I. Constitution Pipeline: Analysis of Routing within the I-88 Controlled Access Area

II. Regulatory Citations

a) FERC policy – Alternatives. [18 CFR 380.12(l)] The applicant must describe alternatives to the project and compare the environmental impacts of such alternatives to those of the proposal. The discussion must demonstrate how environmental benefits and costs were weighed against economic benefits and costs, and technological and procedural constraints. The potential for each alternative to meet project deadlines and the environmental consequences of each alternative shall be discussed.

b) FERC policy – favors use of existing utility corridors and rights-of-way (ROW) (including road and railroad ROW).

c) Federal Highway Administration [23 CFR, Part 645, Subpart B] - Utility Relocation and Accommodation on Federal-Aid Highway Projects and New York State Department of Transportation [Part 131 Accommodation of Utilities within State Highway Right-of-Way]. All exception requests must show that alternate locations are not feasible or cannot be implemented from a standpoint of providing efficient utility services in a manner conducive to safety, durability and economy of maintenance and operations. Additionally, the request must demonstrate that the accommodation will not adversely impact the design, construction, operation, maintenance, or stability of the highway and that it will not interfere with or impair future expansion of the highway.

III. Management Objective/Interest

a) NYSDEC – Avoid, minimize, and mitigate environmental impacts. Prefer the use of existing utility corridors and rights-of-way (ROW) (including road and railroad ROW), rather than greenfield construction. Evaluate the potential for constructing portions of the pipeline project within the I-88 Controlled Access Area where feasible.

b) Constitution Team - Pipeline routing must balance all relevant parameters, including environmental, residential, engineering and construction concerns.

c) NYSDOT/FHWA - Installation of the pipeline within the I-88 right-of-way must not adversely impact the structural integrity of the highway nor adversely affect highway or traffic safety, or otherwise impair the highway or its aesthetic quality. The pipeline ROW cannot be accessed from I-88 for construction or operational activities.

IV. Study Objectives

a) Determine to what extent constructing the pipeline within the controlled access area of I-88 is feasible.

b) What are the implications for construction and operation of the pipeline if portions of the I-88 controlled access area are utilized for pipeline routing, including requirements for main line valves and cathodic protection systems.

c) Determine feasibility of locating access roads and other ancillary above ground facilities.

V. Geographic Scope

a) The geographic scope of this study is generally limited to the controlled access area on the eastern side of I-88.

b) Known constraints to routing within or parallel to I-88 were identified during the Alternative M analysis and will be confirmed, eliminating such areas from further consideration.

DRAFT

c) Scope will focus on areas where Alternative M is currently adjacent or parallel to the I-88 Control Access Area. These areas will be confirmed with NYSDEC using Constitution's GIS viewer. The proposed segments include:

MPs 19 – 21
MPs 39 – 59
MPs 65.5 – 78.

d) The need for additional temporary and permanent access roads will require assessment. Additional pipeline routing may be required to connect portions of the pipeline within the I-88 controlled access area with the preferred route.

VI. Existing Information

a) August 24, 2012 Constitution FOIL Request to NYSDOT.

b) September 24, 2012 NYSDOT response to August 24, 2012 Constitution FOIL Request.

i. *Accommodation of Non-communication Utilities on New York State Freeway or Control of Access Right-of-Way*
ii. 23CFR Part 645 Subpart B *Utility Relocation and Accommodation on Federal-Aid Highway Projects*
iii. *Requirements For The Design And Construction Of Underground Utility Installations Within The State Highway Right-Of-Way*
iv. *Accommodation Plan For Longitudinal Use Of Freeway Right-Of-Way By Utilities*, October 1995
v. *Part 131 - Accommodation Of Utilities Within State Highway Right-Of-Way*
vi. *Highway Design Manual*, *Chapter 13 – Utilities: Revision 41*, June 6, 2003

c) November, 2013 Constitution Pipeline *Supplement To June 13, 2013 and July 24, 2013 Environmental Reports Resource Report No. 10 Alternatives.*

d) September 25, 2013 NYSDEC letter to FERC providing comments on Alternatives Analysis

e) October 22, 2013 Constitution Response to NYSDEC September 25, 2013 letter.

f) December 19, 2013 PowerPoint presentation regarding Alternative Route M analysis and approach.

g) Parameters evaluated:

i. Construction workspace
ii. Co-located Utilities
iii. Co-located roadways
iv. Land Requirements
v. Pipeline Construction Requirements
vi. Pipeline Operation Requirements
vii. Wetlands
viii. Waterbodies, Streams and Rivers
ix. Cultural Resources
x. Land Use
   - Forested Land Crossed
   - Forested Land Impacts
   - Forest Edge Crossed
   - Forested Edge Impacts
   - Forest Interior Crossed

DRAFT

- Forested Interior Impacts
- Important Bird Area Crossed
- Audubon Forest Blocks of Importance
- Agricultural Land
- Landfills, Quarries, Material Storage and processing

xi. Property Owners

xii. Federal & State Land

xiii. Trails, Road Crossings, Railroads Crossed

xiv. Other Environmental Features
- Shallow Depth to Bedrock Crossed
- Steep Slopes Crossed (30 degrees or greater)
- Side Slope Construction
- Environmental Hazards and/or Concerns (within 0.5 mile)
- Landslides / unstable lands crossed

h) Available Mapping

i. Alternatives Map (1:500,000 scale); an overview of major and minor route alternatives

ii. Steep Slope and Steep Side Slope (varied scale); with Topo/USGS

iii. Routing Avoidance Analysis (1:50,000 scale); with aerials

iv. Alternative Route M Segment Location Map (1:100,000 scale); with USGS/Topo

VII. Information Needed

a) Analysis of bridge routing from Primary route to I-88 Controlled Access area routing.

b) Identification of potential temporary and permanent access road locations; analysis of impacts associated with these locations.

c) Mapping:

i. Alternative Route M tax parcel mapping

ii. I-88 Fenceline location, if available

iii. Shapefiles of side slope mapping

VIII. Level of Effort

a. Information gaps – a desktop review using readily available information of locations within the I-88 Controlled Access Area.

b. Report - Evaluation and analysis of the potential for co-locating the Constitution Pipeline within the identified locations within the I-88 Controlled Access Area.

c. Mapset - Development of a mapset identifying all parameters evaluated for a routing constraints analysis within the identified I-88 Controlled Access Area locations. Constraints will be depicted on a mapset consisting of aerial photography and USGS Maps presented in parallel for ease of reference.

IX. Site Visits and Field– No field surveys will be completed; at least one site visit will be scheduled with NYSDEC.

DRAFT