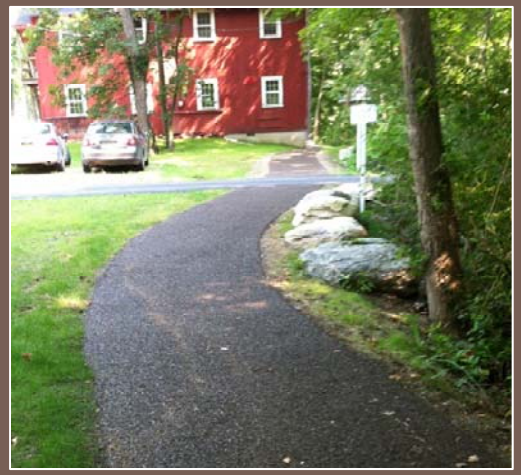


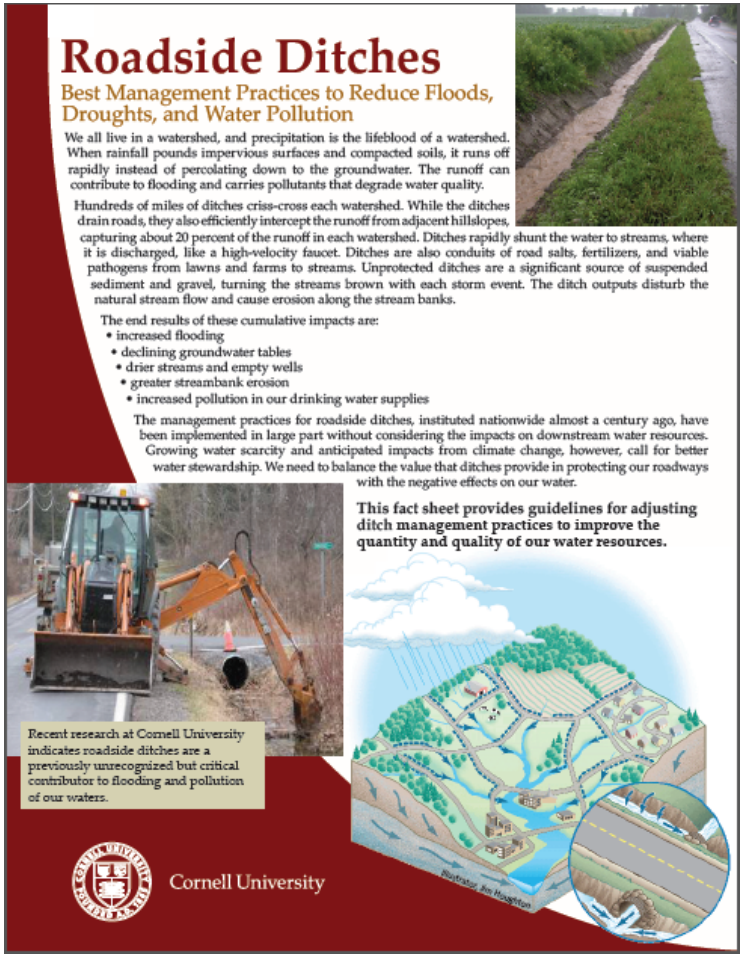
MUNICIPAL POLICIES TO PROMOTE GREEN INFRASTRUCTURE

Emily Svenson
Lower Hudson Coalition of Conservation Districts

Municipal Facilities - Buildings

- Set a good example at municipal buildings

Municipal Facilities - Roads



Roadside Ditches

Best Management Practices to Reduce Floods, Droughts, and Water Pollution

We all live in a watershed, and precipitation is the lifeblood of a watershed. When rainfall pounds impervious surfaces and compacted soils, it runs off rapidly instead of percolating down to the groundwater. The runoff can contribute to flooding and carries pollutants that degrade water quality.

Hundreds of miles of ditches criss-cross each watershed. While the ditches drain roads, they also efficiently intercept the runoff from adjacent hillslopes, capturing about 20 percent of the runoff in each watershed. Ditches rapidly shunt the water to streams, where it is discharged, like a high-velocity faucet. Ditches are also conduits of road salts, fertilizers, and viable pathogens from lawns and farms to streams. Unprotected ditches are a significant source of suspended sediment and gravel, turning the streams brown with each storm event. The ditch outputs disturb the natural stream flow and cause erosion along the stream banks.

The end results of these cumulative impacts are:

- increased flooding
- declining groundwater tables
- drier streams and empty wells
- greater streambank erosion
- increased pollution in our drinking water supplies

The management practices for roadside ditches, instituted nationwide almost a century ago, have been implemented in large part without considering the impacts on downstream water resources. Growing water scarcity and anticipated impacts from climate change, however, call for better water stewardship. We need to balance the value that ditches provide in protecting our roadways with the negative effects on our water.

This fact sheet provides guidelines for adjusting ditch management practices to improve the quantity and quality of our water resources.

Recent research at Cornell University indicates roadside ditches are a previously unrecognized but critical contributor to flooding and pollution of our waters.

Cornell University

- Disconnect ditches from streams
- Design ditches sustainably
- Clean ditches carefully

Private Development

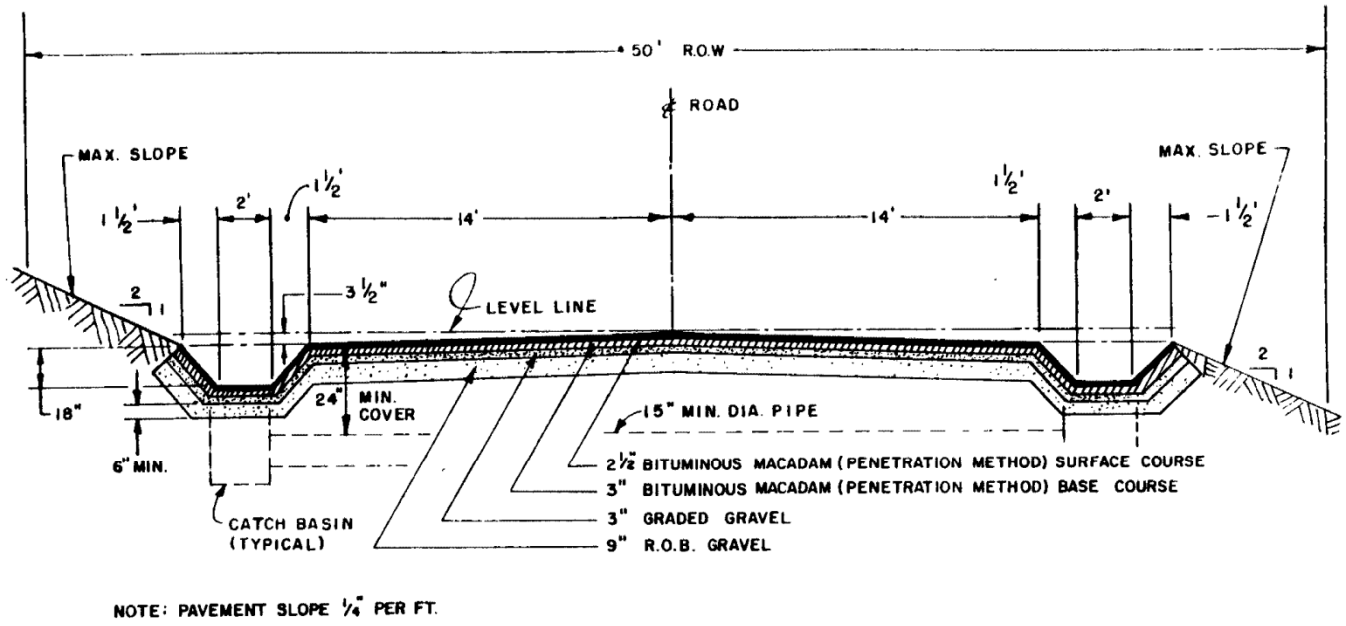
- Green Infrastructure = The Law
- NYS DEC Stormwater Design Manual
  - Chapter 3 – Site Planning
    - First, protect natural resources & hydrology of site
    - Design to minimize impervious surfaces
    - Use green infrastructure practices to reduce runoff
    - Last resort – treat collected runoff
- Planning Board should be involved in stormwater design

Remove Barriers to Sustainable Design

- “Cluster” Subdivisions, average density zoning

Remove Barriers to Sustainable Design

- Road widths & specs



TYPE I – LOCAL ROAD

ROAD DETAILS
TOWN OF HYDE PARK
DUTCHESS COUNTY, NEW YORK
SCALE 3/16" = 1'-0" DATE: MARCH, 1979 FIGURE Nº 4
MORRIS & ANDROS ENGINEERING CONSULTANTS HYDE PARK, N.Y.

Remove Barriers to Sustainable Design

- Parking Space Requirements

Remove Barriers to Sustainable Design

- Code & Ordinance Worksheet

Code and Ordinance Worksheet for New York State (2011)

19. Parking Ratios

What is the minimum parking ratio for a professional office building (per 1000 ft^2 of gross floor area)? _____ spaces

*If your answer is **less than 3.0 spaces**, give yourself **1** point.* ☞ ☐

What is the minimum required parking ratio for shopping centers (per 1,000 ft^2 gross floor area)? _____ spaces

*If your answer is **4.5 spaces or less**, give yourself **1** point.* ☞ ☐

What is the minimum required parking ratio for single family homes (per home)? _____ spaces

*If your answer is **less than or equal to 2.0 spaces**, give yourself **1** point.* ☞ ☐

Are your parking requirements set as maximum or median (rather than minimum) requirements? YES/ NO

*If your answer is **YES**, give yourself **1** point.* ☞ ☐

Notes on Parking Ratios (include source documentation such as name of document, section and page #):

Above & Beyond

- Some communities have more stringent runoff regulations, often for groundwater recharge

Preserving Natural Green Infrastructure

- Wetlands, including vernal pools
- Stream corridors
- Floodplains
- Forested uplands

Proven to work,

no maintenance!

Wetlands

Existing Protection	Wetland	Buffer
Larger than 12.4 acres	State & Federal	State
Smaller than 12.4 acres, connected to stream	Federal	None
Smaller than 12.4 acres, isolated	None	None

Region. The Department supports and encourages local governments to enact ordinances that provide jurisdiction to regulate wetlands of less than 12.4 acres. Existing local ordinances in the

Buffers make healthy streams

DEC: "A Protection Of Waters Permit is required for disturbing the bed or banks of a stream with a classification and standard of C(T) or higher."

Floodplains

Flood damage prevention vs. natural resource protection

Municipalities Can Protect Water Resources

- New York is a Home Rule state
  - Towns control land use
- Wetland & Watercourse Protection, Steep Slopes
  - Ordinance or Zoning
- Overlay Zones – Surface Water, Aquifer, Floodplain, Ridgeline
- Subdivision Regs
- Floodplain Regs
- Critical Environmental Areas

Green Infrastructure: "a new era of common sense"

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