Green Infrastructure Requirements & Local Laws

Stormwater Pollution Prevention Plans From the Review Engineer's Perspective

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BS in Civil Engineering RPI 1994

MS in Construction Management Arizona State University 1995

New York State Licensed Professional Engineer

Began working in the engineering field in 1992

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ROLE OF REVIEW ENGINEER

- Guide Applicants through the Review Process
- Contact Point for Applicant on Technical Issues
- Review the Project for Compliance.

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ROLE OF REVIEW ENGINEER

- Understanding of the Project
- Identification of Applicable Codes & Regulations
- Identification of Involved Parties
- Determination of Regulatory Hierarchy
- Coordination with Town Officials & Officers
- Communicate with the Applicant
- Documentation of Actions
- Stay Current

Offer Suggestions not just Point Out Problems
Be Reasonable
Be Clear
Be Available
Be Helpful
Respect Other People's Responsibilities

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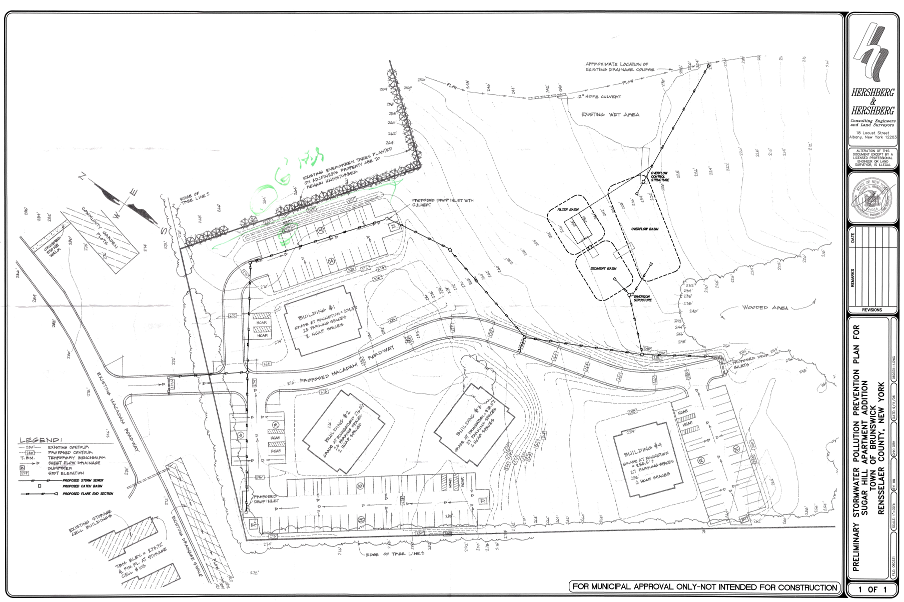
COMMON ISSUES AND GREY AREAS

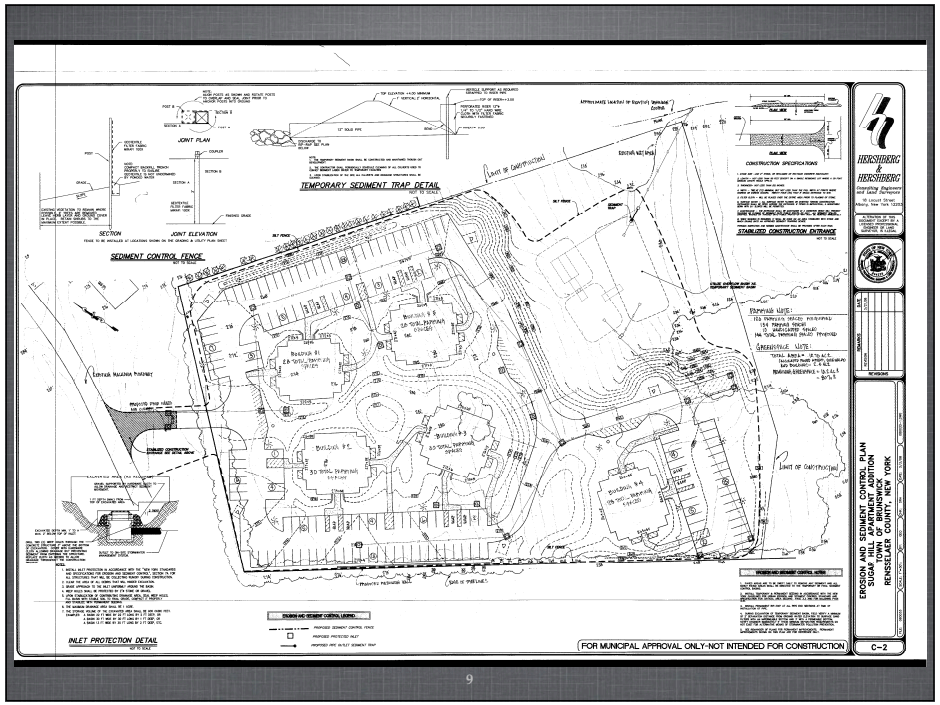
- Existing Stormwater Problems (Quantity or Quality)/Construction Phase Alterations
- Coordination of Project Across Time and Departments within the Municipality
- **Coordination of Regulations**
- Mixed Design Teams
- **Coordinating People in Advisory Positions with People in Approving Positions**
- Volume of data
- Incomplete/Incorrect
- Who is Ultimately Responsible when it exceeds capacity? Requires Maintenance? Breaks?

SOLUTIONS

- Early Identification of all Involved Parties is Critical
  - Owners
  - Project Engineer
  - Project Architect
  - Reviewers
  - Regulatory Agencies
  - Advisory Parties
- All Communication methods should be employed
  - Formal and Informal
  - Email, Phone, Fax, Electronic Documents, Face to Face Meetings
- Compromise
- Stay Current

BEFORE


HERSHBERG & HERSHBERG
PRELIMINARY STORMWATER POLLUTION PREVENTION PLAN FOR SUGAR HILL APARTMENT ADDITION
TOWN OF BRUNSWICK
RENSSELAER COUNTY, NEW YORK
1 OF 1
FOR MUNICIPAL APPROVAL ONLY-NOT INTENDED FOR CONSTRUCTION



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NUMBER AND TYPE OF EQUIPMENT THAT WOULD RESPOND

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ROADWAY ACCESS

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FIRE HYDRANT ACCESS

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MANEUVERING ON THE SITE

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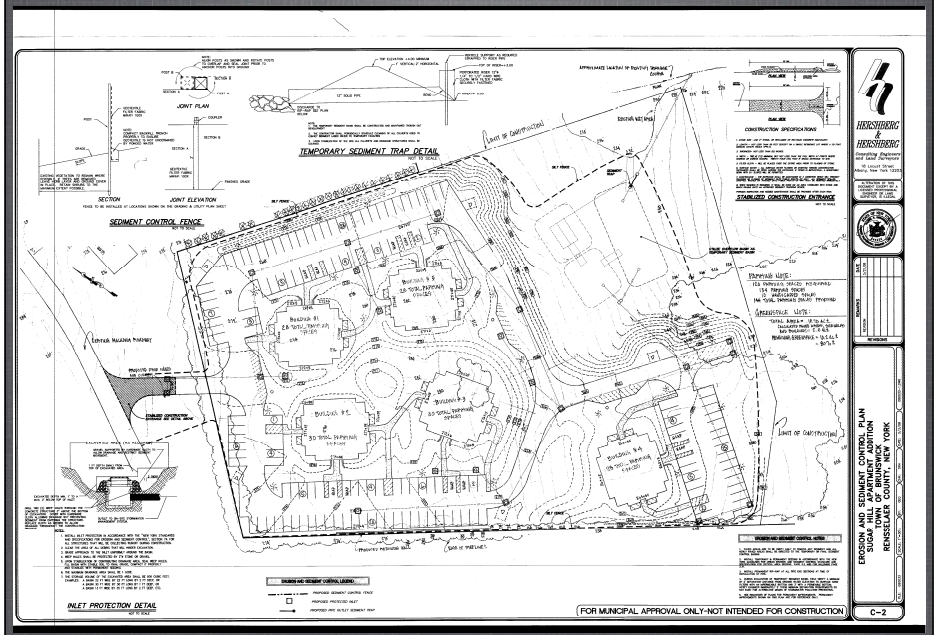

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AFTER

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CONCLUSIONS ON ACCESS ISSUES

- 2010 New York State Fire Code Requirements are primary and set the minimum requirements for access roads and aerial fire apparatus access roads.
- Site layout can change depending on building type, height, & construction.

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HOW HAS THE PROCESS CHANGED?

- Understanding of Project
- **Identification of Applicable Codes & Regulations**
- Identification of Involved Parties
- **Determination of Regulatory Hierarchy**
- Coordination with Town Officials & Officers
- **Agree on Communication Methods that will be Used**
- Documentation of Actions
- **Stay Current - STAY INVOLVED**

EXAMPLE PROJECT

- Town of Brunswick
- Commercial Retail Site Plan
- 4 acre site
- Town, County, and State approvals required
- First Green Infrastructure Project for Town and Owner
- Speed of Process was a primary concern
- Corner Lot of State and County Roads
- Served by Public Water Sewer
- Stormwater ultimately discharges to DOT highway infrastructure
- 4 Month Review Cycle from submission of plan to Conditioned approval (DOT Approval Pending)
- Site Plan

EXAMPLE OF GREEN PROJECT CHOICES

- ~~Roadway Reduction~~
- ~~Sidewalk Reduction~~
- ~~Driveway Reduction~~
- ~~Cul-de-Sac Reduction~~
- Building Footprint Reduction
- ~~Parking Reduction/Alternatives Surfaces~~
- Conservation of Natural Areas
- Vegetative Swale
- Tree Planting/Tree Pit
- Disconnection of Rooftop Runoff
- ~~Stream Daylighting~~
- Rain Gardens/Bioretention
- ~~Green Roof~~
- Stormwater Planters
- ~~Rain Barrels/Cisterns~~
- ~~Porous Pavement~~

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QUESTIONS?

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