Stantec Consulting Services Inc.
5209 Center Street, Williamsburg VA 23188

February 3, 2022
File: 203401774

Attention: Erin Belt
Virginia Department of Environmental Quality
Office of Stormwater Management
P.O. Box 1105
Richmond, VA 23218

Dear Ms. Belt,

Reference: George Washington Memorial Parkway North Section Rehabilitation Project

On behalf of the Federal Highway Administration Eastern Federal Lands Highway Division (FHWA-EFLHD) and the National Park Service, Stantec Consulting Services Inc. (Stantec), as part of the Fort Myer/WSP team, are requesting concurrence from the Department of Environmental Quality (DEQ) on the stormwater management approach for the project. Specifically, that portions of the proposed George Washington Memorial Parkway North Section Rehabilitation Project are not required to comply with the water quantity and quality technical criteria under the Virginia Stormwater Management Program Regulations (Regulations). The subsequent discussion will describe the project and how portions of it are understood to be exempt under regulation and how compliance will be addressed for the different components such as roadway expansion and modified concentrated outfalls.

Project Description

The George Washington Memorial Parkway (Parkway) is a twenty-five mile, four lane roadway that connects the Washington, DC Metropolitan Area from the Capital Beltway near the American Legion Bridge to Mount Vernon. Authorized by Congress in 1930, the Parkway was built to connect several important historic sites, memorials, and scenic and recreation areas and passes through historic districts along the Potomac River. According to the National Park Service's website (https://www.nps.gov/gwmp/learn/historyculture/Parkway-road-history.htm):

> "The northern section of the Parkway, from Arlington Memorial Bridge to I-495, was built in stages starting in the 1940s and reaching completion in 1962. This northern section displayed the latest in road engineering methods for its time—a wide, gently curving roadway with a grassy median, low stone guide walls, and soaring steel-and-concrete arched."

The current rehabilitation project is also described on the NPS website (https://www.nps.gov/gwmp/learn/management/north-Parkway-rehabilitation.htm):

> "The National Park Service (NPS) in partnership with the Federal Highway Administration, continue the process of rehabilitating the northern section of the George Washington Memorial Parkway (GWMP). The project will involve road and bridge work from Spout Run Parkway to Interstate 495."

Reference: George Washington Memorial Parkway North Section Rehabilitation Project

The northern section of the Parkway which was originally completed in 1962 has never undergone major rehabilitation. This is the busiest section of Parkway, serving about 26 million drivers annually. Through the rehabilitation of this historic Parkway, which was established as a recreation and environmental conservation area to serve pleasure traffic, the NPS will ensure that the Parkway remains a viable, critical link in the regional transportation network, as well as a national park.

The project will retain and revive the historic beauty and significance of the Parkway - including opening scenic views to Washington, D.C - while updating aspects of it to improve the driving experience, safety and water drainage.

The attached Project Overview graphic shows the project location and extents.

<u>Proposed Maintenance Improvements and Exemption Justification</u>
Preserving the original intent of the Parkway is the fundamental goal of the proposed limited maintenance rehabilitation work. The project stakeholders are meticulously analyzing the existing conditions of the Parkway and are putting together a maintenance plan that would repair the roadway to its original constructed and functional conditions while limiting potential disturbance to the abundant natural / cultural resources. Proposed maintenance activities include pavement reconstruction, culvert / concrete channel rehabilitation, and bridge rehabilitation. The rehabilitation approach will restore the existing paved surface to original line and grade.

With the maintenance activities being performed as described above, the majority of the project appears to be exempt from the Commonwealth's water quality and quantity technical criteria. The Stormwater Management Act (Act), Section 62.1-44.15:34, defines regulated activities and those activities that are exempt from complying with the regulations. Section 62.1-44.15:34.G states that:

> "G. Notwithstanding any other provision of this article, the following activities are required to comply with the soil erosion control requirements but are not required to comply with the water quantity and water quality technical criteria, unless otherwise required by federal law:
>
> ….
>
> 2. Routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original construction of the project. The paving of an existing road with a compacted or impervious surface and reestablishment of existing associated ditches and shoulders shall be deemed routine maintenance if performed in accordance with this subsection; and ..."

The majority of the Parkway maintenance appears to fall within the purview of this subsection of the Act. The intent of the project is to maintain the original construction and comply with all applicable soil erosion control requirements, while also restoring the Parkway's original line and grade. The Preliminary Plan Profile Sheets show roadway profiles, illustrating existing and proposed grades at consistent elevations. On the profile sheets, minor discrepancy between existing and proposed grade lines are within the margin of error for survey precision and do not represent deviations from existing grade. Culvert and concrete channel replacement along the majority of the Parkway will be performed to maintain the original hydraulic capacity of the project. Temporarily disturbed areas to facilitate construction will be restored to pre-

construction conditions. Based on this review it appears the majority of the project is exempt from complying with the water quantity and quality technical criteria.

The project will require temporary road widening along approximately two-thirds of the Parkway as part of a temporary traffic control plan to minimize impacts to the travelling public and to provide a safer work area. Temporary widening is envisioned to be varying widths up to 16' of asphalt. Extents of temporary widening are shown in the Preliminary Construction Schedules and Typical Sequences. Appropriate erosion and sediment controls will be utilized during construction, including additional measures to protect sensitive environmental features such as the Eastern Buttercup, the Wood Turtle, and the trees along the Parkway. All areas where temporary road widening is proposed will be restored to pre-construction conditions, including elevation and land cover. The contractor will implement methods as part of the restoration process to ensure the disturbed soils are not over-compacted in the final condition. Based on this review, temporary widening will be exempt from complying with water quantity and quality technical criteria.

Extent of Land Cover Change and Stormwater Management Strategy

Portions of the Parkway will require expansion and additional impervious area and/or change to the pre-development runoff characteristics. The attached Project Overview graphic shows where impervious area expansion is proposed, and work does not appear to be classified as "maintenance" per the Regulations. Impervious area expansion is proposed within the watersheds of eleven (11) outfalls on the site. Both water quality and quantity technical compliance is proposed to be met through the requirements set forth in Virginia Code 9VAC25-870. The Preliminary Plan Stormwater Management Sheets and the attached Outfall Overview graphic show the compliance strategy for areas affected by impervious expansion/change. Further detail will be developed as the roadway design progresses.

For areas with impervious expansion, water quality is proposed to be achieved through conservation of forest / open space areas within the National Park boundary. Approximately 980 acres will be considered "Conserved" along the Parkway and utilized to achieve compliance with water quality technical criteria. It is intended that the forested areas along the GWMP will be maintained in that condition and the NPS and FHWA will not reserve the right to disturb those areas.

Water quantity criteria will be achieved through use of proposed runoff reduction Best Management Practices (BMPs) and compliance with Virginia Code 9VAC25-870-66. Channel protection will meet requirements set forth in Virginia Code 9VAC25-870-66.B, and flood protection will meet requirements set forth in Virginia Code 9VAC25-870-66.C.

Outfall Repair / Rehabilitation

There are 126 outfalls along the Parkway, many of which are damaged based on field review and inspections. As part of the Parkway project, the outfalls will be analyzed and repairs proposed to re-establish the original hydraulic capacity of the system and address the erosion threatening the integrity of the Parkway and downstream waterways. Typical routine repairs may include filling channels to restore conveyances to original grade, installation of riprap linings, and storm structure extensions to convey water in a stable manner. These locations, where no change to the hydraulic capacity or land cover is proposed, will be exempt from complying with water quantity and quality technical criteria based on the maintenance

Reference: **George Washington Memorial Parkway North Section Rehabilitation Project**

exemptions noted above; however, computations will be provided to confirm the channels are adequate as part of the design to address Minimum Standard 19 from 9VAC25-840-40.

A few locations have been identified where drainage will be re-routed along the Parkway and outfalls may be combined. At these locations, hydraulic capacity will vary from the original design and additional energy dissipation measures may be required. These areas will need to meet water quantity technical compliance as set forth in Virginia Code 9VAC25-870. The attached Outfall Overview graphic and the Preliminary Plan Drainage and Utility Sheets show these locations.

We appreciate DEQ's early review of the project as outlined above and are happy to provide any additional information that may be needed to support concurrence on this proposed strategy. We would welcome the opportunity to visit the site with you and review these locations in the field should additional clarity on strategy or approach be needed.

Regards,

Stantec Consulting Services Inc.

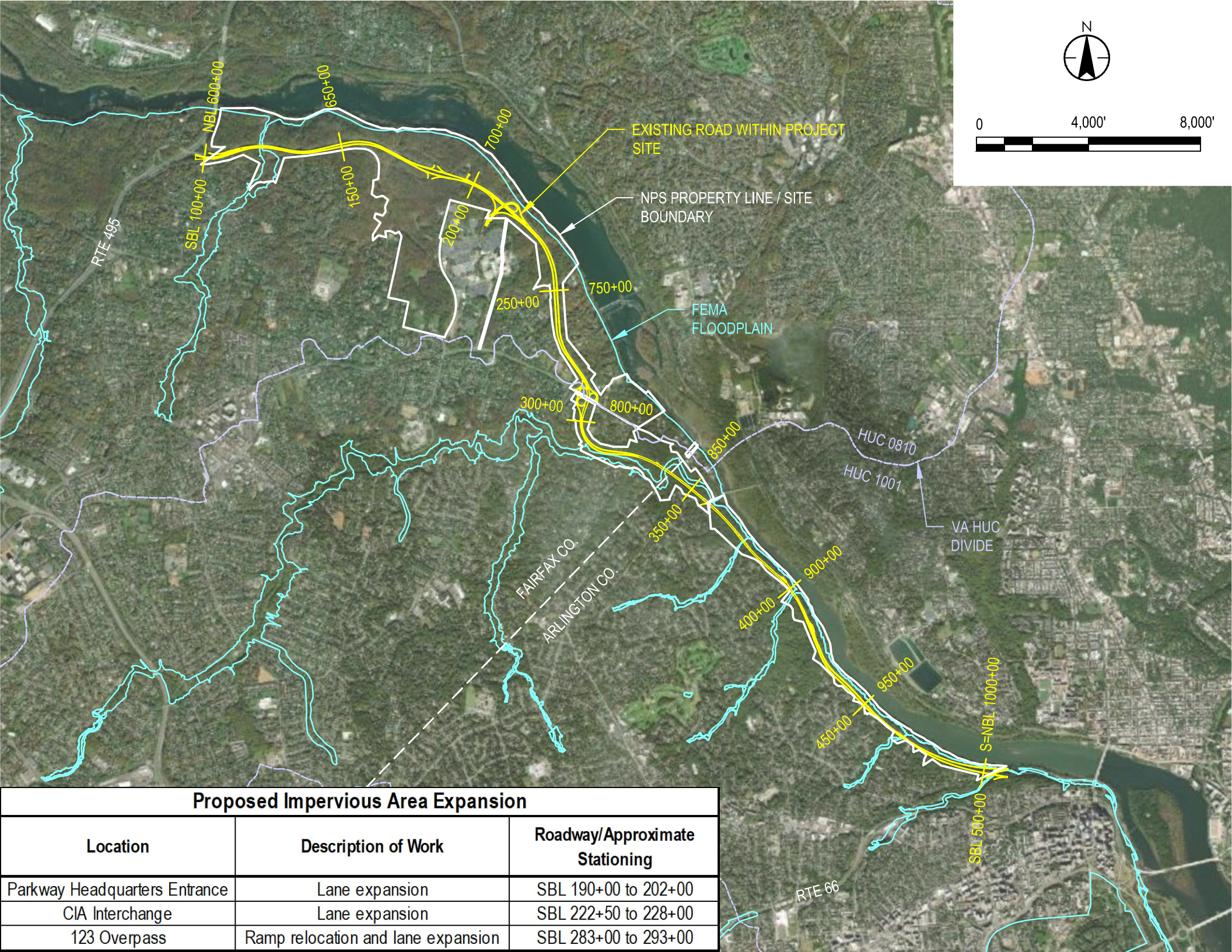
Megan McCollough PE, CFM
Senior Engineer, Associate
Phone: (540) 785-5544
Fax: (540) 785-1742
Megan.McCollough@stantec.com

Jay Johnstone PE
Senior Engineer
Phone: (540) 353-3385
Fax: (757) 229-4507
Jay.Johnstone@stantec.com

c. Eva del Valle-Valentin, PE (FHWA-EFLHD), Robert Morris, PE (WSP)

jj \\us0525-ppfss01\shared_projects\2026211903\800deliv\802 reports\let_draft_deq_swm_20190416.docx

PROJECT OVERVIEW

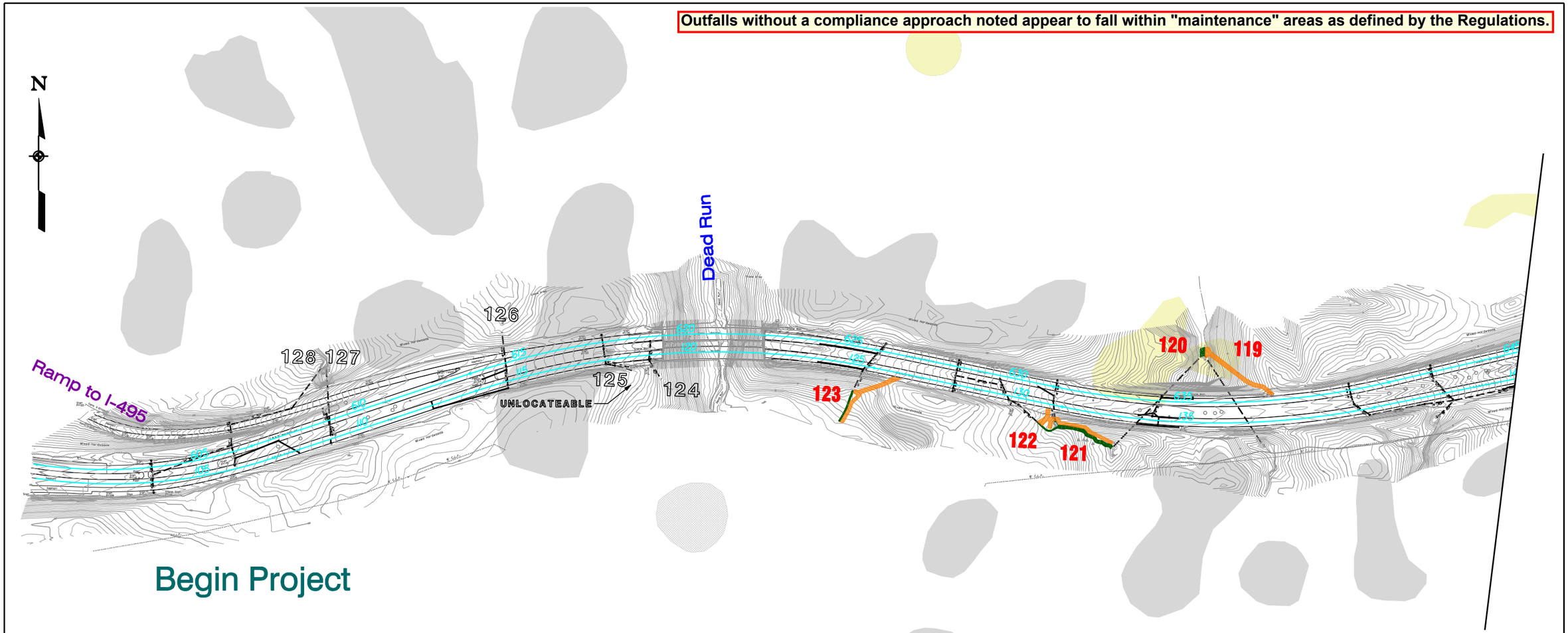


Proposed Impervious Area Expansion

Location	Description of Work	Roadway/Approximate Stationing
Parkway Headquarters Entrance	Lane expansion	SBL 190+00 to 202+00
CIA Interchange	Lane expansion	SBL 222+50 to 228+00
123 Overpass	Ramp relocation and lane expansion	SBL 283+00 to 293+00

OUTFALL OVERVIEW

Outfalls without a compliance approach noted appear to fall within "maintenance" areas as defined by the Regulations.



Begin Project

LEGEND

- Suggested Access Route Including silt fencing
- Outfall Repair
- Mapped Archaeological Area (by others)
- Mapped Natural Resource Area (by others)
- Existing Pipe
- Proposed Pipe
- 119 Outfall Number (No Repair)
- 123 Outfall Number (Repair Needed)
- 125 Stationing of Constr. ℄

0 300 600 900

SCALE IN FEET

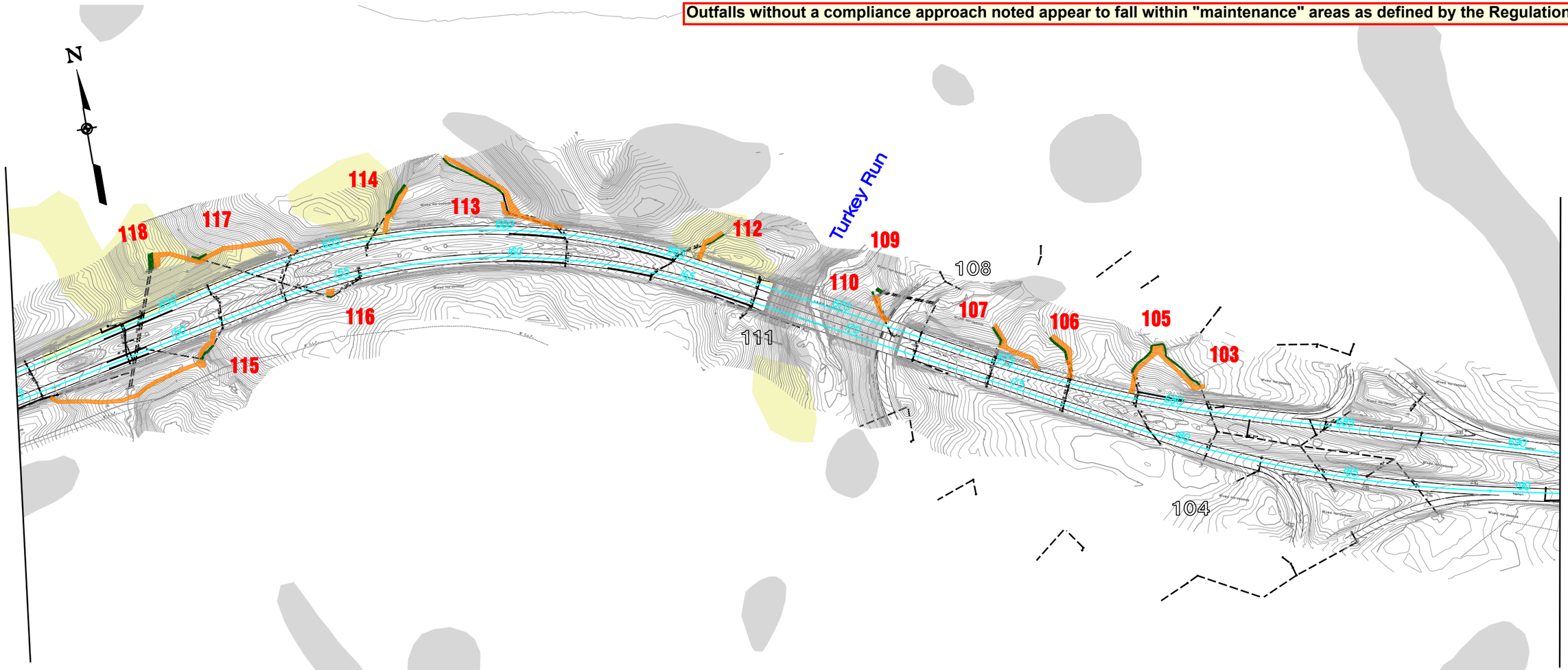
George Washington Memorial Parkway
North Design Section

Drainage Outfall Repair / Access

Earth Tech April 2007

Sheet 1 of 9

Outfalls without a compliance approach noted appear to fall within "maintenance" areas as defined by the Regulations.



LEGEND

- Suggested Access Route Including silt fencing
- Outfall Repair
- Mapped Archaeological Area (by others)
- Mapped Natural Resource Area (by others)
- Existing Pipe
- Proposed Pipe
- 119 Outfall Number (No Repair)
- 123 Outfall Number (Repair Needed)
- 125 Stationing of Constr. ℄

0 300 600 900

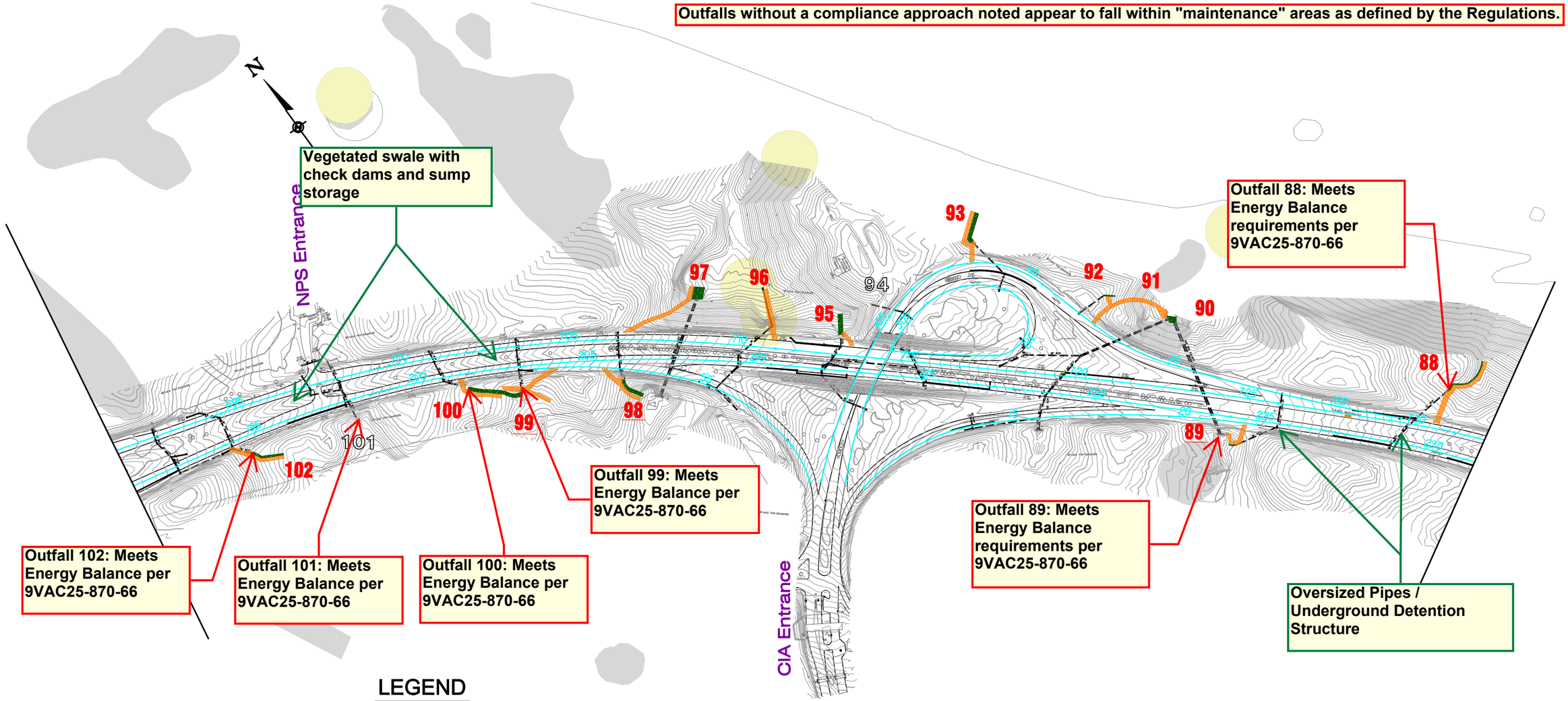
SCALE IN FEET

George Washington Memorial Parkway
North Design Section

Drainage Outfall Repair / Access

Earth Tech April 2007 Sheet 2 of 9

Outfalls without a compliance approach noted appear to fall within "maintenance" areas as defined by the Regulations.



LEGEND

- Suggested Access Route Including silt fencing
- Outfall Repair
- Mapped Archaeological Area (by others)
- Mapped Natural Resource Area (by others)
- Existing Pipe
- Proposed Pipe
- 119 Outfall Number (No Repair)
- 123 Outfall Number (Repair Needed)
- 125 Stationing of Constr. ℄

0 300 600 900

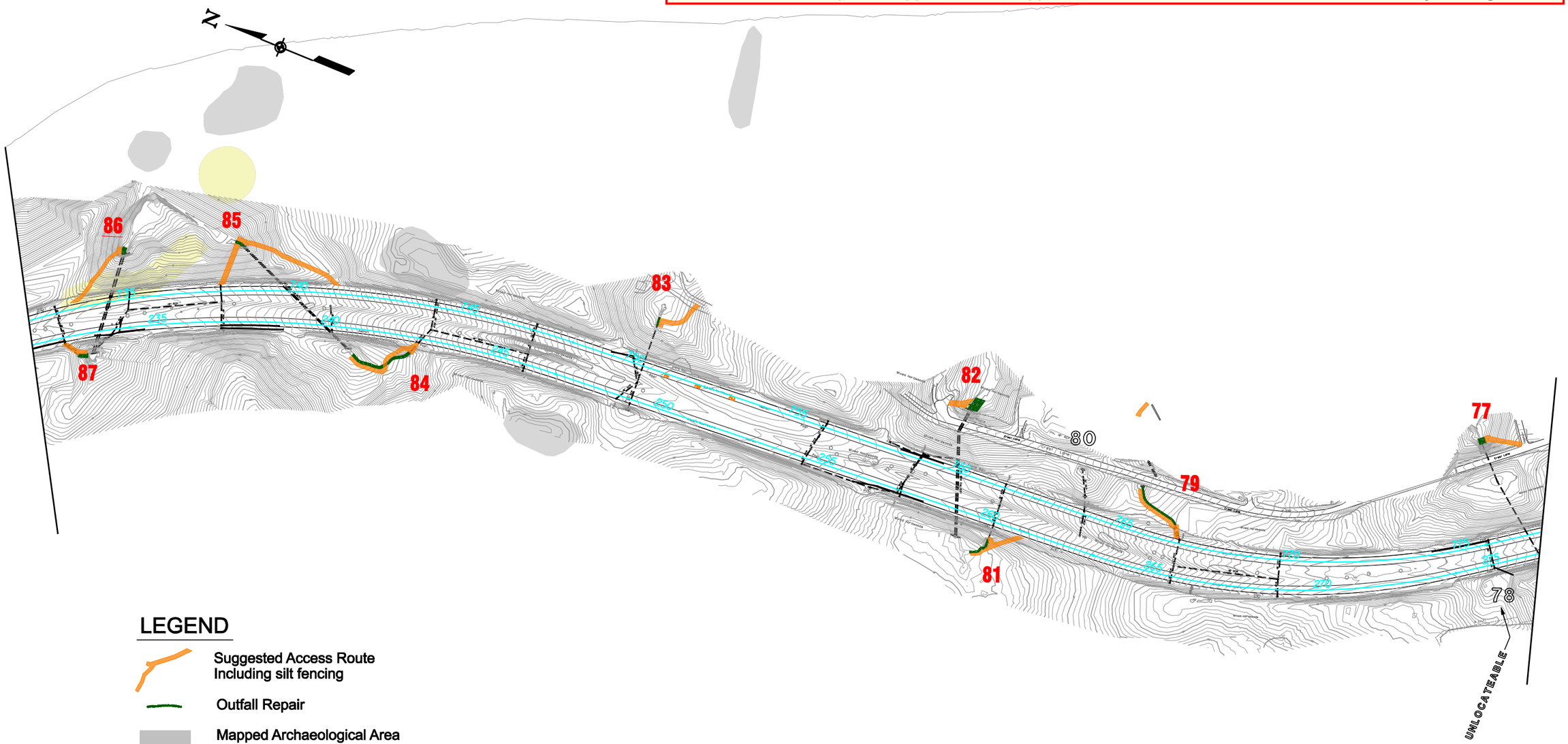
SCALE IN FEET

George Washington Memorial Parkway
North Design Section

Drainage Outfall Repair / Access

Earth Tech April 2007 Sheet 3 of 9

Outfalls without a compliance approach noted appear to fall within "maintenance" areas as defined by the Regulations.



LEGEND

- Suggested Access Route Including silt fencing
- Outfall Repair
- Mapped Archaeological Area (by others)
- Mapped Natural Resource Area (by others)
- Existing Pipe
- Proposed Pipe
- 119 Outfall Number (No Repair)
- 123 Outfall Number (Repair Needed)
- 125 Stationing of Constr. ℄

0 300 600 900

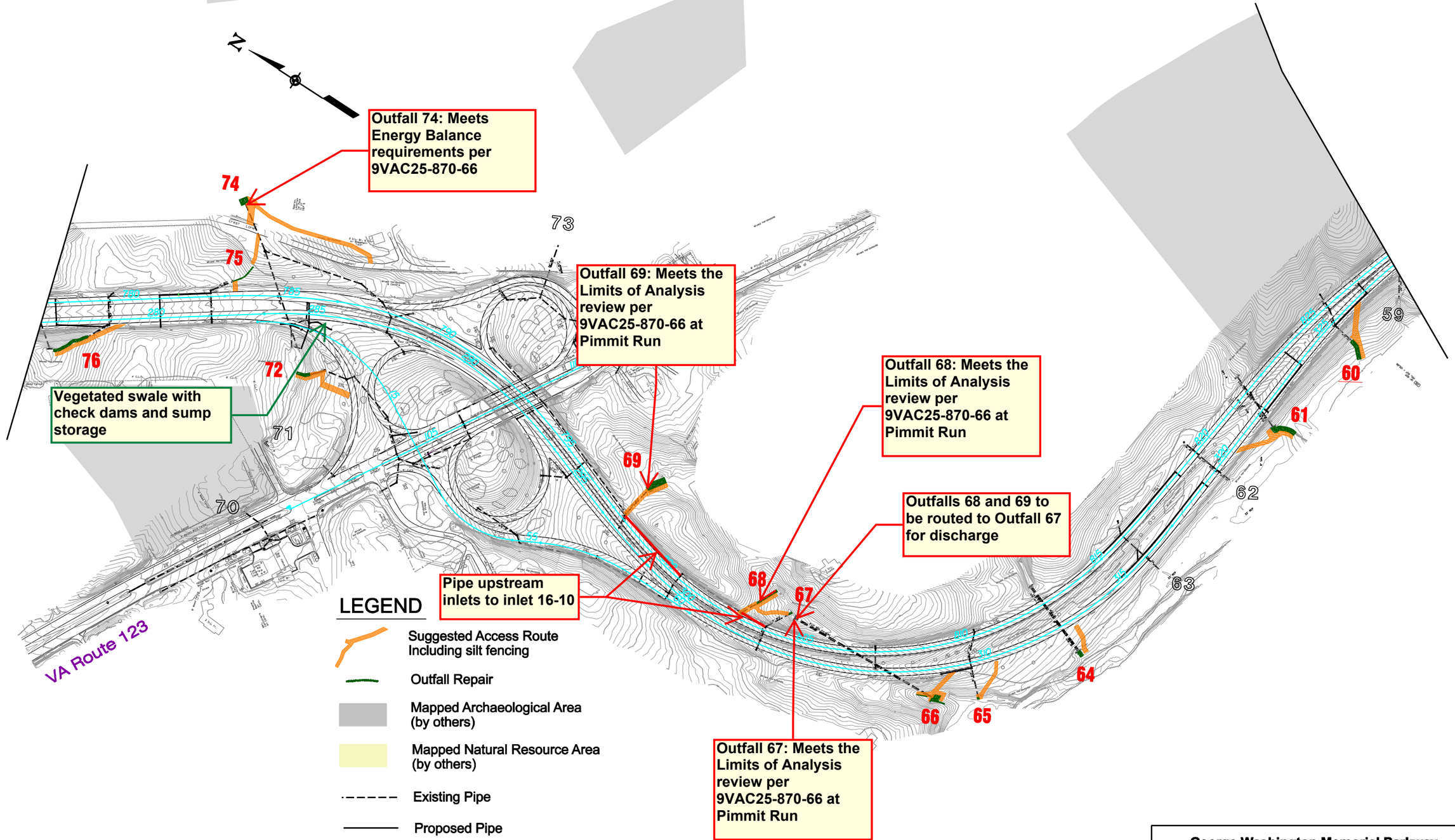
SCALE IN FEET

George Washington Memorial Parkway
North Design Section

Drainage Outfall Repair / Access

Earth Tech April 2007 Sheet 4 of 9

Outfalls without a compliance approach noted appear to fall within "maintenance" areas as defined by the Regulations.

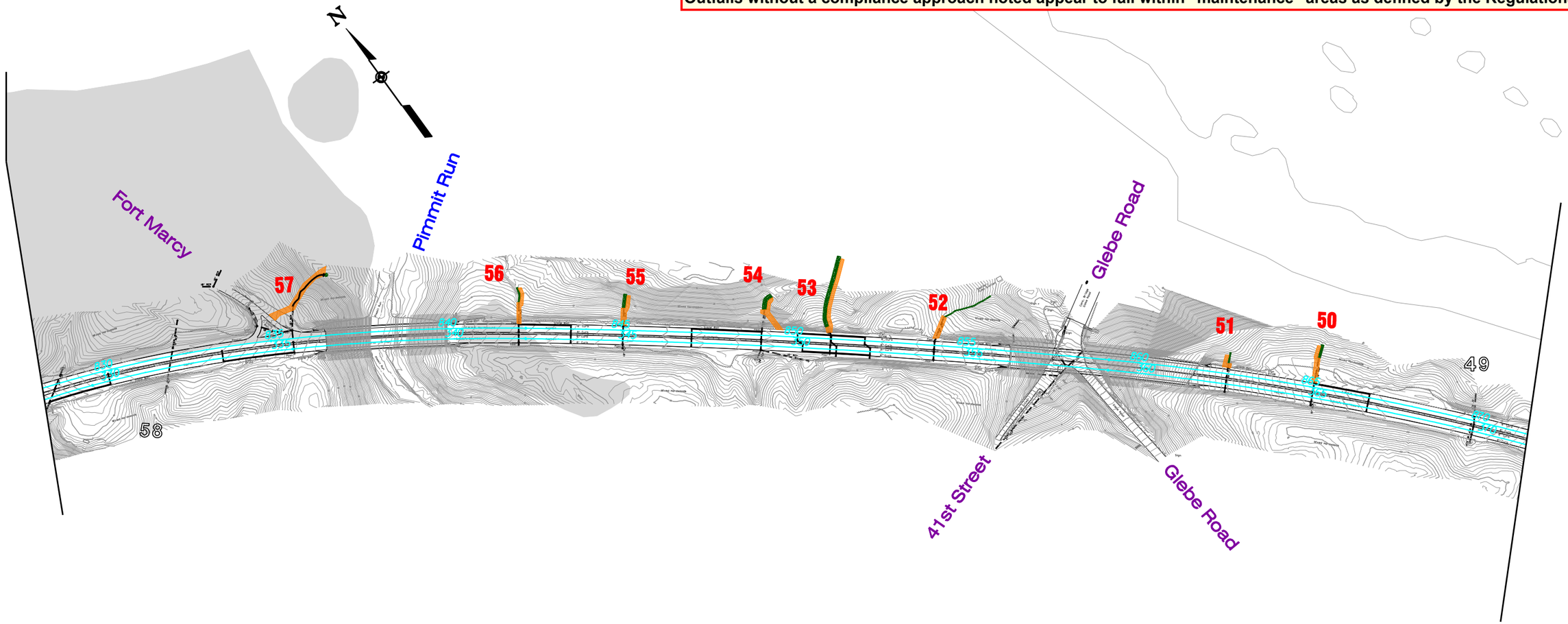


George Washington Memorial Parkway
North Design Section

Drainage Outfall Repair / Access

Earth Tech April 2007 Sheet 5 of 9

Outfalls without a compliance approach noted appear to fall within "maintenance" areas as defined by the Regulations.



LEGEND

- Suggested Access Route Including silt fencing
- Outfall Repair
- Mapped Archaeological Area (by others)
- Mapped Natural Resource Area (by others)
- Existing Pipe
- Proposed Pipe
- 119 Outfall Number (No Repair)
- **123** Outfall Number (Repair Needed)
- *125* Stationing of Constr. ℄

0 300 600 900

SCALE IN FEET

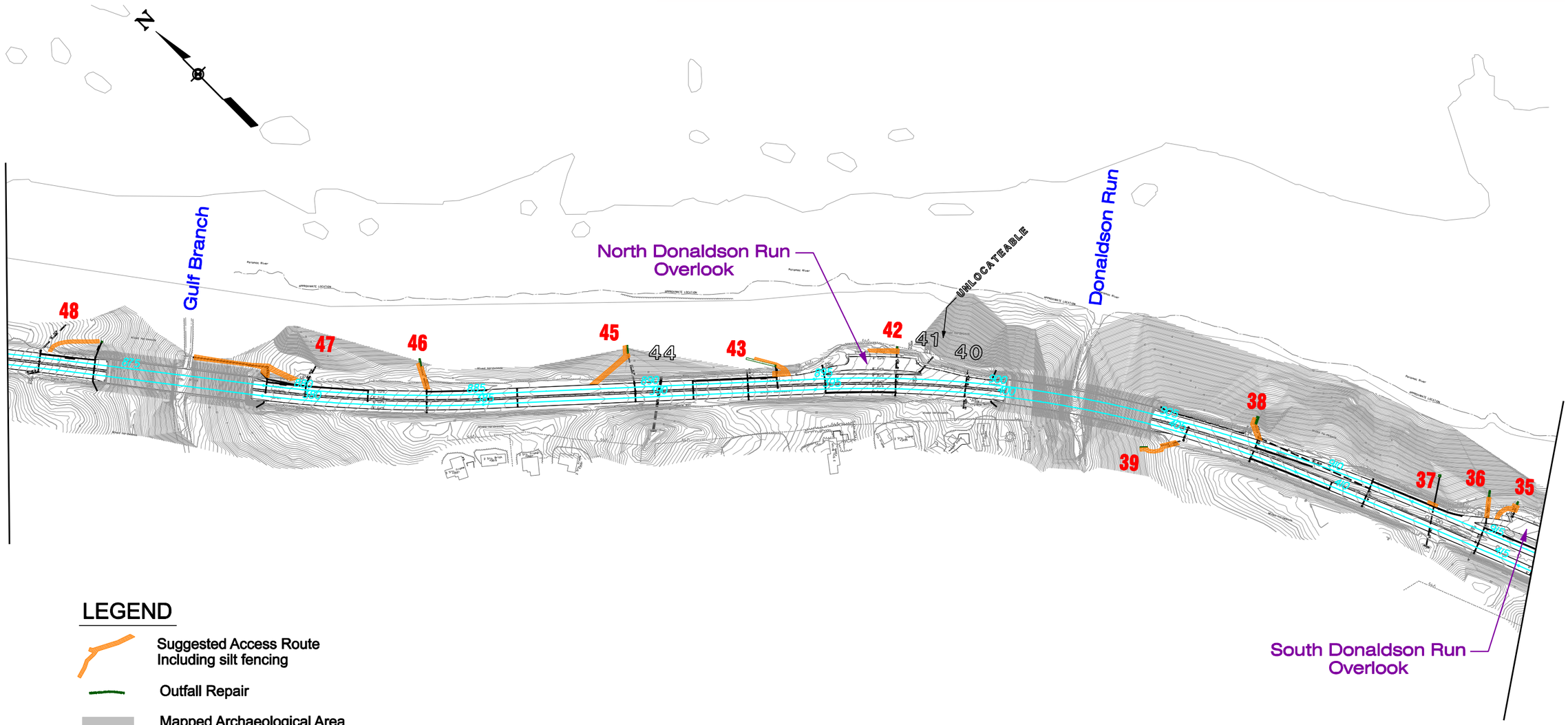
George Washington Memorial Parkway
North Design Section

Drainage Outfall Repair / Access

Earth Tech April 2007

Sheet 6 of 9

Outfalls without a compliance approach noted appear to fall within "maintenance" areas as defined by the Regulations.



LEGEND

- Suggested Access Route Including silt fencing
- Outfall Repair
- Mapped Archaeological Area (by others)
- Mapped Natural Resource Area (by others)
- Existing Pipe
- Proposed Pipe
- 119 Outfall Number (No Repair)
- **123** Outfall Number (Repair Needed)
- *125* Stationing of Constr. ℄

0 300 600 900

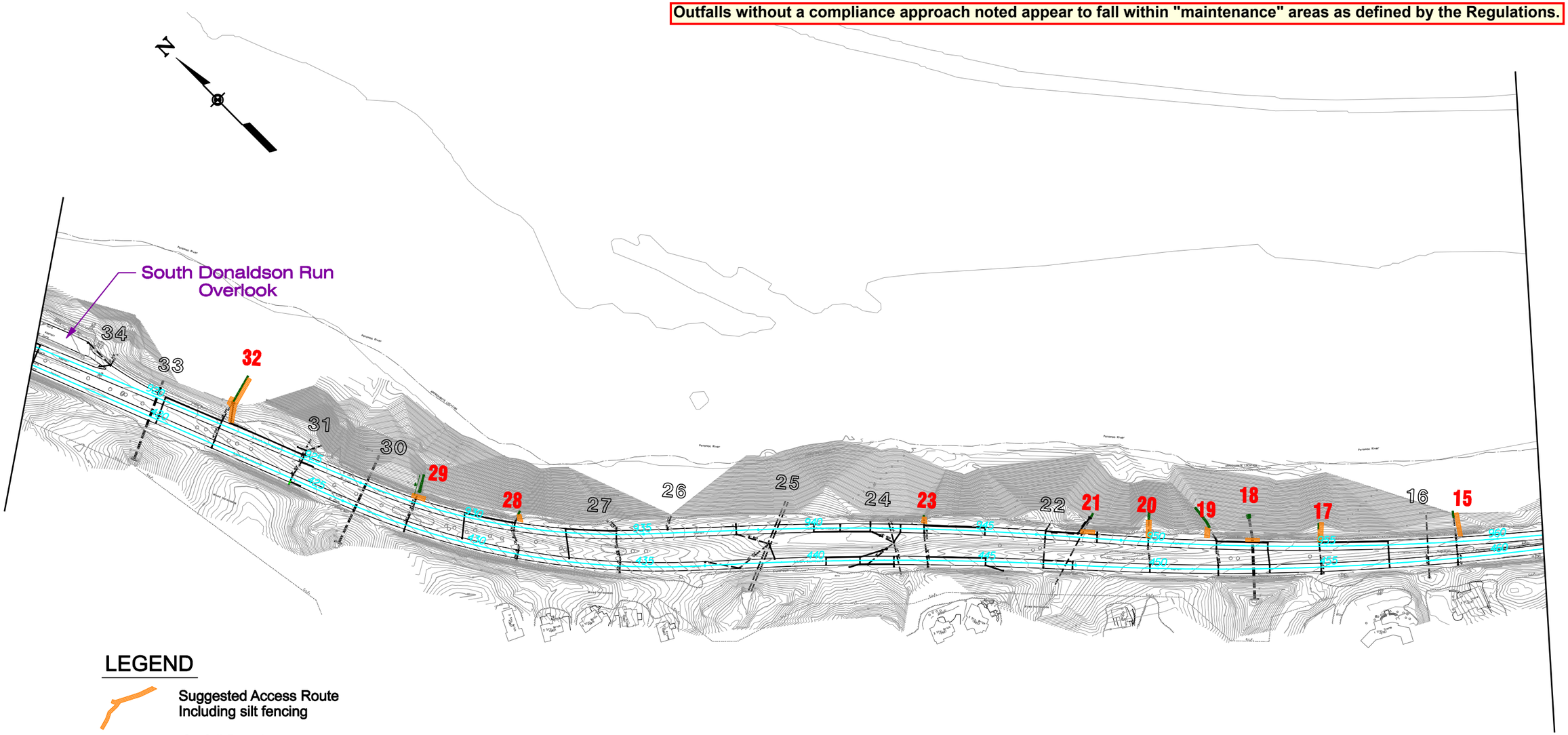
SCALE IN FEET

George Washington Memorial Parkway
North Design Section

Drainage Outfall Repair / Access

Earth Tech April 2007 Sheet 7 of 9

Outfalls without a compliance approach noted appear to fall within "maintenance" areas as defined by the Regulations.



LEGEND

- Suggested Access Route Including silt fencing
- Outfall Repair
- Mapped Archaeological Area (by others)
- Mapped Natural Resource Area (by others)
- Existing Pipe
- Proposed Pipe
- 119 Outfall Number (No Repair)
- **123** Outfall Number (Repair Needed)
- *125* Stationing of Constr. ℄

0 300 600 900

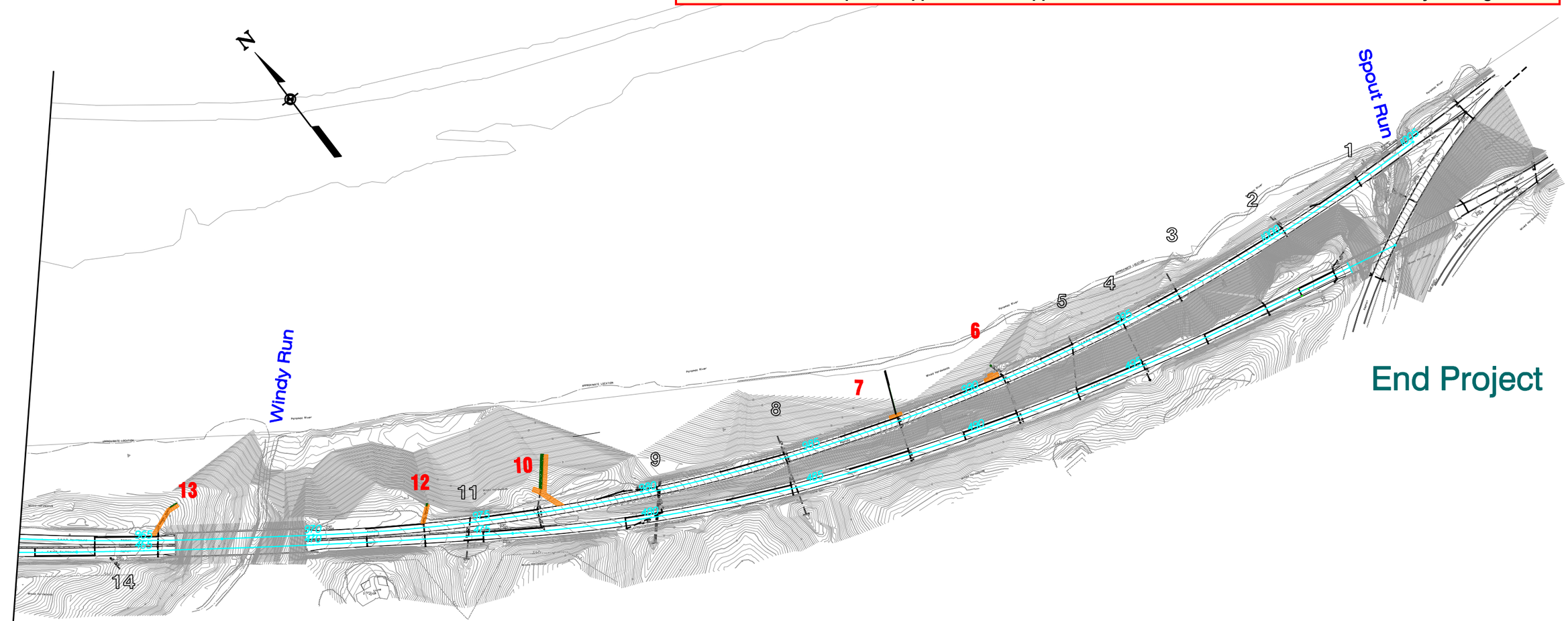
SCALE IN FEET

George Washington Memorial Parkway
North Design Section

Drainage Outfall Repair / Access

Earth Tech April 2007 Sheet 8 of 9

Outfalls without a compliance approach noted appear to fall within "maintenance" areas as defined by the Regulations.



LEGEND

- Suggested Access Route Including silt fencing
- Outfall Repair
- Mapped Archaeological Area (by others)
- Mapped Natural Resource Area (by others)
- Existing Pipe
- Proposed Pipe
- 119 Outfall Number (No Repair)
- **123** Outfall Number (Repair Needed)
- *125* Stationing of Constr. ℄

0 300 600 900
SCALE IN FEET

George Washington Memorial Parkway
North Design Section

Drainage Outfall Repair / Access

Earth Tech April 2007 Sheet 9 of 9

PRELIMINARY DRAINAGE/UTILITY PLANS

(TO BE ATTACHED WHEN LETTER IS SENT TO DEQ)