Village of Irvington
Flood Study
March 2011

for the
Village Board
&
Community

Prepared by

Hahn Engineering
Brewster, NY

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Drainage Areas

1. Sunnyside Brook
2. Riverview Road Brook
3. Barney Brook
4. Barney Brook Tributary
5. Main Street Culvert

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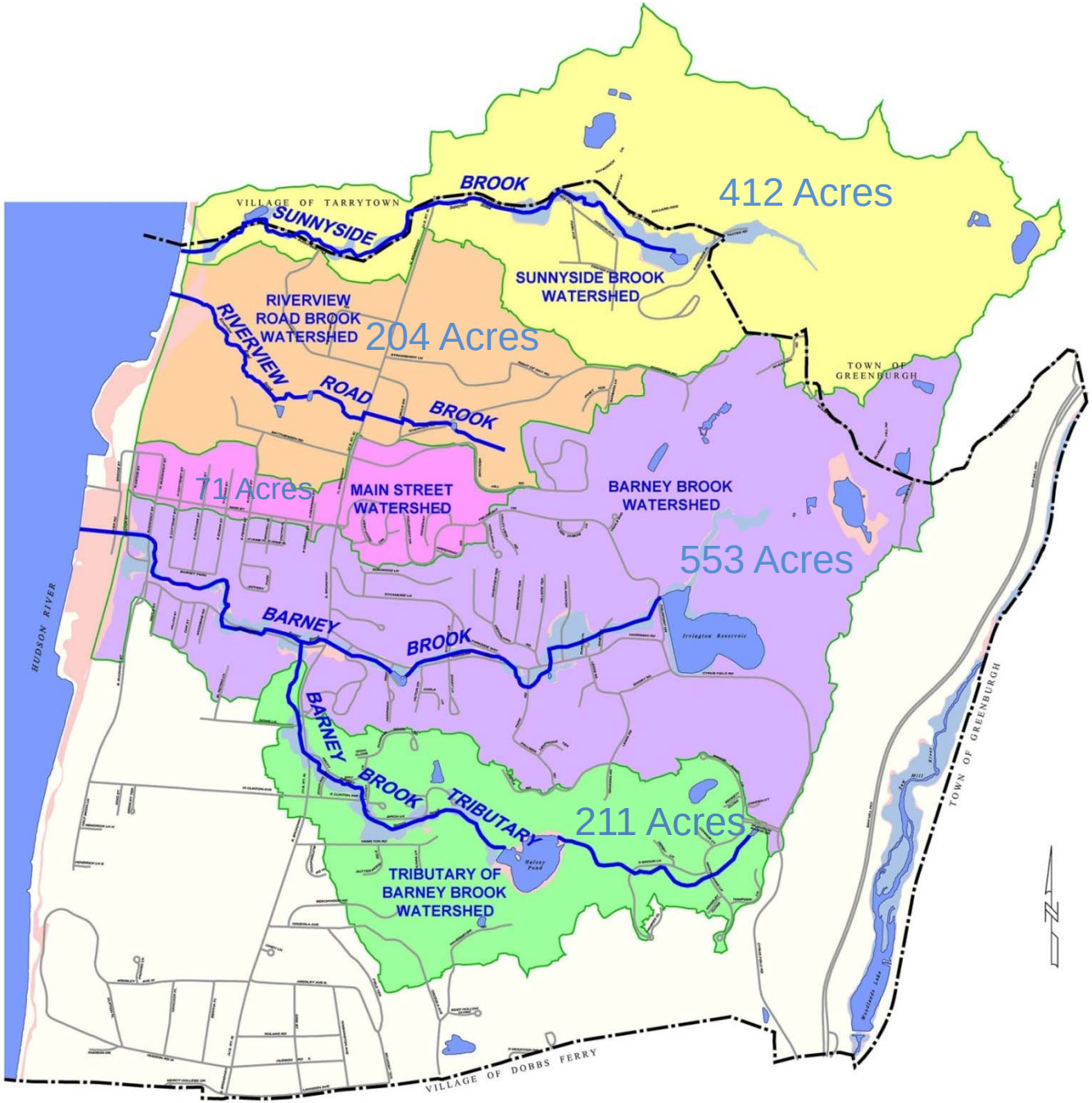

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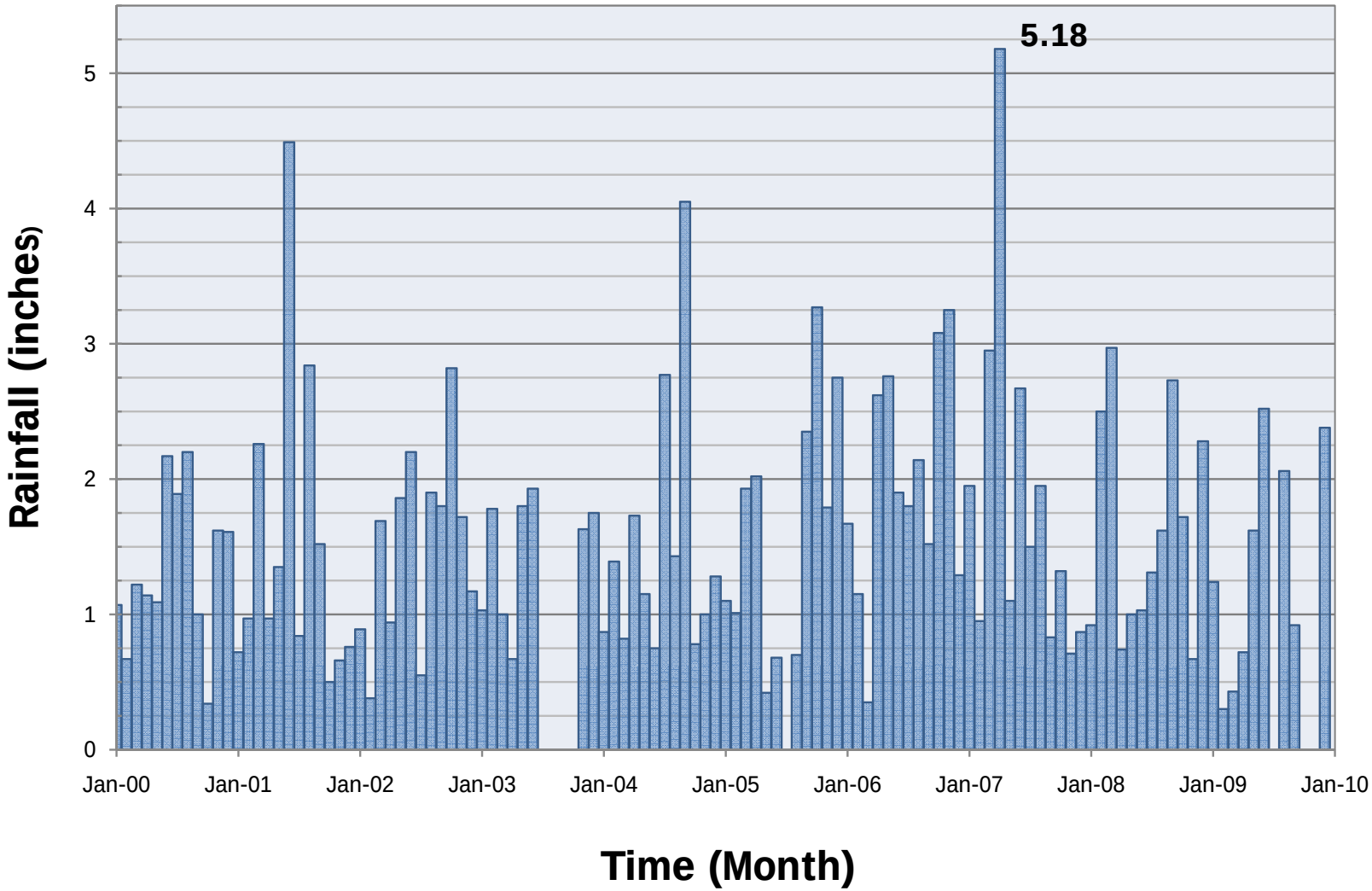
Village of Irvington, NY
Maximum Daily Rainfall Per Month
January 2000 to December 2009



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NOTE: DATA OBTAINED FROM THE NATIONAL CLIMATIC DATA CENTER, DOBBS FERRY STATION.

RAIN DATA FOR PAST 10 YEARS

Report used 5.18 inches which occurred on April 15, 2007.

The US Department of Agriculture, Natural Resource Conservation Service (NRCS) has determined that a 10 year storm in Westchester County is 5 inches of rainfall in a 24 hour period.

10 YEAR STORM EVENT- A MAGNITUDE OF RAINFALL THAT IS EXPECTED TO OCCURE ONCE EVERY 10 YEARS in a 24 hour period.

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OBJECTIVES

- Identify flooding areas.
  - 5 Village Identified Areas (Public Owned)
  - 6 Other Public Owned Properties
  - 12 Privately Owned Properties
- Recommendations to alleviate flooding.
- Preliminary cost estimates for Village Identified Areas.

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Village Identified Areas

- Conceptual Plan
- Preliminary Cost Estimates

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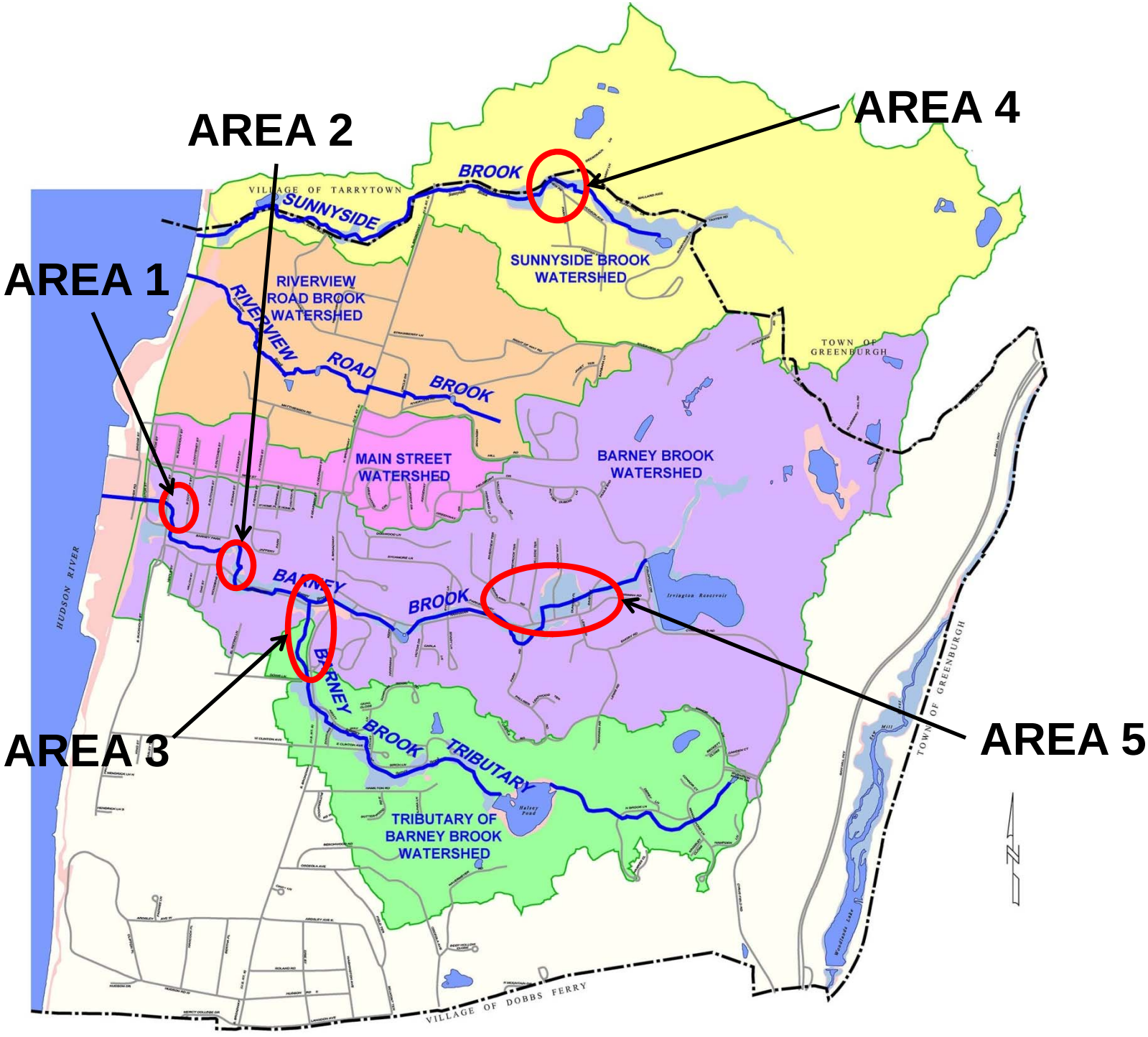
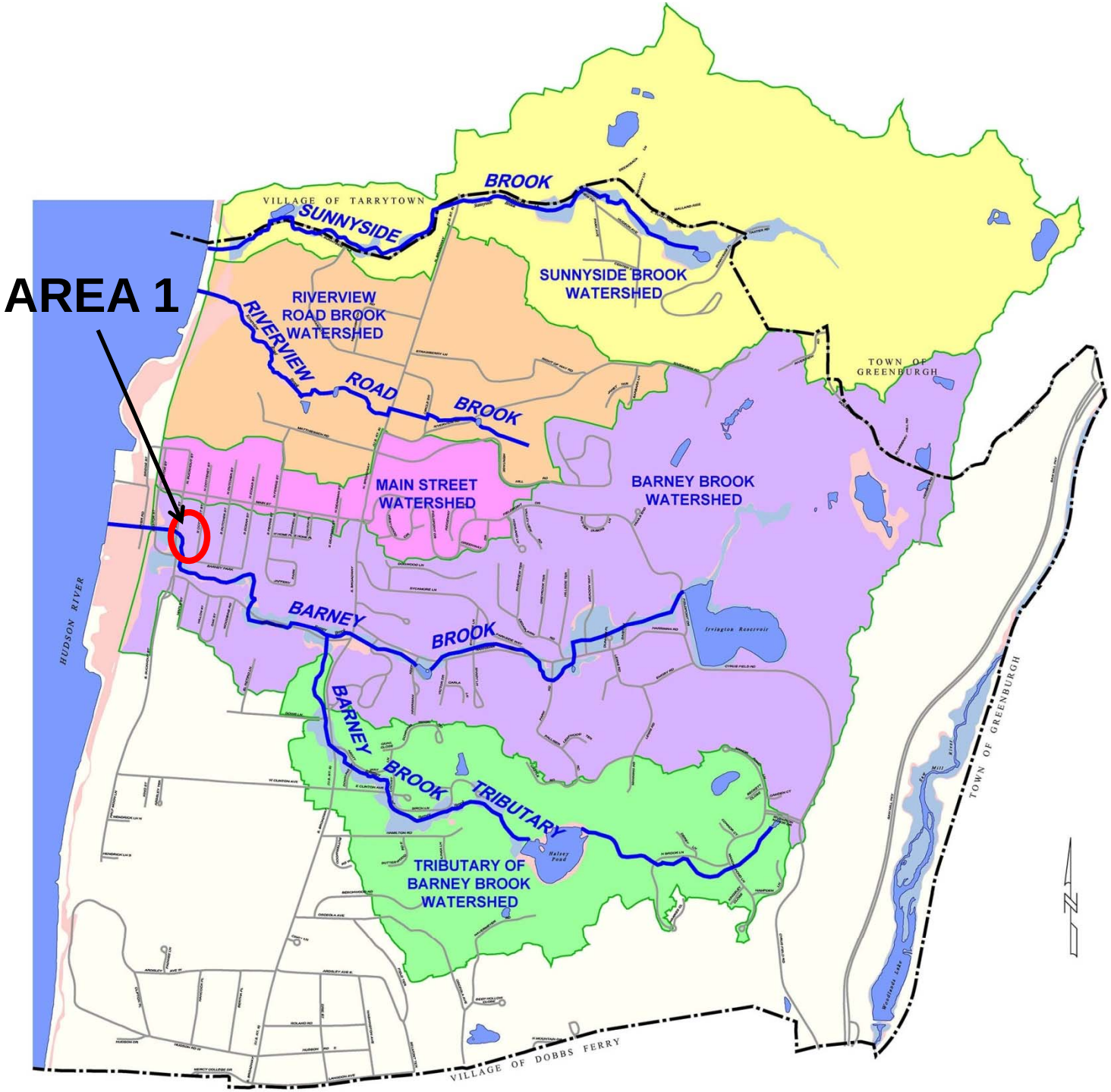

AREA 1
AREA 2
AREA 3
AREA 4
AREA 5
VILLAGE OF TARRYTOWN
SUNNYSIDE
BROOK
SUNNYSIDE BROOK WATERSHED
RIVERVIEW ROAD BROOK WATERSHED
RIVERVIEW
ROAD
BROOK
TOWN OF GREENBURGH
MAIN STREET WATERSHED
BARNEY BROOK WATERSHED
HUDSON RIVER
BARNEY
BROOK
BARNEY
BROOK
TRIBUTARY
TRIBUTARY OF BARNEY BROOK WATERSHED
TOWN OF GREENBURGH
VILLAGE OF DOBBS FERRY


AREA 1
VILLAGE OF TARRYTOWN
SUNNYSIDE
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Irvington Reservoir
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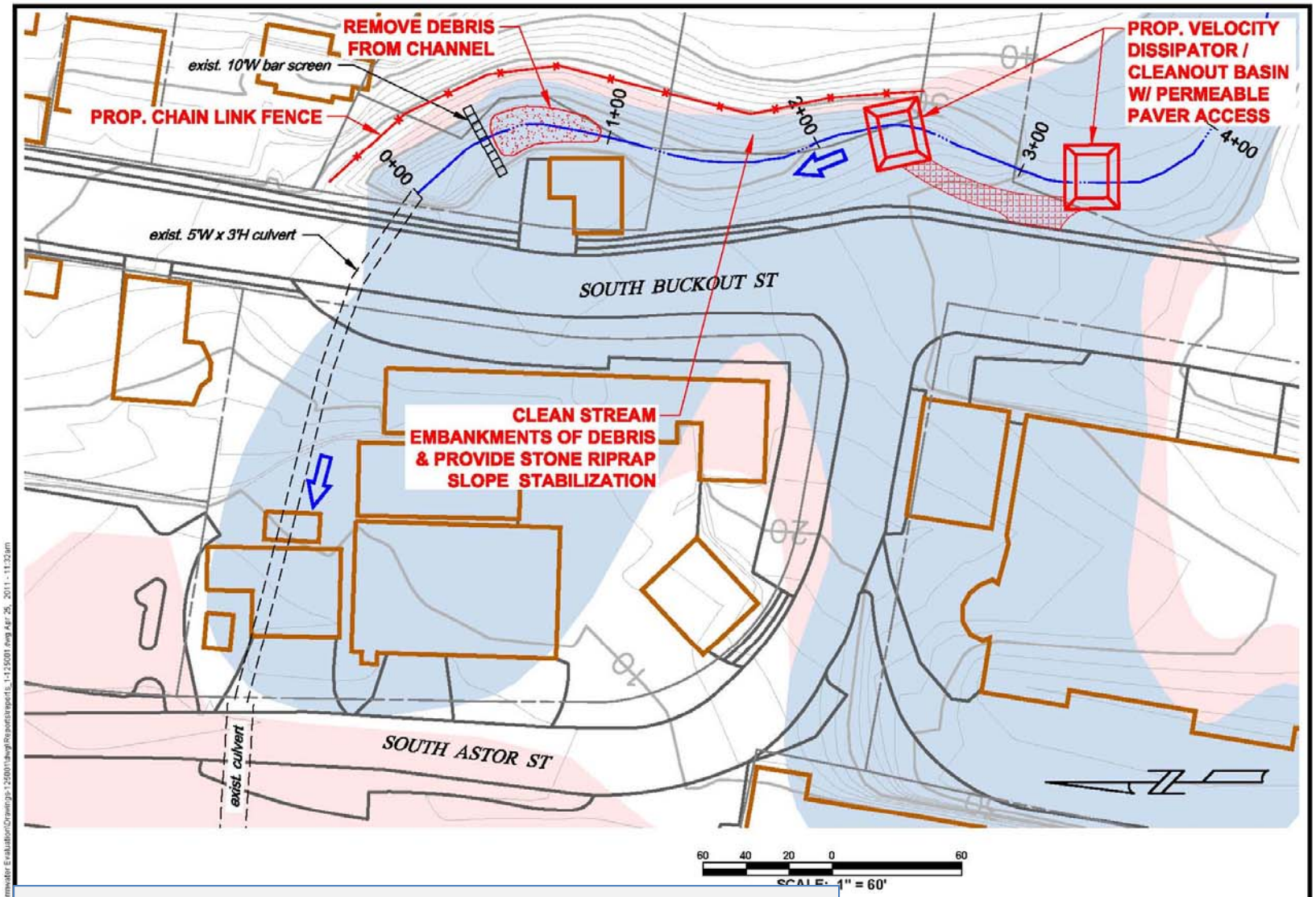

NOTES:
- ESTIMATE $300,000.
- CULVERT TO BE SURVEYED TO VERIFY CAPACITY.

I (ALTERNATIVE #1)	SCALE 1" = 60'	DATE 08/27/10
STUDY STCHESTER COUNTY, NY	DRAWING NO. 1A	SHEET NO. OF

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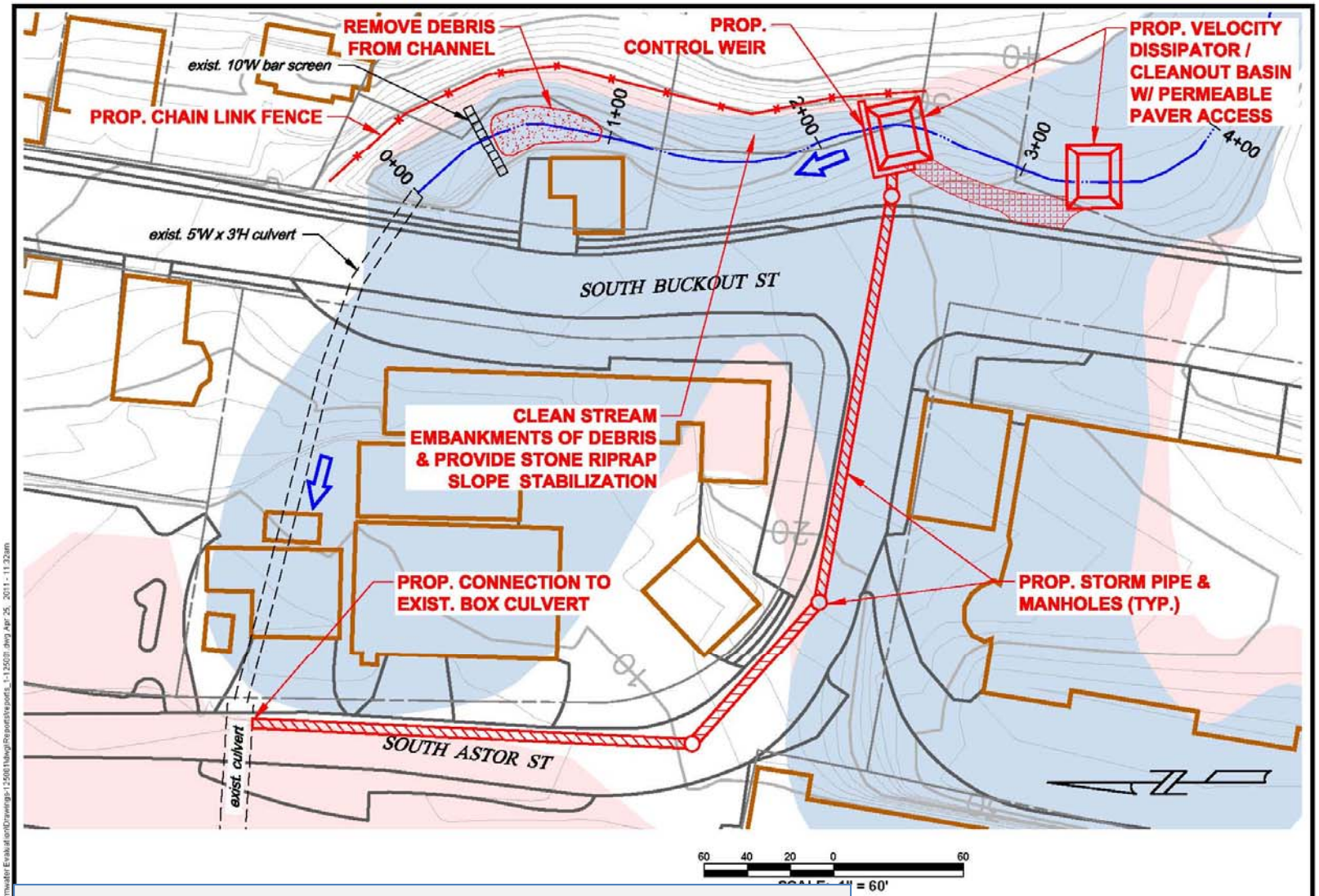
Improvement 1A – South Buckout Street



NOTES:
- ESTIMATE $800,000.
- POTENTIAL COST INCREASE DUE TO UTILITIES, ETC.

(ALTERNATIVE #2)	SCALE 1" = 60'	DATE 08/27/10
UDY CHESTER COUNTY, NY	DRAWING NO. 1B	SHEET NO. OF

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Improvement 1B – S. Buckout & S.Astor

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SEDIMENT
ACCUMULATION

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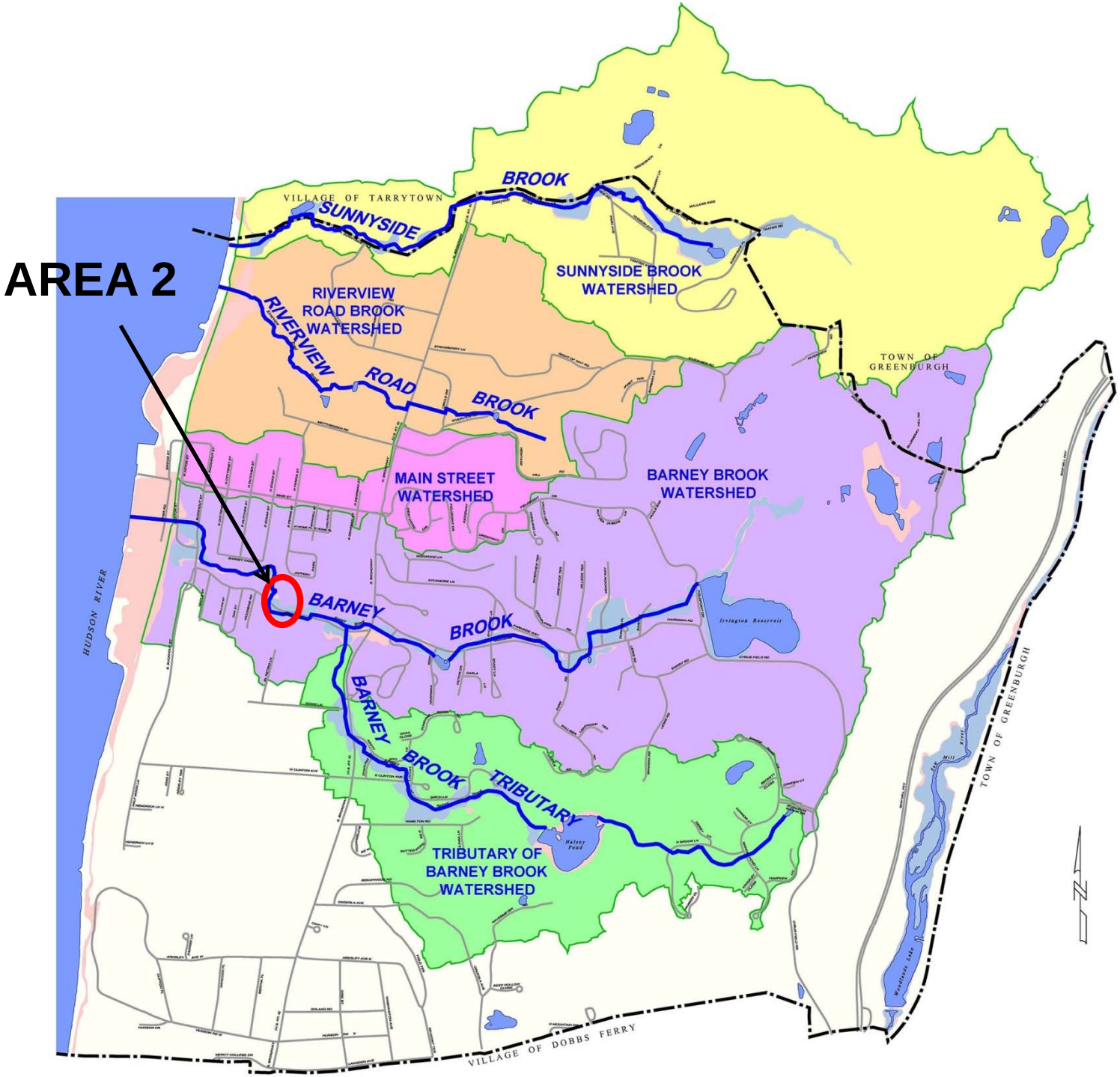
AREA 2
VILLAGE OF TARRYTOWN
SUNNYSIDE
BROOK
SUNNYSIDE BROOK WATERSHED
RIVERVIEW ROAD BROOK WATERSHED
RIVERVIEW
ROAD
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Irvington Reservoir
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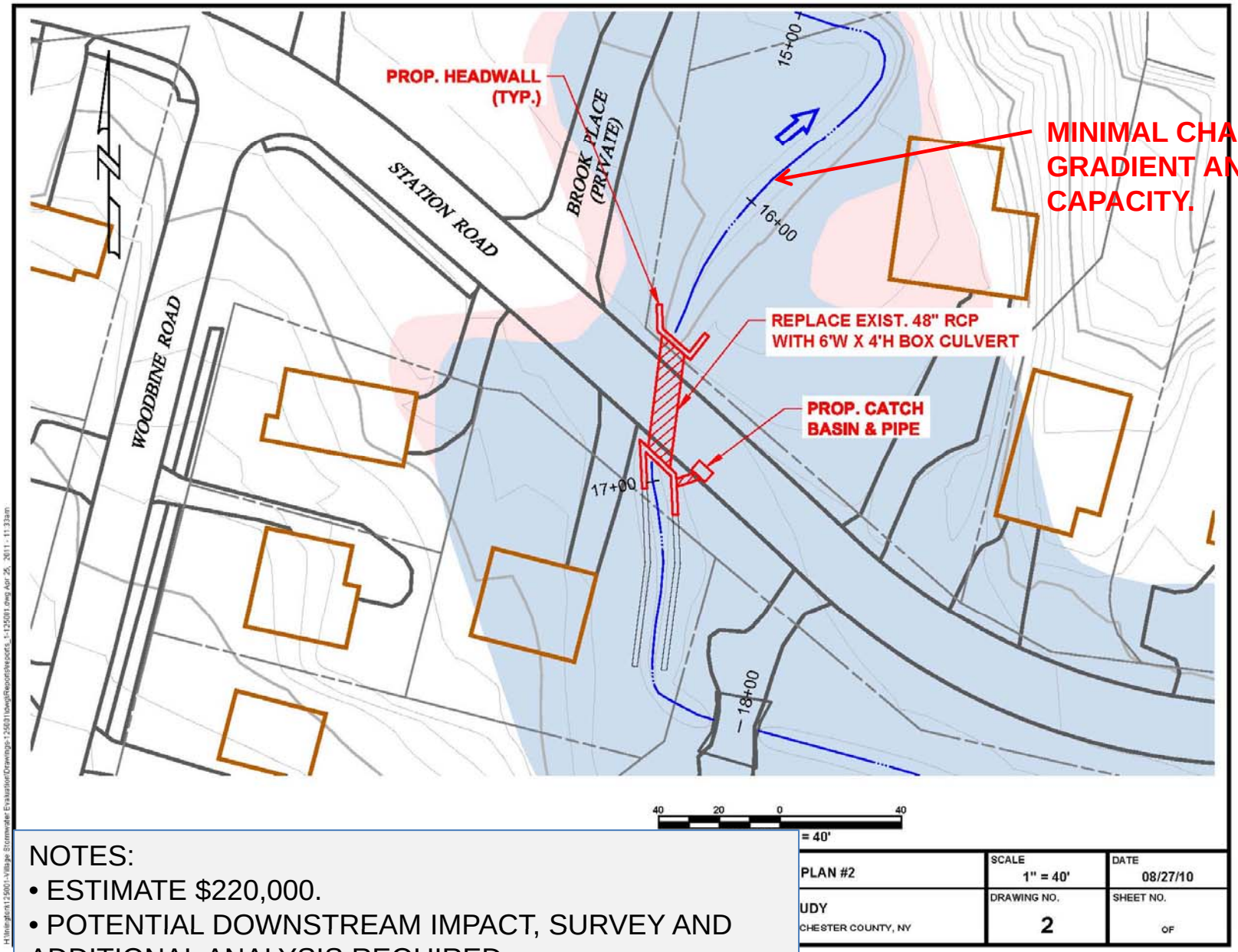
TOWN OF GREENBURGH
VILLAGE OF DOBBS FERRY



NOTES:

- ESTIMATE $220,000.
- POTENTIAL DOWNSTREAM IMPACT, SURVEY AND ADDITIONAL ANALYSIS REQUIRED.

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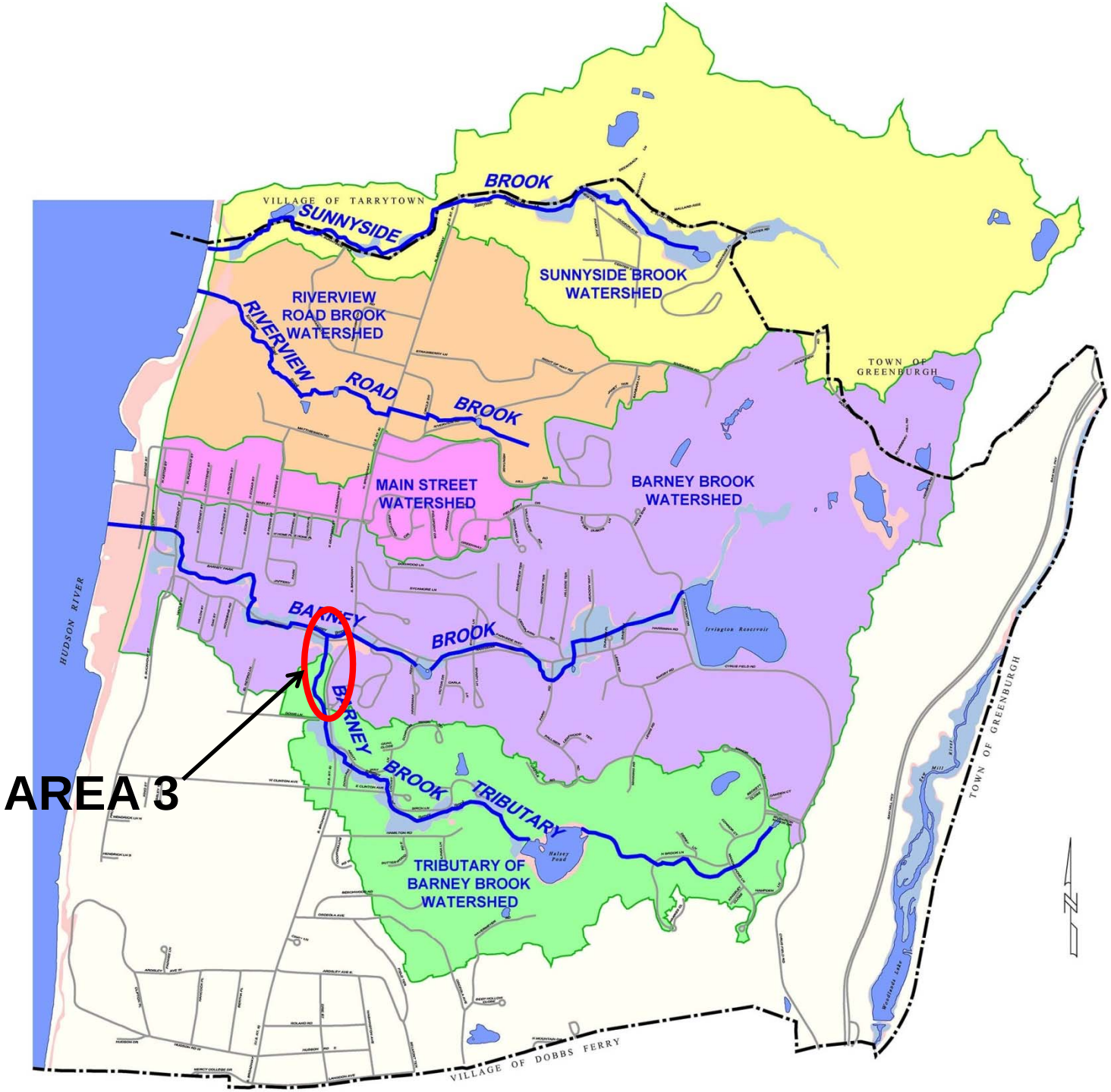
Improvement 2 – Station Road


AREA 3
VILLAGE OF TARRYTOWN
SUNNYSIDE
BROOK
SUNNYSIDE BROOK WATERSHED
RIVERVIEW ROAD BROOK WATERSHED
RIVERVIEW
ROAD
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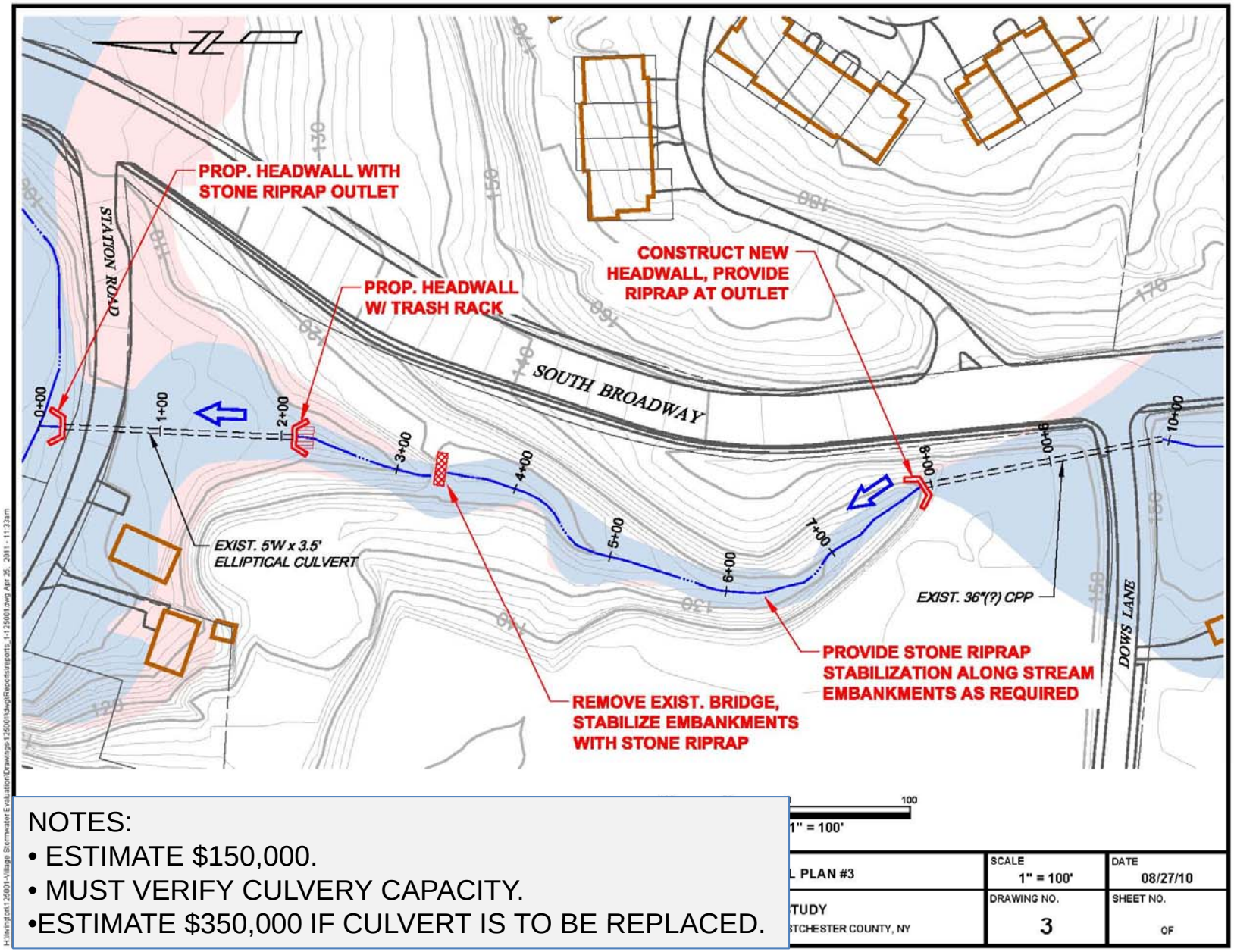
VILLAGE OF DOBBS FERRY



NOTES:
- ESTIMATE $150,000.
- MUST VERIFY CULVERY CAPACITY.
- ESTIMATE $350,000 IF CULVERT IS TO BE REPLACED.

Improvement 3 – S.Broadway & Station Rd

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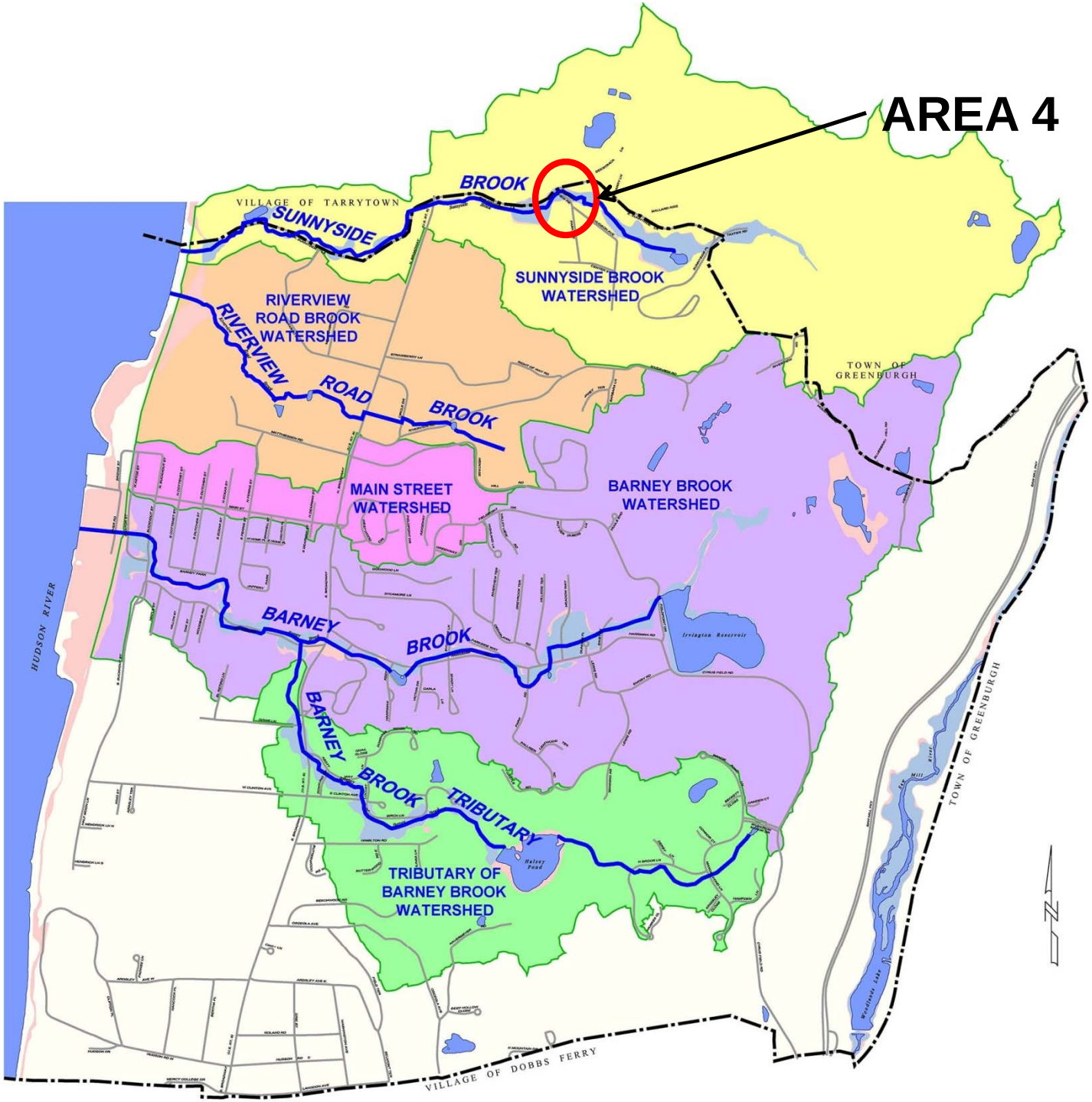
AREA 4
VILLAGE OF TARRYTOWN
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RIVERVIEW
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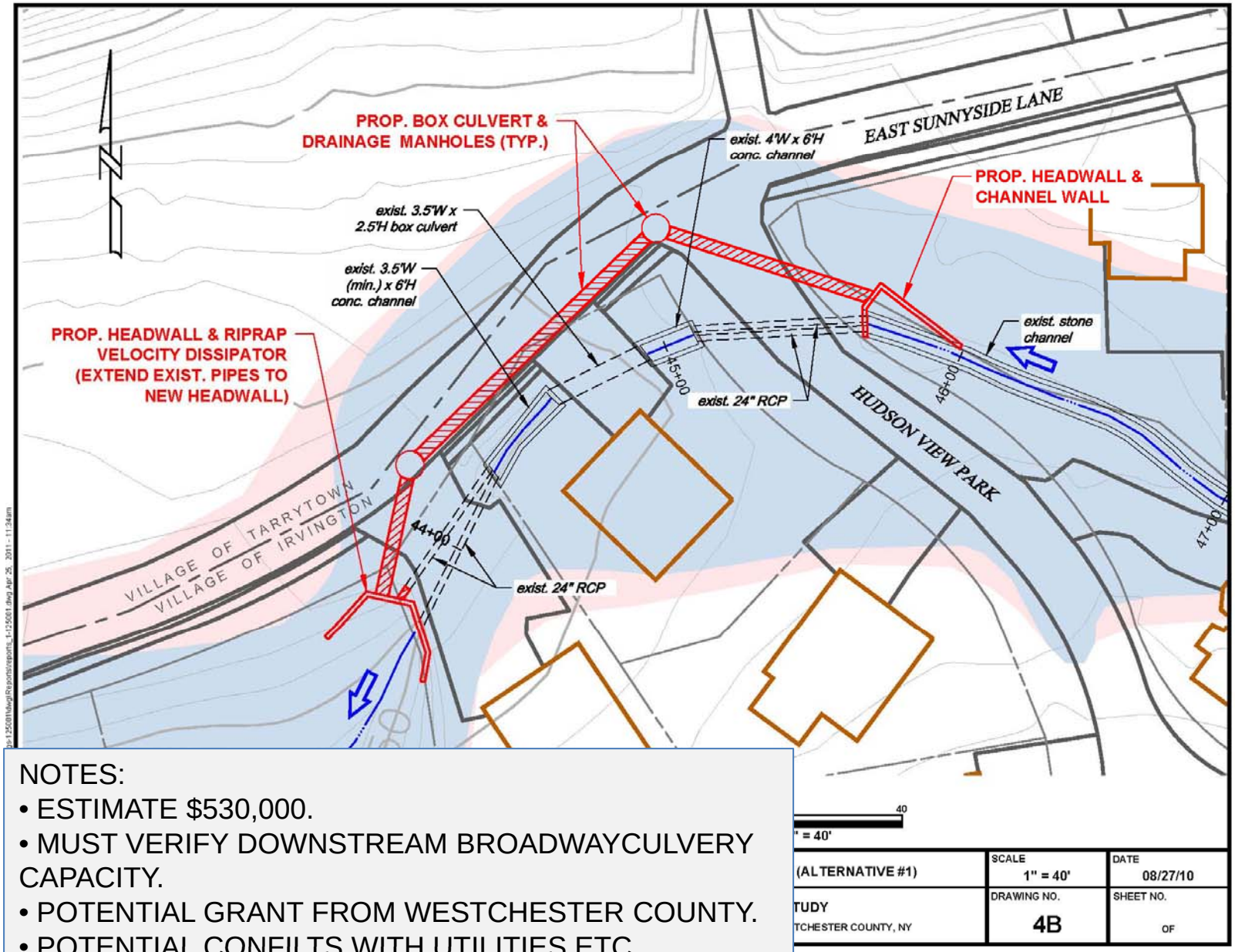

NOTES:

- ESTIMATE $530,000.
- MUST VERIFY DOWNSTREAM BROADWAYCULVERY CAPACITY.
- POTENTIAL GRANT FROM WESTCHESTER COUNTY.
- POTENTIAL CONFILTS WITH UTILITIES,ETC.

Improvement 4A – E.Sunnyside Lane & Hudson View Park

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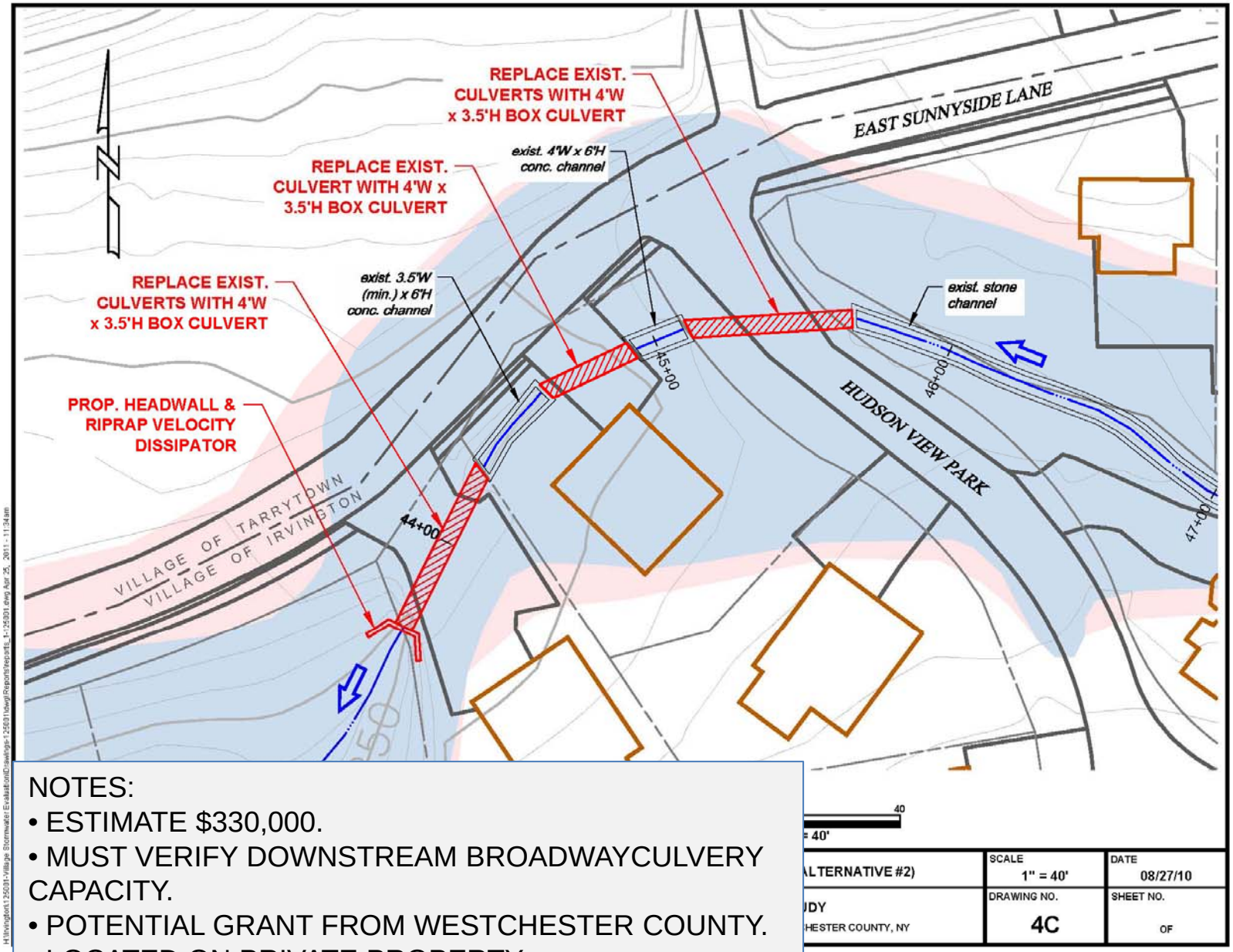

NOTES:

- ESTIMATE $330,000.
- MUST VERIFY DOWNSTREAM BROADWAYCULVERY CAPACITY.
- POTENTIAL GRANT FROM WESTCHESTER COUNTY.
- LOCATED ON PRIVATE PROPERTY.

Improvement 4B – E.Sunnyside Lane & Hudson View Park

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East Sunnyside Lane and Hudson Park

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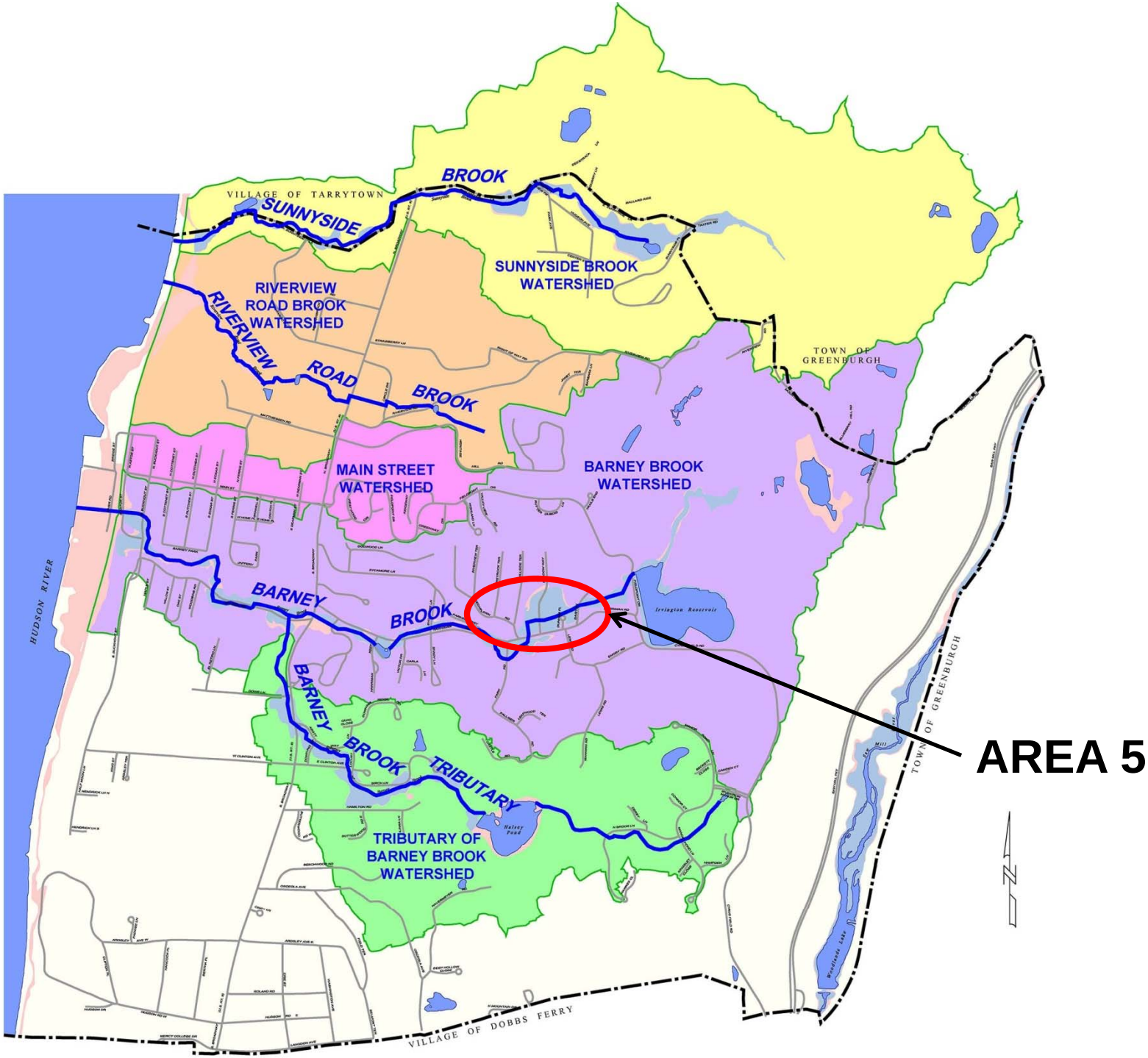
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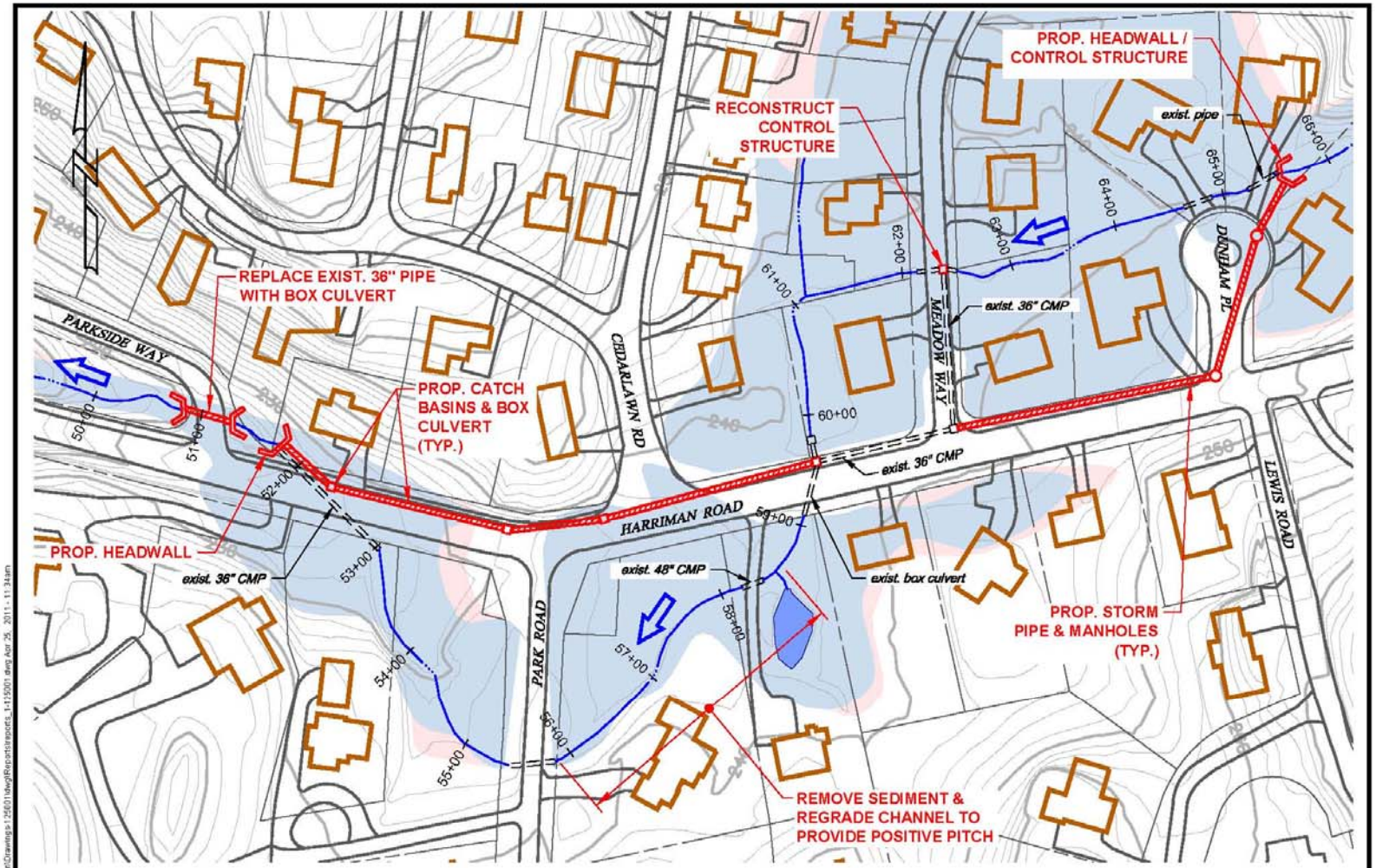
TOWN OF GREENBURGH
VILLAGE OF DOBBS FERRY
AREA 5



NOTES:
- ESTIMATE $1,300,000.
- MUST VERIFY CAPACITIES OF DOWNSTREAM CULVERTS.
- MUST MAINTAIN LOW FLOW THROUGH STREAM.

DATE 08/27/10
SHEET NO.
OF

Improvement 5A – Harriman Road

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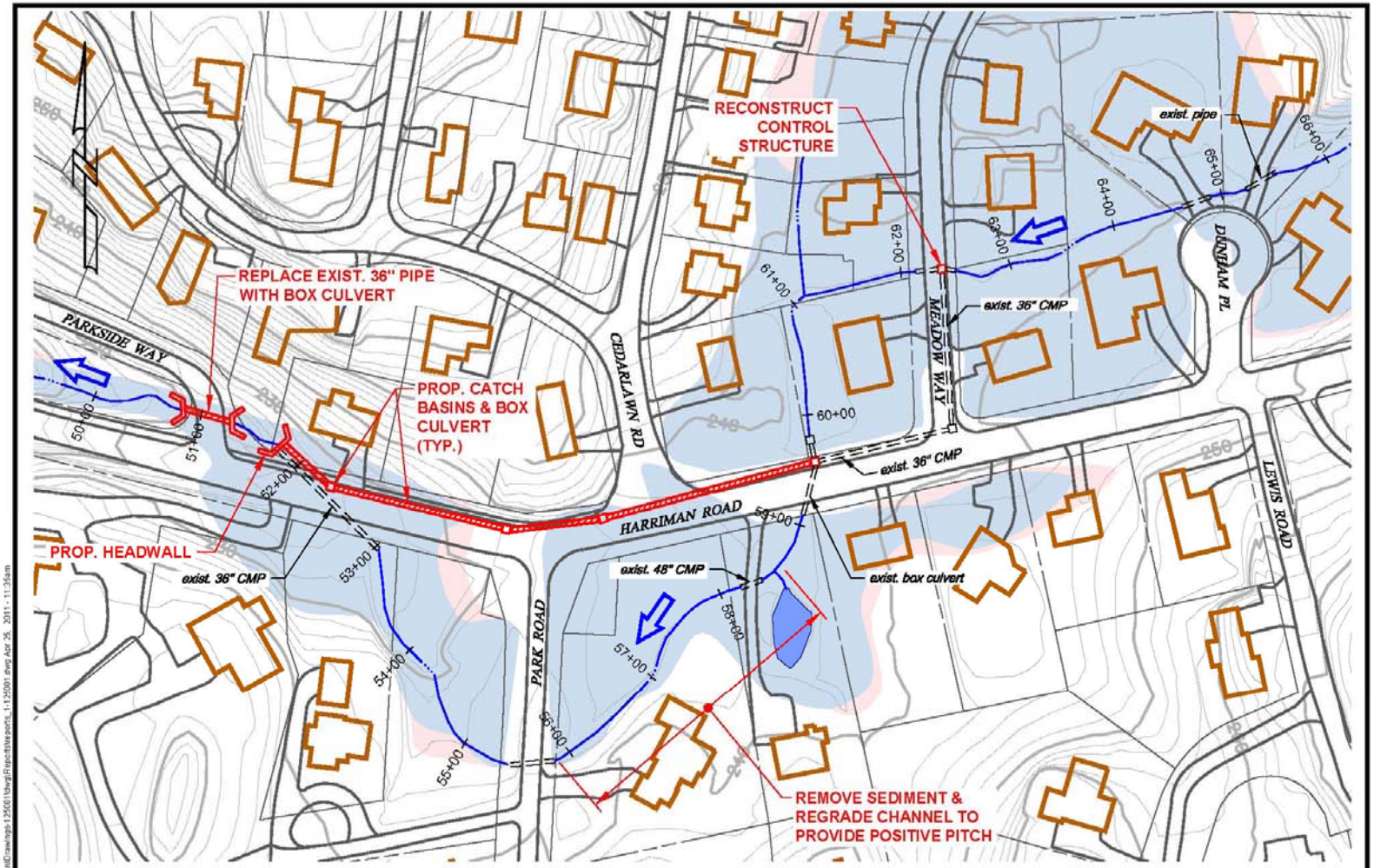

NOTES:
- ESTIMATE $700,000.
- MUST VERIFY CAPACITIES OF DOWNSTREAM CULVERTS.
- MUST MAINTAIN LOW FLOW THROUGH STREAM.

DATE 08/27/10
SHEET NO.
OF

Improvement 5B – Harriman Road

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RECONSTRUCT CONTROL STRUCTURE AT MEADOW WAY.

STREAM IS RELATIVELY FLAT, SHALLOW, AND UNABLE TO CONVEY DESIGN STORM.

SEDIMENT ACCUMULATION IMPEDES FLOW.

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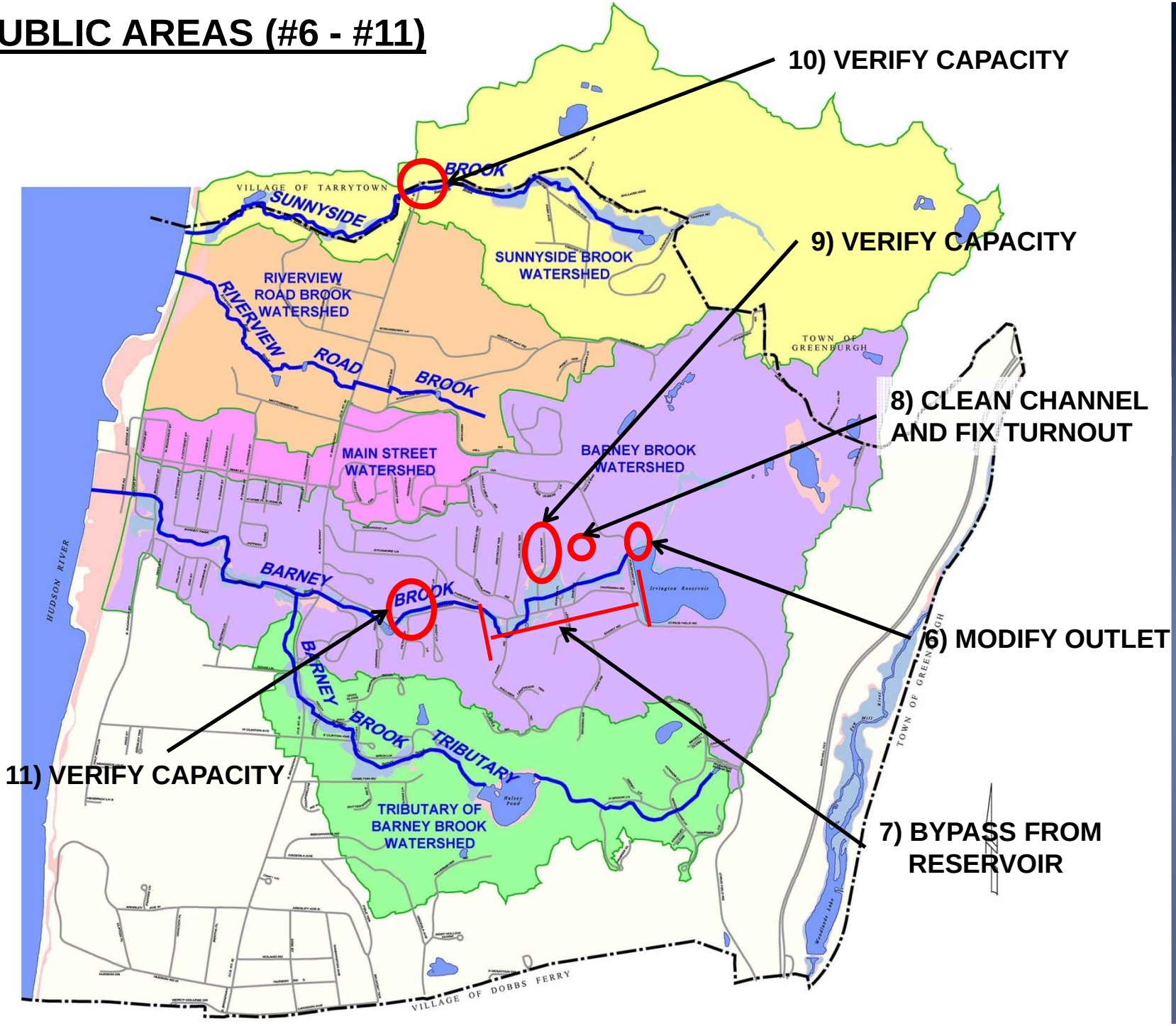
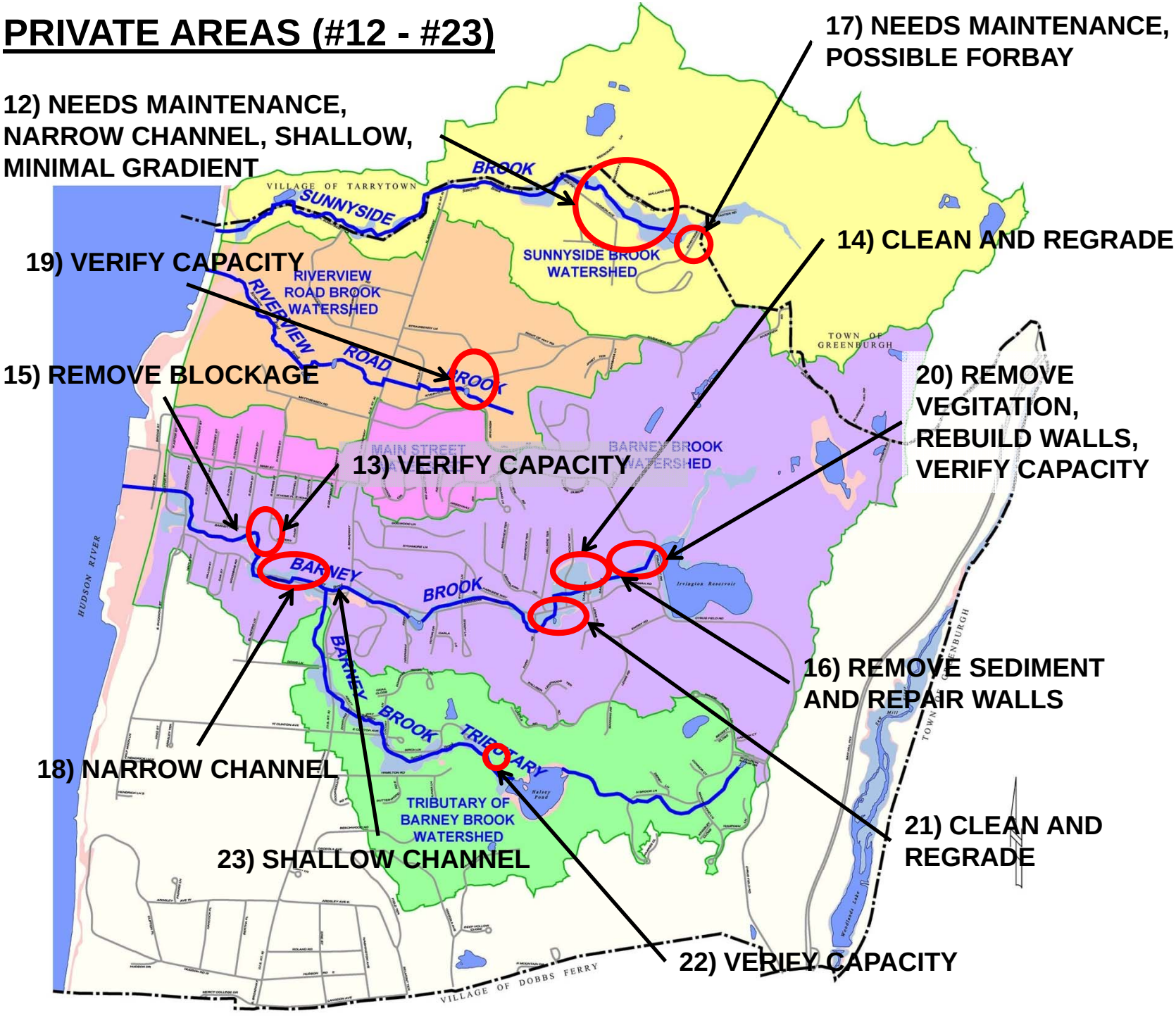
PUBLIC AREAS (#6 - #11)

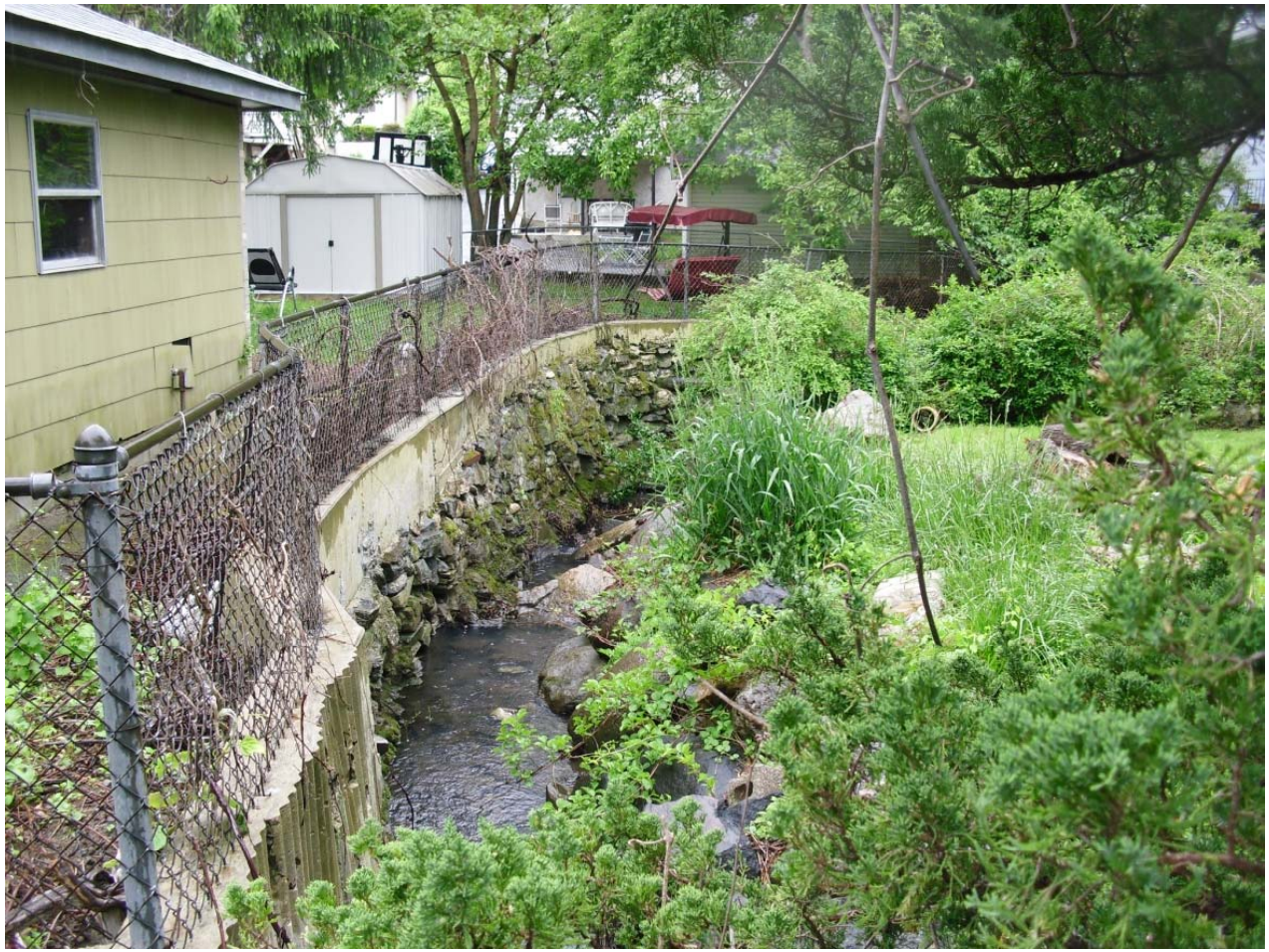


PRIVATE AREAS (#12 - #23)



PRIVATE RESIDENTS

MUST CLEAN AND MAINTAIN THEIR SECTIONS OF THE CHANNEL.



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Sediment Accumulation Reduces Pipe Capacity

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Channel failure

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Channel failure

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Harriman Road-Stream has limited capacity

Sediment Buildup, Vegetation, and channel failure

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Sewer service and walkway impedes flow.

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COMMENTS & QUESTIONS?

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