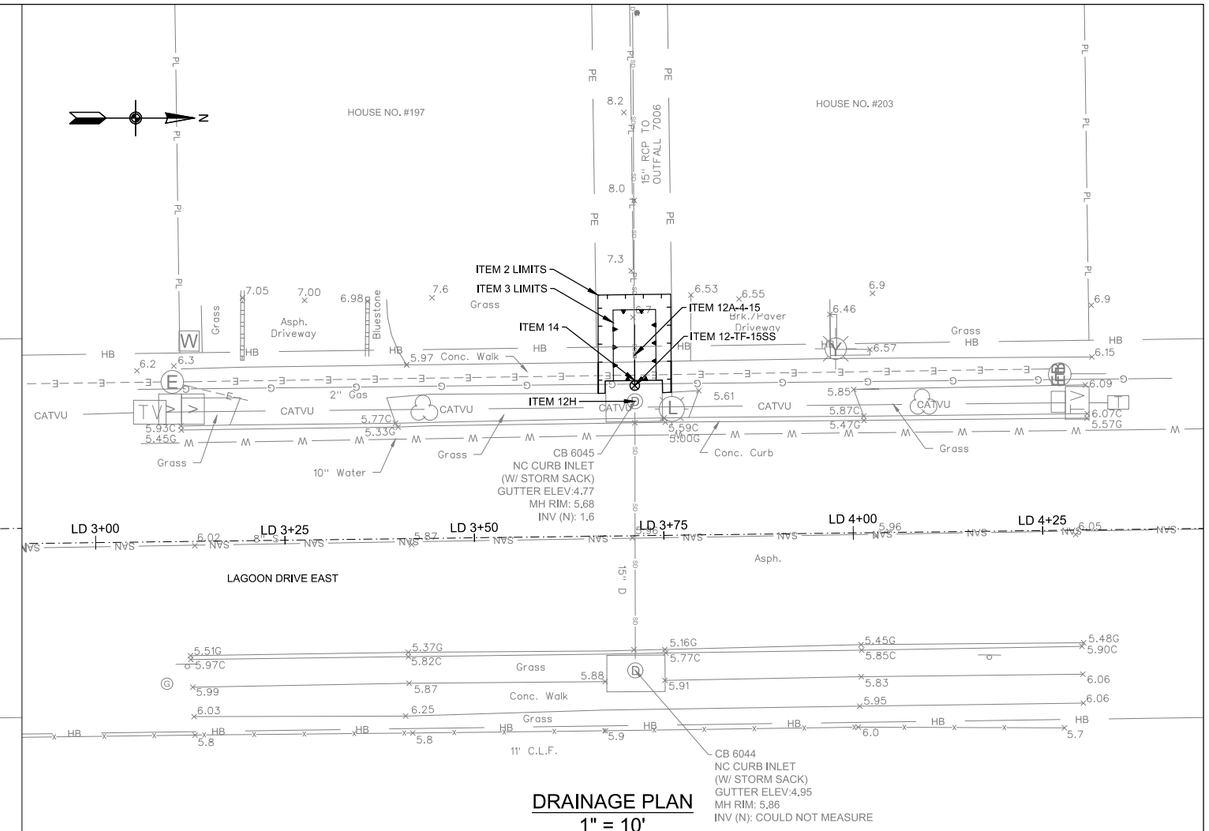
DRAWING TITLE:
CONSTRUCTION PLAN
CHECK VALVE INSTALLATION
179 AND 185 LAGOON DR. E., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: CP-01	
SCALE: 1" = 10'	SHEET NO: 21 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-01.DWG
Plot Date: 1/31/2020 2:09 PM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES, IMMEDIATELY UPSTREAM AND (OR) DOWNSTREAM OF THE PROPOSED WORK AREA, TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPARE AND SUBMIT A REPORT OF THEIR FIELD FINDINGS TO THE ENGINEER FOR REVIEW. THE CONTRACTOR'S REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIALLY IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

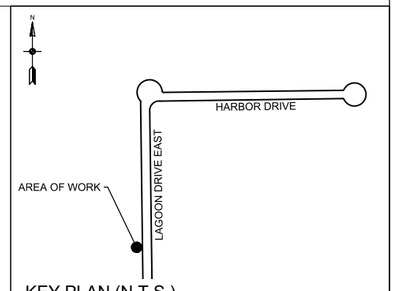
7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

8. THE CONTRACTOR IS DIRECTED TO THE TABLE OF DRAINAGE STRUCTURES FOUND ON THE MISCELLANEOUS TABLES (MST) DRAWINGS FOR ADDITIONAL INFORMATION REGARDING THE EXISTING AND PROPOSED DRAINAGE WORK.

9. REFER TO THE MISCELLANEOUS DETAILS FOR ADDITIONAL INFORMATION REGARDING ITEMS OF WORK THAT ARE NOT SHOWN IN THE GENERAL NOR DRAINAGE PLANS.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL / PLACEMENT	2	CY
3	TRENCH, CULVERT AND BRIDGE EXCAVATION	10	CY
5D	SELECTED GRANULAR FILL	5	CY
12-TF-15SS	15" TIDEFLEX IN-LINE CHECK VALVE	1	EA
12A-4-15	15" - REINFORCED CONCRETE PIPE, CLASS IV	8	LF
12H	CLEANING EXISTING DRAINAGE SYSTEM	1	EA
14	CONNECTIONS TO EXISTING DRAINAGE FACILITIES	1	EA
27	CEMENT CONCRETE SIDEWALK	30	SF
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE	8	LF
141C	SILT PROTECTION FOR CURB INLET DRAINAGE STRUCTURES	1	EA
368	TOPSOIL AND GRASS SEED	10	SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

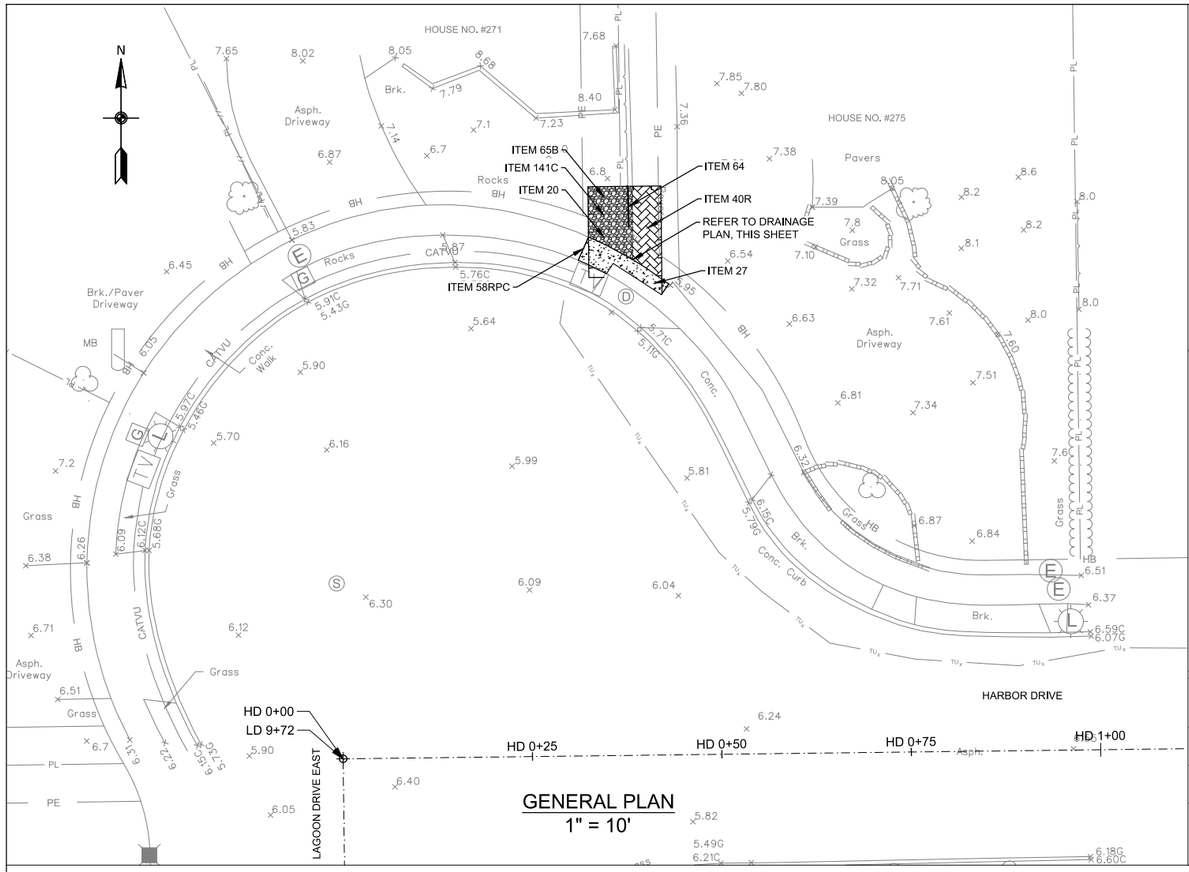
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

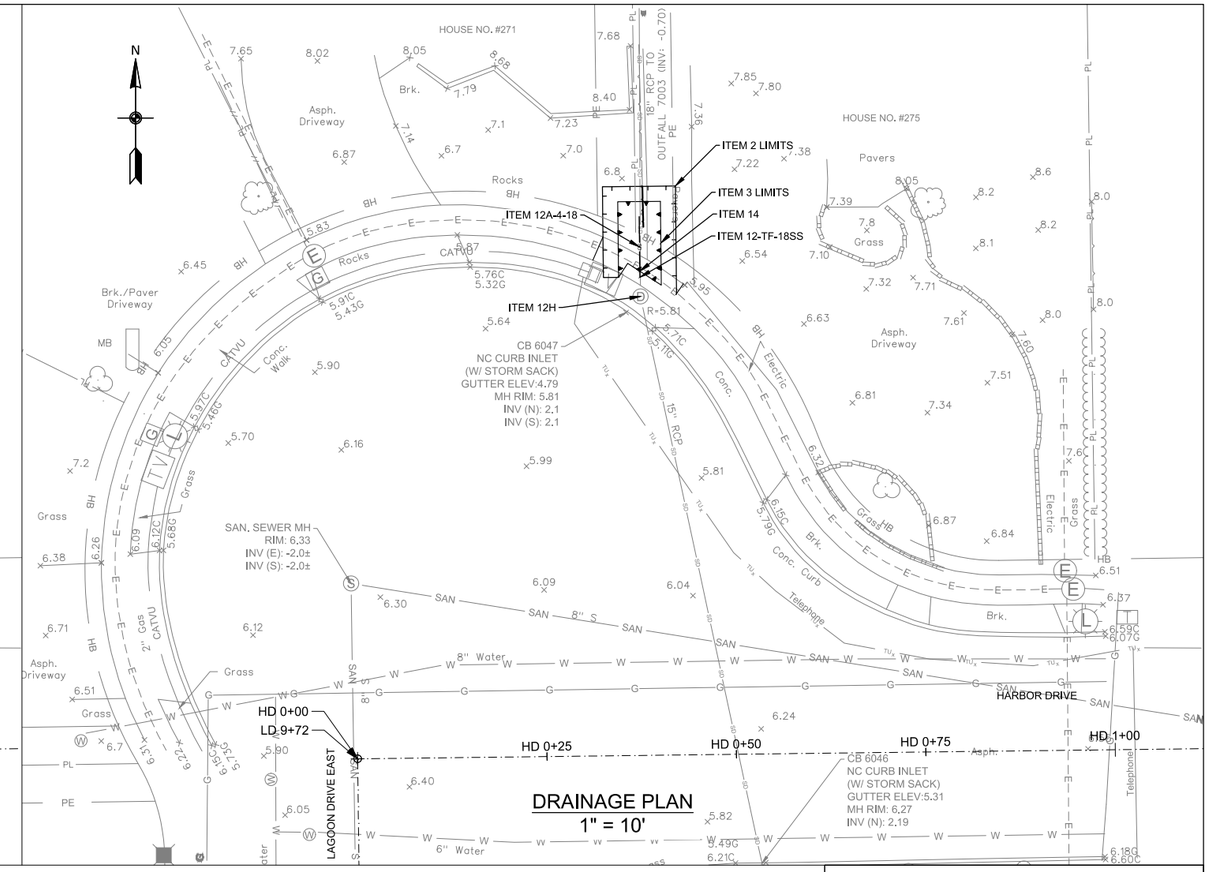
DRAWING TITLE: CONSTRUCTION PLAN
CHECK VALVE INSTALLATION
197 AND 203 LAGOON DR. E., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: CP-02	
SCALE: 1" = 10'	SHEET NO: 22 OF 46	

File Name: O:\2018\BAB-20180042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-02.DWG
Plot Date: 1/31/2020 2:10 PM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES, IMMEDIATELY UPSTREAM AND (OR) DOWNSTREAM OF THE PROPOSED WORK AREA, TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPARE AND SUBMIT A REPORT OF THEIR FIELD FINDINGS TO THE ENGINEER FOR REVIEW. THE CONTRACTOR'S REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIALLY IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

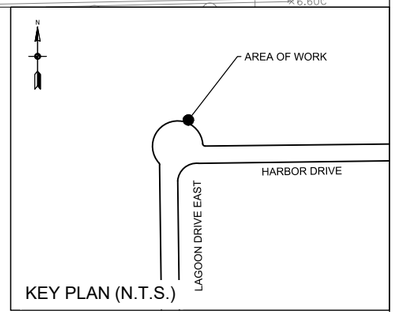
7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

8. THE CONTRACTOR IS DIRECTED TO THE TABLE OF DRAINAGE STRUCTURES FOUND ON THE MISCELLANEOUS TABLES (MST) DRAWINGS FOR ADDITIONAL INFORMATION REGARDING THE EXISTING AND PROPOSED DRAINAGE WORK.

9. REFER TO THE MISCELLANEOUS DETAILS FOR ADDITIONAL INFORMATION REGARDING ITEMS OF WORK THAT ARE NOT SHOWN IN THE GENERAL NOR DRAINAGE PLANS.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL / PLACEMENT	3	CY
3	TRENCH, CULVERT AND BRIDGE EXCAVATION	8	CY
5D	SELECTED GRANULAR FILL	4	CY
12-TF-18SS	18" TIDEFLEX IN-LINE CHECK VALVE	1	EA
12A-4-18	18" - REINFORCED CONCRETE PIPE, CLASS IV	8	LF
12H	CLEANING EXISTING DRAINAGE SYSTEM	1	EA
14	CONNECTIONS TO EXISTING DRAINAGE FACILITIES	1	EA
20	BROKEN STONE, LOOSE MATERIAL	1	CY
27	CEMENT CONCRETE SIDEWALK	30	SF
40R	RESET EXISTING STONE BLOCK PAVEMENT	45	SF
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE	6	LF
64	RESET EXISTING FENCE	6	LF
65B	TRANSPLANTING EXISTING TREES AND SHRUBS	4	EA
141C	SILT PROTECTION FOR CURB INLET DRAINAGE STRUCTURES	1	EA



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

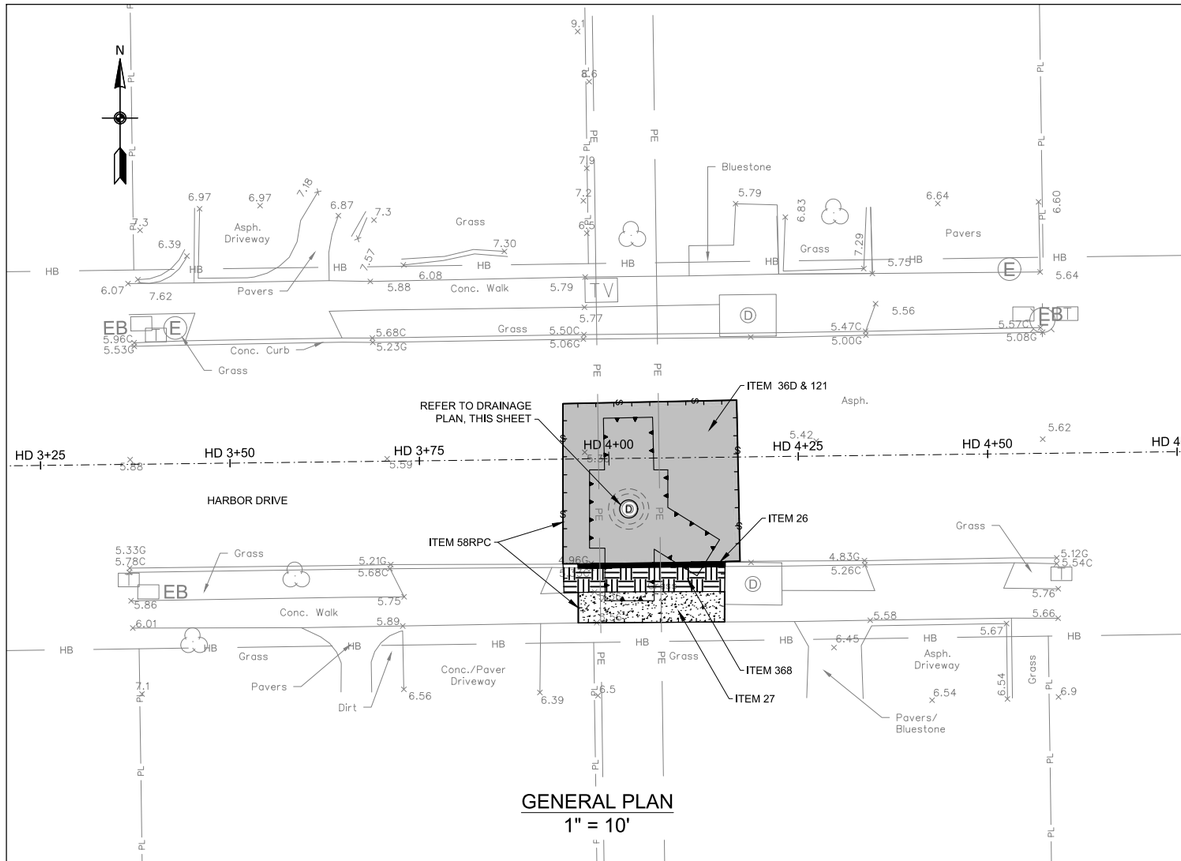
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

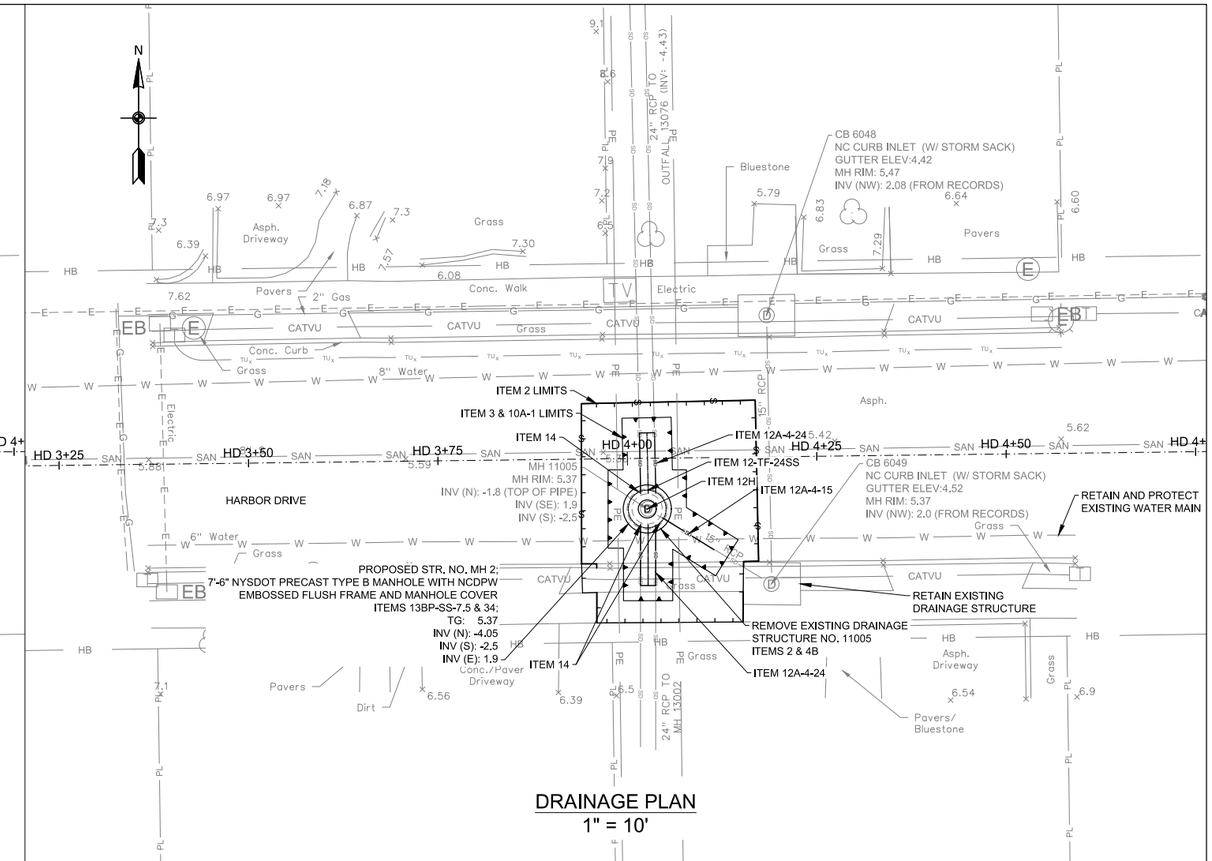
DRAWING TITLE:
CONSTRUCTION PLAN
CHECK VALVE INSTALLATION
271 AND 275 HARBOR DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: CP-03	
SCALE: 1" = 10'	SHEET NO: 23 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-03.DWG
Plot Date: 1/31/2020 2:10 PM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES, IMMEDIATELY UPSTREAM AND (OR) DOWNSTREAM OF THE PROPOSED WORK AREA, TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPARE AND SUBMIT A REPORT OF THEIR FIELD FINDINGS TO THE ENGINEER FOR REVIEW. THE CONTRACTOR'S REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIALLY IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

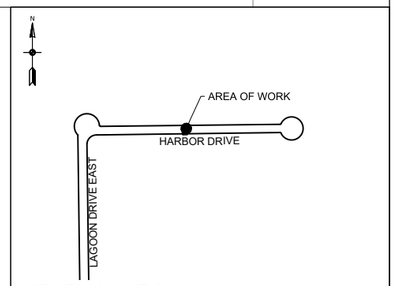
7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

8. THE CONTRACTOR IS DIRECTED TO THE TABLE OF DRAINAGE STRUCTURES FOUND ON THE MISCELLANEOUS TABLES (MST) DRAWINGS FOR ADDITIONAL INFORMATION REGARDING THE EXISTING AND PROPOSED DRAINAGE WORK.

9. REFER TO THE MISCELLANEOUS DETAILS FOR ADDITIONAL INFORMATION REGARDING ITEMS OF WORK THAT ARE NOT SHOWN IN THE GENERAL NOR DRAINAGE PLANS.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL / PLACEMENT	76	CY
3	TRENCH, CULVERT AND BRIDGE EXCAVATION	42	CY
4B	CEMENT CONCRETE BREAKING (STRUCTURES)	10	CY
5D	SELECTED GRANULAR FILL	50	CY
7	PREARING FINE GRADING	490	SF
10A-1	EXCAVATION PROTECTION SYSTEM	420	SF
12-TF-24SS	24" TIDEFLEX IN-LINE CHECK VALVE	1	EA
12A-4-15	15" - REINFORCED CONCRETE PIPE, CLASS IV	8	LF
12A-4-24	24" - REINFORCED CONCRETE PIPE, CLASS IV	16	LF
12H	CLEANING EXISTING DRAINAGE SYSTEM	1	EA
13BP-SS-7.5	90" NYSDOT PRECAST TYPE B MANHOLE	10	LF
14	CONNECTIONS TO EXISTING DRAINAGE FACILITIES	3	EA
26	CONCRETE CURB	20	LF
27	CEMENT CONCRETE SIDEWALK	80	SF
34	MISCELLANEOUS METALS	360	LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)	17	TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE	80	LF
121	DRYBOUND BASE COURSE	10	CY
141C	SILT PROTECTION FOR CURB INLET DRAINAGE STRUCTURES	2	EA
368	TOPSOIL AND GRASS SEED	8	SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

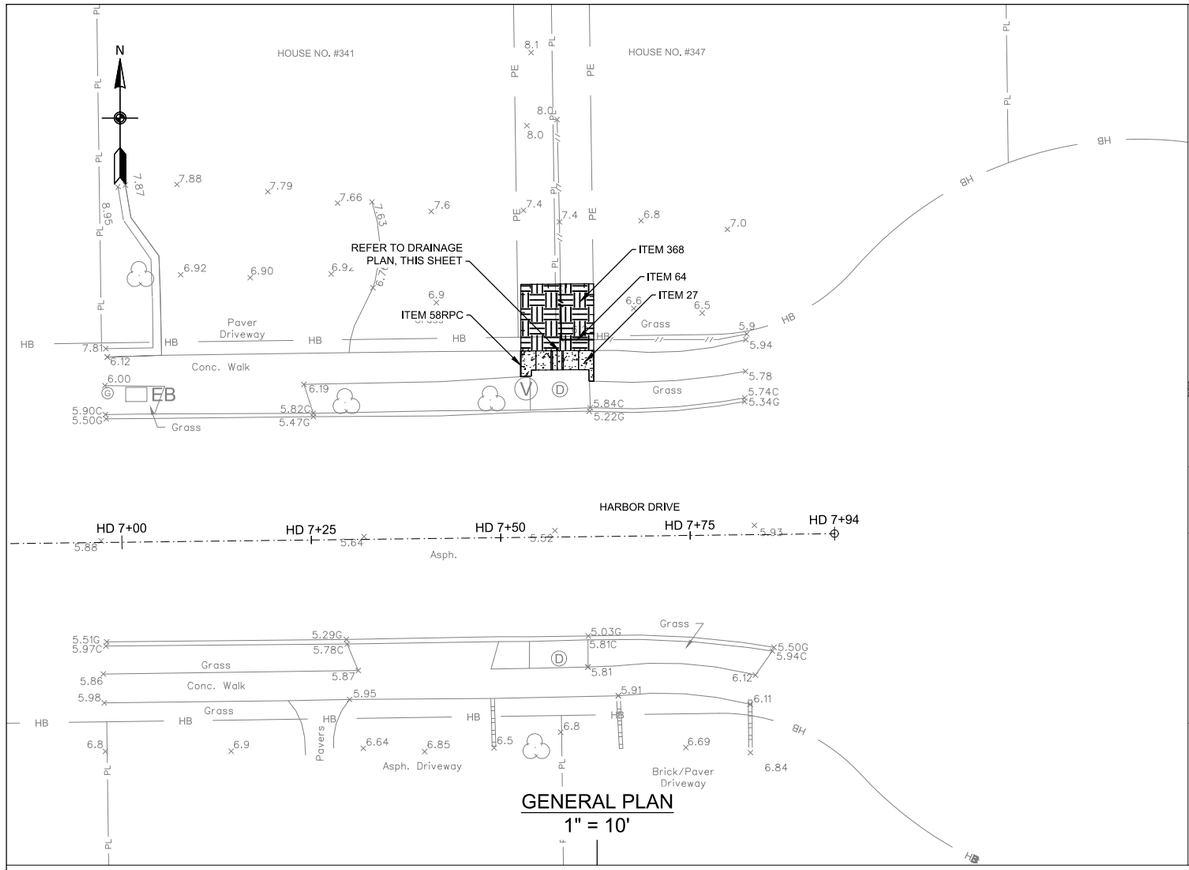
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

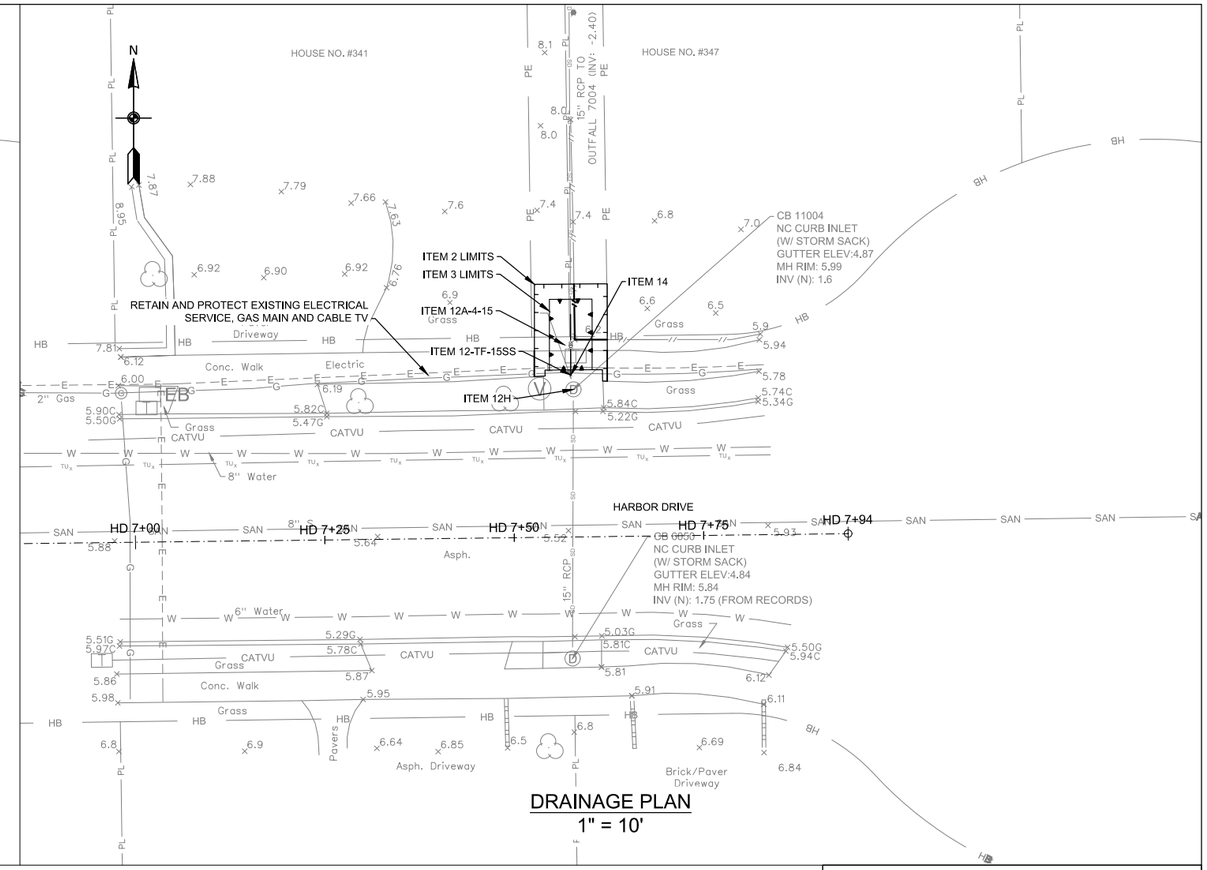
DRAWING TITLE:
CONSTRUCTION PLAN
CHECK VALVE INSTALLATION
311 HARBOR DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: CP-04	
SCALE: 1" = 10'	SHEET NO: 24 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-04.DWG
Plot Date: 1/31/2020 2:11 PM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES, IMMEDIATELY UPSTREAM AND (OR) DOWNSTREAM OF THE PROPOSED WORK AREA, TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPARE AND SUBMIT A REPORT OF THEIR FIELD FINDINGS TO THE ENGINEER FOR REVIEW. THE CONTRACTOR'S REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIALLY IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

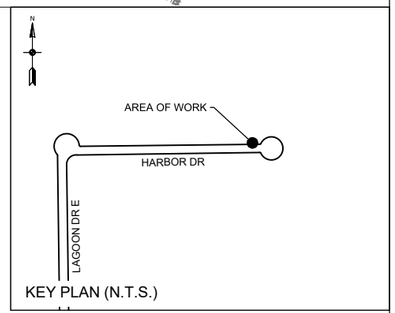
7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

8. THE CONTRACTOR IS DIRECTED TO THE TABLE OF DRAINAGE STRUCTURES FOUND ON THE MISCELLANEOUS TABLES (MST) DRAWINGS FOR ADDITIONAL INFORMATION REGARDING THE EXISTING AND PROPOSED DRAINAGE WORK.

9. REFER TO THE MISCELLANEOUS DETAILS FOR ADDITIONAL INFORMATION REGARDING ITEMS OF WORK THAT ARE NOT SHOWN IN THE GENERAL NOR DRAINAGE PLANS.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL / PLACEMENT	1	CY
3	TRENCH, CULVERT AND BRIDGE EXCAVATION	10	CY
5D	SELECTED GRANULAR FILL	5	CY
12-TF-15SS	15" TIDEFLEX IN-LINE CHECK VALVE	1	EA
12A-4-15	15" - REINFORCED CONCRETE PIPE, CLASS IV	8	LF
12H	CLEANING EXISTING DRAINAGE SYSTEM	1	EA
14	CONNECTIONS TO EXISTING DRAINAGE FACILITIES	1	EA
27	CEMENT CONCRETE SIDEWALK	30	SF
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE	8	LF
64	RESET EXISTING FENCE	12	LF
141C	SILT PROTECTION FOR CURB INLET DRAINAGE STRUCTURES	1	EA
368	TOPSOIL AND GRASS SEED	10	SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

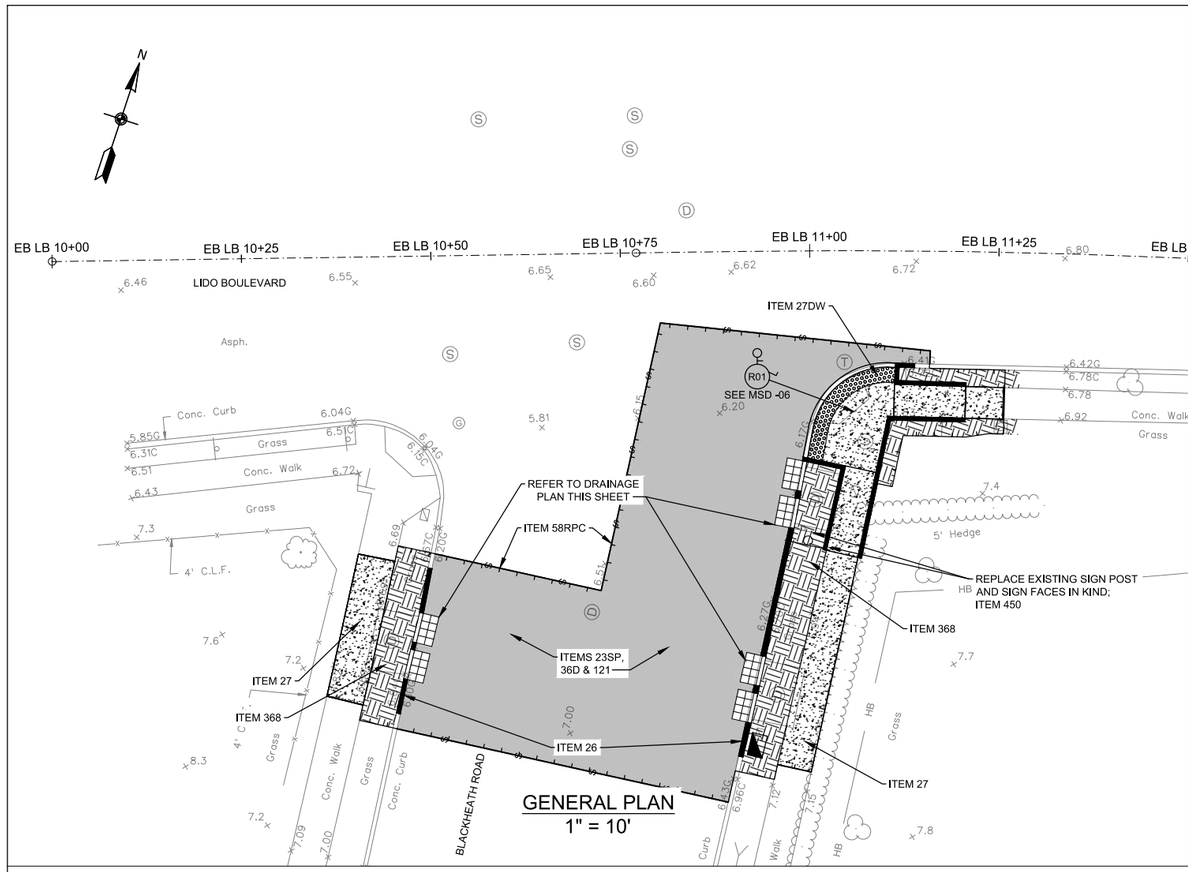
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

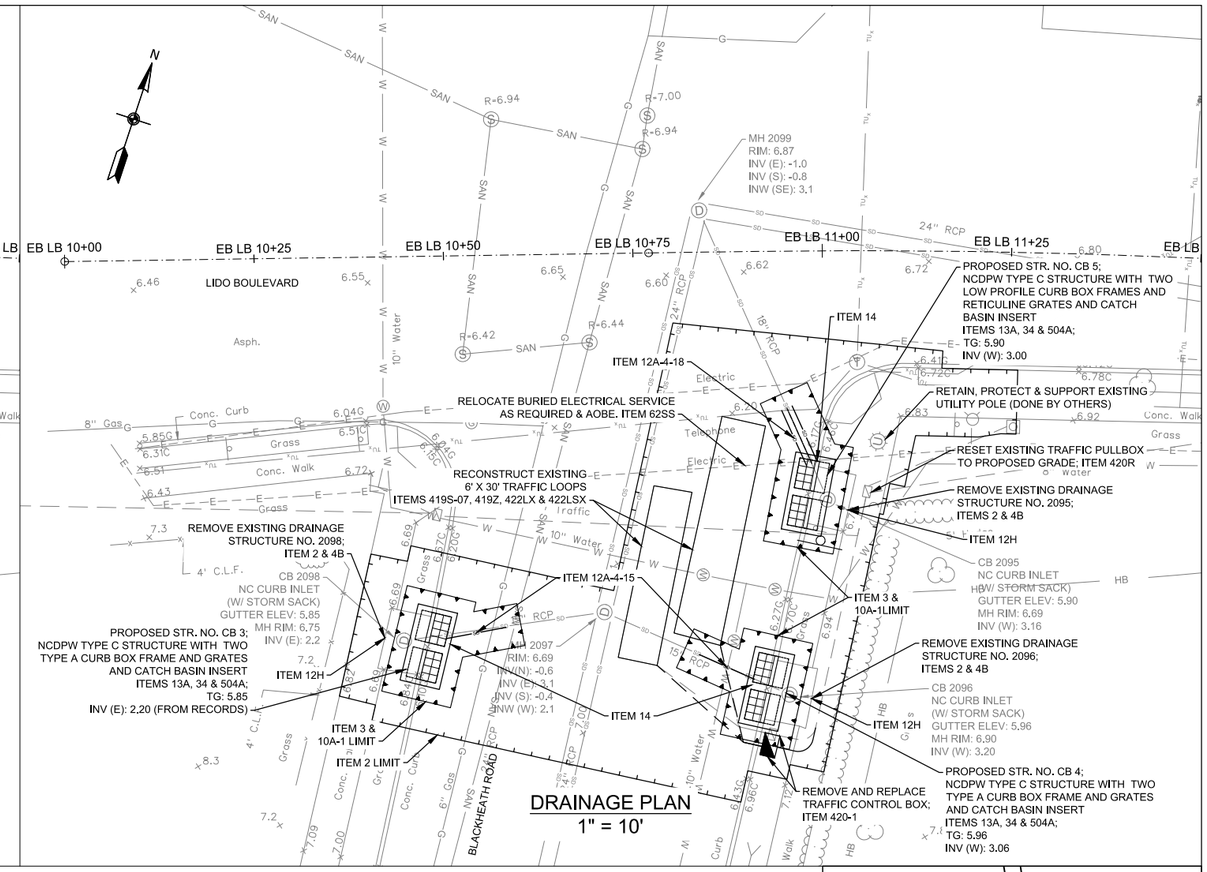
DRAWING TITLE:
CONSTRUCTION PLAN
CHECK VALVE INSTALLATION
341 AND 353 HARBOR DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: CP-05	
SCALE: 1" = 10'	SHEET NO: 25 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-05.DWG
Plot Date: 1/31/2020 2:11 PM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES, IMMEDIATELY UPSTREAM AND (OR) DOWNSTREAM OF THE PROPOSED WORK AREA, TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPARE AND SUBMIT A REPORT OF THEIR FIELD FINDINGS TO THE ENGINEER FOR REVIEW. THE CONTRACTOR'S REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIALLY IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

8. THE CONTRACTOR IS DIRECTED TO THE TABLE OF DRAINAGE STRUCTURES FOUND ON THE MISCELLANEOUS TABLES (MST) DRAWINGS FOR ADDITIONAL INFORMATION REGARDING THE EXISTING AND PROPOSED DRAINAGE WORK.

9. REFER TO THE MISCELLANEOUS DETAILS FOR ADDITIONAL INFORMATION REGARDING ITEMS OF WORK THAT ARE NOT SHOWN IN THE GENERAL NOR DRAINAGE PLANS.

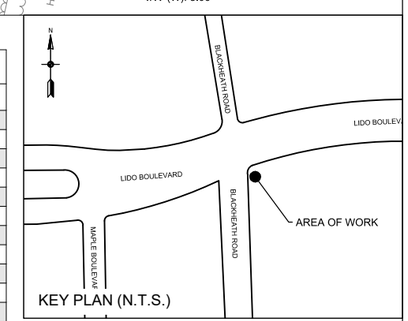
10. THE CONTRACTOR SHALL SPLICE THE PROPOSED LOOP WIRE TO THE EXISTING SHIELDED LEAD IN CABLE WITHIN THE APPROPRIATE PULLBOX. NO ADDITIONAL PAYMENT SHALL BE MADE FOR THE COST OF THIS CONNECTION. THE CONNECTION WORK SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL / PLACEMENT	181	CY
3	TRENCH, CULVERT AND BRIDGE EXCAVATION	16	CY
4A	CEMENT CONCRETE BREAKING (PAVEMENT)	212	SY
4B	CEMENT CONCRETE BREAKING (STRUCTURES)	13	CY
5D	SELECTED GRANULAR FILL	48	CY
7	PREARING FINE GRADING	1900	SF
10A-1	EXCAVATION PROTECTION SYSTEM	770	SF
12A-4-15	15" - REINFORCED CONCRETE PIPE, CLASS IV	16	LF
12A-4-18	18" - REINFORCED CONCRETE PIPE, CLASS IV	8	LF
12H	CLEANING EXISTING DRAINAGE SYSTEM	3	EA
13A	CATCH BASINS	22	CY
14	CONNECTIONS TO EXISTING DRAINAGE FACILITIES	3	EA
23SP	CONCRETE FOUNDATION FOR PAVEMENT	42	CY
26	CONCRETE CURB	86	LF
27	CEMENT CONCRETE SIDEWALK	390	SF
27DW	DETECTABLE WARNING SURFACE	0	SF

TABLE OF WORK CONTINUED

ITEM	DESCRIPTION:	QTY	UNITS
34	MISCELLANEOUS METALS	6120	LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)	64	TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE	160	LF
62SS	RELOCATE BURIED ELECTRICAL SERVICE	20	LF
121	DRYBOUND BASE COURSE	36	CY
368	TOPSOIL AND GRASS SEED	44	SY
419S-075	FURNISH AND INSTALL 3/4" DIAMETER STEEL CONDUIT	50	LF
419Z	CLEAN EXISTING CONDUIT	50	LF
420R	REGRADE PULLBOX FRAME AND COVER	1	EA
420-1	FURNISH AND INSTALL STANDARD PULLBOX	1	EA
422LX	FURNISH AND INSTALL LOOP WIRE	130	LF
422LSX	FURNISH AND INSTALL LOOP SAW CUT	130	LF
450	FURNISH AND INSTALL POST MOUNTED SIGN	1	EA
504A	CATCH BASIN INSERT, TYPE A	3	EA



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

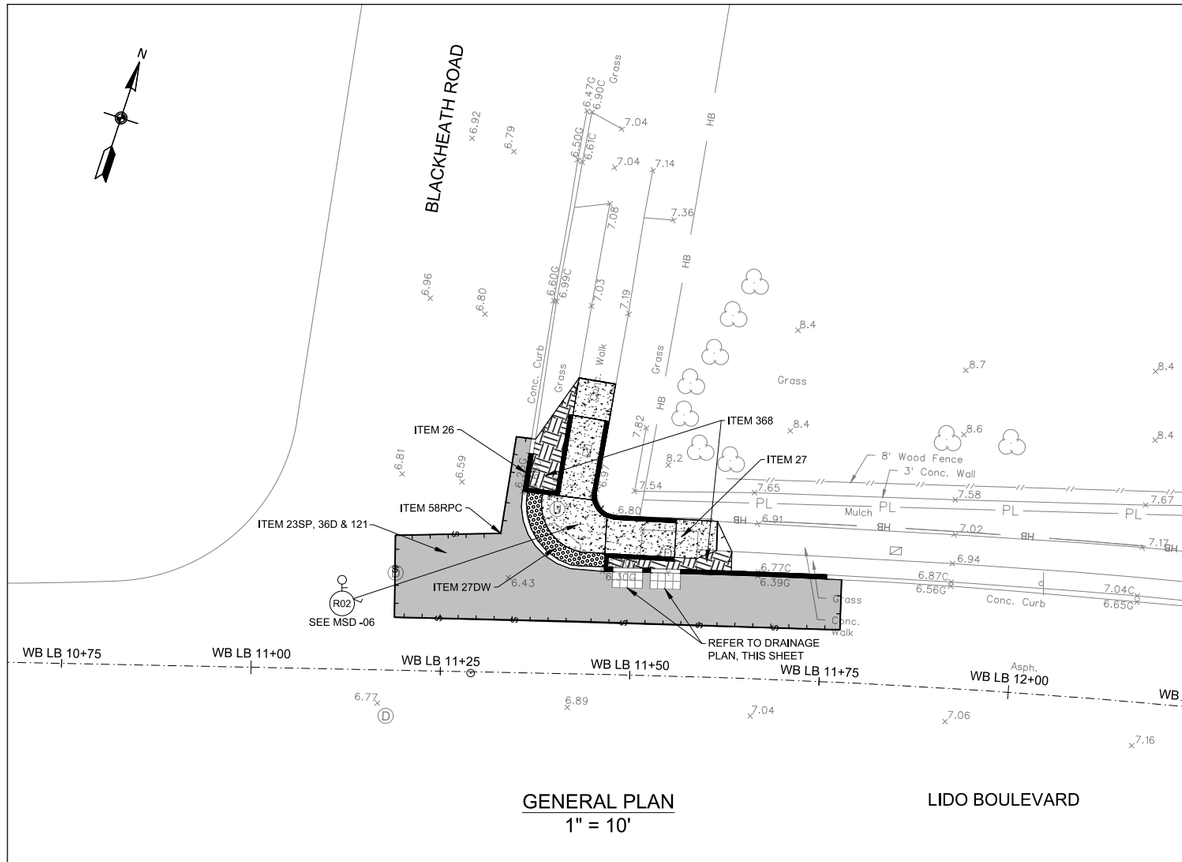
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
117 & 135 LIDO BLVD., LIDO BEACH, NY

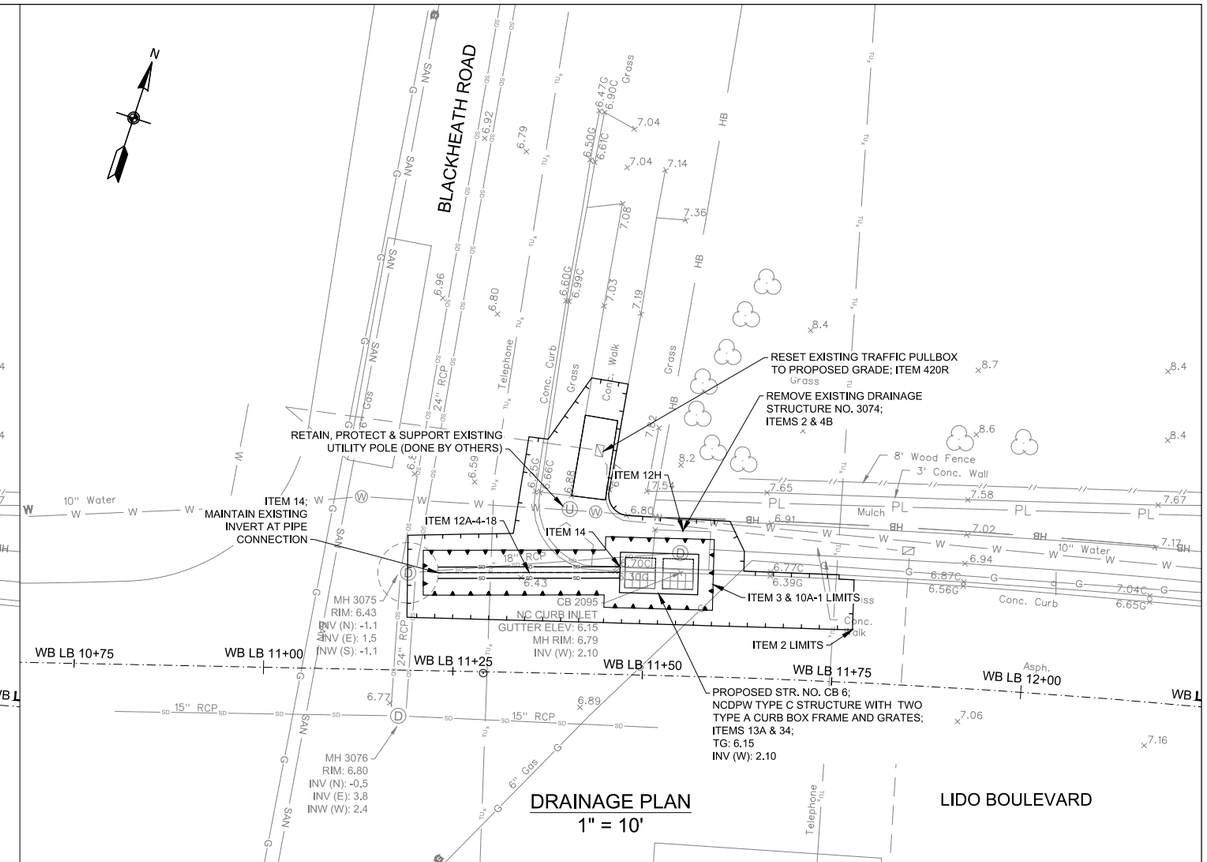
GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: CP-06	
SCALE: 1" = 10'	SHEET NO: 26 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-06.DWG
Plot Date: 1/31/2020 2:12 PM



GENERAL PLAN
1" = 10'

LIDO BOULEVARD



DRAINAGE PLAN
1" = 10'

LIDO BOULEVARD

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES, IMMEDIATELY UPSTREAM AND (OR) DOWNSTREAM OF THE PROPOSED WORK AREA, TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPARE AND SUBMIT A REPORT OF THEIR FIELD FINDINGS TO THE ENGINEER FOR REVIEW. THE CONTRACTOR'S REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIALLY IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

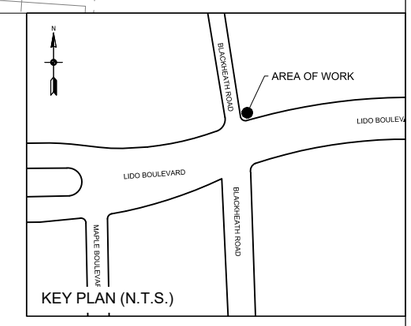
7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

8. THE CONTRACTOR IS DIRECTED TO THE TABLE OF DRAINAGE STRUCTURES FOUND ON THE MISCELLANEOUS TABLES (MST) DRAWINGS FOR ADDITIONAL INFORMATION REGARDING THE EXISTING AND PROPOSED DRAINAGE WORK.

9. REFER TO THE MISCELLANEOUS DETAILS FOR ADDITIONAL INFORMATION REGARDING ITEMS OF WORK THAT ARE NOT SHOWN IN THE GENERAL NOR DRAINAGE PLANS.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL / PLACEMENT	51	CY
3	TRENCH, CULVERT AND BRIDGE EXCAVATION	24	CY
4A	CEMENT CONCRETE BREAKING (PAVEMENT)	56	SY
4B	CEMENT CONCRETE BREAKING (STRUCTURES)	5	CY
5D	SELECTED GRANULAR FILL	27	CY
7	PREARING FINE GRADING	500	SF
10A-1	EXCAVATION PROTECTION SYSTEM	320	SF
12A-4-18	18" - REINFORCED CONCRETE PIPE, CLASS IV	24	LF
12H	CLEANING EXISTING DRAINAGE SYSTEM	1	EA
13A	CATCH BASINS	8	CY
14	CONNECTIONS TO EXISTING DRAINAGE FACILITIES	2	EA
23SP	CONCRETE FOUNDATION FOR PAVEMENT	11	CY
26	CONCRETE CURB	75	LF
27	CEMENT CONCRETE SIDEWALK	190	SF
27DW	DETECTABLE WARNING SURFACE	0	SF
34	MISCELLANEOUS METALS	2040	LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)	17	TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE	115	LF
121	DRYBOUND BASE COURSE	10	CY
368	TOPSOIL AND GRASS SEED	4	SY
420R	REGRADE PULLBOX FRAME AND COVER	1	EA



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

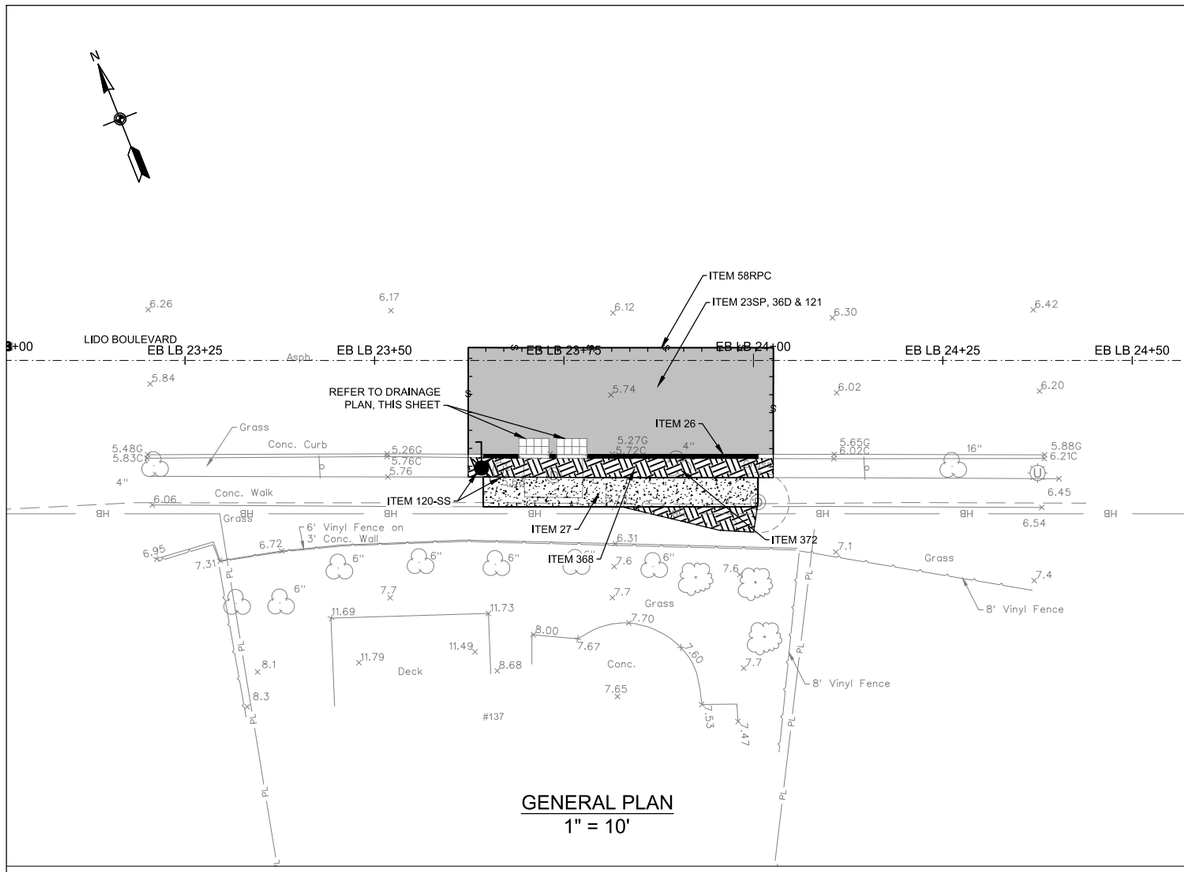
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

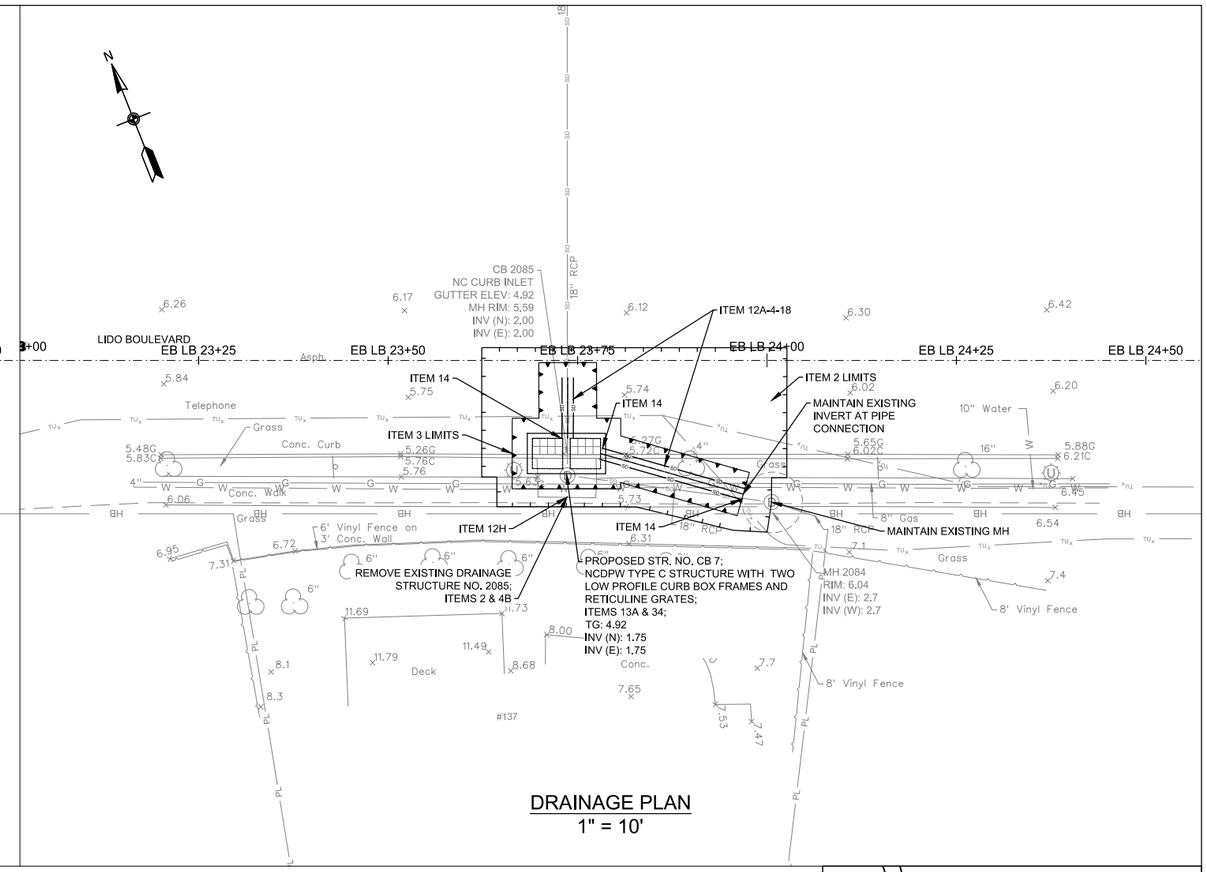
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
132 BLACKHEATH RD., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: CP-07	
SCALE: 1" = 10'	SHEET NO: 27 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-07.DWG
Plot Date: 1/31/2020 2:12 PM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES, IMMEDIATELY UPSTREAM AND (OR) DOWNSTREAM OF THE PROPOSED WORK AREA, TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPARE AND SUBMIT A REPORT OF THEIR FIELD FINDINGS TO THE ENGINEER FOR REVIEW. THE CONTRACTOR'S REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIALLY IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

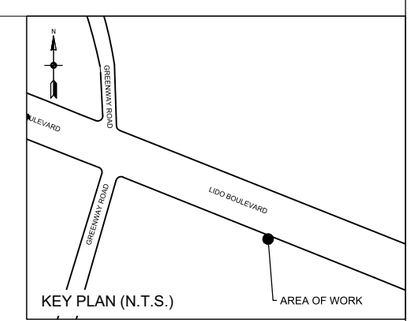
7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

8. THE CONTRACTOR IS DIRECTED TO THE TABLE OF DRAINAGE STRUCTURES FOUND ON THE MISCELLANEOUS TABLES (MST) DRAWINGS FOR ADDITIONAL INFORMATION REGARDING THE EXISTING AND PROPOSED DRAINAGE WORK.

9. REFER TO THE MISCELLANEOUS DETAILS FOR ADDITIONAL INFORMATION REGARDING ITEMS OF WORK THAT ARE NOT SHOWN IN THE GENERAL NOR DRAINAGE PLANS.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL / PLACEMENT	50	CY
3	TRENCH, CULVERT AND BRIDGE EXCAVATION	18	CY
4A	CEMENT CONCRETE BREAKING (PAVEMENT)	62	SY
4B	CEMENT CONCRETE BREAKING (STRUCTURES)	4	CY
5D	SELECTED GRANULAR FILL	22	CY
7	PREARING FINE GRADING	550	SF
12A-4-18	18" - REINFORCED CONCRETE PIPE, CLASS IV	28	LF
12H	CLEANING EXISTING DRAINAGE SYSTEM	1	EA
13A	CATCH BASINS	7	CY
14	CONNECTIONS TO EXISTING DRAINAGE FACILITIES	3	EA
23SP	CONCRETE FOUNDATION FOR PAVEMENT	12	CY
26	CONCRETE CURB	30	LF
27	CEMENT CONCRETE SIDEWALK	140	SF
34	MISCELLANEOUS METALS	2040	LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)	19	TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE	80	LF
120-SS	RELOCATION OF EXISTING LIGHT POLES (COMPLETE)	0	EA
121	DRYBOUND BASE COURSE	11	CY
368	TOPSOIL AND GRASS SEED	16	SY
372	TREE REMOVAL A,B,C,D,E,F	1	EA



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

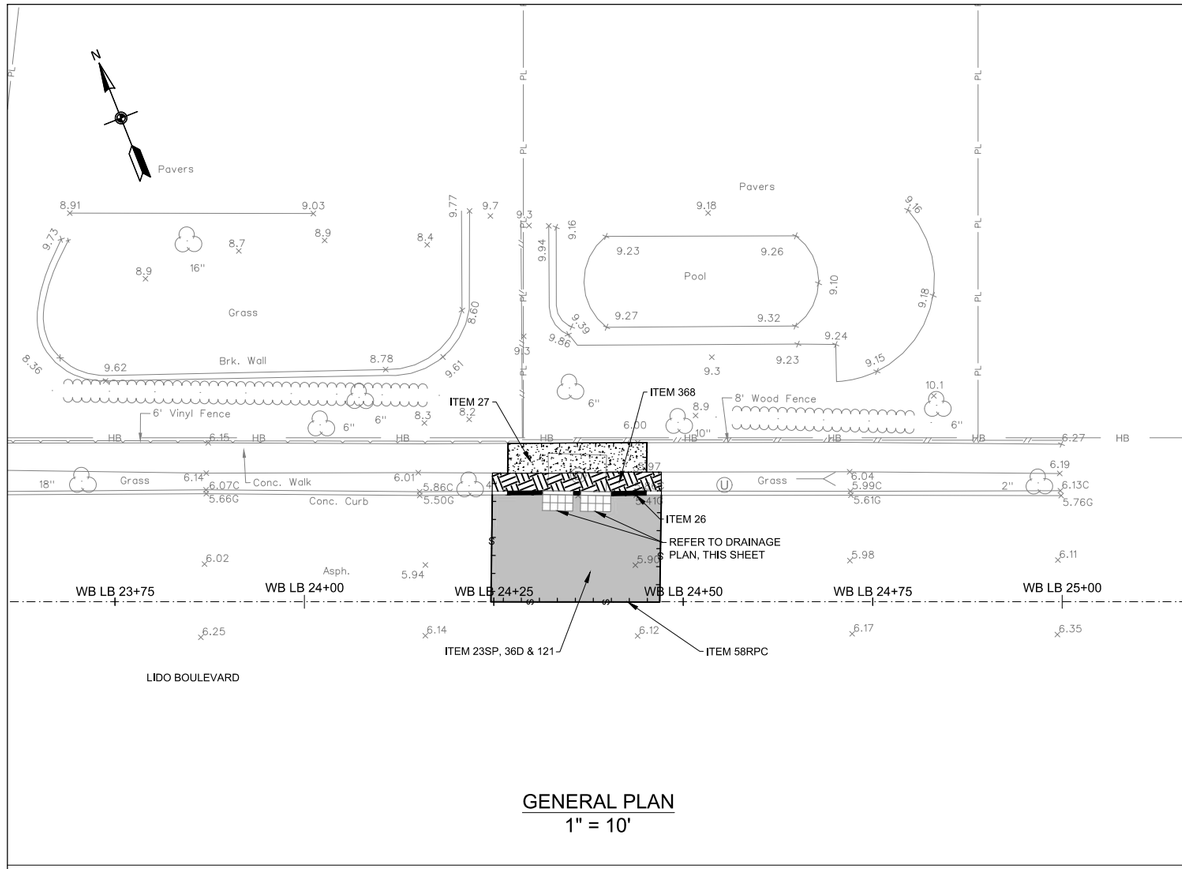
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

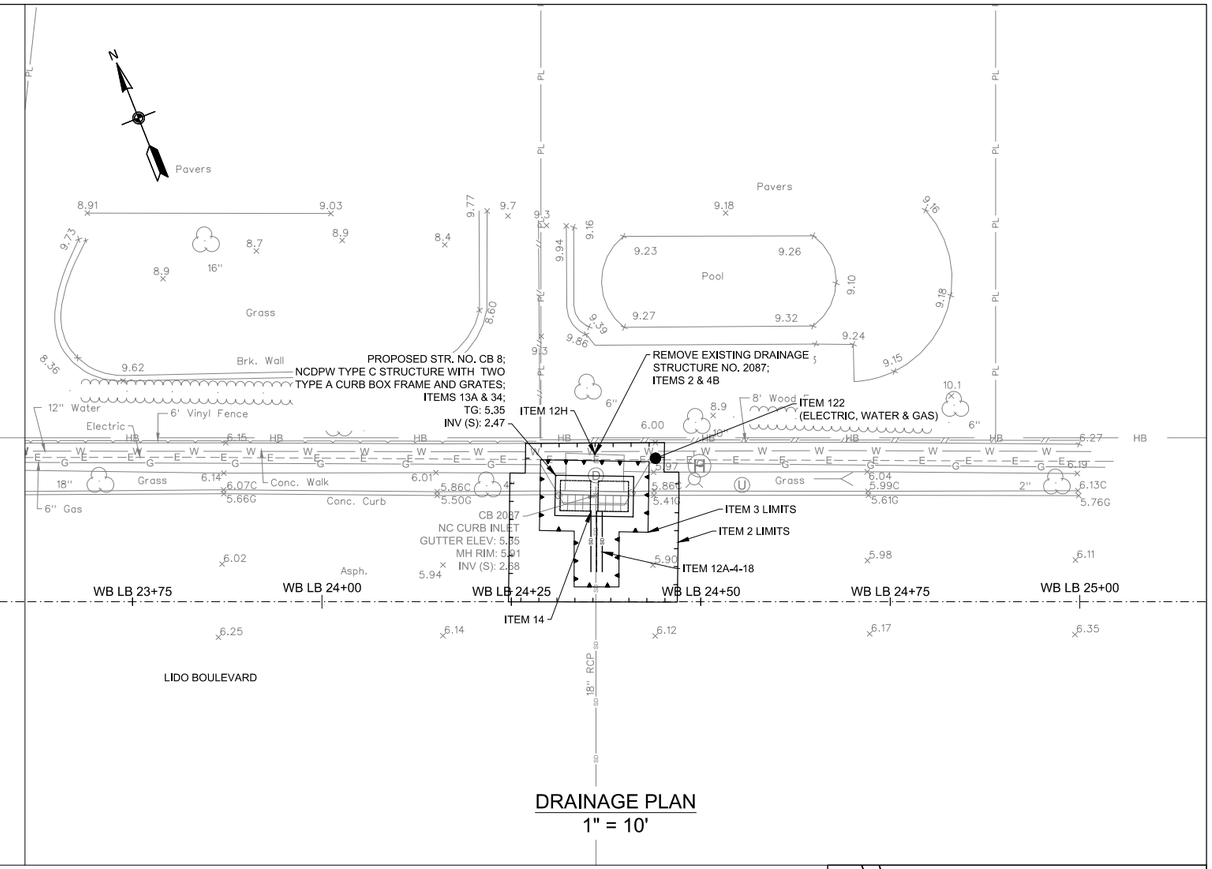
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
137 AUDREY DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: CP-08	
SCALE: 1" = 10'	SHEET NO: 28 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-08.DWG
Plot Date: 1/31/2020 2:13 PM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES, IMMEDIATELY UPSTREAM AND (OR) DOWNSTREAM OF THE PROPOSED WORK AREA, TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPARE AND SUBMIT A REPORT OF THEIR FIELD FINDINGS TO THE ENGINEER FOR REVIEW. THE CONTRACTOR'S REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIALLY IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

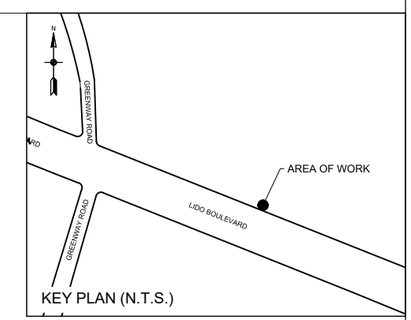
7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

8. THE CONTRACTOR IS DIRECTED TO THE TABLE OF DRAINAGE STRUCTURES FOUND ON THE MISCELLANEOUS TABLES (MST) DRAWINGS FOR ADDITIONAL INFORMATION REGARDING THE EXISTING AND PROPOSED DRAINAGE WORK.

9. REFER TO THE MISCELLANEOUS DETAILS FOR ADDITIONAL INFORMATION REGARDING ITEMS OF WORK THAT ARE NOT SHOWN IN THE GENERAL NOR DRAINAGE PLANS.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL / PLACEMENT	36	CY
3	TRENCH, CULVERT AND BRIDGE EXCAVATION	5	CY
4A	CEMENT CONCRETE BREAKING (PAVEMENT)	34	SY
4B	CEMENT CONCRETE BREAKING (STRUCTURES)	4	CY
5D	SELECTED GRANULAR FILL	15	CY
7	PREARING FINE GRADING	300	SF
12A-4-18	18" - REINFORCED CONCRETE PIPE, CLASS IV	8	LF
12H	CLEANING EXISTING DRAINAGE SYSTEM	1	EA
13A	CATCH BASINS	7	CY
14	CONNECTIONS TO EXISTING DRAINAGE FACILITIES	1	EA
23SP	CONCRETE FOUNDATION FOR PAVEMENT	7	CY
26	CONCRETE CURB	11	LF
27	CEMENT CONCRETE SIDEWALK	75	SF
34	MISCELLANEOUS METALS	2040	LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)	11	TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE	60	LF
121	DRYBOUND BASE COURSE	6	CY
122	TEST HOLES	1	EA
368	TOPSOIL AND GRASS SEED	6	SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

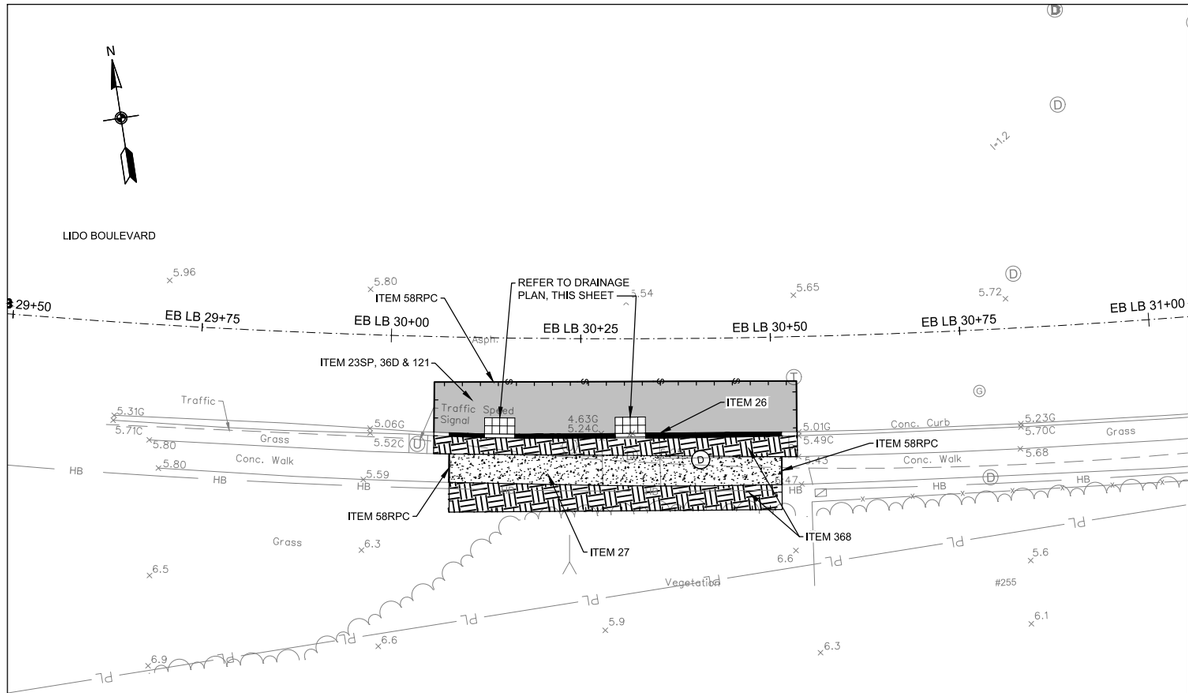
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

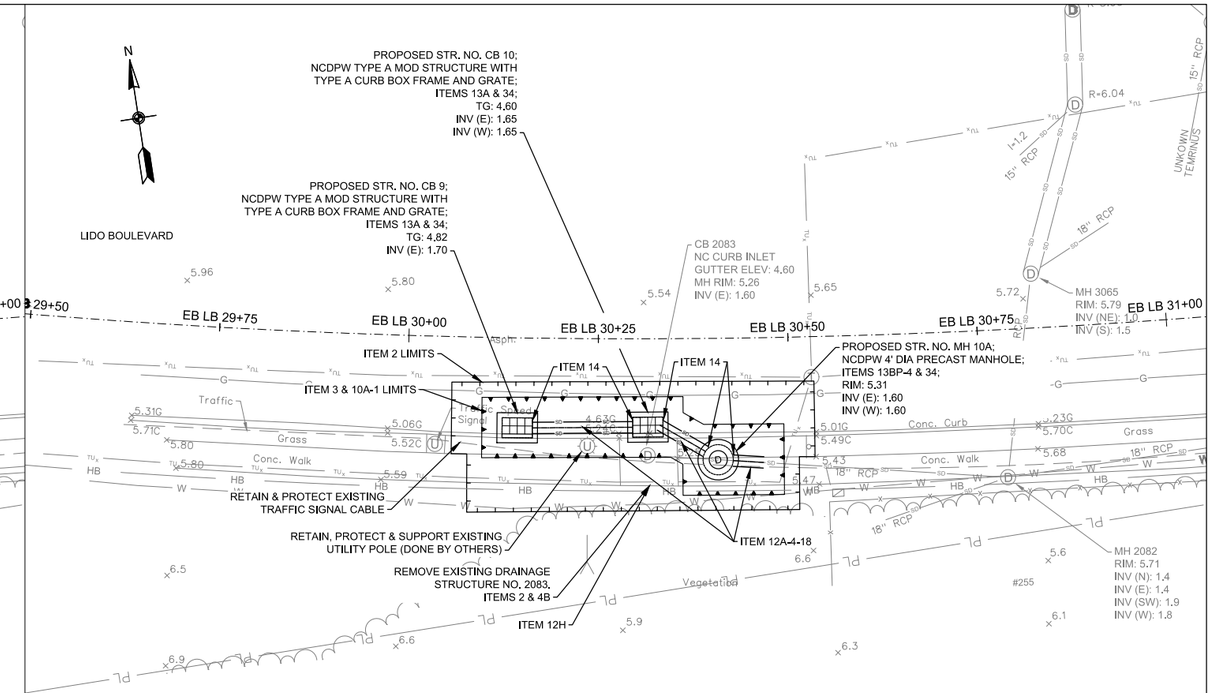
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
67 & 73 REYNOLDS DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: CP-09	
SCALE: 1" = 10'	SHEET NO: 29 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-09.DWG
Plot Date: 1/31/2020 2:14 PM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES, IMMEDIATELY UPSTREAM AND (OR) DOWNSTREAM OF THE PROPOSED WORK AREA, TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPARE AND SUBMIT A REPORT OF THEIR FIELD FINDINGS TO THE ENGINEER FOR REVIEW. THE CONTRACTOR'S REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIALLY IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

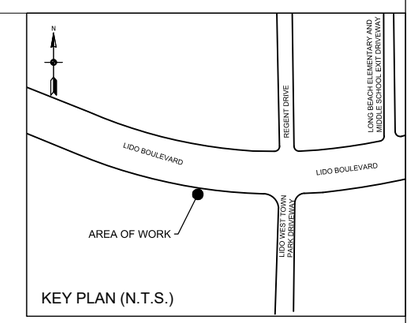
7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

8. THE CONTRACTOR IS DIRECTED TO THE TABLE OF DRAINAGE STRUCTURES FOUND ON THE MISCELLANEOUS TABLES (MST) DRAWINGS FOR ADDITIONAL INFORMATION REGARDING THE EXISTING AND PROPOSED DRAINAGE WORK.

9. REFER TO THE MISCELLANEOUS DETAILS FOR ADDITIONAL INFORMATION REGARDING ITEMS OF WORK THAT ARE NOT SHOWN IN THE GENERAL NOR DRAINAGE PLANS.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL / PLACEMENT	43	CY
3	TRENCH, CULVERT AND BRIDGE EXCAVATION	16	CY
4A	CEMENT CONCRETE BREAKING (PAVEMENT)	35	SY
4B	CEMENT CONCRETE BREAKING (STRUCTURES)	5	CY
5D	SELECTED GRANULAR FILL	33	CY
7	PREARING FINE GRADING	310	SF
10A-1	EXCAVATION PROTECTION SYSTEM	550	SF
12A-4-18	18" - REINFORCED CONCRETE PIPE, CLASS IV	24	LF
12H	CLEANING EXISTING DRAINAGE SYSTEM	1	EA
13A	CATCH BASINS	8	CY
13BP-4	PRECAST MANHOLES, 4' DIAMETER	4	LF
14	CONNECTIONS TO EXISTING DRAINAGE FACILITIES	5	EA
23SP	CONCRETE FOUNDATION FOR PAVEMENT	7	CY
26	CONCRETE CURB	36	LF
27	CEMENT CONCRETE SIDEWALK	170	SF
34	MISCELLANEOUS METALS	2400	LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)	11	TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE	70	LF
121	DRYBOUND BASE COURSE	6	CY
368	TOPSOIL AND GRASS SEED	29	SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-10.DWG
Plot Date: 1/31/2020 2:14 PM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

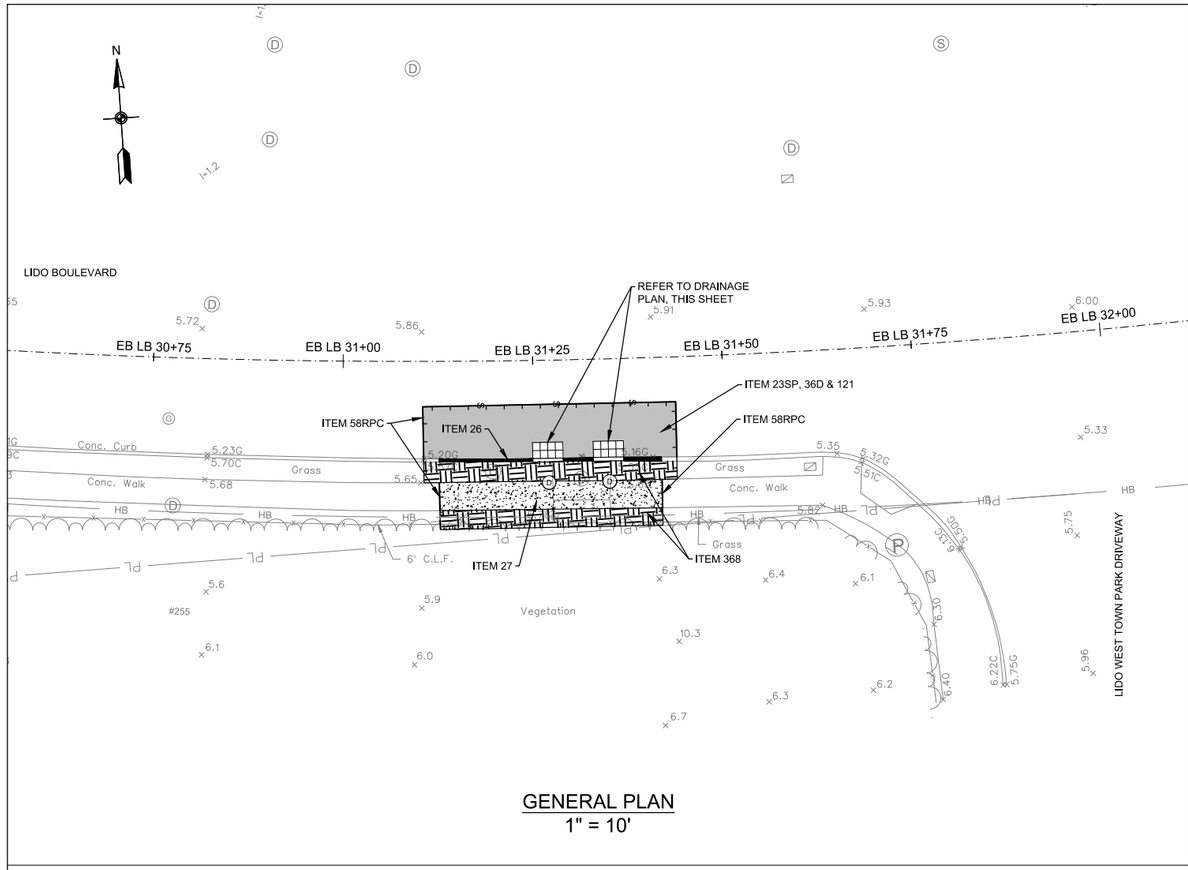
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

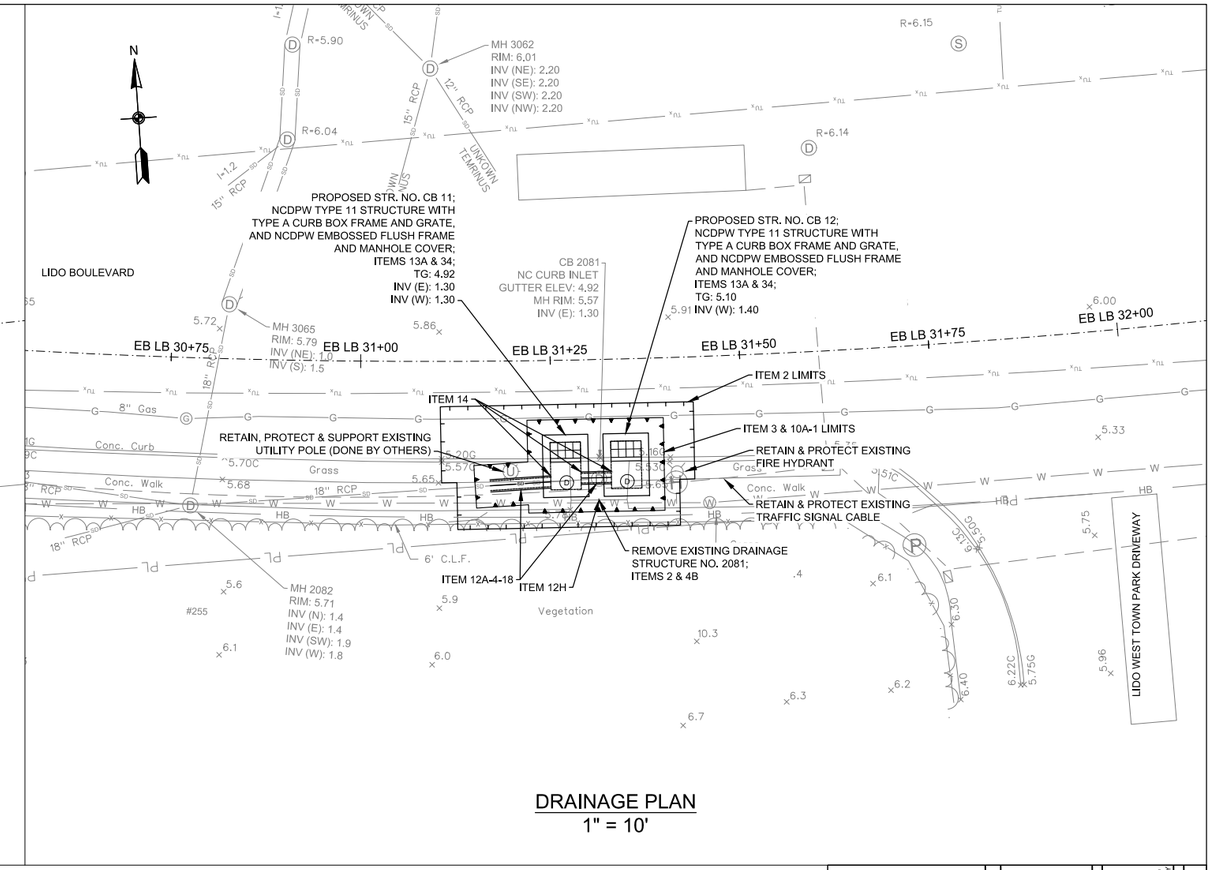
PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
255 LIDO BLVD., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: CP-10	
SCALE: 1" = 10'	SHEET NO: 30 OF 46	



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES, IMMEDIATELY UPSTREAM AND (OR) DOWNSTREAM OF THE PROPOSED WORK AREA, TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPARE AND SUBMIT A REPORT OF THEIR FIELD FINDINGS TO THE ENGINEER FOR REVIEW. THE CONTRACTOR'S REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIALLY IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

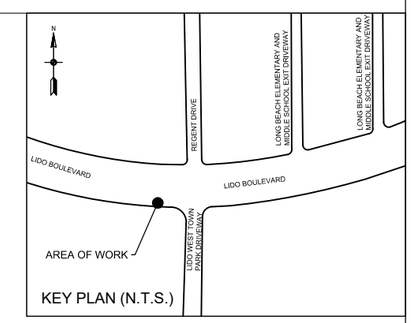
7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

8. THE CONTRACTOR IS DIRECTED TO THE TABLE OF DRAINAGE STRUCTURES FOUND ON THE MISCELLANEOUS TABLES (MST) DRAWINGS FOR ADDITIONAL INFORMATION REGARDING THE EXISTING AND PROPOSED DRAINAGE WORK.

9. REFER TO THE MISCELLANEOUS DETAILS FOR ADDITIONAL INFORMATION REGARDING ITEMS OF WORK THAT ARE NOT SHOWN IN THE GENERAL NOR DRAINAGE PLANS.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL / PLACEMENT	42	CY
3	TRENCH, CULVERT AND BRIDGE EXCAVATION	6	CY
4A	CEMENT CONCRETE BREAKING (PAVEMENT)	25	SY
4B	CEMENT CONCRETE BREAKING (STRUCTURES)	5	CY
5D	SELECTED GRANULAR FILL	32	CY
7	PREARING FINE GRADING	220	SF
10A-1	EXCAVATION PROTECTION SYSTEM	420	SF
12A-4-18	18" - REINFORCED CONCRETE PIPE, CLASS IV	12	LF
12H	CLEANING EXISTING DRAINAGE SYSTEM	1	EA
13A	CATCH BASINS	14	CY
14	CONNECTIONS TO EXISTING DRAINAGE FACILITIES	3	EA
23SP	CONCRETE FOUNDATION FOR PAVEMENT	5	CY
26	CONCRETE CURB	22	LF
27	CEMENT CONCRETE SIDEWALK	105	SF
34	MISCELLANEOUS METALS	2750	LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)	8	TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE	60	LF
121	DRYBOUND BASE COURSE	5	CY
368	TOPSOIL AND GRASS SEED	18	SY



ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-11.DWG
Plot Date: 1/31/2020 2:15 PM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

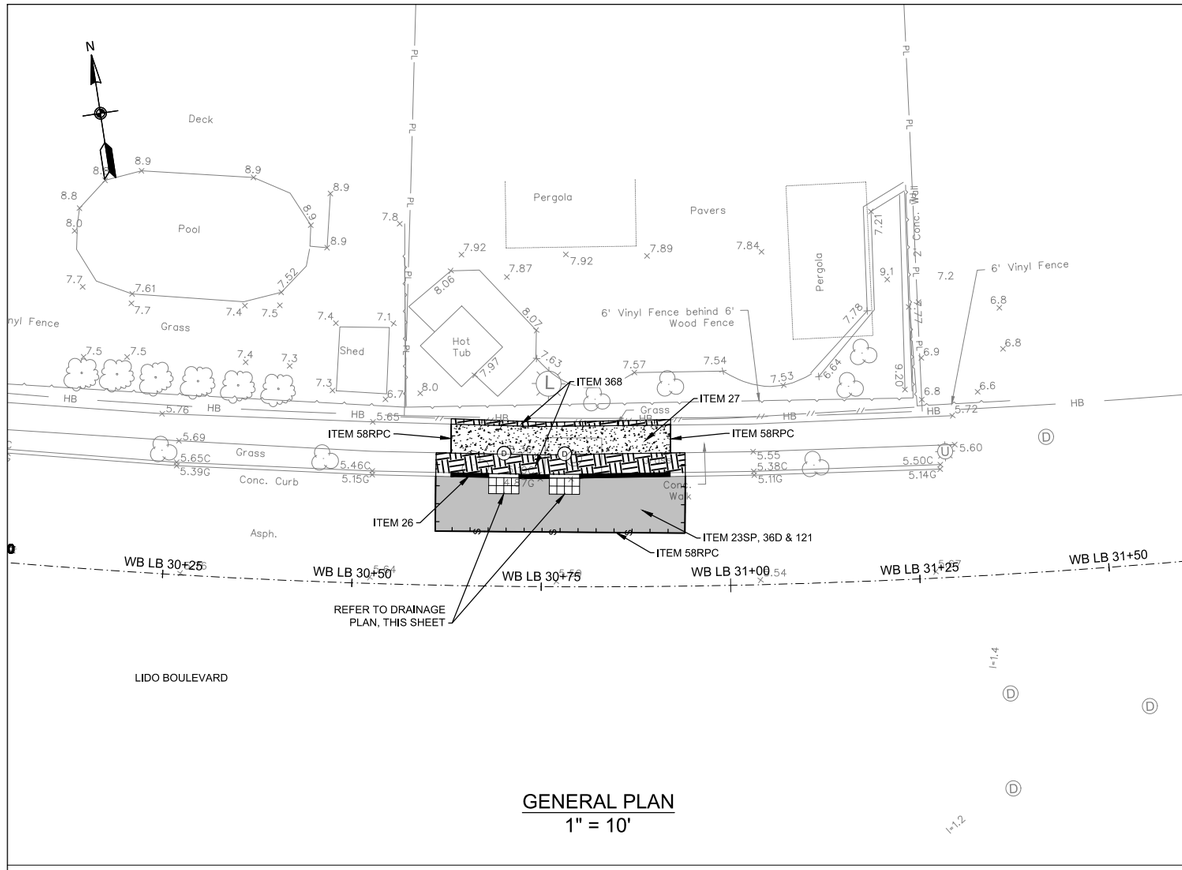
GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

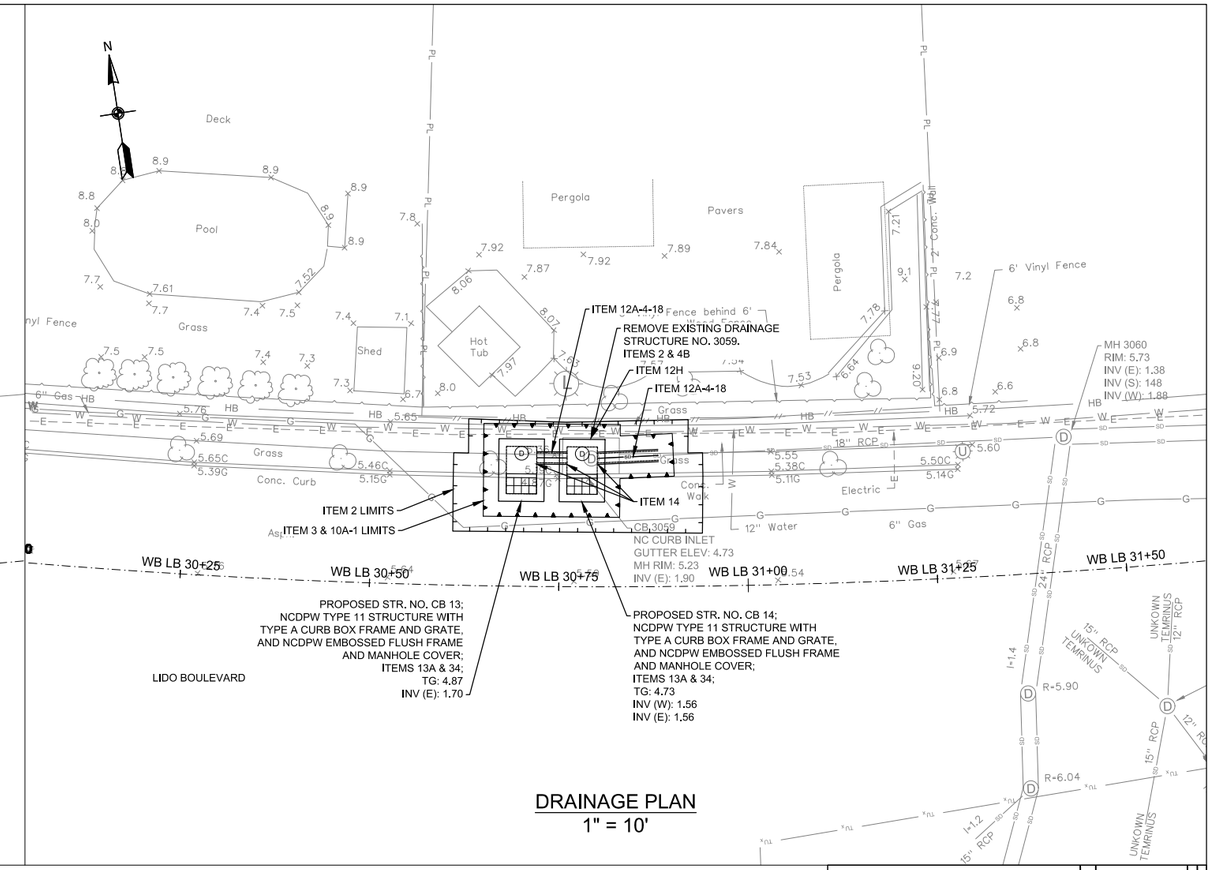
PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
255 LIDO BLVD., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: CP-11	
SCALE: 1" = 10'	SHEET NO: 31 OF 46	



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES, IMMEDIATELY UPSTREAM AND (OR) DOWNSTREAM OF THE PROPOSED WORK AREA, TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPARE AND SUBMIT A REPORT OF THEIR FIELD FINDINGS TO THE ENGINEER FOR REVIEW. THE CONTRACTOR'S REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIALLY IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

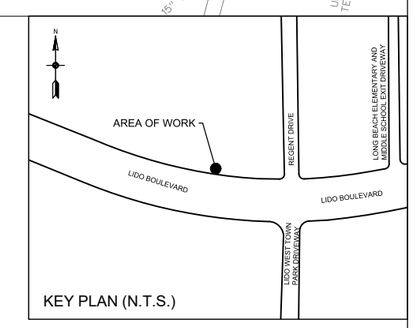
7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

8. THE CONTRACTOR IS DIRECTED TO THE TABLE OF DRAINAGE STRUCTURES FOUND ON THE MISCELLANEOUS TABLES (MST) DRAWINGS FOR ADDITIONAL INFORMATION REGARDING THE EXISTING AND PROPOSED DRAINAGE WORK.

9. REFER TO THE MISCELLANEOUS DETAILS FOR ADDITIONAL INFORMATION REGARDING ITEMS OF WORK THAT ARE NOT SHOWN IN THE GENERAL NOR DRAINAGE PLANS.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL / PLACEMENT	37	CY
3	TRENCH, CULVERT AND BRIDGE EXCAVATION	5	CY
4A	CEMENT CONCRETE BREAKING (PAVEMENT)	25	SY
4B	CEMENT CONCRETE BREAKING (STRUCTURES)	5	CY
5D	SELECTED GRANULAR FILL	27	CY
7	PREARING FINE GRADING	220	SF
10A-1	EXCAVATION PROTECTION SYSTEM	390	SF
12A-4-18	18" - REINFORCED CONCRETE PIPE, CLASS IV	12	LF
12H	CLEANING EXISTING DRAINAGE SYSTEM	1	EA
13A	CATCH BASINS	13	CY
14	CONNECTIONS TO EXISTING DRAINAGE FACILITIES	3	EA
23SP	CONCRETE FOUNDATION FOR PAVEMENT	5	CY
26	CONCRETE CURB	21	LF
27	CEMENT CONCRETE SIDEWALK	105	SF
34	MISCELLANEOUS METALS	2750	LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)	8	TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE	60	LF
121	DRYBOUND BASE COURSE	5	CY
368	TOPSOIL AND GRASS SEED	12	SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

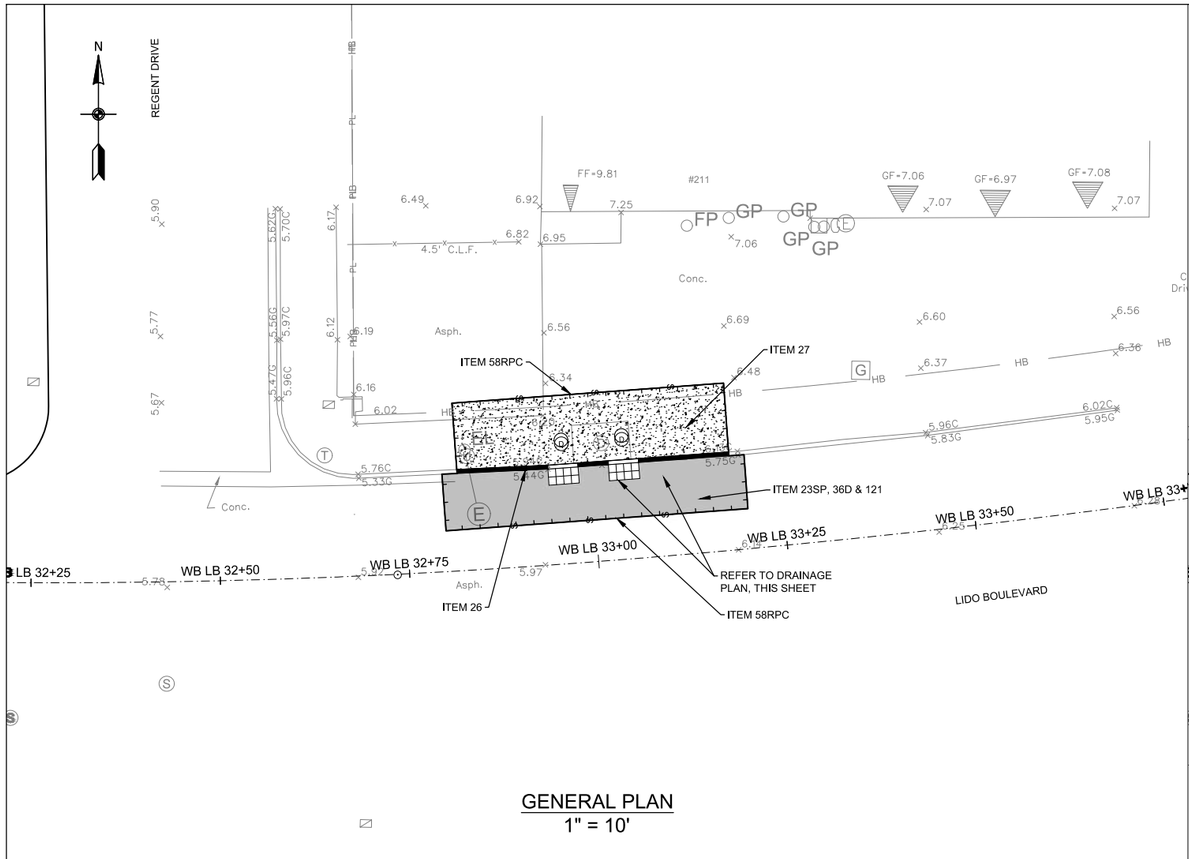
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

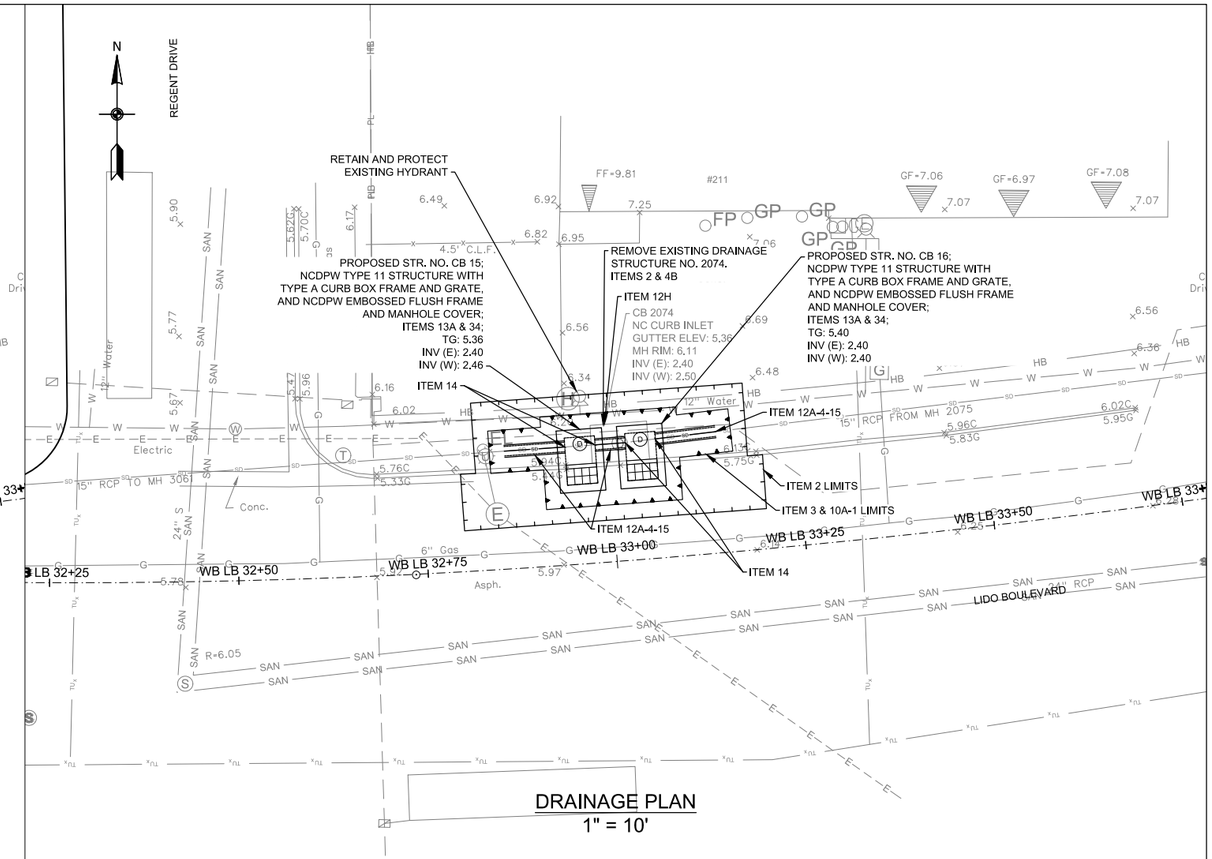
DRAWING TITLE: CONSTRUCTION PLAN DRAINAGE IMPROVEMENTS ALONG LIDO BLVD. 9 REYNOLDS DR., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: CP-12	
SCALE: 1" = 10'	SHEET NO: 32 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-12.DWG
Plot Date: 1/31/2020 2:15 PM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES, IMMEDIATELY UPSTREAM AND (OR) DOWNSTREAM OF THE PROPOSED WORK AREA, TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPARE AND SUBMIT A REPORT OF THEIR FIELD FINDINGS TO THE ENGINEER FOR REVIEW. THE CONTRACTOR'S REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIALLY IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

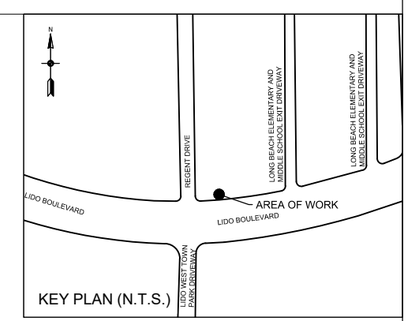
7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

8. THE CONTRACTOR IS DIRECTED TO THE TABLE OF DRAINAGE STRUCTURES FOUND ON THE MISCELLANEOUS TABLES (MST) DRAWINGS FOR ADDITIONAL INFORMATION REGARDING THE EXISTING AND PROPOSED DRAINAGE WORK.

9. REFER TO THE MISCELLANEOUS DETAILS FOR ADDITIONAL INFORMATION REGARDING ITEMS OF WORK THAT ARE NOT SHOWN IN THE GENERAL NOR DRAINAGE PLANS.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL / PLACEMENT	43	CY
3	TRENCH, CULVERT AND BRIDGE EXCAVATION	9	CY
4A	CEMENT CONCRETE BREAKING (PAVEMENT)	30	SY
4B	CEMENT CONCRETE BREAKING (STRUCTURES)	5	CY
5D	SELECTED GRANULAR FILL	29	CY
7	PREARING FINE GRADING	270	SF
10A-1	EXCAVATION PROTECTION SYSTEM	360	SF
12A-4-15	15" - REINFORCED CONCRETE PIPE, CLASS IV	20	LF
12H	CLEANING EXISTING DRAINAGE SYSTEM	1	EA
13A	CATCH BASINS	12	CY
14	CONNECTIONS TO EXISTING DRAINAGE FACILITIES	4	EA
23SP	CONCRETE FOUNDATION FOR PAVEMENT	6	CY
26	CONCRETE CURB	28	LF
27	CEMENT CONCRETE SIDEWALK	320	SF
34	MISCELLANEOUS METALS	2750	LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)	10	TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE	115	LF
121	DRYBOUND BASE COURSE	5	CY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

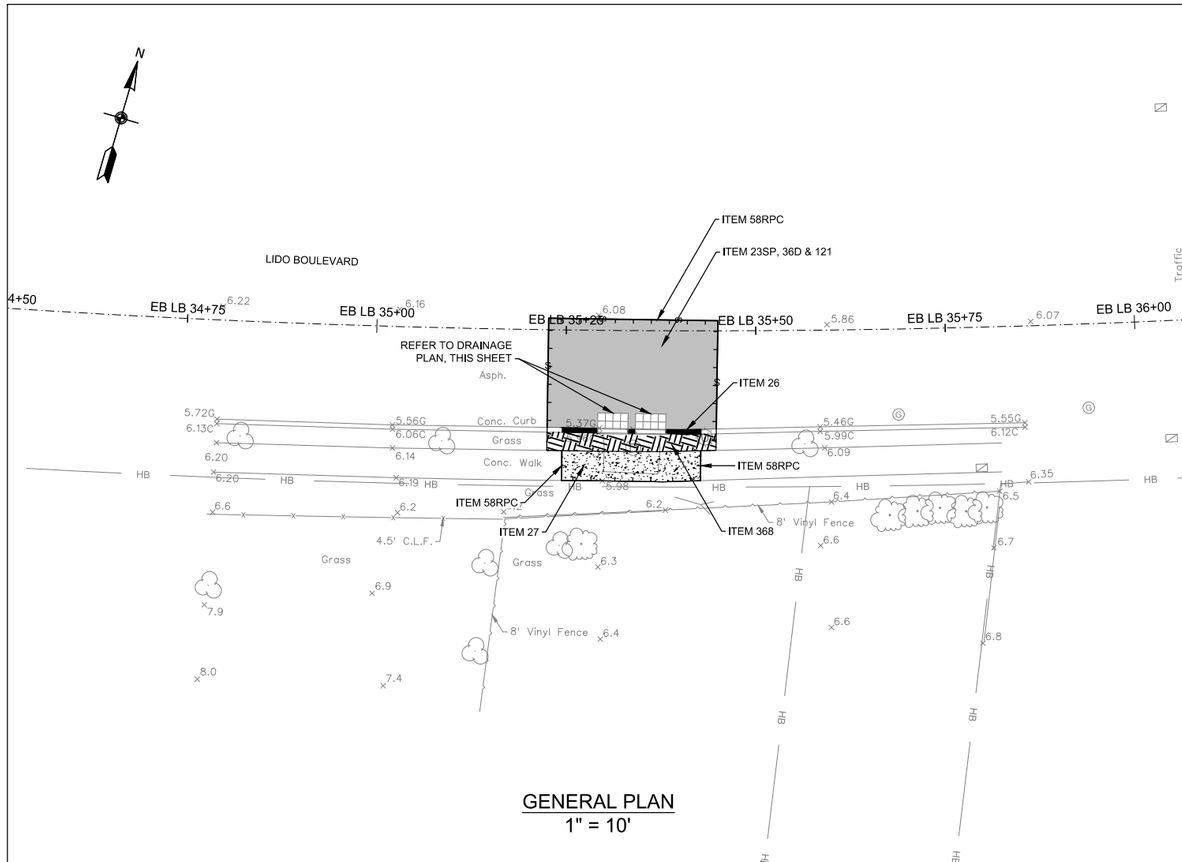
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

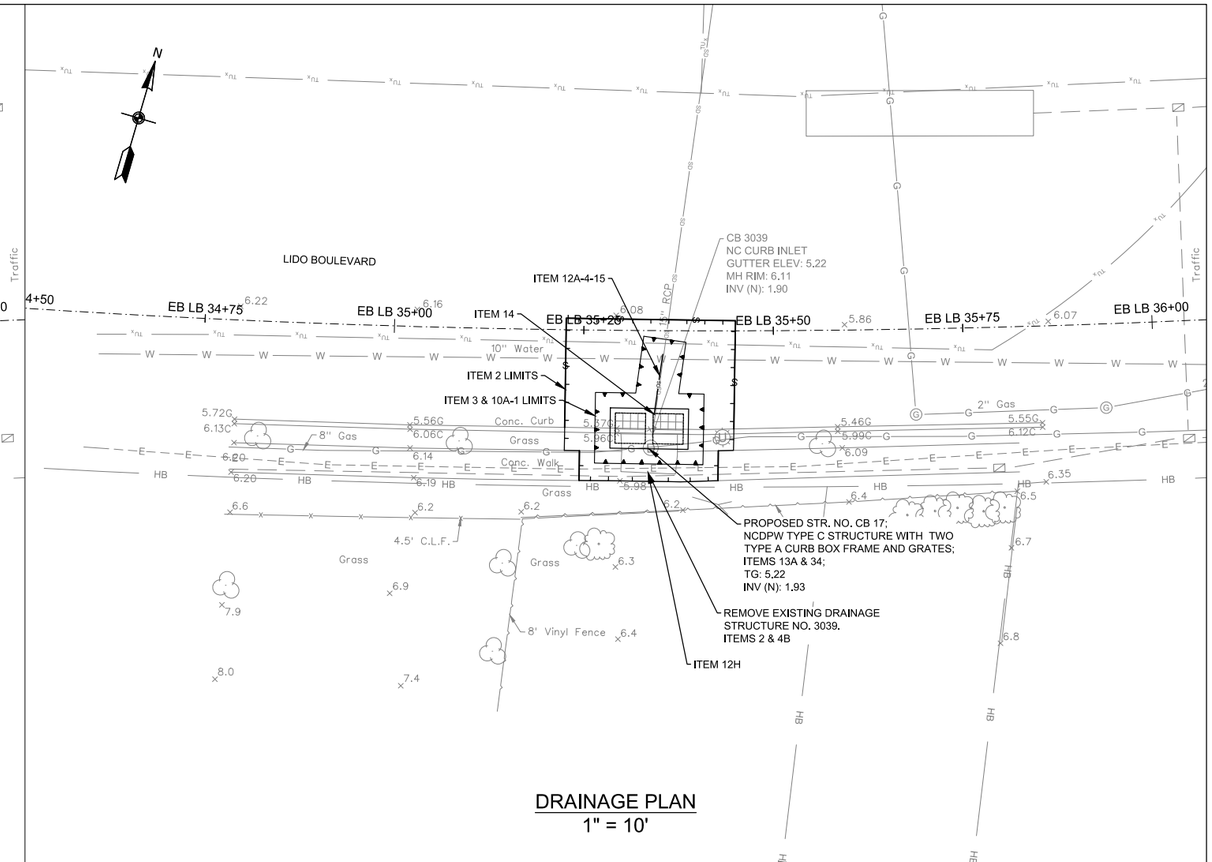
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
211 LIDO BLVD., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: CP-13	
SCALE: 1" = 10'	SHEET NO: 33 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-13.DWG
Plot Date: 1/31/2020 2:16 PM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES, IMMEDIATELY UPSTREAM AND (OR) DOWNSTREAM OF THE PROPOSED WORK AREA, TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPARE AND SUBMIT A REPORT OF THEIR FIELD FINDINGS TO THE ENGINEER FOR REVIEW. THE CONTRACTOR'S REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIALLY IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

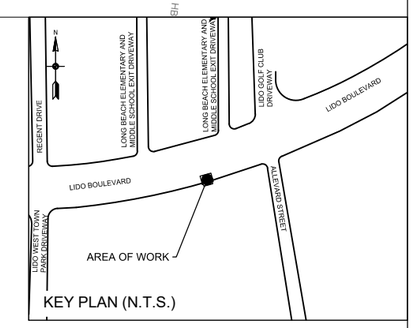
7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

8. THE CONTRACTOR IS DIRECTED TO THE TABLE OF DRAINAGE STRUCTURES FOUND ON THE MISCELLANEOUS TABLES (MST) DRAWINGS FOR ADDITIONAL INFORMATION REGARDING THE EXISTING AND PROPOSED DRAINAGE WORK.

9. REFER TO THE MISCELLANEOUS DETAILS FOR ADDITIONAL INFORMATION REGARDING ITEMS OF WORK THAT ARE NOT SHOWN IN THE GENERAL NOR DRAINAGE PLANS.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL / PLACEMENT	41	CY
3	TRENCH, CULVERT AND BRIDGE EXCAVATION	6	CY
4A	CEMENT CONCRETE BREAKING (PAVEMENT)	34	SY
4B	CEMENT CONCRETE BREAKING (STRUCTURES)	5	CY
5D	SELECTED GRANULAR FILL	18	CY
7	PREARING FINE GRADING	305	SF
10A-1	EXCAVATION PROTECTION SYSTEM	270	SF
12A-4-15	15" - REINFORCED CONCRETE PIPE, CLASS IV	8	LF
12H	CLEANING EXISTING DRAINAGE SYSTEM	1	EA
13A	CATCH BASINS	7	CY
14	CONNECTIONS TO EXISTING DRAINAGE FACILITIES	1	EA
23SP	CONCRETE FOUNDATION FOR PAVEMENT	7	CY
26	CONCRETE CURB	11	LF
27	CEMENT CONCRETE SIDEWALK	75	SF
34	MISCELLANEOUS METALS	2040	LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)	11	TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE	60	LF
121	DRYBOUND BASE COURSE	6	CY
368	TOPSOIL AND GRASS SEED	6	SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

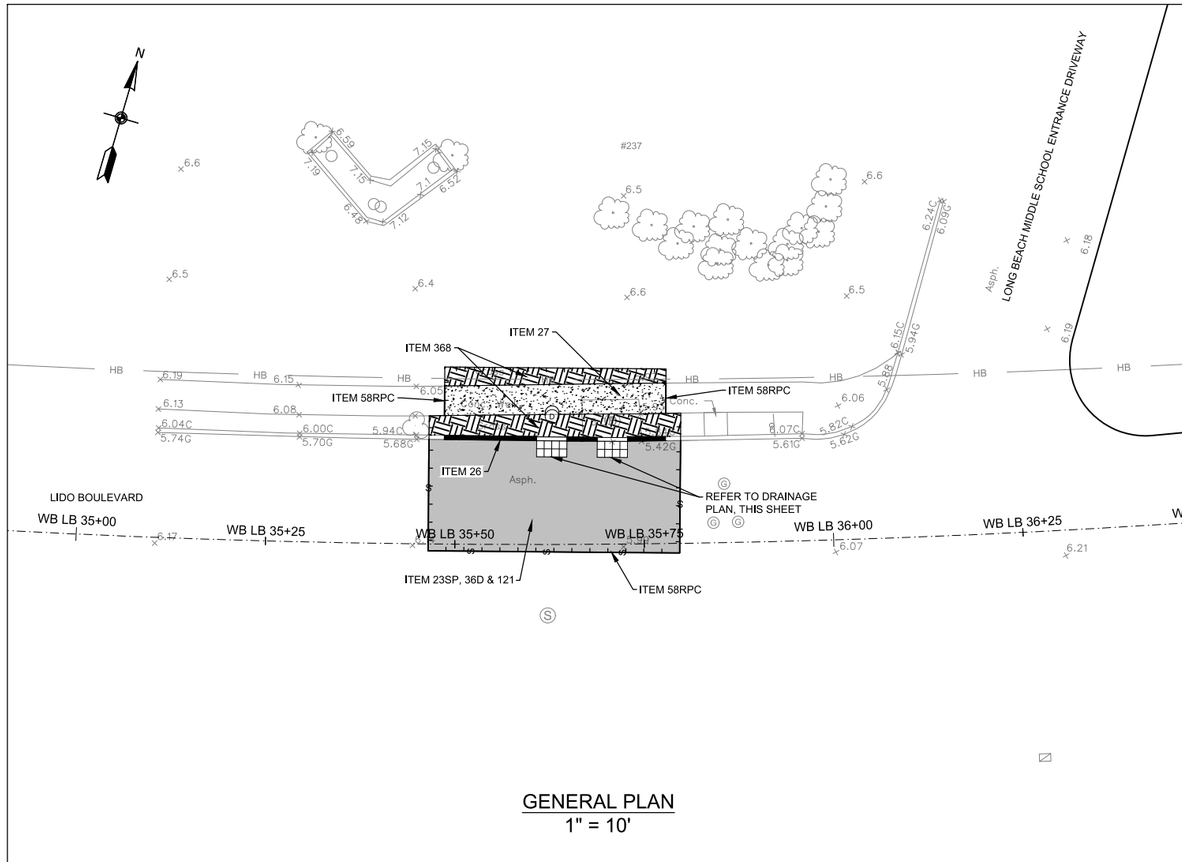
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

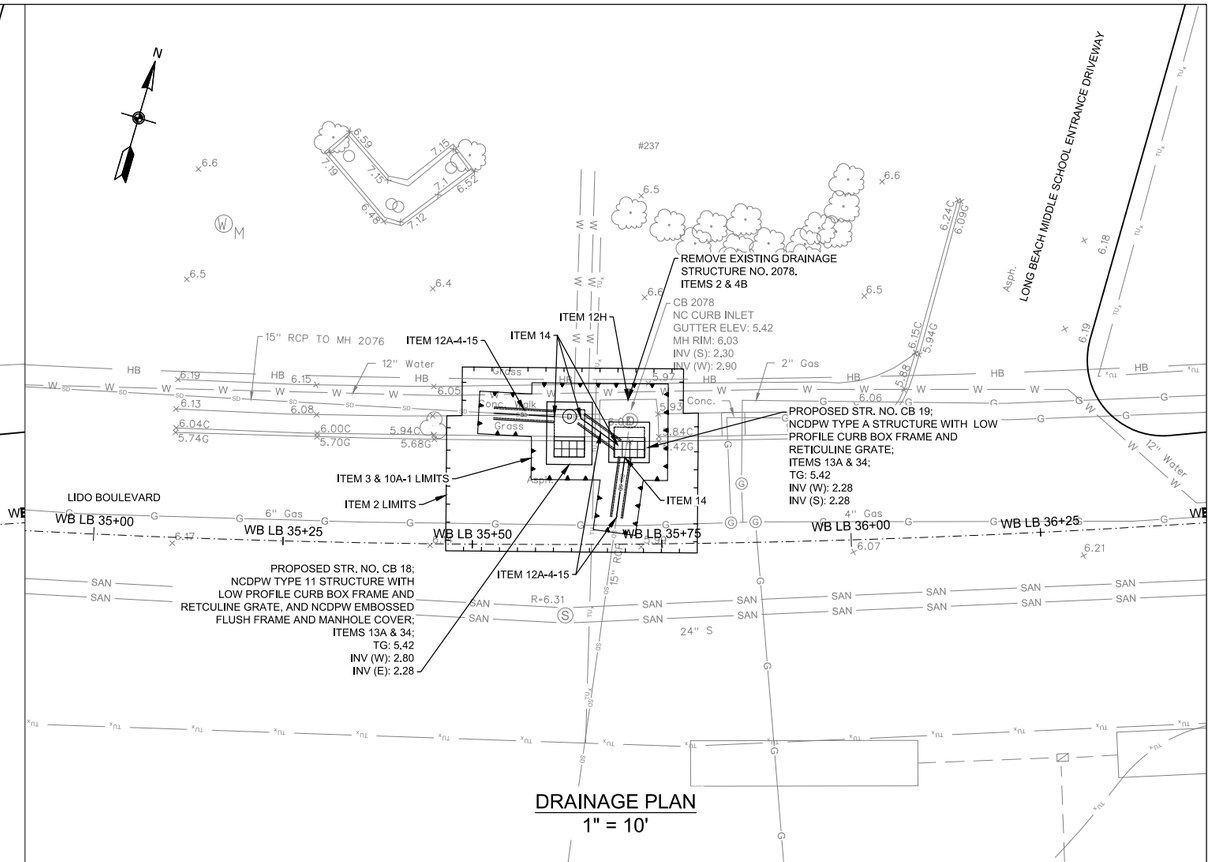
DRAWING TITLE:
CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
250 LIDO BLVD., LIDO BEACH, NY

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: CP-14	
SCALE: 1" = 10'	SHEET NO: 34 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-14.DWG
Plot Date: 1/31/2020 2:16 PM



GENERAL PLAN
1" = 10'



DRAINAGE PLAN
1" = 10'

NOTES

1. THE CONTRACTOR SHALL CLEAN ALL EXISTING DRAINAGE STRUCTURES TO INVENTORY AND VERIFY THE FOLLOWING PLAN INFORMATION: 1) NUMBER OF PIPES ENTERING/EXISTING THE EXISTING DRAINAGE STRUCTURE, EXISTING PIPE INVERTS AND DIAMETERS AND MATERIAL COMPOSITION OF EACH PIPE OBSERVED. CLEANING OF THE EXISTING DRAINAGE STRUCTURES SHALL BE PAID FOR UNDER ITEM 12 H - CLEANING EXISTING DRAINAGE SYSTEMS.

   ONCE ALL EXISTING DRAINAGE STRUCTURES HAVE BEEN CLEANED AND THE EXISTING PIPES INVENTORIED, THE CONTRACTOR SHALL PREPRE AND SUBMIT A REPORT OF THEIR FIELD FINDING TO THE ENGINEER FOR REVIEW. THE CONTRACTORS REPORT SHALL INDICATE CONFIRMATION, CONFLICT OR NEW INFORMATION FOUND IN COMPARISON TO THE INFORMATION PROVIDED ON THE PLANS, AND ALERT THE ENGINEER OF SAME.

   ONCE APPROVAL OF THE FIELD FINDINGS SUBMITTED BY THE CONTRACTOR HAVE BEEN ACCEPTED AND APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND DRILL SHEETS FOR ALL PROPOSED DRAINAGE STRUCTURES AND CATALOG CUTS FOR THE ORDERING OF PROPOSED IN-LINE CHECK VALVES. ALL WORK DESCRIBED ABOVE MUST BE COMPLETED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER PRIOR TO FABRICATION AND/OR PURCHASING OF ANY PROPOSED DRAINAGE STRUCTURES AND/OR CHECK VALVES. THE COST TO CONDUCT THE FIELD INVESTIGATION AND PREPARE AND SUBMIT THE FIELD REPORT OF FINDINGS SHALL BE INCLUDED IN THE VARIOUS CONTRACT ITEMS BID FOR THE PROJECT.

2. IN GENERAL, RESTORATION SHALL MATCH EXISTING GRADES AND MATERIALS, UNLESS OTHERWISE NOTED ON THE PLANS. ALL PAVEMENT RESTORATIONS SHALL BE GRADED TO DRAIN TO PROPOSED OR EXISTING DRAINAGE STRUCTURES.

3. EXISTING CURB RAMPS IMPACTED BY THE PROPOSED IMPROVEMENTS, AS SHOWN ON THE PLANS, SHALL BE REPLACED IN COMPLIANCE WITH WITH CURRENT ADA REQUIREMENTS.

4. THE CONTRACTOR SHALL INSTALL SILT PROTECTION FOR ALL SURFACE INLET DRAINAGE STRUCTURES POTENTIAL IMPACTED BY THE PROPOSED WORK AND/OR AOBE. PAYMENT FOR THIS WORK SHALL BE MADE UNDER ITEMS 141B OR ITEM 141C.

5. THE CONTRACTOR IS DIRECTED TO MISCELLANEOUS TABLES DRAWING NO. MST-02 FOR ADDITIONAL INFORMATION REGARDING DRAINAGE STRUCTURES.

6. THE CONTRACTOR IS DIRECTED TO THE GENERAL NOTES DRAWINGS GN-01 TO GN-02 FOR ADDITIONAL PROJECT INFORMATION.

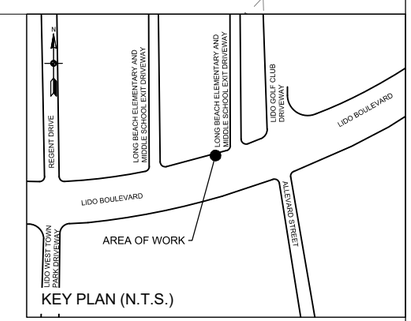
7. THE CONTRACTOR IS DIRECTED TO THE WORK ZONE TRAFFIC CONTROL DRAWINGS WZTCN-01 FOR ADDITIONAL INFORMATION REGARDING TRAFFIC MAINTENANCE AND SIGNING.

8. THE CONTRACTOR IS DIRECTED TO THE TABLE OF DRAINAGE STRUCTURES FOUND ON THE MISCELLANEOUS TABLES (MST) DRAWINGS FOR ADDITIONAL INFORMATION REGARDING THE EXISTING AND PROPOSED DRAINAGE WORK.

9. REFER TO THE MISCELLANEOUS DETAILS FOR ADDITIONAL INFORMATION REGARDING ITEMS OF WORK THAT ARE NOT SHOWN IN THE GENERAL NOR DRAINAGE PLANS.

TABLE OF WORK

ITEM	DESCRIPTION:	QTY	UNITS
2	UNCLASSIFIED EXCAVATION AND DISPOSAL / PLACEMENT	49	CY
3	TRENCH, CULVERT AND BRIDGE EXCAVATION	10	CY
4A	CEMENT CONCRETE BREAKING (PAVEMENT)	53	SY
4B	CEMENT CONCRETE BREAKING (STRUCTURES)	5	CY
5D	SELECTED GRANULAR FILL	31	CY
7	PREARING FINE GRADING	470	SF
10A-1	EXCAVATION PROTECTION SYSTEM	410	SF
12A-4-15	15" - REINFORCED CONCRETE PIPE, CLASS IV	22	LF
12H	CLEANING EXISTING DRAINAGE SYSTEM	1	EA
13A	CATCH BASINS	10	CY
14	CONNECTIONS TO EXISTING DRAINAGE FACILITIES	4	EA
23SP	CONCRETE FOUNDATION FOR PAVEMENT	11	CY
26	CONCRETE CURB	21	LF
27	CEMENT CONCRETE SIDEWALK	115	SF
34	MISCELLANEOUS METALS	2400	LB
36D	ASPHALT CONCRETE TYPE 1A (TOP & BINDER)	16	TON
58RPC	SAW CUTTING EXISTING ROADWAY PAVEMENT AND CONCRETE	70	LF
121	DRYBOUND BASE COURSE	9	CY
368	TOPSOIL AND GRASS SEED	18	SY



KEY PLAN (N.T.S.)

ALL SHEETS:

1. ALL ELEVATIONS SHOWN ARE IN NAVD 1988 DATUM.
2. UTILITY LOCATION QUALITY LEVEL C. REFER TO DRAWING NO. GN-01 FOR QUALITY LEVEL INFORMATION.
3. ALL EXISTING DRAINAGE STRUCTURE/OUTFALL NUMBERS ARE IN REFERENCE TO THE LIDO BEACH AND POINT LOOKOUT DRAINAGE STUDY (FEBRUARY, 2018)

0 10' 20'
SCALE IN FEET

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

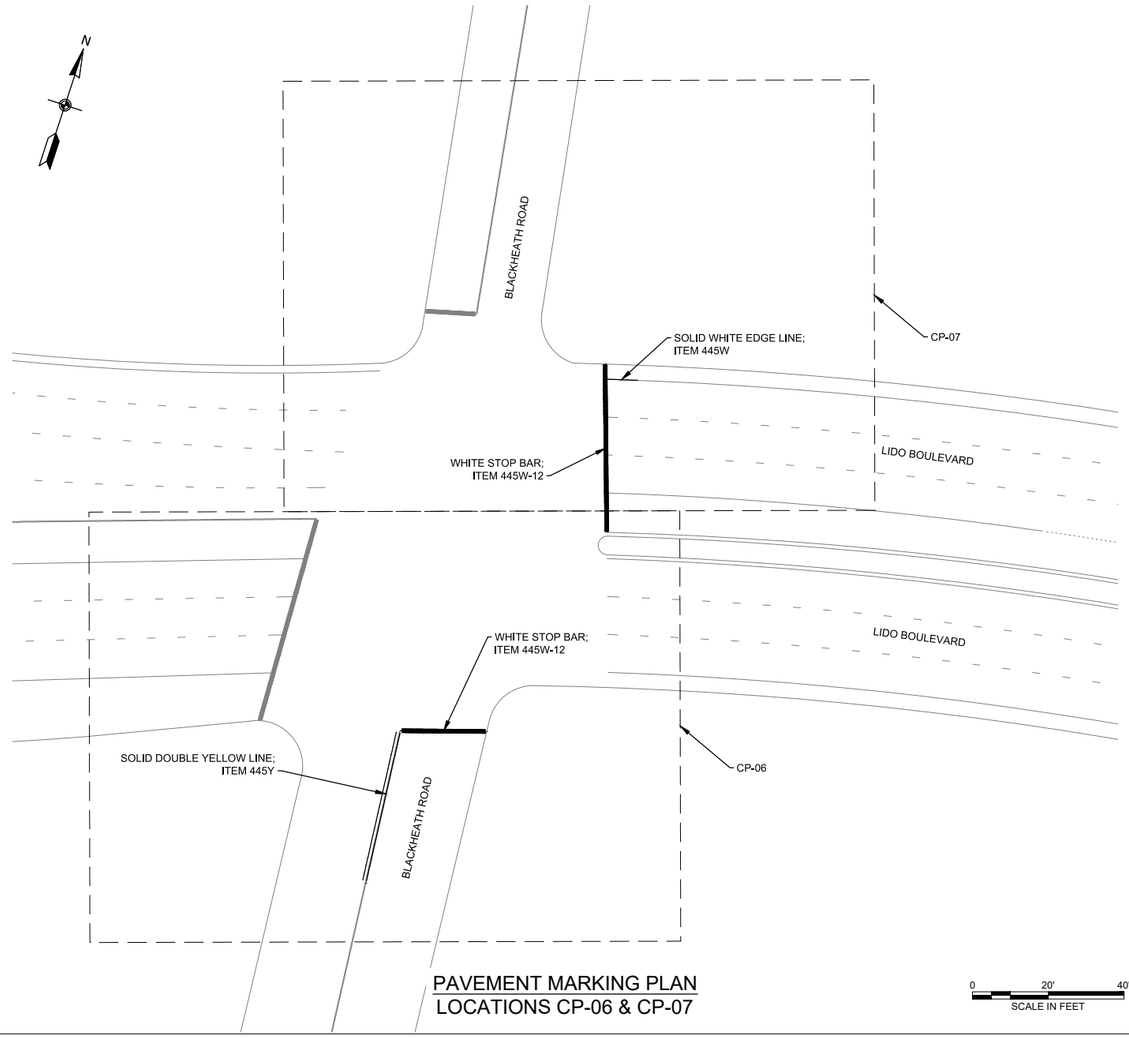
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: CONSTRUCTION PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.
235 LIDO BLVD., LIDO BEACH, NY

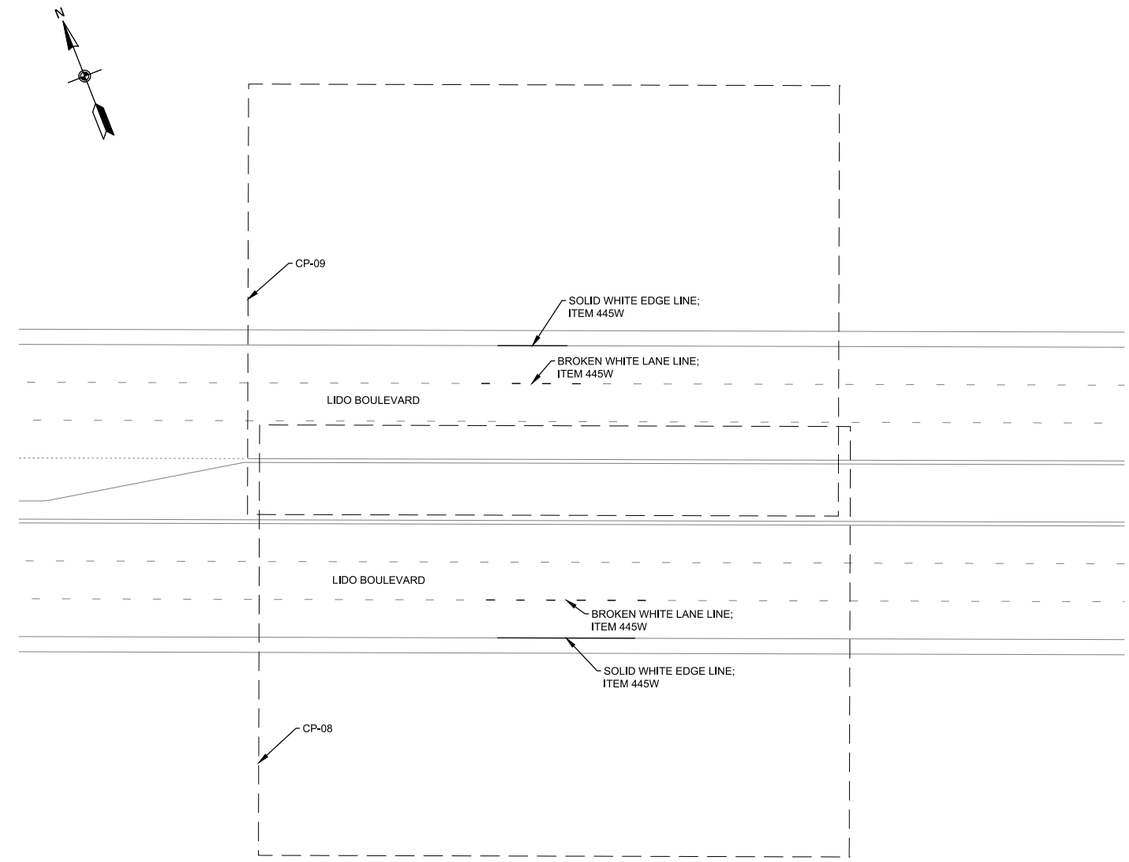
GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: CP-15	
SCALE: 1" = 10'	SHEET NO: 35 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\CONSTRUCTION PLANS\CP-15.DWG
Plot Date: 1/31/2020 2:17 PM



PAVEMENT MARKING PLAN
LOCATIONS CP-06 & CP-07

0 20' 40'
SCALE IN FEET



PAVEMENT MARKING PLAN
LOCATIONS CP-08 & CP-09

0 20' 40'
SCALE IN FEET

NOTES;

1. ALL PAVEMENT MARKING RESTORATION SHALL BE PERFORMED WITHIN THE PROPOSED LIMITS OF DISTURBANCE AND (OR) EXTENDED AS ORDERED BY THE ENGINEER.
2. ANY IMPACTS TO EXISTING STOP BARS SHALL RESULT IN THE REPLACEMENT OF THE ENTIRE STOP BAR IN KIND UNDER ITEM 445W-12.
3. ALL EXISTING PAVEMENT MARKINGS ANTICIPATED TO BE DISTURBED BY THE PROPOSED CONSTRUCTION ACTIVITIES SHALL BE SURVEYED BY THE CONTRACTOR PRIOR TO COMMENCING ANY WORK IN THE AREA. A COPY OF THE SURVEY SHALL BE PROVIDED TO THE ENGINEER. PAVEMENT MARKINGS SHALL BE RESTORED IN-KIND TO THEIR PRE-CONSTRUCTION LOCATIONS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE COST FOR THE SURVEY OF THE LOCATION OF THE PAVEMENT MARKINGS SHALL BE INCLUDED UNDER ITEM 136.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

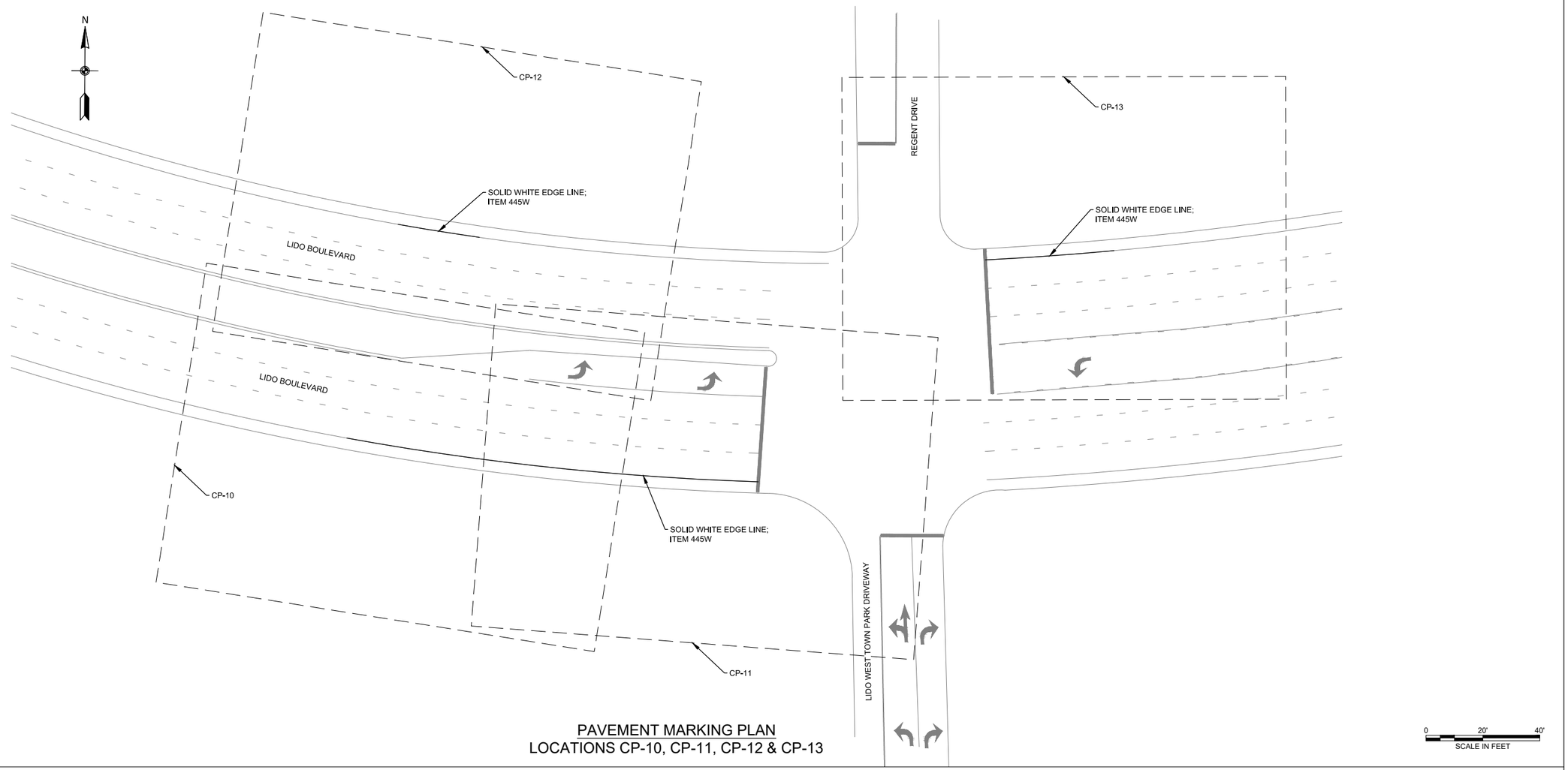
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE:
PAVEMENT MARKING PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: PMP-01	
SCALE: 1" = 20'	SHEET NO: 36 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\PAVEMENT MARKING PLANS\PMP-01.DWG
Plot Date: 1/31/2020 2:17 PM



PAVEMENT MARKING PLAN
LOCATIONS CP-10, CP-11, CP-12 & CP-13

NOTES;

1. ALL PAVEMENT MARKING RESTORATION SHALL BE PERFORMED WITHIN THE PROPOSED LIMITS OF DISTURBANCE AND (OR) EXTENDED AS ORDERED BY THE ENGINEER.
2. ANY IMPACTS TO EXISTING STOP BARS SHALL RESULT IN THE REPLACEMENT OF THE ENTIRE STOP BAR IN KIND UNDER ITEM 445W-12.
3. ALL EXISTING PAVEMENT MARKINGS ANTICIPATED TO BE DISTURBED BY THE PROPOSED CONSTRUCTION ACTIVITIES SHALL BE SURVEYED BY THE CONTRACTOR PRIOR TO COMMENCING ANY WORK IN THE AREA. A COPY OF THE SURVEY SHALL BE PROVIDED TO THE ENGINEER. PAVEMENT MARKINGS SHALL BE RESTORED IN-KIND TO THEIR PRE-CONSTRUCTION LOCATIONS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE COST FOR THE SURVEY OF THE LOCATION OF THE PAVEMENT MARKINGS SHALL BE INCLUDED UNDER ITEM 136.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

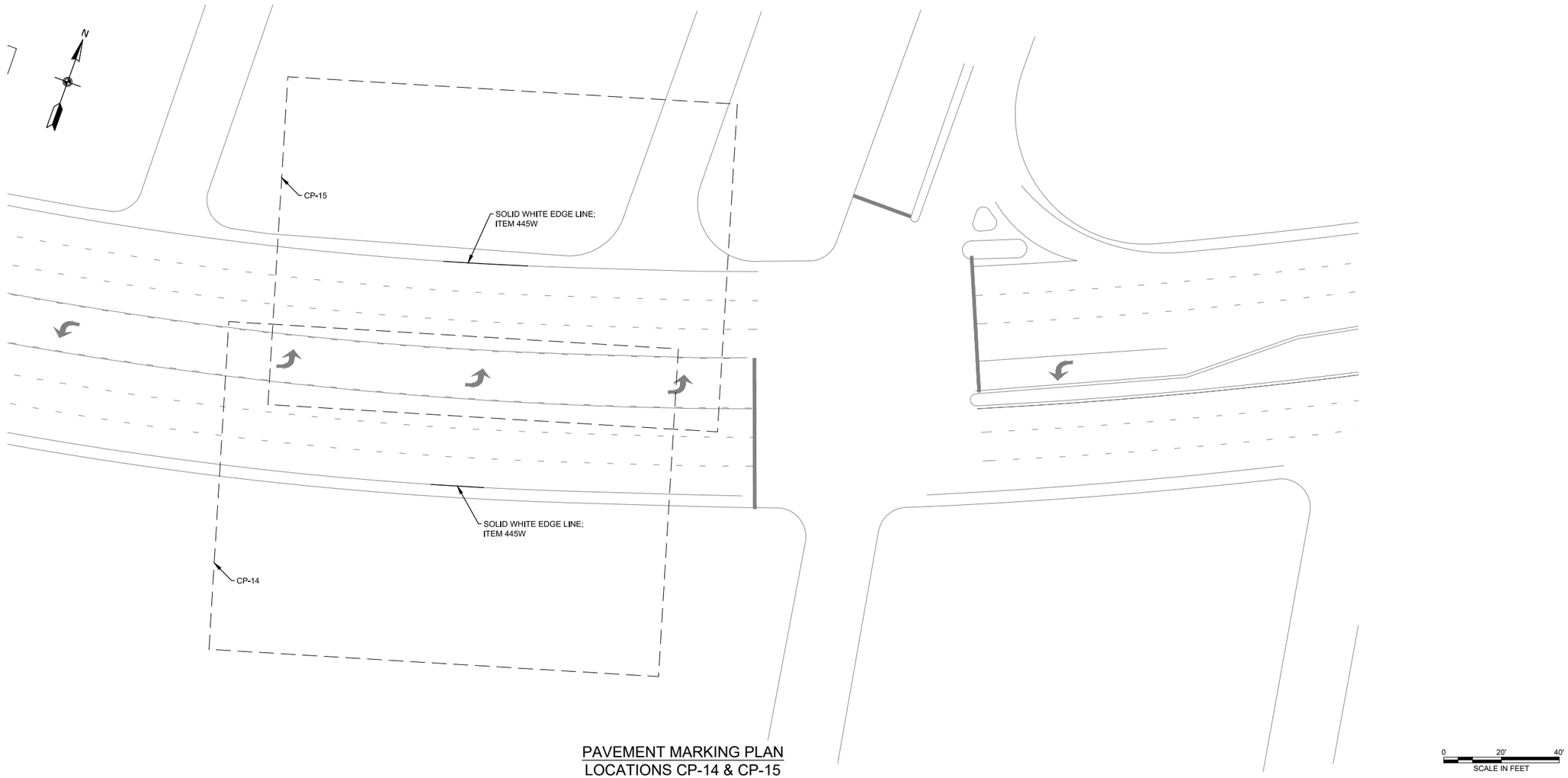
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE:
PAVEMENT MARKING PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: PMP-02	
SCALE: 1" = 20'	SHEET NO: 37 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\PAVEMENT MARKING PLANS\PMP-02.DWG
Plot Date: 1/31/2020 2:17 PM



PAVEMENT MARKING PLAN
LOCATIONS CP-14 & CP-15

NOTES;

1. ALL PAVEMENT MARKING RESTORATION SHALL BE PERFORMED WITHIN THE PROPOSED LIMITS OF DISTURBANCE AND (OR) EXTENDED AS ORDERED BY THE ENGINEER.
2. ANY IMPACTS TO EXISTING STOP BARS SHALL RESULT IN THE REPLACEMENT OF THE ENTIRE STOP BAR IN KIND UNDER ITEM 445W-12.
3. ALL EXISTING PAVEMENT MARKINGS ANTICIPATED TO BE DISTURBED BY THE PROPOSED CONSTRUCTION ACTIVITIES SHALL BE SURVEYED BY THE CONTRACTOR PRIOR TO COMMENCING ANY WORK IN THE AREA. A COPY OF THE SURVEY SHALL BE PROVIDED TO THE ENGINEER. PAVEMENT MARKINGS SHALL BE RESTORED IN-KIND TO THEIR PRE-CONSTRUCTION LOCATIONS UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE COST FOR THE SURVEY OF THE LOCATION OF THE PAVEMENT MARKINGS SHALL BE INCLUDED UNDER ITEM 136.

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\PAVEMENT MARKING PLANS\PMP-03.DWG
Plot Date: 1/31/2020 2:17 PM

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME:
LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS
COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE:
PAVEMENT MARKING PLAN
DRAINAGE IMPROVEMENTS ALONG LIDO BLVD.

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: PMP-03	
SCALE: 1" = 20'	SHEET NO: 38 OF 46	

WORK ZONE TRAFFIC CONTROL NOTES:

1. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE FOLLOWING TWO SPECIAL NOTES IN THE CONTRACT DOCUMENTS SPECIFICALLY REGARDING WORK ON LIDO BOULEVARD:

   SPECIAL NOTE "TEMPORARY LANE/SHOULDER CLOSURE RESTRICTIONS FOR MAJOR HOLIDAYS". NO LANE CLOSURES WILL BE ALLOWED ON WEEKENDS AND ON THE FOLLOWING DAYS:

   -NEW YEARS DAY
   -MEMORIAL DAY
   -INDEPENDENCE DAY
   -LABOR DAY
   -THANKSGIVING DAY
   -CHRISTMAS DAY

2. FOR THE HOLIDAY RESTRICTIONS NOTED IN THE SPECIAL NOTE THERE CAN BE NO PRESENCE ON THE ROAD UNLESS OTHERWISE NOTED ON CONTRACT PLANS.

3. UNLESS OTHERWISE STATED ON THE CONTRACT DOCUMENTS, PLANS OR ADVISED, NO LANE CLOSURES WILL BE ALLOWED ON WEEKENDS.

4. FOR LIDO BOULEVARD:

   A. A SINGLE LANE OR MULTI-LANE CLOSURE IS ALLOWED BETWEEN 10 AM AND 3 PM.

   B. FULL ROAD CLOSURES ARE NOT PERMITTED.

5. CONTRACTORS MUST PLACE PORTABLE VMS, AT APPROPRIATE PLACE(S) WITHIN THE CONTRACT LIMIT, AT LEAST FORTY-EIGHT (48) HOURS IN ADVANCE, TO PROVIDE ADVANCE NOTIFICATION TO MOTORISTS ABOUT POSSIBLE LANE CLOSURES.

WORK ZONE TRAFFIC CONTROL GUIDELINES:

1. WORK ZONE TRAFFIC CONTROL SCHEMES SHALL BE IN ACCORDANCE WITH THE PLANS, NYSDOT STANDARD SHEETS, THE NATIONAL MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (MUTCD) AND 17 NYCRR CHAPTER V (NEW YORK SUPPLEMENT), SIGN DRAWINGS AND OTHER EXHIBITS OF THE DOCUMENT AS ORDERED BY THE ENGINEER (AOBE).

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK ZONE TRAFFIC CONTROL. WORK ZONE TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE PLANS, NYSDOT STANDARD SHEETS, THE MUTCD, AND AS APPROVED OR DIRECTED BY THE ENGINEER. TRAFFIC SCHEMES SHOWN ON THE PLANS OR IN THE MUTCD ARE TO BE CONSIDERED MINIMUM REQUIREMENTS. THE ENGINEER MAY ORDER ADDITIONAL SIGNS, FLAGGERS, CONES, REFLECTORIZATION ETC., IF NECESSARY, AT NO ADDITIONAL COST TO THE COUNTY. PAYMENT FOR ALL SUCH WORK SHALL BE INCLUDED IN THE ITEMS FOR WORK ZONE TRAFFIC CONTROL AS APPROPRIATE.

3. THE CONTRACTOR MAY SUBMIT REVISIONS TO THIS PLAN FOR THE FOR APPROVAL BY THE COUNTY OR THE ENGINEER. THIS SHALL BE AT NO ADDITIONAL COST TO THE COUNTY.

4. UNDIVIDED HIGHWAYS: THE CONTRACTOR SHALL NOT WORK ON BOTH SIDES OF THE ROADWAY IN THE SAME AREA AT THE SAME TIME.

5. DIVIDED HIGHWAYS: THE CONTRACTOR SHALL NOT WORK ON BOTH SIDES OF ONE-WAY TRAFFIC (e.g. ON THE SHOULDER AND IN THE MEDIAN) IN THE SAME AREA AT THE SAME TIME.

6. WHEN THE CONTRACTOR IS WORKING WITHIN 15 FT OF A TRAVELED LANE, THE ENGINEER MAY REQUIRE THE ADJACENT TRAVEL LANE TO BE CLOSED.

7. WHENEVER WORK ZONE TRAFFIC CONTROL SCHEMES PROVIDING FOR ONE-LANE ROAD OPERATION ARE IN EFFECT, THE CONTRACTOR SHALL POSITION FLAGGERS, AT THE LIMITS OF THE ONE-LANE ROAD OPERATION, AT ALL CROSS STREETS WITHIN THE ONE-LANE ROAD OPERATION, AT MAJOR DRIVEWAYS AND SUCH OTHER LOCATIONS AS REQUIRED BY THE ENGINEER TO CONTROL TRAFFIC. FLAGGERS SHALL BE EQUIPPED WITH TWO-WAY RADIOS, IN ACCORDANCE WITH CHAPTER 6E OF THE MUTCD AND SUBSECTION 619-3.02L OF THE STANDARD SPECIFICATIONS, WHERE IN THE OPINION OF THE ENGINEER THE USAGE OF SUCH RADIOS IS NECESSARY TO CONTROL TRAFFIC. SUCH RADIOS SHALL HAVE SUFFICIENT TRANSMITTING POWER TO REACH ALL POINTS WITHIN THE LENGTH OF THE ONE-LANE ROAD OPERATION. PAYMENT FOR THE USE OF SUCH RADIOS SHALL BE INCLUDED IN THE BASIC WORK ZONE TRAFFIC CONTROL ITEM 102.

8. WHEN CONES ARE USED IN CONTROLLING THE MOVEMENT OF TRAFFIC THROUGH WORK AREAS, THE CONTRACTOR SHALL TAKE STEPS AS NECESSARY TO PREVENT THE CONES FROM BEING BLOWN OVER OR DISPLACED BY PASSING VEHICLES.

9. THE CONTRACTOR MUST NOTIFY THE ENGINEER, NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS, NASSAU COUNTY POLICE DEPARTMENT, TOWN OF HEMPSTEAD, AND THE CITY OF LONG BEACH, POLICE, FIRE DEPARTMENTS AND LIDO BEACH SCHOOL DISTRICT OF ALL DETOURS, PROPOSED STREET CLOSINGS, OR ANY WORK THAT MIGHT AFFECT THE MOBILITY OR ACCESS OF THE FIRE OR POLICE DEPARTMENT 72 HOURS IN ADVANCE OF THEIR IMPLEMENTATION. IN ADDITION, THE CONTRACTOR SHALL ENSURE THAT HYDRANTS AND ALARM BOXES ARE KEPT CLEAR AND AVAILABLE.

10. ALONG THE DETOUR ROUTE, THE CONTRACTOR'S RESPONSIBILITY IS LIMITED TO THE PLACEMENT, MAINTENANCE AND REMOVAL OF DETOUR SIGNS AND DEVICES AND A DAILY PATROL TO MAKE SURE THEY ARE IN GOOD CONDITION. WHEN THE DETOUR IS NOT IN EFFECT, THE CONTRACTOR SHALL IMMEDIATELY MOVE, REMOVE OR TEMPORARILY COVER ALL DETOUR SIGNS, TO REFLECT ACTUAL CONDITIONS.

11. VARIOUS MAINTENANCE AND CONSTRUCTION SIGNS SPECIFIED IN PART 6 OF THE MUTCD ARE AVAILABLE IN THE STANDARD DIAMOND SHAPE AND AN ALTERNATE RECTANGULAR SHAPE. WHENEVER SUCH SIGNS ARE INCLUDED IN THIS CONTRACT, THE DIAMOND SHAPE SIGN SHALL BE USED, DESPITE OTHER INDICATIONS IN CHAPTER 6F.

12. THE CONTRACTOR'S ATTENTION IS DIRECTED TO CHAPTER 6F, SECTION 6F.02 OF THE MUTCD, WHICH REQUIRES THAT WITH THE EXCEPTION OF THE RAILROAD ADVANCED WARNING SIGN, WARNING SIGNS USED IN CONJUNCTION WITH WORK ZONE ACTIVITIES SHOULD HAVE ORANGE BACKGROUNDS.

13. IN ADDITION TO THE SIGNING SHOWN ON THE PLANS, THE CONTRACTOR SHALL ERECT W20-1 "ROAD WORK AHEAD" SIGNS AT INTERSECTING CROSS STREETS OR ENTERING RAMPS WITHIN THE CONTRACT LIMITS. PAYMENT FOR THESE SIGNS WILL BE MADE UNDER THE ITEM 102.

14. THE CONTRACTOR IS ADVISED THAT EXISTING TRAFFIC SIGNS AND CONSTRUCTION SIGNS WITHIN THE WORK AREA, WHICH ARE NO LONGER NEEDED, EVEN TEMPORARILY, OR ARE CONFLICTING, INAPPROPRIATE OR CONFUSING, SHALL BE REMOVED (SUBJECT TO THE APPROVAL OF THE ENGINEER) OR SHALL BE COVERED COMPLETELY WITH AN OPAQUE MATERIAL. THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE WORK ZONE TRAFFIC CONTROL ITEM.

15. IN ADDITION TO THE SIGNING REQUIRED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), THE CONTRACTOR SHALL USE A FLASHING ARROW PANEL, PAID UNDER ITEM 102, POSITIONED AT THE BEGINNING OF TAPER FOR ALL TRAVEL LANE CLOSINGS. ONE FLASHING ARROW PANEL/BOARD WILL BE REQUIRED IN CONJUNCTION WITH THE LANE CLOSURE SHOWN IN THE MUTCD, FIGURE 6H-33 OR OTHER ARRANGEMENTS, WHICHEVER IS APPLICABLE. THE FLASHING ARROW PANEL WILL NOT BE REQUIRED IN CONNECTION WITH SHOULDER CLOSINGS OR SIDE STREET LANE CLOSURES UNLESS THE ENGINEER ORDERS ITS USE.

16. ARROW PANELS SHALL DISPLAY A FLASHING ARROW FOR LANE CLOSURES. OTHER OPERATIONAL MODES SUCH AS SEQUENTIAL CHEVRONS, SEQUENTIAL ARROWS OR STEM ARROWS, ARE EXPLICITLY PROHIBITED FOR THESE APPLICATIONS, AND SHALL NOT BE USED ON DEPARTMENT PROJECTS.

    ARROW PANELS SHALL NOT BE USED FOR LANE SHIFTS. A LANE SHIFT IS DEFINED AS A LATERAL SHIFT IN THE TRAVEL PATH WITHOUT A REDUCTION IN NUMBER OF LANES.

17. UNDER THE PROVISIONS OF ITEM 102, THE LAMPS OF FLASHING ARROW PANELS TO BE EQUIPPED WITH AN AUTOMATIC SOLAR CELL CONTROLLED DIMMING SWITCH AND THAT THE DIMMING VOLTAGE BE MANUALLY CONTROLLABLE. AT NIGHT, FLASHING ARROW PANELS MUST NOT BE PERMITTED TO OPERATE AT SUCH BRIGHTNESS THAT SIGNS, DRUMS, IMPACT ATTENUATION DEVICES OR OTHER TRAFFIC CONTROL DEVICES NEAR THE FLASHING ARROW PANEL CANNOT EASILY BE SEEN BY APPROACHING MOTORISTS. TO ENSURE THAT FLASHING ARROW PANELS ARE NOT TOO BRIGHT FOR NIGHTTIME OPERATION, THE CONTRACTOR SHALL MAKE AN ON SITE INSPECTION OF EACH ARROW PANEL/BOARD AT THE BEGINNING OF ITS FIRST NIGHT OF OPERATION. IN THE EVENT THIS INSPECTION REVEALS THE ARROW PANEL IS TOO BRIGHT, THE CONTRACTOR SHALL TAKE IMMEDIATE ACTION TO REDUCE LAMP INTENSITIES. IN ADDITION, THE CONTRACTOR SHALL PROMPTLY REDUCE THE LAMP INTENSITY OF ANY ARROW PANEL UPON BEING INFORMED BY THE ENGINEER THAT IT IS TOO BRIGHT. IN THIS CONTEXT, PROMPTLY SHALL MEAN NO LATER THAN THE BEGINNING OF THE NEXT NIGHT OF THE ARROW PANEL'S OPERATION.

    THE COST OF THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR ITEM 102. FAILURE TO COMPLY WITH THIS NOTE SHALL BE CONSIDERED AS UNSATISFACTORY WORK ZONE TRAFFIC CONTROL WITH PAYMENT DEDUCTIONS MADE IN ACCORDANCE WITH THE APPROPRIATE SUBSECTION OF ITEM 102.

18. IN ADDITION TO THE DEVICES SHOWN IN THE MUTCD AND THE PLANS, BARRIER VEHICLES (AS PROVIDED FOR UNDER SUBSECTION 619_1.02G) AND MOBILE CONSTRUCTION ZONE IMPACT ATTENUATORS (AS SPECIFIED UNDER SECTION 729-12 OF THE SPECIFICATIONS) SHALL BE PROVIDED WHERE WORK IS LOCATED IN A CLOSED SHOULDER OR TRAVEL LANE ADJACENT TO TRAFFIC AT ISOLATED OR FIXED LOCATIONS WITHIN THE WORK ZONE. THE BARRIER VEHICLE SHALL ONLY BE USED WHEN WORKERS AND/OR EQUIPMENT ARE ACTUALLY OCCUPYING THE SITE OF WORK. THE BARRIER VEHICLE SHALL BE POSITIONED TO PROTECT THE WORKERS IN THE EVENT OF A WORK ZONE INTRUSION. BARRIER VEHICLES MAY NOT BE REQUIRED WHERE THE WORK OPERATION TAKES PLACE OVER AN EXTENDED AREA SUCH AS FOR PAVING, JOINT SEALING, OR PAVEMENT REPAIR OPERATIONS (EXCEPT WHEN SUCH WORK TAKES PLACE WITHIN 1200 FT OF THE BEGINNING OF A LANE CLOSURE) OR WHERE WORKERS ARE PROTECTED BY THE USE OF CONCRETE BARRIER OR ON SIDE STREET LANE CLOSURES. THE COST OF THIS WORK IS TO BE INCLUDED UNDER THE ITEM FOR WORK ZONE TRAFFIC CONTROL.

19. THE CONTRACTOR SHALL SCHEDULE HIS/HER OPERATIONS TO MINIMIZE THE INTERRUPTION OF PEDESTRIAN TRAFFIC. THE SIDEWALK ON ONE SIDE OF THE ROADWAY SHALL REMAIN OPEN AND PASSABLE AT ALL TIMES. DURING THE RECONSTRUCTION OF SIDEWALKS, PEDESTRIAN SAFETY AND PROPERTY ACCESS MUST BE MAINTAINED AT ALL TIMES TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL PLACE ALL UNDERGROUND APPURTENANCES UNDER THE SIDEWALK FIRST.

    AT LOCATIONS WHERE EXISTING SIDEWALK IS CLOSED, THE CONTRACTOR SHALL PLACE A TYPE III BARRICADE WITH MUTCD R9-9 "SIDEWALK CLOSED" SIGN. WHEN SIDEWALK IS CLOSED AT A MID-BLOCK LOCATION, THE CONTRACTOR SHALL PLACE MUTCD R9-11 "SIDEWALK CLOSED AHEAD", (ARROW) "CROSS HERE" SIGN AT THE CLOSEST SAFE CROSSING.

20. ADA COMPLIANT ACCESSIBILITY FOR PEDESTRIANS SHALL BE MAINTAINED AT ALL TIMES, AS PER STANDARD SHEETS 619-50 AND 619-51.

21. WHERE NECESSARY, OR AS REQUIRED BY THE ENGINEER, THE CONTRACTOR SHALL UTILIZE FLAGGERS AT DRIVEWAYS TO CONTROL TRAFFIC ENTERING THE TRAVEL WAY.

WORK ZONE TRAFFIC CONTROL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	ARROW PANEL		DIRECTION OF TRAFFIC
	ARROW PANEL, CAUTION MODE		SIGN, TEMPORARY
	ARROW PANEL TRAILER OR SUPPORT		TYPE III BARRICADE
	CHANGEABLE MESSAGE SIGN (PVMS)		WORK SPACE
	CHANNELIZING DEVICE		WORK VEHICLE WITH TRUCK MOUNTED ATTENUATOR

SUGGESTED CONSTRUCTION SEQUENCING ALONG LIDO BLVD

SEQUENCE	WZTC DRAWINGS	APPLICABLE CONSTRUCTION PLAN
1	WZTC-1-1	CP-06
2	WZTC-2-1	CP-07
3	WZTC-3-1	CP-08
4	WZTC-4-1	CP-09
5	WZTC-5-1 TO WZTC-5-2	CP-10,11 & 14
6	WZTC-6-1 TO WZTC-6-2	CP-12, 13 & 15

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

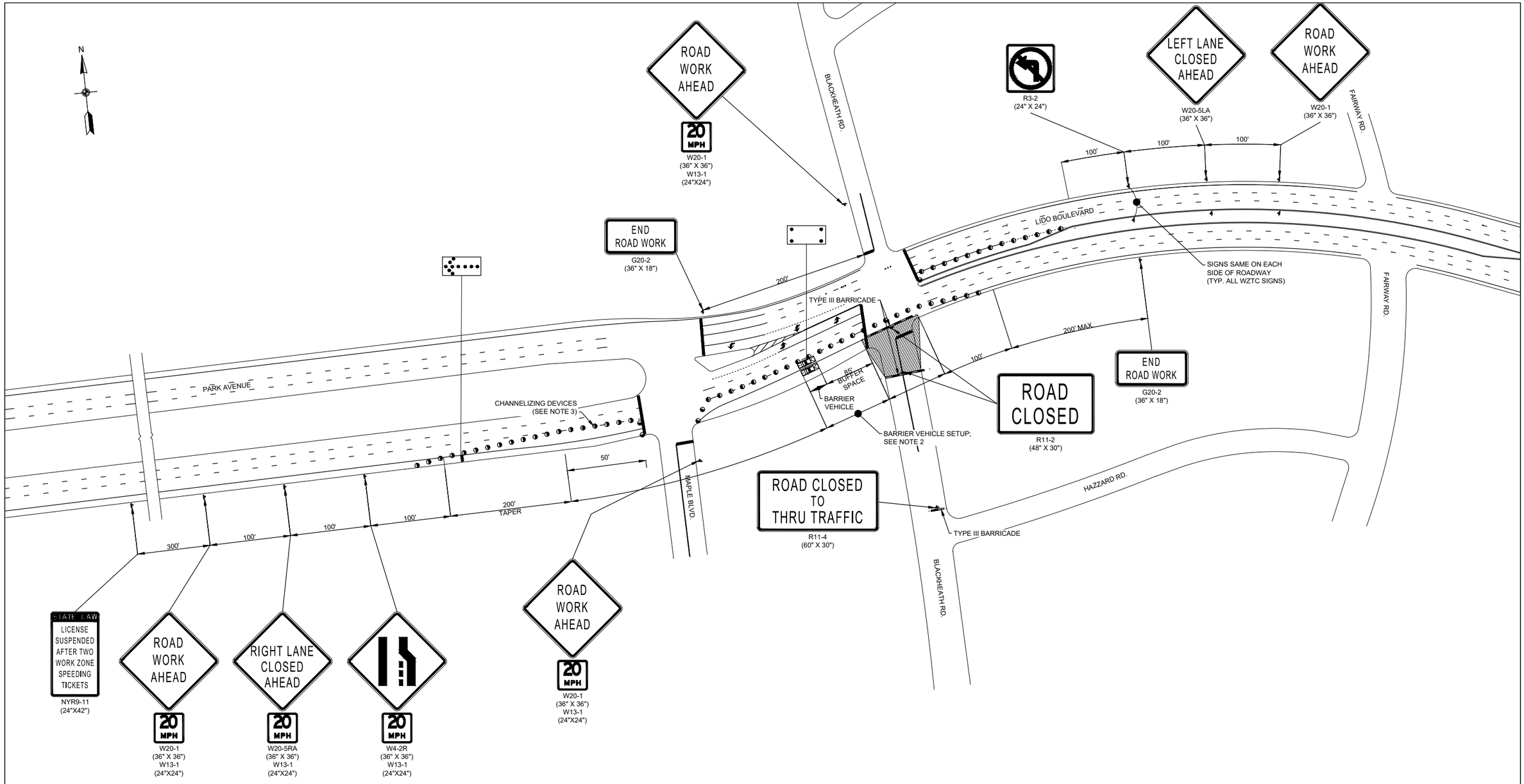
CLIENT: NASSAU COUNTY DEPARTMENT OF PUBLIC WORKS 1194 PROSPECT AVENUE WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: WORK ZONE TRAFFIC CONTROL NOTES

GPI JOB NO: 2018042.00
CONTRACT NO: H60052-01D
PHASE: 95%
DATE: 01/31/2020
DRAWING NO: WZTCN-01
SCALE: -
SHEET NO: 39 OF 46

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTCN-01.DWG
Plot Date: 1/31/2020 2:17 PM



NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION.
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR IN AND (OR) OCCUPY THE BUFFER SPACE BETWEEN THE WORK AREA AND THE BARRIER VEHICLE SET UP AT ANY TIME.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' ON TANGENT RUNS OR 20 FEET ON TAPERED RUNS.
4. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. REFER TO NYSDOT STANDARD SHEETS 619-50 AND 619-51 AND MUTCD FIGURES 6H-28 AND 6H-29 FOR GUIDANCE TO MAINTAIN PEDESTRIAN TRAFFIC. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW THE PROPOSED METHOD TO MAINTAIN PEDESTRIAN TRAFFIC AND RECEIVE APPROVAL FROM THE ENGINEER PRIOR TO COMMENCING ANY WORK AFFECTING PEDESTRIANS.

WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 1 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NOS. 03, 04 & 05
NOT TO SCALE

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

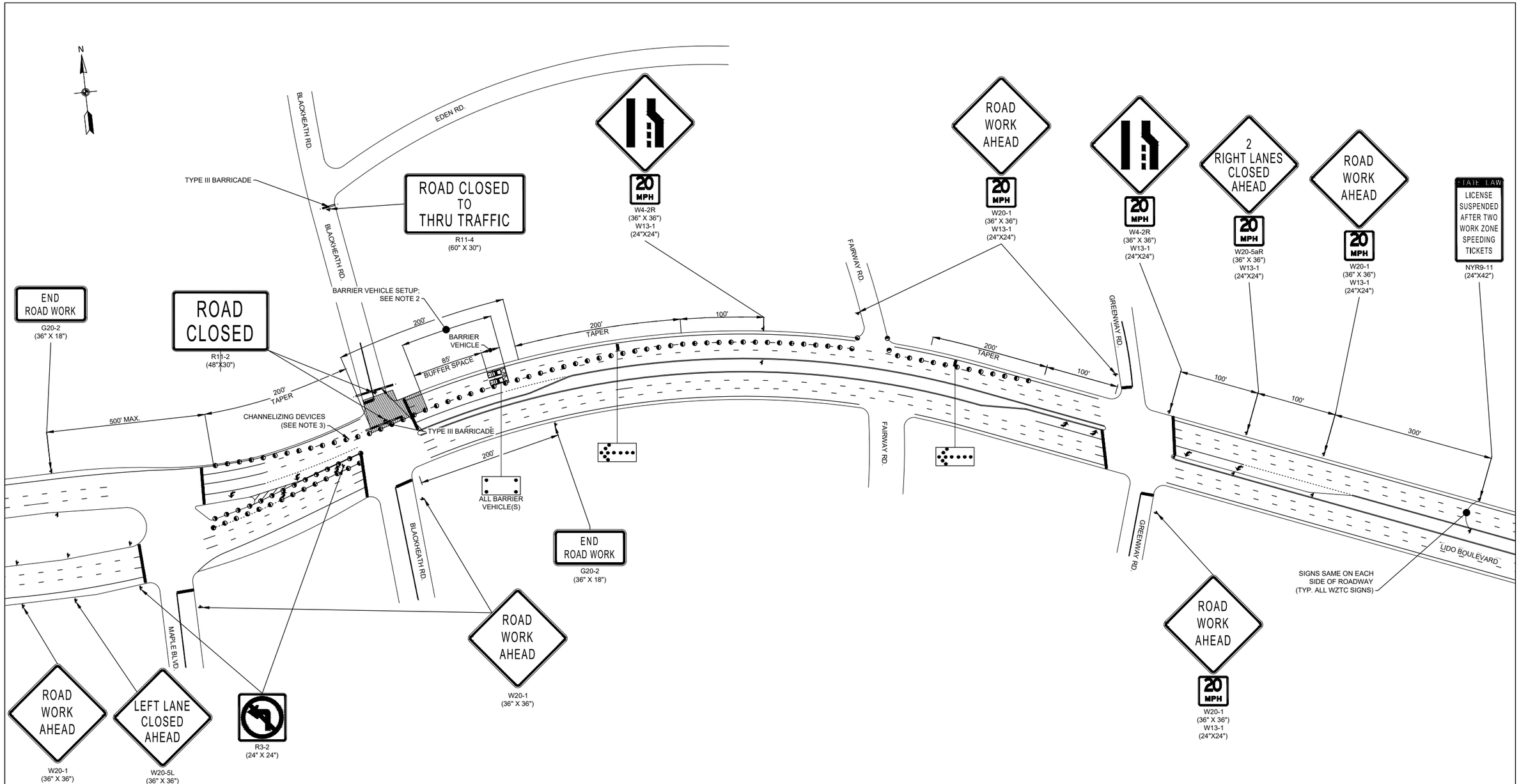
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: WZTC - SEQUENCE 1 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: WZTC-1-1	
SCALE: N.T.S.	SHEET NO: 40 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-1-1.DWG
Plot Date: 1/31/2020 2:17 PM



NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION.
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR IN AND (OR) OCCUPY THE BUFFER SPACE BETWEEN THE WORK AREA AND THE BARRIER VEHICLE SET UP AT ANY TIME.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' ON TANGENT RUNS OR 20 FEET ON TAPERED RUNS.
4. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. REFER TO NYSDOT STANDARD SHEETS 619-50 AND 619-51 AND MUTCD FIGURES 6H-28 AND 6H-29 FOR GUIDANCE TO MAINTAIN PEDESTRIAN TRAFFIC. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW THE PROPOSED METHOD TO MAINTAIN PEDESTRIAN TRAFFIC AND RECEIVE APPROVAL FROM THE ENGINEER PRIOR TO COMMENCING ANY WORK AFFECTING PEDESTRIANS.

WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 2 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO. 6
NOT TO SCALE

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

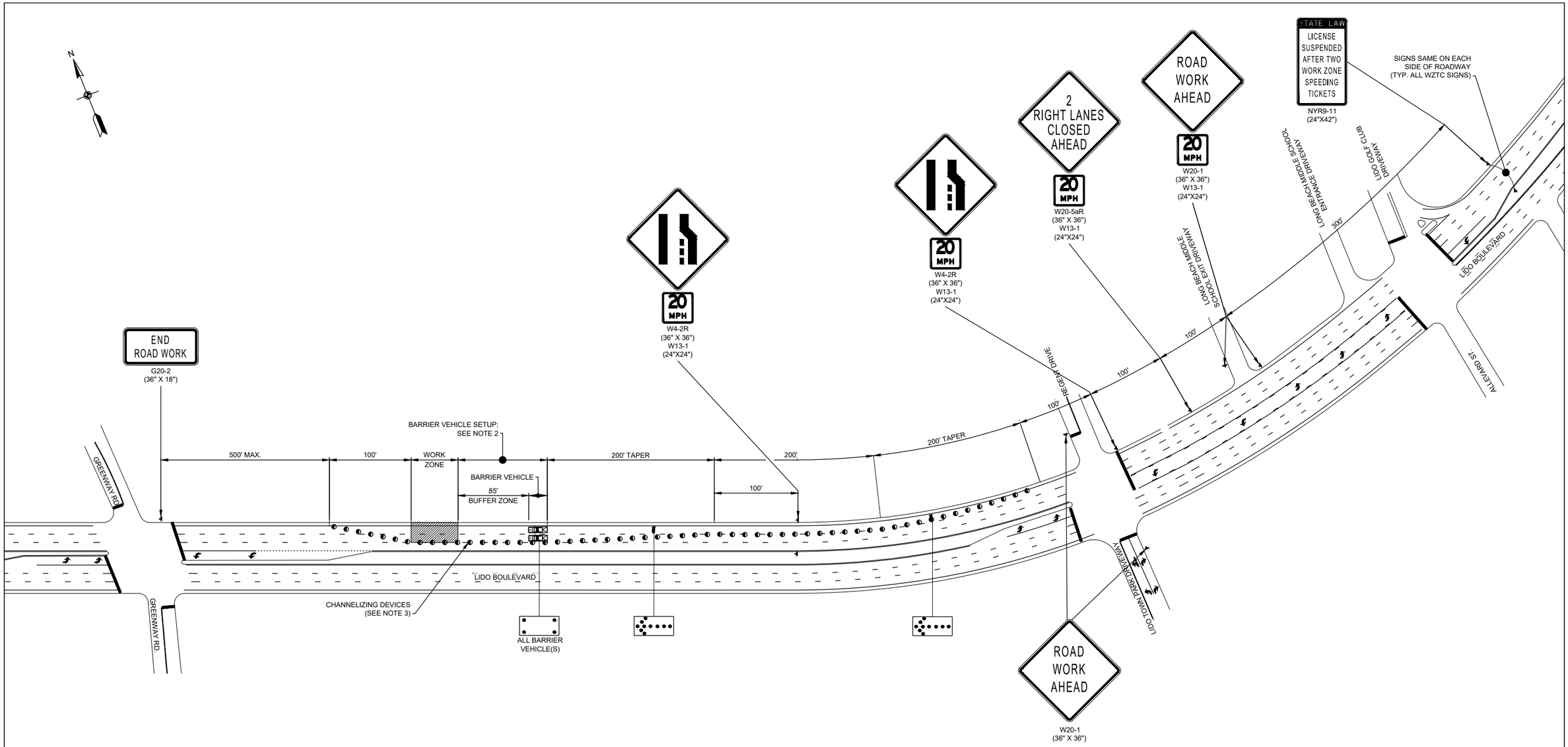
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: WZTC - SEQUENCE 2 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: WZTC-2-1	
SCALE: N.T.S.	SHEET NO: 41 OF 46	

File Name: O:\2018\BAB-20180042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-2-1.DWG
Plot Date: 1/31/2020 2:17 PM



NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION.
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR IN AND (OR) OCCUPY THE BUFFER SPACE BETWEEN THE WORK AREA AND THE BARRIER VEHICLE SET UP AT ANY TIME.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' ON TANGENT RUNS OR 20 FEET ON TAPERED RUNS.
4. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. REFER TO NYSDOT STANDARD SHEETS 619-50 AND 619-51 AND MUTCD FIGURES 6H-28 AND 6H-29 FOR GUIDANCE TO MAINTAIN PEDESTRIAN TRAFFIC. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW THE PROPOSED METHOD TO MAINTAIN PEDESTRIAN TRAFFIC AND RECEIVE APPROVAL FROM THE ENGINEER PRIOR TO COMMENCING ANY WORK AFFECTING PEDESTRIANS.

WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 3 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO. 08
NOT TO SCALE

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

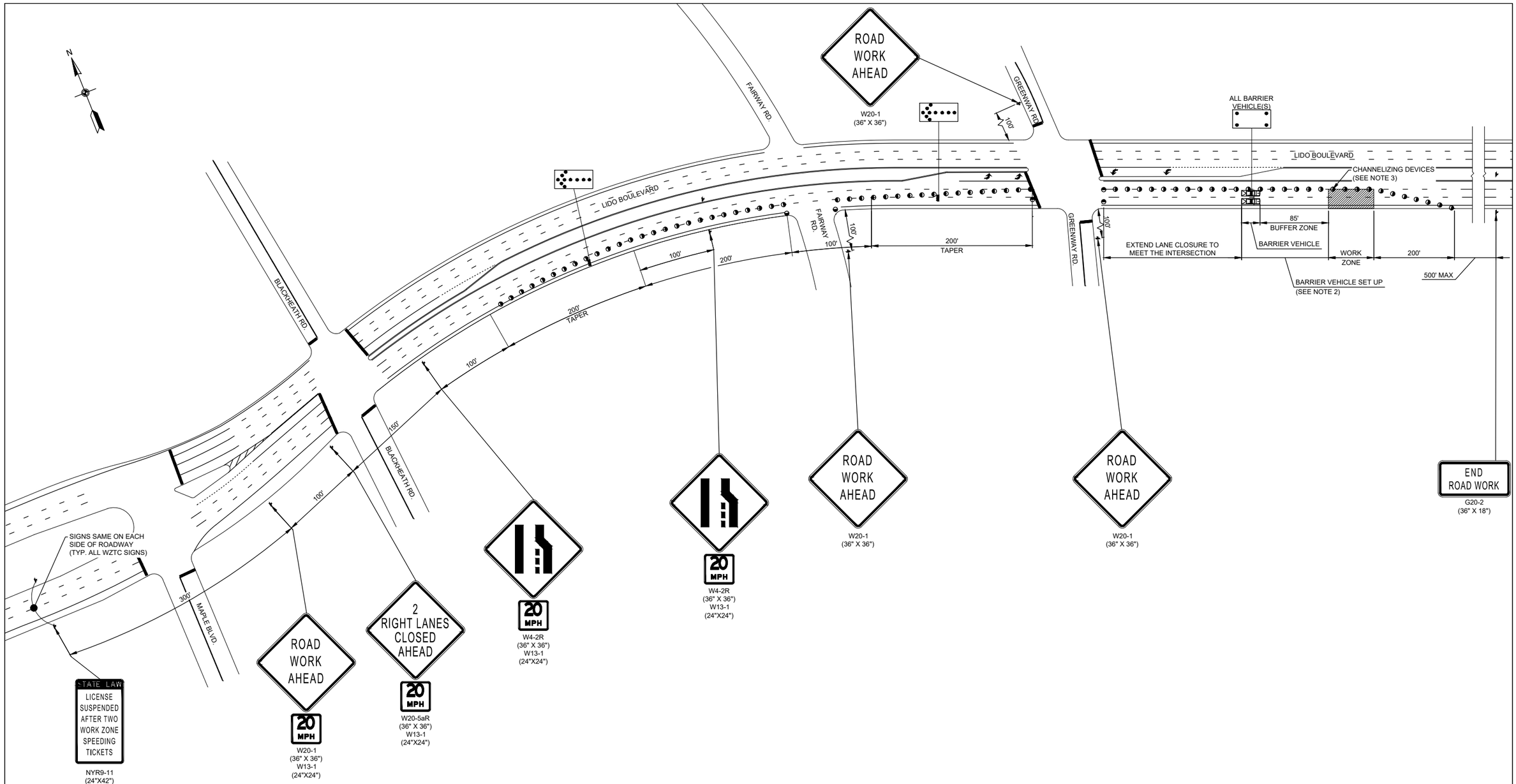
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: WZTC - SEQUENCE 3 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: WZTC-3-1	
SCALE: N.T.S.	SHEET NO: 42 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-3-1.DWG
Plot Date: 1/31/2020 2:18 PM



NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION.
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR IN AND (OR) OCCUPY THE BUFFER SPACE BETWEEN THE WORK AREA AND THE BARRIER VEHICLE SET UP AT ANY TIME.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' ON TANGENT RUNS OR 20 FEET ON TAPERED RUNS.
4. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. REFER TO NYSDOT STANDARD SHEETS 619-50 AND 619-51 AND MUTCD FIGURES 6H-28 AND 6H-29 FOR GUIDANCE TO MAINTAIN PEDESTRIAN TRAFFIC. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW THE PROPOSED METHOD TO MAINTAIN PEDESTRIAN TRAFFIC AND RECEIVE APPROVAL FROM THE ENGINEER PRIOR TO COMMENCING ANY WORK AFFECTING PEDESTRIANS.

WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 4 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NO. 07
NOT TO SCALE

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

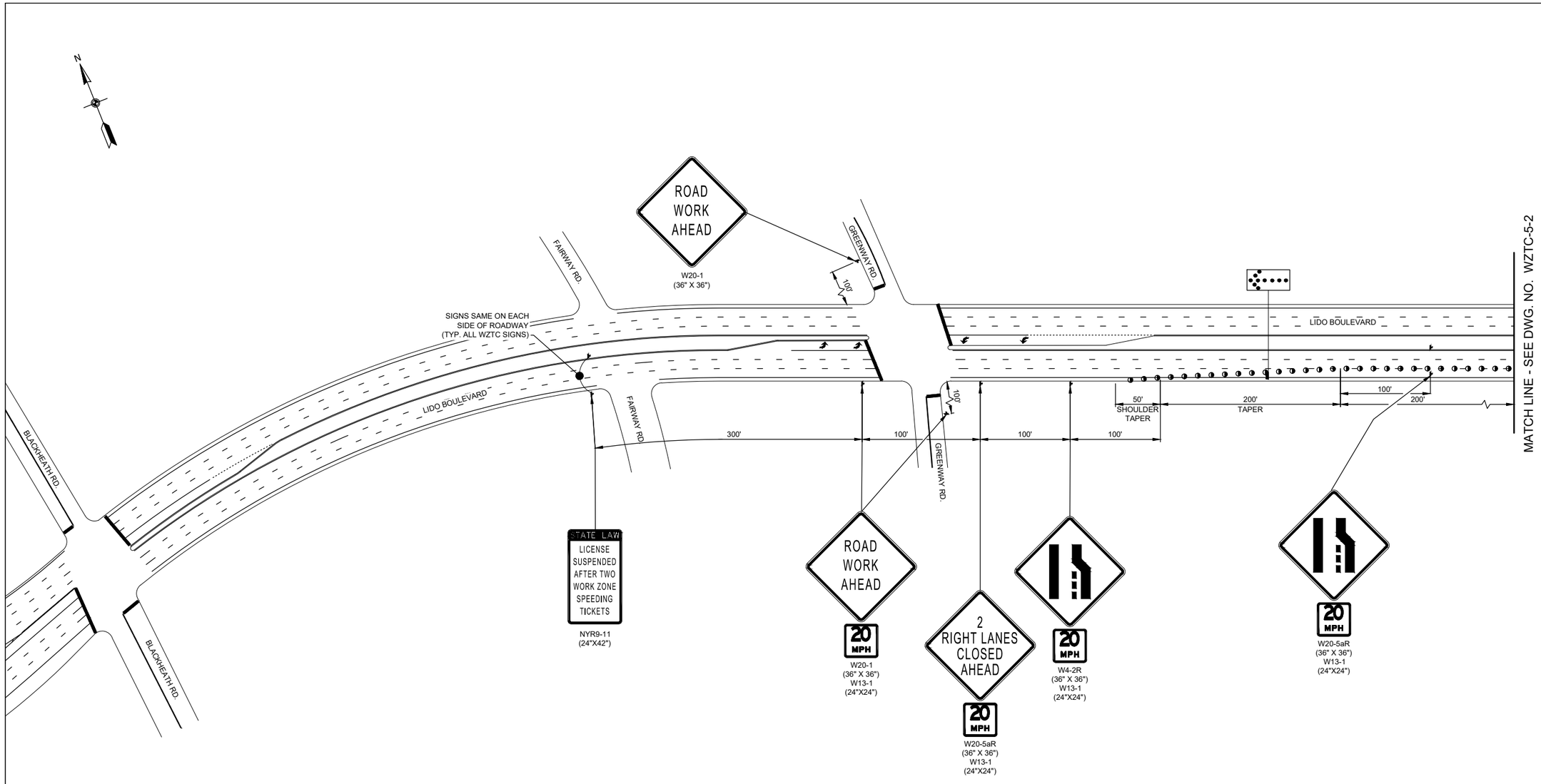
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: WZTC - SEQUENCE 4 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: WZTC-4-1	
SCALE: N.T.S.	SHEET NO: 43 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-4-1.DWG
Plot Date: 1/31/2020 2:18 PM



NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION.
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR IN AND (OR) OCCUPY THE BUFFER SPACE BETWEEN THE WORK AREA AND THE BARRIER VEHICLE SET UP AT ANY TIME.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' ON TANGENT RUNS OR 20 FEET ON TAPERED RUNS.
4. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. REFER TO NYSDOT STANDARD SHEETS 619-50 AND 619-51 AND MUTCD FIGURES 6H-28 AND 6H-29 FOR GUIDANCE TO MAINTAIN PEDESTRIAN TRAFFIC. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW THE PROPOSED METHOD TO MAINTAIN PEDESTRIAN TRAFFIC AND RECEIVE APPROVAL FROM THE ENGINEER PRIOR TO COMMENCING ANY WORK AFFECTING PEDESTRIANS.

WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 5 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NOS. 09, 10, 11, 12 & 17
NOT TO SCALE

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

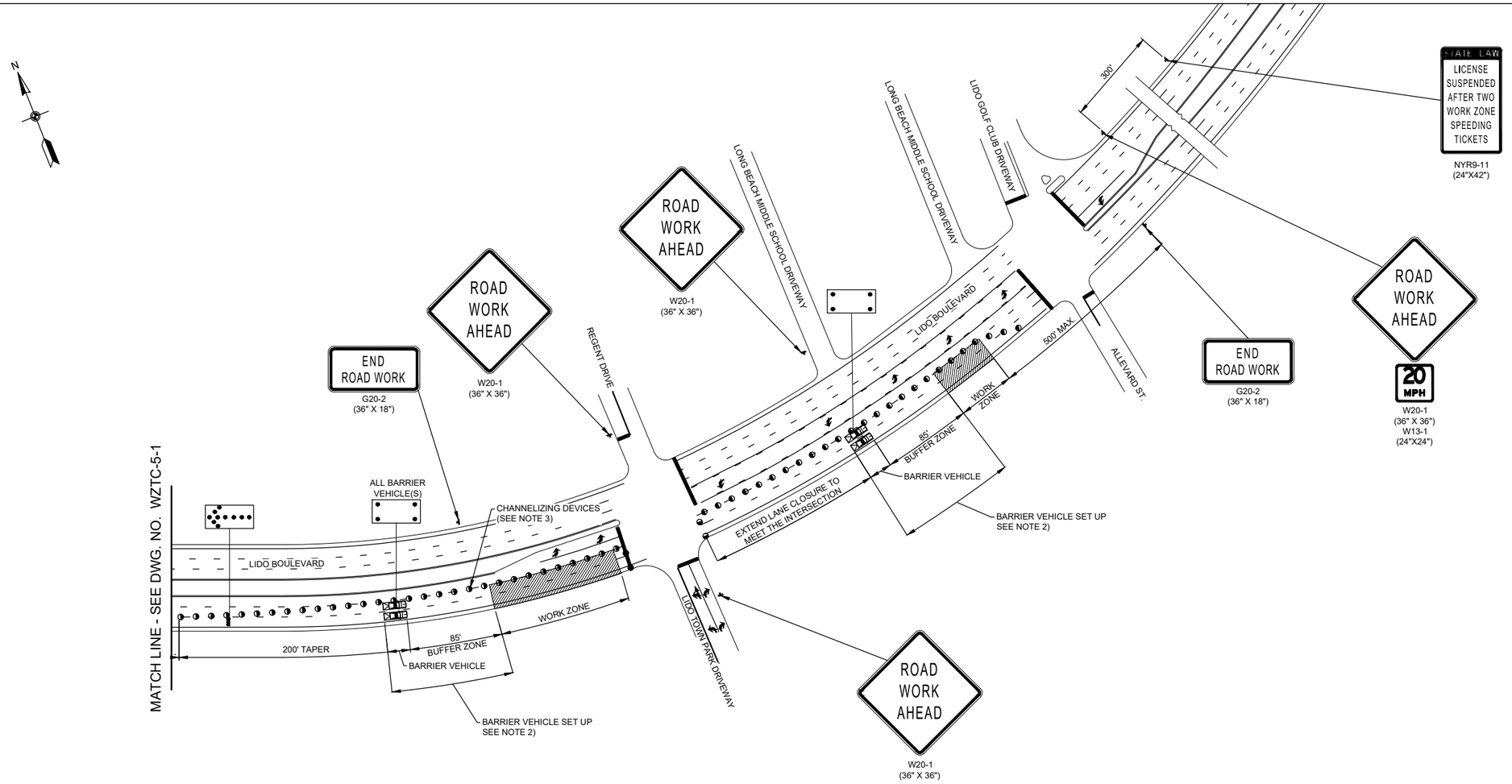
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: WZTC - SEQUENCE 5 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: WZTC-5-1	
SCALE: N.T.S.	SHEET NO: 44 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-5-1.DWG
Plot Date: 1/31/2020 2:18 PM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 5 - PLAN 2
PROPOSED DRAINAGE STRUCTURE NOS. 09, 10, 11, 12 & 17
NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION.
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR IN AND (OR) OCCUPY THE BUFFER SPACE BETWEEN THE WORK AREA AND THE BARRIER VEHICLE SET UP AT ANY TIME.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' ON TANGENT RUNS OR 20 FEET ON TAPERED RUNS.
4. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. REFER TO NYSDOT STANDARD SHEETS 619-50 AND 619-51 AND MUTCD FIGURES 6H-28 AND 6H-29 FOR GUIDANCE TO MAINTAIN PEDESTRIAN TRAFFIC. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW THE PROPOSED METHOD TO MAINTAIN PEDESTRIAN TRAFFIC AND RECEIVE APPROVAL FROM THE ENGINEER PRIOR TO COMMENCING ANY WORK AFFECTING PEDESTRIANS.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

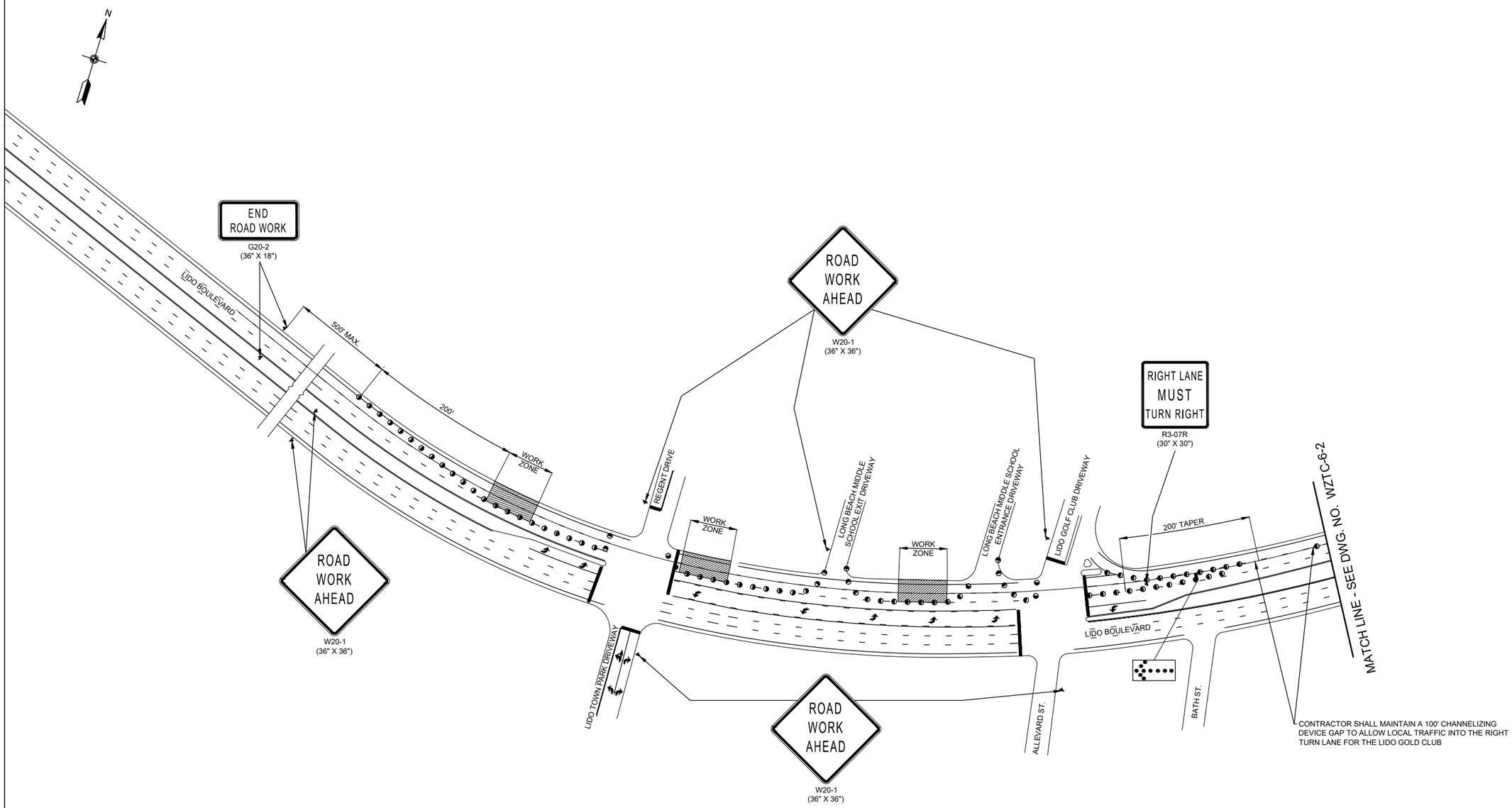
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: WZTC - SEQUENCE 5 - PLAN 2

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: WZTC-5-2	
SCALE: N.T.S.	SHEET NO: 45 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-5-2.DWG
Plot Date: 1/31/2020 2:18 PM



WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 6 - PLAN 1
PROPOSED DRAINAGE STRUCTURE NOS. 13, 14, 15, 16, 18 & 19

NOT TO SCALE

NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION.
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR IN AND (OR) OCCUPY THE BUFFER SPACE BETWEEN THE WORK AREA AND THE BARRIER VEHICLE SET UP AT ANY TIME.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' ON TANGENT RUNS OR 20 FEET ON TAPERED RUNS.
4. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. REFER TO NYSDOT STANDARD SHEETS 619-50 AND 619-51 AND MUTCD FIGURES 6H-28 AND 6H-29 FOR GUIDANCE TO MAINTAIN PEDESTRIAN TRAFFIC. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW THE PROPOSED METHOD TO MAINTAIN PEDESTRIAN TRAFFIC AND RECEIVE APPROVAL FROM THE ENGINEER PRIOR TO COMMENCING ANY WORK AFFECTING PEDESTRIANS.

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

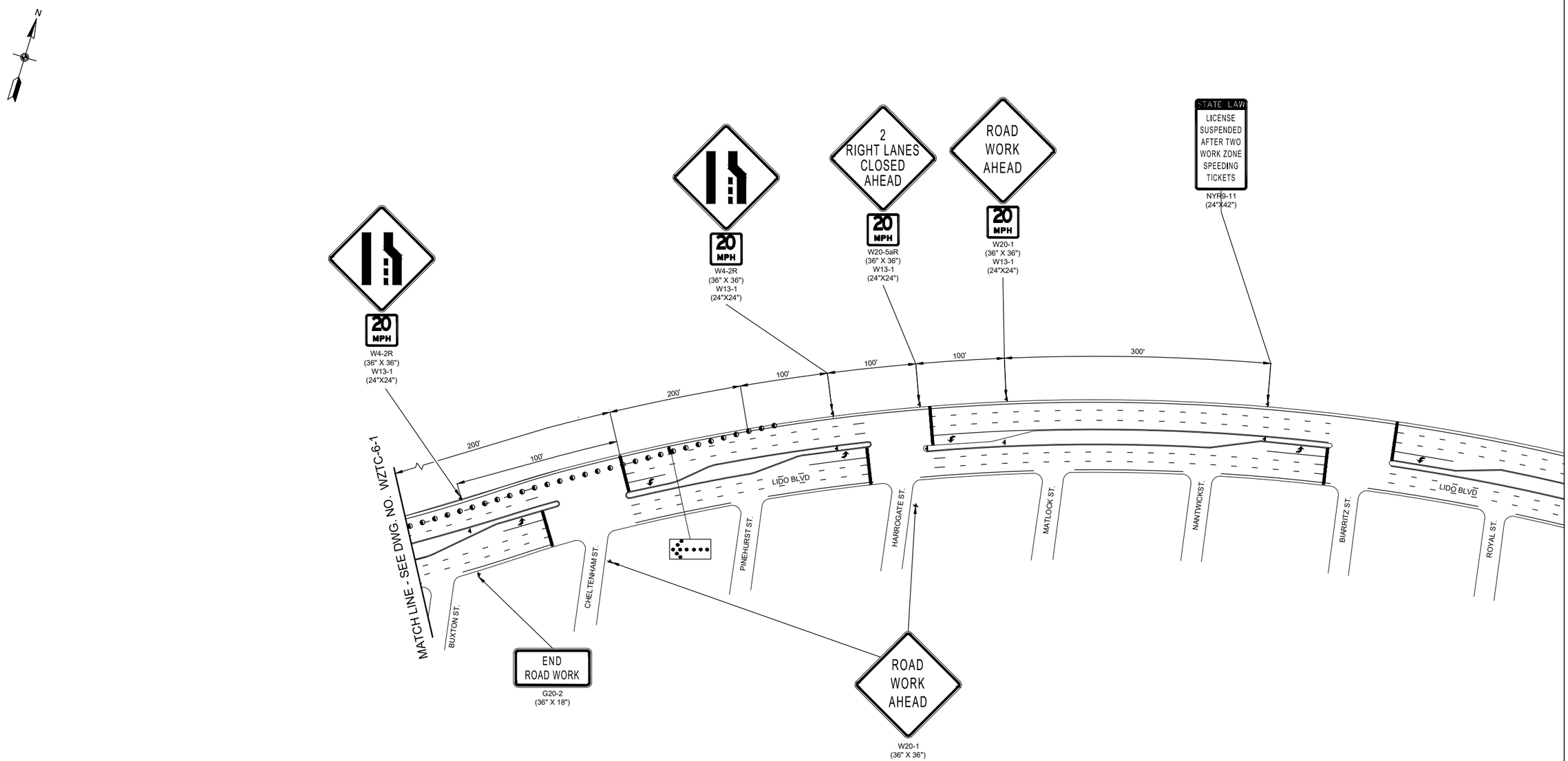
CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)

DRAWING TITLE: WZTC - SEQUENCE 6 - PLAN 1

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: WZTC-6-1	
SCALE: N.T.S.	SHEET NO: 46 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-6-1.DWG
Plot Date: 1/31/2020 2:19 PM



NOTES:

1. REFER TO WORK ZONE TRAFFIC CONTROL NOTES AND LEGEND (WZTCN-01) FOR ADDITIONAL INFORMATION.
2. NO WORK ACTIVITY, EQUIPMENT, STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR IN AND (OR) OCCUPY THE BUFFER SPACE BETWEEN THE WORK AREA AND THE BARRIER VEHICLE SET UP AT ANY TIME.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' ON TANGENT RUNS OR 20 FEET ON TAPERED RUNS.
4. PEDESTRIAN TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. REFER TO NYSDOT STANDARD SHEETS 619-50 AND 619-51 AND MUTCD FIGURES 6H-28 AND 6H-29 FOR GUIDANCE TO MAINTAIN PEDESTRIAN TRAFFIC. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR REVIEW THE PROPOSED METHOD TO MAINTAIN PEDESTRIAN TRAFFIC AND RECEIVE APPROVAL FROM THE ENGINEER PRIOR TO COMMENCING ANY WORK AFFECTING PEDESTRIANS.

WORK ZONE TRAFFIC CONTROL PLAN
PROPOSED CONSTRUCTION SEQUENCE NO. 6 - PLAN 2
PROPOSED DRAINAGE STRUCTURE NOS. 13, 14, 15, 16, 18 & 19
NOT TO SCALE

REV NO.	REV DATE	REVISION DESCRIPTION	REV BY

DESIGNED BY: B. JOHNSON
DRAWN BY: B. JOHNSON
CHECKED BY: D. FABRIZIO
PROJECT MANAGER: D. FABRIZIO

GPI
Greenman-Pedersen, Inc.
Engineering and Construction Services
325 West Main Street, Babylon, NY 11702
Tel: (631) 587-5060 Fax: (631) 422-3479

CLIENT:
NASSAU COUNTY
DEPARTMENT OF PUBLIC WORKS
1194 PROSPECT AVENUE
WESTBURY, NEW YORK 11590

PROJECT NAME: LIDO BEACH / POINT LOOKOUT DRAINAGE IMPROVEMENTS COMMUNITY DEVELOPMENT BLOCK GRANT-DISASTER RECOVERY FUNDING (CDBG-DR)
DRAWING TITLE: WZTC - SEQUENCE 6 - PLAN 2

GPI JOB NO:	CONTRACT NO:	PHASE:
2018042.00	H60052-01D	95%
DATE: 01/31/2020	DRAWING NO: WZTC-6-2	
SCALE: N.T.S.	SHEET NO: 47 OF 46	

File Name: O:\2018\BAB-2018042.00 NC LIDO BEACH PT. LOOKOUT DRAINAGE IMPROVEMENTS\CADD\CONTRACT PLANS\WORK ZONE TRAFFIC CONTROL\WZTC-6-2.DWG
Plot Date: 1/31/2020 2:19 PM