

VILLAGE OF HASTINGS-ON-HUDSON GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION AND PRESERVATION OF ALL PUBLIC AND PRIVATE UNDERGROUND AND SURFACE UTILITIES AND STRUCTURES AT OR ADJACENT TO THE SITE OF THE CONSTRUCTION INsofar AS THEY MAY BE ENCASED BY HIS OPERATIONS. HE SHALL KNOW THEIR WHETHER OR NOT THEY ARE SHOWN ON THE PROPOSED PLAN IF THEY ARE SHOWN ON THE PROPOSED PLAN THEIR LOCATIONS ARE NOT GUARANTEED EVEN THOUGH THE INFORMATION WAS OBTAINED FROM THE BEST AVAILABLE SOURCES AND IN ANY EVENT, OTHER UTILITIES NOT SHOWN ON THESE PLANS MAY BE ENCOUNTERED IN THE FIELD. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, REPAIR OR REPLACE ANY SUCH UTILITIES THAT HE DAMAGES AND SHALL CONSTITUTE PROCEED WITH CAUTION TO PREVENT UNNECESSARY INTERRUPTIONS TO UTILITY SERVICE.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES WHETHER UNDERGROUND OR OVERHEAD AND SHALL MAINTAIN IN PROPER WORKING AND OPERATING CONDITION ALL UTILITIES. IF TEMPORARY UTILITIES CONNECTIONS SERVICES ARE REQUIRED, THE CONTRACTOR SHALL SEE TO IT THAT THEY ARE PROVIDED, AND IT SHALL BE HIS RESPONSIBILITY TO MAINTAIN SUCH TEMPORARY FACILITIES FOR THE DURATION OF THE PROJECT.
3. THE CONTRACTOR SHALL CONTACT ALL OF THE APPROPRIATE PARTIES WITH JURISDICTION OVER THE UTILITIES ENTERING ON OR NEAR THE PROJECT AREA PRIOR TO THE INITIATION OF CONSTRUCTION ACTIVITIES.
4. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE STATE OF NEW YORK DEPARTMENT OF LABOR, BOARD OF STANDARDS AND APPEALS INDUSTRIAL CODE RULE 53, "CONSTRUCTION, EXCAVATION AND DEMOLITION OPERATIONS AT OR NEAR UNDERGROUND UTILITIES" EFFECTIVE JANUARY 1, 1975. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL APPLICABLE REQUIREMENT OF INDUSTRIAL CODE RULE 53. INFORMATION IS AVAILABLE AT 1-800-962-7862.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS REQUIRED BY THE VILLAGE OF HASTING ON HUDSON, THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) OR ANY OTHER AGENCY WITH JURISDICTION OVER THE PROJECT.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ALL ARRANGEMENTS FOR ALL NECESSARY INSPECTIONS REQUIRED BY THE VILLAGE OF HASTING ON HUDSON OR ANY OTHER AGENCY WITH JURISDICTION OVER THIS PROJECT.
7. THE CONTRACTOR IS RESPONSIBLE FOR THE RESTORATION OR REPLACEMENT OF ALL (OFF-SITE) NATURAL AND MAN MADE FEATURES DISTURBED BY (HIS) CONSTRUCTION ACTIVITIES WHETHER SHOWN ON THE PROPOSED PLAN OR ENCOUNTERED IN THE FIELD. IT IS THE INTENTION OF THE PROPOSED PLAN TO SHOW ONLY MAJOR FEATURES TO BE PROTECTED, RESTORED OR REPLACED; HOWEVER, OTHER PHYSICAL FEATURES MAY BE ENCOUNTERED WHICH WILL REQUIRE RESTORATION OR REPLACEMENT WHETHER OR NOT THEY ARE SHOWN ON THE PLAN.
8. THE CONTRACTOR SHALL VERIFY ALL THE FIELD CONDITIONS AND DIMENSIONS AND SHALL BE RESPONSIBLE FOR FIELD FITTING AND QUANTITY OF WORK. NO ALLOWANCES SHALL BE MADE ON THE BEHALF OF THE CONTRACTOR FOR ANY ERROR OR NEGLECT ON HIS PART.
9. I HEREBY ACKNOWLEDGE THAT SURFACE INVESTIGATIONS AND BORINGS HAVE NOT BEEN PERFORMED. SURFACE INVESTIGATION IS NOT AVAILABLE FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL SURFACE CONDITIONS AND SATISFYING ALL CONTRACTUAL CONDITIONS WITH RESPECT TO UNFORESEEN CONDITIONS PRIOR TO ENTERING INTO AGREEMENT TO PERFORM THE WORK SHOWN

STEEP SLOPE CERTIFICATION

- (A)
- A PLAN SUBMITTED UNDER THE SEAL OF A LICENSED PROFESSIONAL ENGINEER SHOWING AND CERTIFYING THE FOLLOWING:
- (A)
- ALL EXISTING AND PROPOSED NATURAL AND ARTIFICIAL DRAINAGE COURSES AND OTHER FEATURES FOR THE CONTROL OF DRAINAGE, EROSION AND WATER.
- THE PLANS SHOW ALL NATURAL DRAINAGE PATHS AND FEATURES.
- (B)
- THE CALCULATED VOLUME OF WATER RUNOFF FROM THE SLOPE(S) AND FROM THE LOT IN QUESTION, AS UNIMPROVED.
- VOLUME OF RUNOFF FROM THE SLOPES = AREA X RUNOFF COEFFICIENT X
6 INCHES OF RAINFALL = AREA X 0.60 X 6.7/12' = 2,572 S.F. X 0.60 X 6.7/12' = 771.6 CUBIC FEET.
- (C)
- THE CALCULATED VOLUME OF WATER RUNOFF FROM THE SLOPE(S) AND FROM THE LOT IN QUESTION, AS IMPROVED.
- VOLUME OF RUNOFF FROM THE SLOPES = AREA X RUNOFF COEFFICIENT X
6 INCHES OF RAINFALL = AREA X 0.60 X 6.7/12' = 2,572 S.F. X 0.90 X 6.7/12' = 1,154.1 CUBIC FEET.
- (D)
- THE EXISTENCE, LOCATION AND CAPACITY OF ALL NATURAL AND ARTIFICIAL DRAINAGE COURSES AND FACILITIES WITHIN 500 FEET OF THE LOT WHICH ARE OR WILL BE USED TO CARRY OR CONTAIN THE WATER RUNOFF FROM THE SLOPE(S) AND THE LOT.
- THE PLANS SHOW ALL NATURAL AND ARTIFICIAL DRAINAGE COURSES AND FACILITIES.
- (B)
- A STATEMENT MADE UNDER THE SEAL OF A LICENSED PROFESSIONAL ENGINEER CERTIFYING THAT:
- (A)
- THE PROPOSED ACTION WILL DISTURB THE STEEP SLOPE AREA TO THE MINIMUM EXTENT POSSIBLE; AND
- THE PROPOSED ACTION, THE CONSTRUCTION OF A HOUSE AND RELATED FEATURES WILL IMPACT THE STEEP SLOPES TO THE MINIMUM EXTENT POSSIBLE. THE STEEPEST AND WOODED PORTION OF THE LOT WITH THE DRAINAGE WAY THAT CONVEYS RUNOFF FROM THE OLD CROTON ADJUNCT WILL NOT BE DISTURBED.
- (B)
- THE PROPOSED MITIGATION MEASURE WILL PREVENT, TO THE MAXIMUM EXTENT PRACTICAL, THE ADVERSE EFFECT OF ANY DISTURBANCE OF THE STEEP SLOPE AREA ON THE ENVIRONMENT AND ANY NEIGHBORING PROPERTIES.
- RUNOFF FROM THE STEEP SLOPES, ESPECIALLY THAT FROM THE OLD CROTON ADJUNCT DRAIN WILL BE CONVEYED TO THE EXISTING DRAINAGE WORKS BY WAY OF A NEW DRAIN LINE AND THE LAND DISTURBANCE WILL NOT HAVE AN ADVERSE IMPACT ON THE STEEP SLOPES, THE ENVIRONMENT AND ANY NEIGHBORING PROPERTIES.
- RUNOFF FROM THE DISTURBED STEEP SLOPES, THE IMPROVED AREA WITH THE HOUSE AND DRIVEWAY AND ISOLATED INFERRIORS AREA WILL BE CONNECTED TO A DRYWELL WITH AN OVEFLOW TO THE PROPOSED DRAINAGE WORKS.

APPROVAL NOTES

*THE VILLAGE ENGINEER AND BUILDING INSPECTOR MAY REQUIRE ADDITIONAL EROSION CONTROL MEASURES IF DEEMED APPROPRIATE TO MITIGATE UNFORESEEN SILTATION AND EROSION OF DISTURBED SOILS.

CUT AND FILL

CUT = 115 CUBIC YARDS
FILL = 12 CUBIC YARDS
NET EXPORT = 103 CUBIC YARDS

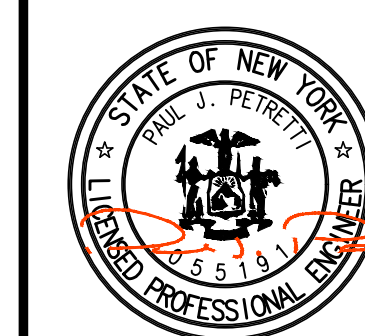
	Required	Lot 1
AREA (sq. ft.)	10,000	10,088
Width	100	65.76 *
Front yard (ft.)	30	30.17
Side Yard (ft.)	12	12.17
2 Side yards (ft.)	30	30.00
Rear Yard (ft.)	30	72.81
Building Coverage (%)	25%	18.45%
Development Coverage (%)	35%	25.50%
Height of Building (ft.)	35	>35

* VARIANCE REQUIRED

	Required	Lot 2
AREA (sq. ft.)	10,000	11,858
Width	100	81.60 *
Front yard (ft.)	30	33.6 ***
Side Yard (ft.)	12	10.0 *
2 Side yards (ft.)	30	33.78 ***
Rear Yard (ft.)	30	82.7 ***
Building Coverage (%)	25%	14.21%
Development Coverage (%)	35%	36.35% *
Height of Building (ft.)	35	<35

* VARIANCE REQUIRED
** EXISTING

SITE, GRADING AND UTILITY



OWNER/APPLICANT
**DEAN WETHERELL &
 MARIE T. DeBETHUME WETHERELL**
 196 WARBURTON AVENUE
 HASTINGS -ON-HUDSON
 NEW YORK 10706
 PHONE No. 1-914-584-0742

REVISIONS		
NO.	DATE	DESCRIPTION
1	4.4.2017	AS PER PJP
2	4.26.2017	MAY 2017 P.B. ME
3	6.19.2017	AS PER PJP
ORIGINAL - FEBRUARY 10, 2017		

CONSTRUCTION PLANS
PREPARED FOR
SUBDIVISION MAP OF PALISADES VIEW

VILLAGE OF HASTINGS-ON-HUDSON
TOWN OF GREENBURGH
WESTCHESTER COUNTY, NEW YORK

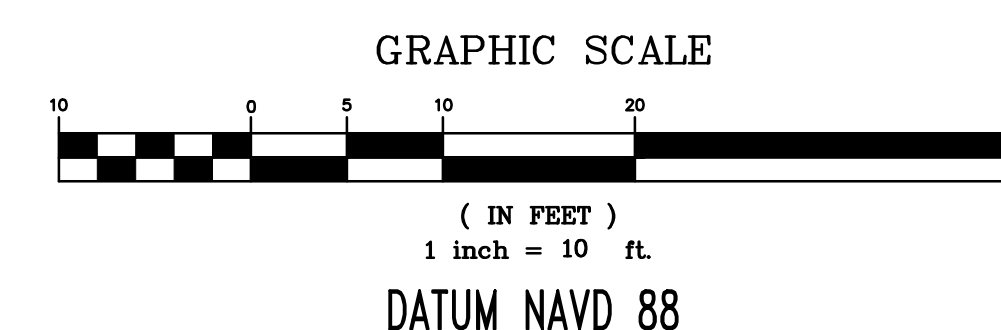
PAUL J. PETRETTI
CIVIL ENGINEER & LAND SURVEYOR
30 GOULD AVENUE, DOBBS FERRY, NEW YORK 10522.

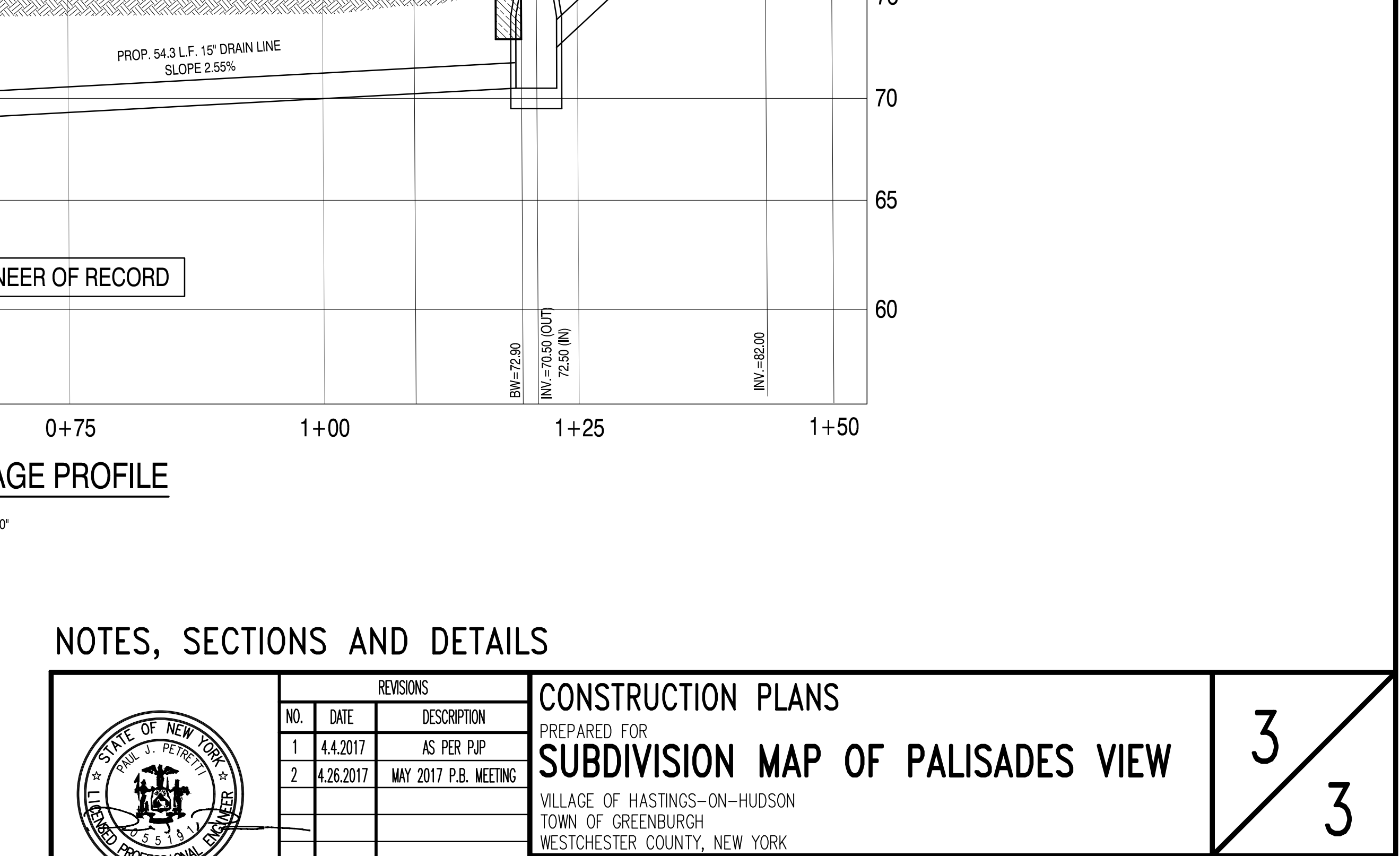
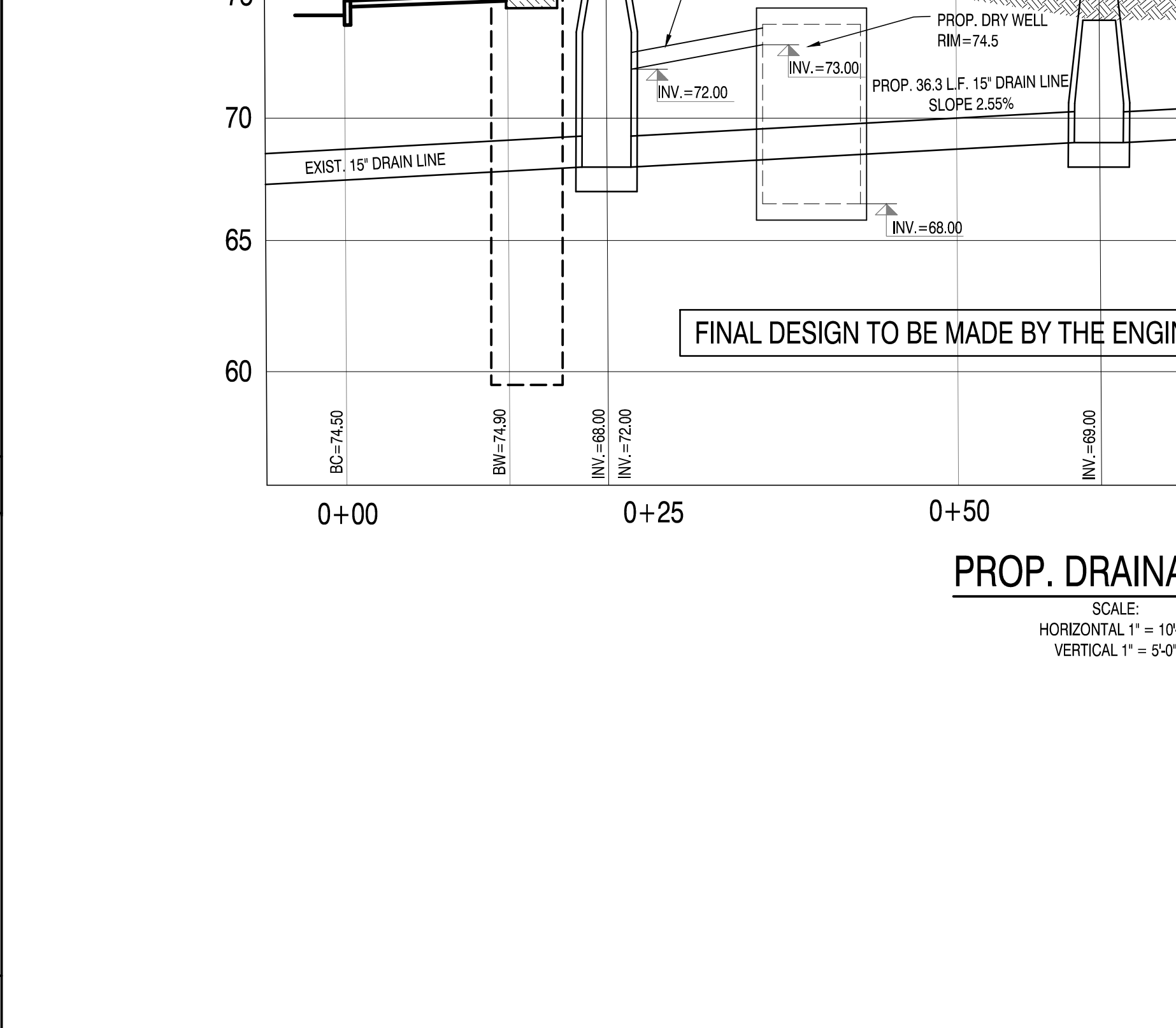
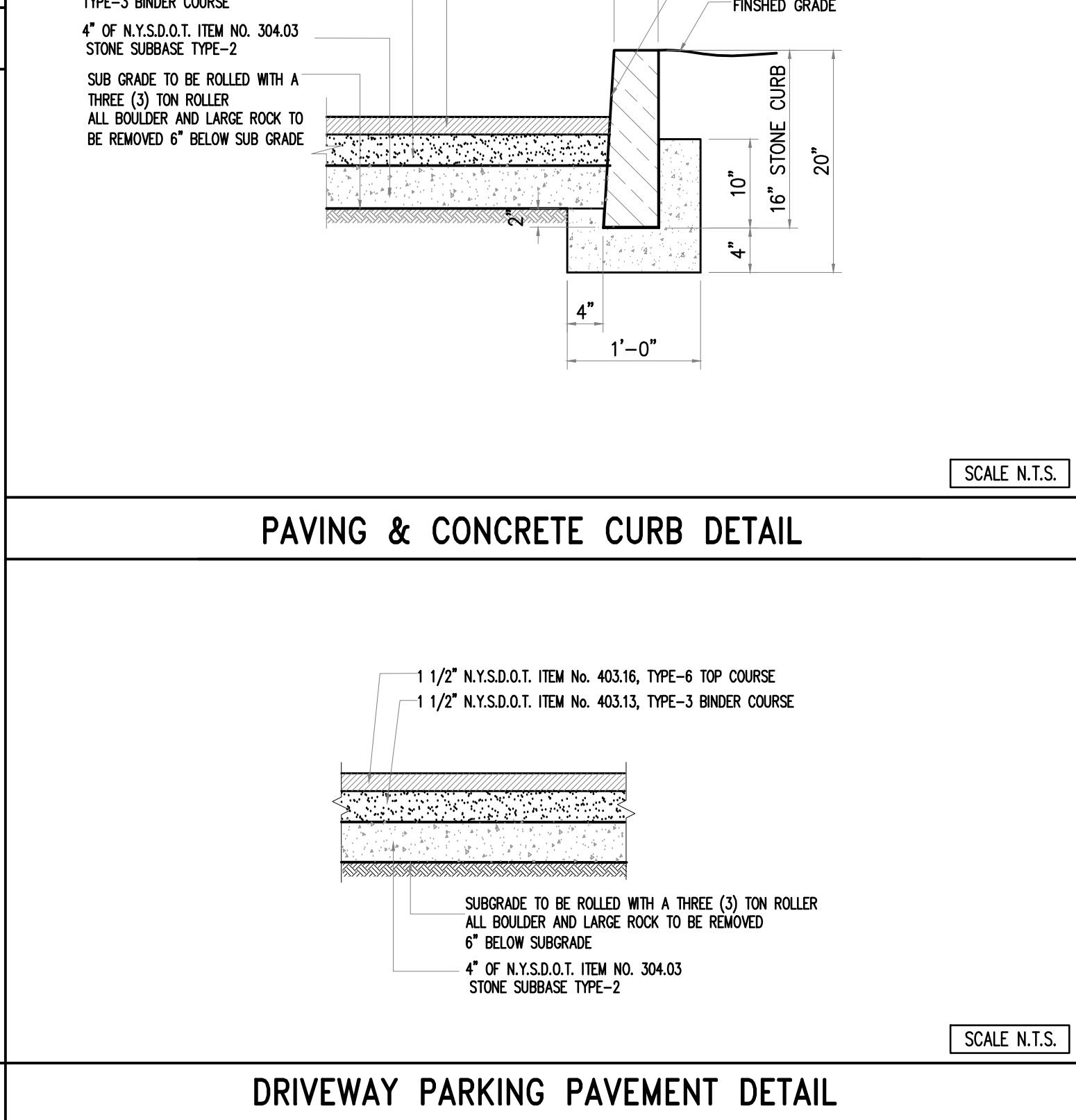
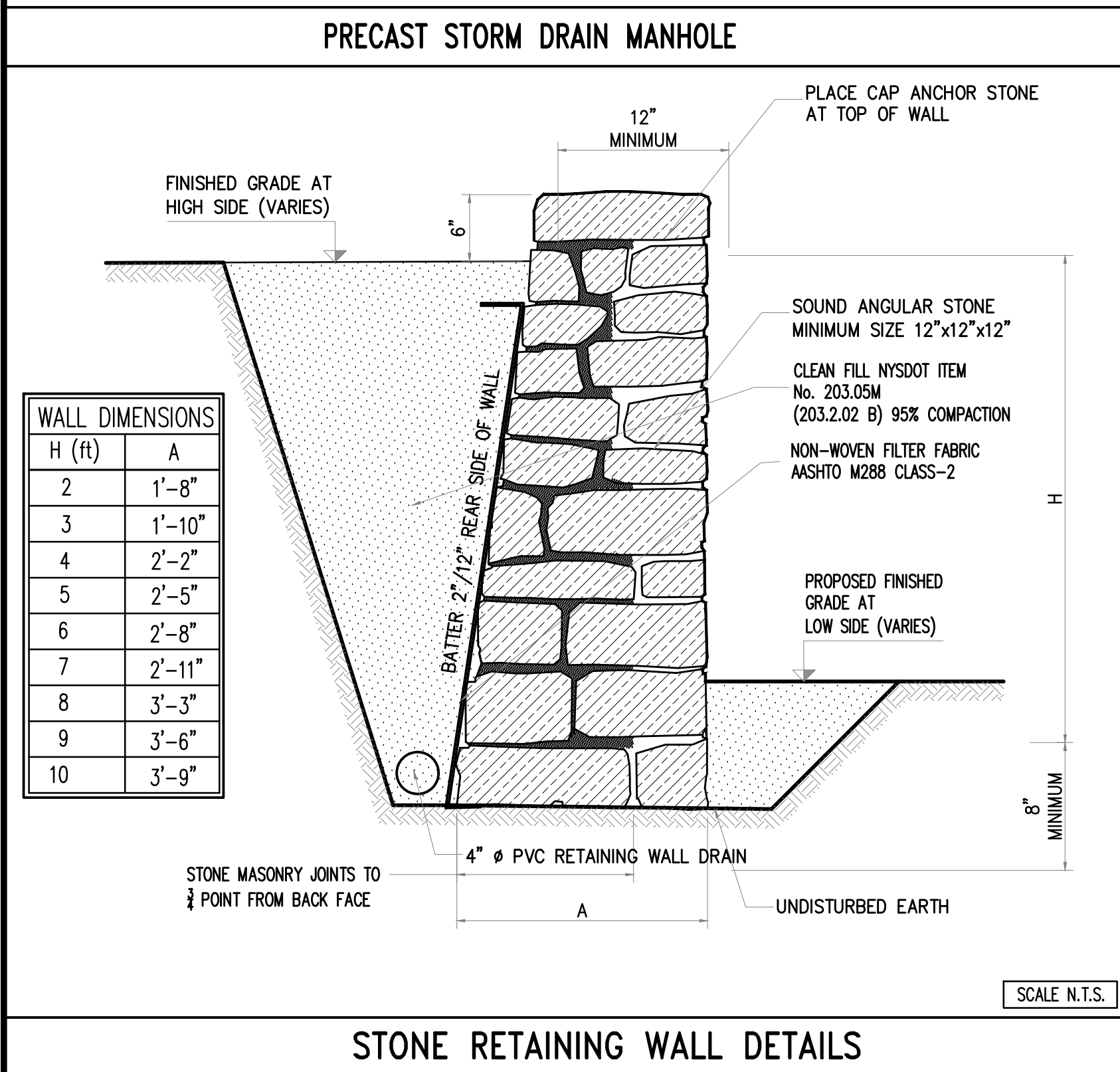
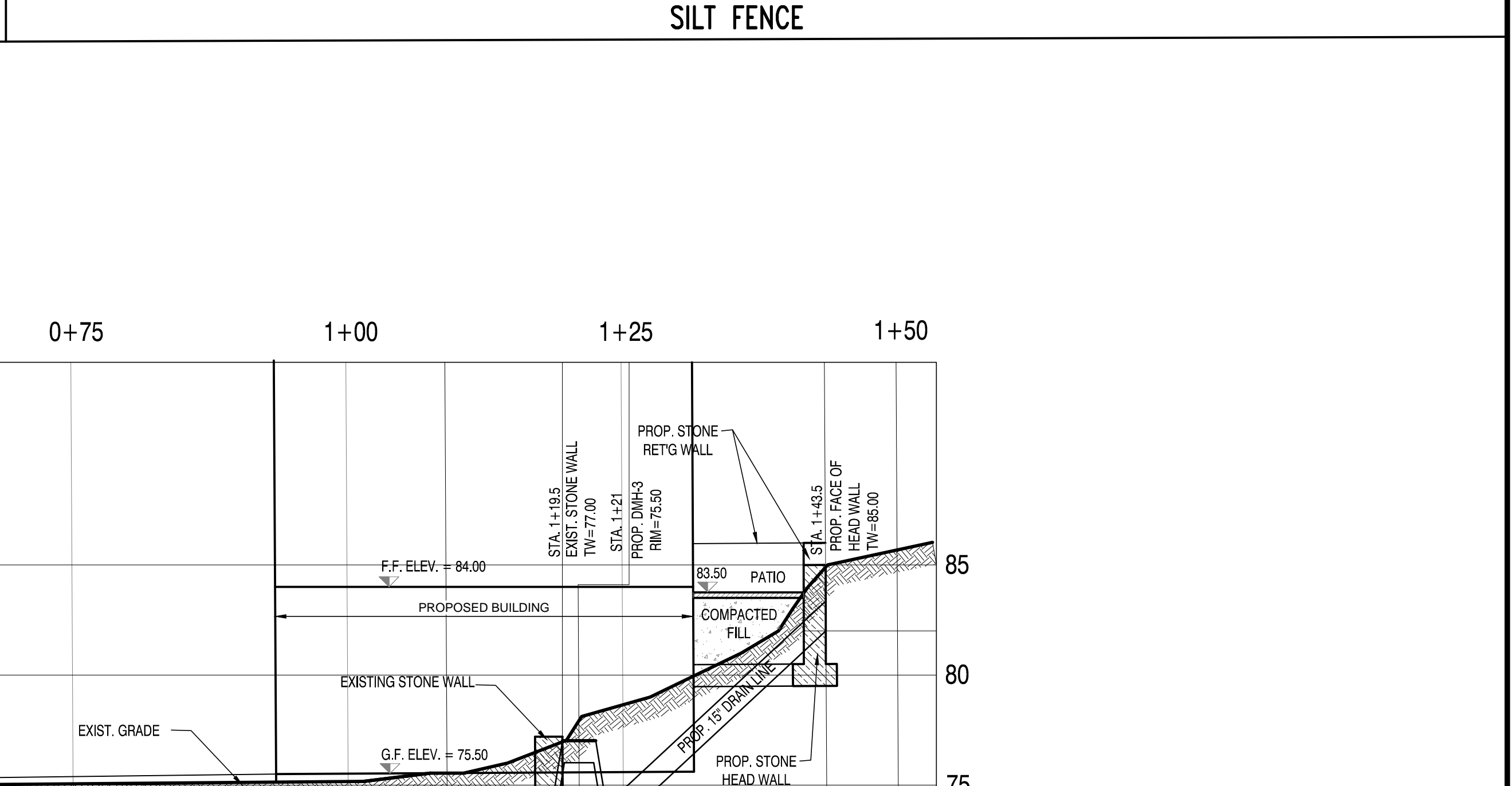
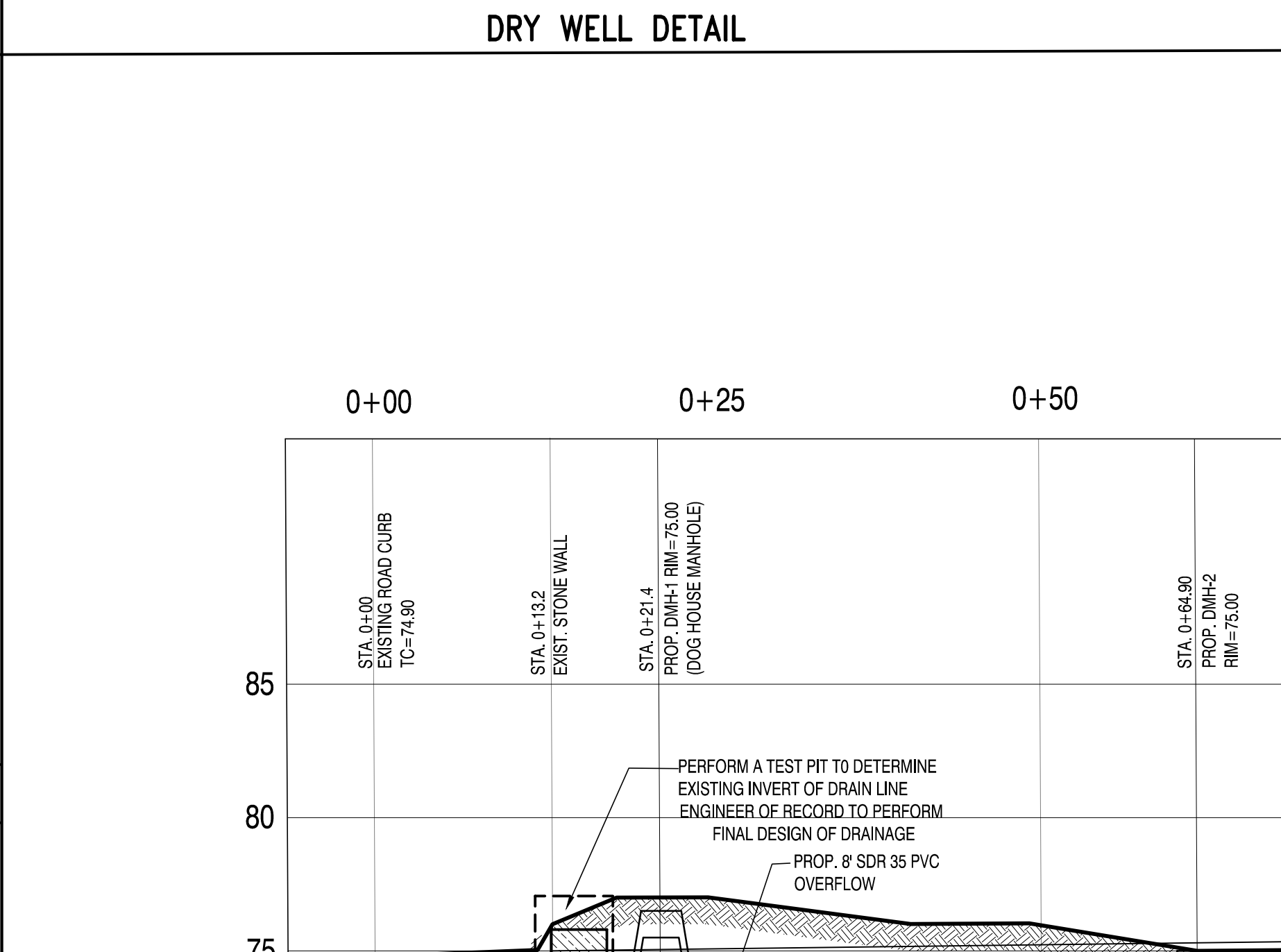
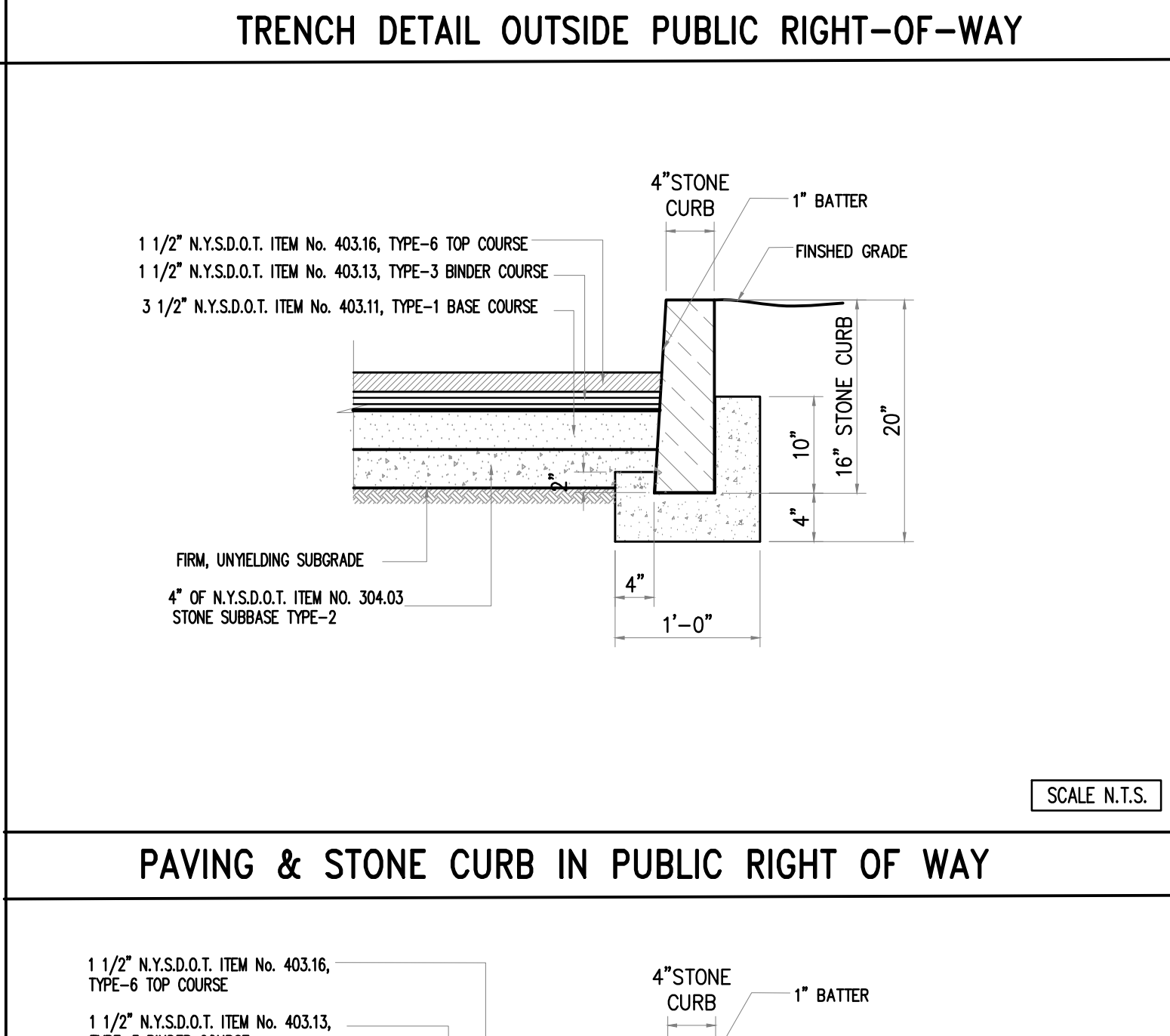
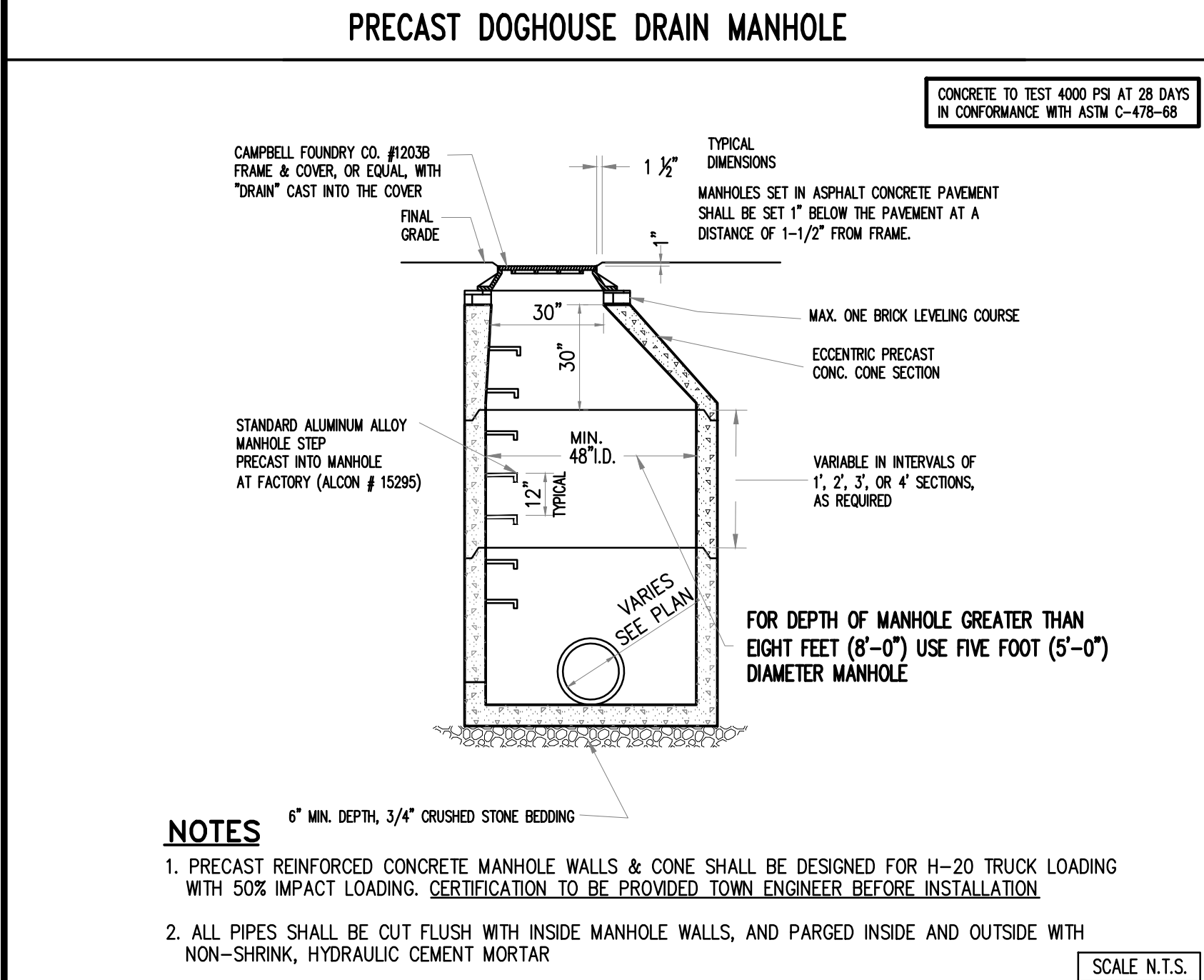
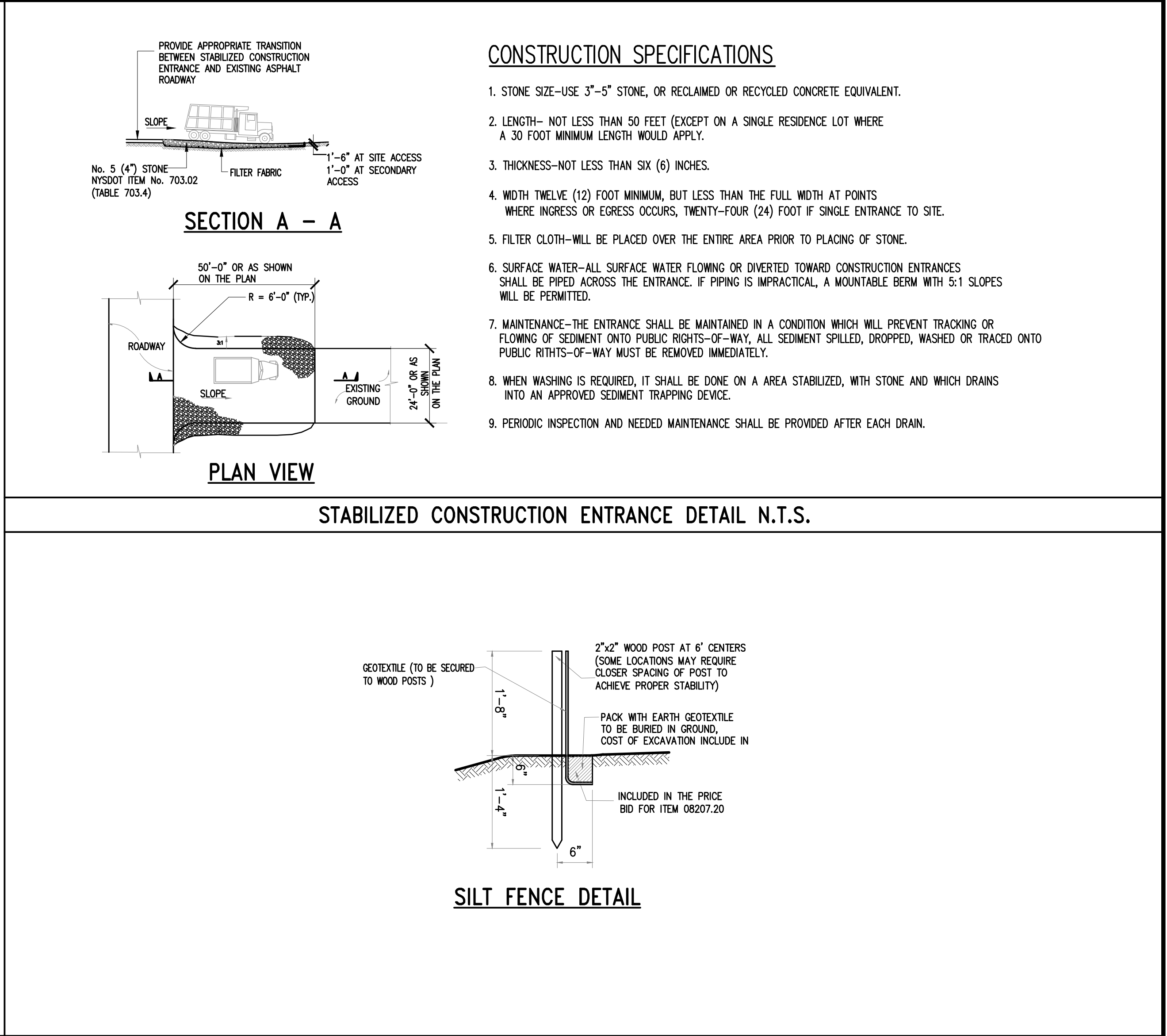
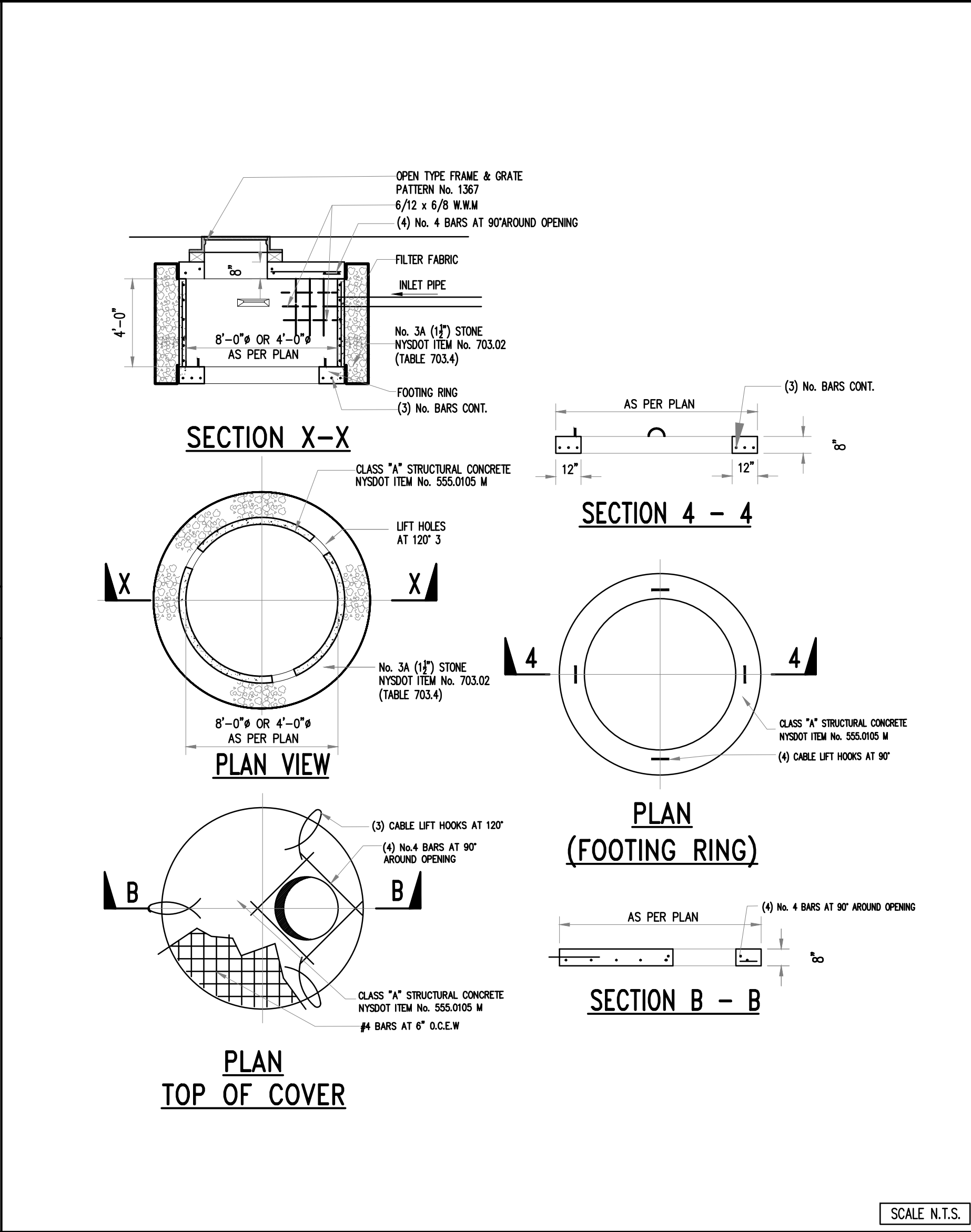
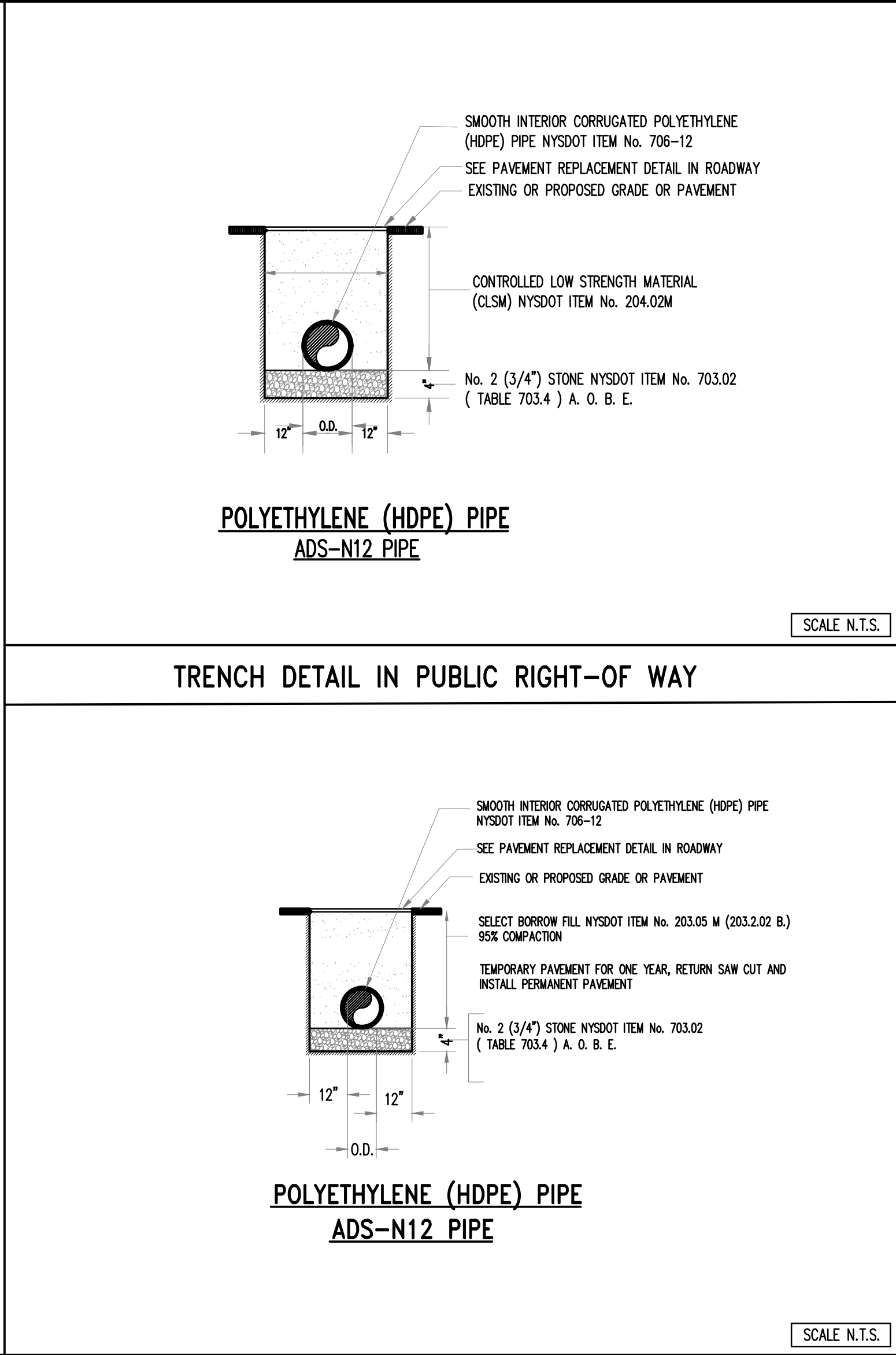
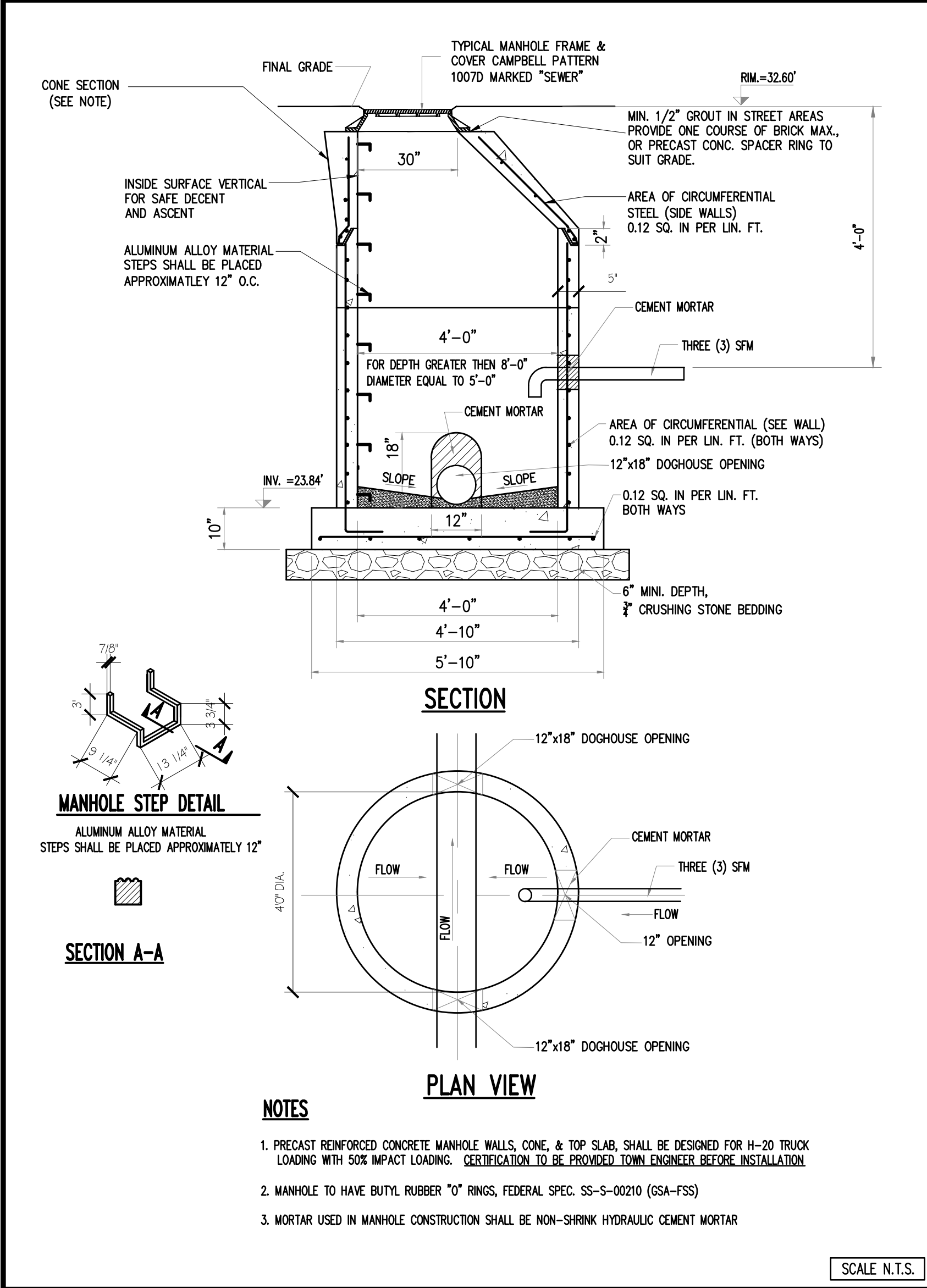
CIVIL ENGINEERING - LAND SURVEYING & MAPPING - SITE DESIGN & PLANNING
ENVIRONMENTAL & GEOTECHNICAL - DRAINAGE & STORMWATER QUALITY
EROSION & SEDIMENT CONTROL STORMWATER POLLUTION PREVENTION PLANS

Phone Number 914-674-0827 Call 914-672-1518 E-Mail RIPPS@alcom.com

ENCROACHMENTS BELOW GRADE AND OR SUB-GRADE FEATURES, IF ANY, NOT
LOCATED OR SHOWN HEREON.

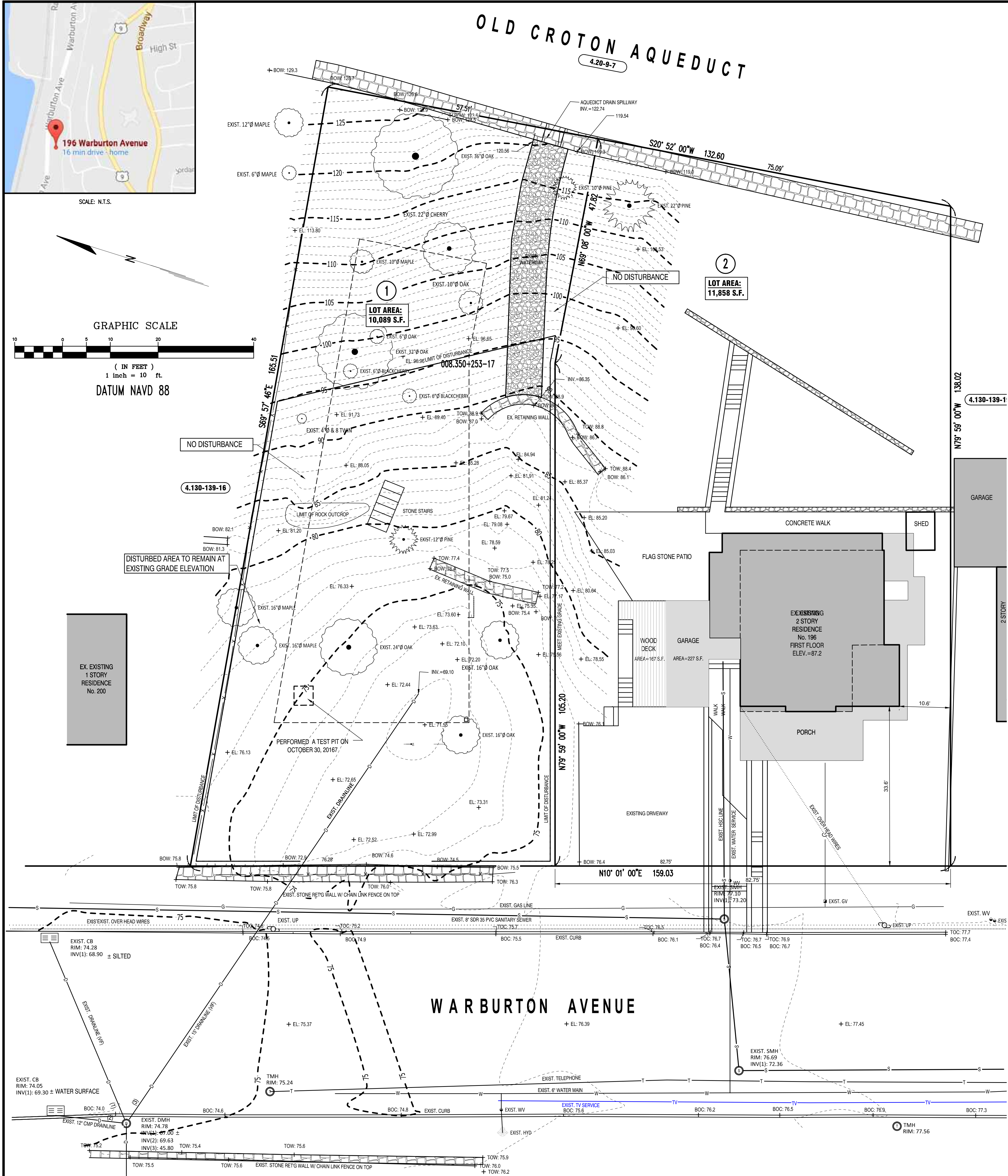
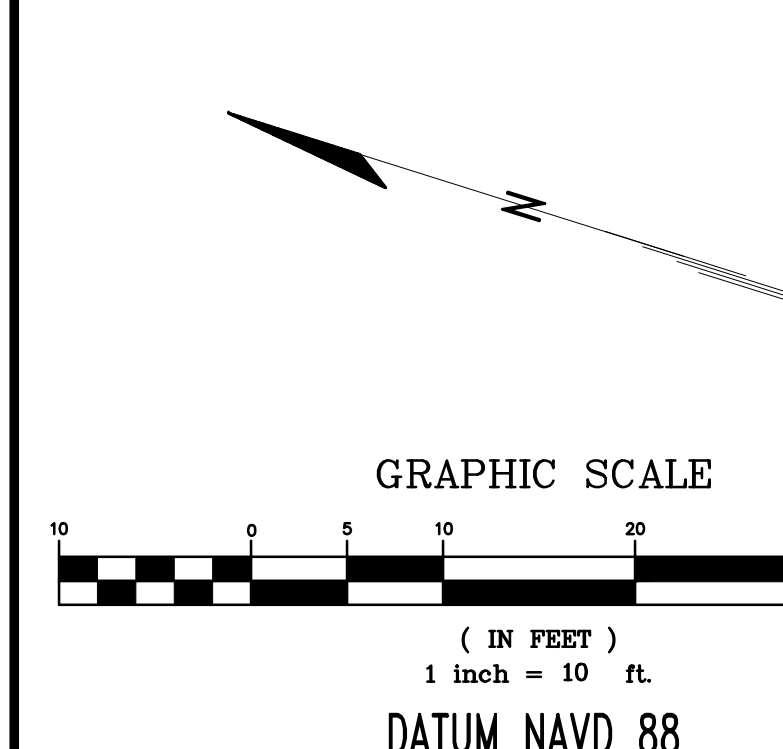
ANY ALTERATION OR ADDITIONS TO THE PLANS AND SPECIFICATIONS SHOWN HEREON
IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT
AS PER SECTION 7209, SUBDIVISION 2.







SCALE: N.T.S.

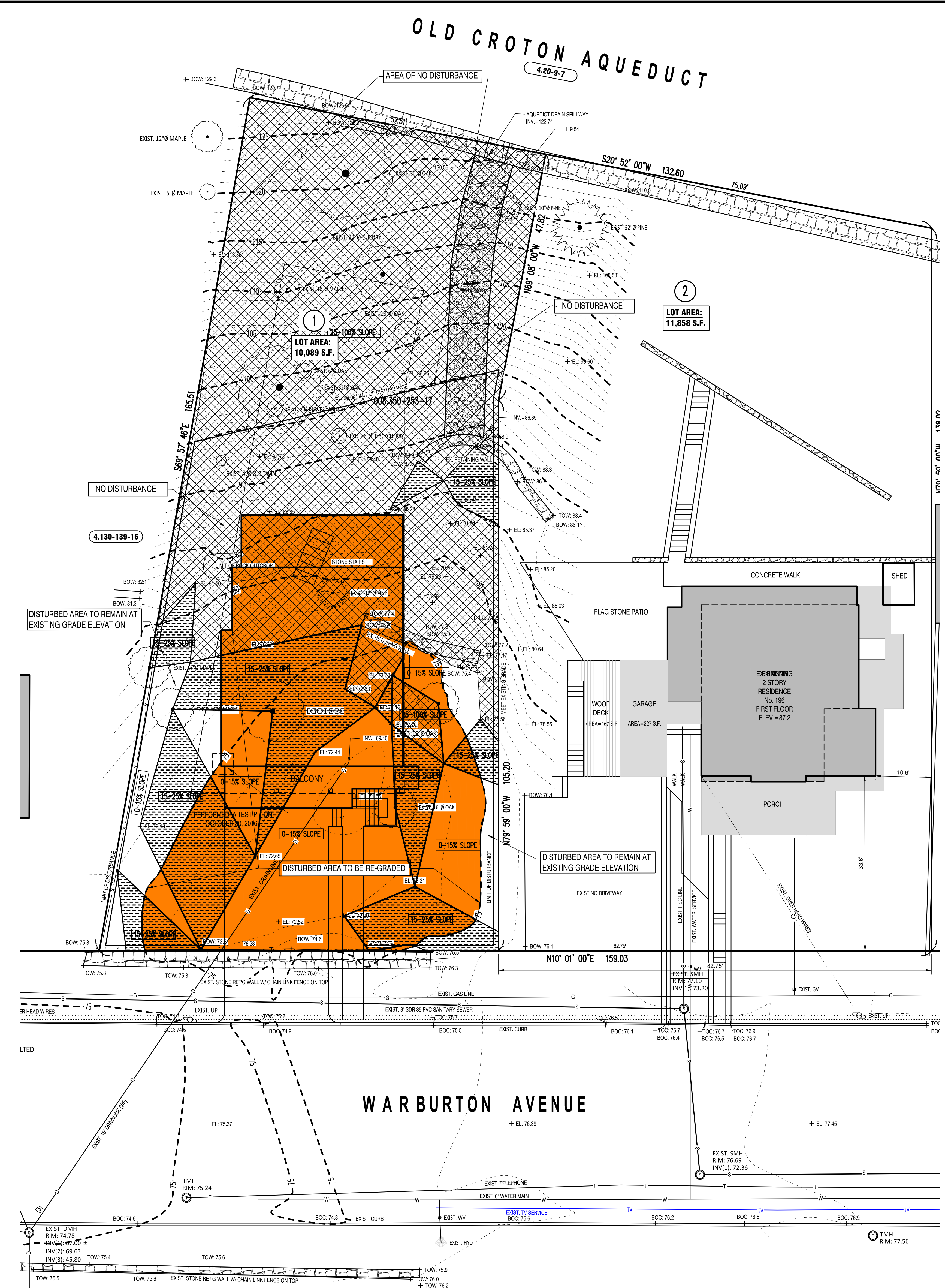


EXISTING CONDITIONS PLAN

ENCROACHMENTS BELOW GRADE AND OR SUB-GRADE FEATURES, IF ANY, NOT LOCATED OR SHOWN HEREON.

ANY ALTERATION OR ADDITIONS TO THE PLANS AND SPECIFICATIONS SHOWN HEREON IS A VIOLATION OF SECTION 7209 OF THE NEW YORK STATE EDUCATION LAW, EXCEPT AS PER SECTION 7209, SUBDIVISION 2.

Slopes Table - Total Site And Disturbed Area							
Number	Minimum Slope	Maximum Slope	Area (sq. ft.)	Percent	Disturbed area (sq. ft.)	Percent Area Disturbed Allowed	Percent Disturbed
1	0	15	2,148	21.30%	1,644	100%	16.30%
2	15	25	1,913	19.00%	1,278	35%	12.67%
3	25	100	6,028	59.70%	960	25%	9.52%
				100%	3,882		
			TOTAL LOT AREA		10,089		



STEEP SLOPE PLAN

EXISTING CONDITIONS & STEEP SLOPE PLANS

NO. 1 DATE 4.4.2017 DESCRIPTION AS PER PJP

NO. 2 DATE 4.26.2017 DESCRIPTION MAY 2017 P.B. MEETING

REVISIONS

NO.	DATE	DESCRIPTION
1	4.4.2017	AS PER PJP
2	4.26.2017	MAY 2017 P.B. MEETING

CONSTRUCTION PLANS

PREPARED FOR

SUBDIVISION MAP OF PALISADES VIEW

VILLAGE OF HASTINGS-ON-HUDSON
TOWN OF GREENBURGH
WESTCHESTER COUNTY, NEW YORK

PAUL J. PETRETTI
CIVIL ENGINEER & LAND SURVEYOR
30 GOLD AVENUE, DOBBS FERRY, NEW YORK 10522.

CIVIL ENGINEERING - LAND SURVEYING & MAPPING - SITE DESIGN & PLANNING
ENVIRONMENTAL & GEOTECHNICAL - DRAINAGE & STORMWATER QUALITY
EROSION & SEDIMENT CONTROL STORMWATER POLLUTION PREVENTION PLANS

Phone Number 914-674-8827 Cell 914-672-1518 E-Mail: PJP@JSPRO.COM

2

3

SUBDIVISION MAP
OF
PALISADES VIEW
VILLAGE OF HASTINGS-ON-HUDSON
TOWN OF GREENBURGH
WESTCHESTER COUNTY, NEW YORK.

COUNTY SHEET No. 40, COUNTY BLOCK No. 4391

A RE-SUBDIVISION OF LOTS 18 & 19, AND PART OF AN UNNUMBERED LOT BLOCK AS SHOWN ON A CERTAIN FILED MAP ENTITLED "MAP ONE OF PINECREST-ON-THE-HUDSON, HASTINGS, WESTCHETSER COUNTY, NEW YORK PROPERTY OF METROPOLIS EXTENSION CO. DATED JULY 1 ST. 19099, MADE BY M. LORIN, C.E., AND FILED IN THE WESTCHESTER COUNTY CLERK'S OFFICE, DIVISION OF LAND RECORDS ON JULY 26, 1909 AS MAP NO. 1867.

THE PREMISES SHOWN HEREON BE LOTS 17 & 18, BLOCK 140, MAP 004.130 AS SHOWN ON THE TAX MAP OF THE VILLAGE OF HASTINGS-ON-HUDSON, TOWN OF GREENBURGH

WESTCHESTER COUNTY DEPARTMENT OF HEALTH
NEW ROCHELLE, NEW YORK

EXISTING PUBLIC WATER/PUBLIC SEWER

APPROVED PURSUANT TO CHAPTER 873, ARTICLE X, SECTIONS 873.951 AND 873.1021 OF THE WESTCHESTER COUNTY SANITARY CODE SUBJECT TO THE PROVISION OF PUBLIC WATER SUPPLY AND PUBLIC SANITARY SEWER FACILITIES TO SERVE ALL STRUCTURES INTENDED FOR HUMAN OCCUPANCY CONSTRUCTED HEREIN.

EACH PURCHASER OF PROPERTY SHOWN HEREON SHALL BE FURNISHED A TRUE COPY OF THIS PLAT SHOWING ENDORSEMENT, ANY EASEMENTS, CHANGES, ADDITIONS OR ALTERATIONS OF ANY KIND EXCEPT THE ADDITION OF SIGNATURES OF OTHER APPROVING AUTHORITY AND THE DATE THEREOF MADE ON THIS PLAN AFTER THIS APPROVAL, SHALL INVALIDATE THIS APPROVAL.

DATE:
APPROVED BY THE ASSISTANT COMMISSIONER OF HEALTH ON BEHALF OF THE DEPARTMENT OF HEALTH

APPROVED BY THE PLANNING BOARD OF THE VILLAGE OF HASTINGS-ON-HUDSON

APPROVED BY THE PLANNING BOARD OF THE VILLAGE OF HASTINGS-ON-HUDSON BY
RESOLUTION DATED

KATHLEEN SULLIVAN, CHAIRPERSON DATE

OWNERS CERTIFICATION

THE UNDERSIGNED OWNERS OF THE PROPERTY SHOWN HEREON IS FAMILIAR WITH THIS MAP AND THE LEGENDS, NOTES AND CONDITIONS SHOWN HEREON, THE CONDITIONS OF THE APPROVAL, THE SEORA FINDINGS AND DETERMINATION, THE RESOLUTION FOR THE APPROVAL OF THIS SUBDIVISION AND PERMITS REQUIRED AND APPROVES THE SAME FOR FILING WITH THE COUNTY CLERKS OFFICE, DIVISION OF LAND RECORDS.

MARIE T. DUBETHUNE WETHERELL DATE

DEAN WETHERELL DATE

ALL TAXES DUE TO DATE HAVE BEEN PAID

ANNE M. POVELLA RECEIVER OF TAXES TOWN OF GREENBURGH DATE

SUSAN MAGGIOTTO VILLAGE CLERK DATE

SUEZ WATER NEW YORK INC.
360 WEST WYACK ROAD
NEW YORK 10994
PROPOSED WATER MAIN AND APPEARANCES APPROVED BY UNITED WATER NEW ROCHELLE
DATE:
BY: FRANK MCGLYNN NEW BUSINESS MANAGER.

SUBDIVISION MAP PREPARED BY:

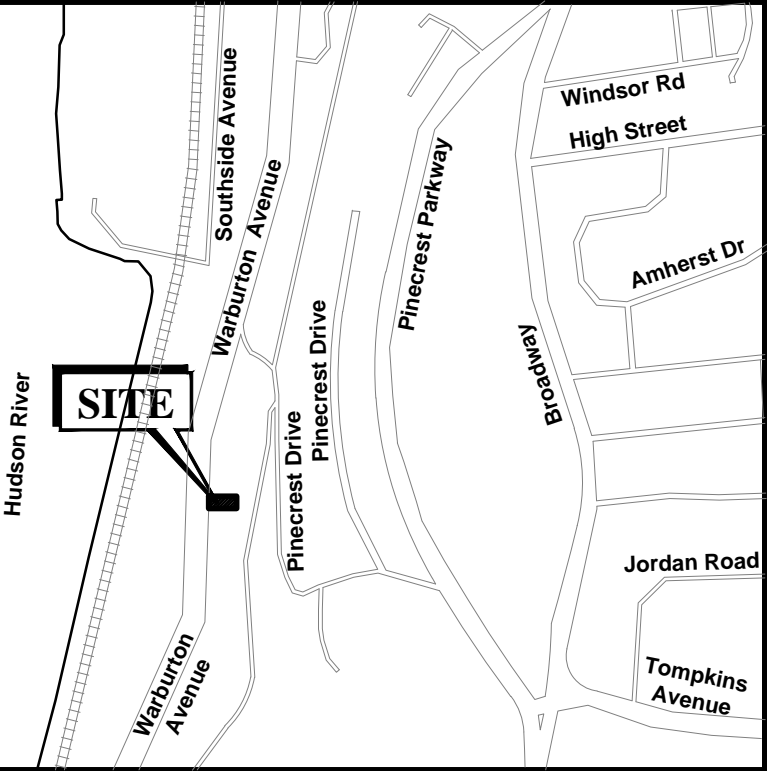
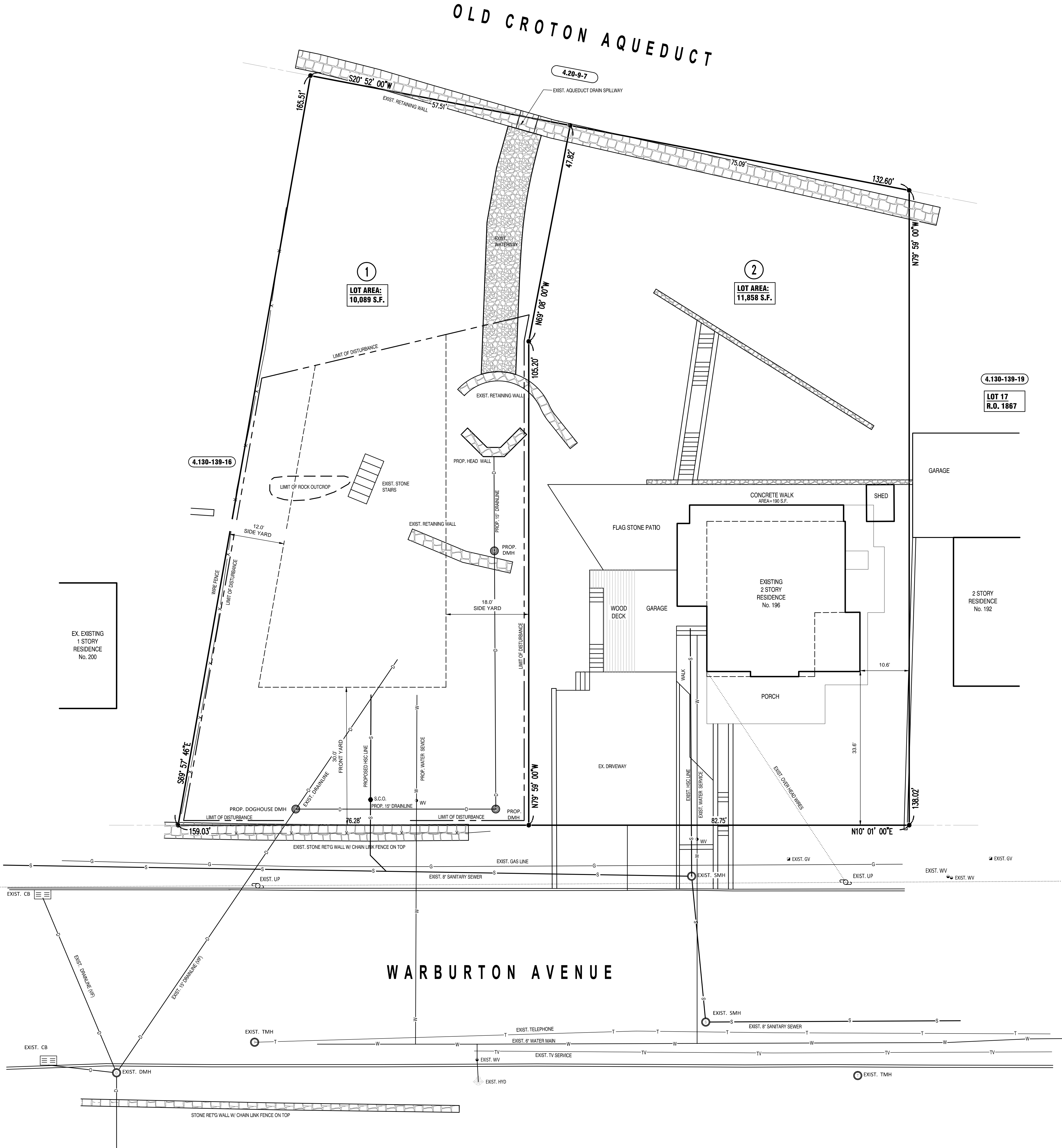
PAUL J. PETRETTI
CIVIL ENGINEER AND LAND SURVEYOR
30 CLOUD AVENUE, DOBBS FERRY, NEW YORK 10522
Phone Number 914-674-9827 E-Mail PJP@CELS8@aol.com

I, PAUL J. PETRETTI, P.E., THE SURVEYOR WHO MADE THIS MAP
DO HEREBY CERTIFY THAT THE SURVEY OF THE PROPERTY SHOWN
HEREON IS BASED ON A FIELD SURVEY COMPLETED ON FEBRUARY 28, 2017
REVISED ON APRIL 4, 2017

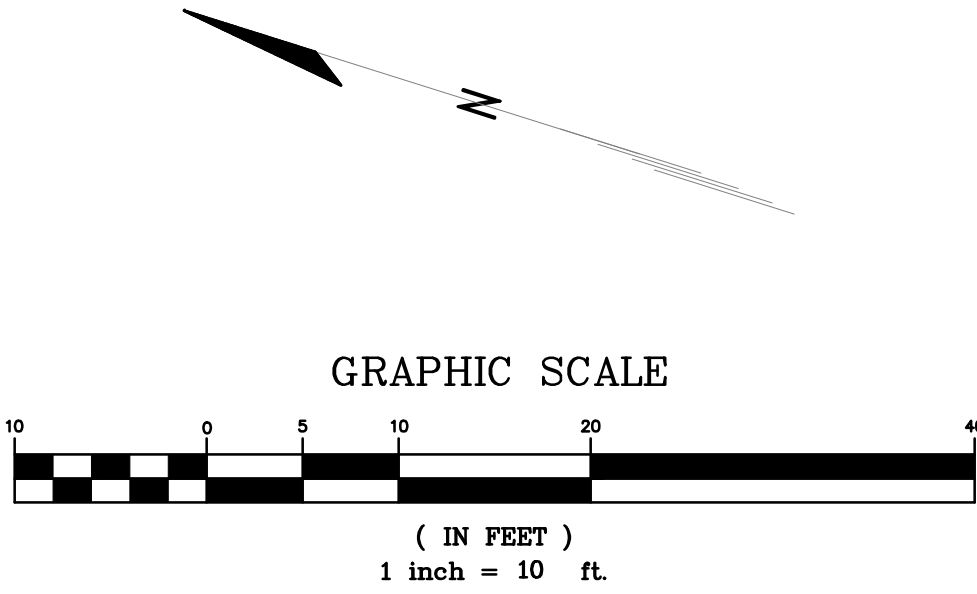


N. Y. S. P. E. LIC. NO. 055191

N. Y. S. L. S. LIC. NO. 049371



SITE LOCATION MAP
SCALE: N.T.S.





1 VIEWS MAP
SCALE: NTS



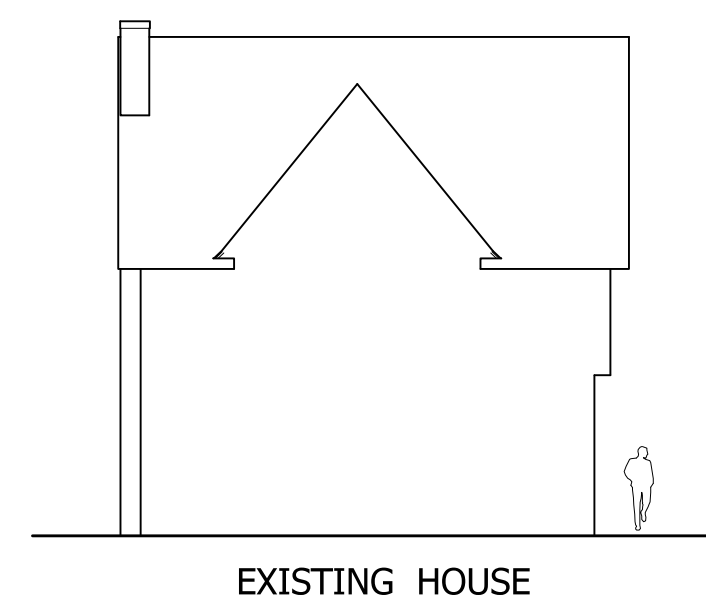
view A



view B



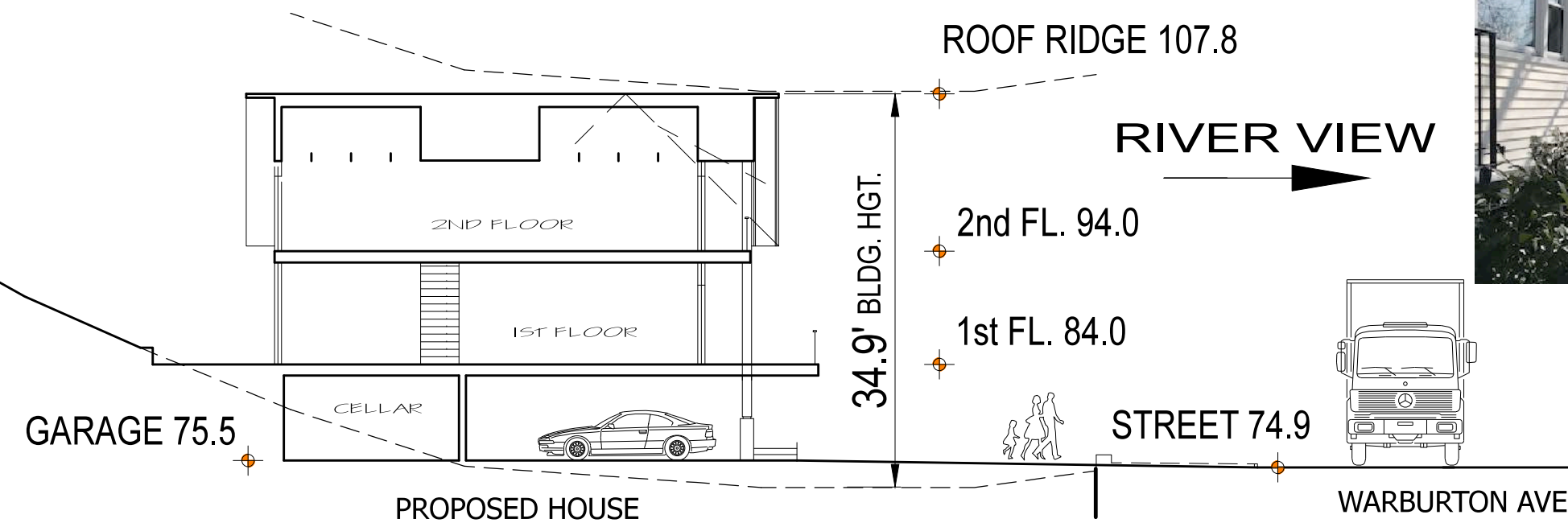
2 FRONT ELEVATION
SCALE: NTS



3 AREA CROSS SECTION
SCALE: NTS

RIVER VIEW
→

BOW 123.5



4 VIEWS
SCALE: NTS



view C



view D



view E

DRAWN:

RESUBDIVISION
to 196 Warburton Ave.
Hastings-on-Hudson,
New York, 10706

PROJECT:

CHECKED:

PAUL J. PETRETTI
CIVIL ENGINEER & LAND SURVEYOR
30 GOULD AVENUE, DOBBS FERRY, NEW YORK 10522
CIVIL ENGINEER

view preservation
analysis

10.20.2016 PB - INITIAL CONFERENCE
04.26.2017 PB REVISIONS

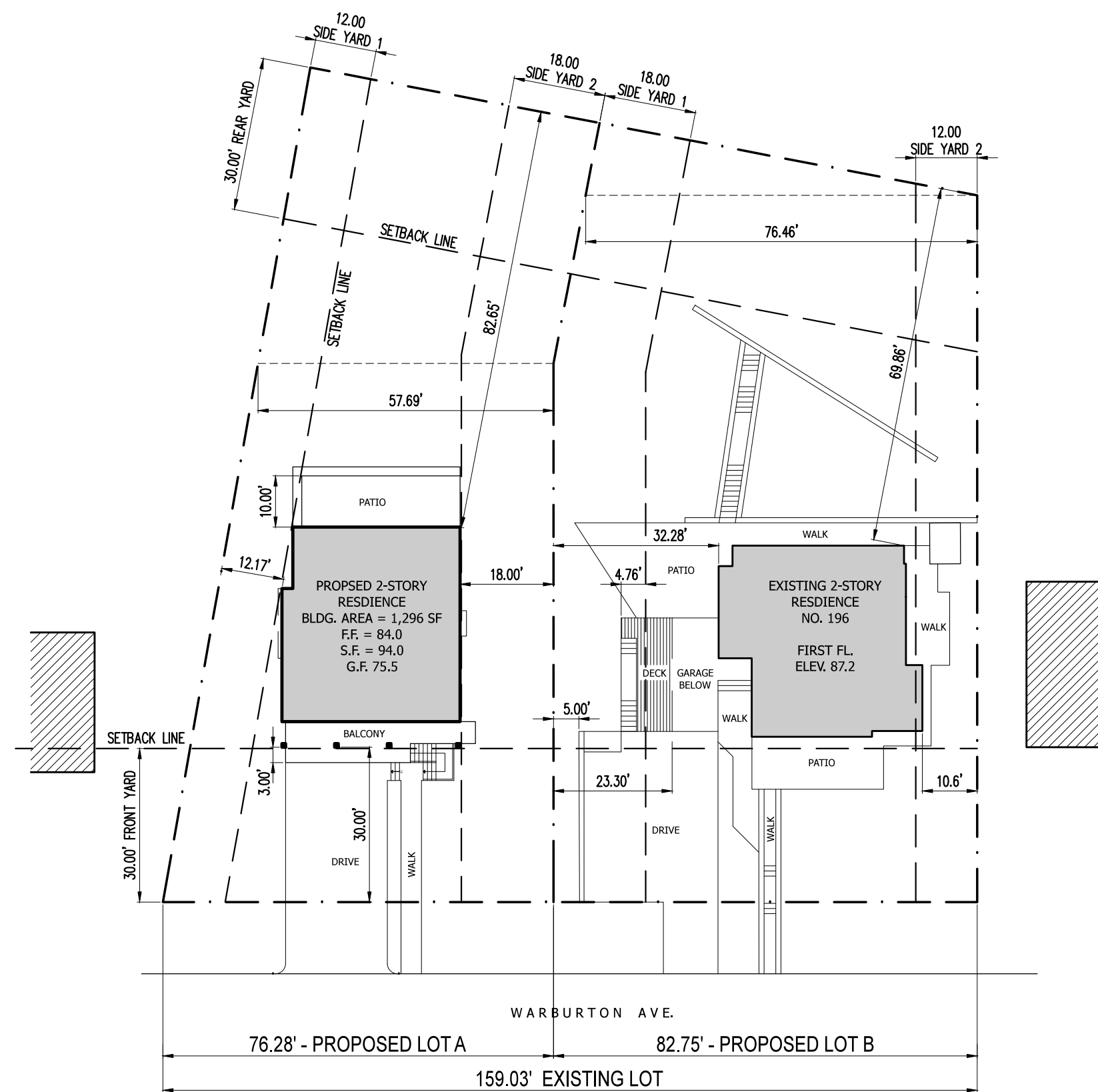
RESUBDIVISION
to 196 Warburton Ave.
Hastings-on-Hudson,
New York, 10706

PROJECT:

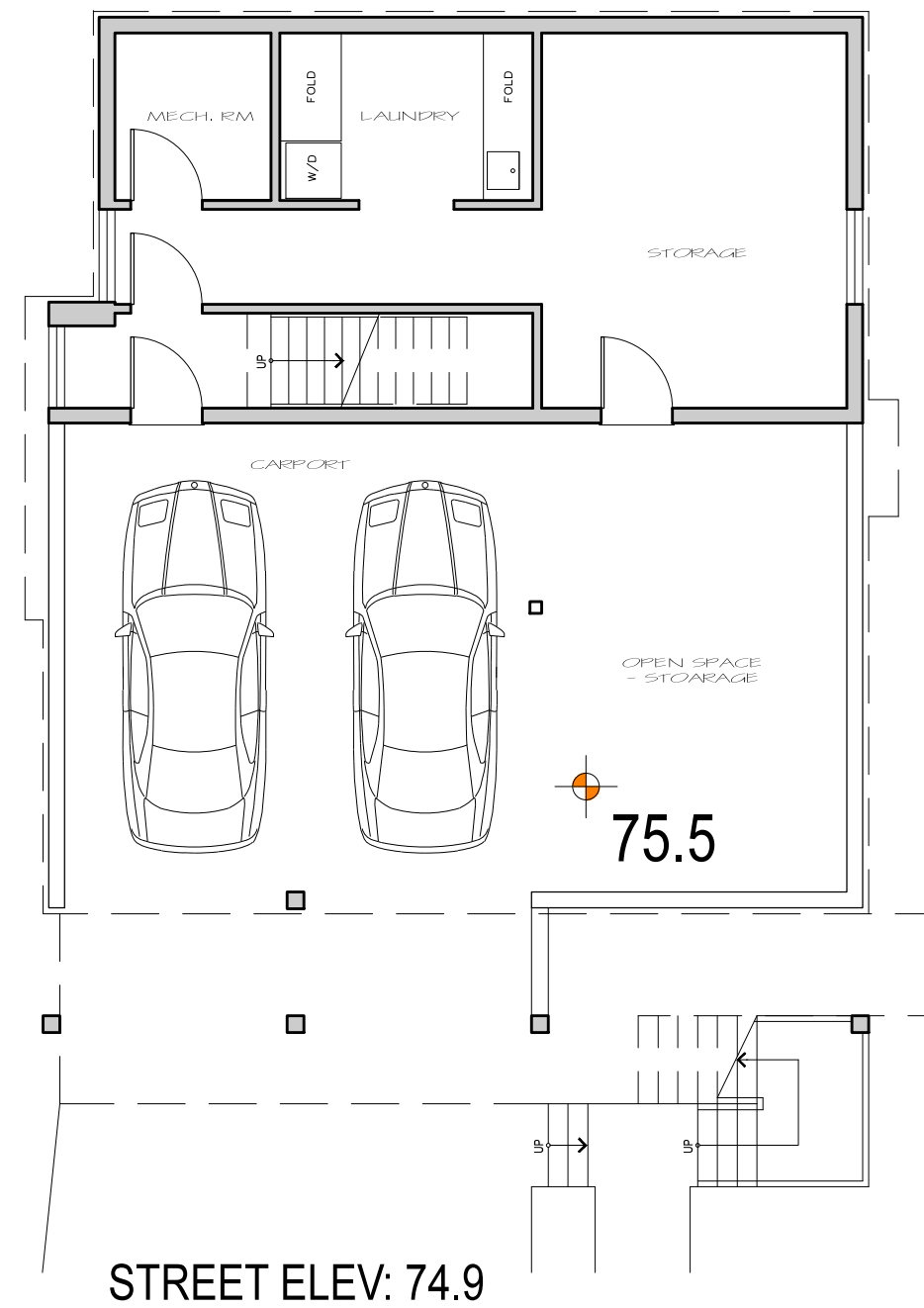
CHECKED:

PAUL J. PETRETTI
CIVIL ENGINEER & LAND SURVEYOR
30 GOULD AVENUE, DOBBS FERRY, NEW YORK 10522

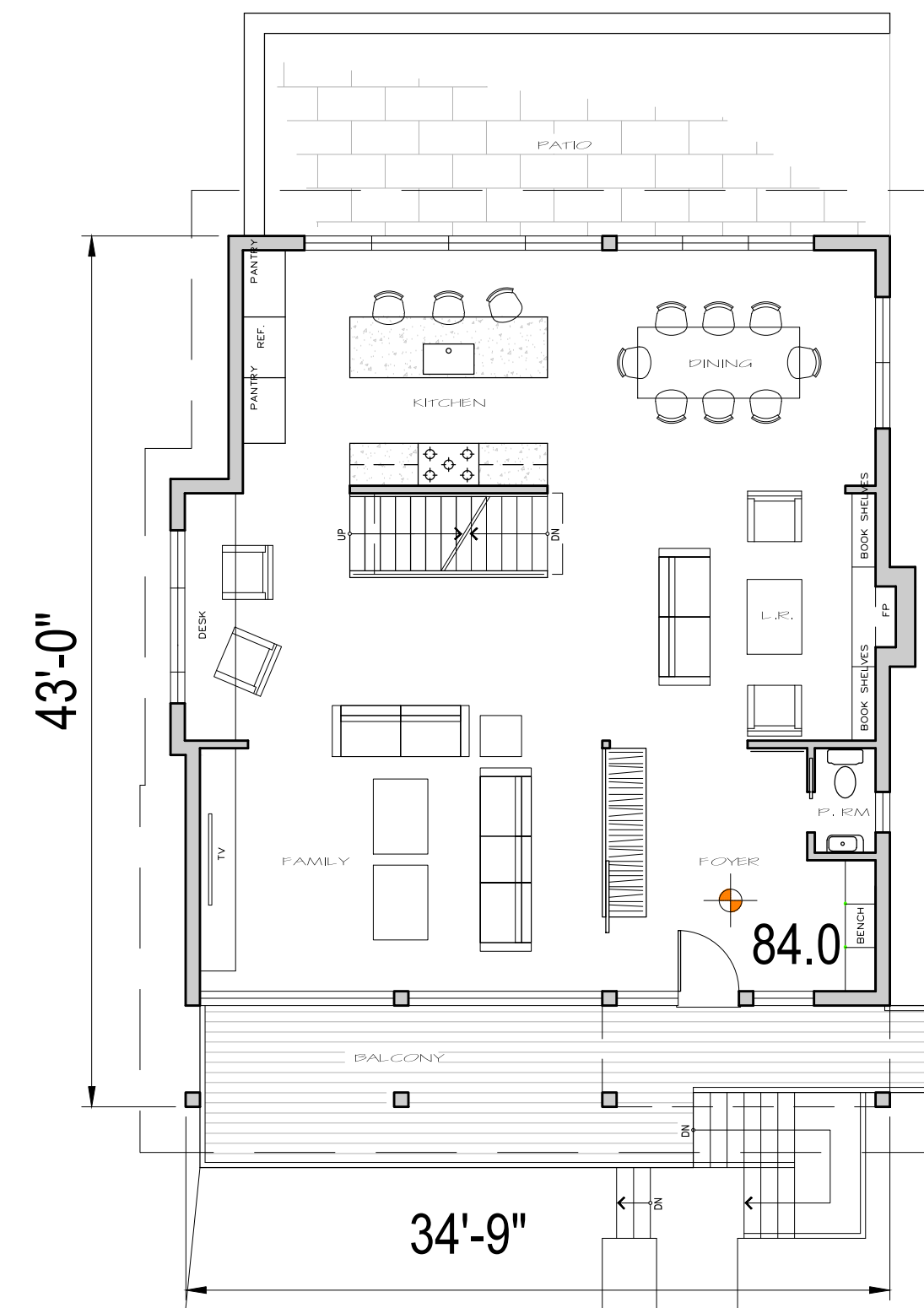
CIVIL ENGINEER



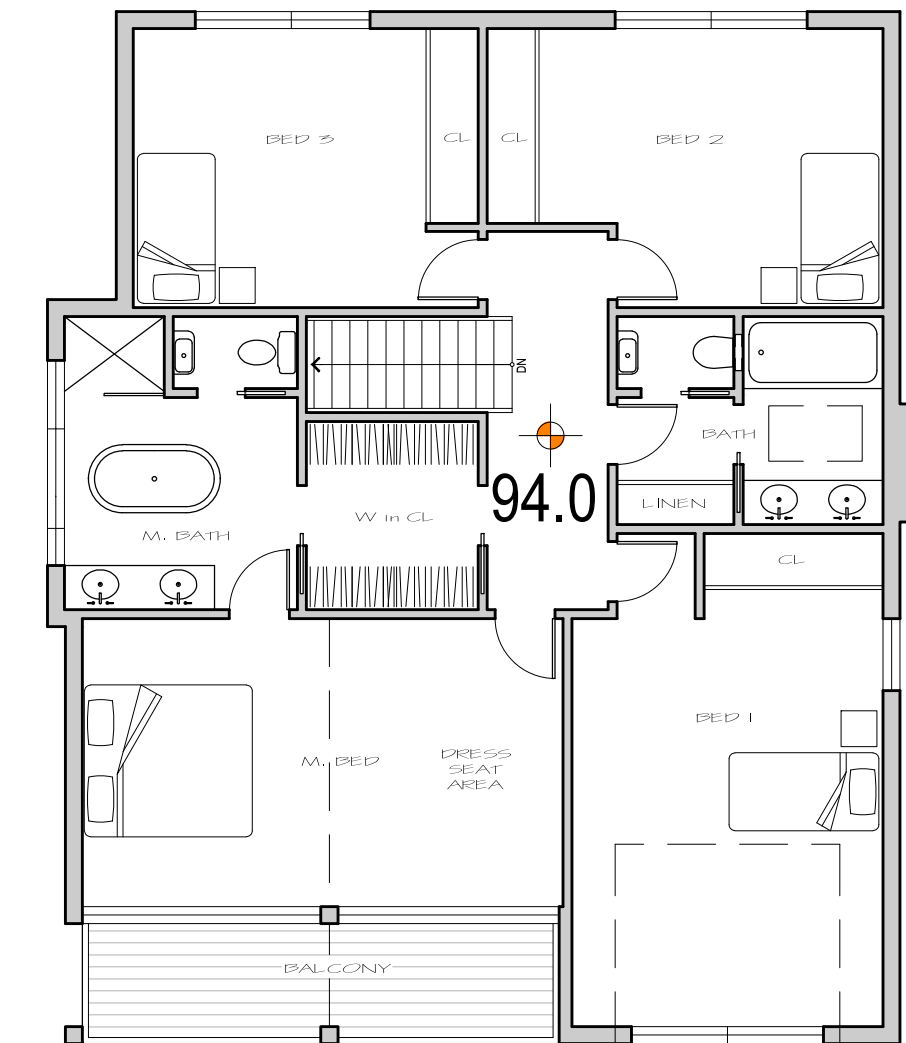
1 SITE PLAN
SCALE: 1/8"=1'-0"



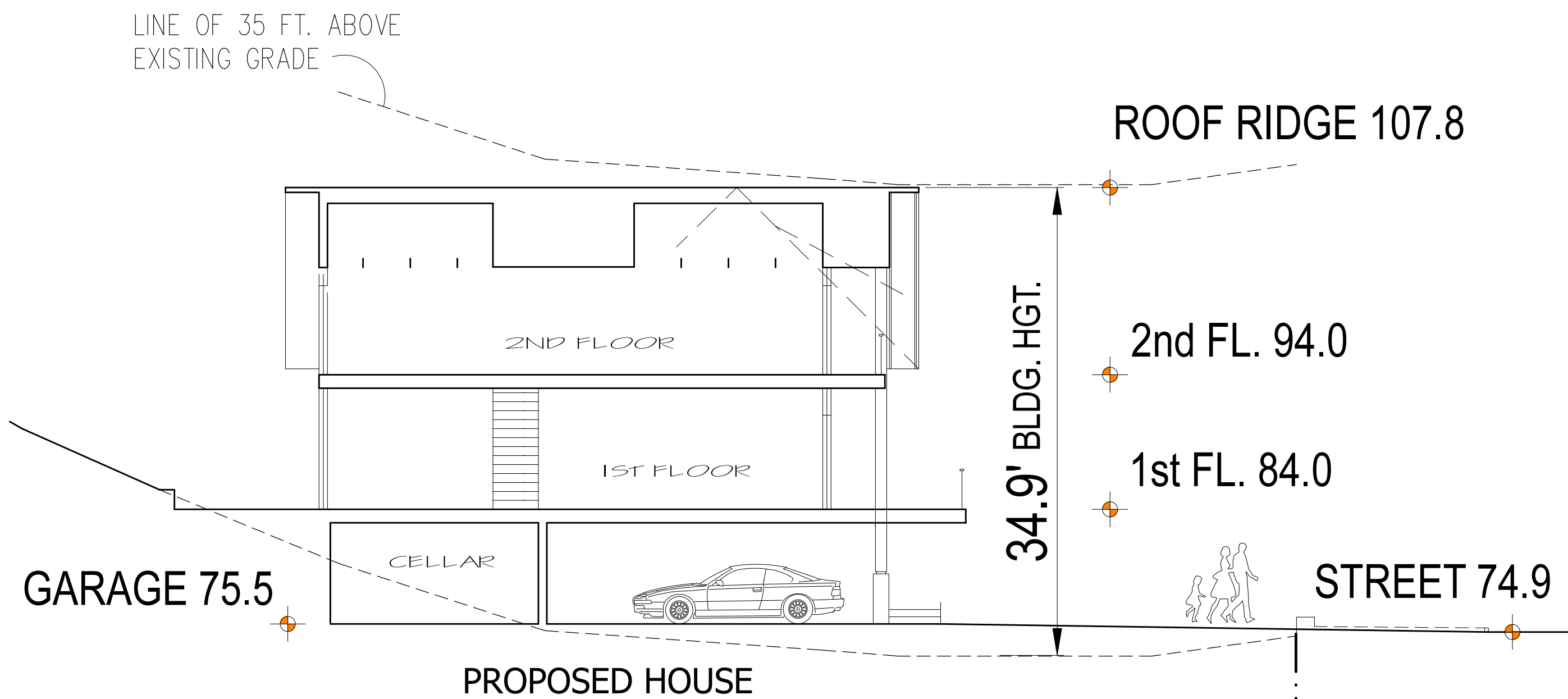
2 GROUND FL. PLAN
SCALE: 1/8"=1'-0"



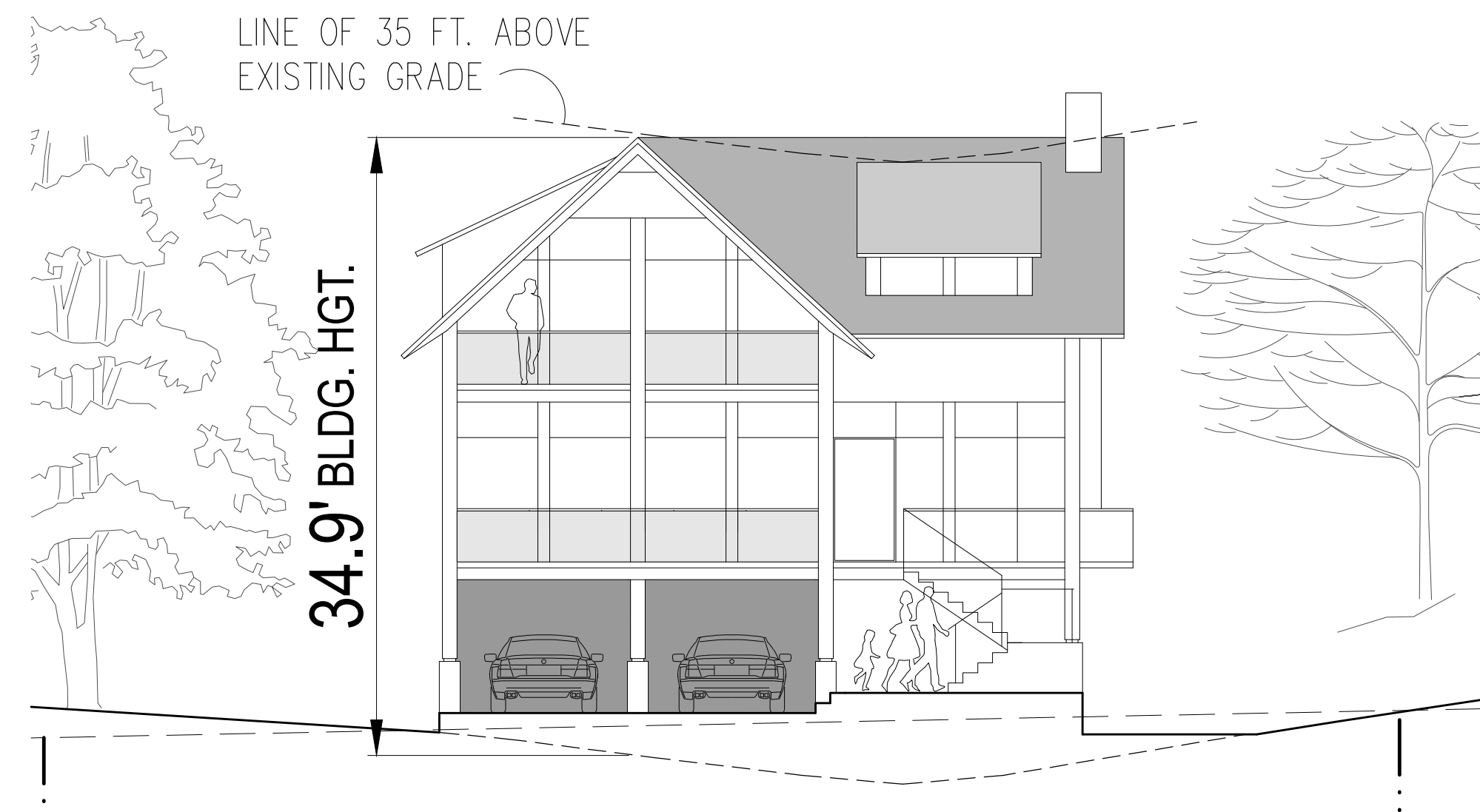
3 1ST FLOOR PLAN
SCALE: 1/8"=1'-0"



4 2ND FLOOR PLAN
SCALE: 1/8"=1'-0"



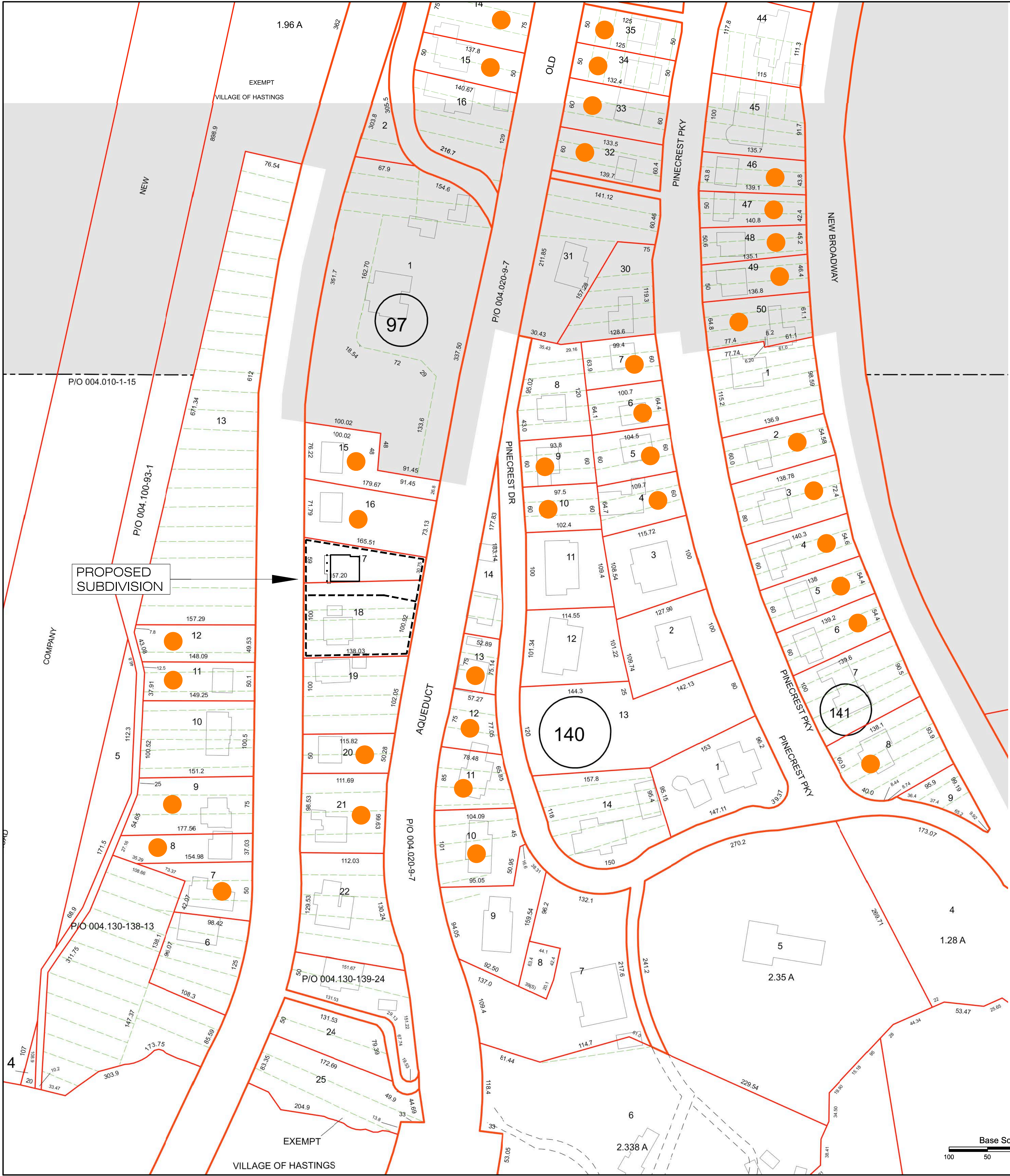
5 SECTION
SCALE: 1/8"=1'-0"



5 FRONT ELEVATION
SCALE: 1/8"=1'-0"

site plan
plans
section
front elevation

10.20.2016 PB - INITIAL CONFERENCE
04.26.2017 PB REVISIONS



● LOTS NON-CONFORMING BY LOT WIDTH
IN R-10 ZONE

PART OF
TAX MAP OF
TOWN OF
GREENBURGH
VILLAGE OF HASTINGS
WESTCHESTER COUNTY, NEW YORK
SECTION NUMBER: 004.130

TLCONCEPT LLC
269 BROADWAY 4G, DOBBS FERRY, NEW YORK 10522
ph. 973 689 45 96 thomas@tlconcept.com

DRAWN:

RESUBDIVISION
to 196 Warburton Ave.
Hastings-on-Hudson,
New York, 10706

PROJECT:

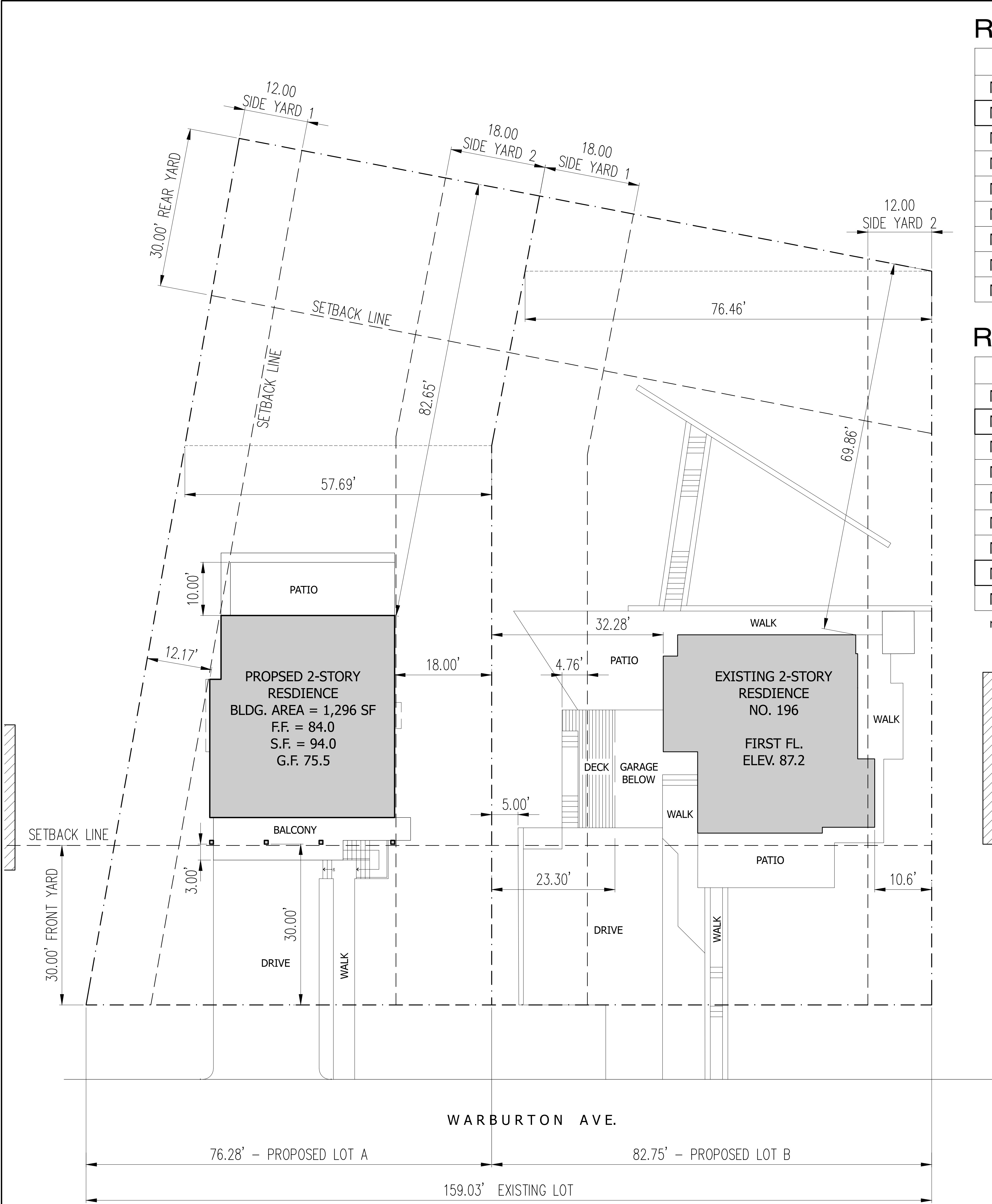
CHECKED:

PAUL J. PETRETTI
CIVIL ENGINEER & LAND SURVEYOR
30 GOULD AVENUE, DOBBS FERRY, NEW YORK 10522
CIVIL ENGINEER

zoning
r-10 analysis

04.26.2017 PB REVISIONS

Z1



R-10 ZONING TABLE LOT - 1

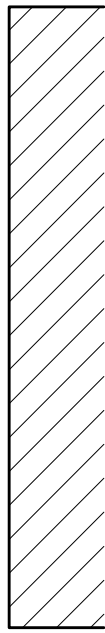
	REQUIRED	PROPOSED
MIN. LOT AREA (sq. ft.)	10,000	10,088
MIN. WIDTH (ft.)	100	65.76
MIN. FRONT YARD (ft.)	30	30.17
MIN. SIDE YARD (ft.)	12	12.17
MIN. 2 SIDE YARDS (ft.)	30	30.00
MIN. REAR YARD (ft.)	30	82.65
MAX. BUILDING COVERAGE (%)	25	18.45
MAX. DEVELOPMENT COVERAGE (%)	35	25.50
MAX. HEIGHT OF BUILDING (FT.)	35	34.9

R-10 ZONING TABLE LOT - 2

	REQUIRED	PROPOSED
MIN. LOT AREA (sq. ft.)	10,000	11,858
MIN. WIDTH (ft.)	100	81.60
MIN. FRONT YARD (ft.)	30	33.60
MIN. SIDE YARD (ft.)	12	10.6
MIN. 2 SIDE YARDS (ft.)	30	33.90
MIN. REAR YARD (ft.)	30	82.70
MAX. BUILDING COVERAGE (%)	25	14.21
MAX. DEVELOPMENT COVERAGE (%)	35	36.35
MAX. HEIGHT OF BUILDING (FT.)	35	< 35

note: 6 ft. setback encroachment is
allowed for decks

* VARIANCE REQUIRED
** EXISTING



TLCONCEPT llc
269 BROADWAY 4G, DOBBS FERRY, NEW YORK 10522
ph. 973 689 45 96 thomas@tlcme.com

DRAWN:

RESUBDIVISION
to 196 Warburton Ave.
Hastings-on-Hudson,
New York, 10706

PROJECT:

CHECKED:

PAUL J. PETRETTI
CIVIL ENGINEER & LAND SURVEYOR
30 GOULD AVENUE, DOBBS FERRY, NEW YORK 10522
CIVIL ENGINEER

zoning
calculations

Paul J. Petretti
Civil Engineer & Land Surveyor
Certified Wetland Delineator
Certified Floodplain Manager

CIVIL ENGINEERING - LAND SURVEYING & MAPPING - SITE DESIGN & PLANNING
ENVIRONMENTAL & GEOTECHNICAL - DRAINAGE & STORMWATER QUALITY
EROSION & SEDIMENT CONTROL STORMWATER POLLUTION PREVENTION PLANS
FLOODPLAIN MANAGEMENT & HYDROLOGY

GLOBAL POSITIONING SYSTEM AND LASER SCANNING
SERVICES FOR THE SURVEYING AND MAPPING INDUSTRY

**DRAINAGE REPORT
PALISADES VIEW SUBDIVISION
196 WARBURTON ROAD
HASTING-ON-HUDSON, NEW YORK**

May 5, 2017



NY Lic. 55191

INTRODUCTION

A drainage letter report dated November 3, 2016 was submitted prior to making a formal application for the two lot subdivision "PALISADES VIEW SUBDIVISION".

Please refer to copy of the report in Appendix A of this report.

This drainage report will address the stormwater runoff that passes through the Lot 1 of the proposed subdivision, the area tributary to the culvert that discharges to the lot.

There are three (3) sub-area tributary to the drainage way that runs through the proposed lot, a long swale that runs parallel with the trail-way on the Old Croton Aqueduct that collects some runoff from the trail-way, a second sub-area being the land with single-family houses east of the OCA trail-way that also front on Pinecrest Drive and a portion of Pinecrest Drive itself.

These three (3) sub-areas form a combined area tributary to the waterway on Lot 1 of the proposed subdivision, all with different times concentration. It appears from observation during recent rainfalls that 1.5 inches of rainfall in a twenty-four hour period will show as a continuous flow out of the box type culvert that will carry runoff from the swale on the east side of the OCA to the box culvert; please note we have yet to find the inlet to this box culvert.

METHODOLOGY

A traditional analysis using techniques described in the SCS publication "URBAN HYDROLOGY FOR SMALL WATERSHEDS Technical Release No. 55" can be used to determine the rates of runoff and storm water storage requirements.

Times of concentration calculated by Lag TC method

The three sub-areas are:

1. Pinecrest Drive, Area = 0.23 Acres, Tc = 7 minutes
2. Lands and houses east of the OCA, Area = 0.61 Acres, Tc = 2.0 minutes
3. OCA swale, Area = 0.46 Acres, Tc = 2 minutes

DRAINAGE REPORT PALISADES VIEW SUBDIVISION
196 WARBURTON ROAD
HASTING-ON-HUDSON, NEW YORK

Rational Method and TR=55 hydrographs

Combine the three and we see that 7.0 CFS could flow through the site

Rational method calculates 8.6 CFS.

The flow from the waterway will be brought around the proposed house on Lot 1 by way of a catchment into a fifteen-inch (15") drianline, with a capacity of 12.2 cfs which is greater than the anticipated flow to the lot.

DRAINAGE REPORT PALISADES VIEW SUBDIVISION
196 WARBURTON ROAD
HASTING-ON-HUDSON, NEW YORK

APPENDIX A

November 3, 2016 letter report

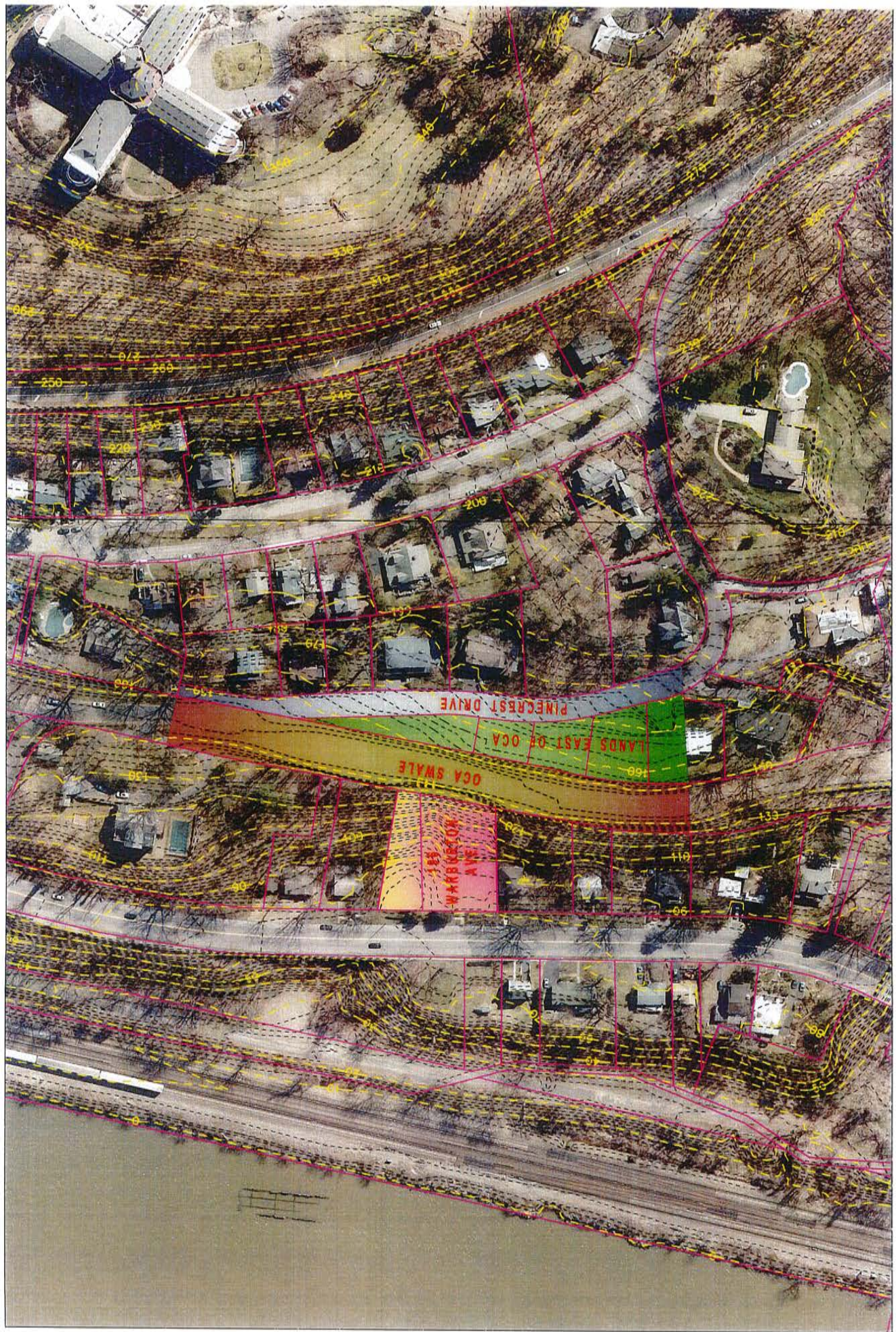
DRAINAGE REPORT PALISADES VIEW SUBDIVISION
196 WARBURTON ROAD
HASTING-ON-HUDSON, NEW YORK

APPENDIX B

SITE LOCATIONS MAP

TAX MAP SHOWING THE DRAINAGE AREAS

LOT 1 WATERWAY AND DRAINAGE SYSTEM





9

COMPANY

P/O 004.100-93-1

P/O 004.010-1-15

97

AQUEDUCT

PINECREST DR

P/O 004.020-9-7

140

PINECREST PKY

141

NEW BROADWAY

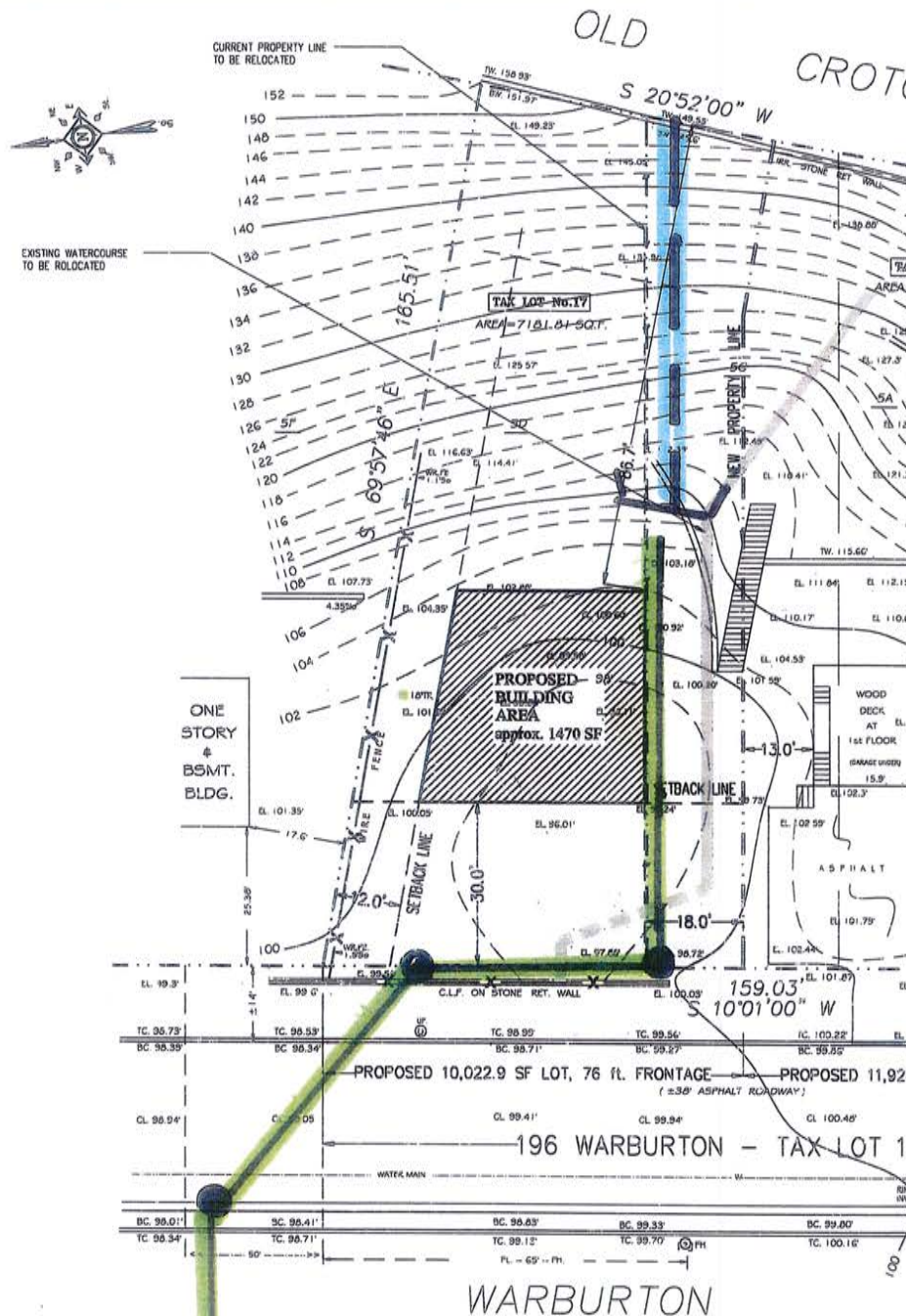
663.000

N 794.000

1.C

[illegible]

ALL THAT LOT OR PARCEL OF LAND, SITUATE IN THE VILLAGE OF HASTINGS ON HUDSON, TOWN OF GREEN BURGH, WESTCHESTER COUNTY, NEW YORK, KNOW AND DESIGNATED AS LOTS 18 AND 19 IN BLOCK "D" AND PART OF UNNUMBERED LOT ON A CERTAIN MAP ENTITLED, MAP ONE OF PINECREST-ON-THE-HUDSON, HASTINGS, WESTCHESTER COUNTY, NEW YORK, PROPERTY OF IN THE OFFICE OF THE REGISTERS OF WESTCHESTER ON JULY 26, 1909 AS MAP 1867



OWNER: DEAN & MARIE WETHERELL
ZONING DISTRICT: R-10
PRESENTLY CONFORMING: YES

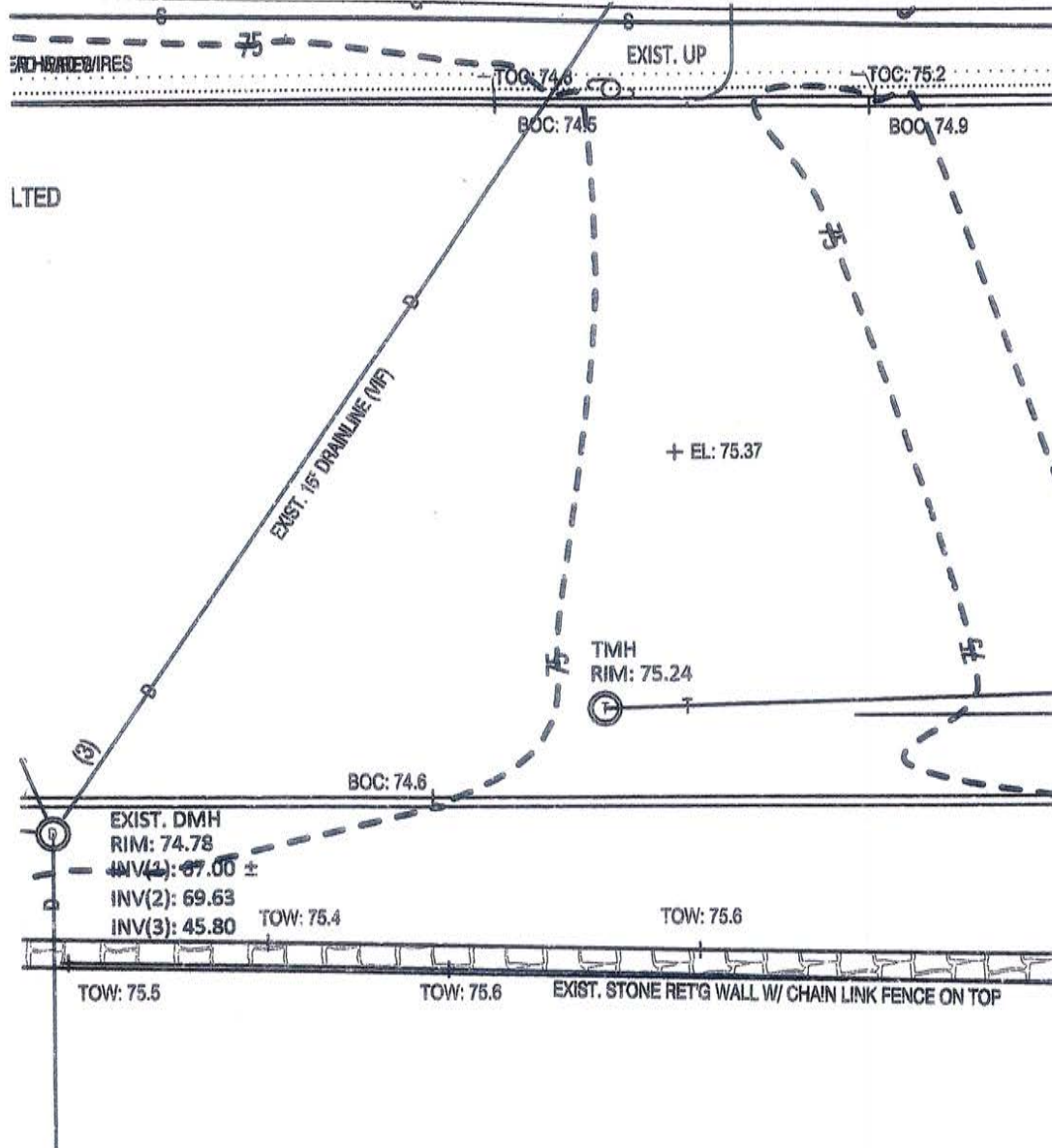
SECTION: 10
BLOCK: 606
LOW 5D 5C 5A 25 26

SURVEYED BY: BIG APPLE LAND SURV.D.
SURVEY DATE: OCT 20 2015
MUNICIPALITY: HASTINGS-ON-HUDSON, NY

ZONING DISTRICT USE	CODE REQUIREMENT	EXISTING	PROPOSED
	single family	single family	no change
MINIMUM LOT AREA:	10,000 SF		10,002.9 SF
MINIMUM LOT FRONTAGE:	100 FT		76 FT – VARIANCE REQUIRED
MAXIMUM LOT COVERAGE			
Principal Building (%)	25%		14.7% – 1470 SF
SETBACK DIMENSIONS			
Front	30 FT.		30 FT.
Side (Min.)	12 FT.		12 FT.
Side (Total)	30 FT.		30 FT.
Rear	30 FT.		86.7 FT.

EXIST. WV
 EXIS
 ‡ TOC: 77.7
 BOC: 77.4

8
 T
 W
 BOC: 77.3



Slopes Table - Total Site And Disturbed Area

Number	Minimum Slope	Maximum Slope	Area (sq. ft.)	Percent	Disturbed area (sq. ft.)	Percent Disturbed
1	0	15	2,148	21.30%	1,644	16.30%
2	15	25	1,913	19.00%	1,278	12.67%
3	25	100	6,028	59.70%	960	9.52%
				100%	3,882	
		TOTAL LOT AREA	10,089			

EXIST



N. Y. S. P. E.

DRAINAGE REPORT PALISADES VIEW SUBDIVISION
196 WARBURTON ROAD
HASTING-ON-HUDSON, NEW YORK

APPENDIX C

STORMWATER FLOWS
RATIONAL HYDROGRAPHS 1-4

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.1

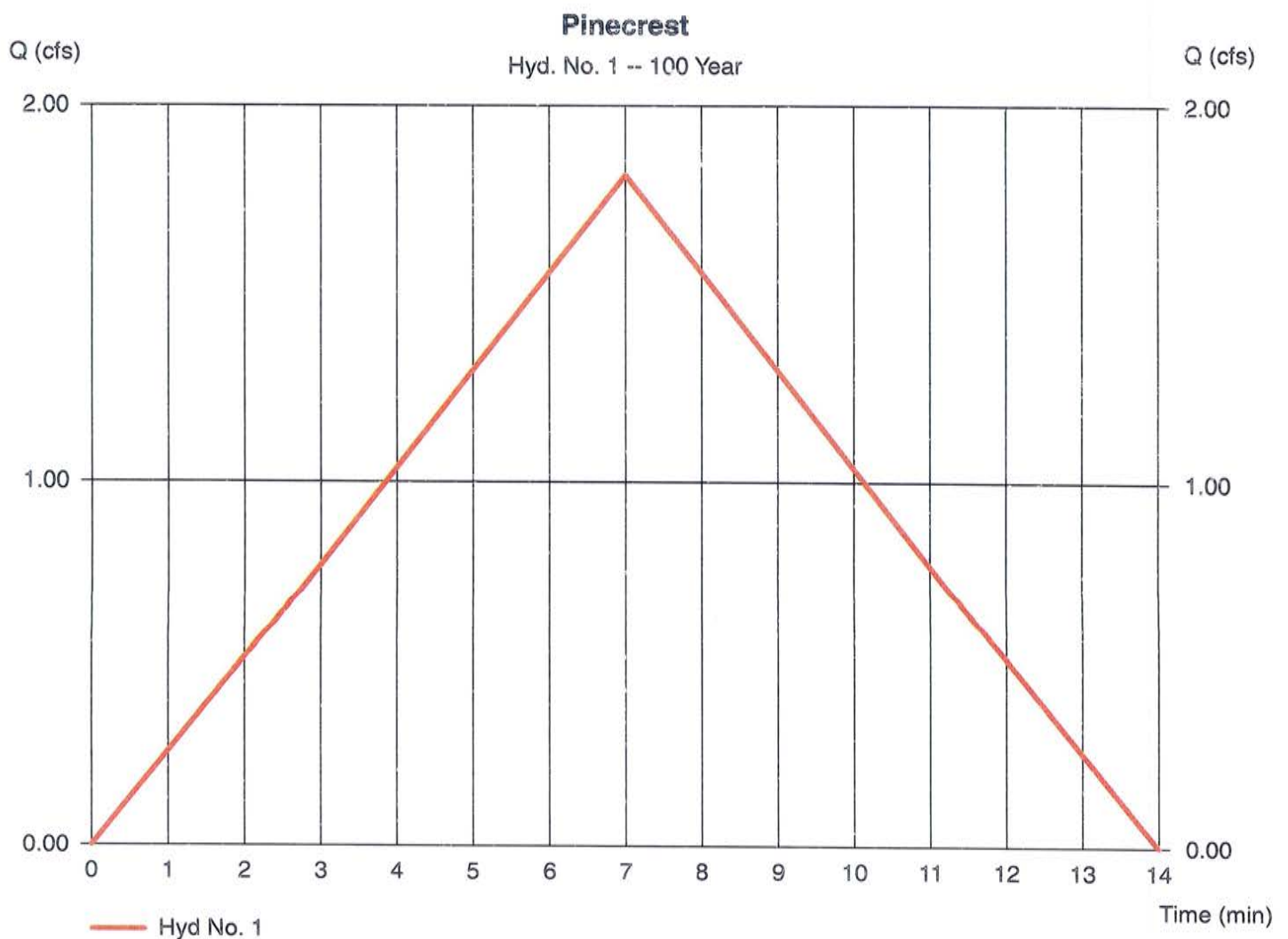
Friday, Apr 21, 2017

Hyd. No. 1

Pinecrest

Hydrograph type = Rational
Storm frequency = 100 yrs
Time interval = 1 min
Drainage area = 0.230 ac
Intensity = 8.779 in/hr
IDF Curve = My_Area.IDF

Peak discharge = 1.817 cfs
Time to peak = 0.12 hrs
Hyd. volume = 763 cuft
Runoff coeff. = 0.9
Tc by User = 7.00 min
Asc/Rec limb fact = 1/1



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.1

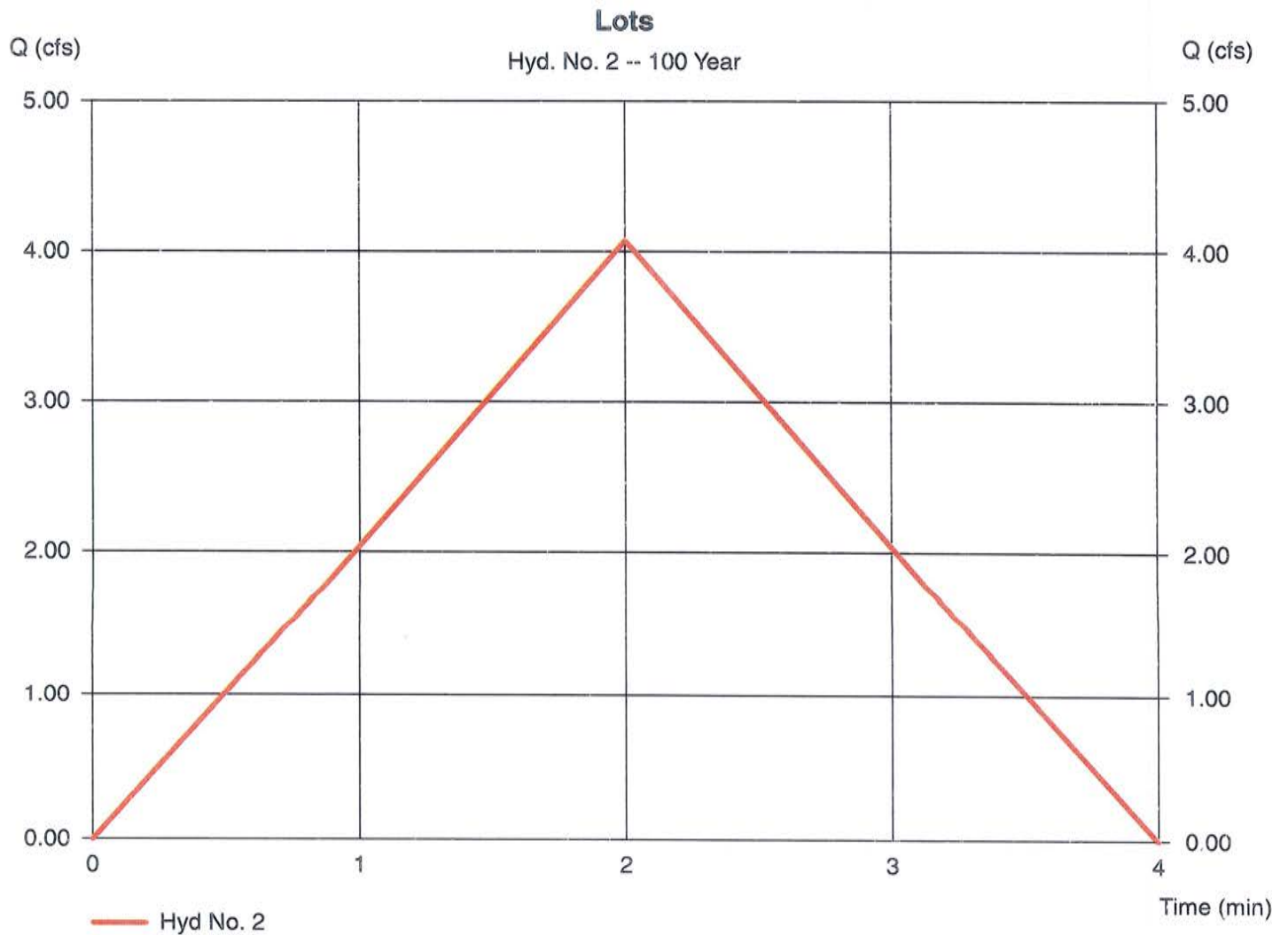
Friday, Apr 21, 2017

Hyd. No. 2

Lots

Hydrograph type = Rational
Storm frequency = 100 yrs
Time interval = 1 min
Drainage area = 0.610 ac
Intensity = 11.133 in/hr
IDF Curve = My_Area.IDF

Peak discharge = 4.075 cfs
Time to peak = 0.03 hrs
Hyd. volume = 489 cuft
Runoff coeff. = 0.6
Tc by User = 2.00 min
Asc/Rec limb fact = 1/1



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.1

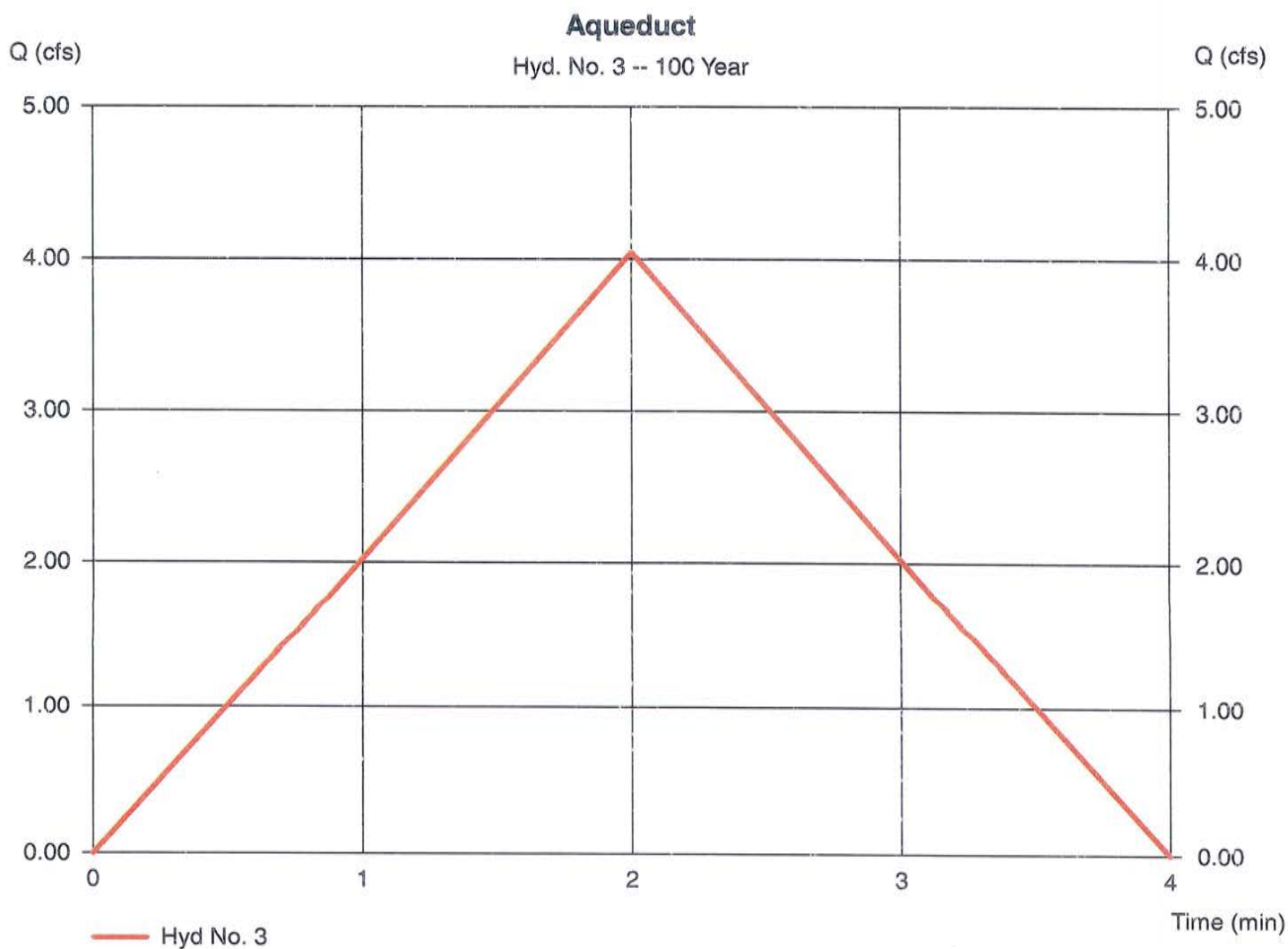
Friday, Apr 21, 2017

Hyd. No. 3

Aqueduct

Hydrograph type = Rational
Storm frequency = 100 yrs
Time interval = 1 min
Drainage area = 0.455 ac
Intensity = 11.133 in/hr
IDF Curve = My_Area.IDF

Peak discharge = 4.048 cfs
Time to peak = 0.03 hrs
Hyd. volume = 486 cuft
Runoff coeff. = 0.8
Tc by User = 2.00 min
Asc/Rec limb fact = 1/1



Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.1

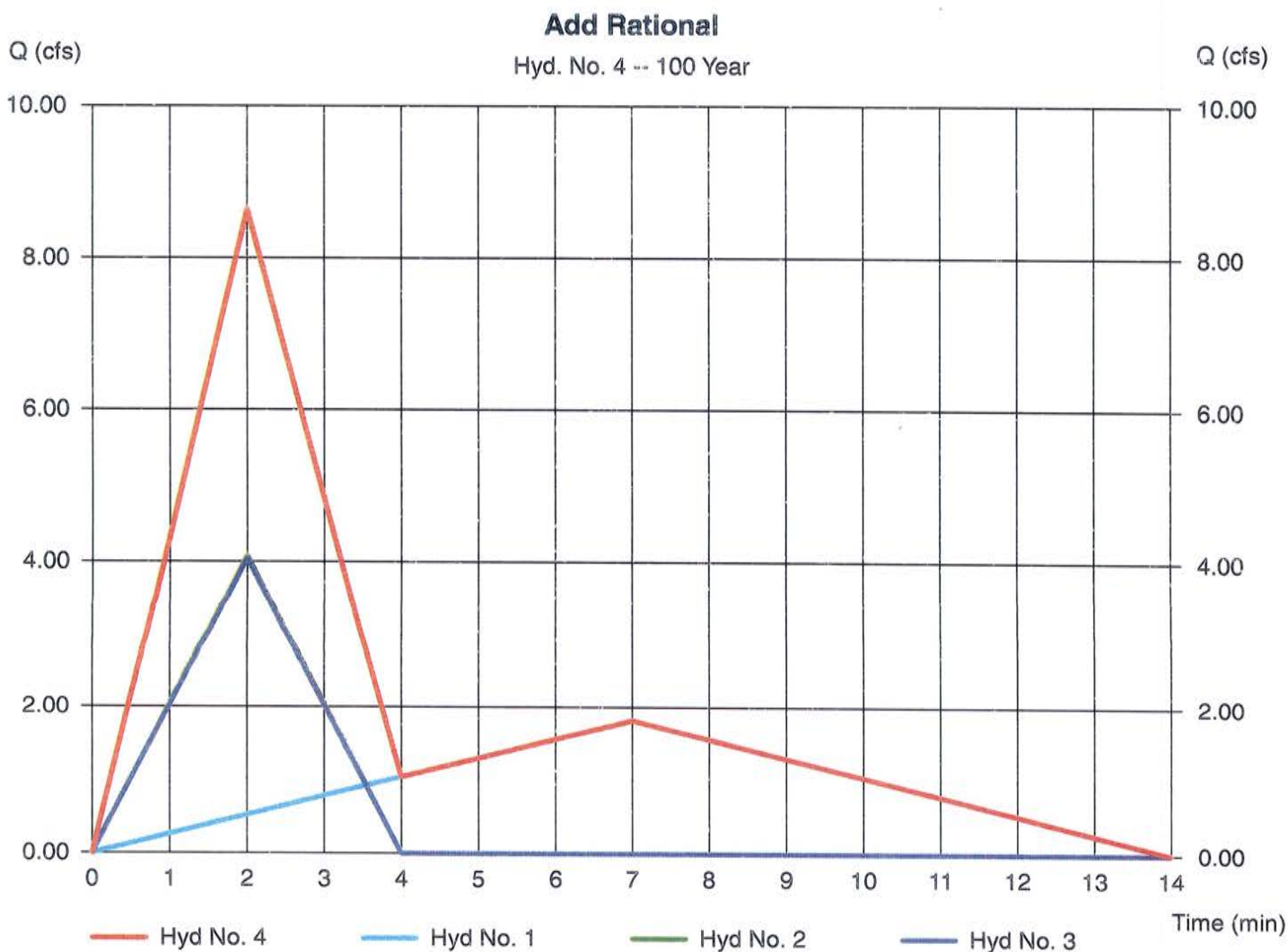
Friday, Apr 21, 2017

Hyd. No. 4

Add Rational

Hydrograph type = Combine
Storm frequency = 100 yrs
Time interval = 1 min
Inflow hyds. = 1, 2, 3

Peak discharge = 8.642 cfs
Time to peak = 0.03 hrs
Hyd. volume = 1,738 cuft
Contrib. drain. area= 1.295 ac



DRAINAGE REPORT PALISADES VIEW SUBDIVISION
196 WARBURTON ROAD
HASTING-ON-HUDSON, NEW YORK

APPENDIX D

STORMWATER FLOWS
SCS TYPE III
HYDROGRAPHS 5

Hydrograph Report

Hydraflow Hydrographs by Intelisolve v9.1

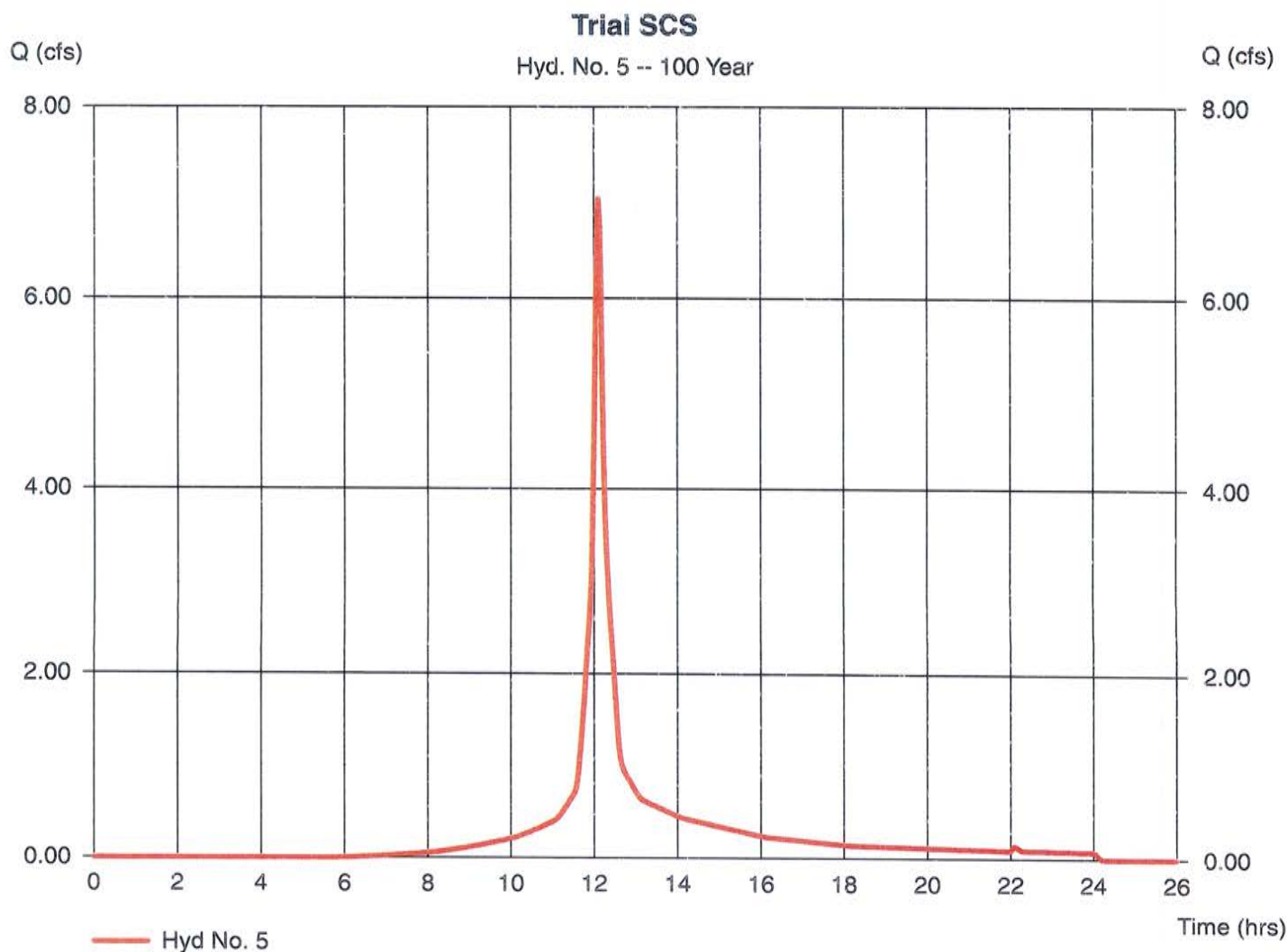
Friday, Apr 21, 2017

Hyd. No. 5

Trial SCS

Hydrograph type = SCS Runoff
Storm frequency = 100 yrs
Time interval = 2 min
Drainage area = 1.300 ac
Basin Slope = 10.0 %
Tc method = LAG
Total precip. = 7.50 in
Storm duration = 24 hrs

Peak discharge = 7.043 cfs
Time to peak = 12.10 hrs
Hyd. volume = 24,340 cuft
Curve number = 80
Hydraulic length = 600 ft
Time of conc. (Tc) = 6.69 min
Distribution = Type III
Shape factor = 484



DRAINAGE REPORT PALISADES VIEW SUBDIVISION
196 WARBURTON ROAD
HASTING-ON-HUDSON, NEW YORK

APPENDIX E

SITE DRAINAGE DESIGN

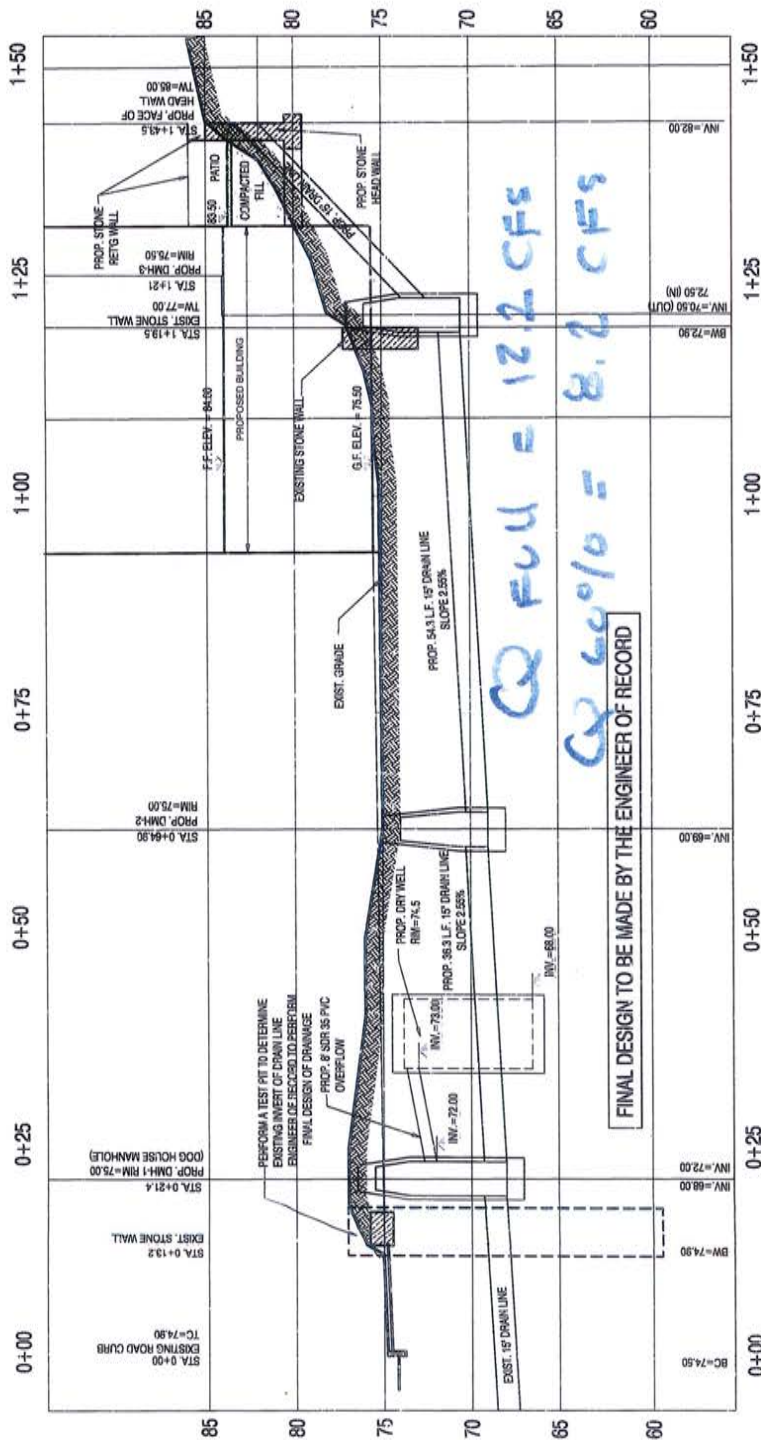
SCALE N.T.S.

OF-WAY

DRY WELL DETAIL

SCALE N.T.S.

SILT FENCE



SCALE N.T.S.

WAY

SCALE N.T.S.

PROP. DRAINAGE PROFILE

SCALE
HORIZONTAL 1" = 10' 0"
VERTICAL 1" = 5' 0"

Paul J. Petretti
Civil Engineer & Land Surveyor
Certified Wetland Delineator
Certified Floodplain Manager

CIVIL ENGINEERING - LAND SURVEYING & MAPPING - SITE DESIGN & PLANNING
ENVIRONMENTAL & GEOTECHNICAL - DRAINAGE & STORMWATER QUALITY
EROSION & SEDIMENT CONTROL STORMWATER POLLUTION PREVENTION PLANS
FLOODPLAIN MANAGEMENT & HYDROLOGY

November 3, 2016

Village of Hastings-on-Hudson
7 Maple Avenue
Hastings-on-Hudson, New York 10707

Attention: Kathleen Sullivan, Chairperson and Planning Board

Re: Subdivision Application of Dean L. Wetherell and Marie T. de Bethune
Wetherell, 196 Warburton Avenue, Hastings-on-Hudson, NY 10706.

Site drainage - October 30 Soil Test Pit

Dear Chairperson and Planning Board:

We appeared before the Planning Board for a pre-application discussion of the re-subdivision of the above referenced premises. This proposal being a two lot subdivision that will create one lot for the existing residence and a new building lot; this application will require an action before the Zoning Board of Appeals for area variances.

The new lot on the east side of Warburton Avenue has a depression behind a low stone wall along line of Warburton Avenue. In the depression is a drainline that catches runoff from the steeply sloping lands that rise to the back of the lot to the right-of-way of the Old Croton Aqueduct (OCA). Along the length of the OCA we find stone culverts that catch and convey runoff under the OCA; at times significant stormwater flows have been observed and we have a video taken at the time of a heavy rainfall event to confirm this.

The drainline we find in the depression catches all the runoff from the lot and the OCA. Looking into the line we see a very clean corrugated pipe that appears to make a change to a reinforced concrete pipe at the location of the low property wall line of the lot. We assume this drainline is connected to a deep drain manhole on the west side of Warburton Avenue with an outlet at the base of a very high stone retaining wall; the base of the wall being at what was once a ravine before Warburton Road was set out.

Site drainage - October 30 Soil Test Pit

A test was made by inserting a hose in the drainline in the depression allowing water to run constantly. After a time we see water running in the open channel at the base of the high retaining wall on the west side of Warburton Avenue. This confirms that the pipe we find in the depression is connected to a working drainage system.

On October 30 Th. a test pit was made on the lot in the depressed area with a small backhoe to a depth of 6.8 feet and an in-place test to determine how well the soil will drain was made by putting a hose into the test pit. Water filled the test pit to a depth of approximately thirteen inches (13") and remained at that level as the hose continued to run constantly and the test pit did not fill and kept taking water.

The soil excavated from the test pit is a clean granular fill with a few bricks and rock with no signs of deleterious matter and not very dense.

We determined the rate to the test pit by filling a bucket with the hose to be a flow rate of 6.1 Gallons per minute. The soil is accepting water at a very high rate and using the dimensions of the test pit we calculate a soil adsorption rate (SAR) of 72.5 cf/sf/day (Cubic Feet per Square Foot Per day), which for soils in this area is a very high SAR. Soils rates for the glacially loaded soils in the Rivertowns range between a low of 1.0 to a high of 13.0 cf/sf/day.

The water that discharges from the stone culvert under the OCA at the back of the lot runs down the slope and although this flow rate is witnessed to be significant there is no visible signs of erosion of the steep slope. The existing drain line in the depression would be removed as part of the action of building a house and driveway. New drainage works would be installed, a circular stone catchments about one-third the way up the slope to catch the runoff from the OCA, a new large diameter drainline to move water from the catchment around the newly constructed house with a few drain manholes to make the necessary turns in the drainline around the house to be connected to the drainline we see at the wall along the east side of Warburton Avenue.

A drywell can be installed to accommodate the increased impervious area; however, at times when you have such a high soil rate it may be best to make a direct connection to the existing drainline.

The question raised by several board members is can we deal with the drainage aspects related to development of this new lot. Drainage issues can be addressed by the above means.

Page 3/3 Subdivision Application of Dean L. Wetherell and Marie T. de Bethune
Wetherell, 196 Warburton Avenue, Hastings-on-Hudson, NY 10706.

Site drainage - October 30 Soil Test Pit

We attach several photos taken at the time the test pit was made and a marked-up plan showing the existing and proposed drainage features. Should you have any further questions on this matter, please do not hesitate to call.

Very truly yours,

A handwritten signature in dark ink, appearing to read 'Paul J. Petretti', with a stylized flourish at the end.

Paul J. Petretti, P.E., L.S., CFM

cc: C:\My Documents\VOH Projects\196 Warburton Avenue\ 196 Warburton Avenue
Correspondence.doc
Applicant Dean L. Wetherell and Marie T. de Bethune
Project architect, Mr. Tomasz Lopinski

30 GOULD AVENUE DOBBS FERRY, NY 10522
914-674-9827 - Fax 693-0124 - Cell 672-1518
E-Mail PJPCELS@aol.com



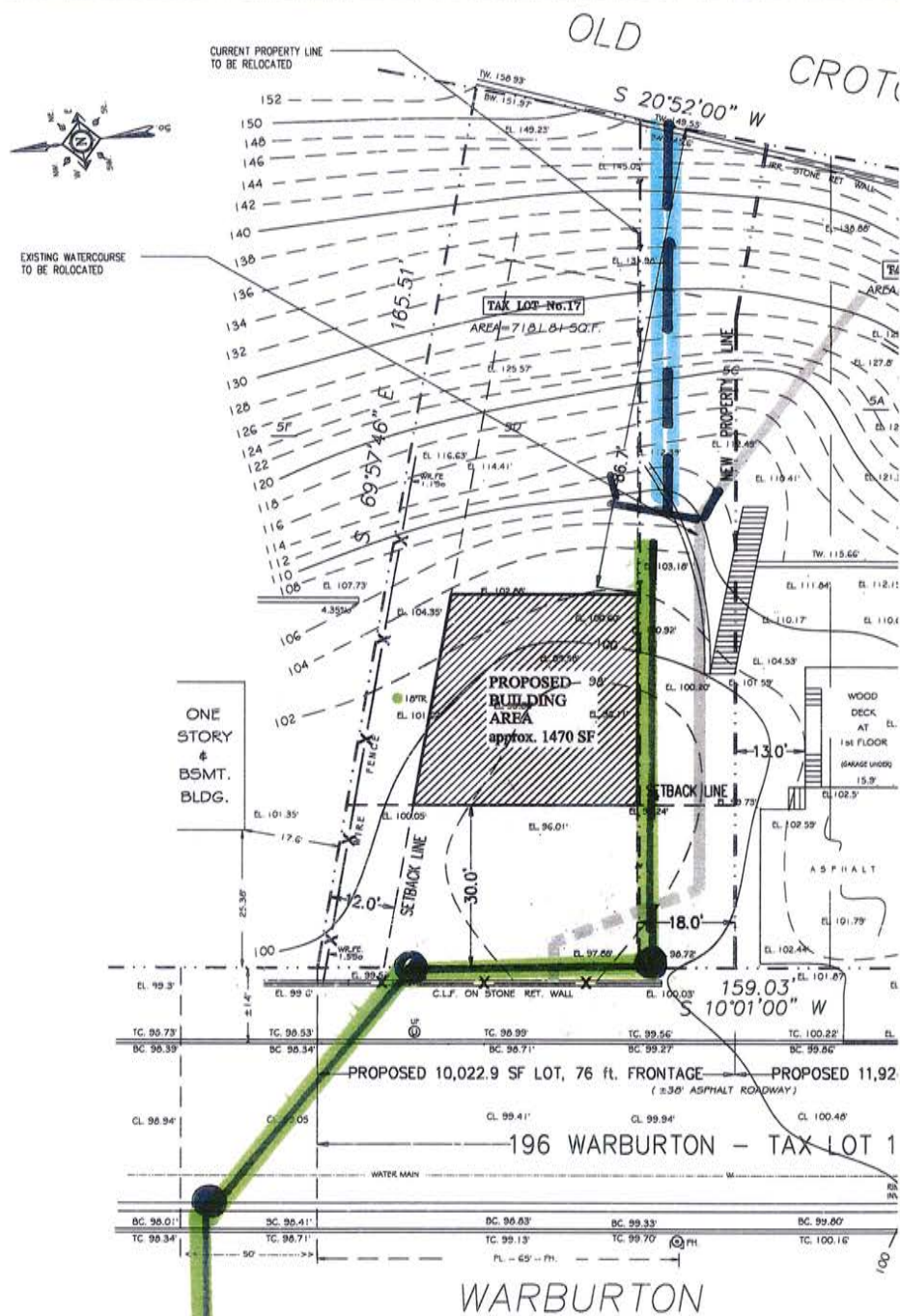






[illegible]

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OWNER: DEAN & MARIE WETHERELL
ZONING DISTRICT: R-10
PRESENTLY CONFORMING: YES

SECTION: 10
BLOCK: 606
LOW 5D 5C 5A 25 26

SURVEYED BY: BIG APPLE LAND SURV.D.
SURVEY DATE: OCT 20 2015
MUNICIPALITY: HASTINGS-ON-HUDSON, NY

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Rear	30 FT.		86.7 FT.