

NJTPA - Local Concept Development Study Retaining Wall and Slope Stabilization Improvements Along Manhattan Avenue Union City, Hudson County, NJ

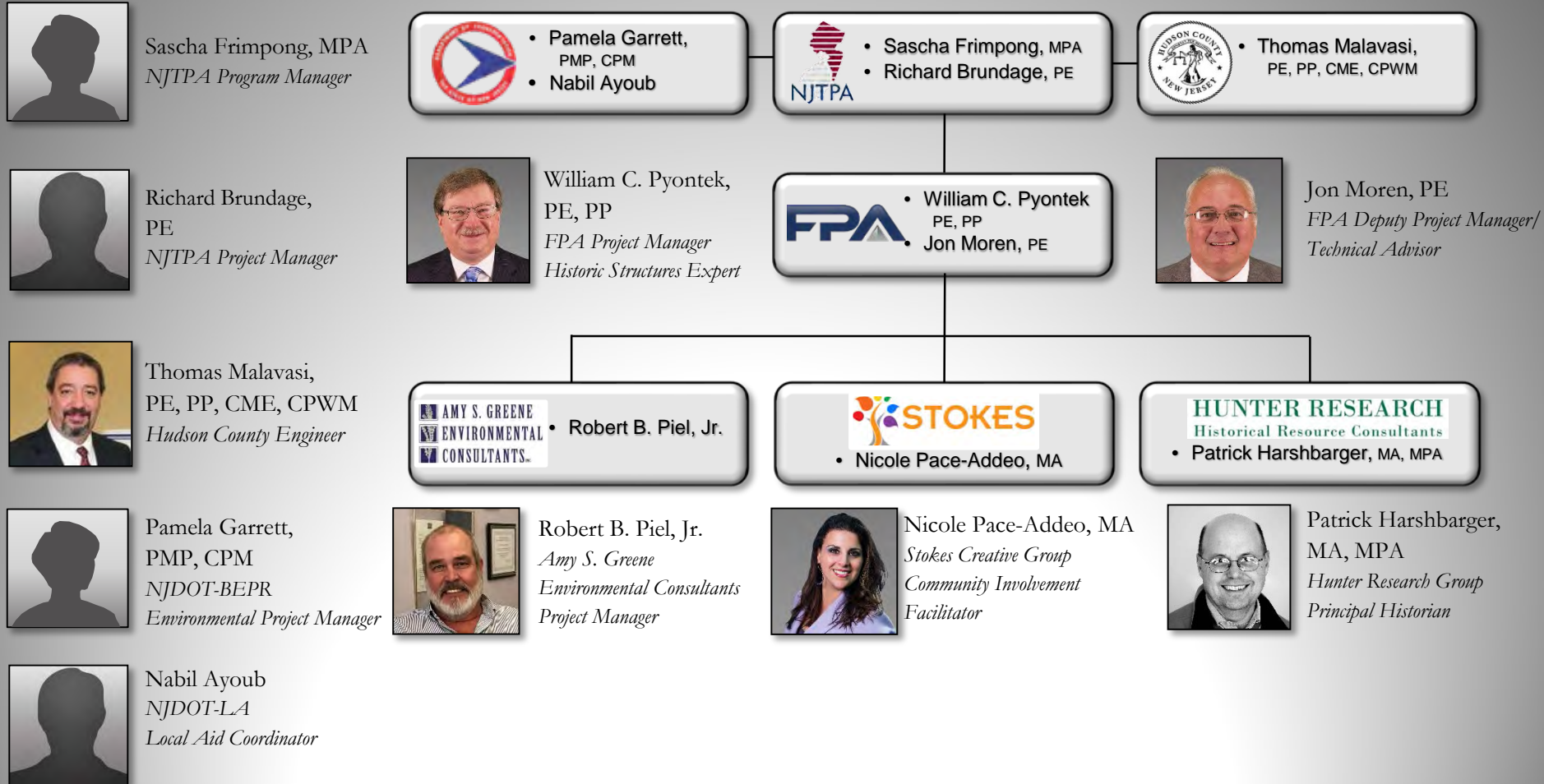


Public Information Center (PIC) Meeting
April 25, 2018

Agenda

- Project Team Introduction
- Why is this Study Necessary?
- Local Capital Delivery Process and LCD Phase
- Project Overview and Background
- Existing Conditions
- Data Collection
- Environmental Process
- Project Schedule
- Community Outreach
- Project Contact Information
- Questions and Comments

Project Team Organization Chart



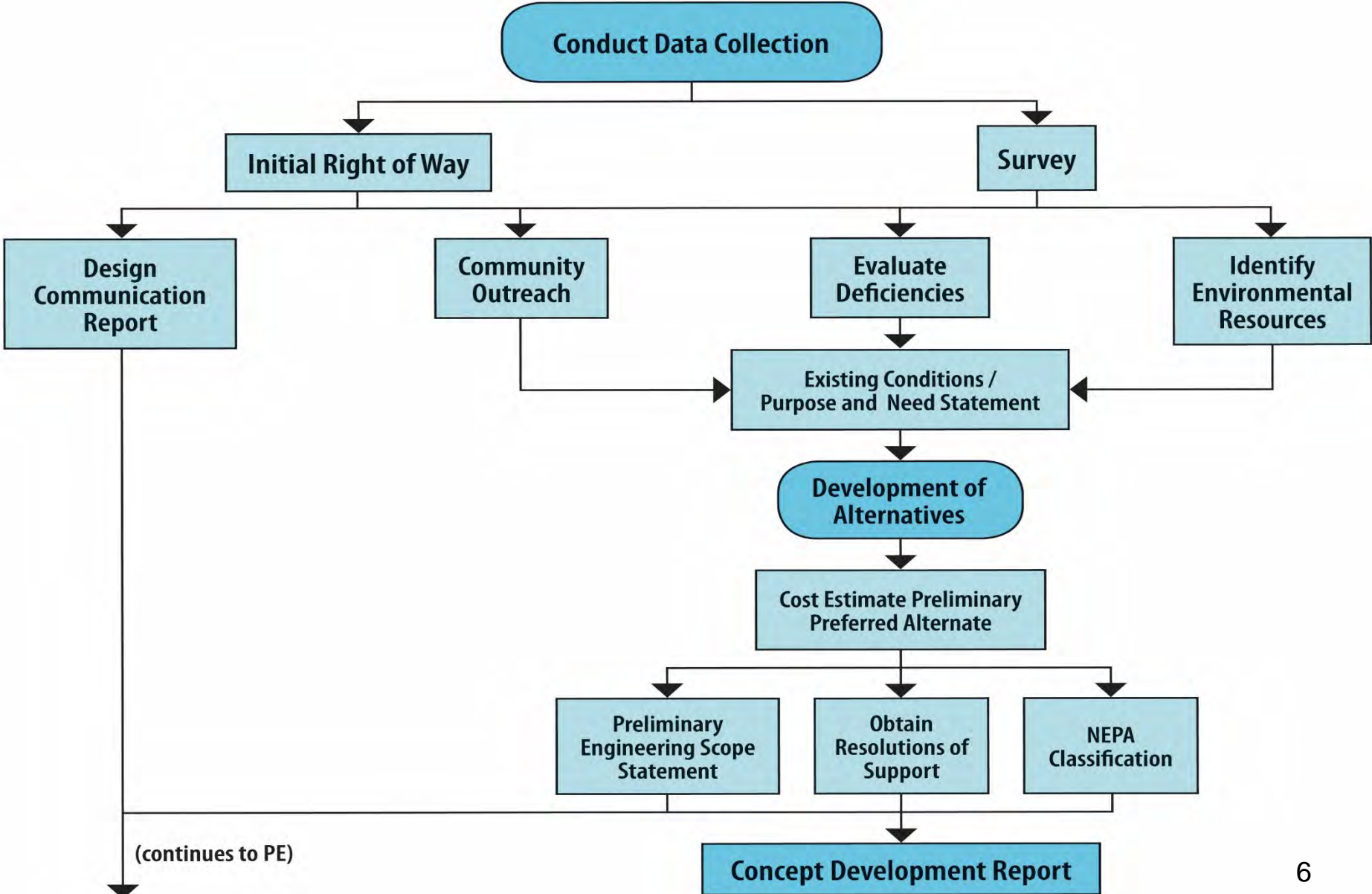
Why is This Study Necessary?

- The Local Capital Delivery Program (LCDP) is a competitive program that provides funding through the NJTPA to sub-regions such as Hudson County.
- Hudson County has identified the Manhattan Avenue Retaining Wall as a project to be included in this program.
- This program gives Hudson County and its residents an opportunity to secure Federal Funding for the rehabilitation or reconstruction of these walls.
- To ensure eligibility for Federal Funding, NJTPA and the County will follow the Local Concept Development Process.

The Local Capital Delivery Process

Local Concept Development	Local Preliminary Engineering	Final Design/ Right of Way Acquisition	Construction
Data Collection	Approved Design Exception Report	Construction Contract Documents and PS&E package	Completed Construction
Purpose and Need Statement	Cost Estimates (Final Design, ROW and Construction)	Environmental Reevaluations	Continue Public Outreach
Selection of Preliminary Preferred Alternative	Approved Environmental Document	Secure Environmental Permits	As-Builts
Environmental Screening Report & NEPA Classification	Preliminary Design	Acquisition on ROW	Update and Finalize Design Communications Report
Concept Development Report	Preliminary Engineering Report	Continue Public Outreach & Involvement	Close-out Documentation
Initiate Public Outreach & Involvement	Continue Public Outreach & Involvement		

Local Concept Development Phase



Site Location Map

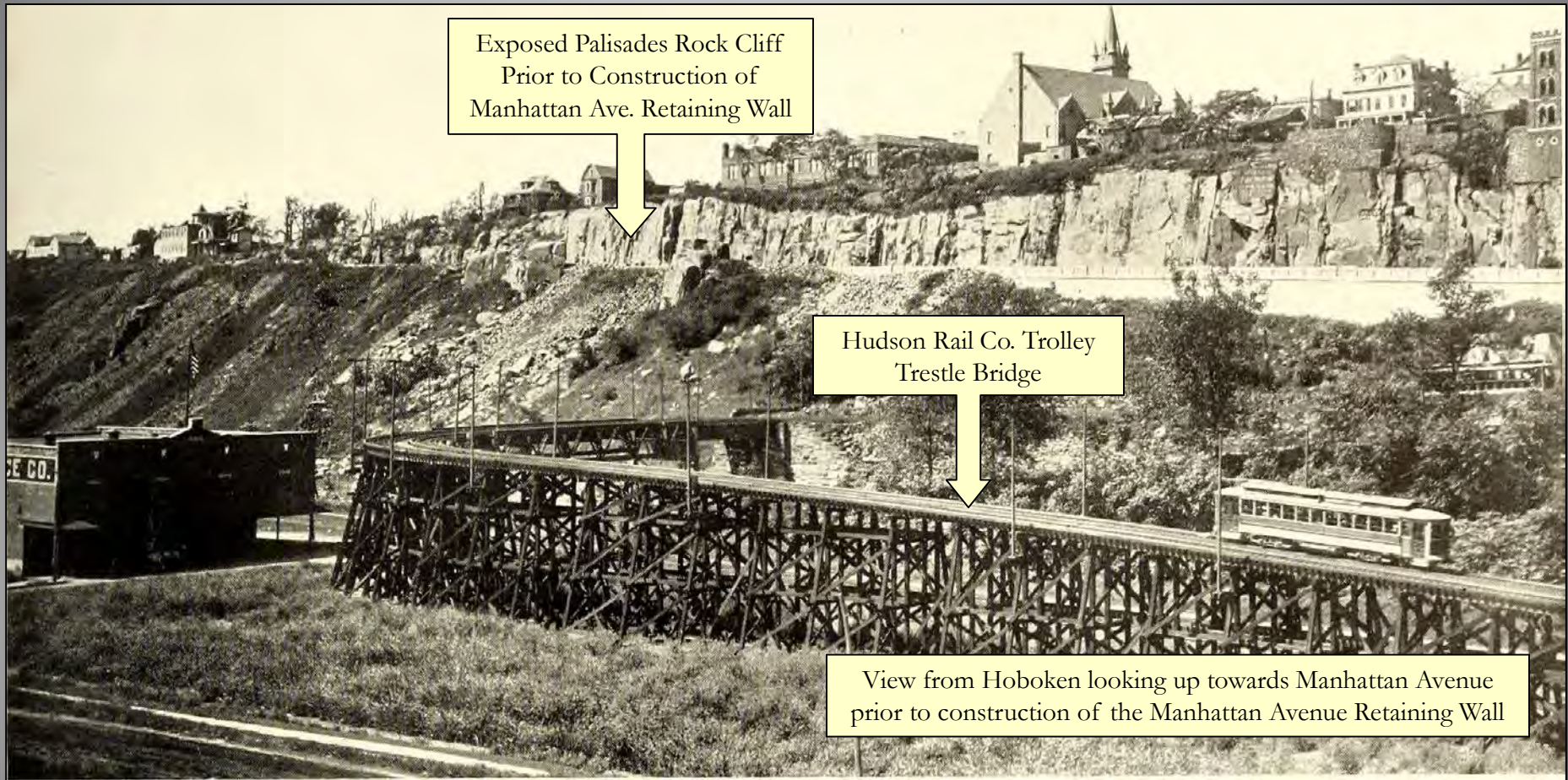


Project Overview and Background

- The existing retaining walls along Manhattan Avenue are split into two locations by the 14th Street viaduct and are mostly comprised of mortared stone masonry construction.
 - North Wall is approximately 860 LF
 - South Wall is approximately 1,850 LF
- Constructed between 1912-1914 as part of the 14th St. Viaduct Project.
- The walls were constructed to protect Manhattan Avenue and stabilize the Palisades Cliffs and range to a height of up to 40 feet.



Historical Photos



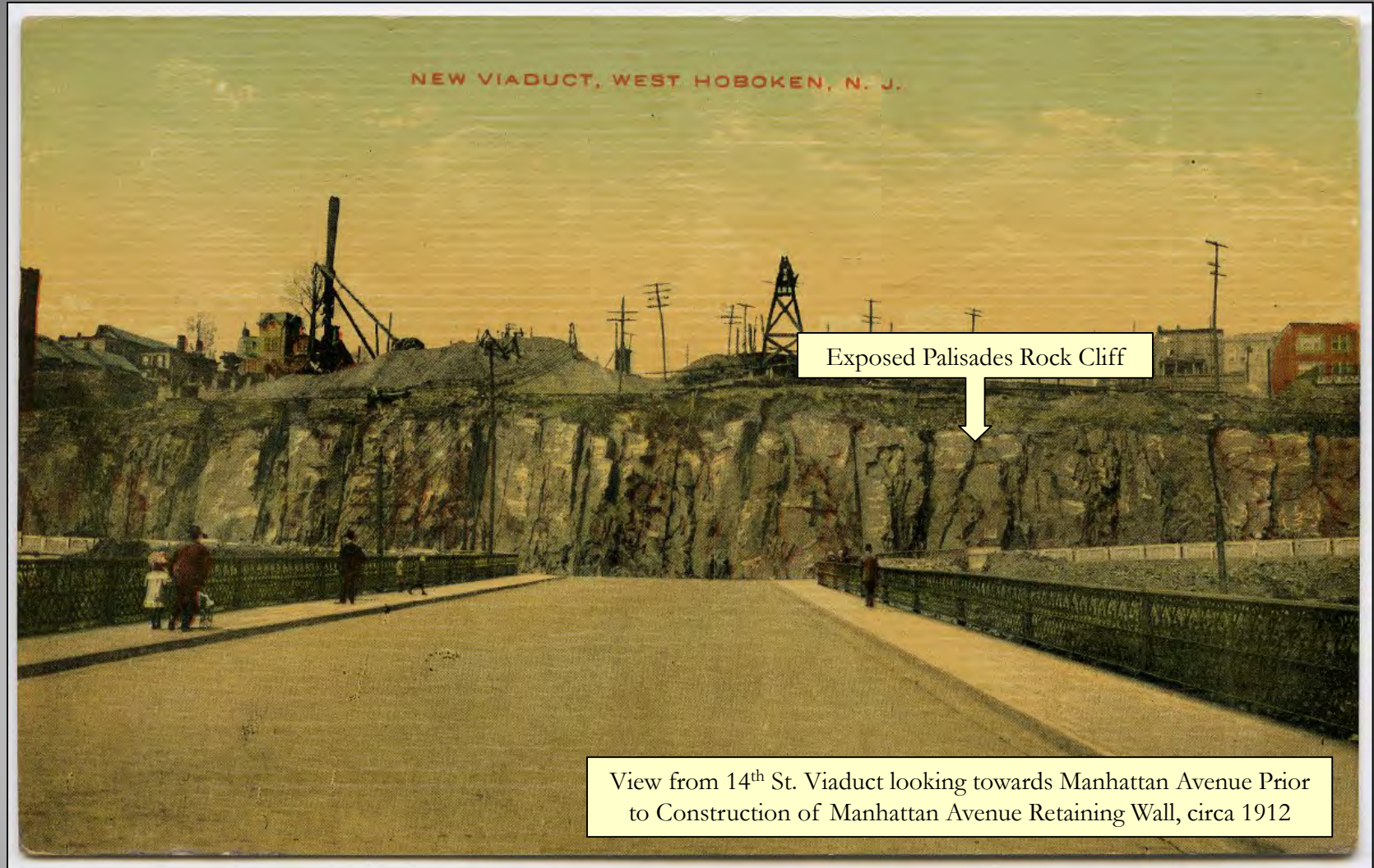
Exposed Palisades Rock Cliff
Prior to Construction of
Manhattan Ave. Retaining Wall

Hudson Rail Co. Trolley
Trestle Bridge

View from Hoboken looking up towards Manhattan Avenue
prior to construction of the Manhattan Avenue Retaining Wall

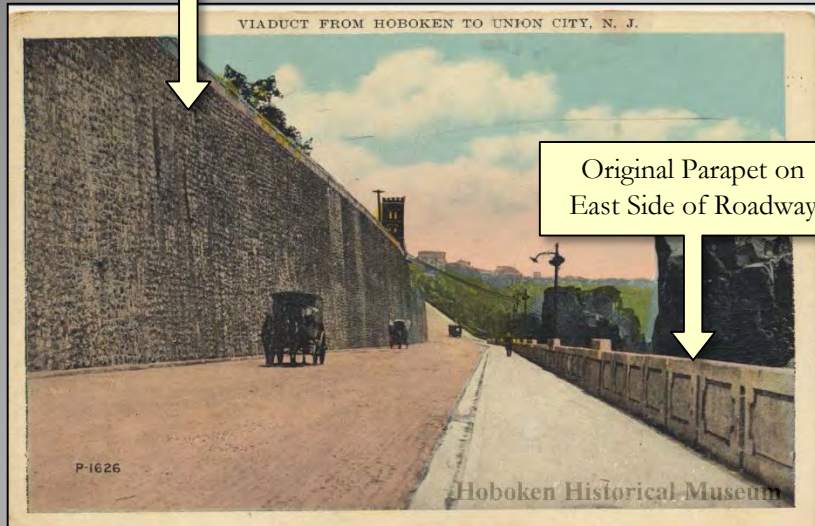
Hillside Line at Hoboken, circa 1911

Historical Photos



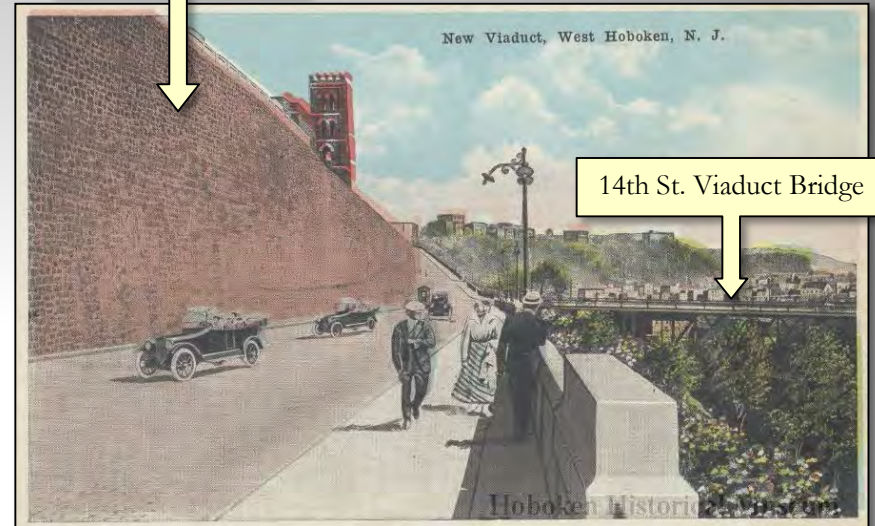
Historical Photos

Manhattan Avenue Retaining Wall



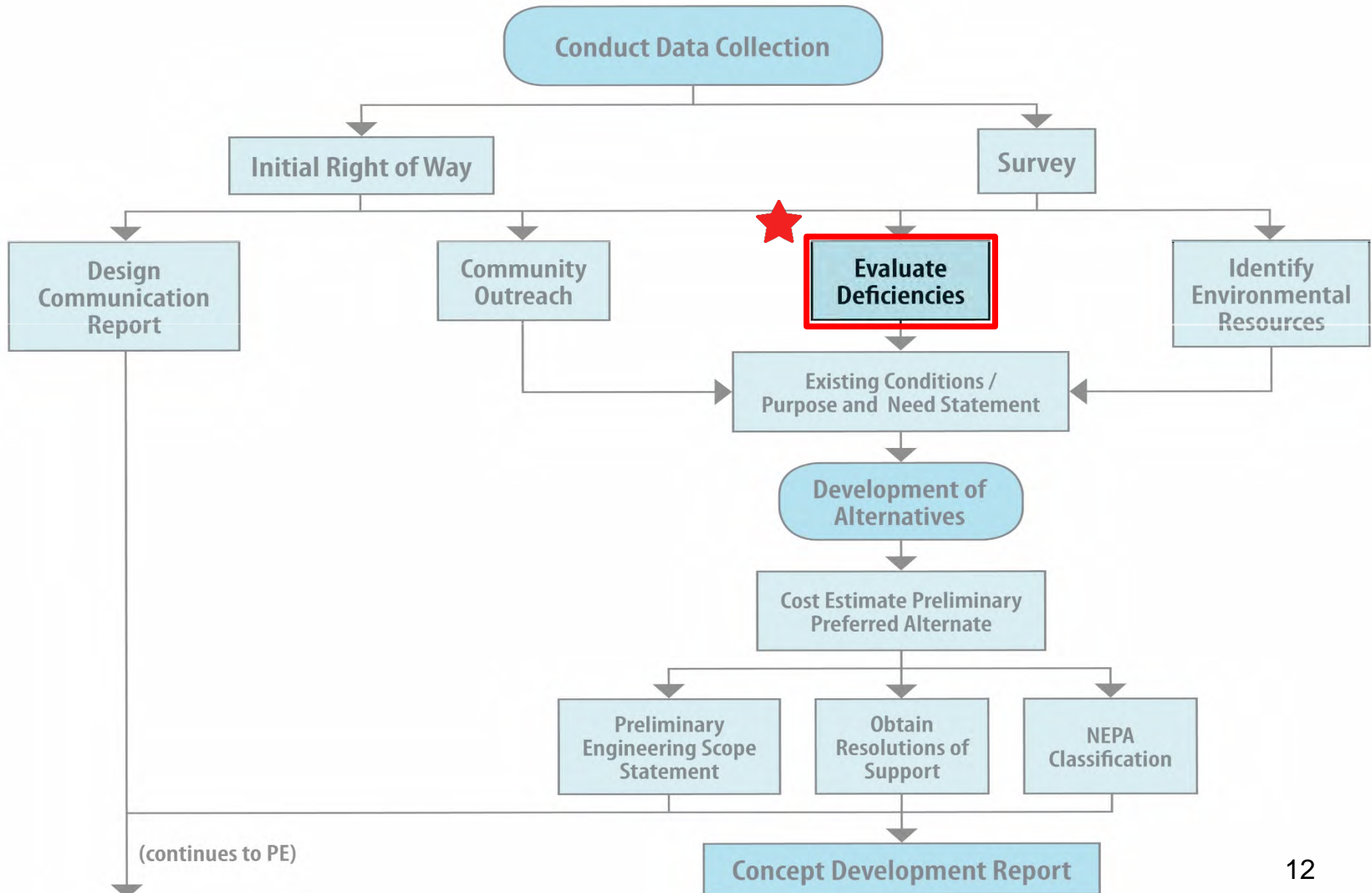
Original Parapet on East Side of Roadway

Manhattan Avenue Retaining Wall

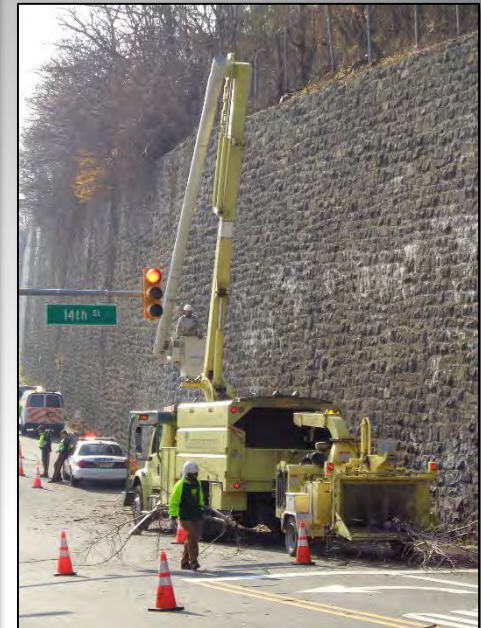
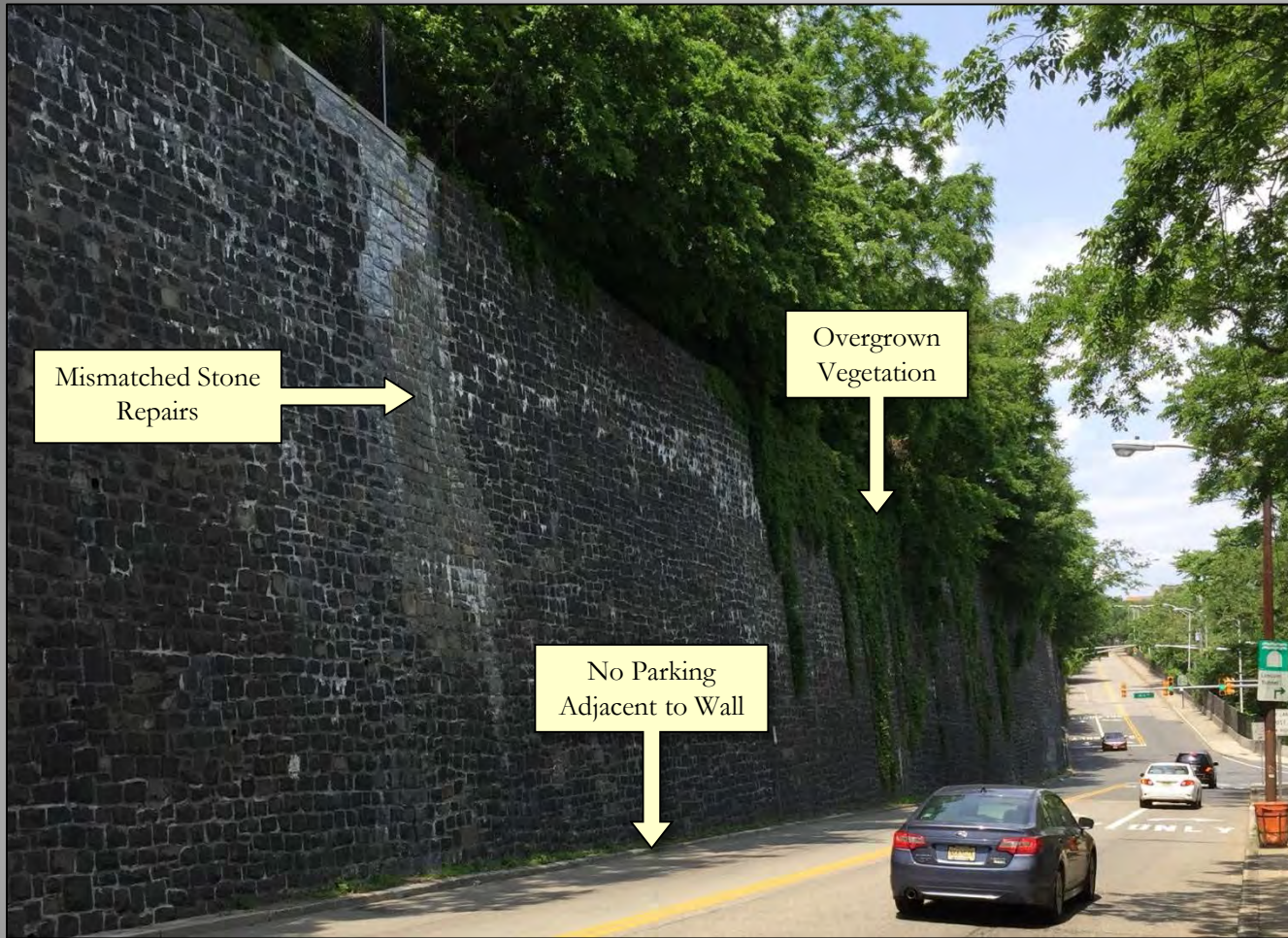


Manhattan Avenue Retaining Wall, Circa 1915 - 1930

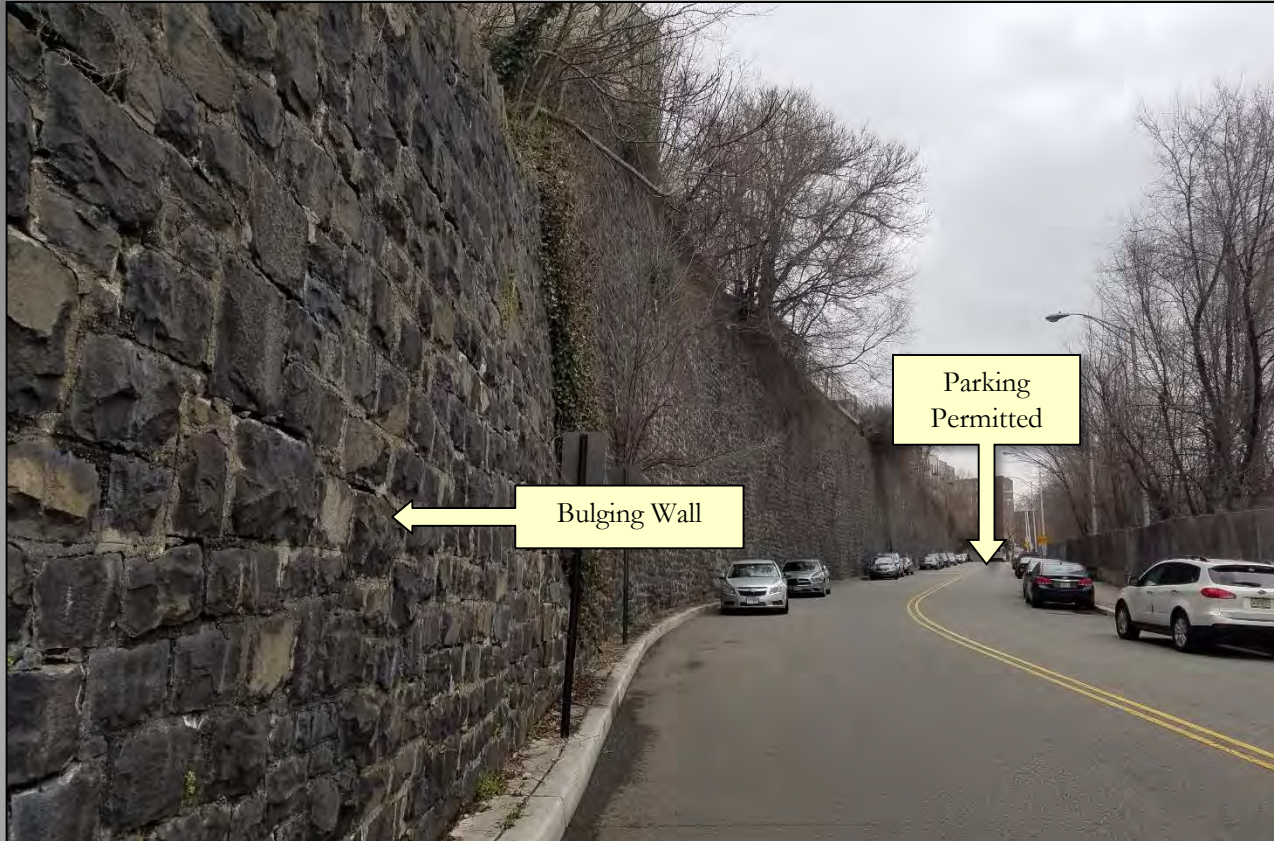
Evaluate Deficiencies



South Wall Overview



North Wall Overview



Existing Parapet on the East side of the roadway



Existing Parapet top of the Wall

- Condition of North Wall is Worse Than the South Wall
 - At least 3 maintenance contracts were completed for the South Wall (1988, 1992 & 2008), but no known repairs to the North Wall.

Existing Conditions – Vertical Cracks/Missing Mortar

- Vertical Cracks and Missing Mortar
 - Many sections of the stone masonry wall exhibit significant structural deterioration, including cracks, mortar joint deterioration, loose and missing stones, and water seepage.
- Inadequate Drainage
 - Many of the existing weep holes are clogged, and do not allow water to drain and discharge adequately from behind the wall.



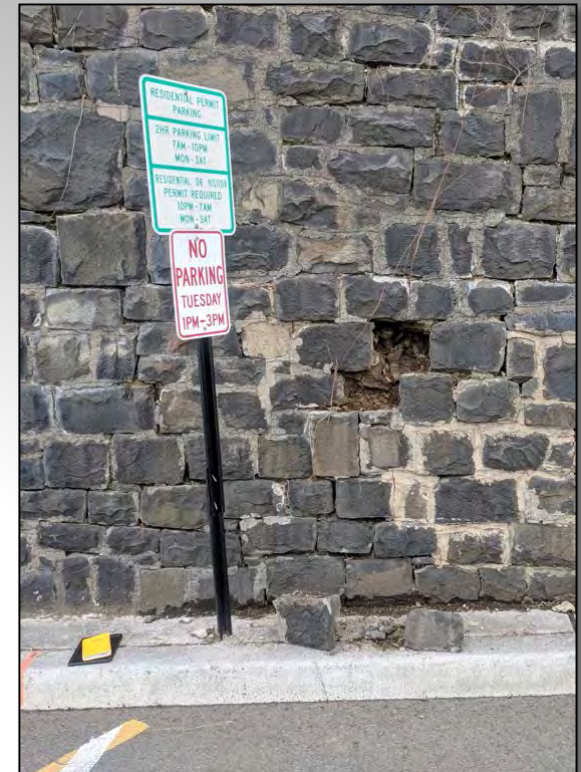
Existing Conditions – Loose and Missing Stones



Loose Stone that fell onto Roadway



Loose Stones on the Curb in Front of the Wall



Dislodged Stones on the Curb in Front of the Wall

Wall Collapse – April 2007

On Sunday, April 15, 2007 in the midst of heavy rains from a Nor'easter storm, a portion of the south retaining wall collapsed.

The collapse was linked to water infiltration and hydrostatic pressure acting on the wall.

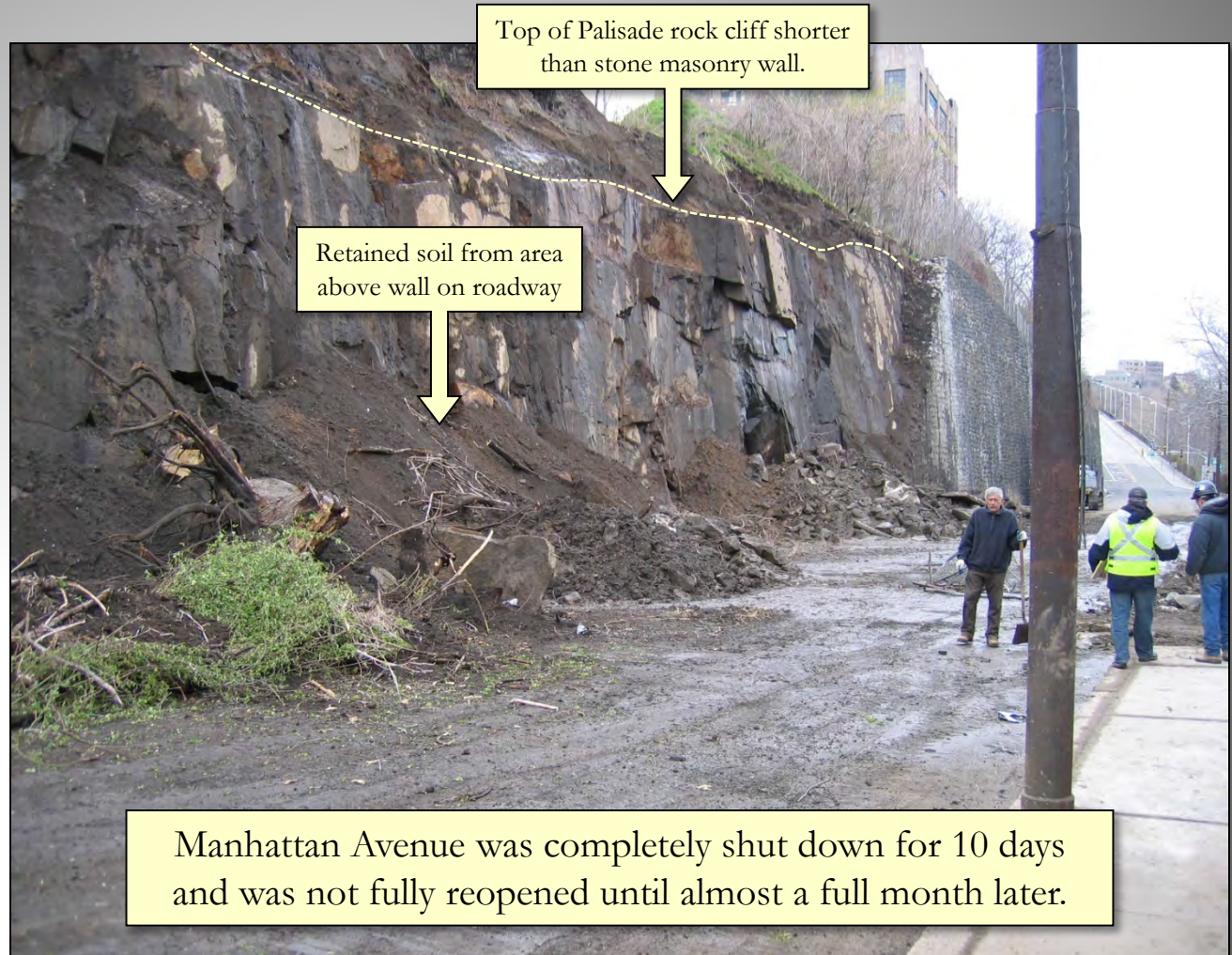
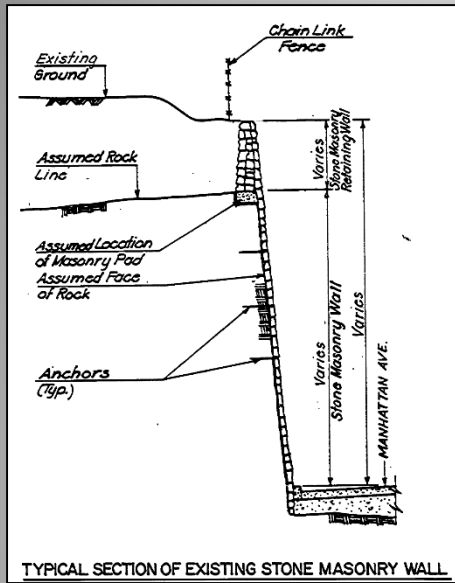
Note: Lack of reinforcement and number of trees in debris pile.



■ Outdated Design

- This failure can be attributed to an outdated design which did not secure the stone to the rock face. This is also a concern during an earthquake.

Wall Collapse – April 2007



Wall Repair – April 2008

- Emergency wall repair does not match adjacent Stone Masonry



Original Stone
Masonry

Cast-in-place concrete
form liner wall

Heavy Staining and
Efflorescence at the
repair transition areas

Original Stone
Masonry

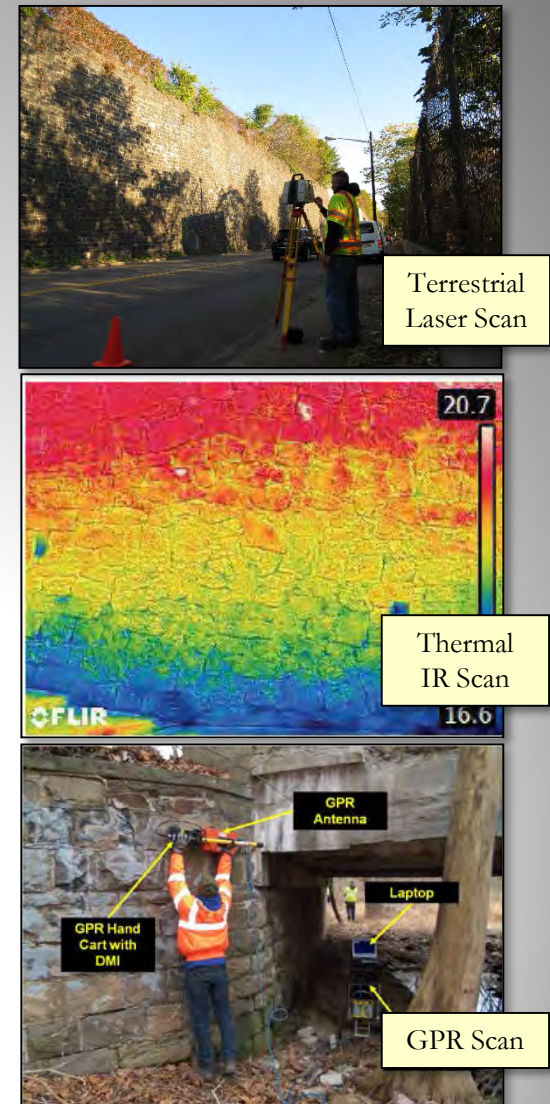
Evaluating Deficiencies

Ongoing Site Investigation:

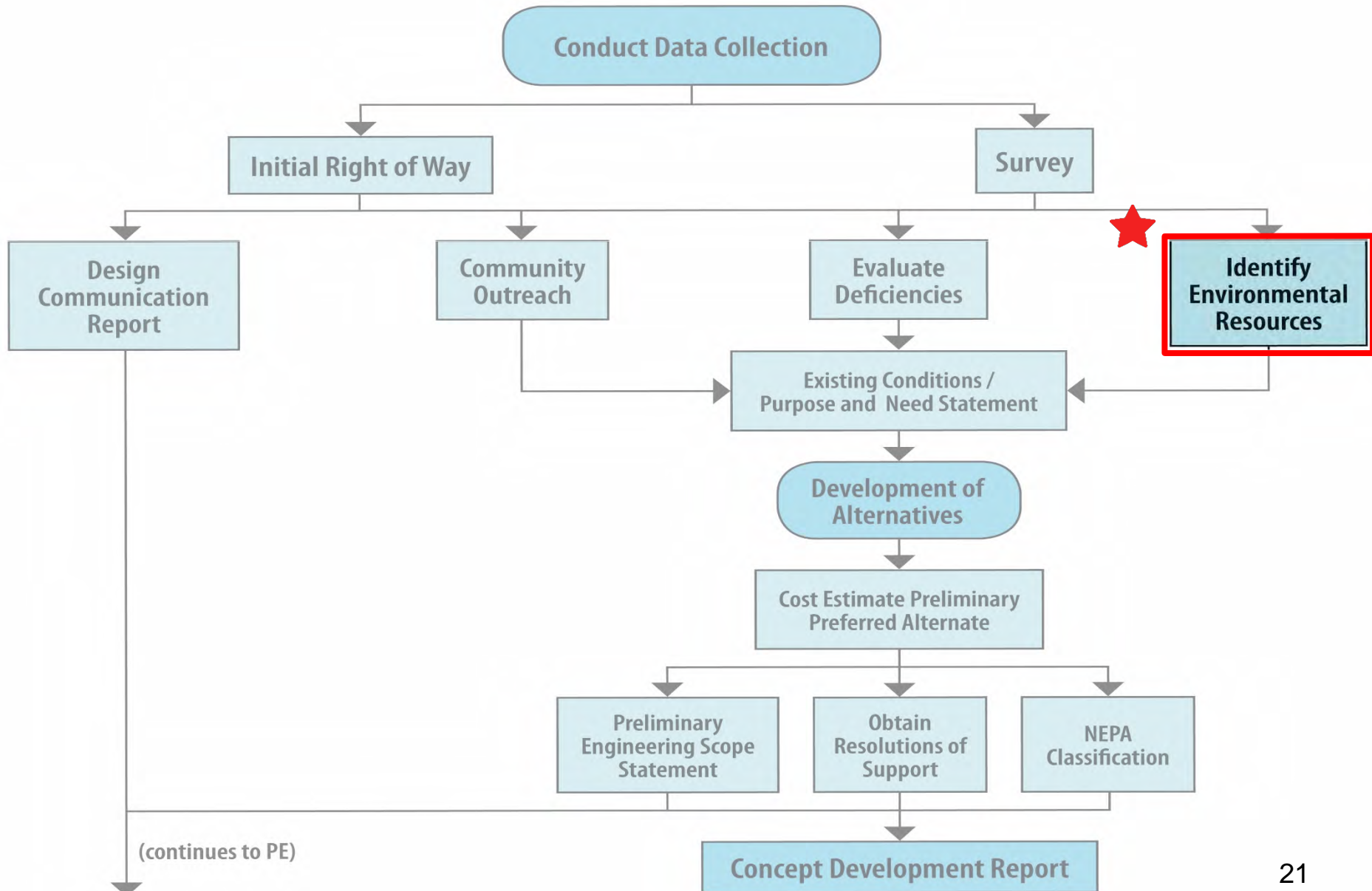
- ✓ FPA is reviewing all available documentation (Inspection reports, wall repair plans, etc.)
- ✓ Vegetation Removal (Dec. 2017)
- ✓ Terrestrial Laser Scan (Dec. 2017)
- ✓ Site Mapping/Survey (Feb. 2018)

- ✓ Traffic Study (ongoing)
- ✓ Thermal Infrared Scan (ongoing)
- ❑ Site Inspection (May, 2018)
- ❑ Ground Penetrating Radar (GPR) (May, 2018)

- **End Goal: Existing Conditions Report**



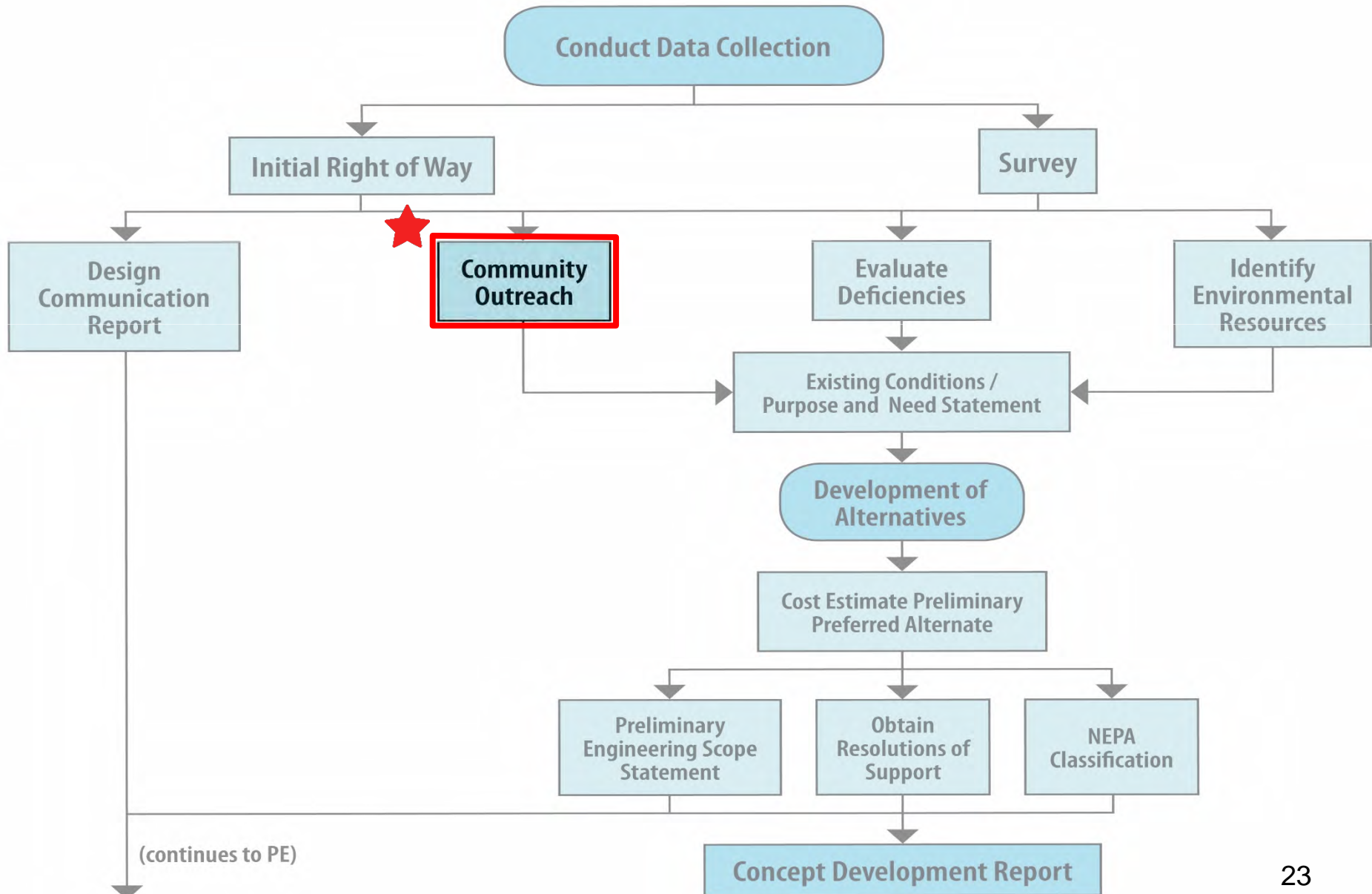
Identify Environmental Resources



Identify Environmental Resources

- Federally funded project requires NEPA (National Environmental Protection Act) documentation
- Environmental Screening
 - Identify environmental resources and constraints
- Constraints Mapping
- Avoid, minimize and mitigate impacts
- Coordination with permitting agencies
- Process includes public input and community involvement

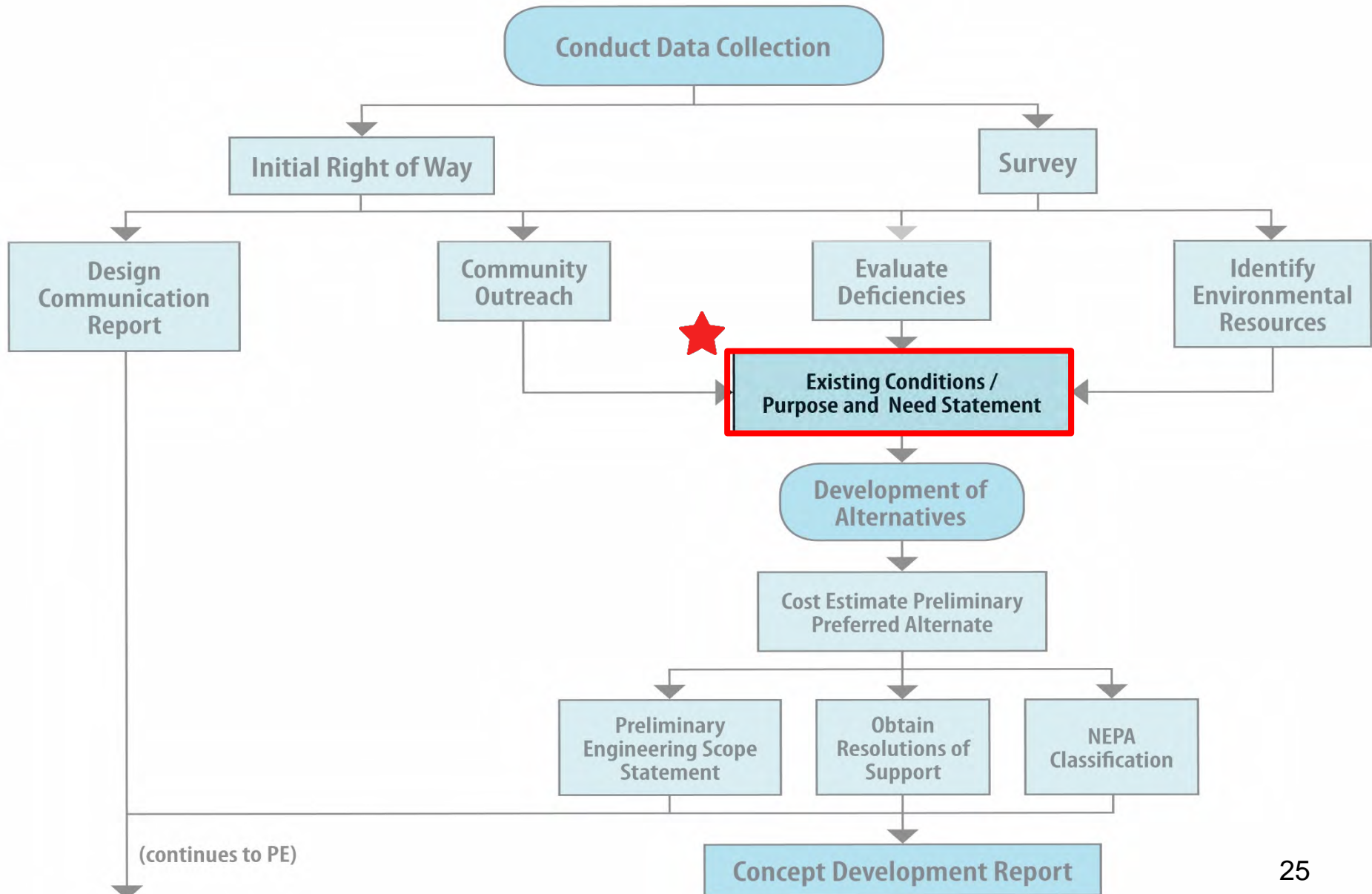
Community Outreach



Community Outreach Schedule

1. Local Officials Meeting (Project Info/Project Purpose and Need) – **April 17, 2018**
2. Public Information Session No. 1 – **April 25, 2018**
3. Stakeholders Meeting No. 1 – **Spring 2018**
4. Stakeholders Meeting No. 2 for Input on Possible Alternatives – **Fall 2018**
5. Public Information Session for Input on Possible Alternatives and Preliminary Preferred Alternatives – **Fall 2018**
6. Local Officials Briefing for input on Preliminary Preferred Alternatives – **Fall/Winter 2018**

Purpose and Need Statement



Purpose and Need Statement

- **A well developed Purpose and Need Statement is necessary to secure funding from the Federal Government.**
 - Makes the argument why this project is necessary and what objectives will be accomplished through project.
 - Possible goals and objectives could be.....
 - Modernization/Improve Seismic Stability/Improve Wall Drainage
 - Maintain Historic Character
 - Increase Reliability/Durability
 - Minimize Traffic Disruptions/Improve Public Safety?
 - We are seeking YOUR input as to why you think this project is important. What do YOU think?

Upcoming Project Schedule

1. Evaluate Existing Conditions – **ongoing**
2. Project Purpose and Need – **Spring 2018**
3. Existing Conditions Report – **Spring 2018**
4. Development of Conceptual Alternatives – **Summer 2018**
5. Select Preliminary Preferred Alternative – **Fall 2018**
6. Submit Draft Concept Development Report – **Spring 2019**
7. Completion of Concept Development Phase – **June 2019**

Project Contact Information

- Nicole Pace-Addeo, MA – Stokes Creative Group, Community Involvement Facilitator
 - Phone: [201-564-0119](tel:201-564-0119)
 - Email: npace@stokescg.com
- Manhattan Avenue Project Website and Twitter:
 - www.ManhattanAvenueWall.com/contact/
 - Twitter: [@ManhattanAvWall](https://twitter.com/ManhattanAvWall)
- Public Comments and Suggestions will be received throughout the project via the project website and hotline.
- **This Power Point Presentation will be posted on the Manhattan Avenue Project website after this PIC meeting.**





Questions & Comments