

o a k t e r r a c e
p r e s e r v e



Oak Terrace Preserve as a Case for Sustainable Development

Elias Deeb, Noisette Company



The City of North Charleston

Oak Terrace Preserve

- Project History
- Infill Development
- Urban Planning
- Tree Preservation
- Storm Water Management



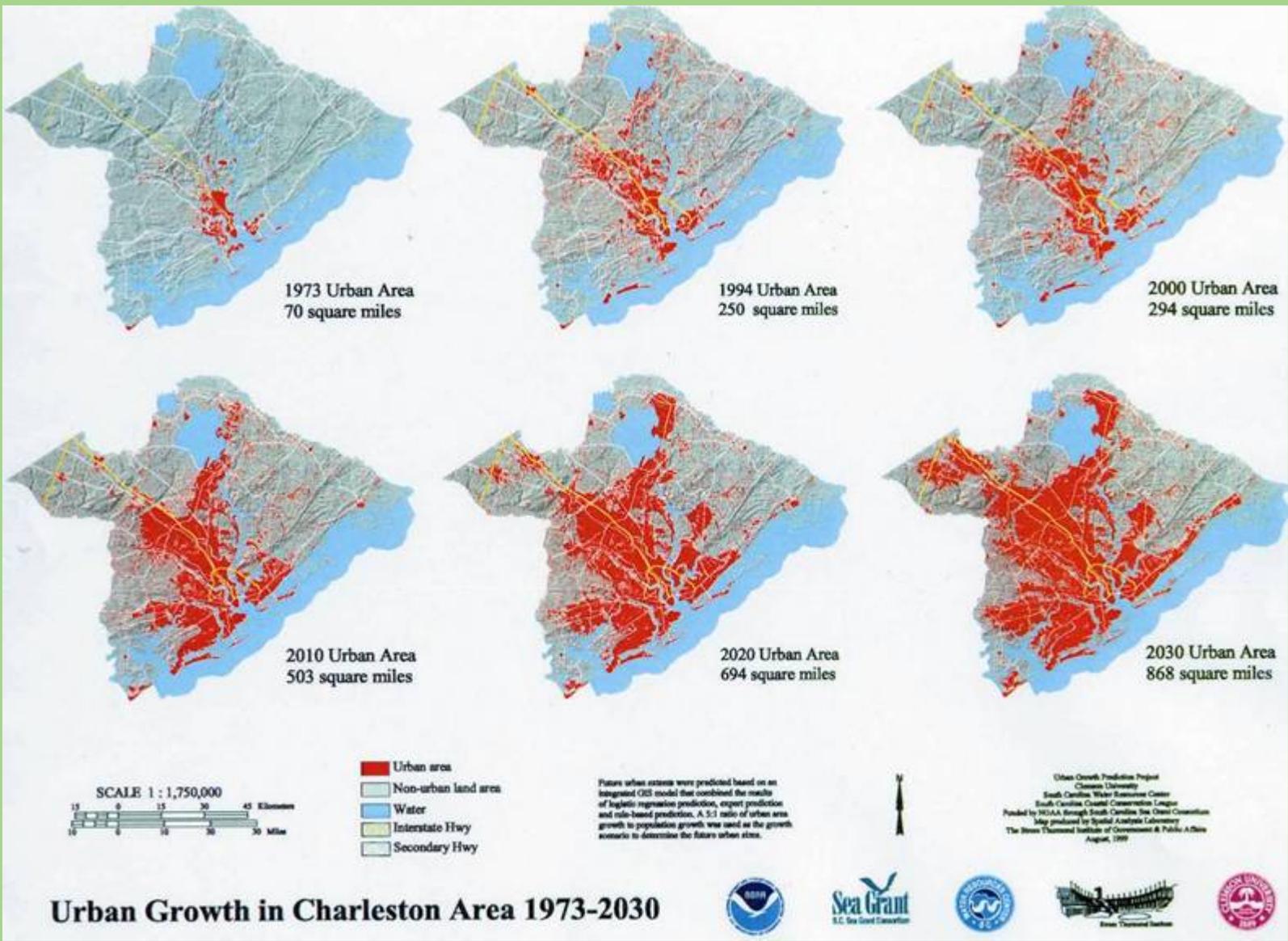
Restoring a Garden City

Oak Terrace Preserve

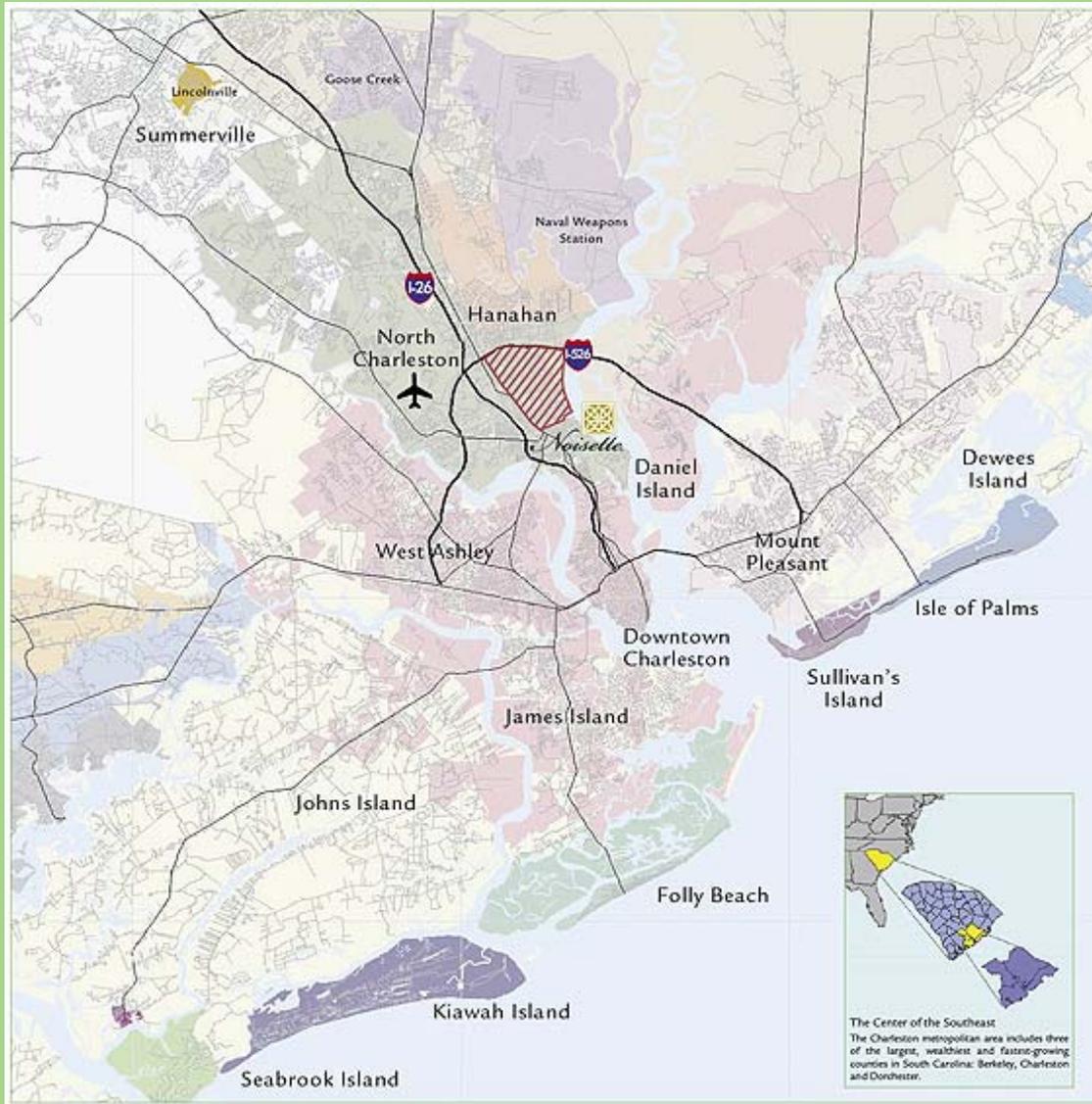


...a time whose idea has come

Urban Growth in Charleston Area 1973 - 2030



Center of the Lowcountry



Welcome to the New American City

Noisette is a 3,000-acre sustainable community being developed in the heart of the Lowcountry of Charleston, South Carolina. Located midway between New York and Miami, and within a short drive of population centers like Charlotte, Atlanta and Jacksonville, this is one of America's most popular growth areas.

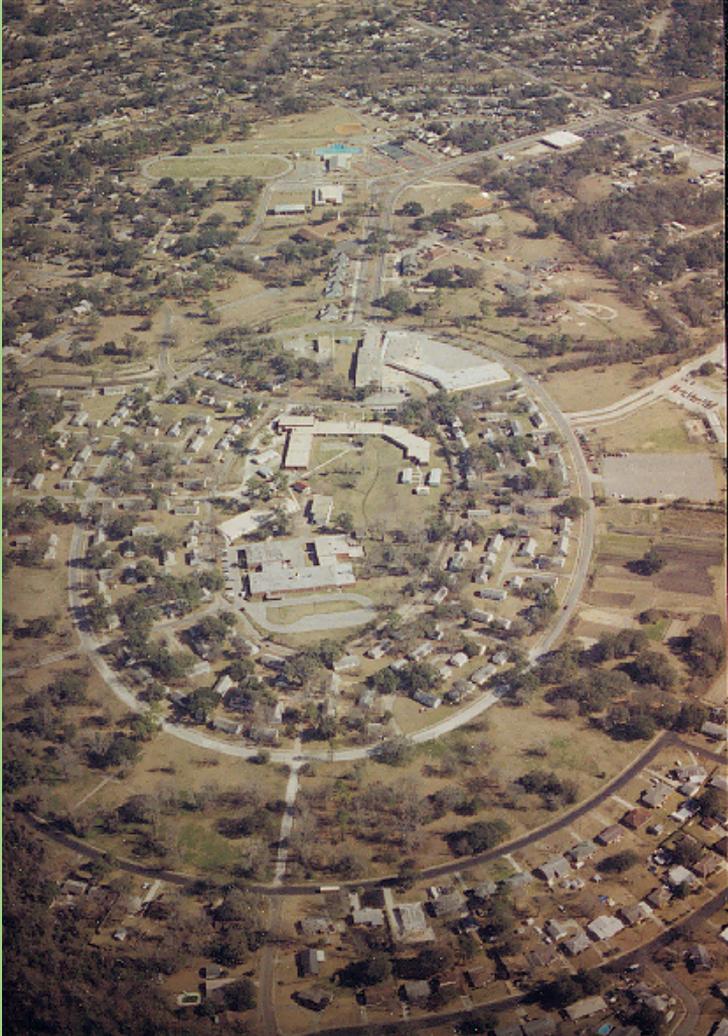
Restoring a Garden City



In early 2001, The City of North Charleston identified 5 areas of concern in the Noisette footprint: Century Oaks, Calhoun Homes, Northpark Village, GARCO and the abandoned Charleston Navy Yard.

Today all 5 areas are actively being redeveloped.

Old Century Oaks



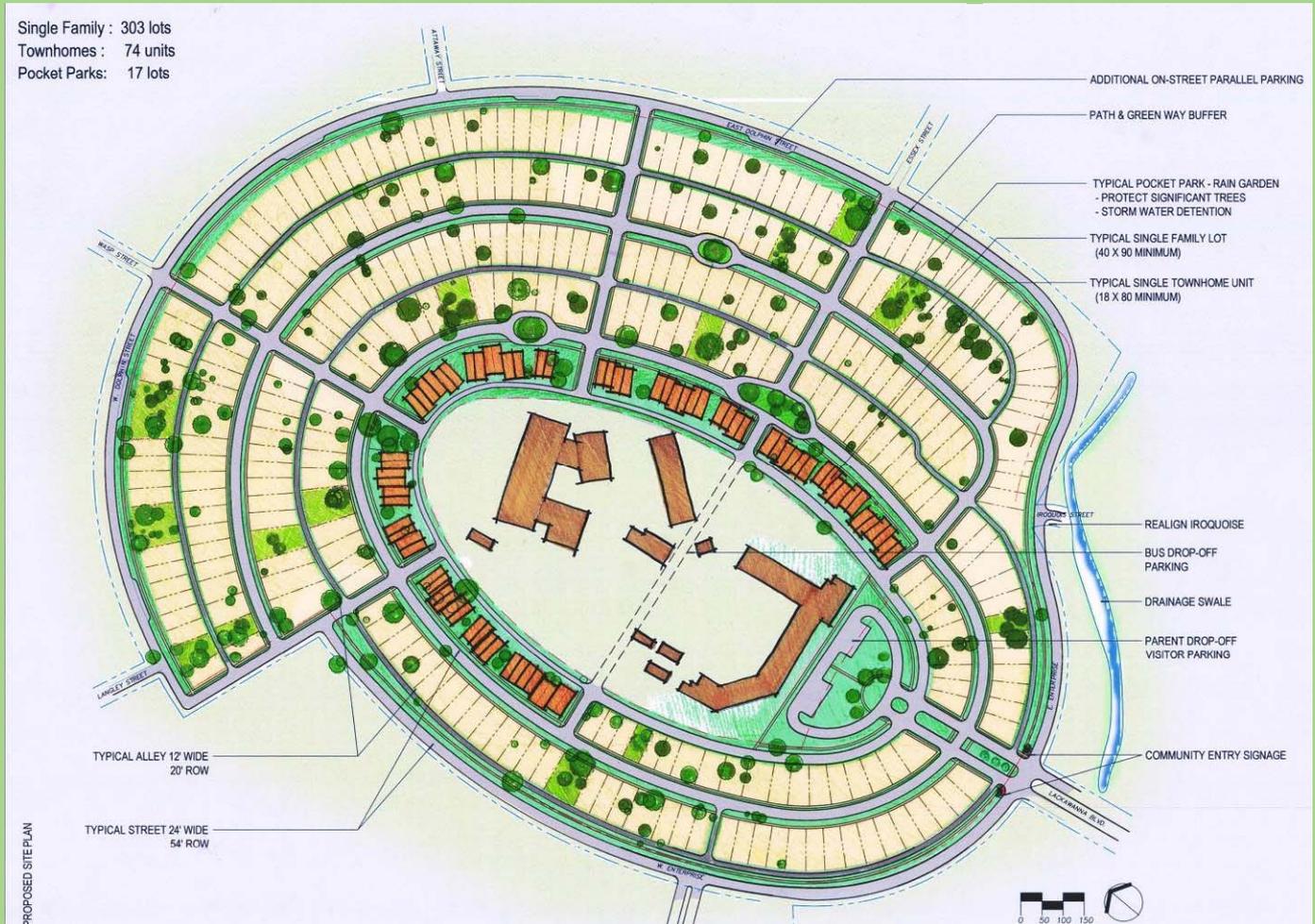
- World War II era community
- Temporary shelters for shipyard workers and their families throughout the 1940's
- Occupied as rental units until 5 years ago

Restoring a Garden City

In Progress ...

Oak Terrace Preserve (formerly Century Oaks)

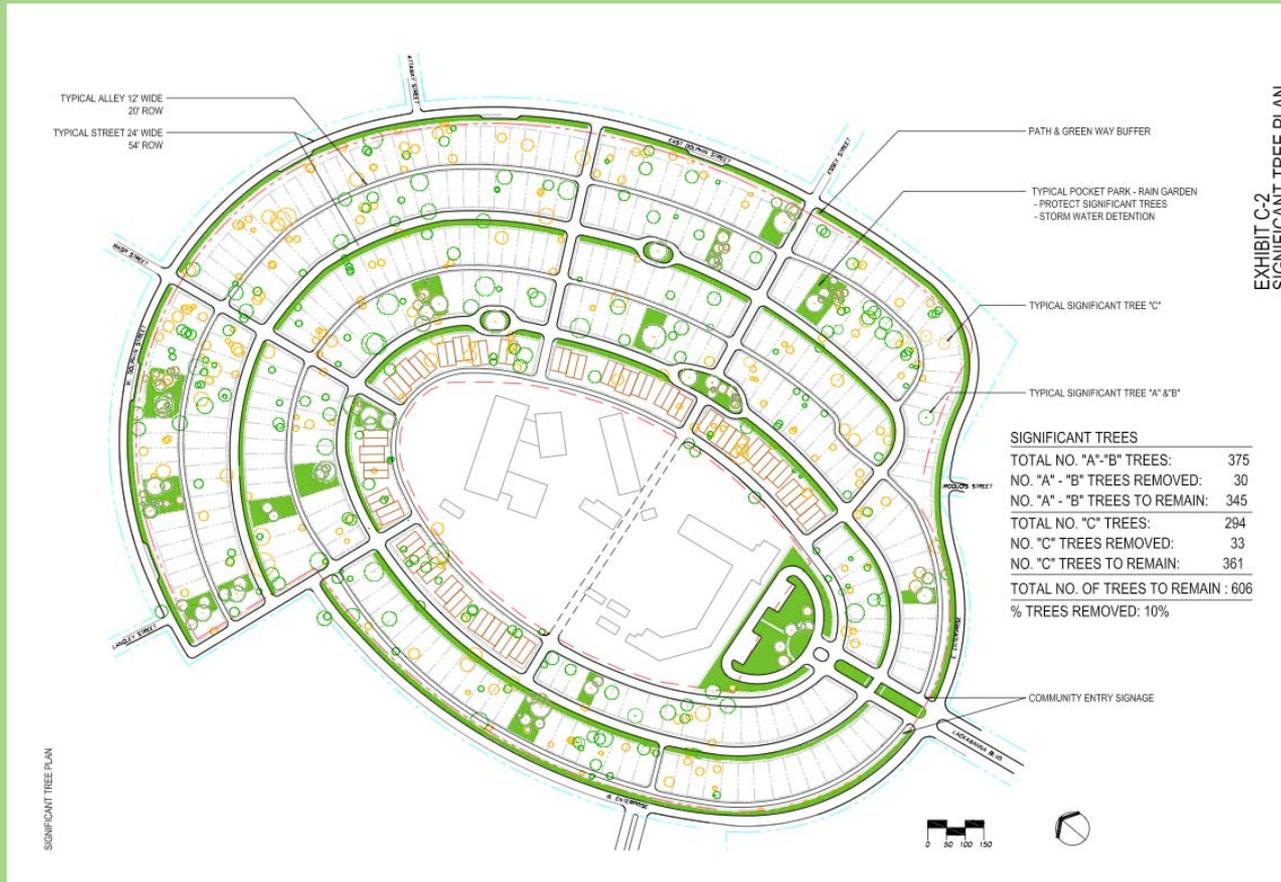
Originally built as a temporary housing community for war-time workers, Century Oaks is being converted to a sustainable neighborhood of 370 homes and townhomes. The Noisette® Company is managing the design and development of this 55-acre project for the City of North Charleston.



Planned Development District



Tree Management



- Proactive approach
- **All** trees graded from A-F
- 90% of A, B and C trees saved

Oak Terrace Preserve

Noisette Quality Home Standard

- Earthcraft House
- Hot, humid climate
- Third party inspector
- 200 point system
- 100% of Oak Terrace Preserve Homes certified



Major certification categories:

- Site planning
- Energy efficient building envelope and systems
- Energy efficient lighting and appliances
- Resource efficient design
- Resource efficient building materials
- Waste management
- Water – indoor and outdoor
- Homebuyer education
- Builder operations
- Bonus points

Implementation



The New American City

Implementation



The New American City

Implementation



The New American City

Implementation



The New American City

Implementation



The New American City

Implementation



The New American City

Implementation



The New American City

Stormwater Management

Restoring a Garden City

Stormwater Management

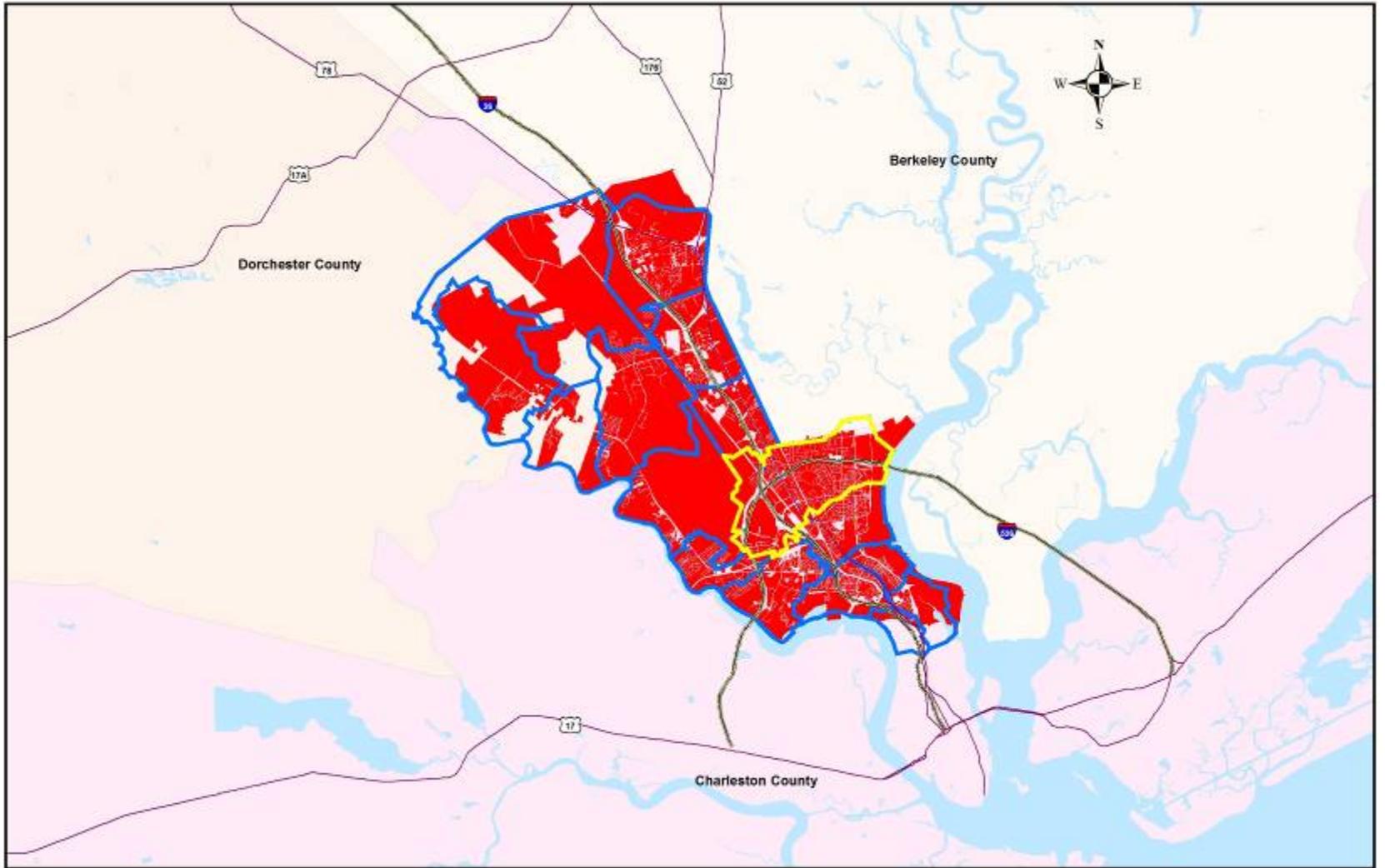
Management Goals

- Minimize Hydrologic Impacts
- Maximize Capture and Removal of Pollutants
- Maintain Flood Control
- Sustain (all of the above)

Management Practices

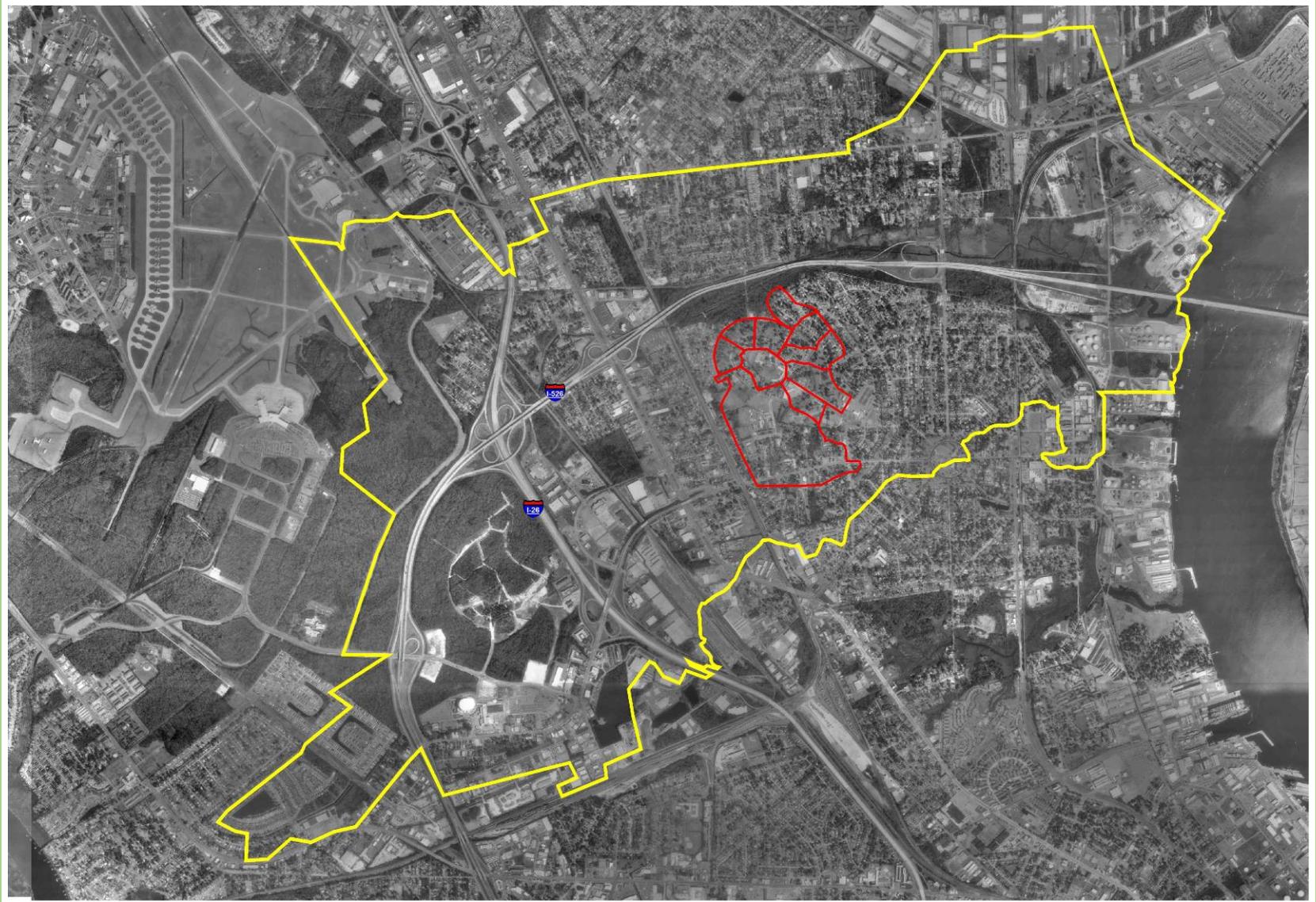
- Minimize Impervious Surfaces (at least those directly connected)
- Introduce Retention / Filtration of Runoff
- Provide Ample Collection and Conveyance Capacity
- Factor and Assign Maintenance Activities and Responsibilities

Project Vicinity

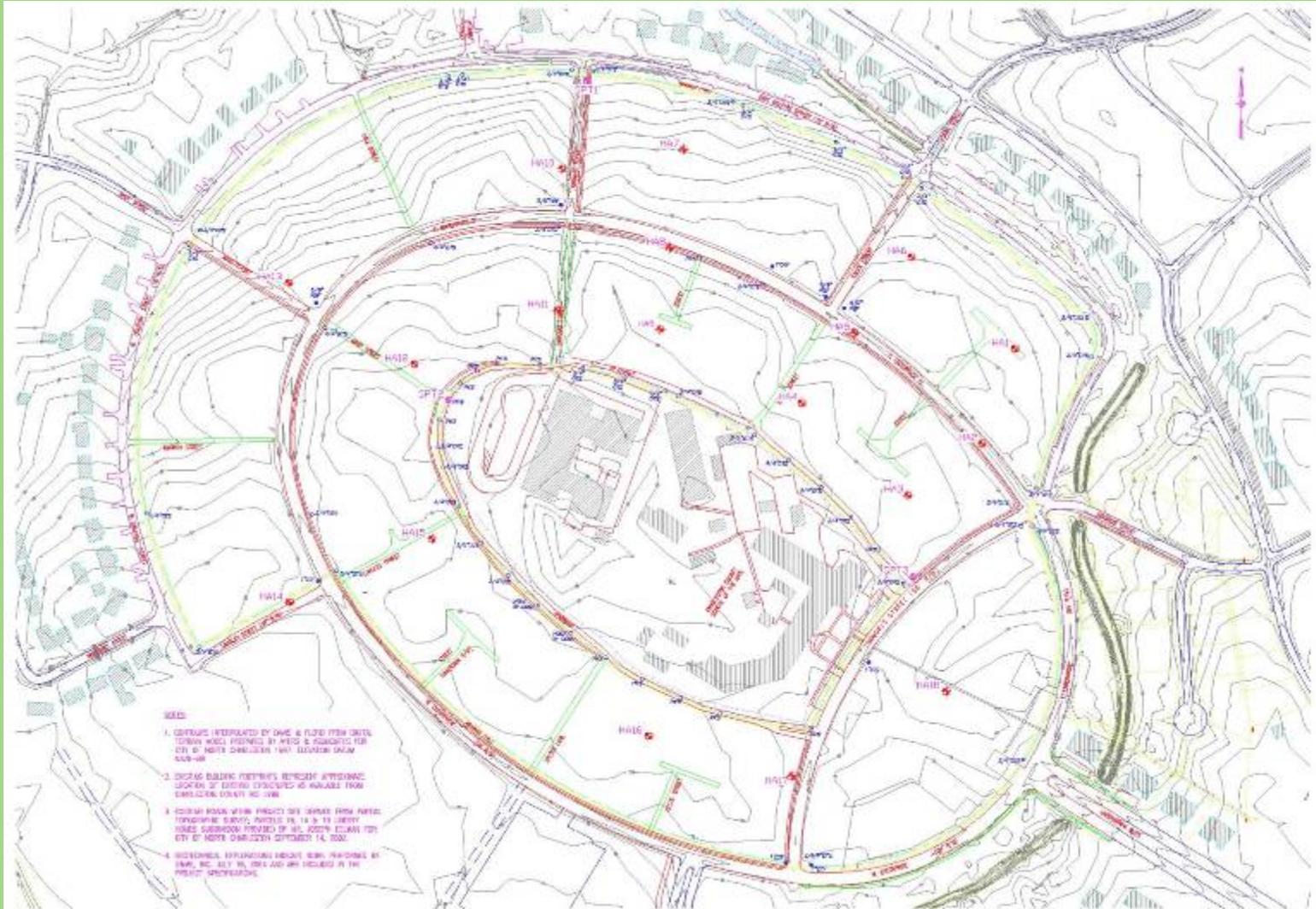


The New American City

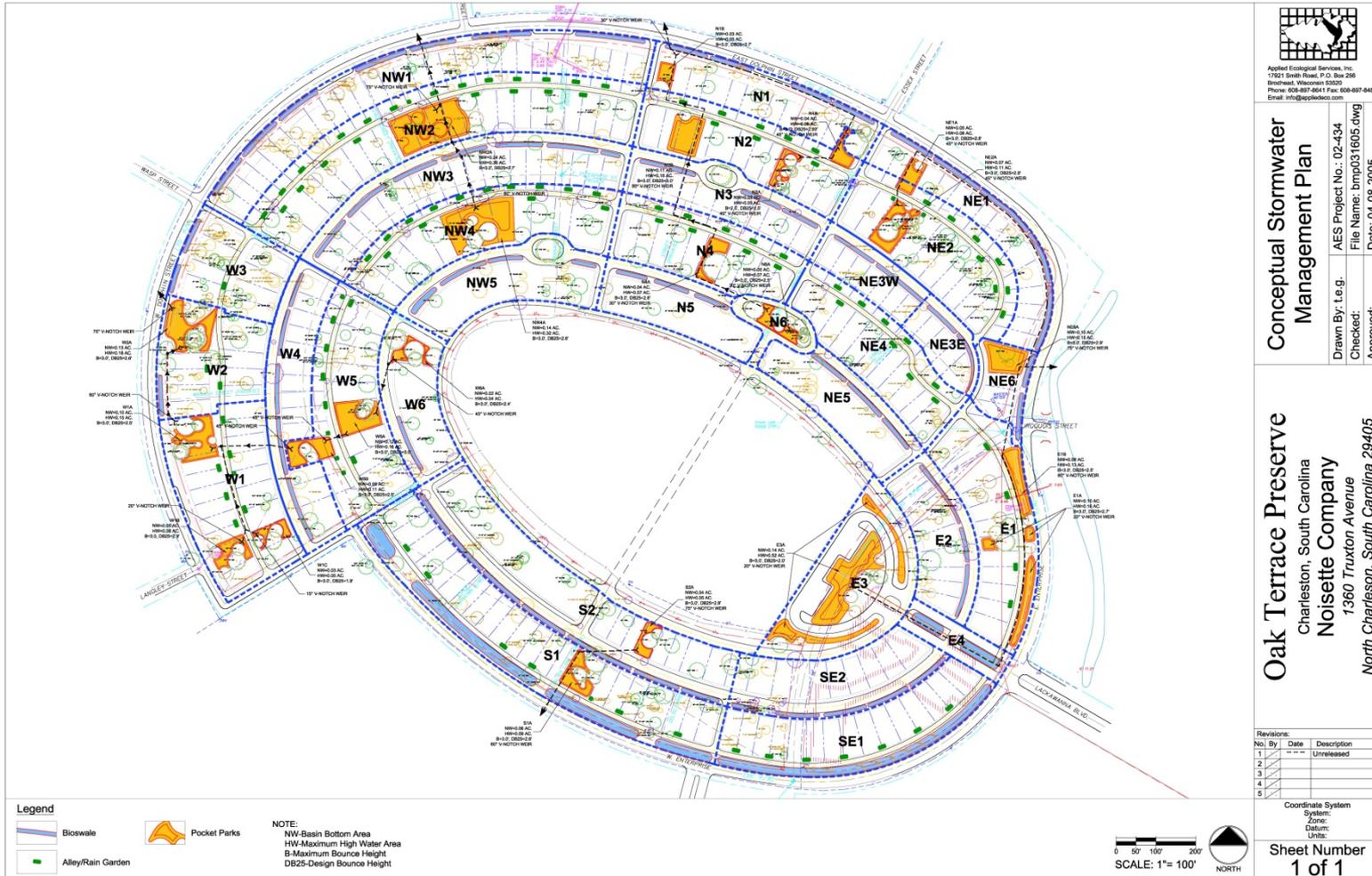
Regional Hydrology



Site Fabric



Management Plan



Conceptual Stormwater Management Plan

Oak Terrace Preserve
 Charleston, South Carolina
Noisette Company
 1360 Truxton Avenue
 North Charleston, South Carolina 29405

Applied Ecological Services, Inc.
 17821 Smith Road, P.O. Box 256
 Brentwood, Wisconsin 53520
 Phone: 608-897-4641 Fax: 608-897-8486
 Email: info@aesplan.com

AES Project No.: 02-434
 File Name: bmp037605.dwg
 Date: 04-08-2005

Drawn By: t.e.g.
 Checked: bmp037605.dwg
 Approved:

Management Plan



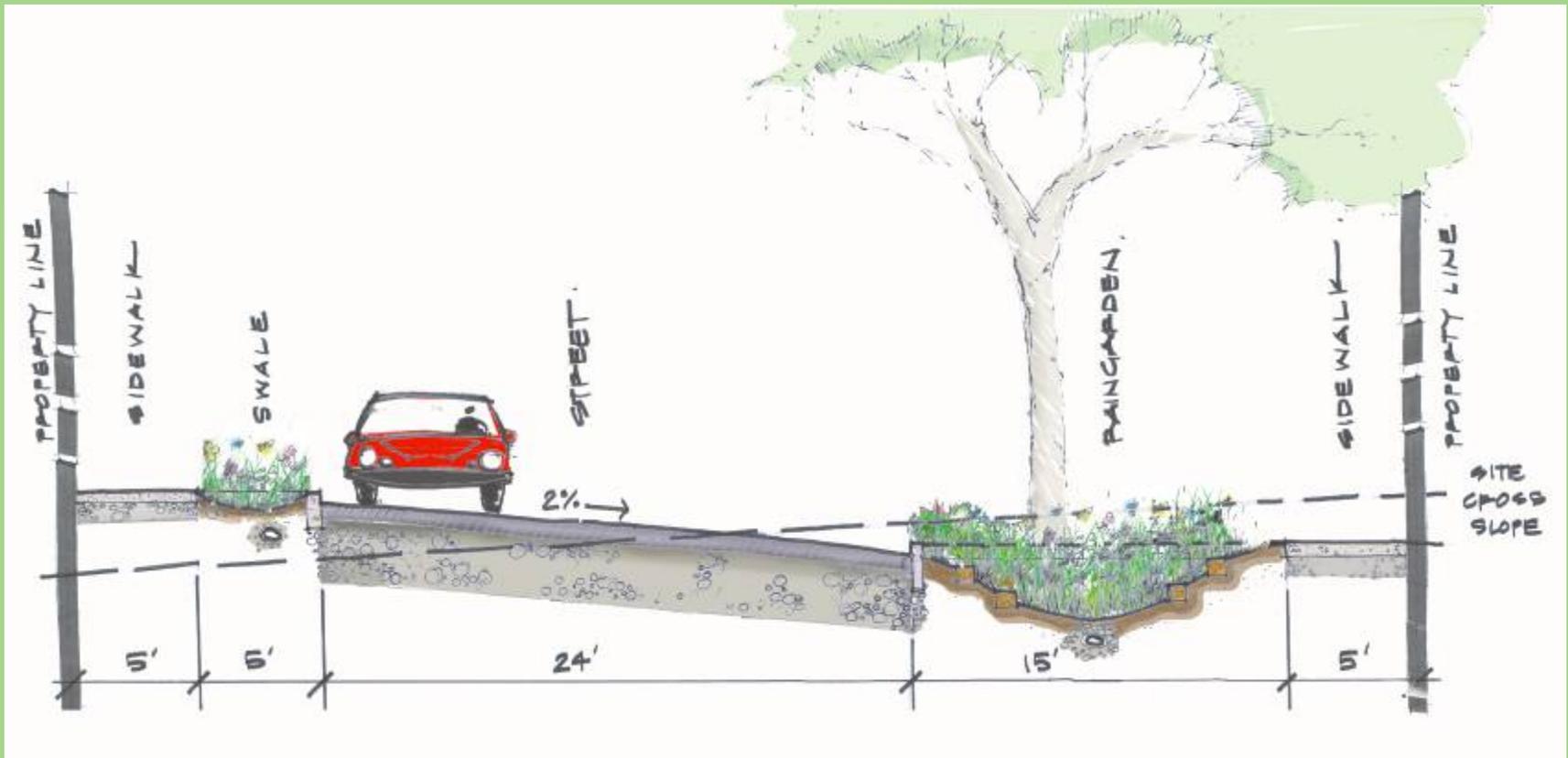
Management Approach

1. Collect and Retain Runoff from Impervious Surfaces

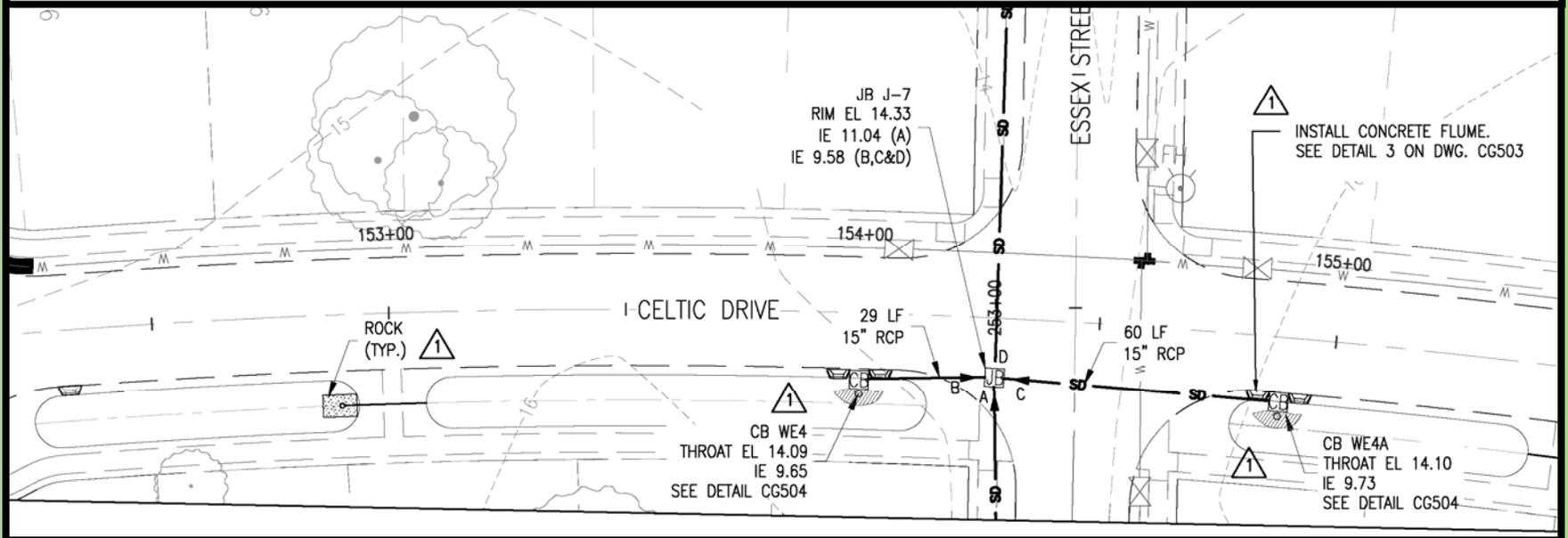
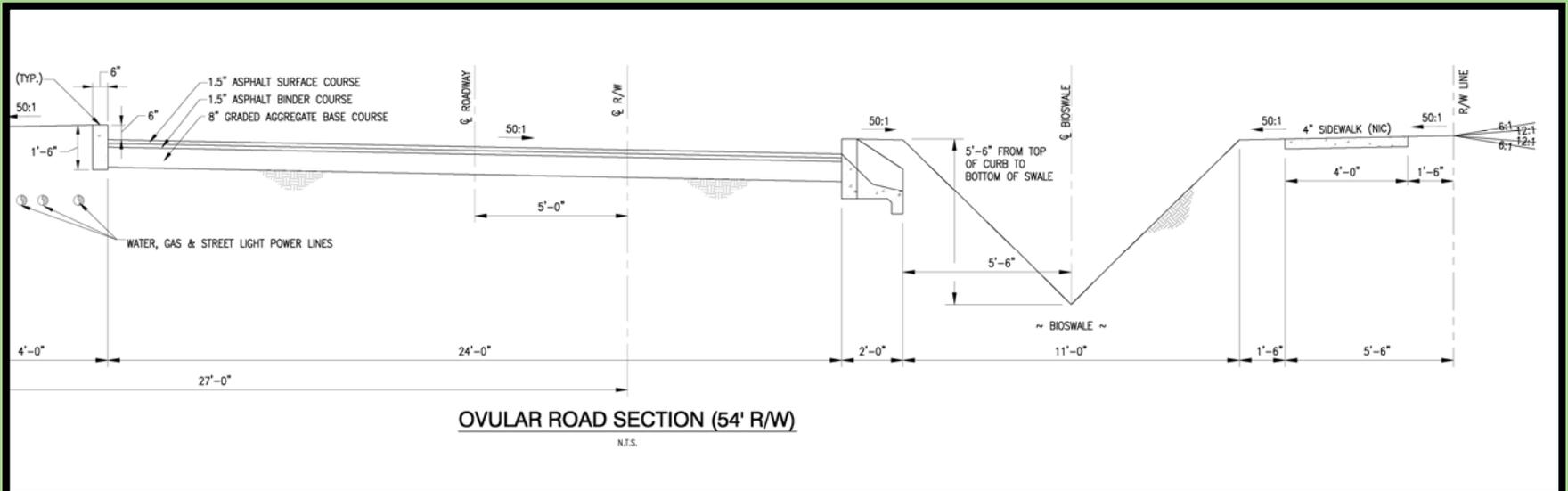


The New American City

Management Approach

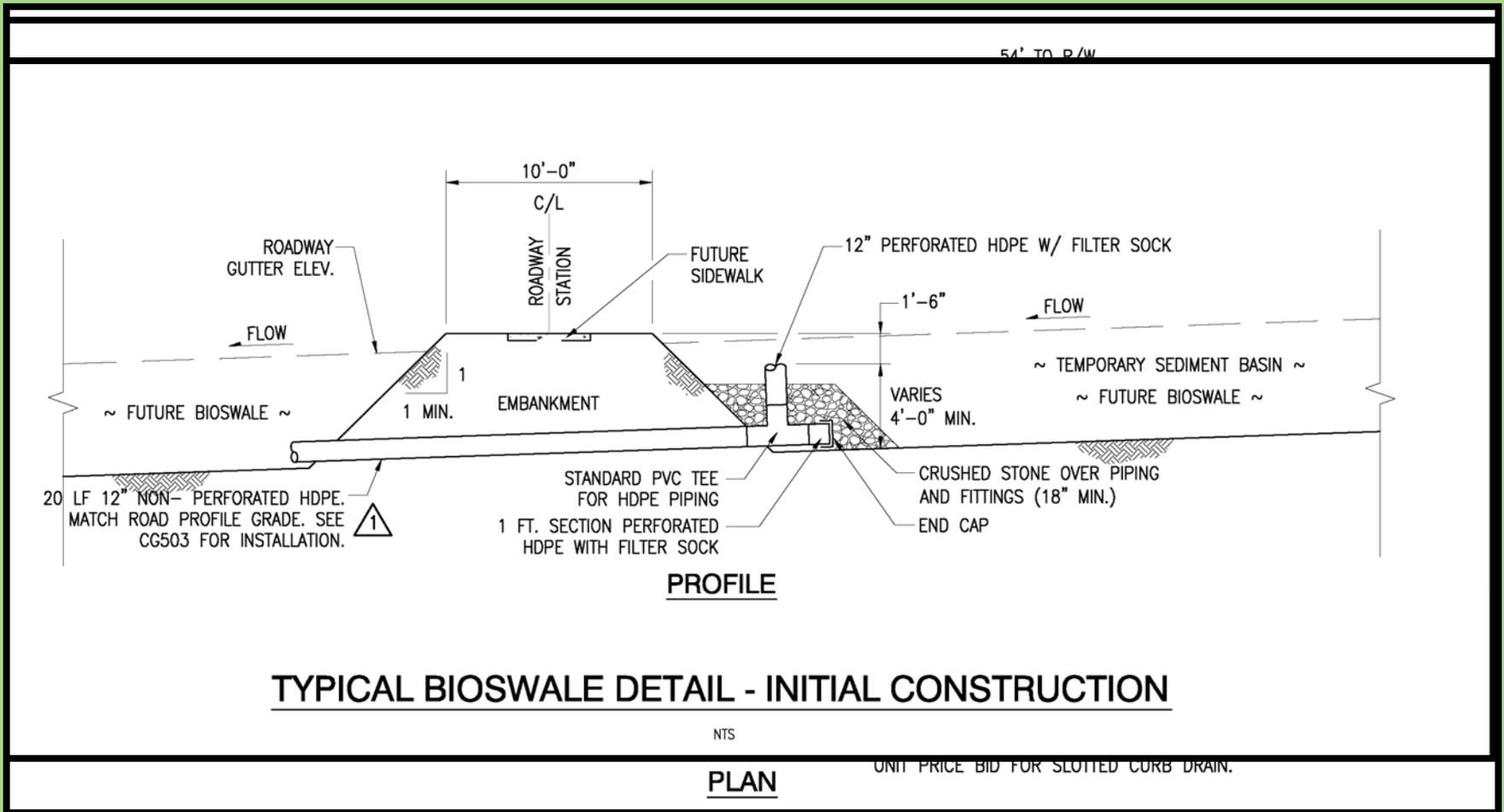


Site Hydrology – Street Section



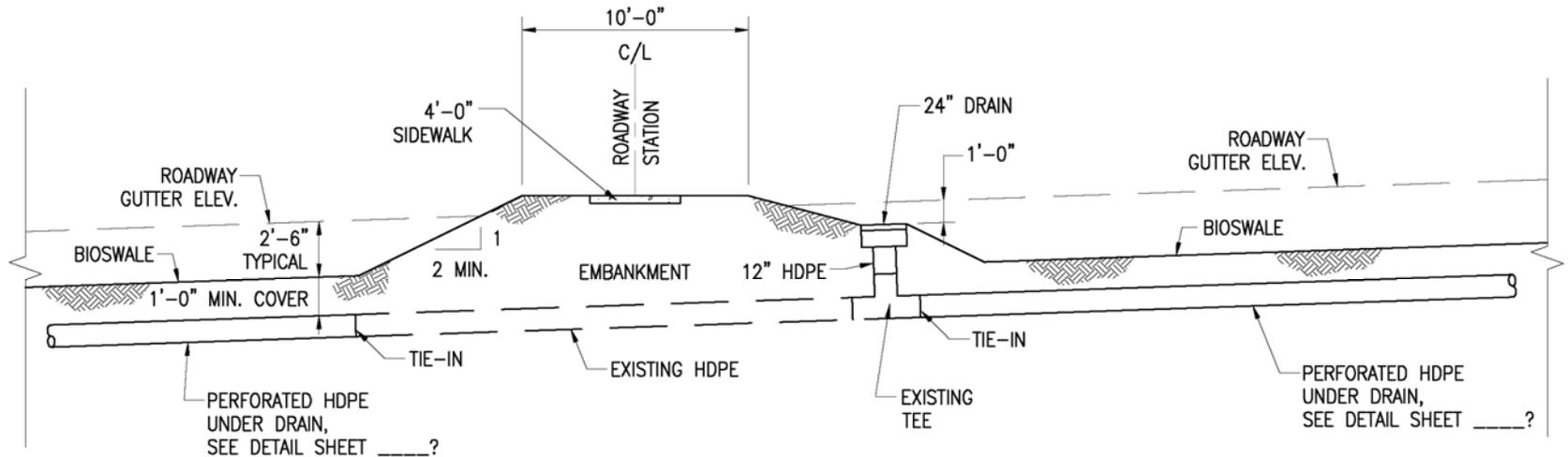
Site Hydrology – Street Section

Initial Construction



Site Hydrology – Street Section

Final Construction



PROFILE

TYPICAL BIOSWALE DETAIL - FINAL CONSTRUCTION

NTS

Implementation



The New American City

Implementation



The New American City

Implementation



The New American City

Implementation



The New American City

Implementation



The New American City

Implementation



The New American City

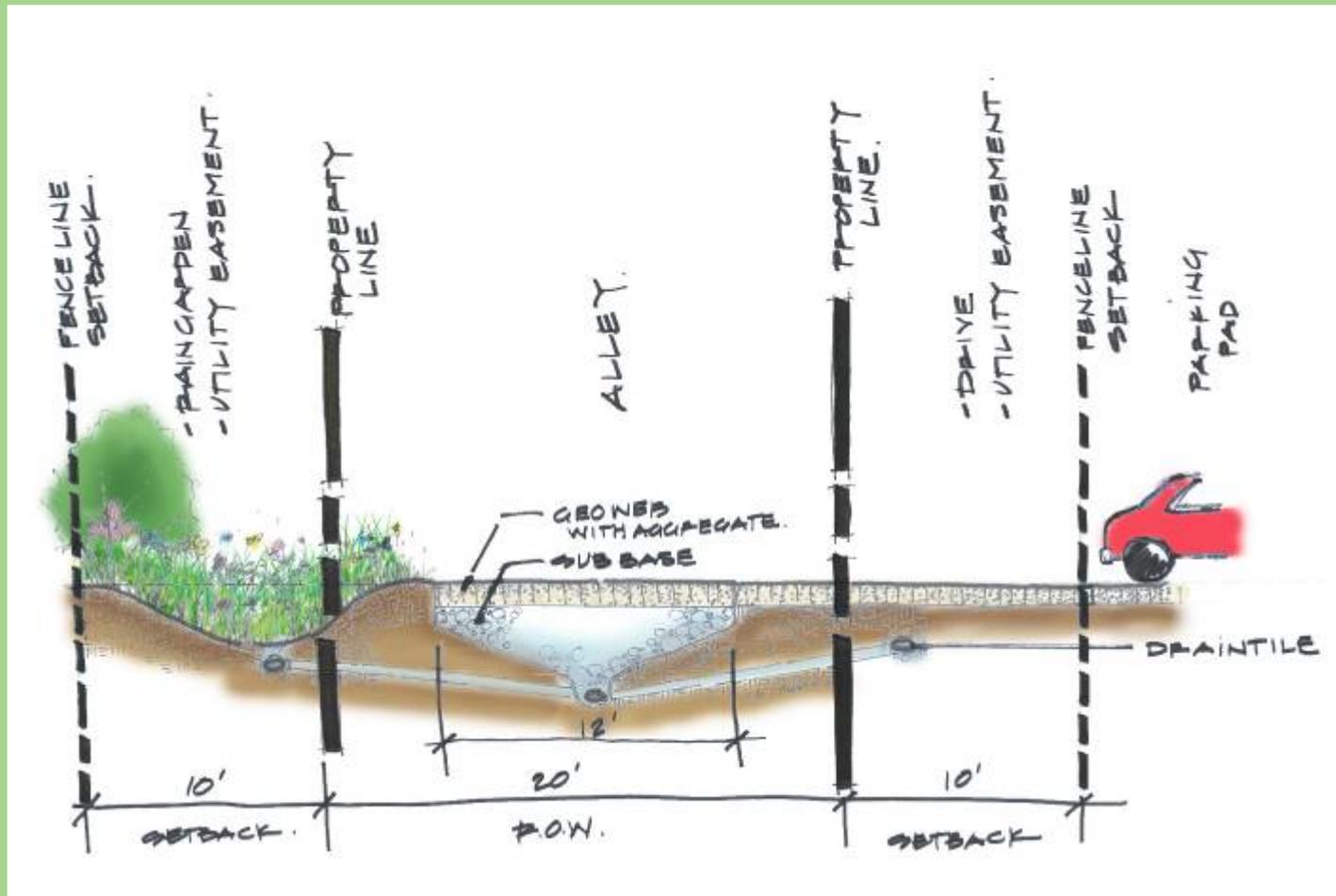
Implementation



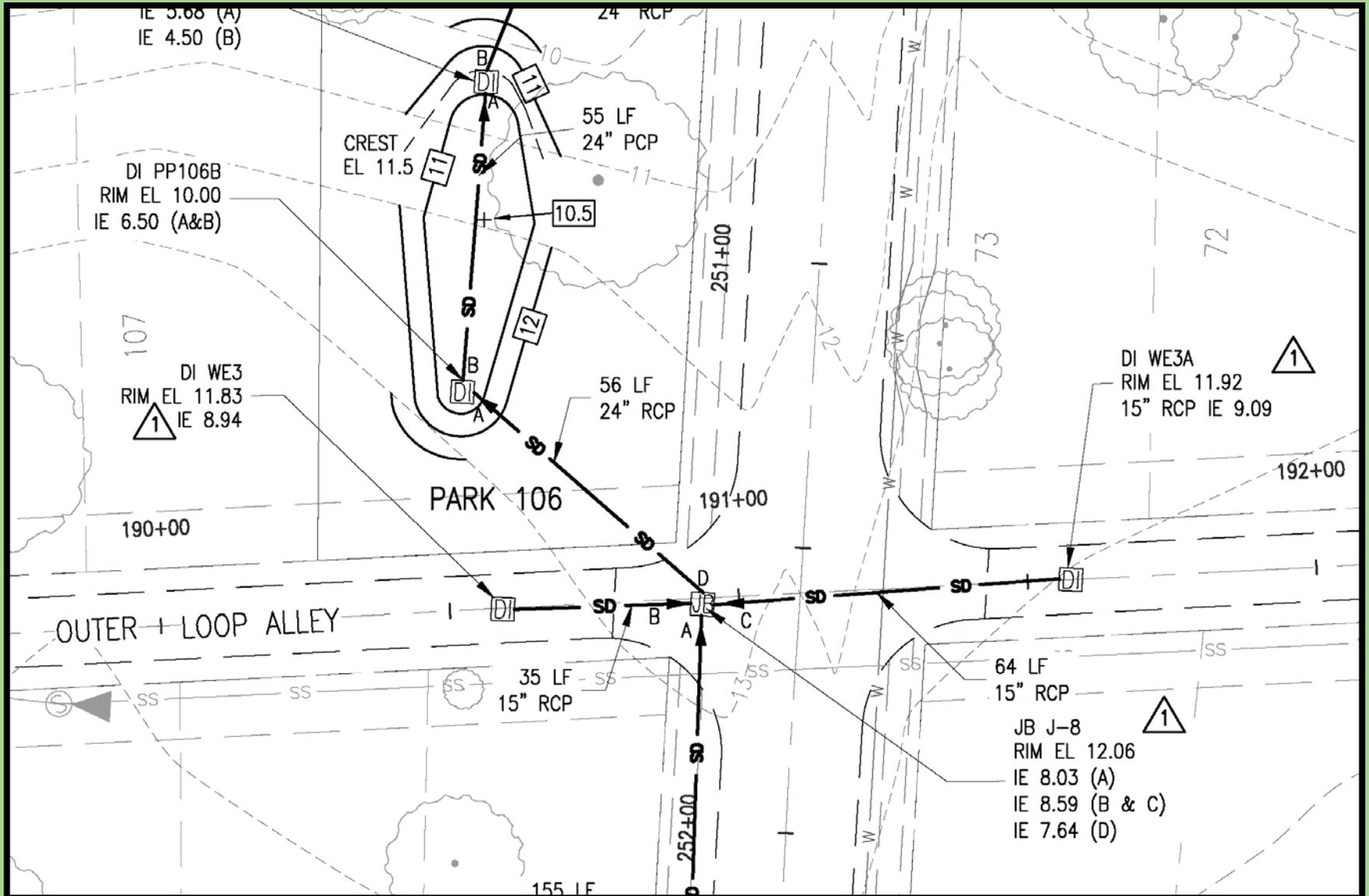
The New American City

Management Approach

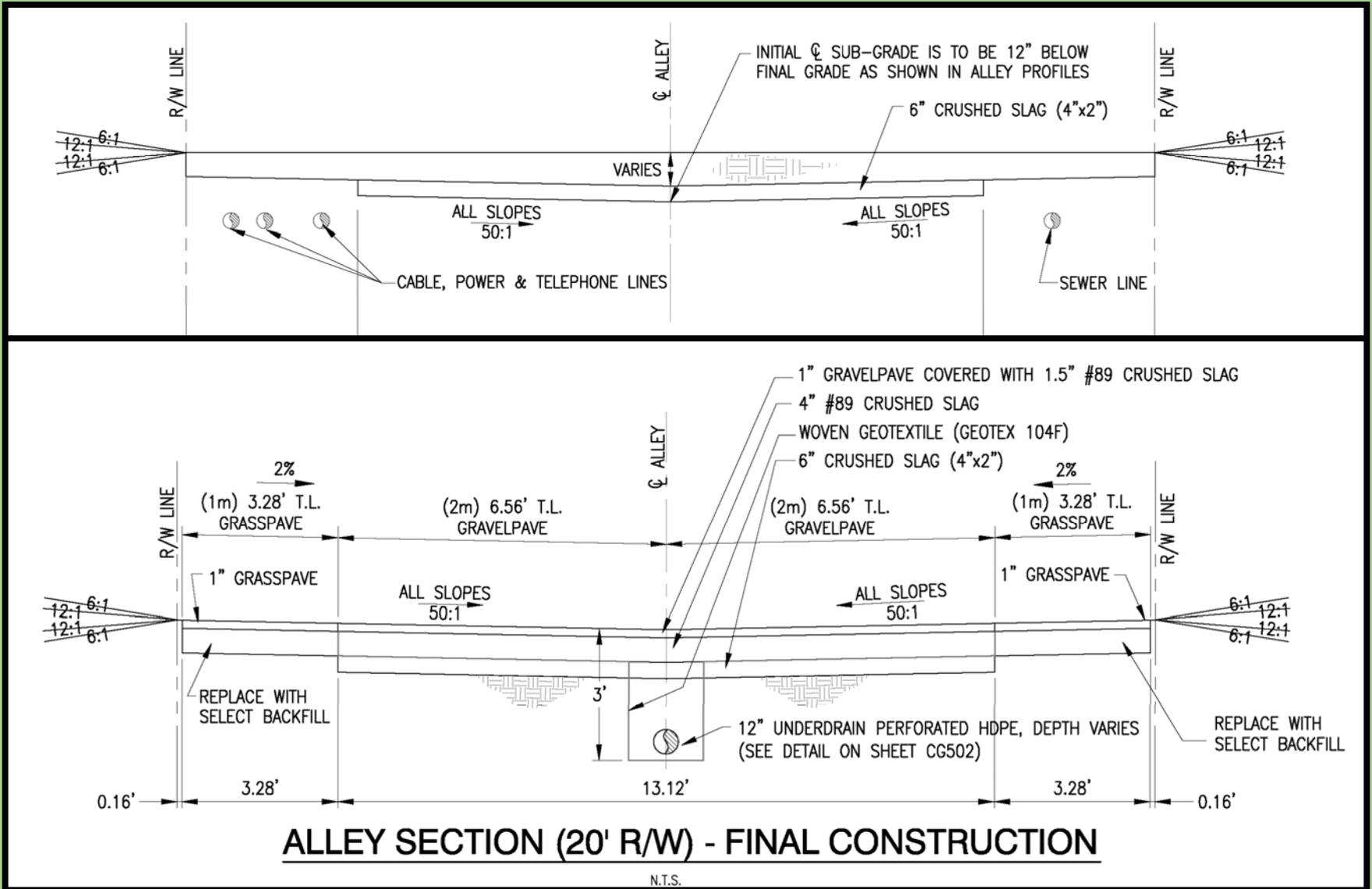
2. Reduce Runoff from Impervious Surfaces



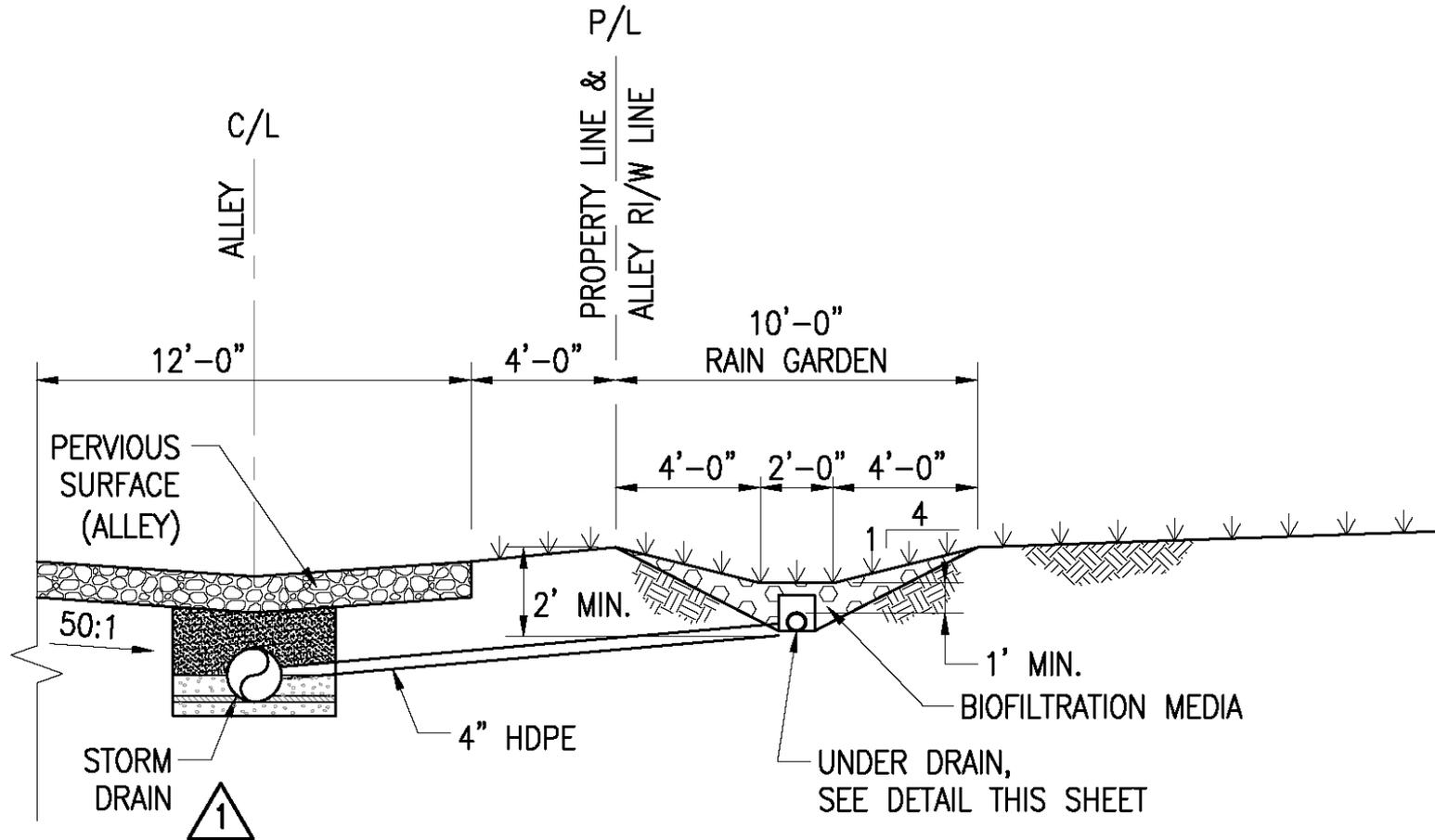
Site Hydrology – Alley Section



Site Hydrology – Alley Section



Site Hydrology – Alley Section



SECTION 'C'

Implementation



The New American City

Implementation



The New American City

Implementation



The New American City

Implementation



The New American City

Implementation



The New American City

Implementation



The New American City

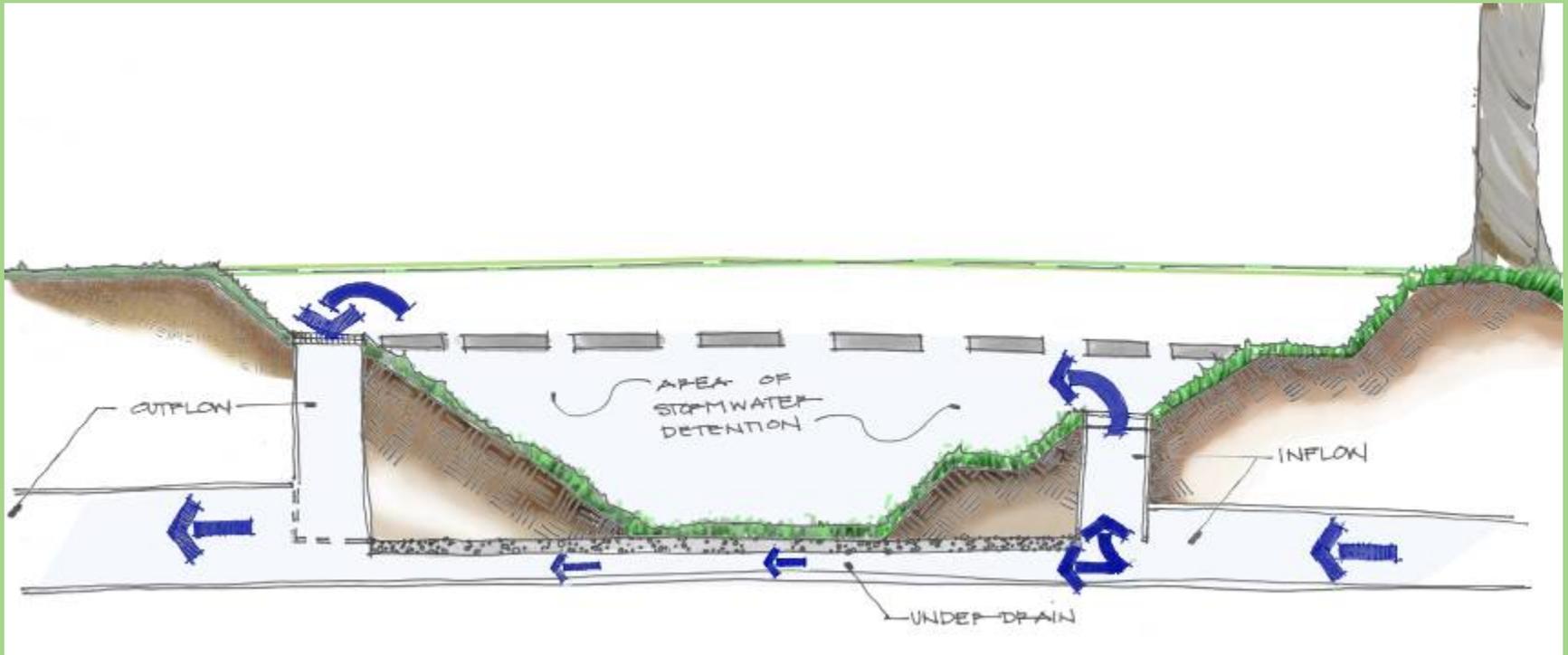
Implementation



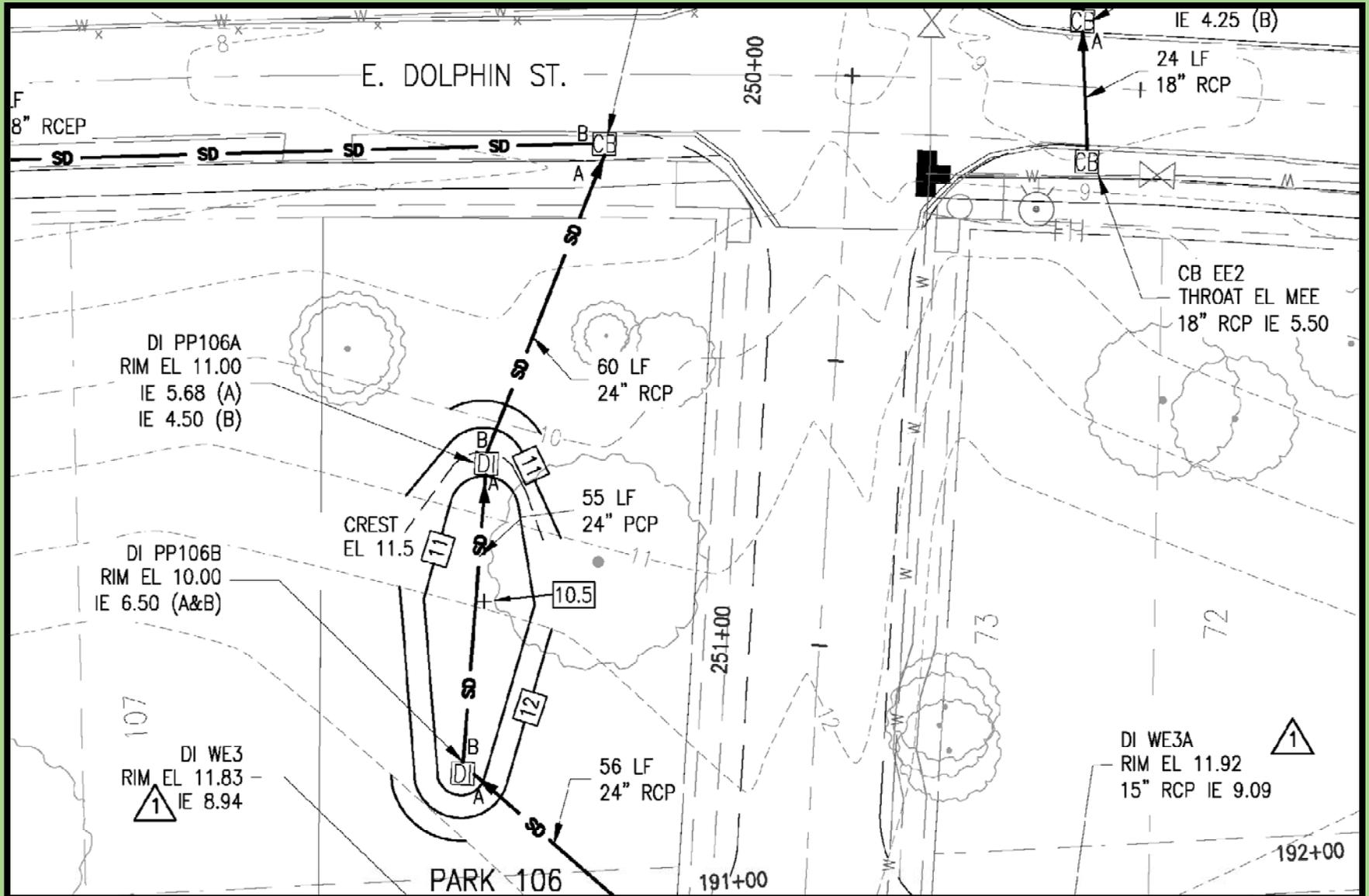
The New American City

Management Approach

3. Detain Increased Volumes



Site Hydrology – Pocket Parks



Implementation



The New American City

Implementation

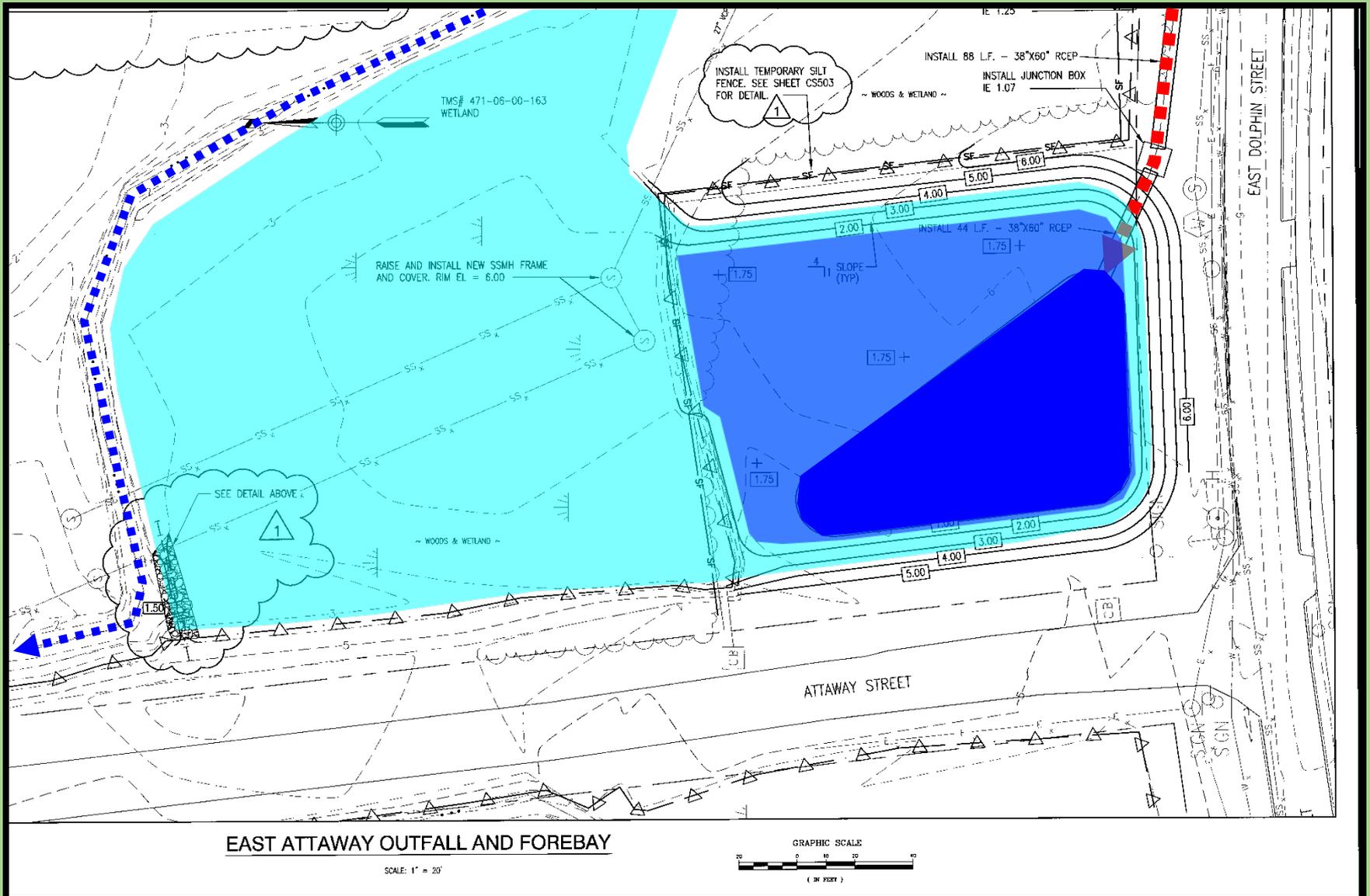


The New American City

Site Hydrology – Forebay



Site Hydrology – Forebay



Implementation



The New American City

Implementation



The New American City

Management Approach



The concept behind creating a sustainable development is as simple as it is profound: Fulfill the needs of *this* generation without compromising the ability to fulfill the needs of the *next* generation.

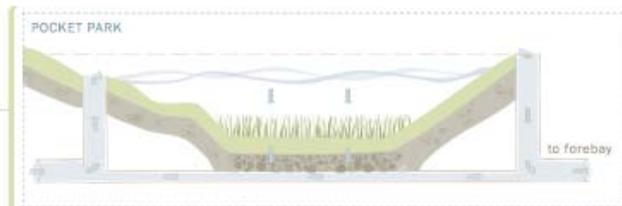
sustainable innovation

Pocket parks, bio-swales, backyard rain gardens, permeable alleys and walkways. These are some of the features that comprise Oak Terrace Preserve's unique biomanagement system for storm water.

an earth-friendly approach

This system filters out contaminants like engine oil, household chemicals, and other wastes. The result is a more even flow of healthy, pollution-free water to replenish Filbin Creek and the surrounding watershed.

living green



Illustrations are not to scale

Questions

Restoring a Garden City