



# East of Hudson Watershed Corporation

Stormwater Retrofit Projects  
Chappaqua Central School District  
June 4, 2015



# East of Hudson Watershed Corporation

## WHY

- MS4 General Permit Part IX: Heightened Requirements for Phosphorus Reduction.
- Regional Stormwater Entity (RSE).
- 460 kg (1,012 lbs) over a 5-year period.
- Bubble compliance for the members.

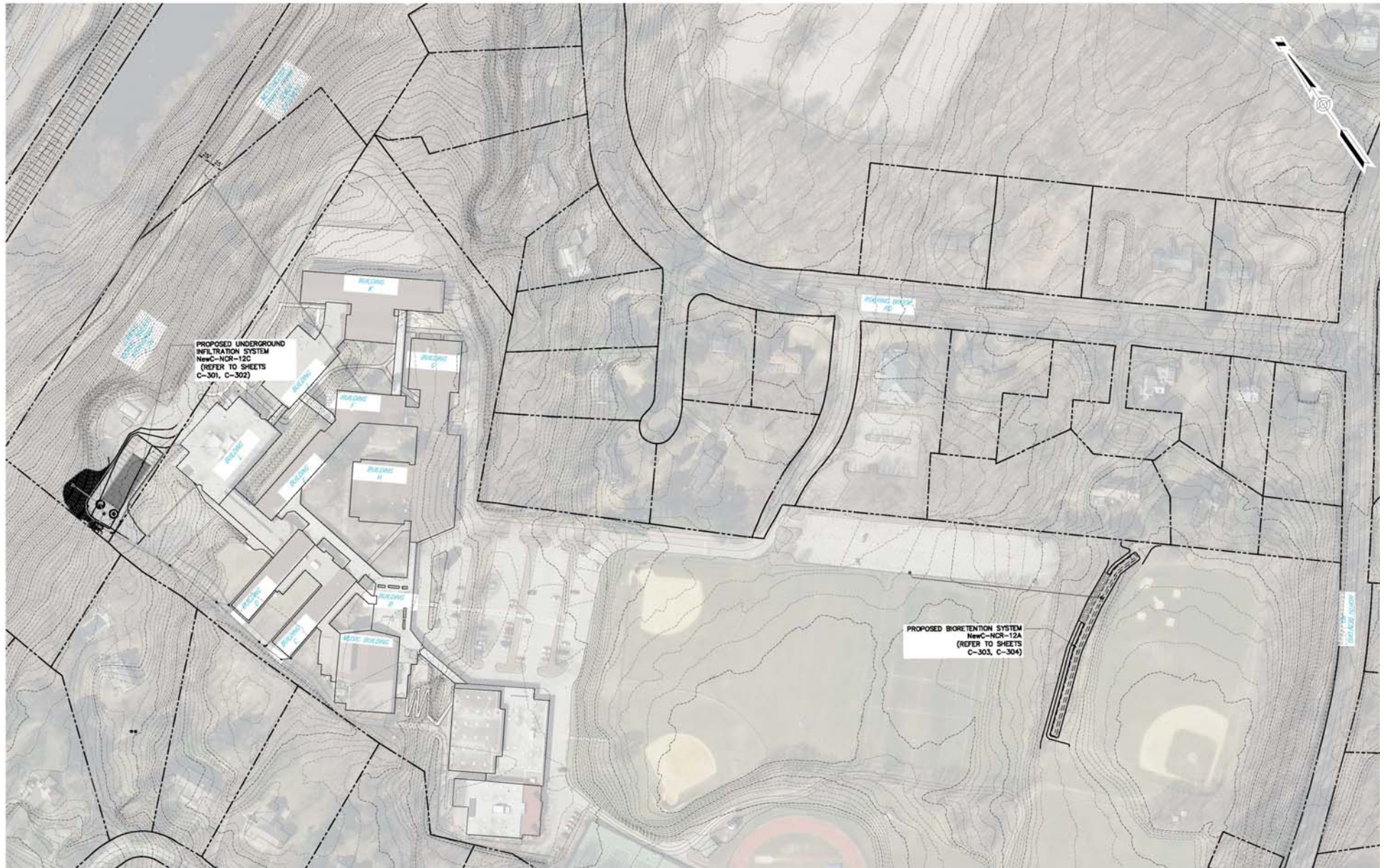
## WHO

- |                     |                    |
|---------------------|--------------------|
| • Carmel (T)        | • New Castle (T)   |
| • Putnam Valley (T) | • North Castle (T) |
| • Kent (T)          | • North Salem (T)  |
| • Southeast (T)     | • Pound Ridge (T)  |
| • Patterson (T)     | • Somers (T)       |
| • Bedford (T)       | • Yorktown (T)     |
| • Cortlandt (T)     | • Brewster (T)     |
| • Lewisboro (T)     | • Pawling (T/V)    |
| • Mt. Kisco (T/V)   | • Putnam County    |



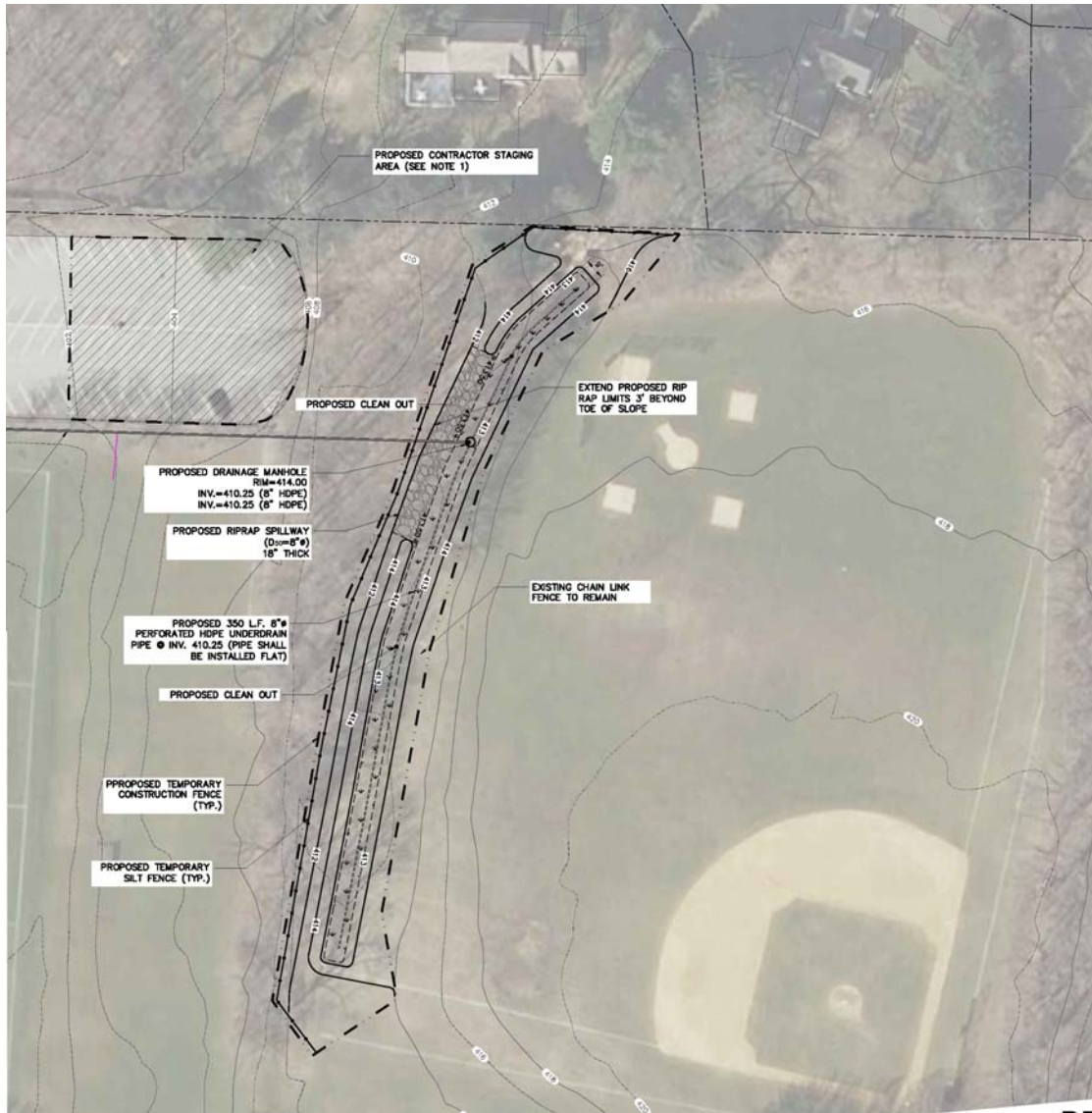


# Stormwater Retrofit Project Locations- 12A and 12C



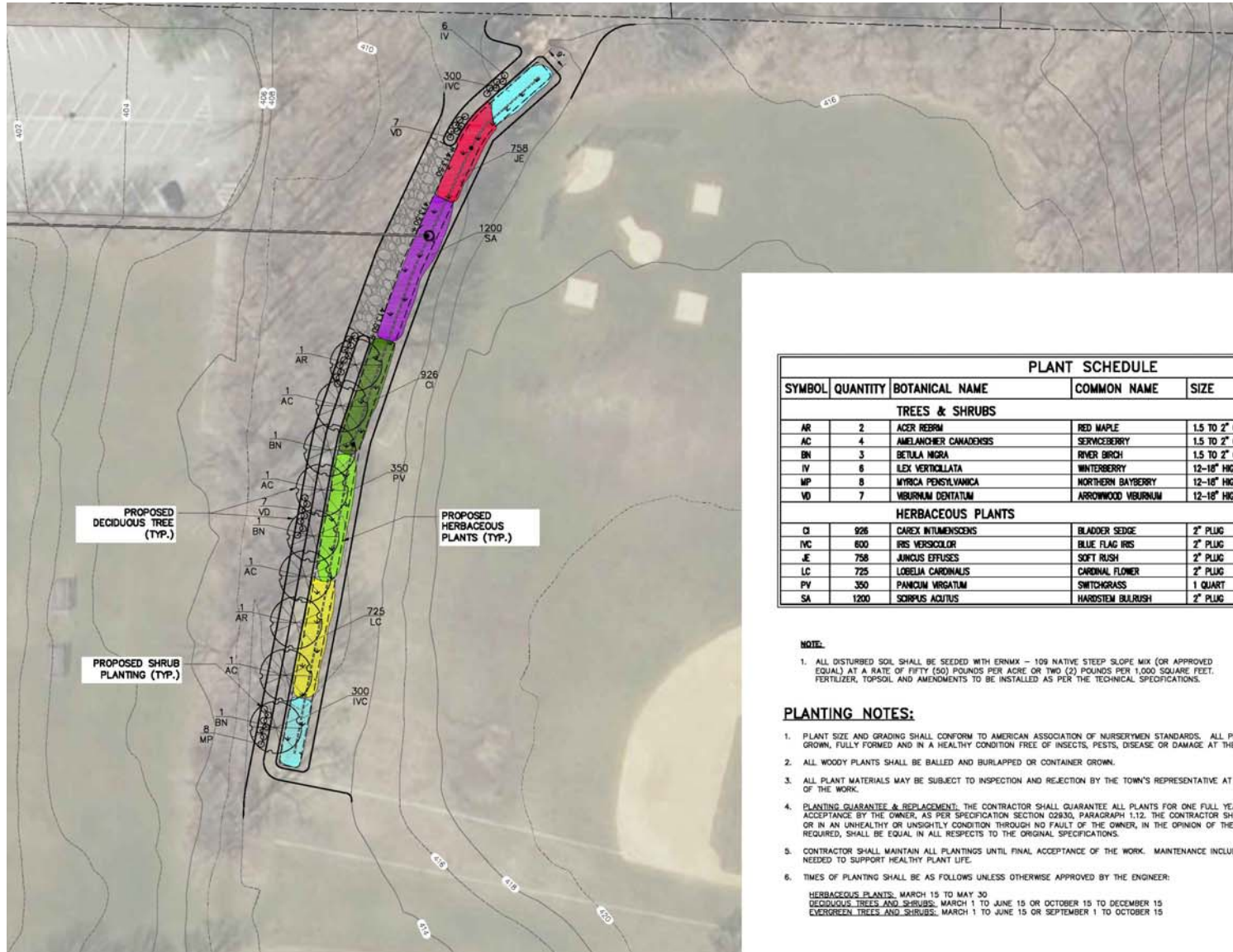


# Stormwater Retrofit Project 12A





# Stormwater Retrofit Project 12A



PLANT SCHEDULE					
SYMBOL	QUANTITY	BOTANICAL NAME	COMMON NAME	SIZE	NOTES
<b>TREES &amp; SHRUBS</b>					
AR	2	ACER REBRM	RED MAPLE	1.5 TO 2" CAL.	-
AC	4	AMELANCHER CANADENSIS	SERVICEBERRY	1.5 TO 2" CAL.	MULTI-STEM
BN	3	BETULA NIGRA	RIVER BIRCH	1.5 TO 2" CAL.	MULTI-STEM
IV	6	ILEX VERTICILLATA	WINTERBERRY	12-18" HIGH	-
MP	8	MYRICA PENNSYLVANICA	NORTHERN BAYBERRY	12-18" HIGH	-
VO	7	VBURNUM DENTATUM	ARROWWOOD VIBURNUM	12-18" HIGH	-
<b>HERBACEOUS PLANTS</b>					
CI	926	CAREX INTUMESCENTS	BLADDER SEDGE	2" PLUG	PLANT 10" O.C. (14 PER 10 S.F.)
IVC	600	IRIS VERSICOLOR	BLUE FLAG IRIS	2" PLUG	PLANT 15" O.C. (7 PER 10 S.F.)
JE	758	JUNCUS EFFUSUS	SOFT RUSH	2" PLUG	PLANT 10" O.C. (14 PER 10 S.F.)
LC	725	LOBELIA CARDINALIS	CARDINAL FLOWER	2" PLUG	PLANT 12" O.C. (10 PER 10 S.F.)
PV	350	PANICUM VIRGATUM	SWITCHGRASS	1 QUART	PLANT 24" O.C. (5 PER 10 S.F.)
SA	1200	SCORPUS ACUTUS	HARDSTEM BULRUSH	2" PLUG	PLANT 10" O.C. (14 PER 10 S.F.)

## NOTE:

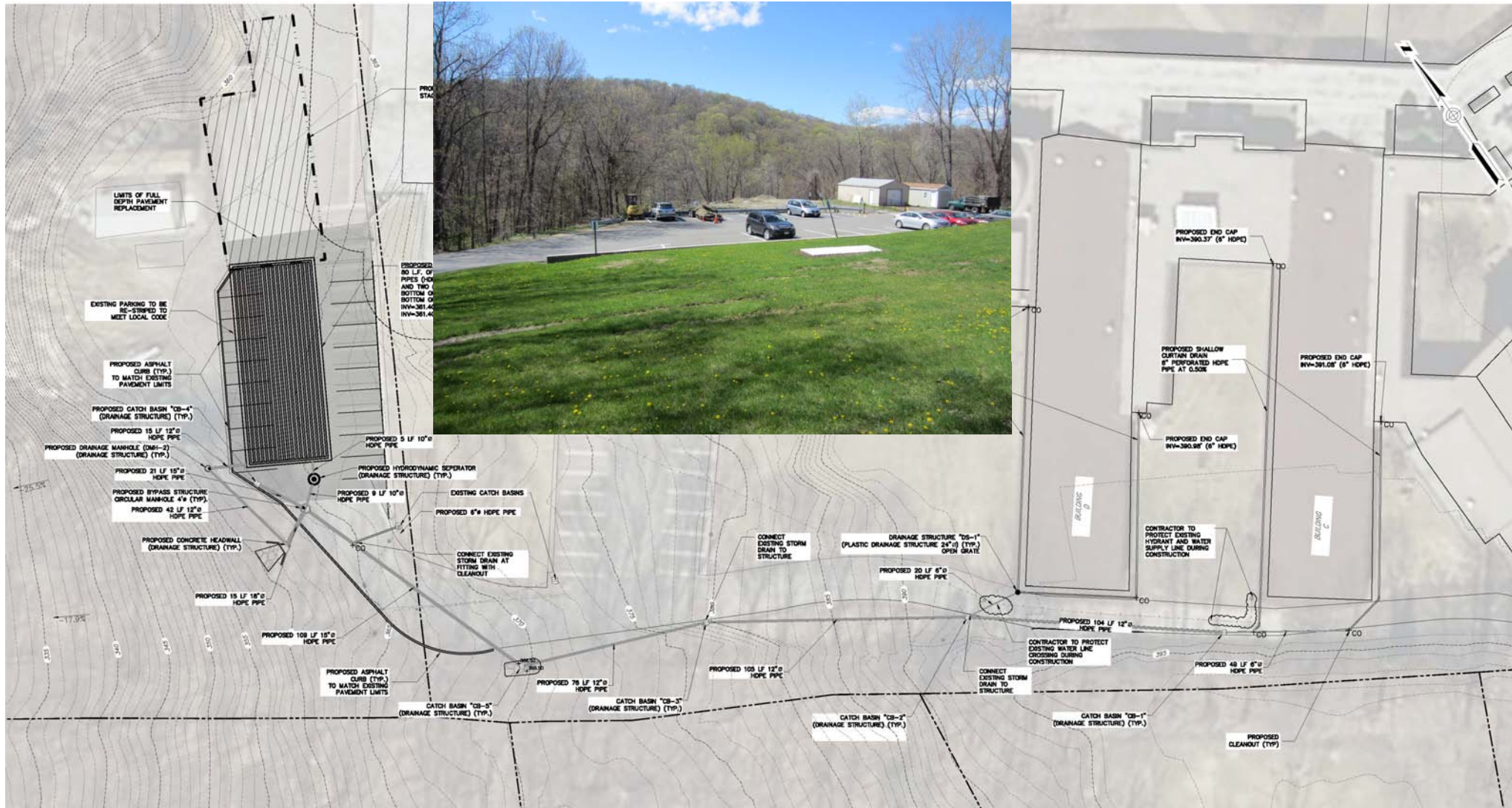
1. ALL DISTURBED SOIL SHALL BE SEEDED WITH ERNMX - 10% NATIVE STEEP SLOPE MIX (OR APPROVED EQUAL) AT A RATE OF FIFTY (50) POUNDS PER ACRE OR TWO (2) POUNDS PER 1,000 SQUARE FEET. FERTILIZER, TOPSOIL AND AMENDMENTS TO BE INSTALLED AS PER THE TECHNICAL SPECIFICATIONS.

## PLANTING NOTES:

1. PLANT SIZE AND GRADING SHALL CONFORM TO AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS. ALL PLANT MATERIAL SHALL BE NURSERY GROWN, FULLY FORMED AND IN A HEALTHY CONDITION FREE OF INSECTS, PESTS, DISEASE OR DAMAGE AT THE TIME OF INSTALLATION.
2. ALL WOODY PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN.
3. ALL PLANT MATERIALS MAY BE SUBJECT TO INSPECTION AND REJECTION BY THE TOWN'S REPRESENTATIVE AT ANY TIME PRIOR TO FINAL ACCEPTANCE OF THE WORK.
4. PLANTING GUARANTEE & REPLACEMENT: THE CONTRACTOR SHALL GUARANTEE ALL PLANTS FOR ONE FULL YEAR FROM THE TIME OF FORMAL ACCEPTANCE BY THE OWNER, AS PER SPECIFICATION SECTION 02930, PARAGRAPH 1.12. THE CONTRACTOR SHALL REPLACE ANY PLANT THAT IS DEAD OR IN AN UNHEALTHY OR UNSIGHTLY CONDITION THROUGH NO FAULT OF THE OWNER, IN THE OPINION OF THE OWNER/ENGINEER. REPLACEMENTS, IF REQUIRED, SHALL BE EQUAL IN ALL RESPECTS TO THE ORIGINAL SPECIFICATIONS.
5. CONTRACTOR SHALL MAINTAIN ALL PLANTINGS UNTIL FINAL ACCEPTANCE OF THE WORK. MAINTENANCE INCLUDES WATERING AS MANY TIMES AS NEEDED TO SUPPORT HEALTHY PLANT LIFE.
6. TIMES OF PLANTING SHALL BE AS FOLLOWS UNLESS OTHERWISE APPROVED BY THE ENGINEER:

HERBACEOUS PLANTS: MARCH 15 TO MAY 30  
 DECIDUOUS TREES AND SHRUBS: MARCH 1 TO JUNE 15 OR OCTOBER 15 TO DECEMBER 15  
 EVERGREEN TREES AND SHRUBS: MARCH 1 TO JUNE 15 OR SEPTEMBER 1 TO OCTOBER 15

# Stormwater Retrofit Project 12C





# East of Hudson Watershed Corporation

Stormwater Retrofit Projects NewC-NCR-12A & 12C

## Questions and Discussion

Rahul Verma, P.E.

Executive Director, EOHWC