Town of Ramapo
Comprehensive Plan Amendment for the Northeast Ramapo Development Plan and Comprehensive Plan Update of Town-wide Existing Conditions and Code Amendments for Northeast Ramapo

DRAFT GENERIC ENVIRONMENTAL IMPACT STATEMENT (DGEIS)

APPENDICES – VOLUME IV OF IV:

APPENDICES L THROUGH M

Lead Agency:
Town of Ramapo Town Board
Town Hall, 237 Route 59
Suffern, NY 10901
Contact: Michael Specht, Supervisor, Town of Ramapo
Phone: (845) 357-5100
Spechtm@ramapo-ny.gov

Project Sponsor:
Town of Ramapo Town Board
Contact: Michael Specht, Supervisor
Contact: Pam Corry, Building Department
Town Hall, 237 Route 59
Suffern, NY 10901

Prepared By
M.J. Engineering & Land Surveying, P.C.
1533 Crescent Road
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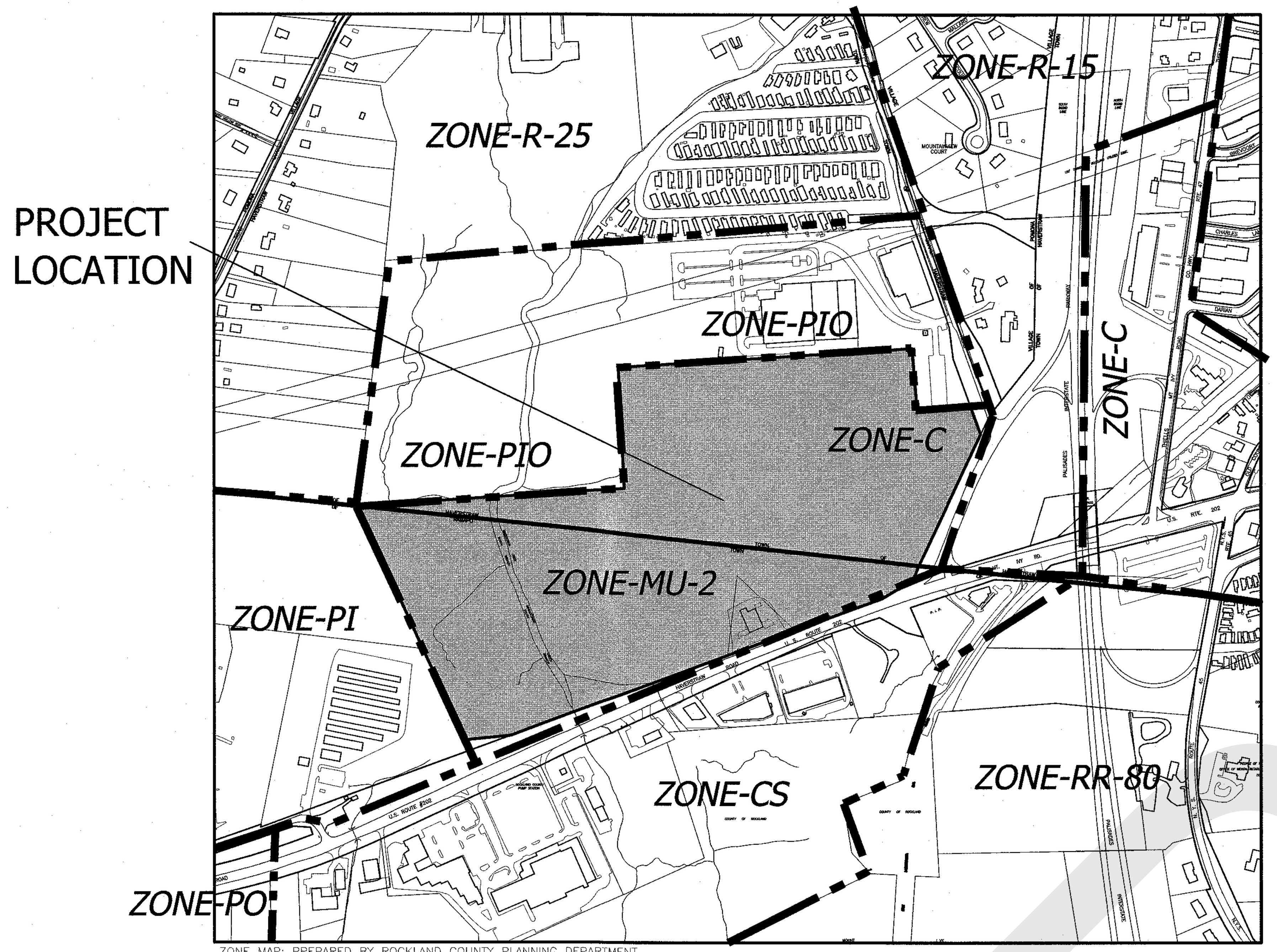
Phone: (518) 371-0799
jhakes@mjels.com

Table of Appendices – Volume IV of IV

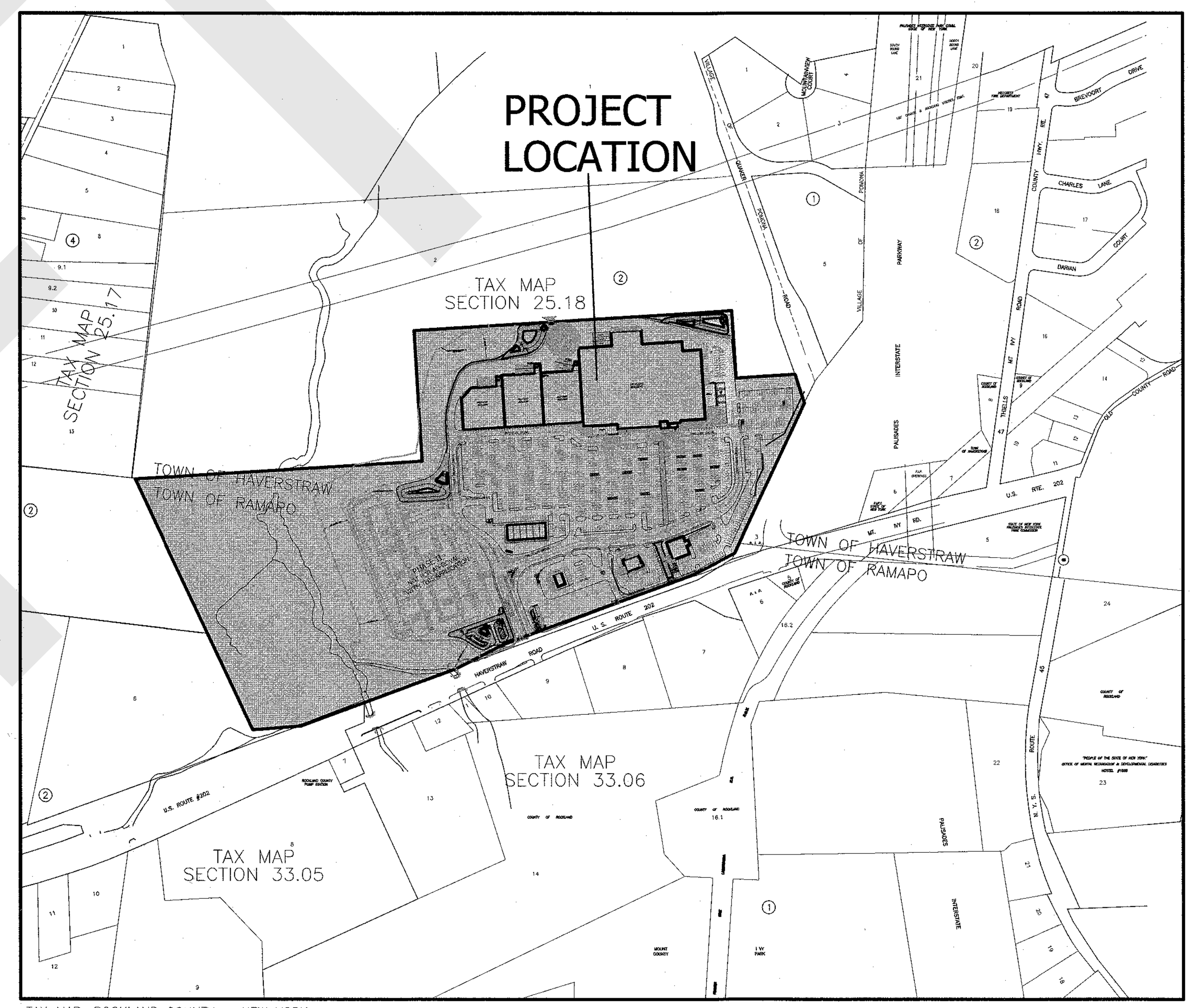
APPENDIX L:
MINISCEONGO PARK SITE PLAN INFORMATION

PROPOSED
MINISCEONGO PARK
TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK



ZONE MAP: PREPARED BY ROCKLAND COUNTY PLANNING DEPARTMENT
ZONES: BU-BUSINESS DISTRICT

AREA / ZONING MAP
SCALE: 1 IN. = 400 FT.



TAX MAP: ROCKLAND COUNTY – NEW YORK
DATE: 02-01-1990
DATE REVISED: 02-28-2003

TAX MAP
SCALE: 1 IN. = 400 FT.

UTILITY RESPONSIBILITY MATRIX FOR THIS PROJECT

	UTILITY/ GOVERNING AGENCIES CONTACTS	CONTRACTOR RESPONSIBILITY–
GAS	JACQUELINE BUBENKO ROCKLAND ELECTRIC COMPANY 1 LETHBRIDGE PLAZA–SUITE 32 MAHWAH, NJ 07430 PHONE: 201-236-6017	–COORDINATE CONSTRUCTION ACTIVITIES WITH GAS COMPANY TO ENSURE INSTALLATION OF GAS LINES ARE COMPLETED PRIOR TO ASPHALT OR CURB PLACEMENT AND PER THE GAS COMPANY REQUIREMENTS
TELEPHONE	CHRIS HERRITY VERIZON 500 SUMMIT LAKE DRIVE VALHALLA, NY 10595 PHONE: 914-741-8349	–COORDINATE CONSTRUCTION ACTIVITIES WITH TELEPHONE COMPANY TO ENSURE INSTALLATION OF UNDERGROUND LINES ARE COMPLETED PRIOR TO ASPHALT OR CURB PLACEMENT –PROVIDE AND INSTALL 2–4" SCHEDULE 40 PVC CONDUITS WITH PULL ROPES, INCLUDING ALL TRENCHING AND BACKFILLING, FROM THE RISER POLE UP TO THE BUILDING –PROVIDE AND INSTALL PULL BOXES AS PER TELEPHONE COMPANY REQUIREMENTS
ELECTRIC	JACQUENLINE BUBENKO ROCKLAND ELECTRIC COMPANY 1 LETHBRIDGE PLAZA SUITE 32 MAHWAH, NJ 07430 PHONE: 201-256-6017	–COORDINATE CONSTRUCTION ACTIVITIES WITH ELECTRIC COMPANY TO ENSURE INSTALLATION OF UNDERGROUND LINES ARE COMPLETED PRIOR TO ASPHALT OR CURB PLACEMENT –PROVIDE AND INSTALL 2–4" SCHEDULE 40 PVC CONDUITS WITH PULL ROPES, INCLUDING TRENCHING AND BACKFILLING, FOR THE UNDERGROUND PORTIONS OF THE PRIMARY FROM THE RISER POLE UP TO THE TRANSFORMER. SCHEDULE 80 PVC CONDUITS SHALL BE USED ON THE RISER POLE AND RIGID METAL, LONG RADIUS, ELBOWS SHALL BE USED WHERE THE UNDERGROUND PORTION MEETS THE RISER POLE AND TRANSFORMER –CONSTRUCT TRANSFORMER PAD AS PER THE ELECTRIC COMPANY'S SPECIFICATIONS –PROVIDE AND INSTALL ALL SECONDARY SERVICE AND MATERIALS
SANITARY SEWER TOWN OF RAMAPO	JOSEPH LAFIANDRA ROCKLAND COUNTY SEWER DISTRICT #1 4 ROUTE 340 ORANGEBURG, NEW YORK 10962 FAX: 845-365-6666 PHONE: 845-365-6111	–PROVIDE AND INSTALL SANITARY SEWER LINES AND ASSOCIATED APPURTENANCES PER THE PLANS AND SPECIFICATION –ALL PUBLIC AND PRIVATE SANITARY SEWER LINES SHALL BE PVC AND RATED SDR 26 –COORDINATE REQUIRED INSPECTION SERVICES WITH ENGINEER OF RECORD AND ROCKLAND COUNTY SEWER DISTRICT #1
SANITARY SEWER TOWN OF HAVERSTRAW	PATRICK BRADY, P.E. HAVERSTRAW JRSB, ECOLOGY, LANE WEST HAVERSTRAW, NY 10993 PHONE: 845-429-5715	
WATER	FRANK MCGLYNN SUEZ 60 DEVOE PLACE HACKENSACK, NY 07601-6105 FAX: 201-457-7970 PHONE: 201-457-7964	–PROVIDE AND INSTALL ALL WATER MAINS AND ASSOCIATED APPURTENANCES PER THE PLANS AND SPECIFICATION –ALL PUBLIC AND PRIVATE WATER MAINS SHALL BE C-900 PVC, DR14 CLASS 200 –ALL PORTIONS OF THE FIRE PROTECTION WATER SYSTEM SHALL BE INSTALLED BY A LICENSED FIRE SPRINKLER CONTRACTOR –COORDINATE REQUIRED INSPECTION SERVICES OF MAINS WITH UNITED WATER
STORM SEWER TOWN OF RAMAPO	TED DZURINKO, DIRECTOR PUBLIC WORKS 15 PIONEER AVENUE TALLMAN, NY 10982 PHONE: 845-357-0591	–PROVIDE AND INSTALL ALL STORM SEWER LINES AND ASSOCIATED APPURTENANCES PER THE PLANS AND SPECIFICATION –REFER TO GRADING PLAN FOR INFORMATION ON ALLOWABLE STORM SEWER MATERIALS
STORM SEWER TOWN OF HAVERSTRAW	PATRICK BRADY, P.E. STORMWATER MANANGEMENT OFFICE 1 ROSEMAN ROAD E-MAIL PBRADY@JRSB.ORG FAX: 845-429-4701 PHONE: 845-429-2200	

ADDITIONAL GOVERNING AGENCIES CONTACTS:

TOWN OF RAMAPO
BUILDING, PLANNING AND ZONING
IAN SMITH, DEPUTY BUILDING INSPECTOR
845-357-5100 (EXT. 326)
MalliaA@ramapo-ny.org

TOWN OF RAMAPO
FIRE INSPECTOR
MICHAEL LEPORI, FIRE INSPECTOR
845-357-5100 (EXT. 216)

TOWN OF HAVERSTRAW
BUILDING INSPECTOR
GEORGE BEHN JR., BUILDING INSPECTOR
845-942-3710

TOWN OF HAVERSTRAW
FIRE INSPECTOR
FREDERICK J. VIOHL, FIRE INSPECTOR
845-429-2200

NEW YORK STATE DEPARTMENT OF TRANSPORTATION
JOE TAYLOR, P.E., PERMIT ENGINEER
845-634-1892

DEVELOPER:

MT. IVY PARTNERS, LLC
2050 CENTER AVENUE-SUITE 670
FORT LEE, NEW JERSEY 07024

TAX LOT REFERENCE:

TOWN OF HAVERSTRAW
TAX LOTS 25.18-2-3 AND 25.18-2-4

TOWN OF RAMAPO
TAX LOTS 33.06-1-1 AND 33.06-1-2

DRAWING LIST

DRAWING NUMBER	DRAWING DESCRIPTION
1.	COVER SHEET
2.	EXISTING CONDITION
3.	CONCEPT PLAN PHASE I
4.	HAVERSTRAW SITE PLAN
5.	RAMAPO SITE PLAN
6.	DELINEATION OF PARKING SPACES & SERVICE AREA
7.	FIRE APPARATUS ACCESS AND SIGNAGE
8.	OVERALL GRADING PLAN
9.	SITE GRADING PLAN – NORTHWEST QUAD
10.	SITE GRADING PLAN – NORTHEAST QUAD
11.	SITE GRADING PLAN – SOUTHWEST QUAD
12.	SITE GRADING PLAN – SOUTHEAST QUAD
13.	OVERALL UTILITY PLAN
14.	SITE UTILITY PLAN – NORTHWEST QUAD
15.	SITE UTILITY PLAN – NORTHEAST QUAD
16.	SITE UTILITY PLAN – SOUTHWEST QUAD
17.	SITE UTILITY PLAN – SOUTHEAST QUAD
18.	OVERALL LIGHTING PLAN
19.	OVERALL LANDSCAPING PLAN
20.	SITE LANDSCAPING PLAN – NORTHWEST QUAD
21.	SITE LANDSCAPING PLAN – NORTHEAST QUAD
22.	SITE LANDSCAPING PLAN – SOUTHWEST QUAD
23.	SITE LANDSCAPING PLAN – SOUTHEAST QUAD
24.	SIDEWALK, CURB AND PAVEMENT DETAILS
25.	WATER MAIN
26.	UNITED WATER NEW YORK WATER MAIN EXTENSION DETAILS
27.	POND DETAIL 1 (POND #1 & #2)
28.	POND DETAIL 2 (POND #4 & #5)
29.	POND DETAIL 3 (POND #3 & #6)
30.	POND LANDSCAPING PLAN
31.	DETAILS (PAVEMENT MARKINGS)
32.	DETAIL SHEET
33.	STAGE 1
34.	STAGE 2
35.	STAGE 3, 4 & PHASE II
36.	EROSION CONTROL PLAN
37.	EROSION CONTROL DETAILS

DRAWING NUMBER	DRAWING DESCRIPTION
P1.	MINISCEONGO BOULEVARD AND LIMITED ACCESS ROAD PROFILES
P2.	WEST BRANCH DRIVE PROFILE
P3.	TWOTOWN DRIVE PROFILE STA 0+00 TO 8+00
P4.	TWOTOWN DRIVE PROFILE STA 8+00 TO 14+00
P5.	PARKING LOT PROFILE
P6.	EMERGENCY ACCESS ROAD & WATER MAIN PROFILE
P7.	SEWER PLAN & PROFILE
P8.	SEWER PLAN & PROFILE
P9.	WATER MAIN PROFILE ALONG NORTH SIDE
W-1	PROPOSED WALL PLAN
W-2	PROPOSED WALL PLAN
W-3	PROPOSED WALL PLAN
W-4	PROPOSED WALL PLAN
W-5	PROPOSED WALL PLAN
	DRAWING LIST OF MASER CONSULTING
GN-1	GENERAL NOTES
MD-1	MISCELLANEOUS DETAILS
TS-1	TYPICAL SECTIONS
CGD-1	CONSTRUCTION, GRADING & DRAINAGE PLAN
CGD-2	CONSTRUCTION, GRADING & DRAINAGE PLAN
CGD-3	CONSTRUCTION, GRADING & DRAINAGE PLAN
CGD-4	CONSTRUCTION, GRADING & DRAINAGE PLAN
CGD-5	CONSTRUCTION, GRADING & DRAINAGE PLAN
SP-1	SIGNING & STRIPING PLAN
SP-2	SIGNING & STRIPING PLAN
SP-3	SIGNING & STRIPING PLAN
SP-4	SIGNING & STRIPING PLAN
SP-5	SIGNING & STRIPING PLAN
T-1	TRAFFIC SIGNAL PLAN
T-2	TRAFFIC SIGNAL PLAN
MPT-1	MAINTENANCE & PROTECTION OF TRAFFIC
MPT-2	MAINTENANCE & PROTECTION OF TRAFFIC
CS-1	CROSS SECTIONS
CS-2	CROSS SECTIONS
CS-3	CROSS SECTIONS
GR-1	GUDE RAIL DETAIL
ST-1	CULVERT #3 PLAN, ELEVATION AND SECTION
ST-2	CULVERT #4 PLAN, ELEVATION AND SECTION
ST-3	CULVERT DETAILS
ST-4	CULVERT DETAILS

REVISION	DATE	DESCRIPTION
12	10-24-17	PAD "C" REVISED ALL MAPS, UPDATE CONTACT PEOPLE
11	9-13-17	PER COURT ORDER DWG. 1-7
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1	1-13-12	FIRST SUBMISSION DRAWINGS 1-23

APPROVED BY PLANNING BOARD
TOWN OF RAMAPO
AS ______
ON ______
SIGNED BY: ______

DIRECTOR OF PUBLIC WORKS

CHAIRMAN

DIRECTOR OF BUILDING PLANNING & ZONING

ATZL, NASHER & ZIGLER P.C.
ENGINEERS–SURVEYORS–PLANNERS
234 North Main Street
New City, New York 10956
Tel: (845) 634-4694
Fax: (845) 634-5543
P.O. Box 636
Chester, New York 10918
Tel: (845) 469-1015
Fax: (845) 469-1016
Web: ANZNY.com

PROJECT:
MINISCEONGO PARK
(PHASE I)
NYSDOT PIN AW.08.02.70J

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:
COVER SHEET

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: AS NOTED
PROJECT NO: 1560	DRAWING NO: 1

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FINAL PLANNING BOARD APPROVAL
TOWN OF HAVERSTRAW

CHAIRMAN PLANNING BOARD
TOWN OF HAVERSTRAW
DATE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE TOWN OF HAVERSTRAW, ON THE______DAY OF__________,20__, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION AND REQUIRED IMPROVEMENT AND AGREEMENTS, ANY CHANGE, ERASURE,MODIFICATION OR REVISION OF THIS PLAT AS APPROVED SHALL VOID THIS APPROVAL.

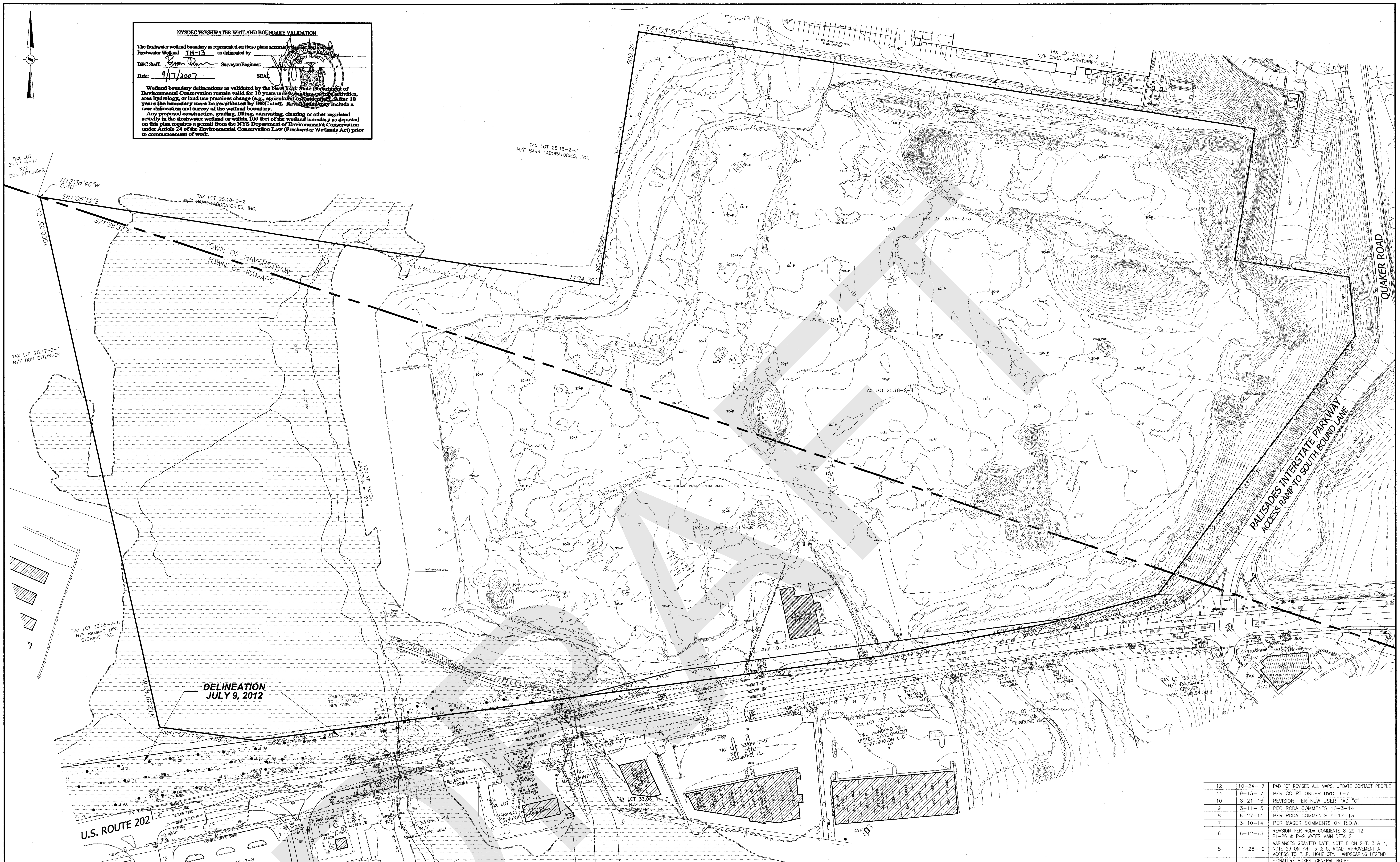
CHAIRMAN, PLANNING BOARD
TOWN OF HAVERSTRAW
DATE

THE EDUCATION LAW OF THE STATE OF NEW YORK PROHIBITS ANY PERSON ALTERING ANYTHING ON THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATIONS, UNLESS IT IS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER. WHERE SUCH ALTERATIONS ARE MADE, THE PROFESSIONAL ENGINEER MUST SIGN, SEAL, DATE AND DESCRIBE THE FULL EXTENT OF THE ALTERATION ON THE DRAWINGS AND/OR IN THE SPECIFICTIONS. (NYS EDUCATION LAW SECTION 7209-2)

"UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW."
"ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."
"CERTIFICATION INDICATED HERE ON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYOR'S ADOPTED BY THE DELAWARE – HUDSON LAND SURVEYORS ASSOCIATION. SAID CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED INDIVIDUALS AND/OR INSTITUTIONS FOR WHOM THE SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS."

RYAN A. NASHER, P.E.
N.Y.S.P.E. LIC. No. 89066

JOHN R. ATZL
N.Y.S. P.L.S. LIC. NO. 50228



EXISTING SIGN LIST

SYMBOL	CONTENT
1	ACADIA REALTY TRUST
2	202 MILE MARKER
3	ROAD WORK 1/2 MILE
4	LEFT LANE MUST TURN LEFT
5	NO LEFT TURN
6	DO NOT ENTER
7	DO NOT ENTER
8	NO PARKING
9	NO LEFT TURN
10	NO LEFT TURN
11	A TASTE OF DISTINCTION
12	MOUNT IVY
13	SPEED LIMIT 45
14	202 MILE MARKER
15	202 WEST
16	NO PARKING
17	NO PARKING
18	EXON
19	JUNCTION P.I.P.
20	NO PARKING
21	NO PARKING
22	NO PARKING
23	NO PARKING
24	AIR COMP.

SYMBOL	CONTENT
25	NO PARKING
26	SPEED LIMIT 45
27	NO PARKING
28	ADOPT A HIGHWAY
29	NO PARKING
30	RED LIGHT
31	NO PARKING
32	RAMAPO PLAZA
33	NO PARKING NO HUNTING NO LITTERING NO PEDDLERS
34	WELCOME TO RAMAPO
35	NO PARKING
36	202 MILE MARKER
37	NO PARKIN
38	NO PARKING
39	ONE WAY

SYMBOL	CONTENT
40	YIELD
41	DO NOT ENTER
42	TO PARKRIDGE TO STATE PLOICE
43	202 EAST 202 WEST
44	PIP SOUTH PIP NORTH
45	MOUNT IVY DINER
46	NO PARKING
47	ACP R-78
48	SPEED LIMIT 40
49	JUNCTION 45
50	NO PARKING
51	ADOPT A HIGHWAY
52	PIP SOUTH 202 WEST
53	NO PARKING
54	NO PARKING
55	RIGHT LANE TURN
56	LEFT LANE MUST TURN LEFT
57	PIP SOUTH
58	ROCKLAND 47 TO STATE POLICE 45 TO PIP NORTH
59	NO PARKING

100 YEAR FLOODPLAIN LEGEND

FLOODPLAIN AREA

LIMIT OF 100 YEAR FLOODPLAIN

LEGEND

EXISTING 2' CONTOUR
EXISTING 10' CONTOUR
EXISTINGTOWN LINE
W EXISTING WATERLINE
EXISTING FIRE HYDRANT
G EXISTING GAS LINE
CB EXISTING CATCH BASIN
CBG EXISTING CATCH BASIN GRATE
DMH EXISTING DRAINAGE MANHOLE
EXISTING STORM DRAIN LINE
SMH EXISTING SEWER MANHOLE
S EXISTING SEWER LINE
+ 360.0 EXISTING SPOT ELEVATION
UP EXISTING UTILITY POLE
LP EXISTING LIGHT POLE
SP EXISTING SUPPORT POLE
SC-P EXISTING SURCHARGE PLATES
WV EXISTING WATER VALVE
GV EXISTING GAS VALVE

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STATE OF NEW YORK RYAN A. NASHER
RYAN A. NASHER, P.E.
N.Y.S.P.E. LIC. No. 89066

STATE OF NEW YORK JOHN R. ATZL
JOHN R. ATZL
N.Y.S. P.L.S. LIC. NO. 50228

REVISION	DATE	DESCRIPTION
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ATZL, NASHER & ZIGLER P.C.
ENGINEERS–SURVEYORS–PLANNERS

234 North Main Street
New City, New York 10956
Tel: (845) 634-4694
Fax: (845) 634-5543

P.O. Box 636
Chester, New York 10918
Tel: (845) 469-1015
Fax: (845) 469-1016

Web: ANZNY.com

PROJECT:

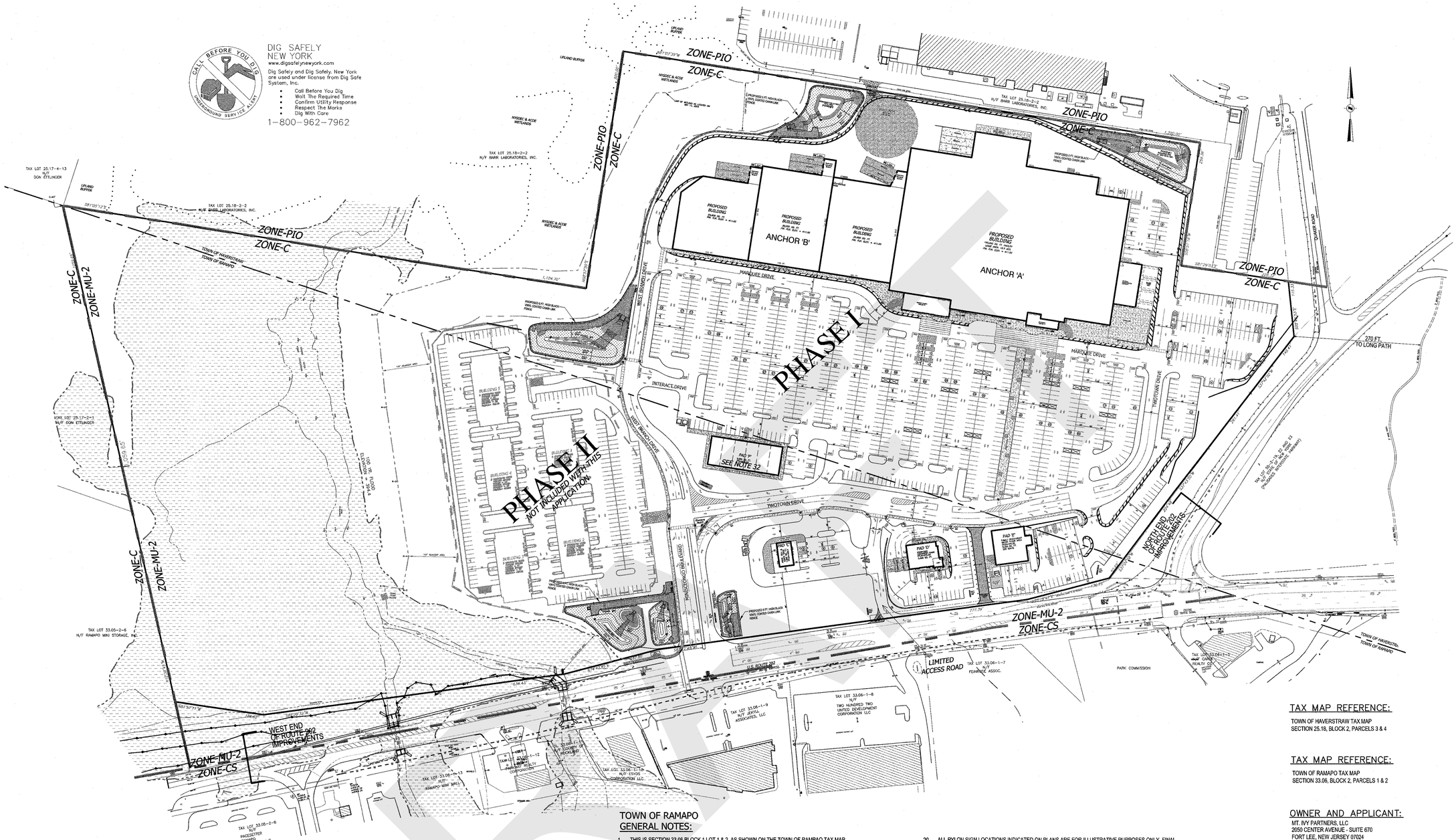
MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

EXISTING CONDITIONS

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 80 FT.
PROJECT NO: 1560	DRAWING NO: 2



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TOWN OF HAVERSTRAW GENERAL NOTES:

1. THIS PLAT DOES NOT CONFLICT WITH THE COUNTY OFFICIAL MAP, AND HAS BEEN APPROVED IN THE MANNER SPECIFIED IN SECTION 239 L & M OF THE GENERAL MUNICIPAL LAW.
2. THIS PLAT IS SUBJECT TO ALL NOTES, BULK REQUIREMENTS AND CONDITIONS OF PLANNING BOARD, AS SHOWN ON MAP OF MINISCEONGO PARK, LAST DATED ____________, AND APPROVED BY RESOLUTION OF THE TOWN OF HAVERSTRAW PLANNING BOARD ON ____________.
3. AT LEAST ONE (1) WEEK PRIOR TO THE COMMENCEMENT OF ANY WORK INCLUDING THE INSTALLATION OF EROSION CONTROL DEVICES OR REMOVAL OF TREES AND VEGETATION, A PRE CONSTRUCTION MEETING MUST BE HELD WITH THE TOWN OF HAVERSTRAW BUILDING DEPARTMENT, SUPERINTENDENT OF HIGHWAYS AND ENGINEER. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO ARRANGE SUCH A MEETING.
4. NO BUILDING PERMIT FOR A BUILDING SUBJECT TO SITE PLAN APPROVAL SHALL BE ISSUED BY THE BUILDING INSPECTOR EXCEPT UPON AUTHORIZATION OF AND IN CONFORMITY WITH THE SITE PLAN APPROVED BY THE PLANNING BOARD.
5. THE DEPICTED SIGN AT THIS TIME IS FOR LOCATION ONLY, NO DETAILS ARE AVAILABLE.
6. "AS-BUILT" DRAWINGS OF THE SANITARY SEWER ARE TO BE SUBMITTED TO THE ROCKLAND COUNTY HEALTH DEPARTMENT.
7. SANITARY SEWER INFILTRATION AND EXFILTRATION LIMIT IS 25 GALLONS PER INCH DIAMETER PER MILE PER DAY. CERTIFICATES OF OCCUPANCY MAY NOT BE REQUESTED NOR ANY OCCUPANCY PERMITTED UNTIL A CERTIFICATE OF COMPLIANCE, CERTIFIED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER IS SUBMITTED AND APPROVED AND COPIES OF THIS CERTIFICATE SHOULD ALSO BE SENT TO THE ROCKLAND COUNTY DEPARTMENT OF HEALTH AND TO THE ROCKLAND COUNTY SEWER DISTRICT No. 1 AND JOINT REGIONAL SEWERAGE BOARD.
8. ROCKLAND COUNTY DEPARTMENT OF HEALTH(RCDOH) APPROVAL IS LIMITED TO 5 YEARS AND SHALL EXPIRE 5 YEARS FROM THE DATE OF THE FILING OF THE PLAT IN THE TOWN OF HAVERSTRAW CLERK'S OFFICE. TIME EXTENSIONS MAY BE GRANTED BY THE RCDOH BASED UPON DEVELOPMENT FACTS AND THE SITE PLAN REGULATIONS IN EFFECT AT THAT TIME. A NEW PLAN SUBMISSION MAY BE REQUIRED TO OBTAIN A TIME EXTENSION.
9. ALL PYLON SIGN LOCATIONS INDICATED ON PLANS ARE FOR ILLUSTRATIVE PURPOSES ONLY. FINAL APPROVAL FOR ALL PYLON SIGNS SHALL BE PROVIDED THRU A SEPARATE APPLICATION.
10. ANY BUILDING MOUNTED FIXUTRES WHICH ARE NOT LED SHALL BE FULLY SHIELDED TO MINIMIZE GLARE AND LIGHT POLLUTION.
11. THE COUNTY OF ROCKLAND OFFICE OF FIRE AND EMERGENCY SERVICES RECOMMEND A GENERATOR FOR EMERGENCY INDEPENDENT POWER FOR FUEL DISPENSING AND FOOD MARKETS DURING LONG TERM PERIODS WITHOUT POWER.
12. SEE TOWN OF RAMAPO NOTES.
13. ALL WALLS OVER 4 FT MUST BE DESIGNED, CERTIFIED, INSPECTED BY THE CONTRACTOR / OWNERS / ENGINEER.

BULK REQUIREMENTS: TOWN OF HAVERSTRAW

	ZONE-C	PROPOSED	ANCHOR 'A'	ANCHOR 'B'
MIN. LOT AREA:	10,000 SQ. FT.	26.3084 ACS.	26.3084 ACS.	26.3084 ACS.
MIN. LOT FRONTAGE:	100 FT.	680 FT.	1,800 FT.±	1,800 FT.±
MIN. FRONT YARD SETBACK	25 FT.	283 FT.	318 FT.	735 FT.
MIN. SIDE YARD SETBACK	10 FT.	193 FT.	127 FT.	164 FT.
MIN. TOTAL SIDE YARD SETBACK	35 FT.	321 FT.	291 FT.	291 FT.
MIN. REAR YARD SETBACK	25 FT.	50 FT.	50 FT.	190 FT.
MAX. BUILDING HEIGHT:	35 FT.	35 FT.	35 FT.	35 FT.

VARIANCES REQUIRED:

1) ARTICLE IX CHAPTER 167-68 (B) F
SIZE OF PARKING SPACE
REQUIRED: 10 FT. WIDE, LENGTH OF 20 FT.
REQUESTED: 9 FT. WIDE, LENGTH OF 19 FT.

2) ARTICLE III CHAPTER 167-9
DISTRICT C, COLUMN 7, ITEM 1
OFFSTREET PARKING REQUIREMENT
1 SPACE PER 150 sq ft OF GROSS FLOOR AREA (235,800 sq ft)
REQUIRED: 235,800 sq ft / 150 = 1572 PARKING SPACES
REQUESTED: 235,800 sq ft / 250 = 945 PARKING SPACES

VARIANCES GRANTED BY THE TOWN OF HAVERSTRAW ZONING BOARD OF APPEALS ON OCT. 10, 2012.

BULK REQUIREMENTS: TOWN OF RAMAPO ①

	MU-2 - ZONE USER GROUP n	PROPOSED	DESCRIPTION	VARIANCE
MIN. LOT AREA:	10 ACRES	21.5853 Acs.		NO
MIN. STREET FRONTAGE:	600 FT.	2,030 FT.±	ROUTE 202 & PIP RAMP	NO
MIN. FRONT SETBACK	100 FT.	75 FT.	(PAD 'E')	YES *
MIN. SIDE SETBACK	80 FT.	1,190 FT.	(PAD 'F')	NO
MIN. TOTAL SIDE SETBACK	100 FT.	1,190 FT.	(PAD 'F')	NO
MIN. REAR SETBACK	50 FT.	2 FT.	(PAD 'E' & PAD 'F')	YES *
MIN. FRONT YARD	20 FT.	10 FT.		YES *
MIN. SIDE YARD	20 FT.	617 FT.	ADJACENT AREA TO WETLANDS	NO
MIN. REAR YARD	10 FT.	0 FT.	(PAD 'E' & PAD 'F')	YES *
MAX. BUILDING HEIGHT	45 FT.	30± FT.		NO
MAX. DEVELOPMENT COVERAGE	65%	15%		NO
MAX. FLOOR AREA RATIO	0.65	0.03		NO

1. CALCULATIONS DO NOT INCLUDE PHASE II
2. CALCULATION ARE BASED ON CHAPTER 376, SECTION 66 (B), USE GROUP n
3. CALCULATIONS ARE BASED ON A CORNER LOT REQUIREMENT

* VARIANCES GRANTED BY THE TOWN OF RAMAPO ZONING BOARD OF APPEALS ON OCT. 25, 2012.

LOT AREA:	26.5853 ACS.
LANDS UNDERWATER 0.97 AC. (50% CREDIT):	(0.485) AC.
WETLANDS 9.17 ACS. (50% CREDIT):	(4.585) ACS.
ZONING AREA:	21.5153 ACS.
TOTAL COMMERIAL AREA:	4.66 ACS. PER THIS PLAN

TOWN OF RAMAPO GENERAL NOTES:

1. THIS IS SECTION 33.06 BLOCK 1 LOT 1 & 2, AS SHOWN ON THE TOWN OF RAMPAO TAX MAP.
2. AREA OF TRACT: 1158,055 SQ. FT. OR 26.5853 ACRES.
3. ZONE: MU-2
4. PROPOSED USE: LOCAL CONVENIENCE COMMERCIAL & RESIDENTIAL
5. RECORD OWNER: MT. IVY PARTNERS, LLC
   2050 CENTER AVENUE - SUITE 670
   FORT LEE, NEW JERSEY 07024
6. APPLICANT: MT. IVY PARTNERS, LLC
   2050 CENTER AVENUE - SUITE 670
   FORT LEE, NEW JERSEY 07024
7. FIRE DISTRICT: MONSEY FIRE DEPARTMENT
8. SCHOOL DISTRICT: EAST RAMAPO SCHOOL DISTRICT
9. WATER DISTRICT: NR 1
10. WATER SUPPLY BY: UNITED WATER
11. SEWER DISTRICT: ROCKLAND COUNTY SEWER DISTRICT No.1 AND JOINT REGIONAL SEWER BOARD
12. DATUM: U.S.G.S.
13. ALL UTILITIES ARE EXISTING. IN ROUTE 202
14. THERE ARE COVENANTS, DEED RESTRICTIONS, EASEMENTS AND OTHER RESERVATIONS OF LAND RELATIVE TO THIS SITE.
15. NO SIGN(S) OTHER THAN THOSE SHOWN ON THIS DRAWING ARE PERMITTED WITHOUT PRIOR APPROVAL OF THE PLANNING BOARD (TENANTS ARE TO BE ADVISED OF THIS CONDITION).
16. PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY, AN AS-BUILT LANDSCAPING DRAWING SHALL BE SUBMITTED TO THE BUILDING INSPECTOR, PLANNING BOARD AND DEPARTMENT OF PUBLIC WORKS WHICH IS CERTIFIED BY A LANDSCAPE ARCHITECT LICENSED TO PRACTICE IN THE STATE OF NEW YORK. SAID CERTIFIED LANDSCAPING DRAWING SHALL INDICATE HE DEGREE OF COMPLETION OF SAID LANDSCAPING IMPROVEMENTS IN ACCORDANCE WITH THE APPROVED SITE PLAN.
17. PLANS ARE BASED ON FIELD ENGINEERING DATA AND CERTIFIED HERETO:

    ____
    LICENSED PROFESSIONAL ENGINEER / LAND SURVEYOR DATE
18. ATTACHED HERETO ARE ARCHITECTURAL PLANS PREPARED BY:
    g k + a ARCHITECTS,PC 12-28-11
19. THE UNDERSIGNED, OWNER AND/OR APPLICANT, AS A CONDITION OF APPROVAL OF THIS SITE PLAN, HEREBY AGREES TO COMPLETE THE WITHIN DEVELOPMENT SITE PLAN DRAWN AND ALL IMPROVEMENTS SHOWN THEREON, AS A CONDITION OF THE ISSUANCE OF A BUILDING PERMIT. THE APPLICANT / OWNER IS AWARE THAT NO CHANGE OF THIS PLAN MAY BE MADE UNLESS APPROVED BY THE PLANNING BOARD.

______________________________ ____________
APPLICANT DATE

______________________________ ____________
OWNER DATE

20. ALL PYLON SIGN LOCATIONS INDICATED ON PLANS ARE FOR ILLUSTRATIVE PURPOSES ONLY. FINAL APPROVAL FOR ALL PYLON SIGNS SHALL BE PROVIDED THRU A SEPARATE APPLICATION.
21. ANY BUILDING MOUNTED FIXUTRES WHICH ARE NOT LED SHALL BE FULLY SHIELDED TO MINIMIZE GLARE AND LIGHT POLLUTION.
22. THIS PLAT DOES NOT CONFLICT WITH THE COUNTY OFFICIAL MAP, AND HAS BEEN APPROVED IN THE MANNER SPECIFIED IN SECTION 239 L & M OF THE GENERAL MUNICIPAL LAW.
23. ROCKLAND COUNTY DEPARTMENT OF HEALTH(RCDOH) APPROVAL IS LIMITED TO 5 YEARS AND SHALL EXPIRE 5 YEARS FROM THE DATE OF THE FILING OF THE PLAT IN THE TOWN OF RAMAPO CLERK'S OFFICE. TIME EXTENSIONS MAY BE GRANTED BY THE RCDOH BASED UPON DEVELOPMENT FACTS AND THE SITE PLAN REGULATIONS IN EFFECT AT THAT TIME. A NEW PLAN SUBMISSION MAY BE REQUIRED TO OBTAIN A TIME EXTENSION.
24. "AS-BUILT" DRAWINGS OF THE SANITARY SEWER ARE TO BE SUBMITTED TO THE ROCKLAND COUNTY HEALTH DEPARTMENT.
25. SANITARY SEWER AND WATER SERVICE LINE SHALL BE LAID IN SEPARATE TRENCHES, WITH A MINIMUM HORIZONTAL SEPARATION OF 10 FEET.
26. FOR DETAILS OF WATER AND SANITARY SEWER FACILITIES, REFER TO ADDITIONAL PLANS ON FILE WITH THE ROCKLAND COUNTY DEPARTMENT OF HEALTH.
27. SANITARY SEWER INFILTRATION AND EXFILTRATION LIMIT IS 25 GALLONS PER INCH DIAMETER PER MILE PER DAY. CERTIFICATES OF OCCUPANCY MAY NOT BE REQUESTED NOR ANY OCCUPANCY PERMITTED UNTIL A CERTIFICATE OF COMPLIANCE, CERTIFIED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER IS SUBMITTED AND APPROVED AND COPIES OF THIS CERTIFICATE SHOULD ALSO BE SENT TO THE ROCKLAND COUNTY DEPARTMENT OF HEALTH AND TO THE ROCKLAND COUNTY SEWER DISTRICT No. 1 AND JOINT REGIONAL SEWERAGE BOARD.
28. AT LEAST ONE (1) WEEK PRIOR TO THE COMMENCEMENT OF ANY WORK INCLUDING THE INSTALLATION OF EROSION CONTROL DEVICES OR REMOVAL OF TREES AND VEGETATION, A PRE CONSTRUCTION MEETING MUST BE HELD WITH THE TOWN OF RAMAPO BUILDING DEPARTMENT, SUPERINTENDENT OF HIGHWAYS AND ENGINEER. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO ARRANGE SUCH A MEETING.
29. THE COUNTY OF ROCKLAND OFFICE OF FIRE AND EMERGENCY SERVICES RECOMMEND A GENERATOR FOR EMERGENCY INDEPENDENT POWER FOR FUEL DISPENSING AND FOOD MARKETS DURING LONG TERM PERIODS WITHOUT POWER.
30. SEE TOWN OF HAVERSTRAW GENERAL NOTES.
31. ALL WALLS OVER 4 FT MUST BE DESIGNED, CERTIFIED AND INSPECTED BY THE CONTRACTOR / OWNERS / ENGINEER.
32. ALL DELIVERIES TO PAD "F" SHALL OFF PEAK HOURS OF 11 AM TO 6 PM.

APPROVED BY PLANNING BOARD
TOWN OF RAMAPO

AS ______________________
ON ______________________
SIGNED BY: ______________________

____
DIRECTOR OF PUBLIC WORKS

____
CHAIRMAN

____
DIRECTOR OF BUILDING
PLANNING & ZONING

FINAL PLANNING BOARD APPROVAL
TOWN OF HAVERSTRAW

______________________ ________
CHAIRMAN PLANNING BOARD DATE
TOWN OF HAVERSTRAW

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE TOWN OF HAVERSTRAW, ON THE________DAY OF____________,20___, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION AND REQUIRED IMPROVEMENT AND AGREEMENTS, ANY CHANGE, ERASURE,MODIFICATION OR REVISION OF THIS PLAT AS APPROVED SHALL VOID THIS APPROVAL.

______________________ ________
CHAIRMAN, PLANNING BOARD DATE
TOWN OF HAVERSTRAW

100 0 50 100
1 IN.= 100 FT.

RYAN A. NASHER, P.E.
N.Y.S.P.E. LIC. No. 89066

JOHN R. ATZL
N.Y.S. P.L.S. LIC. NO. 50228

TAX MAP REFERENCE:

TOWN OF HAVERSTRAW TAX MAP
SECTION 25.18, BLOCK 2, PARCELS 3 & 4

TAX MAP REFERENCE:

TOWN OF RAMAPO TAX MAP
SECTION 33.06, BLOCK 2, PARCELS 1 & 2

OWNER AND APPLICANT:

MT. IVY PARTNERS, LLC
2050 CENTER AVENUE - SUITE 670
FORT LEE, NEW JERSEY 07024

AREA:

TOWN OF HAVERSTRAW: 1145,993 SQ.FT. OR 26.3084 ACS.
TOWN OF RAMAPO: 1158,055 SQ.FT. OR 26.5853 ACS.

REVISION	DATE	DESCRIPTION
12	10-24-17	PAD "C" REVISED ALL MAPS, UPDATE CONTACT PEOPLE
11	9-13-17	PER COURT ORDER DWG. 1-7
10	8-21-15	REVISION PER NEW USER PAD "C"
9	3-11-15	PER RCDA COMMENTS 10-3-14
8	6-27-14	PER RCDA COMMENTS 9-17-13
7	3-10-14	PER MASER COMMENTS ON R.O.W.
6	6-12-13	REVISION PER RCDA COMMENTS 8-29-12, P1-P6 & P-9 WATER MAIN DETAILS
5	11-28-12	VARIANCES GRANTED DATE, NOTE 8 ON SHT. 3 & 4, NOTE 23 ON SHT. 3 & 5, ROAD IMPROVEMENT AT ACCESS TO P.I.P, LIGHT QTY., LANDSCAPING LEGEND
4	9-27-12	SIGNATURE BOXES, GENERAL NOTES, MINOR LANDSAPING AND LIGHTING REVISION, NEW DRAWINGS 33-37 & P-9
3	6-18-12	PROFILES, RETENTION DETAILS, VARIANCES
2	5-15-12	MAJOR REDESIGN ITEMS: RELOCATION OF EMERGENCY ACCESS, ADDITONAL RETENTION PONDS, ADDITIONAL EMERGENCY ACCESS BETWEEN PADS D & E, PHASE II DEPICTED, 20 FT. LANDSCAPE BUFFER ALONG THE EAST BOUNDARY
1	1-13-12	FIRST SUBMISSION DRAWINGS 1-23

ATZL, NASHER & ZIGLER P.C.
ENGINEERS-SURVEYORS-PLANNERS

234 North Main Street
New City, New York 10956
Tel: (845) 634-4694
Fax: (845) 634-5543

P.O. Box 636
Chester, New York 10918
Tel: (845) 469-1015
Fax: (845) 469-1016

Web: ANZNY.com

PROJECT:

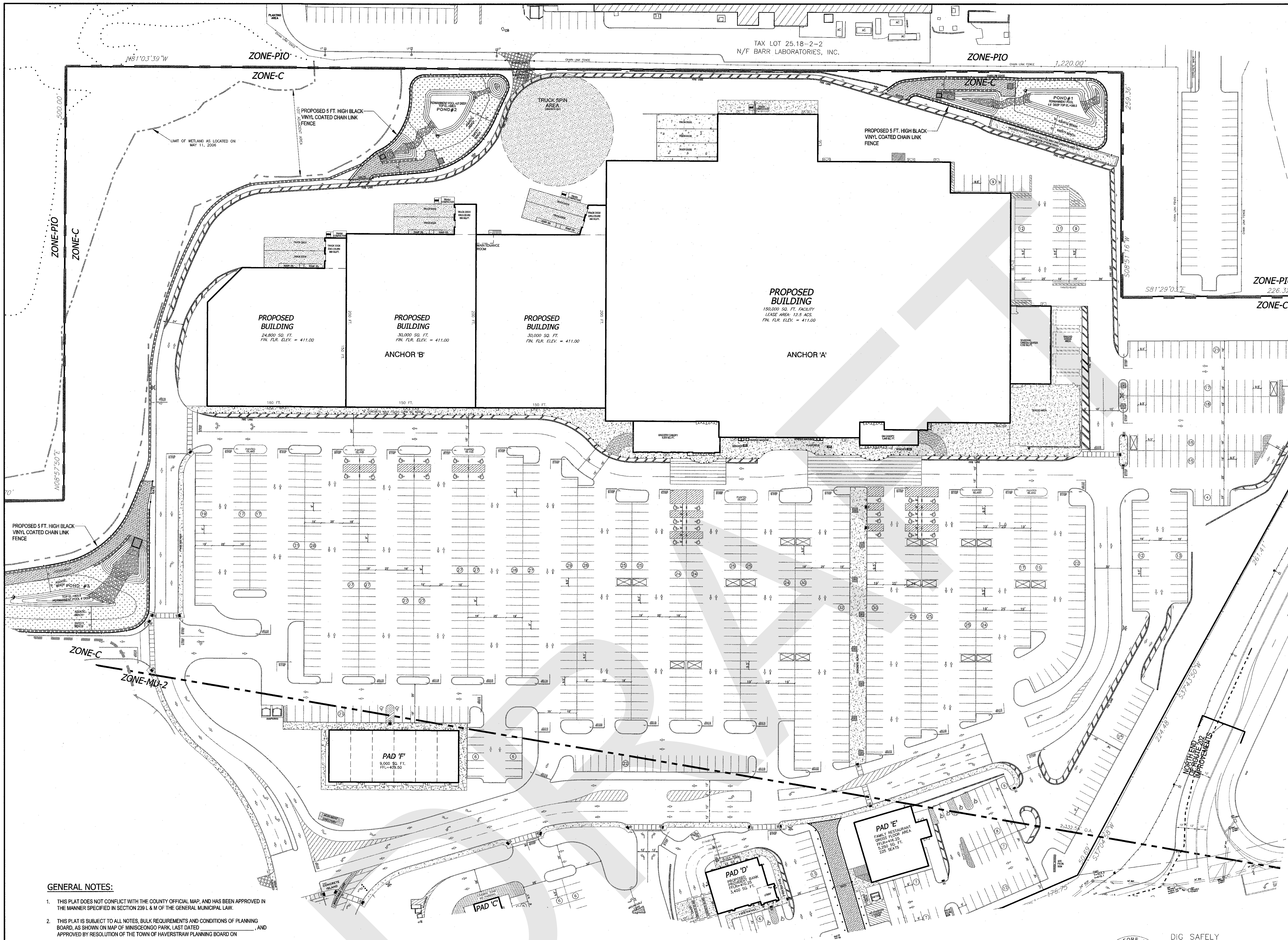
MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

CONCEPT PLAN
(PHASE I)

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 100 FT.
PROJECT NO: 1560	DRAWING NO: 3



GENERAL NOTES:

1. THIS PLAT DOES NOT CONFLICT WITH THE COUNTY OFFICIAL MAP, AND HAS BEEN APPROVED IN THE MANNER SPECIFIED IN SECTION 239 L & M OF THE GENERAL MUNICIPAL LAW.
2. THIS PLAT IS SUBJECT TO ALL NOTES, BULK REQUIREMENTS AND CONDITIONS OF PLANNING BOARD, AS SHOWN ON MAP OF MINISCEONGO PARK, LAST DATED ____________, AND APPROVED BY RESOLUTION OF THE TOWN OF HAVERSTRAW PLANNING BOARD ON ____________.
3. AT LEAST ONE (1) WEEK PRIOR TO THE COMMENCEMENT OF ANY WORK INCLUDING THE INSTALLATION OF EROSION CONTROL DEVICES OR REMOVAL OF TREES AND VEGETATION, A PRE CONSTRUCTION MEETING MUST BE HELD WITH THE TOWN OF HAVERSTRAW BUILDING DEPARTMENT, SUPERINTENDENT OF HIGHWAYS AND ENGINEER. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO ARRANGE SUCH A MEETING.
4. NO BUILDING PERMIT FOR A BUILDING SUBJECT TO SITE PLAN APPROVAL SHALL BE ISSUED BY THE BUILDING INSPECTOR EXCEPT UPON AUTHORIZATION OF AND IN CONFORMITY WITH THE SITE PLAN APPROVED BY THE PLANNING BOARD.
5. THE DEPICTED SIGN AT THIS TIME IS FOR LOCATION ONLY, NO DETAILS ARE AVAILABLE.
6. "AS-BUILT" DRAWINGS OF THE SANITARY SEWER ARE TO BE SUBMITTED TO THE ROCKLAND COUNTY HEALTH DEPARTMENT.
7. SANITARY SEWER INFILTRATION AND EXFILTRATION LIMIT IS 25 GALLONS PER INCH DIAMETER PER MILE PER DAY. CERTIFICATES OF OCCUPANCY MAY NOT BE REQUESTED NOR ANY OCCUPANCY PERMITTED UNTIL A CERTIFICATE OF COMPLIANCE, CERTIFIED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER IS SUBMITTED AND APPROVED AND COPIES OF THIS CERTIFICATE SHOULD ALSO BE SENT TO THE ROCKLAND COUNTY DEPARTMENT OF HEALTH AND TO THE ROCKLAND COUNTY SEWER DISTRICT No. 1 AND JOINT REGIONAL SEWERAGE BOARD.
8. ROCKLAND COUNTY DEPARTMENT OF HEALTH(RCDOH) APPROVAL IS LIMITED TO 5 YEARS AND SHALL EXPIRE 5 YEARS FROM THE DATE OF THE FILING OF THE PLAT IN THE TOWN OF HAVERSTRAW CLERK'S OFFICE. TIME EXTENSIONS MAY BE GRANTED BY THE RCDOH BASED UPON DEVELOPMENT FACTS AND THE SITE PLAN REGULATIONS IN EFFECT AT THAT TIME. A NEW PLAN SUBMISSION MAY BE REQUIRED TO OBTAIN A TIME EXTENSION.
9. ALL PYLON SIGN LOCATIONS INDICATED ON PLANS ARE FOR ILLUSTRATIVE PURPOSES ONLY. FINAL APPROVAL FOR ALL PYLON SIGNS SHALL BE PROVIDED THRU A SEPARATE APPLICATION.
10. ANY BUILDING MOUNTED FIXUTRES WHICH ARE NOT LED SHALL BE FULLY SHIELDED TO MINIMIZE GLARE AND LIGHT POLLUTION.
11. THE COUNTY OF ROCKLAND OFFICE OF FIRE AND EMERGENCY SERVICES RECOMMEND A GENERATOR FOR EMERGENCY INDEPENDENT POWER FOR FUEL DISPENSING AND FOOD MARKETS DURING LONG TERM PERIODS WITHOUT POWER.
12. SEE TOWN OF RAMAPO NOTES.
13. ALL WALLS OVER 4 FT MUST BE DESIGNED, CERTIFIED, INSPECTED BY THE CONTRACTOR / OWNERS / ENGINEER.

BULK REQUIREMENTS: TOWN OF HAVERSTRAW

	ZONE-C	PROPOSED	ANCHOR 'A'	ANCHOR 'B'
MIN. LOT AREA:	10,000 SQ. FT.	26.3084 ACS.	26.3084 ACS.	26.3084 ACS.
MIN. LOT FRONTAGE:	100 FT.	680 FT.	1,800 FT.±	1,800 FT.±
MIN. FRONT YARD SETBACK	25 FT.	283 FT.	318 FT.	690 FT.
MIN. SIDE YARD SETBACK	10 FT.	193 FT.	127 FT.	164 FT.
MIN. TOTAL SIDE YARD SETBACK	35 FT.	321 FT.	750 FT.	760 FT.
MIN. REAR YARD SETBACK	25 FT.	50 FT.	50 FT.	150 FT.
MAX. BUILDING HEIGHT:	35 FT.	35 FT.	35 FT.	35 FT.

VARIANCES REQUIRED:

1) ARTICLE IX CHAPTER 167-68 (B) F
SIZE OF PARKING SPACE
REQUIRED: 10 FT. WIDE, LENGTH OF 20 FT.
REQUESTED: 9 FT. WIDE, LENGTH OF 19 FT.

2) ARTICLE III CHAPTER 167-9
DISTRICT C, COLUMN 7, ITEM 1
OFFSTREET PARKING REQUIREMENT
1 SPACE PER 150 sq ft OF GROSS FLOOR AREA (235,800 sq ft)
REQUIRED: 235,800 sq ft / 150 = 1572 PARKING SPACES
REQUESTED: 235,800 sq ft / 250 = 945 PARKING SPACES

VARIANCES GRANTED BY THE TOWN OF HAVERSTRAW ZONING BOARD OF APPEALS ON OCT. 10, 2012.

TAX MAP REFERENCE:

TOWN OF HAVERSTRAW TAX MAP
SECTION 25.18, BLOCK 2, PARCELS 3 & 4

TAX MAP REFERENCE:

TOWN OF RAMAPO TAX MAP
SECTION 33.06, BLOCK 2, PARCELS 1 & 2

OWNER AND APPLICANT:

MT. IVY PARTNERS, LLC
2050 CENTER AVENUE - SUITE 670
FORT LEE, NEW JERSEY 07024

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REVISION	DATE	DESCRIPTION
12	10-24-17	PAD "C" REVISED ALL MAPS, UPDATE CONTACT PEOPLE
11	9-13-17	PER COURT ORDER DWG. 1-7
10	8-21-15	REVISION PER NEW USER PAD "C"
9	3-11-15	PER RCDA COMMENTS 10-3-14
8	6-27-14	PER RCDA COMMENTS 9-17-13
7	3-10-14	PER MASER COMMENTS ON R.O.W.
6	6-12-13	REVISION PER RCDA COMMENTS 8-29-12, P1-P6 & P-9 WATER MAIN DETAILS
5	11-28-12	VARIANCES GRANTED DATE, NOTE 8 ON SHT. 3 & 4, NOTE 23 ON SHT. 3 & 5, ROAD IMPROVEMENT AT ACCESS TO P.I.P, LIGHT QTY., LANDSCAPING LEGEND
4	9-27-12	SIGNATURE BOXES, GENERAL NOTES, MINOR LANDSAPING AND LIGHTING REVISION, NEW DRAWINGS 33-37 & P-9
3	6-18-12	PROFILES, RETENTION DETAILS, VARIANCES
2	5-15-12	MAJOR REDESIGN ITEMS: RELOCATION OF EMERGENCY ACCESS, ADDITONAL RETENTION PONDS, ADDITIONAL EMERGENCY ACCESS BETWEEN PADS D & E, PHASE II DEPICTED, 20 FT. LANDSCAPE BUFFER ALONG THE EAST BOUNDARY
1	1-13-12	FIRST SUBMISSION DRAWINGS 1-23

ATZL, NASHER & ZIGLER P.C.
ENGINEERS–SURVEYORS–PLANNERS

234 North Main Street, New City, New York 10956
Tel: (845) 634-4694
Fax: (845) 634-5543

P.O. Box 636, Chester, New York 10918
Tel: (845) 469-1015
Fax: (845) 469-1016

Web: ANZNY.com

PROJECT:

MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

HAVERSTRAW SITE PLAN

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 50 FT.
PROJECT NO: 1560	DRAWING NO: 4

THE EDUCATION LAW OF THE STATE OF NEW YORK PROHIBITS ANY PERSON ALTERING ANYTHING ON THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATIONS, UNLESS IT IS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER. WHERE SUCH ALTERATIONS ARE MADE, THE PROFESSIONAL ENGINEER MUST SIGN, SEAL, DATE AND DESCRIBE THE FULL EXTENT OF THE ALTERATION ON THE DRAWINGS AND/OR IN THE SPECIFICTIONS. (NYS EDUCATION LAW SECTION 7209-2)

"UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW."
"ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."
"CERTIFICATION INDICATED HERE ON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYOR'S ADOPTED BY THE DELAWARE – HUDSON LAND SURVEYORS ASSOCIATION. SAID CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED INDIVIDUALS AND/OR INSTITUTIONS FOR WHOM THE SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS."

RYAN A. NASHER, P.E.
N.Y.S.P.E. LIC. No. 89066

JOHN R. ATZL
N.Y.S. P.L.S. LIC. NO. 50228

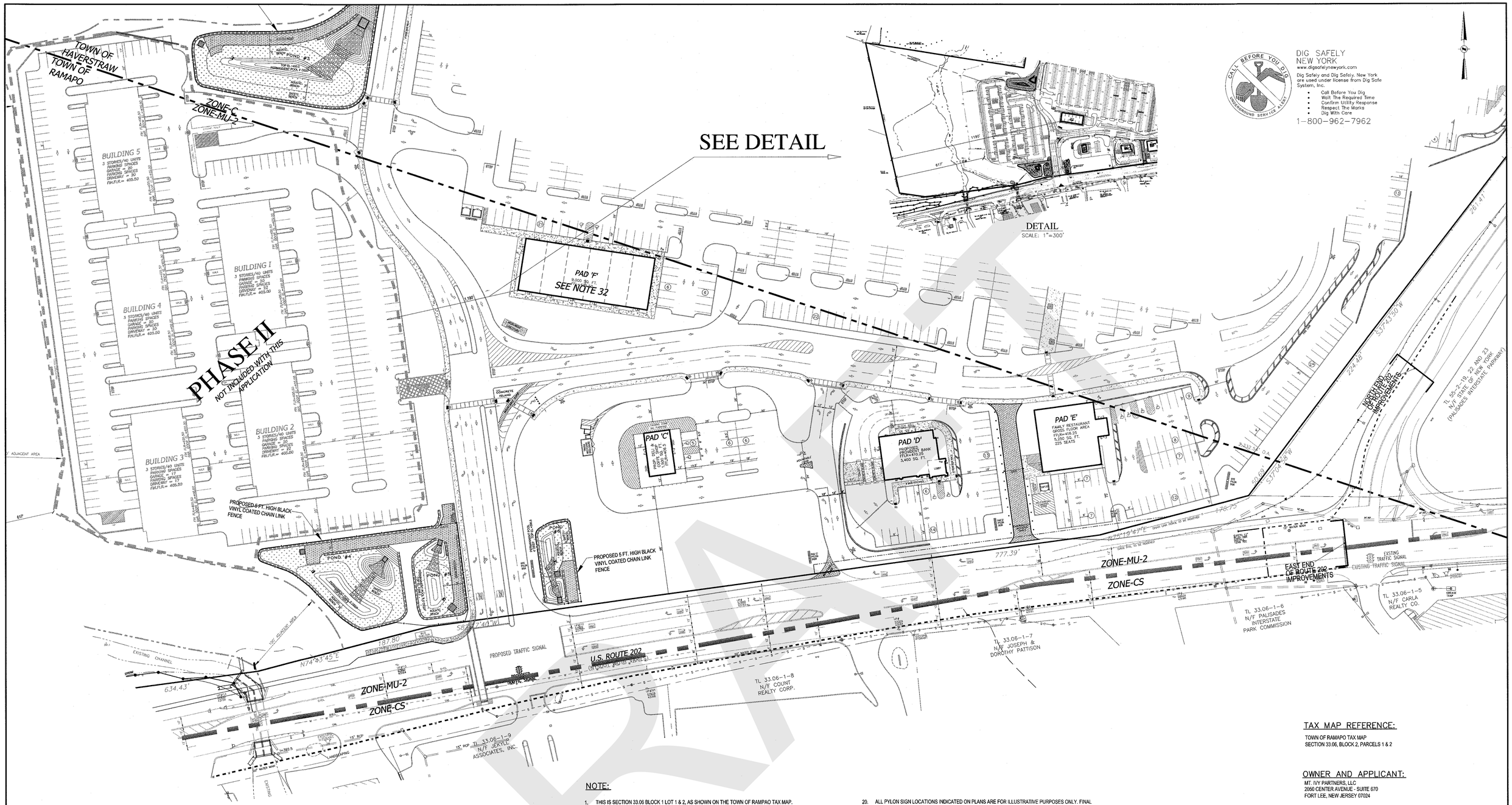
FINAL PLANNING BOARD APPROVAL
TOWN OF HAVERSTRAW

CHAIRMAN PLANNING BOARD — DATE
TOWN OF HAVERSTRAW

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE TOWN OF HAVERSTRAW, ON THE________DAY OF____________,20__, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION AND REQUIRED IMPROVEMENT AND AGREEMENTS, ANY CHANGE, ERASURE,MODIFICATION OR REVISION OF THIS PLAT AS APPROVED SHALL VOID THIS APPROVAL.

CHAIRMAN, PLANNING BOARD — DATE
TOWN OF HAVERSTRAW

1 IN. = 50 FT.



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BULK REQUIREMENTS: TOWN OF RAMAPO ①

	MU-2 - ZONE USER GROUP n	PROPOSED	DESCRIPTION	VARIANCE
MIN. LOT AREA:	10 ACRES	21.5853 Acs.		NO
MIN. STREET FRONTAGE:	600 FT.	2,030 FT.±	ROUTE 202 & PIP RAMP	NO
MIN. FRONT SETBACK	100 FT.	75 FT.	(PAD 'E')	YES *
MIN. SIDE SETBACK	80 FT.	1,190 FT.	(PAD 'F')	NO
MIN. TOTAL SIDE SETBACK	100 FT.	1,190 FT.	(PAD 'F')	NO
MIN. REAR SETBACK	50 FT.	2 FT.	(PAD 'E' & PAD 'F')	YES *
MIN. FRONT YARD	20 FT.	10 FT.		YES *
MIN. SIDE YARD	20 FT.	617 FT.	ADJACENT AREA TO WETLANDS	NO
MIN. REAR YARD	10 FT.	0 FT.	(PAD 'E' & PAD 'F')	YES *
MAX. BUILDING HEIGHT	45 FT.	30± FT.		NO
MAX. DEVELOPMENT COVERAGE	65%	15%		NO
MAX. FLOOR AREA RATIO	0.65	0.03		NO

1. CALCULATIONS DO NOT INCLUDE PHASE II.
2. CALCULATION ARE BASED ON CHAPTER 376, SECTION 66 (B), USE GROUP n
3. CALCULATIONS ARE BASED ON A CORNER LOT REQUIREMENT

* VARIANCES GRANTED BY THE TOWN OF RAMAPO ZONING BOARD OF APPEALS ON OCT. 25, 2012.

NOTE:

1. THIS IS SECTION 33.06 BLOCK 1 LOT 1 & 2, AS SHOWN ON THE TOWN OF RAMPAO TAX MAP.
2. AREA OF TRACT: 1158,055 SQ. FT. OR 26.5853 ACRES.
3. ZONE: MU-2
4. PROPOSED USE: LOCAL CONVENIENCE COMMERCIAL & RESIDENTIAL
5. RECORD OWNER: MT. IVY PARTNERS, LLC
   2050 CENTER AVENUE - SUITE 670
   FORT LEE, NEW JERSEY 07024
6. APPLICANT: MT. IVY PARTNERS, LLC
   2050 CENTER AVENUE - SUITE 670
   FORT LEE, NEW JERSEY 07024
7. FIRE DISTRICT: MONSEY FIRE DEPARTMENT
8. SCHOOL DISTRICT: EAST RAMAPO SCHOOL DISTRICT
9. WATER DISTRICT: NR 1
10. WATER SUPPLY BY: UNITED WATER
11. SEWER DISTRICT: ROCKLAND COUNTY SEWER DISTRICT No.1 AND JOINT REGIONAL SEWER BOARD
12. DATUM: U.S.G.S.
13. ALL UTILITIES ARE EXISTING. IN ROUTE 202
14. THERE ARE COVENANTS, DEED RESTRICTIONS, EASEMENTS AND OTHER RESERVATIONS OF LAND RELATIVE TO THIS SITE.
15. NO SIGN(S) OTHER THAN THOSE SHOWN ON THIS DRAWING ARE PERMITTED WITHOUT PRIOR APPROVAL OF THE PLANNING BOARD (TENANTS ARE TO BE ADVISED OF THIS CONDITION).
16. PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY, AN AS-BUILT LANDSCAPING DRAWING SHALL BE SUBMITTED TO THE BUILDING INSPECTOR, PLANNING BOARD AND DEPARTMENT OF PUBLIC WORKS WHICH IS CERTIFIED BY A LANDSCAPE ARCHITECT LICENSED TO PRACTICE IN THE STATE OF NEW YORK. SAID CERTIFIED LANDSCAPING DRAWING SHALL INDICATE HE DEGREE OF COMPLETION OF SAID LANDSCAPING IMPROVEMENTS IN ACCORDANCE WITH THE APPROVED SITE PLAN.
17. PLANS ARE BASED ON FIELD ENGINEERING DATA AND CERTIFIED HERETO:

    LICENSED PROFESSIONAL ENGINEER / LAND SURVEYOR DATE
18. ATTACHED HERETO ARE ARCHITECTURAL PLANS PREPARED BY:
    g k + a ARCHITECTS,PC 12-28-11
19. THE UNDERSIGNED, OWNER AND/OR APPLICANT, AS A CONDITION OF APPROVAL OF THIS SITE PLAN, HEREBY AGREES TO COMPLETE THE WITHIN DEVELOPMENT SITE PLAN DRAWN AND ALL IMPROVEMENTS SHOWN THEREON, AS A CONDITION OF THE ISSUANCE OF A BUILDING PERMIT. THE APPLICANT / OWNER IS AWARE THAT NO CHANGE OF THIS PLAN MAY BE MADE UNLESS APPROVED BY THE PLANNING BOARD.

    APPLICANT DATE

    OWNER DATE
20. ALL PYLON SIGN LOCATIONS INDICATED ON PLANS ARE FOR ILLUSTRATIVE PURPOSES ONLY. FINAL APPROVAL FOR ALL PYLON SIGNS SHALL BE PROVIDED THRU A SEPARATE APPLICATION.
21. ANY BUILDING MOUNTED FIXUTRES WHICH ARE NOT LED SHALL BE FULLY SHIELDED TO MINIMIZE GLARE AND LIGHT POLLUTION.
22. THIS PLAT DOES NOT CONFLICT WITH THE COUNTY OFFICIAL MAP, AND HAS BEEN APPROVED IN THE MANNER SPECIFIED IN SECTION 239 L & M OF THE GENERAL MUNICIPAL LAW.
23. ROCKLAND COUNTY DEPARTMENT OF HEALTH(RCDOH) APPROVAL IS LIMITED TO 5 YEARS AND SHALL EXPIRE 5 YEARS FROM THE DATE OF THE FILING OF THE PLAT IN THE TOWN OF RAMAPO CLERK'S OFFICE. TIME EXTENSIONS MAY BE GRANTED BY THE RCDOH BASED UPON DEVELOPMENT FACTS AND THE SITE PLAN REGULATIONS IN EFFECT AT THAT TIME. A NEW PLAN SUBMISSION MAY BE REQUIRED TO OBTAIN A TIME EXTENSION.
24. "AS-BUILT" DRAWINGS OF THE SANITARY SEWER ARE TO BE SUBMITTED TO THE ROCKLAND COUNTY HEALTH DEPARTMENT
25. SANITARY SEWER AND WATER SERVICE LINE SHALL BE LAID IN SEPARATE TRENCHES, WITH A MINIMUM HORIZONTAL SEPARATION OF 10 FEET.
26. FOR DETAILS OF WATER AND SANITARY SEWER FACILITIES, REFER TO ADDITIONAL PLANS ON FILE WITH THE ROCKLAND COUNTY DEPARTMENT OF HEALTH.
27. SANITARY SEWER INFILTRATION AND EXFILTRATION LIMIT IS 25 GALLONS PER INCH DIAMETER PER MILE PER DAY. CERTIFICATES OF OCCUPANCY MAY NOT BE REQUESTED NOR ANY OCCUPANCY PERMITTED UNTIL A CERTIFICATE OF COMPLIANCE, CERTIFIED BY A LICENSED NEW YORK STATE PROFESSIONAL ENGINEER IS SUBMITTED AND APPROVED AND COPIES OF THIS CERTIFICATE SHOULD ALSO BE SENT TO THE ROCKLAND COUNTY DEPARTMENT OF HEALTH AND TO THE ROCKLAND COUNTY SEWER DISTRICT No. 1 AND JOINT REGIONAL SEWERAGE BOARD.
28. AT LEAST ONE (1) WEEK PRIOR TO THE COMMENCEMENT OF ANY WORK INCLUDING THE INSTALLATION OF EROSION CONTROL DEVICES OR REMOVAL OF TREES AND VEGETATION, A PRE CONSTRUCTION MEETING MUST BE HELD WITH THE TOWN OF RAMAPO BUILDING DEPARTMENT, SUPERINTENDENT OF HIGHWAYS AND ENGINEER. IT IS THE RESPONSIBILITY OF THE PROPERTY OWNER TO ARRANGE SUCH A MEETING.
29. THE COUNTY OF ROCKLAND OFFICE OF FIRE AND EMERGENCY SERVICES RECOMMEND A GENERATOR FOR EMERGENCY INDEPENDENT POWER FOR FUEL DISPENSING AND FOOD MARKETS DURING LONG TERM PERIODS WITHOUT POWER.
30. SEE TOWN OF HAVERSTRAW GENERAL NOTES.
31. ALL WALLS OVER 4 FT MUST BE DESIGNED, CERTIFIED AND INSPECTED BY THE CONTRACTOR / OWNERS / ENGINEER.
32. ALL DELIVERIES TO PAD "F" SHALL OFF PEAK HOURS OF 11 AM TO 6 PM.

50 0 25 50
1 IN.= 50 FT.

TAX MAP REFERENCE:

TOWN OF RAMAPO TAX MAP
SECTION 33.06, BLOCK 2, PARCELS 1 & 2

OWNER AND APPLICANT:

MT. IVY PARTNERS, LLC
2050 CENTER AVENUE - SUITE 670
FORT LEE, NEW JERSEY 07024

REVISION	DATE	DESCRIPTION
12	10-24-17	PAD "C" REVISED ALL MAPS, UPDATE CONTACT PEOPLE
11	9-13-17	PER COURT ORDER DWG. 1-7
10	8-21-15	REVISION PER NEW USER PAD "C"
9	3-11-15	PER RCDA COMMENTS 10-3-14
8	6-27-14	PER RCDA COMMENTS 9-17-13
7	3-10-14	PER MASER COMMENTS ON R.O.W.
6	6-12-13	REVISION PER RCDA COMMENTS 8-29-12, P1-P6 & P-9 WATER MAIN DETAILS
5	11-28-12	VARIANCES GRANTED DATE, NOTE 8 ON SHT. 3 & 4, NOTE 23 ON SHT. 3 & 5, ROAD IMPROVEMENT AT ACCESS TO P.I.P, LIGHT QTY., LANDSCAPING LEGEND
4	9-27-12	SIGNATURE BOXES, GENERAL NOTES, MINOR LANDSAPING AND LIGHTING REVISION, NEW DRAWINGS 33-37 & P-9
3	6-18-12	PROFILES, RETENTION DETAILS, VARIANCES
2	5-15-12	MAJOR REDESIGN ITEMS: RELOCATION OF EMERGENCY ACCESS, ADDITIONAL RETENTION PONDS, ADDITIONAL EMERGENCY ACCESS BETWEEN PADS D & E, PHASE II DEPICTED, 20 FT. LANDSCAPE BUFFER ALONG THE EAST BOUNDARY
1	1-13-12	FIRST SUBMISSION DRAWINGS 1-23

APPROVED BY PLANNING BOARD
TOWN OF RAMAPO

AS _____

ON _____

SIGNED BY: _____

DIRECTOR OF PUBLIC WORKS

CHAIRMAN

DIRECTOR OF BUILDING
PLANNING & ZONING

THE EDUCATION LAW OF THE STATE OF NEW YORK PROHIBITS ANY ALTERATION TO THIS SURVEY MAP, THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATIONS, UNLESS IT IS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR. IF ANY ALTERATIONS ARE MADE, THE PROFESSIONAL ENGINEER MUST SIGN, SEAL, DATE AND DESCRIBE THE FULL EXTENT OF THE ALTERATION ON THE DRAWINGS AND/OR IN THE SPECIFICATIONS. (NYS EDUCATION LAW SECTION 7209-2)

"UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW." "ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."
"CERTIFICATION INDICATED HEREON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS. SAID CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED INDIVIDUALS AND/OR INSTITUTIONS FOR WHOM THE SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS."

RYAN A. NASHER, P.E.
N.Y.S. P.E. LIC. NO. 89066

JOHN R. ATZL
N.Y.S. P.L.S. LIC. NO. 50228

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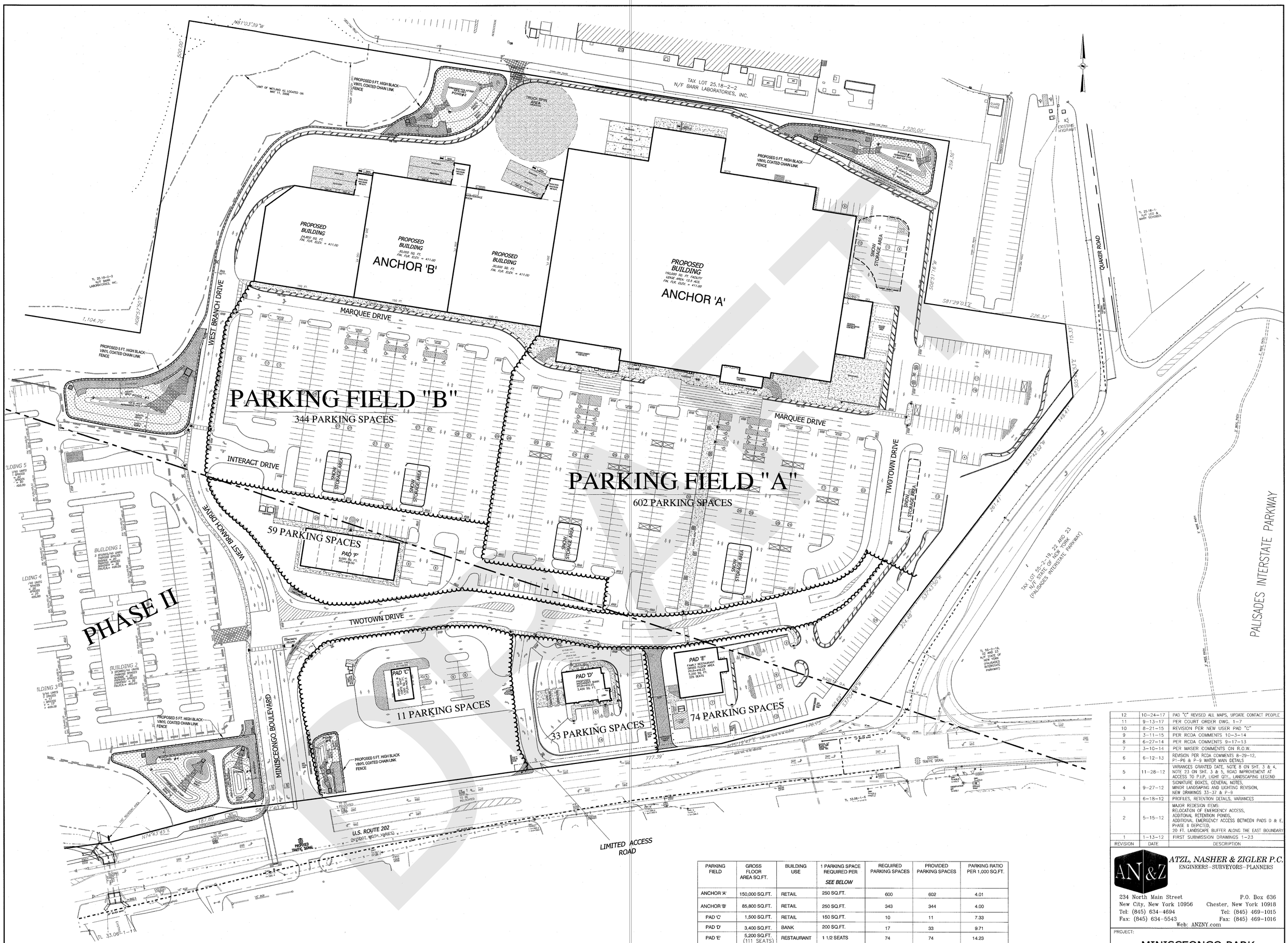
P.O. Box 636, Chester, New York 10918, Tel: (845) 469-1015, Fax: (845) 469-1016
Web: ANZNY.com

PROJECT:
MINISCEONGO PARK
TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:
RAMAPO SITE PLAN

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 50 FT.
PROJECT NO: 1560	DRAWING NO: 5



PARKING FIELD	GROSS FLOOR AREA SQ.FT.	BUILDING USE	1 PARKING SPACE REQUIRED PER *SEE BELOW*	REQUIRED PARKING SPACES	PROVIDED PARKING SPACES	PARKING RATIO PER 1,000 SQ.FT.
ANCHOR 'A'	150,000 SQ.FT.	RETAIL	250 SQ.FT.	600	602	4.01
ANCHOR 'B'	85,800 SQ.FT.	RETAIL	250 SQ.FT.	343	344	4.00
PAD 'C'	1,500 SQ.FT.	RETAIL	150 SQ.FT.	10	11	7.33
PAD 'D'	3,400 SQ.FT.	BANK	200 SQ.FT.	17	33	9.71
PAD 'E'	5,200 SQ.FT. (111 SEATS)	RESTAURANT	1 1/2 SEATS	74	74	14.23
PAD 'F'	4,500 SQ.FT. 4,500 SQ.FT.	RETAIL OFFICE	150 SQ.FT. 200 SQ.FT.	$\frac{30}{23}$ =53	59	6.56

TOTAL SITE PARKING SPACES-1,123

TOWN OF HAVERSTRAW
LOCAL LAW NO. 6, 2012 REQUIRES 1 PARKING SPACE PER 250 SQ.FT. OF GROSS LEASABLE AREA. THE TABLE ABOVE DEPICTS THE ENTIRE BUILDING, THIS EQUATES TO MAXIMUM PARKING SPACES REQUIRED.

60 30 0 30 60
1 IN.= 60 FT.

REVISION	DATE	DESCRIPTION
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1	1-13-12	FIRST SUBMISSION DRAWINGS 1-23

RYAN A. NASHER, P.E.
N.Y.S.P.E. LIC. No. 83066

JOHN R. ATZL
N.Y.S. L.L.S. LIC. NO. 50228

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Chester, New York 10918
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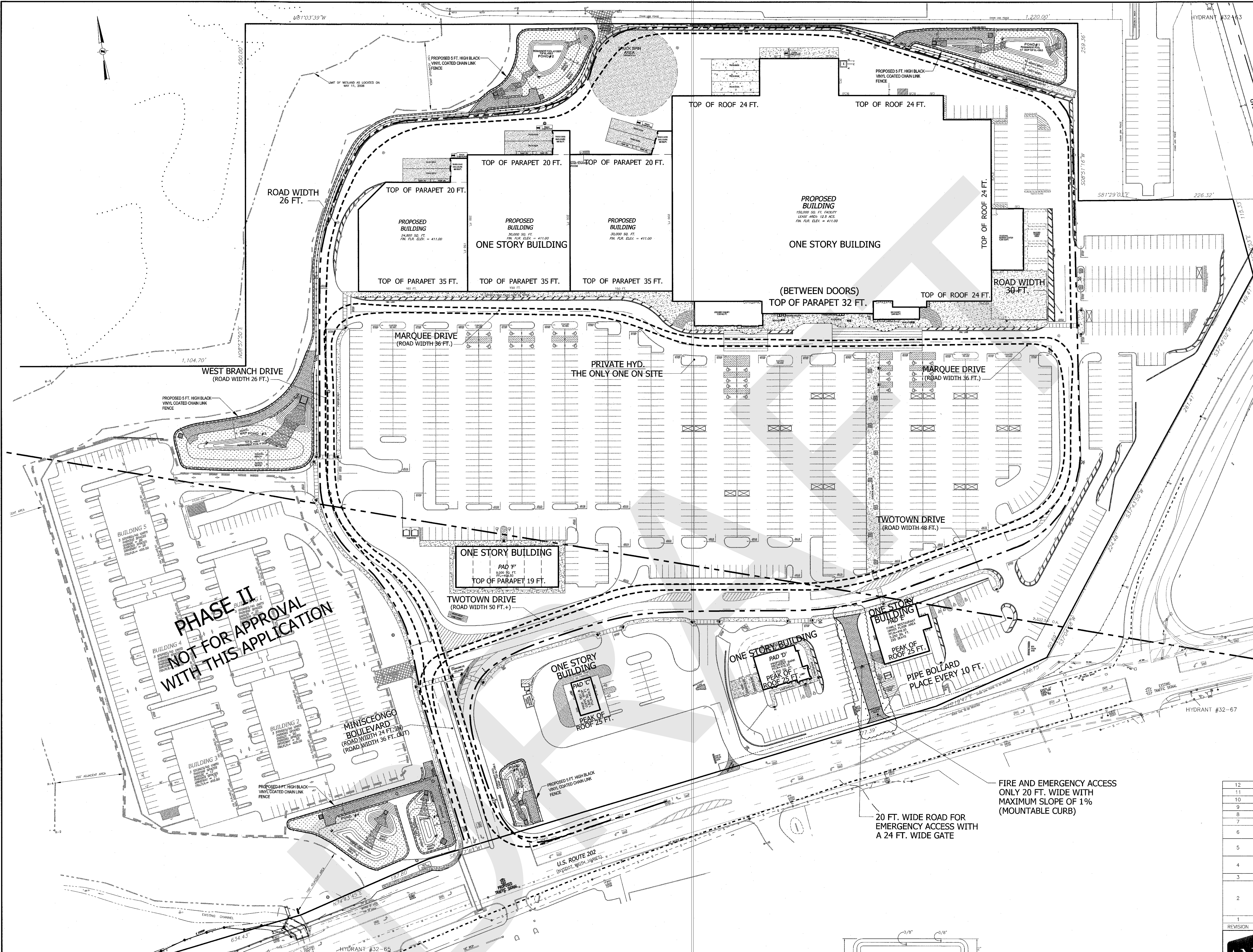
Web: ANZNY.com

PROJECT:
MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:
DELINEATION OF PARKING SPACES & SERVICE AREA

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 60 FT.
PROJECT NO: 1560	DRAWING NO: 6



HYDRANT FLOW TEST

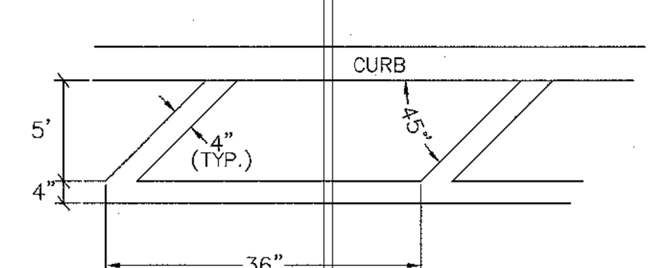
DATE TESTED	4-3-2012
FLOW HYDRANT:	#32-63
CONTROL HYDRANT	#32-67
GAUGE PRESSURE (PSI)	83
STATIC PRESSURE (PSI)	144
RESIDUAL PRESSURE (PSI)	129
FLOW DISCHARGE (GPM)	2552.01
AVAILABLE FIRE FLOW (GPM) @ 20 PSI	7984.39
REFERENCE CSB#	140070

HYDRANT FLOW TEST

DATE TESTED	4-3-2012
FLOW HYDRANT:	#32-67
CONTROL HYDRANT	#32-67
GAUGE PRESSURE (PSI)	80
STATIC PRESSURE (PSI)	138
RESIDUAL PRESSURE (PSI)	126
FLOW DISCHARGE (GPM)	2505.47
AVAILABLE FIRE FLOW (GPM) @ 20 PSI	8608.90
REFERENCE CSB#	140020

HYDRANT FLOW TEST

DATE TESTED	4-3-2012
FLOW HYDRANT:	#32-64
CONTROL HYDRANT	#32-65
GAUGE PRESSURE (PSI)	85
STATIC PRESSURE (PSI)	161
RESIDUAL PRESSURE (PSI)	149
FLOW DISCHARGE (GPM)	2582.58
AVAILABLE FIRE FLOW (GPM) @ 20 PSI	9769.54
REFERENCE CSB#	140019



PAINT STRIPES WITH BRIGHT YELLOW EXTERIOR GRADE ROADWAY PAINT

FIRE LANE STRIPING DETAIL
N.T.S.

TRUCK TURNING RADIUS

WB-67 TRACTOR TRAILER

PUMPER TRUCK 2

LETTERING AND BORDER RED
BACKGROUND WHITE

SIGN FOR FIRE LANES
N.T.S.
PLACED EVERY 50 FT. ALONG THE FIRE LANE PERPENDICULAR TO CURB

REVISION	DATE	DESCRIPTION
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1	1-13-12	FIRST SUBMISSION DRAWINGS 1-23

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ENGINEERS-SURVEYORS-PLANNERS

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PROJECT:

MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

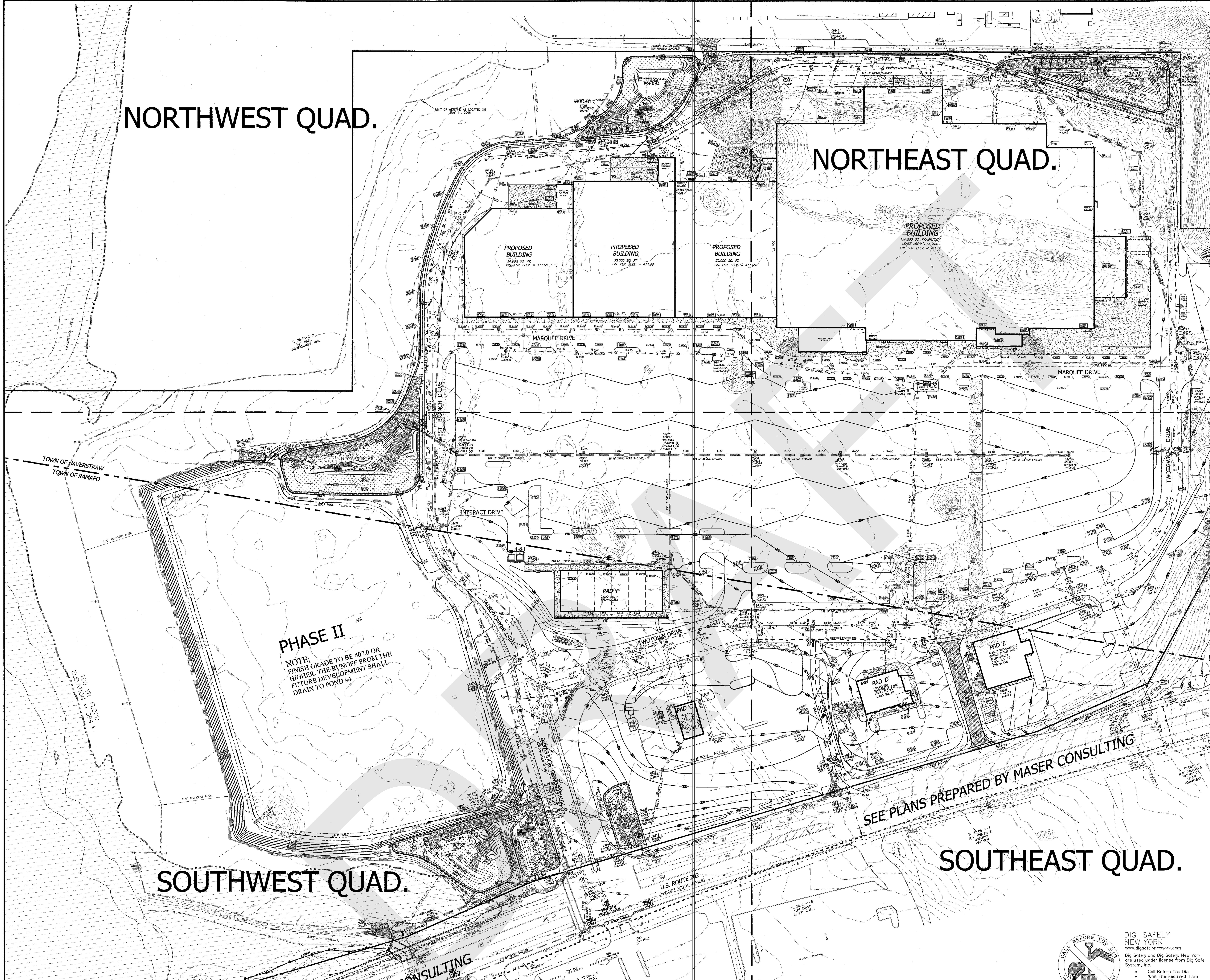
TITLE:

FIRE APPARATUS ACCESS AND SIGNAGE

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 60 FT.
PROJECT NO: 1560	DRAWING NO: 7

RYAN A. NASHER, P.E. N.Y.S.P.E. LIC. No. 89066

JOHN R. ATZL N.Y.S. P.L.S. LIC. NO. 50228



BORING AND DEEP TEST HOLES SUMMARY TABLE:

TEST LOCATION ID	SURFACE EL	TEST HOLE DEPTH	G.W. EL BY WHITESTONE	G.W. EL BY ASZ. P.C.
B-10 (@ POND#1)	±403.7	6.5 FT.	±397.2	±397.0
B-3 (@ POND#2)	±404.2	7.0 FT.	±397.2	±397.0
B-6 (@ POND#3)	±405.0	8.0 FT.	±397.0	±396.5
B-9 (@ POND#4,#5,#6)	±401.6	12.0 FT.	±389.6	±390.0

100 YEAR FLOODPLAIN LEGEND

FLOODPLAIN AREA
LIMIT OF 100 YEAR FLOODPLAIN

LEGEND

EXISTING 2' CONTOUR
EXISTING 10' CONTOUR
EXISTING TOWN LINE
EXISTING WATERLINE
EXISTING FIRE HYDRANT
EXISTING GAS LINE
CB EXISTING CATCH BASIN
CBG EXISTING CATCH BASIN GRATE
DMH EXISTING DRAINAGE MANHOLE
EXISTING STORM DRAIN LINE
SMH EXISTING SEWER MANHOLE
EXISTING SEWER LINE
+ 360.0 EXISTING SPOT ELEVATION
UP EXISTING UTILITY POLE
LP EXISTING LIGHT POLE
SP EXISTING SUPPORT POLE
SC-P EXISTING SURCHARGE PLATES
WV EXISTING WATER VALVE
GV EXISTING GAS VALVE

PROPOSED 2' CONTOUR
PROPOSED 10' CONTOUR
PROPOSED WATERLINE
PROPOSED FIRE HYDRANT
PROPOSED GAS SERVICE
CBG PROPOSED CATCH BASIN
DMH PROPOSED DRAINAGE MANHOLE
PROPOSED STORM DRAIN LINE
SMH PROPOSED SEWER MANHOLE
PROPOSED SEWER LINE
PROPOSED FOOTING DRAIN
PROPOSED FIRE SERVICE
PROPOSED DOMESTIC SERVICE
PROPOSED SEWER SERVICE
TC 416.00 G 415.50 PROPOSED SPOT ELEVATION
DC PROPOSED DROP CURB
WV PROPOSED WATER VALVE
B-9 DENOTES BORING LOCATION

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SCALE: 1 IN.= 30 FT.

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RYAN A. NASHER, P.E.
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AN&Z
ATZL, NASHER & ZIGLER P.C.
ENGINEERS-SURVEYORS-PLANNERS

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PROJECT:

MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

OVERALL GRADING PLAN

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 60 FT.
PROJECT NO: 1560	DRAWING NO: 8

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- Respect The Marks
- Dig With Care

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LEGEND

- EXISTING 2' CONTOUR
- EXISTING 10' CONTOUR
- EXISTING TOWN LINE
- EXISTING WATERLINE
- EXISTING FIRE HYDRANT
- EXISTING GAS LINE
- CB EXISTING CATCH BASIN
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- EXISTING STORM DRAIN LINE
- SMH EXISTING SEWER MANHOLE
- EXISTING SEWER LINE
- 360.0 EXISTING SPOT ELEVATION
- UP EXISTING UTILITY POLE
- LP EXISTING LIGHT POLE
- SP EXISTING SUPPORT POLE
- SC-P EXISTING SURCHARGE PLATES
- WV EXISTING WATER VALVE
- GV EXISTING GAS VALVE
- PROPOSED 2' CONTOUR
- PROPOSED 10' CONTOUR
- PROPOSED WATERLINE
- PROPOSED FIRE HYDRANT
- PROPOSED GAS SERVICE
- PROPOSED CATCH BASIN
- PROPOSED DRAINAGE MANHOLE
- PROPOSED STORM DRAIN LINE
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER LINE
- PROPOSED FOOTING DRAIN
- PROPOSED FIRE SERVICE
- PROPOSED DOMESTIC SERVICE
- PROPOSED SEWER SERVICE
- TC 416.50 G 415.50 PROPOSED SPOT ELEVATION
- DC PROPOSED DROP CURB
- WV PROPOSED WATER VALVE

30 0 15 30
SCALE: 1 IN. = 30 FT.

REVISION	DATE	DESCRIPTION
12	10-24-17	PAD "C" REVISED ALL MAPS, UPDATE CONTACT PEOPLE
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PROJECT:

MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

SITE GRADING PLAN
NORTHWEST QUAD

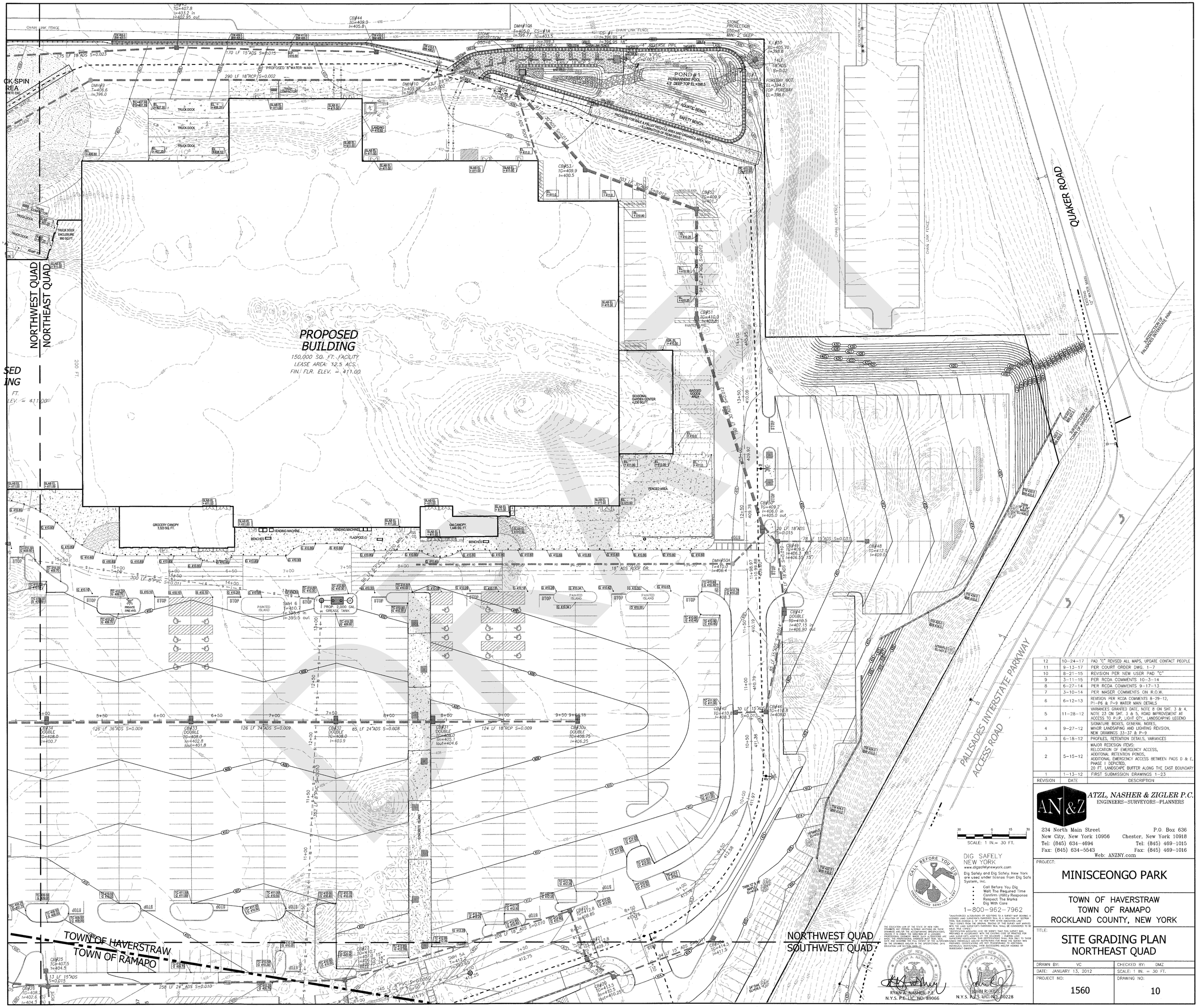
DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN: = 30 FT.
PROJECT NO: 1560	DRAWING NO: 9

"THE EDUCATION LAW OF THE STATE OF NEW YORK PROHIBITS ANY PERSON ALTERING ANYTHING ON THESE DRAWINGS OR ACCOMPANYING SPECIFICATIONS, INCLUDING THE ADDING OF ANY ADDENDUM BY ANY PROFESSIONAL ENGINEER, WHERE SUCH ALTERATIONS ARE MADE, THE PROFESSIONAL ENGINEER MUST SIGN, SEAL, AND CERTIFY THE EXACT EXTENT OF THE ALTERATION ON THE DRAWINGS AND/OR IN THE SPECIFICATIONS. SAID EDUCATION LAW SECTION 7209-2."

"UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW." "THE CERTIFICATIONS HEREON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE DELAWARE - HUDSON LAND SURVEYORS ASSOCIATION. SAID CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED INDIVIDUALS AND/OR ENTITIES AND NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS OF SUBSEQUENT OWNERS."

RYAN A. NASHER, P.E.
N.Y.S. P.E. LIC. NO. 89066

JOHN R. ATZL
N.Y.S. L.S. LIC. NO. 50228



REVISION	DATE	DESCRIPTION
12	10-24-17	PAD "C" REVISED ALL MAPS, UPDATE CONTACT PEOPLE
11	9-13-17	PER COURT ORDER DWG. 1-7
10	8-21-15	REVISION PER NEW USER PAD "C"
9	3-11-15	PER RCDA COMMENTS 10-3-14
8	6-27-14	PER RCDA COMMENTS 9-17-13
7	3-10-14	PER MASER COMMENTS ON R.O.W.
6	6-12-13	REVISION PER RCDA COMMENTS 8-29-12, P1-P6 & P-9 WATER MAIN DETAILS
5	11-28-12	VARIANCES GRANTED DATE, NOTE 8 ON SHT. 3 & 4, NOTE 23 ON SHT. 3 & 5, ROAD IMPROVEMENT AT ACCESS TO P.I.P, LIGHT QTY., LANDSCAPING LEGEND
4	9-27-12	SIGNATURE BOXES, GENERAL NOTES, MINOR LANDSAPING AND LIGHTING REVISION, NEW DRAWINGS 33-37 & P-9
3	6-18-12	PROFILES, RETENTION DETAILS, VARIANCES
2	5-15-12	MAJOR REDESIGN ITEMS: RELOCATION OF EMERGENCY ACCESS, ADDITONAL RETENTION PONDS, ADDITIONAL EMERGENCY ACCESS BETWEEN PADS D & E, PHASE I DEPICTED, 20 FT. LANDSCAPE BUFFER ALONG THE EAST BOUNDARY
1	1-13-12	FIRST SUBMISSION DRAWINGS 1-23

ATZL, NASHER & ZIGLER P.C.
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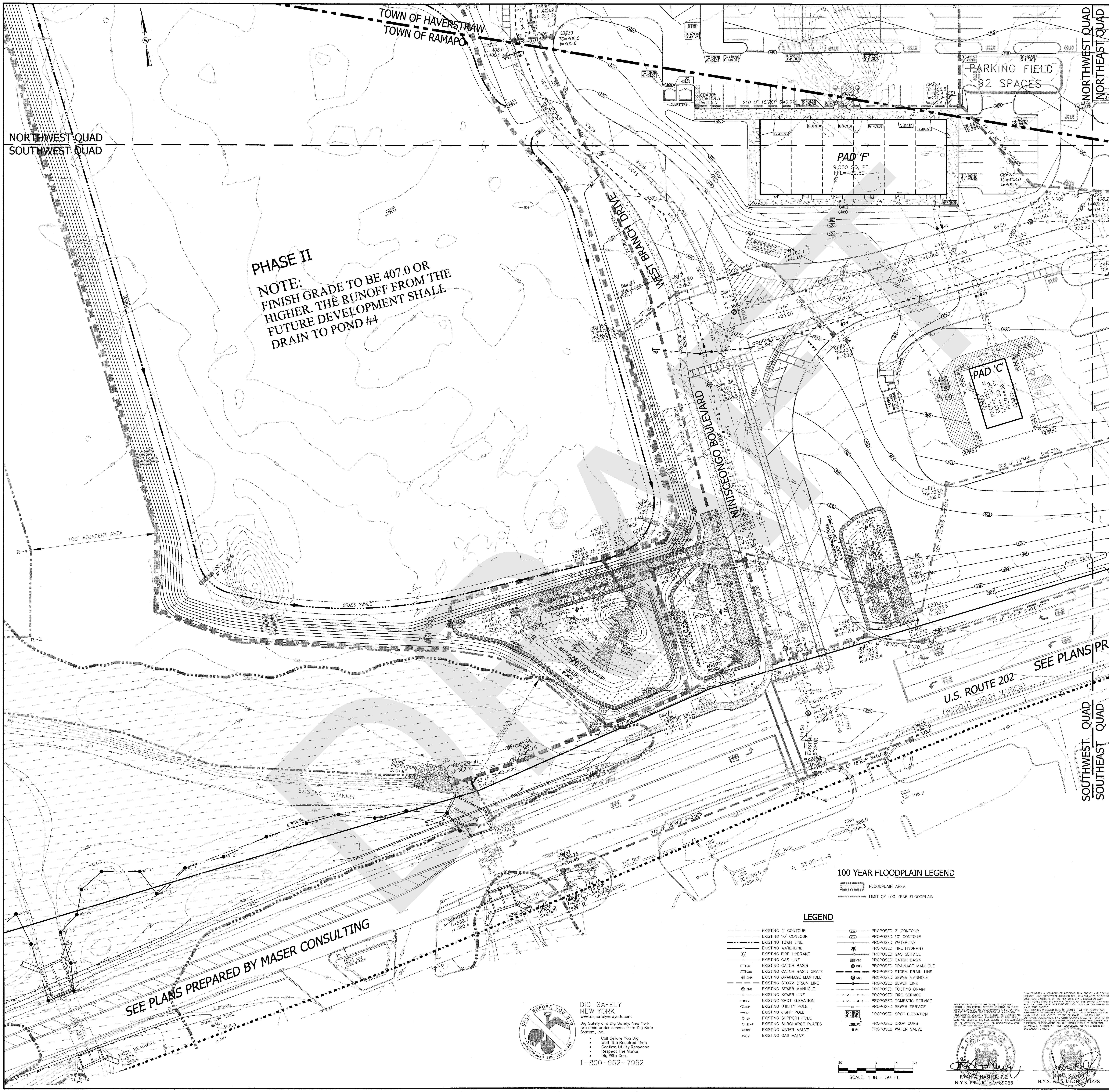
PROJECT:
MINISCEONGO PARK
TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:
SITE GRADING PLAN
NORTHEAST QUAD

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 30 FT.
PROJECT NO: 1560	DRAWING NO: 10

RYAN A. NASHER, P.E.
N.Y.S. P.E. LIC. NO. 89066

JOHN R. ZIGLER
N.Y.S. P.L.S. LIC. NO. 50228



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1	1-13-12	FIRST SUBMISSION DRAWINGS 1-23

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Web: ANZNY.com

PROJECT:

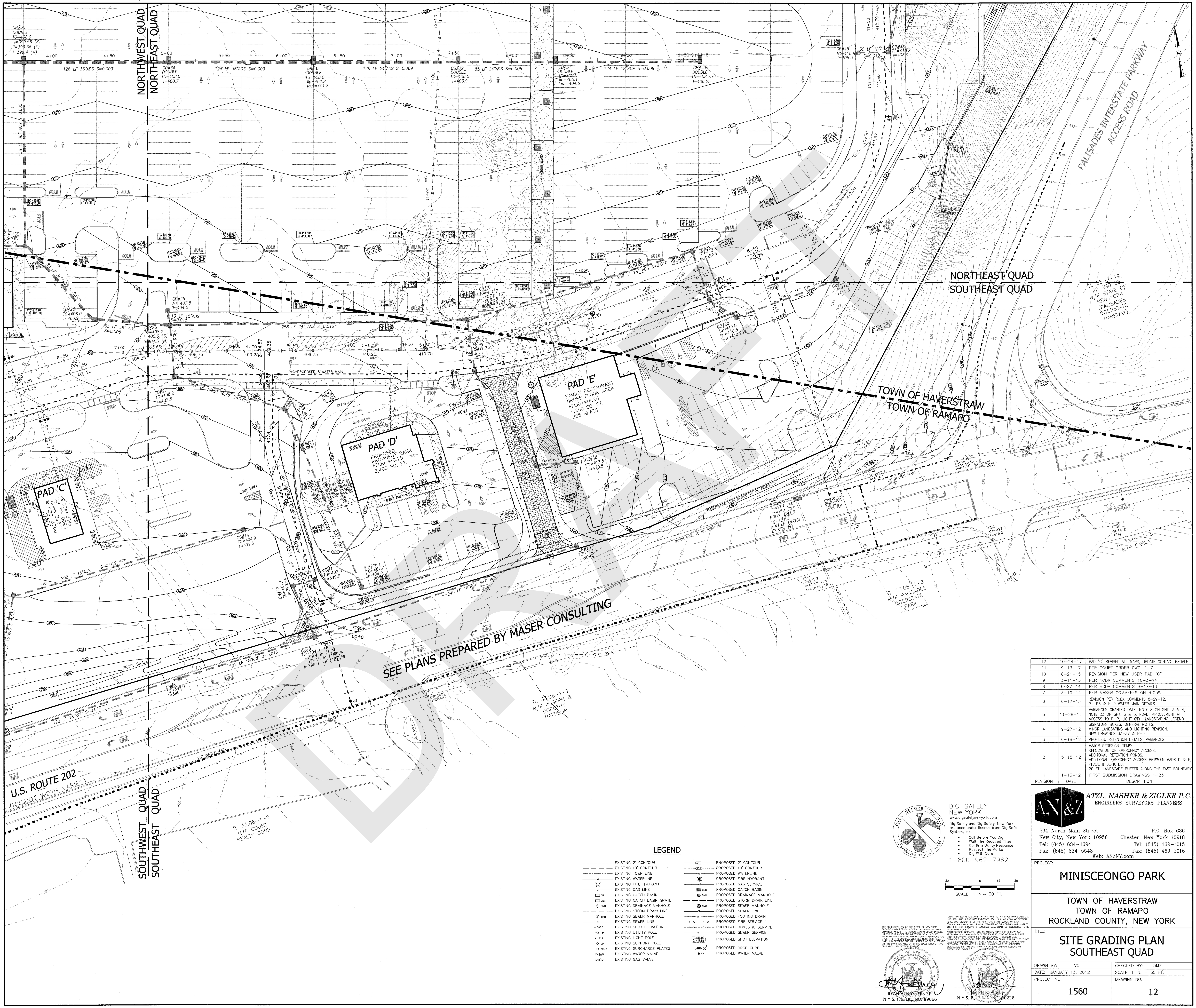
MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

SITE GRADING PLAN SOUTHWEST QUAD

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 30 FT.
PROJECT NO: 1560	DRAWING NO: 11



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PROJECT:

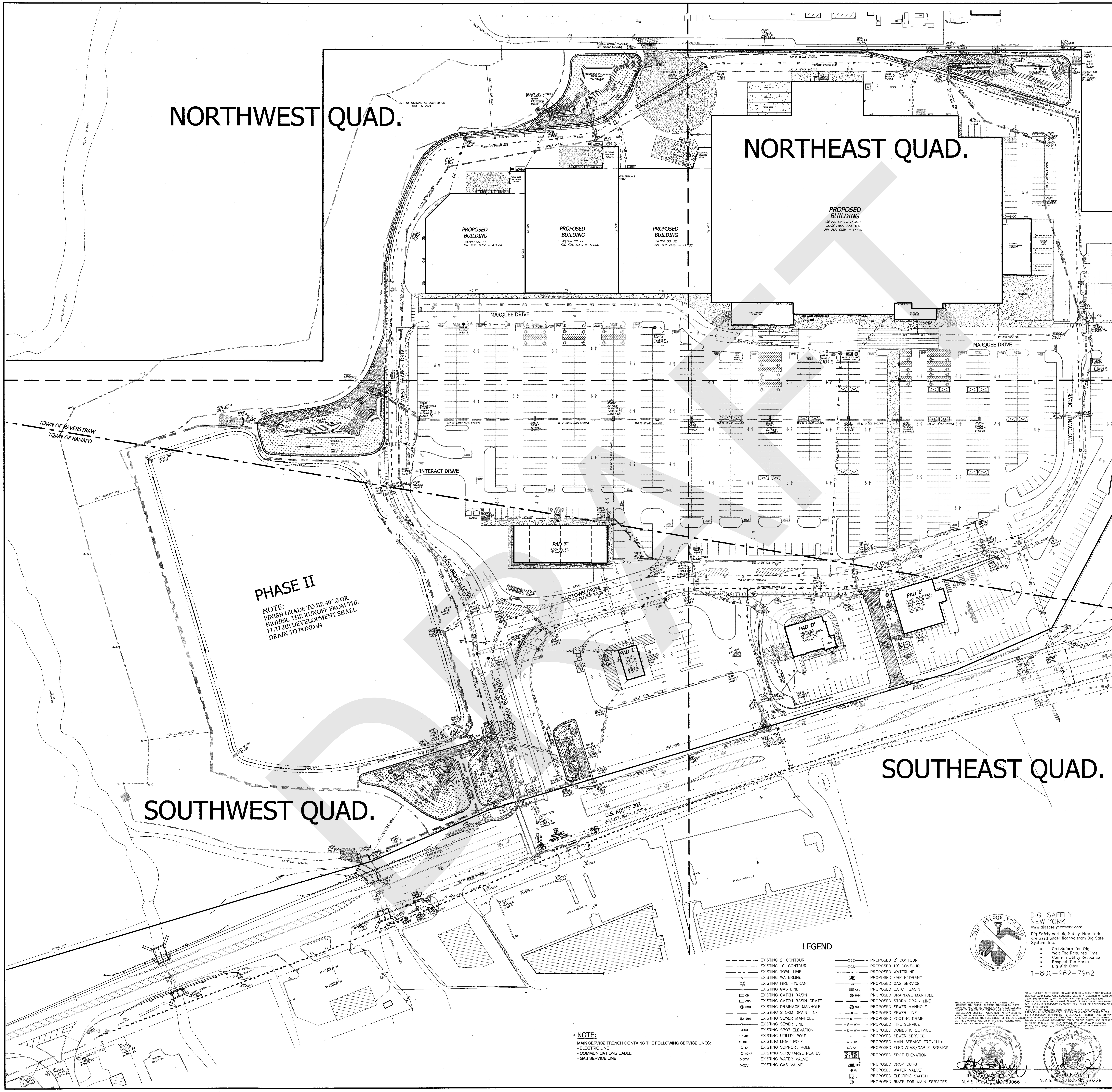
MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

SITE GRADING PLAN SOUTHEAST QUAD

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 30 FT.
PROJECT NO: 1560	DRAWING NO: 12



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PROJECT:

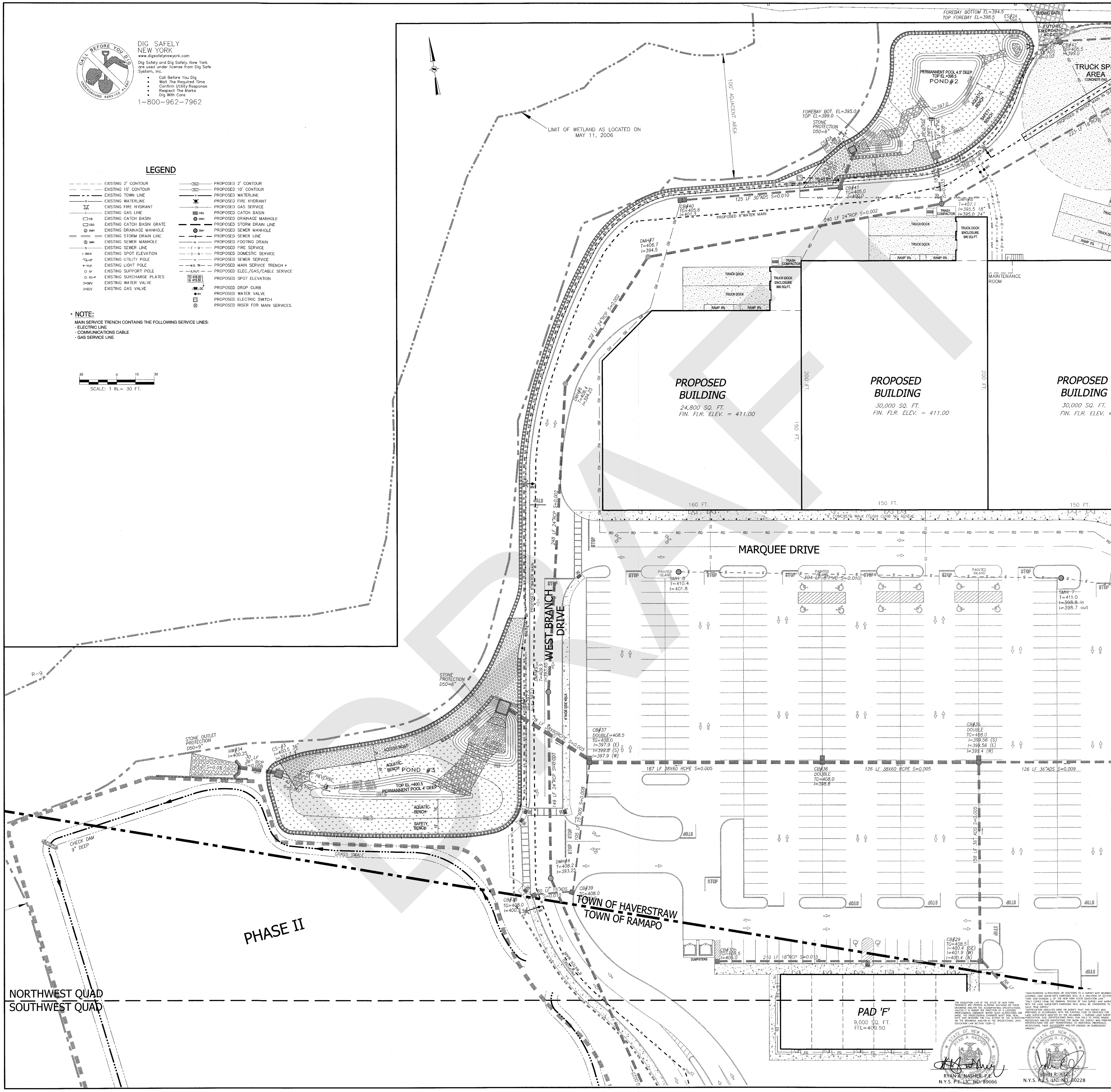
MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

OVERALL UTILITY PLAN

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 60 FT.
PROJECT NO: 1560	DRAWING NO: 13



REVISION	DATE	DESCRIPTION
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PROJECT:

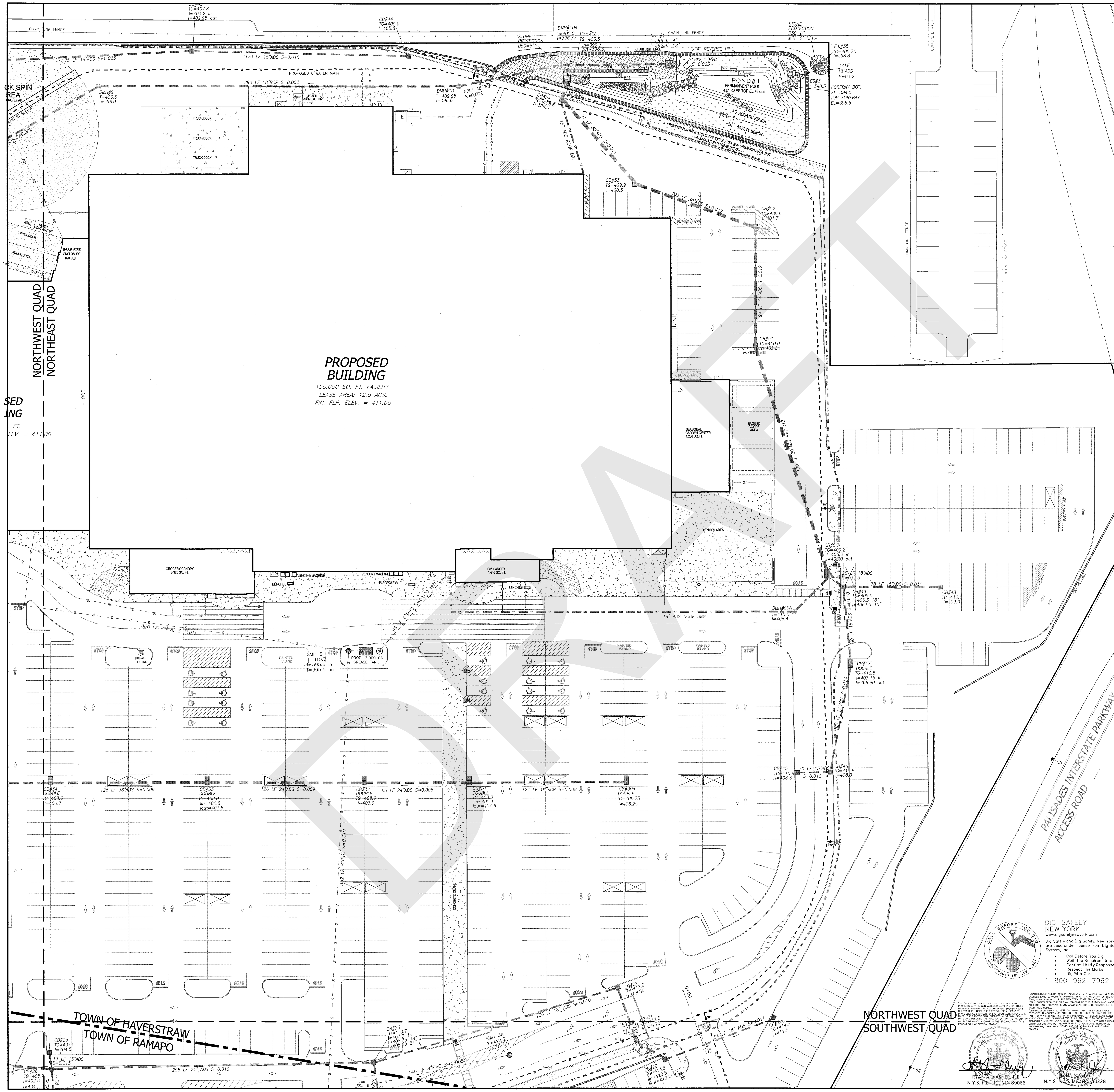
MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

SITE UTILITY PLAN NORTHWEST QUAD

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 30 FT.
PROJECT NO: 1560	DRAWING NO: 14



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PROJECT:

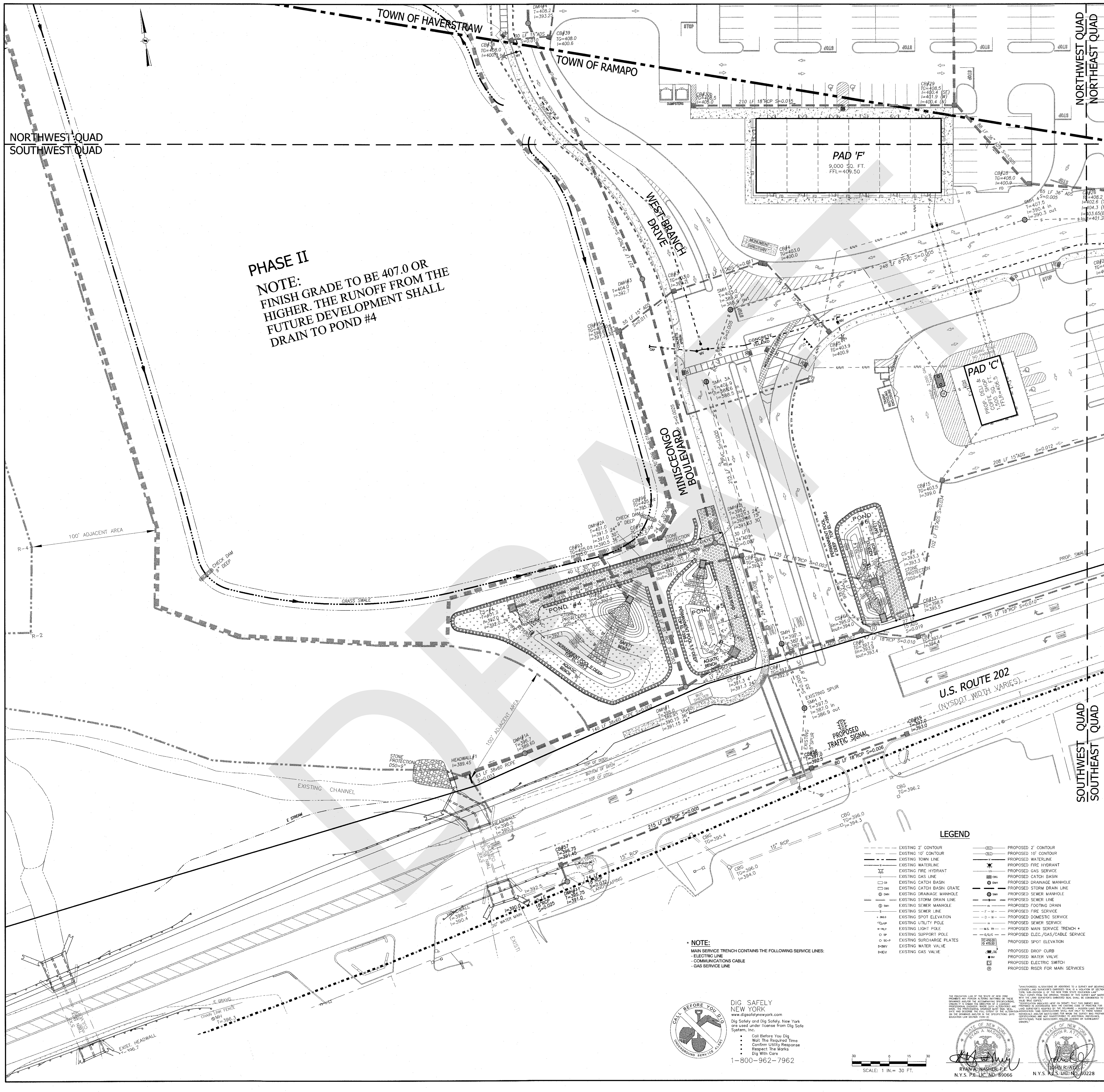
MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

SITE UTILITY PLAN
NORTHEAST QUAD

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 30 FT.
PROJECT NO: 1560	DRAWING NO: 15



LEGEND

EXISTING 2' CONTOUR	PROPOSED 2' CONTOUR
EXISTING 10' CONTOUR	PROPOSED 10' CONTOUR
EXISTING TOWN LINE	PROPOSED WATERLINE
EXISTING WATERLINE	PROPOSED FIRE HYDRANT
EXISTING FIRE HYDRANT	PROPOSED GAS SERVICE
EXISTING GAS LINE	CBG PROPOSED CATCH BASIN
CB EXISTING CATCH BASIN	DMH PROPOSED DRAINAGE MANHOLE
CBG EXISTING CATCH BASIN GRATE	PROPOSED STORM DRAIN LINE
DMH EXISTING DRAINAGE MANHOLE	SMH PROPOSED SEWER MANHOLE
EXISTING STORM DRAIN LINE	PROPOSED SEWER LINE
SMH EXISTING SEWER MANHOLE	PROPOSED FOOTING DRAIN
EXISTING SEWER LINE	PROPOSED FIRE SERVICE
+ 360.0 EXISTING SPOT ELEVATION	PROPOSED DOMESTIC SERVICE
UP EXISTING UTILITY POLE	PROPOSED SEWER SERVICE
LP EXISTING LIGHT POLE	M.S. TR PROPOSED MAIN SERVICE TRENCH *
SP EXISTING SUPPORT POLE	E/G/C PROPOSED ELEC./GAS/CABLE SERVICE
SC-P EXISTING SURCHARGE PLATES	TC 416.00 G 415.50 PROPOSED SPOT ELEVATION
WV EXISTING WATER VALVE	DC PROPOSED DROP CURB
GV EXISTING GAS VALVE	WV PROPOSED WATER VALVE
	ES PROPOSED ELECTRIC SWITCH
	Ⓡ PROPOSED RISER FOR MAIN SERVICES

* **NOTE:**

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- COMMUNICATIONS CABLE
- GAS SERVICE LINE

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"ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."
"CERTIFICATION INDICATED HERE ON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYOR'S ADOPTED BY THE DELAWARE - HUDSON LAND SURVEYORS ASSOCIATION. SAID CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED INDIVIDUALS AND/OR INSTITUTIONS FOR WHOM THE SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS."

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PROJECT:

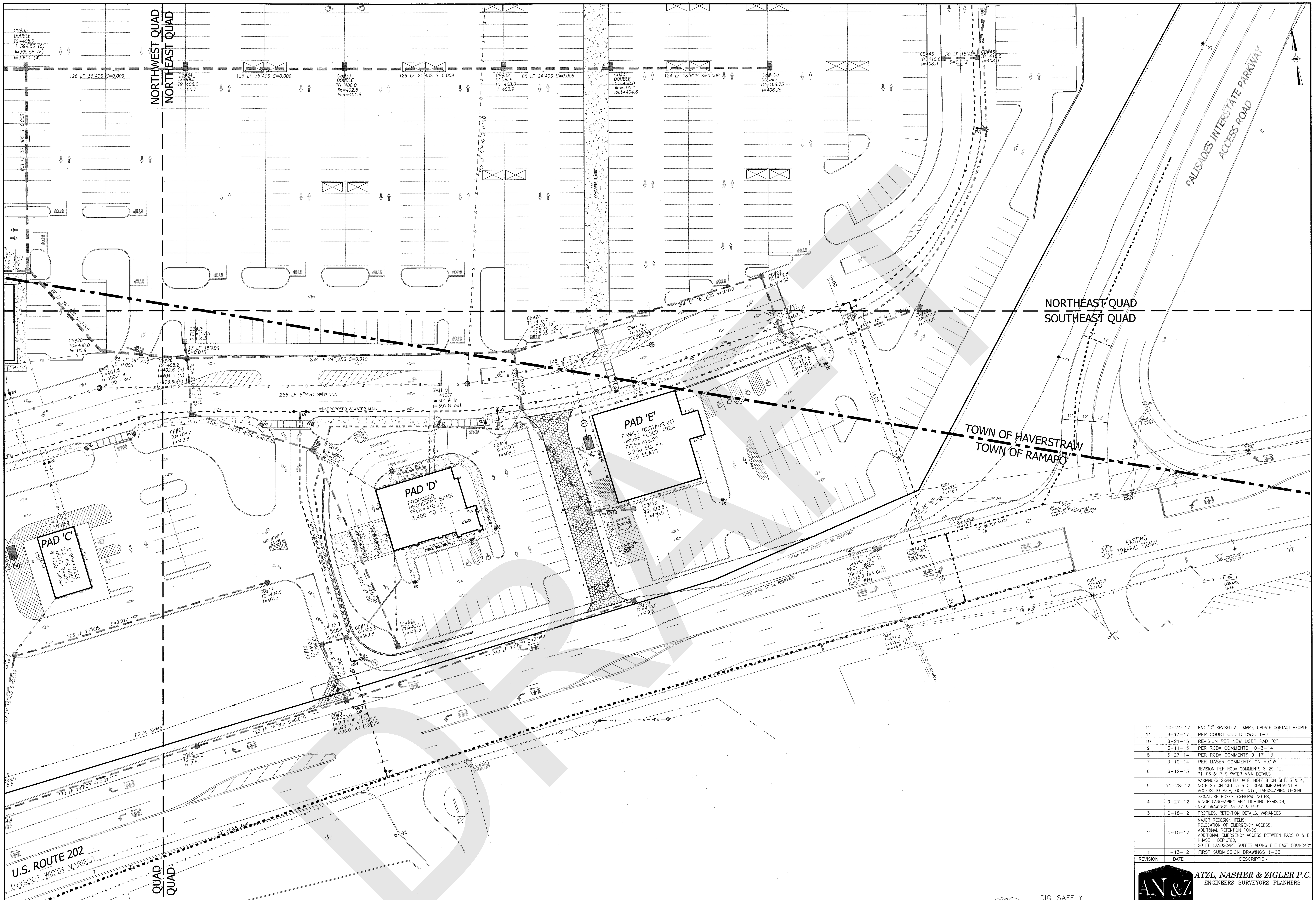
MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

SITE UTILITY PLAN SOUTHWEST QUAD

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 30 FT.
PROJECT NO: 1560	DRAWING NO: 16



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LEGEND

EXISTING 2' CONTOUR
EXISTING 10' CONTOUR
EXISTING TOWN LINE
EXISTING WATERLINE
EXISTING FIRE HYDRANT
EXISTING GAS LINE
EXISTING CATCH BASIN
EXISTING CATCH BASIN GRATE
EXISTING DRAINAGE MANHOLE
EXISTING STORM DRAIN LINE
EXISTING SEWER MANHOLE
EXISTING SEWER LINE
EXISTING SPOT ELEVATION
EXISTING UTILITY POLE
EXISTING LIGHT POLE
EXISTING SUPPORT POLE
EXISTING SURCHARGE PLATES
EXISTING WATER VALVE
EXISTING GAS VALVE

PROPOSED 2' CONTOUR
PROPOSED 10' CONTOUR
PROPOSED WATERLINE
PROPOSED FIRE HYDRANT
PROPOSED GAS SERVICE
PROPOSED CATCH BASIN
PROPOSED DRAINAGE MANHOLE
PROPOSED STORM DRAIN LINE
PROPOSED SEWER MANHOLE
PROPOSED SEWER LINE
PROPOSED FOOTING DRAIN
PROPOSED FIRE SERVICE
PROPOSED DOMESTIC SERVICE
PROPOSED SEWER SERVICE
PROPOSED MAIN SERVICE TRENCH *
PROPOSED ELEC./GAS/CABLE SERVICE
PROPOSED SPOT ELEVATION
PROPOSED DROP CURB
PROPOSED WATER VALVE
PROPOSED ELECTRIC SWITCH
PROPOSED RISER FOR MAIN SERVICES

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- GAS SERVICE LINE

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SCALE: 1 IN.= 30 FT.

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N.Y.S. P.E. LIC NO. 89066

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Web: ANZNY.com

PROJECT:

MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

SITE UTILITY PLAN SOUTHEAST QUAD

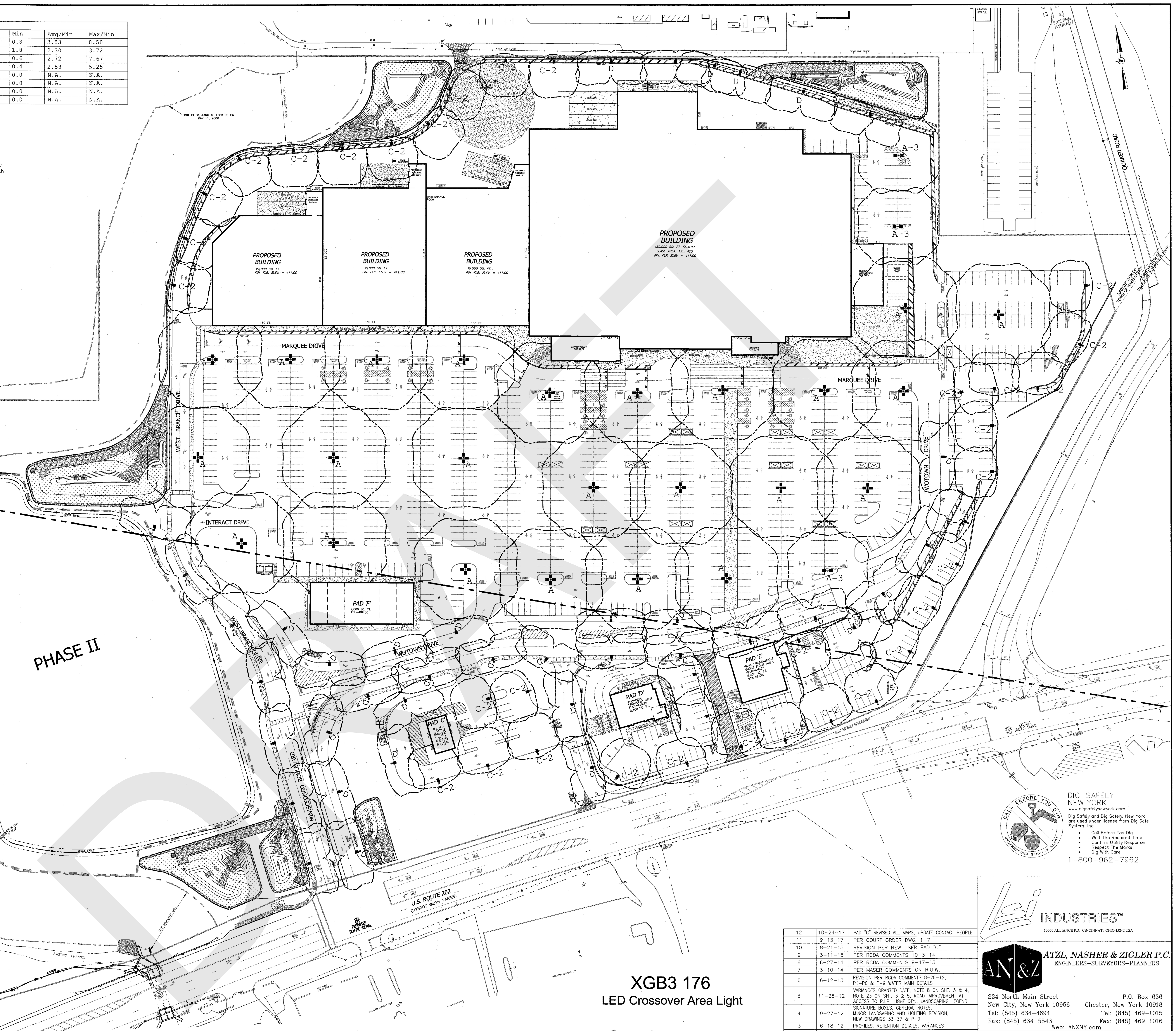
DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 30 FT.
PROJECT NO: 1560	DRAWING NO: 17

LEGEND

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
01_Wal-Mart Main Parking	Illuminance	Fc	2.82	6.8	0.8	3.53	8.50
02_Wal-Mart Front Aisle	Illuminance	Fc	4.14	6.7	1.8	2.30	3.72
03_Wal-Mart Vert Main In	Illuminance	Fc	1.63	4.6	0.6	2.72	7.67
04_Wal-Mart Vert Main Out	Illuminance	Fc	1.01	2.1	0.4	2.53	5.25
05_Spill Prop Line North	Illuminance	Fc	0.14	1.9	0.0	N.A.	N.A.
06_Spill Prop Line East	Illuminance	Fc	0.18	0.6	0.0	N.A.	N.A.
07_Spill Prop Line South	Illuminance	Fc	0.13	0.6	0.0	N.A.	N.A.
08_Spill Prop Line West	Illuminance	Fc	0.00	0.0	0.0	N.A.	N.A.

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine applicability of the layout to existing or future field conditions.

This lighting pattern represents illumination levels calculated from laboratory data taken under controlled conditions utilizing current industry standard lamp ratings in accordance with Illuminating Engineering Society approved methods. Actual performance of any manufacturer's luminaire may vary due to variation in electrical voltage, tolerance in lamps and other variable field conditions. Calculations do not include obstructions such as buildings, curbs, landscaping, or any other architectural elements unless noted.



DIG SAFELY NEW YORK
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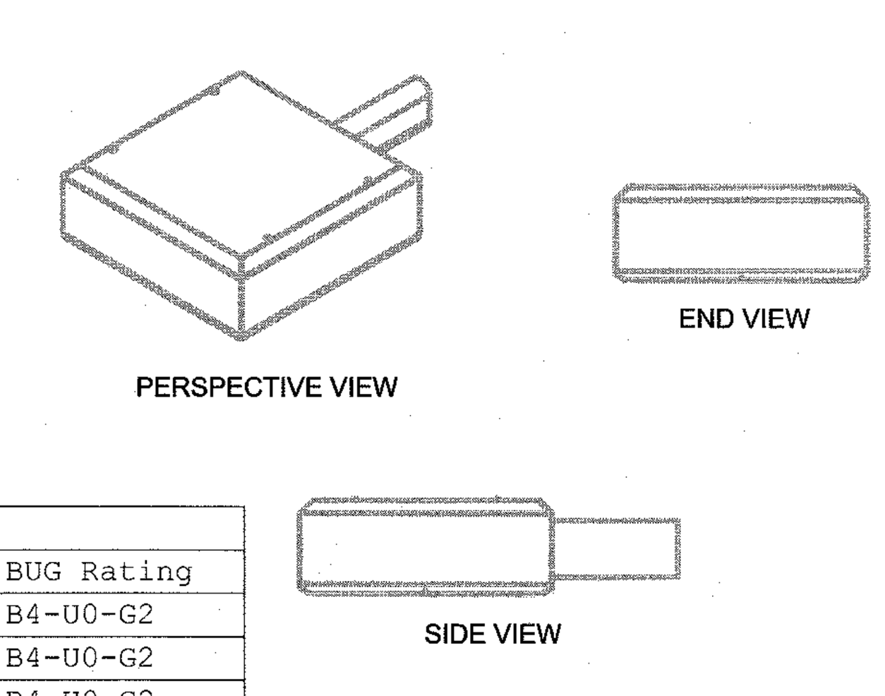
1-800-962-7962

XGB3 176
LED Crossover Area Light



Crossover SOLID-STATE LIGHTING

Based on the information provided, all dimensions and luminaire locations shown represent recommended positions. The engineer and/or architect must determine applicability of the layout to existing or future field conditions.

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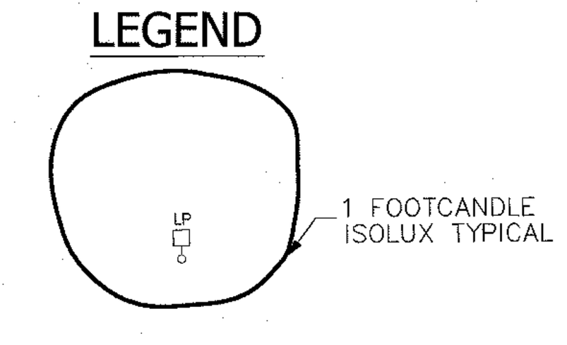
Total Project Watts_1
Total Watts = 40128

LEGEND



LEGEND

Luminaire Schedule												
Symbol	Qty	Label	Arrangement	Description	LLD	LDD	LLF	Lumens/Lamp	Lum. Watts	Arr. Watts	Arr. Lum. Lumens	BUG Rating
	24	A	4 @ 90 DEGREES	(4) XGB3-5-LED-176-450-CW-UE-480 - 32.5' Pole + 2.5' Base	0.850	0.900	0.765	N.A.	264	1056	80092	B4-U0-G2
	0	A-2	3 @ 90 DEGREES	(3) XGB3-5-LED-176-450-CW-UE-480 - 32.5' Pole + 2.5' Base	0.850	0.900	0.765	N.A.	264	792	60069	B4-U0-G2
	3	A-3	D180	(2) XGB3-5-LED-176-450-CW-UE-480 - 32.5' Pole + 2.5' Base	0.850	0.900	0.765	N.A.	264	528	40046	B4-U0-G2
	2	C	SINGLE	(1) XGB3-FT-LED-176-450-CW-UE-480 - 22.5' Pole + 2.5' Base	0.850	0.900	0.765	N.A.	264	264	21615	B2-U0-G3
	34	C-2	SINGLE	(1) XGB3-FT-LED-176-450-CW-UE-480-HSS - 22.5' Pole + 2.5' Base	0.850	0.900	0.765	N.A.	264	264	16103	B1-U0-G3
	38	D	SINGLE	(1) XGB3-3-LED-176-450-CW-UE-480 - 22.5' Pole + 2.5' Base	0.850	0.900	0.765	N.A.	264	264	17639	B3-U0-G2

REVISION	DATE	DESCRIPTION
12	10-24-17	PAD "C" REVISED ALL MAPS, UPDATE CONTACT PEOPLE
11	9-13-17	PER COURT ORDER DWG. 1-7
10	8-21-15	REVISION PER NEW USER PAD "C"
9	3-11-15	PER RCDA COMMENTS 10-3-14
8	6-27-14	PER RCDA COMMENTS 9-17-13
7	3-10-14	PER MASER COMMENTS ON R.O.W.
6	6-12-13	REVISION PER RCDA COMMENTS 8-29-12, P1-P6 & P-9 WATER MAIN DETAILS
5	11-28-12	VARIANCES GRANTED DATE, NOTE 8 ON SHT. 3 & 4, NOTE 23 ON SHT. 3 & 5, ROAD IMPROVEMENT AT ACCESS TO P.I.P, LIGHT QTY., LANDSCAPING LEGEND
4	9-27-12	SIGNATURE BOXES, GENERAL NOTES, MINOR LANDSAPING AND LIGHTING REVISION, NEW DRAWINGS 33-37 & P-9
3	6-18-12	PROFILES, RETENTION DETAILS, VARIANCES
2	5-15-12	MAJOR REDESIGN ITEMS: RELOCATION OF EMERGENCY ACCESS, ADDITONAL RETENTION PONDS, ADDITIONAL EMERGENCY ACCESS BETWEEN PADS D & E, PHASE II DEPICTED, 20 FT. LANDSCAPE BUFFER ALONG THE EAST BOUNDARY
1	1-13-12	FIRST SUBMISSION DRAWINGS 1-23

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PROJECT:

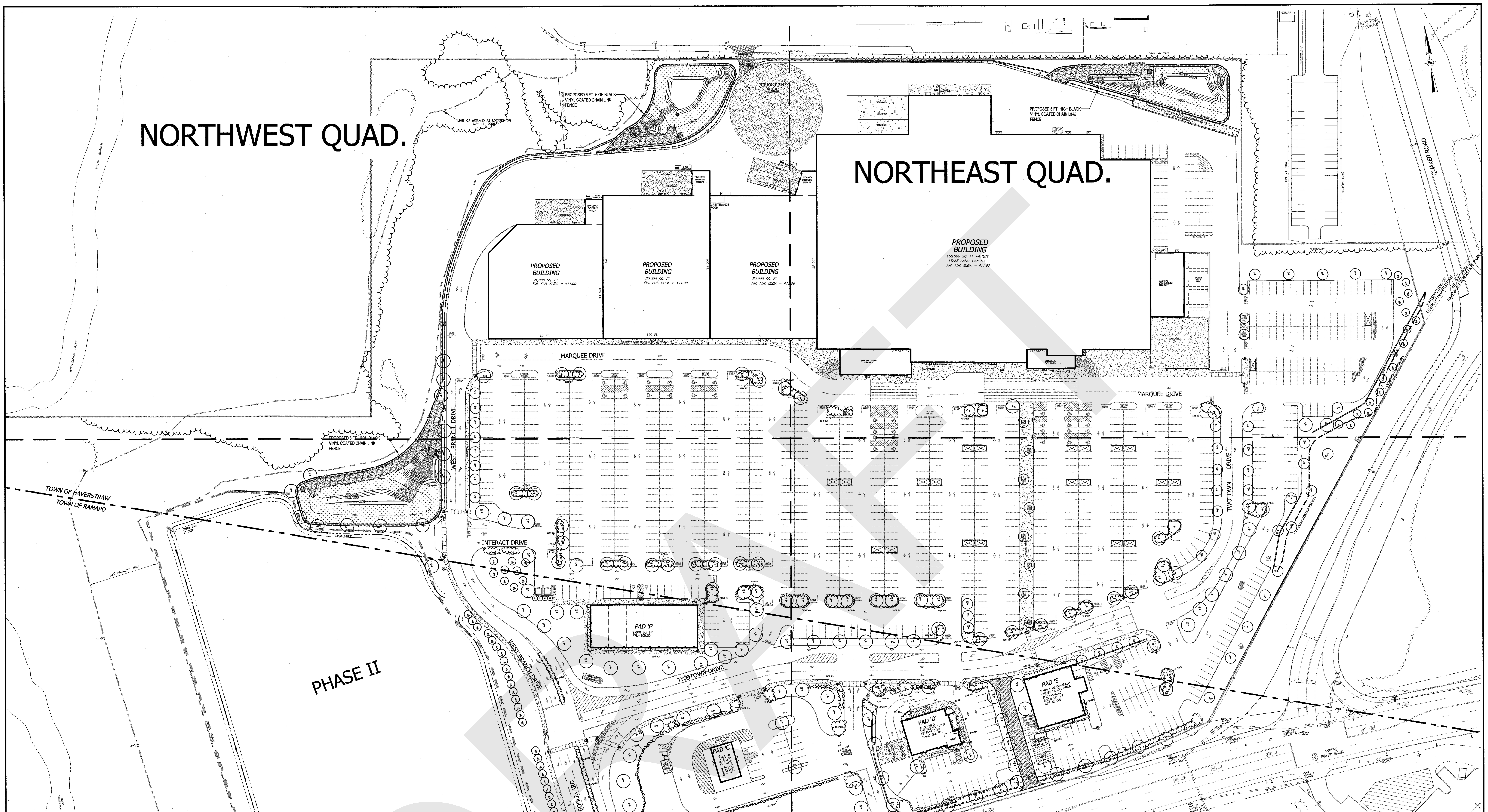
MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

OVERALL LIGHTING PLAN

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 60 FT.
PROJECT NO: 1560	DRAWING NO: 18



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1	1-13-12	FIRST SUBMISSION DRAWINGS 1-23

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PROJECT:

MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

OVERALL LANDSCAPING PLAN

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 60 FT.
PROJECT NO: 1560	DRAWING NO: 19

SIGN LIST

SYMBOL	CONTENT
1	STOP SIGN
2	YIELD SIGN
3	ENTRANCE SIGN
4	DO NOT ENTER
5	MONUMENT SIGN FOR PAD
6	MONUMENT SIGN FOR SITE
7	PYLON SIGN FOR SITE
8	KEEP RIGHT SIGN
9	STREET NAME SIGN
10	NO STANDING FIRE LANE
11	HANDICAP PARKING
12	RIGHT TURN ONLY
13	EXIT SIGN
14	FIRE LANE SIGN

PLANT LIST

No. & SYMBOL	PLANT NAME	QUANTITY	SIZE & REMARKS
1. SM	Acer saccharum Green Mountain Green Mountain Sugar Maple	17	2 1/2"-3"cal.B&B
2. RM	Acer rubrum Red Maple	37	2 1/2"-3"cal.B&B
3. HM	Acer campestre Hedge Maple	0	2 ½" - 3" cal., B&B
4. SG	Liquidambar styraciflua Sweet Gum	17	2 1/2"-3"cal.B&B
5. BG	Nyssa sylvatica Black Tupelo	14	2 1/2"-3"cal.B&B
6. PO	Quercus palustris Pin Oak	12	2 1/2"-3"cal.B&B
7. RO	Quercus rubra Northern Red Oak	26	2 1/2"-3"cal.B&B
8. PC	Pyrus calleryana Redspire Redspire Callery Pear	6	2 1/2"-3"cal.B&B
9. GL	Tilia cordata Greenspire Greenspire Linden	51	2 1/2"-3"cal.B&B
10. WP	Pinus strobus White Pine	25	7'-8' ht. B&B
11. NS	Picea abies Norway Spruce	22	10'-12' ht. B&B
12. OS	Picea pungens Colorado Spruce	4	7'-8' ht. B&B
13. Ar	Thuja occidentalis nigra Dark American Arborvitae	6	7'-8' ht. B&B
14. G	Thuja plicata Green Giant Arborvitae	46	7'-8' ht., B&B
15. AC	Amelanchier canadensis Shadblow serviceberry	6	8'-10'ht. B&B
16. BN	Betula nigra River Birch	2	10'-12'ht., B&B
17. EH	Carpinus betula fastigiata Pyramidal European Hornbeam	0	2"-2 ½" cal., B&B
18. OC	Cercis canadensis Redbud	5	2"-2 ½" cal., B&B
19. SD	Malus "Snowdrift" Snowdrift Crabapple	4	2"-2 ½" cal. B&B
20. SC	Malus Sentinel Sentinel Crabapple	15	2"-2 ½" cal. B&B
21. PC	Prunus v. Red Select Canada Red Select Cherry	16	2"-2 ½" cal. B&B
22. YC	Prunus yeodensis Yoshino Flowering Cherry	2	2"-2 ½" cal., B&B
23. PC	Pyrus calleryana "Cleveland Select" Cleveland Select Pear	12	2 1/2"-3"cal.B&B

No. & SYMBOL	PLANT NAME	QUANTITY	SIZE & REMARKS
24.	Buxus microphylla "Winter Gem" Winter Gem Boxwood	0	#3 cont., plant 24" o.c.
25.	Chamaecyparis pisifera threadleaf gold Gold Thread Cypress	62	#2 cont. plant 30" o.c.
26.	Cotoneaster dammeri Royal Beauty Royal Beauty Cotoneaster	190	15'-18'spr. B&B
27.	Cotoneaster salicifolia Willowleaf Cotoneaster	205	18"-24"ht. B&B
28.	Euonymus fortunei Greenlane Greenlane Euonymus	95	18"-24"ht. B&B
29.	Euonymus "Emerald Gold" Emerald Gold Euonymus	95	15"-18"ht. B&B
30.	Forsythia intermedia spectabilis Showy Border Forsythia	0	3'-4'ht. B&B
31.	Taxus media HATFIELD YEW Green Lustre Holly	445	36" HT.-PLANT 30" O.C.
32.	Ilex glabra compacta Inkberry Holly	0	18" - 24" ht., B&B
33.	Juniperus chinensis Seagreen Seagreen Juniper	265	2 1/2'-3'ht. B&B
34.	Juniperus ch. Pfitzeriana compacta Compact Pfitzers Juniper	190	2 1/2'-3'spr. B&B
35.	Juniperus sabina Broadmoor Broadmoor Juniper	115	15"-18"spr. B&B
36.	Ligustrum obtusifolium regelianum Regels Border Privet	115	2 1/2'-3'ht. B&B
37.	Potentilla fr. Goldfinger Goldfinger Cinquefoil	80	12"-18"ht. B&B
38.	Prunus laurocerasus "Otto Luyken" Cherry Laurel	45	24"-30" ht., B&B
39.	Spiraea bumalda Anthony Waterer Anthony Waterer Spiraea	50	18"-24" ht., #3 Cont.
40.	Thuja occidentalis woodwardi Globe Arborvitae	60	2'-2 1/2'ht. B&B
41.	Viburnum opulus nanum Dwarf European Cranberrybush	145	12"-15"ht. B&B
42.	Viburnum carlesi Fragrant Viburnum	55	3'-4' ht., B&B
43.	Weigela Vanicekii Vanicek Red Weigela	155	3'-4'ht. B&B

HEADLIGHT SCREENING DETAIL
N.T.S.

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PROJECT:
MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:
SITE LANDSCAPING PLAN
NORTHWEST QUAD

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 30 FT.
PROJECT NO: 1560	DRAWING NO: 20

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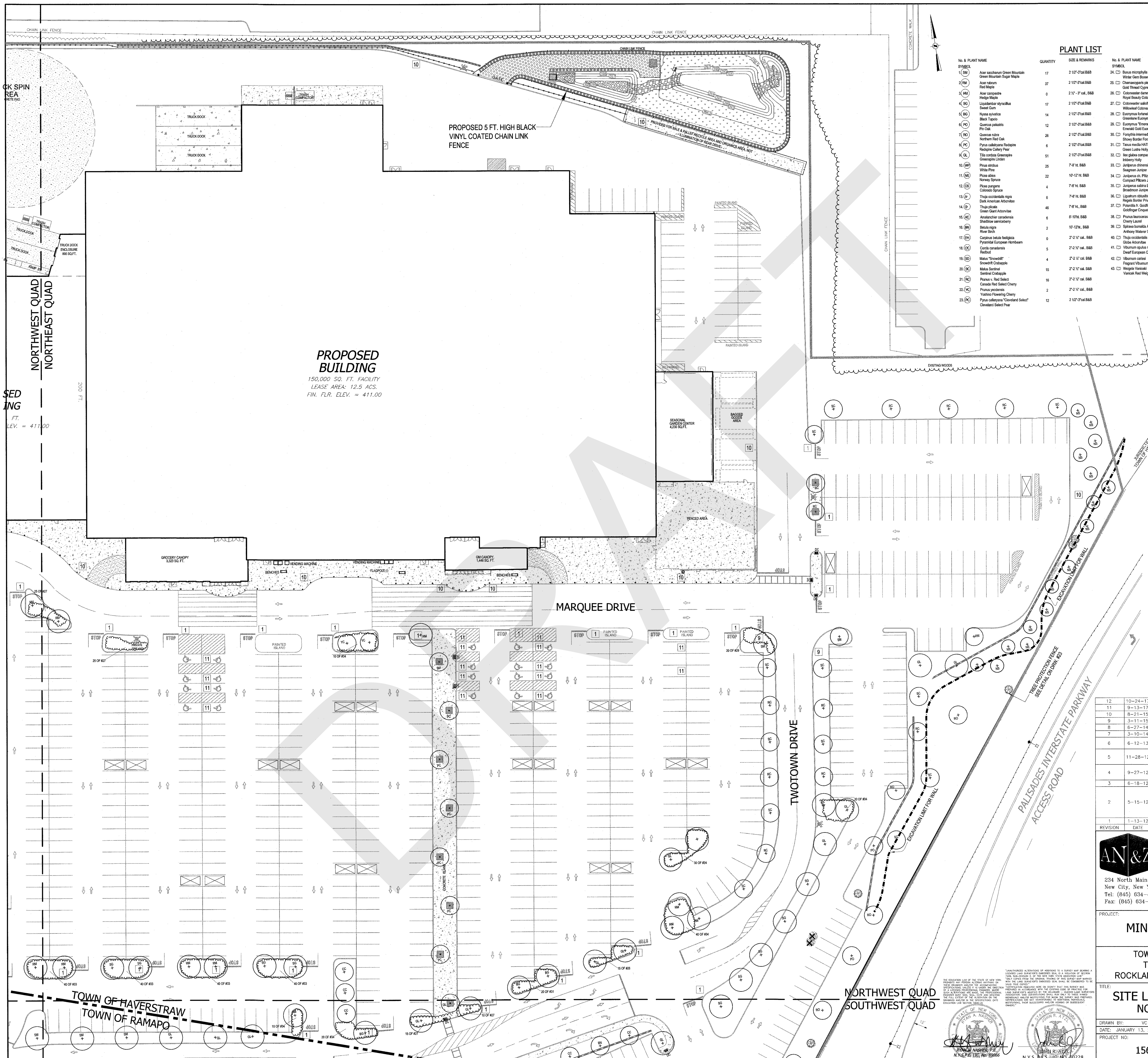

PLANT LIST

No. & SYMBOL	PLANT NAME	QUANTITY	SIZE & REMARKS
1. SM	Acer saccharum Green Mountain Green Mountain Sugar Maple	17	2 1/2"-3"cal.B&B
2. RM	Acer rubrum Red Maple	37	2 1/2"-3"cal.B&B
3. HM	Acer campestre Hedge Maple	0	2 ½" - 3" cal., B&B
4. SG	Liquidambar styraciflua Sweet Gum	17	2 1/2"-3"cal.B&B
5. BG	Nyssa sylvatica Black Tupelo	14	2 1/2"-3"cal.B&B
6. PO	Quercus palustris Pin Oak	12	2 1/2"-3"cal.B&B
7. RO	Quercus rubra Northern Red Oak	26	2 1/2"-3"cal.B&B
8. PC	Pyrus callelryana Redspire Redspire Callery Pear	6	2 1/2"-3"cal.B&B
9. GL	Tilia cordata Greenspire Greenspire Linden	51	2 1/2"-3"cal.B&B
10. WP	Pinus strobus White Pine	25	7'-8' ht. B&B
11. NS	Picea abies Norway Spruce	22	10'-12' ht. B&B
12. CS	Picea pungens Colorado Spruce	4	7'-8' ht. B&B
13. A+	Thuja occidentalis nigra Dark American Arborvitae	6	7'-8' ht. B&B
14. G	Thuja plicata Green Giant Arborvitae	46	7'-8' ht., B&B
15. AC	Amelanchier canadensis Shadblow serviceberry	6	8'-10'ht. B&B
16. BN	Betula nigra River Birch	2	10'-12'ht., B&B
17. EH	Carpinus betula fastigiata Pyramidal European Hornbeam	0	2"-2 ½" cal.. B&B
18. CC	Cercis canadensis Redbud	5	2"-2 ½" cal.. B&B
19. SD	Malus "Snowdrift" Snowdrift Crabapple	4	2"-2 ½" cal. B&B
20. SC	Malus Sentinel Sentinel Crabapple	15	2"-2 ½" cal. B&B
21. RC	Prunus v. Red Select Canada Red Select Cherry	16	2"-2 ½" cal. B&B
22. YC	Prunus yeodensis Yoshino Flowering Cherry	2	2"-2 ½" cal., B&B
23. PC	Pyrus calleryana "Cleveland Select" Cleveland Select Pear	12	2 1/2"-3"cal.B&B
24.	Buxus microphylla "Winter Gem" Winter Gem Boxwood	0	#3 cont., plant 24" o.c.
25.	Chamaecyparis pisifera threadleaf gold Gold Thread Cypress	62	#2 cont. plant 30" o.c.
26.	Cotoneaster dammeri Royal Beauty Royal Beauty Cotoneaster	190	15'-18'spr. B&B
27.	Cotoneaster salicifolia Willowleaf Cotoneaster	205	18"-24"ht. B&B
28.	Euonymus fortunei Greenlane Greenlane Euonymus	95	18"-24"ht. B&B
29.	Euonymus "Emerald Gold" Emerald Gold Euonymus	95	15"-18"ht. B&B
30.	Forsythia intermedia spectabilis Showy Border Forsythia	0	3'-4'ht. B&B
31.	Taxus meclia HATFIELD YEW Green Lustre Holly	445	36" HT.-PLANT 30" O.C.
32.	Ilex glabra compacta Inkberry Holly	0	18" - 24" ht., B&B
33.	Juniperus chinensis Seagreen Seagreen Juniper	265	2 1/2'-3'ht. B&B
34.	Juniperus ch. Pfitzeriana compacta Compact Pfitzers Juniper	190	2 1/2'-3'spr. B&B
35.	Juniperus sabina Broadmoor Broadmoor Juniper	115	15"-18"spr. B&B
36.	Ligustrum obtusifolium regelianum Regels Border Privet	115	2 1/2'-3'ht. B&B
37.	Potentilla fr. Goldfinger Goldfinger Cinquefoil	80	12"-18"ht. B&B
38.	Prunus laurocerasus "Otto Luyken" Cherry Laurel	45	24"-30" ht., B&B
39.	Spiraea bumalda Anthony Waterer Anthony Waterer Spiraea	50	18"-24" ht., #3 Cont.
40.	Thuja occidentalis woodwardi Globe Arborvitae	60	2'-2 1/2'ht. B&B
41.	Viburnum opulus nanum Dwarf European Cranberrybush	145	12"-15"ht. B&B
42.	Viburnum carlesi Fragrant Viburnum	55	3'-4' ht., B&B
43.	Weigela Vaniceki Vanicek Red Weigela	155	3'-4'ht. B&B

SIGN LIST

SYMBOL	CONTENT
1	STOP SIGN
2	YIELD SIGN
3	ENTRANCE SIGN
4	DO NOT ENTER
5	MONUMENT SIGN FOR PAD
6	MONUMENT SIGN FOR SITE
7	PYLON SIGN FOR SITE
8	KEEP RIGHT SIGN
9	STREET NAME SIGN
10	NO STANDING FIRE LANE
11	HANDICAP PARKING
12	RIGHT TURN ONLY
13	EXIT SIGN
14	FIRE LANE SIGN

TREE LEGEND

X DENOTES TREE TO BE REMOVED (188)

DENOTES TREE PROTECTION

REVISION	DATE	DESCRIPTION
12	10-24-17	PAD "C" REVISED ALL MAPS, UPDATE CONTACT PEOPLE
11	9-13-17	PER COURT ORDER DWG. 1-7
10	8-21-15	REVISION PER NEW USER PAD "C"
9	3-11-15	PER RCDA COMMENTS 10-3-14
8	6-27-14	PER RCDA COMMENTS 9-17-13
7	3-10-14	PER MASER COMMENTS ON R.O.W.
6	6-12-13	REVISION PER RCDA COMMENTS 8-29-12, P1-P6 & P-9 WATER MAIN DETAILS
5	11-28-12	VARIANCES GRANTED DATE, NOTE 8 ON SHT. 3 & 4, NOTE 23 ON SHT. 3 & 5, ROAD IMPROVEMENT AT ACCESS TO P.I.P, LIGHT QTY., LANDSCAPING LEGEND
4	9-27-12	SIGNATURE BOXES, GENERAL NOTES, MINOR LANDSAPING AND LIGHTING REVISION, NEW DRAWINGS 33-37 & P-9
3	6-18-12	PROFILES, RETENTION DETAILS, VARIANCES
2	5-15-12	MAJOR REDESIGN ITEMS: RELOCATION OF EMERGENCY ACCESS, ADDITONAL RETENTION PONDS, ADDITIONAL EMERGENCY ACCESS BETWEEN PADS D & E, PHASE II DEPICTED, 20 FT. LANDSCAPE BUFFER ALONG THE EAST BOUNDARY
1	1-13-12	FIRST SUBMISSION DRAWINGS 1-23

ATZL, NASHER & ZIGLER P.C.
ENGINEERS-SURVEYORS-PLANNERS

234 North Main Street
New City, New York 10956
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Chester, New York 10918
Tel: (845) 469-1015
Fax: (845) 469-1016

Web: ANZNY.com

PROJECT:

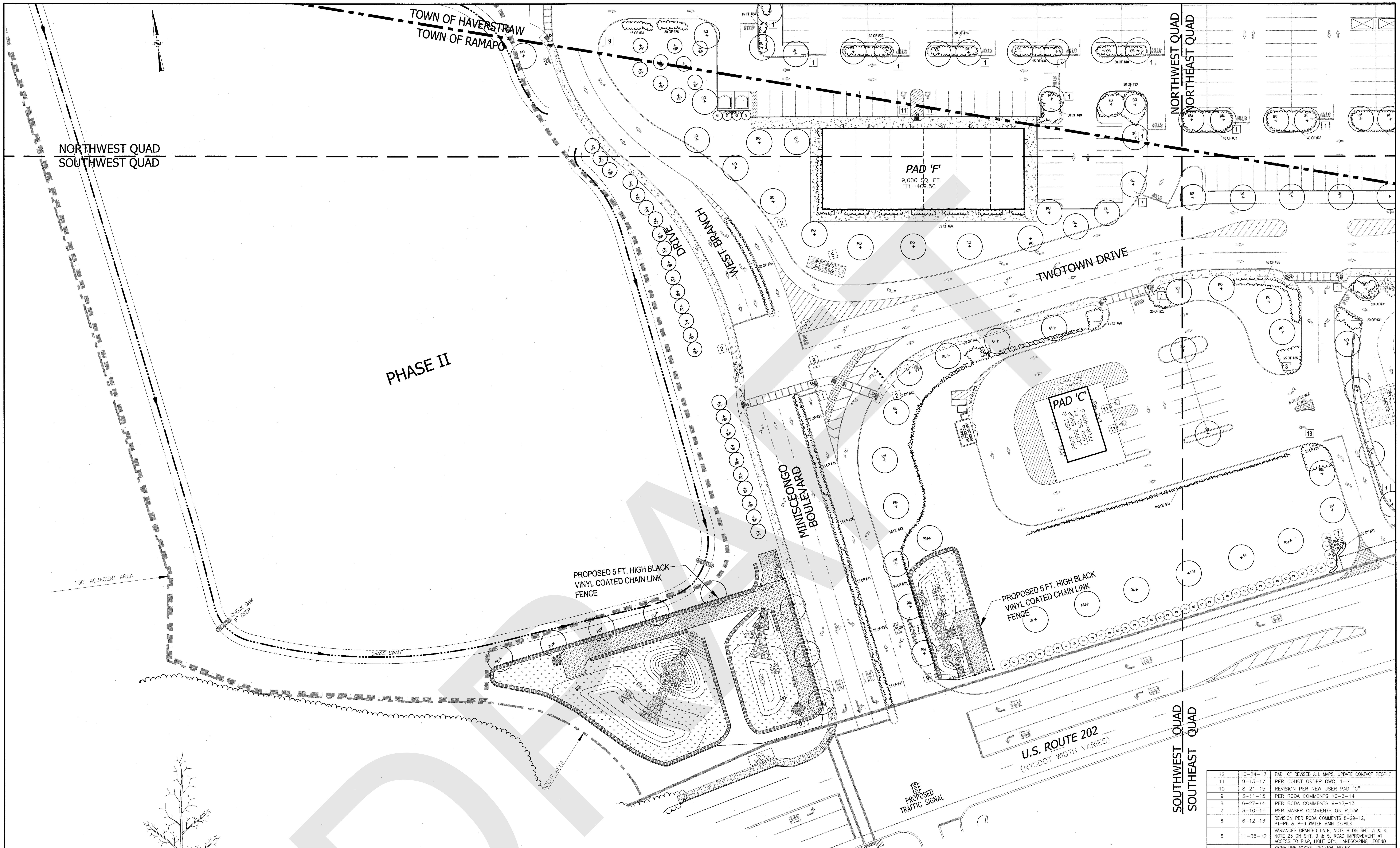
MINISCEONGO PARK

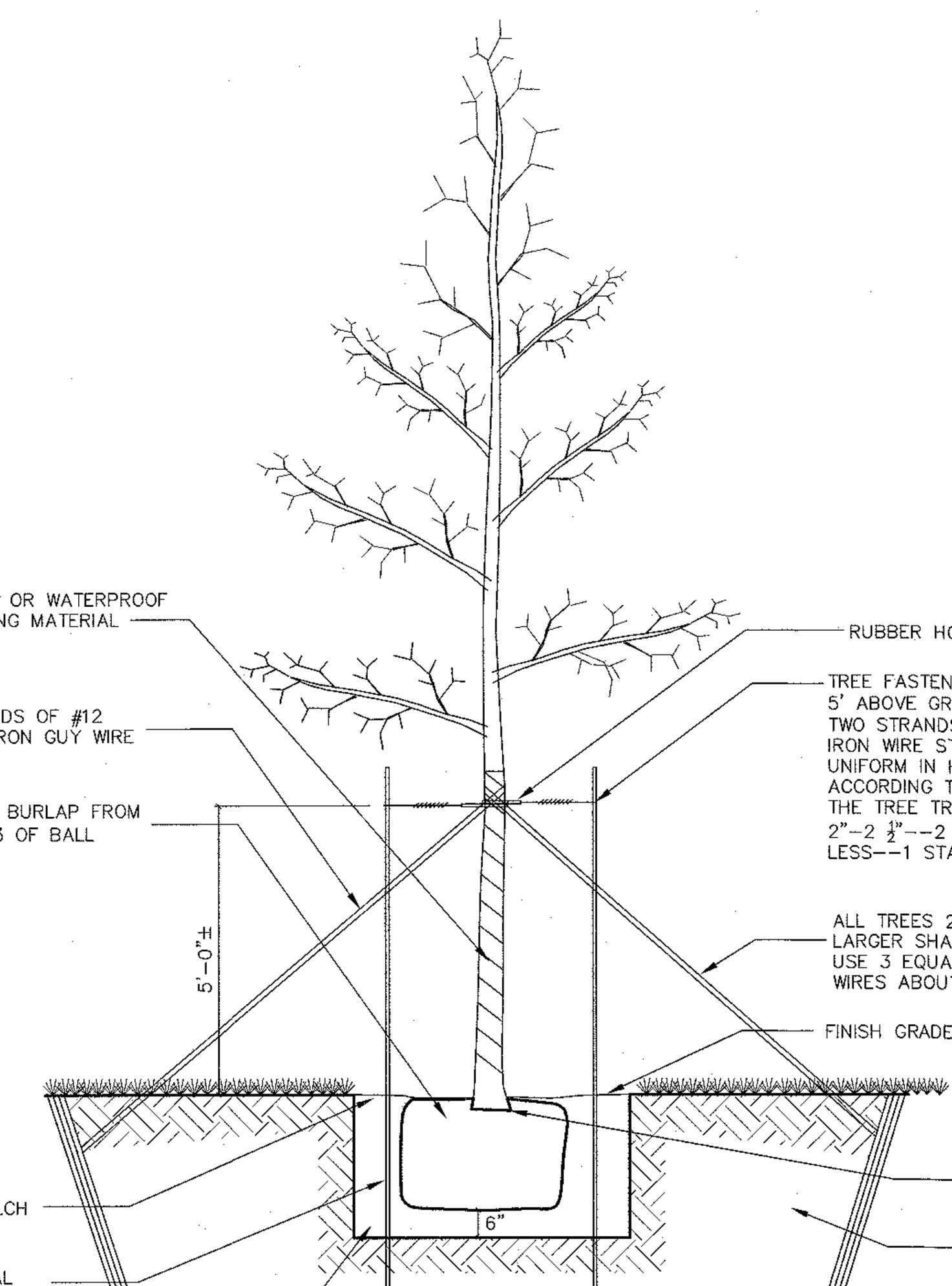
TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

SITE LANDSCAPING PLAN
NORTHEAST QUAD

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 30 FT.
PROJECT NO: 1560	DRAWING NO: 21



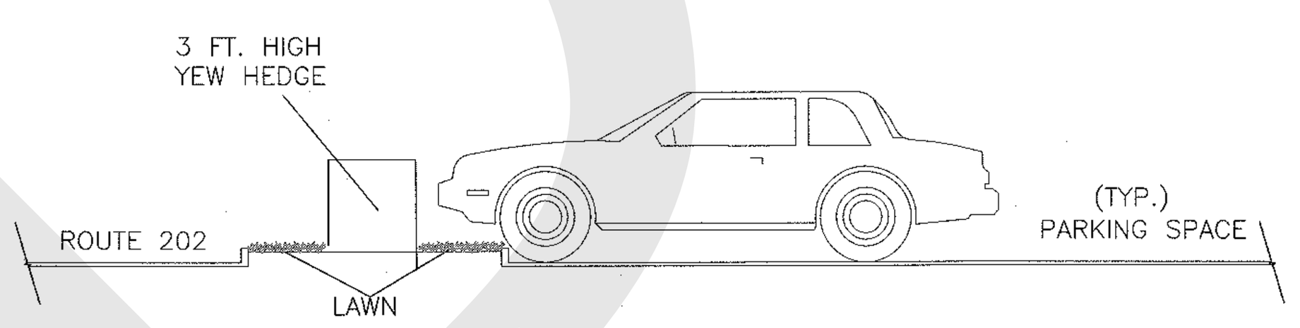


TREE PLANTING DETAIL

N.T.S.

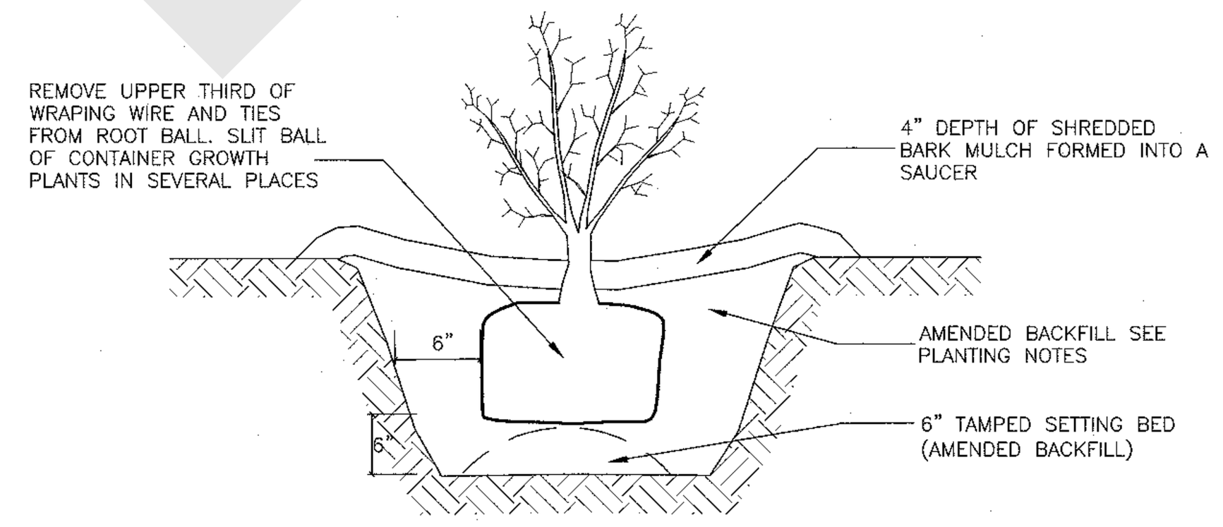
PLANTING NOTE:

PLACE TOPSOIL MIXTURE IN BOTTOM OF HOLE AND SATURATE. AFTER PLACING PLANT, WORK TOPSOIL MIXTURE CAREFULLY AROUND ROOT BALL AND THEN SATURATE. WHEN HOLE IS ONE HALF FULL OF MIXTURE, SATURATE AGAIN. FILL HOLE COMPLETELY WITH TOPSOIL MIXTURE AND SATURATE AGAIN. FERTILIZE SOIL AS NECESSARY FOR PLANT SURVIVAL



HEADLIGHT SCREENING DETAIL

N.T.S.



PLANTING NOTE:

1. EXCAVATE A HOLE THAT IS 6" WIDER ON EACH SIDE AND 6" DEEPER THAN ROOT BALL.
2. REMOVE ANY STRING TIED AROUND TRUNK OR STEM, BUT LEAVE BURLAP IN TACT.
3. AMENDED BACKFILL: 4 PARTS TOPSOIL TO 1 PART EACH PEAT HUMUS & DEHYDRATED COW MANURE.
4. WHERE WIRE BASKET IS ALL THAT HOLDS ROOT BALL TOGETHER, CUT WIRES DO NOT REMOVE.
5. SET CROWN OF ROOT BALL 2" ABOVE FINISHED GRADE.
6. BUILD DEPRESSION AROUND PLANT AND FILL WITH MULCH.
7. FOR PLANTS NOT IN CONTAINERS OR BALLED, PRUNE BRANCHES BY 1/4, RETAIN NORMAL PLANT SHAPE.

SHRUB PLANTING DETAIL

N.T.S.

PLANT LIST

No. & SYMBOL	PLANT NAME	QUANTITY	SIZE & REMARKS
1. (SM)	Acer saccharum Green Mountain Green Mountain Sugar Maple	17	2 1/2"-3"cal.B&B
2. (RM)	Acer rubrum Red Maple	37	2 1/2"-3"cal.B&B
3. (HM)	Acer campestre Hedge Maple	0	2 ½" - 3" cal., B&B
4. (SG)	Liquidambar styraciflua Sweet Gum	17	2 1/2"-3"cal.B&B
5. (BG)	Nyssa sylvatica Black Tupelo	14	2 1/2"-3"cal.B&B
6. (PO)	Quercus palustris Pin Oak	12	2 1/2"-3"cal.B&B
7. (RO)	Quercus rubra Northern Red Oak	26	2 1/2"-3"cal.B&B
8. (PC)	Pyrus callelryana Redspire Redspire Callery Pear	6	2 1/2"-3"cal.B&B
9. (GL)	Tilia cordata Greenspire Greenspire Linden	51	2 1/2"-3"cal.B&B
10. (WP)	Pinus strobus White Pine	25	7'-8' ht. B&B
11. (NS)	Picea abies Norway Spruce	22	10'-12' ht. B&B
12. (CS)	Picea pungens Colorado Spruce	4	7'-8' ht. B&B
13. (A+)	Thuja occidentalis nigra Dark American Arborvitae	6	7'-8' ht. B&B
14. (G)	Thuja plicata Green Giant Arborvitae	46	7'-8' ht., B&B
15. (AC)	Amelanchier canadensis Shadblow serviceberry	6	8'-10'ht. B&B
16. (BN)	Betula nigra River Birch	2	10'-12'ht., B&B
17. (EH)	Carpinus betula fastigiata Pyramidal European Hornbeam	0	2"-2 ½" cal.. B&B
18. (CC)	Cercis canadensis Redbud	5	2"-2 ½" cal.. B&B
19. (SD)	Malus "Snowdrift" Snowdrift Crabapple	4	2"-2 ½" cal. B&B
20. (SC)	Malus Sentinel Sentinel Crabapple	15	2"-2 ½" cal. B&B
21. (RC)	Prunus v. Red Select Canada Red Select Cherry	16	2"-2 ½" cal. B&B
22. (YC)	Prunus yeodensis Yoshino Flowering Cherry	2	2"-2 ½" cal., B&B
23. (PC)	Pyrus calleryana "Cleveland Select" Cleveland Select Pear	12	2 1/2"-3"cal.B&B
24.	Buxus microphylla "Winter Gem" Winter Gem Boxwood	0	#3 cont., plant 24" o.c.
25.	Chamaecyparis pisifera threadleaf gold Gold Thread Cypress	62	#2 cont. plant 30" o.c.
26.	Cotoneaster dammeri Royal Beauty Royal Beauty Cotoneaster	190	15'-18'spr. B&B
27.	Cotoneaster salicifolia Willowleaf Cotoneaster	205	18"-24"ht. B&B
28.	Euonymus fortunei Greenlane Greenlane Euonymus	95	18"-24"ht. B&B
29.	Euonymus "Emerald Gold" Emerald Gold Euonymus	95	15"-18"ht. B&B
30.	Forsythia intermedia spectabilis Showy Border Forsythia	0	3'-4'ht. B&B
31.	Taxus media HATFIELD YEW Green Lustre Holly	445	36" HT.-PLANT 30" O.C.
32.	Ilex glabra compacta Inkberry Holly	0	18" - 24" ht., B&B
33.	Juniperus chinensis Seagreen Seagreen Juniper	265	2 1/2'-3'ht. B&B
34.	Juniperus ch. Pfitzeriana compacta Compact Pfitzers Juniper	190	2 1/2'-3'spr. B&B
35.	Juniperus sabina Broadmoor Broadmoor Juniper	115	15"-18"spr. B&B
36.	Ligustrum obtusifolium regelianum Regels Border Privet	115	2 1/2'-3'ht. B&B
37.	Potentilla fr. Goldfinger Goldfinger Cinquefoil	80	12"-18"ht. B&B
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39.	Spiraea bumalda Anthony Waterer Anthony Waterer Spiraea	50	18"-24" ht., #3 Cont.
40.	Thuja occidentalis woodwardi Globe Arborvitae	60	2'-2 1/2'ht. B&B
41.	Viburnum opulus nanum Dwarf European Cranberrybush	145	12"-15"ht. B&B
42.	Viburnum carlesi Fragrant Viburnum	55	3'-4' ht., B&B
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THE EDUCATION LAW OF THE STATE OF NEW YORK PROHIBITS ANY PERSON ALTERING ANYTHING ON THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATIONS, UNLESS IT IS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER. WHERE SUCH ALTERATIONS ARE MADE, THE PROFESSIONAL ENGINEER MUST SIGN, SEAL, DATE AND DESCRIBE THE FULL EXTENT OF THE ALTERATION ON THE DRAWINGS AND/OR IN THE SPECIFICTIONS. (NYS EDUCATION LAW SECTION 7209-2)

"UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW."
"ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."
"CERTIFICATION INDICATED HERE ON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYOR'S ADOPTED BY THE DELAWARE - HUDSON LAND SURVEYORS ASSOCIATION. SAID CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED INDIVIDUALS AND/OR INSTITUTIONS FOR WHOM THE SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS."

STATE OF NEW YORK · RYAN A. NASHER
RYAN A. NASHER, P.E.
N.Y.S.P.E. LIC. No. 89066

STATE OF NEW YORK · JOHN R. ATZL
JOHN R. ATZL
N.Y.S. P.L.S. LIC. NO. 50228

REVISION	DATE	DESCRIPTION
12	10-24-17	PAD "C" REVISED ALL MAPS, UPDATE CONTACT PEOPLE
11	9-13-17	PER COURT ORDER DWG. 1-7
10	8-21-15	REVISION PER NEW USER PAD "C"
9	3-11-15	PER RCDA COMMENTS 10-3-14
8	6-27-14	PER RCDA COMMENTS 9-17-13
7	3-10-14	PER MASER COMMENTS ON R.O.W.
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5	11-28-12	VARIANCES GRANTED DATE, NOTE 8 ON SHT. 3 & 4, NOTE 23 ON SHT. 3 & 5, ROAD IMPROVEMENT AT ACCESS TO P.I.P, LIGHT QTY., LANDSCAPING LEGEND
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1	1-13-12	FIRST SUBMISSION DRAWINGS 1-23

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Web: ANZNY.com

PROJECT:

MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

SITE LANDSCAPING PLAN
SOUTHWEST QUAD

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 30 FT.
PROJECT NO: 1560	DRAWING NO: 22

NORTHWEST QUAD
NORTHEAST QUAD

NORTHEAST QUAD
SOUTHEAST QUAD

SOUTHWEST QUAD
SOUTHEAST QUAD

TWOTOWN DRIVE

TOWN OF HAVERSTRAW
TOWN OF RAMAPO

PALISADES INTERSTATE PARKWAY
ACCESS ROAD

U.S. ROUTE 202
(NYSDOT WIDTH VARIES)

PAD 'C'
PROP. DELI
& COFFEE SHOP
1,500 SQ.FT.
FFLR=406.5

PAD 'D'
PROPOSED
PROVIDENT BANK
FFLR=410.25
3,400 SQ. FT.
LOBBY

PAD 'E'
FAMILY RESTAURANT
GROSS FLOOR AREA
FFLR=416.25
5,250 SQ. FT.
225 SEATS

PROPOSED 5 FT. HIGH BLACK VINYL COATED CHAIN LINK FENCE

EXSTING TRAFFIC SIGNAL

EXCAVATION LIMIT FOR WALL

TREE PROTECTION FENCE SEE DETAIL

CONCRETE ISLAND

GIANT LINK FENCE TO BE REMOVED

LOADING ZONE
NO PARKING

NO PARKING
LOADING ZONE

PAD 'C' SITE PYLON SIGN

PAD 'D' SITE PYLON SIGN

PAD 'E' SITE PYLON SIGN

PLANT LIST

No. & SYMBOL	PLANT NAME	QUANTITY	SIZE & REMARKS
1. SM	Acer saccharum Green Mountain Green Mountain Sugar Maple	17	2 1/2"-3"cal.B&B
2. RM	Acer rubrum Red Maple	37	2 1/2"-3"cal.B&B
3. HM	Acer campestre Hedge Maple	0	2 1/2" - 3" cal., B&B
4. SG	Liquidambar styraciflua Sweet Gum	17	2 1/2"-3"cal.B&B
5. BG	Nyssa sylvatica Black Tupelo	14	2 1/2"-3"cal.B&B
6. PO	Quercus palustris Pin Oak	12	2 1/2"-3"cal.B&B
7. RO	Quercus rubra Northern Red Oak	26	2 1/2"-3"cal.B&B
8. PC	Pyrus calleryana Redspire Redspire Callery Pear	6	2 1/2"-3"cal.B&B
9. GL	Tilia cordata Greenspire Greenspire Linden	51	2 1/2"-3"cal.B&B
10. WP	Pinus strobus White Pine	25	7'-8' ht. B&B
11. NS	Picea abies Norway Spruce	22	10'-12' ht. B&B
12. OS	Picea pungens Colorado Spruce	4	7'-8' ht. B&B
13. Ar	Thuja occidentalis nigra Dark American Arborvitae	6	7'-8' ht. B&B
14. Gr	Thuja plicata Green Giant Arborvitae	46	7'-8' ht., B&B
15. AC	Amelanchier canadensis Shadblow serviceberry	6	8'-10'ht. B&B
16. BN	Betula nigra River Birch	2	10'-12'ht., B&B
17. EH	Carpinus betula fastigiata Pyramidal European Hornbeam	0	2"-2 1/2" cal., B&B
18. OC	Cercis canadensis Redbud	5	2"-2 1/2" cal., B&B
19. SD	Malus "Snowdrift" Snowdrift Crabapple	4	2"-2 1/2" cal. B&B
20. SC	Malus Sentinel Sentinel Crabapple	15	2"-2 1/2" cal. B&B
21. RC	Prunus v. Red Select Canada Red Select Cherry	16	2"-2 1/2" cal. B&B
22. YC	Prunus yeodensis Yoshino Flowering Cherry	2	2"-2 1/2" cal., B&B
23. PC	Pyrus calleryana "Cleveland Select" Cleveland Select Pear	12	2 1/2"-3"cal.B&B
24. ⬡	Buxus microphylla "Winter Gem" Winter Gem Boxwood	0	#3 cont., plant 24" o.c.
25. ⬡	Chamaecyparis pisifera threadleaf gold Gold Thread Cypress	62	#2 cont. plant 30" o.c.
26. ⬡	Cotoneaster dammeri Royal Beauty Royal Beauty Cotoneaster	190	15"-18"spr. B&B
27. ⬡	Cotoneaster salicifolia Willowleaf Cotoneaster	205	18"-24"ht. B&B
28. ⬡	Euonymus fortunei Greenlane Greenlane Euonymus	95	18"-24"ht. B&B
29. ⬡	Euonymus "Emerald Gold" Emerald Gold Euonymus	95	15"-18"ht. B&B
30. ⬡	Forsythia intermedia spectabilis Showy Border Forsythia	0	3'-4'ht. B&B
31. ⬡	Taxus media HATFIELD YEW Green Lustre Holly	445	36" HT.-PLANT 30" O.C.
32. ⬡	Ilex glabra compacta Inkberry Holly	0	18" - 24" ht., B&B
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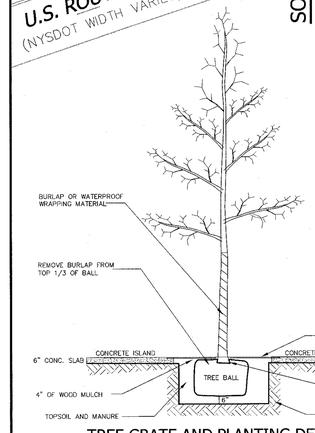
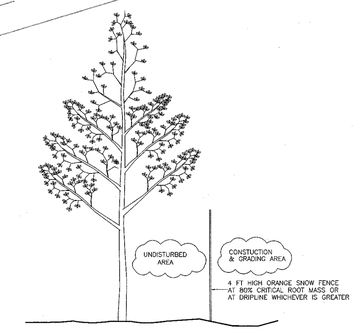
41. ⬡	Viburnum opulus nanum Dwarf European Cranberrybush	145	12"-15"ht. B&B
42. ⬡	Viburnum carlesi Fragrant Viburnum	55	3'-4' ht., B&B
43. ⬡	Weigela Variokii Variook Red Weigela	155	3'-4'ht. B&B

TREE GRATE AND PLANTING DETAIL

N.T.S.





A TREE PROTECTION PROGRAM WILL BE IMPLEMENTED IN ORDER TO PROTECT AND PRESERVE BOTH INDIVIDUAL SPECIMEN TREES AND BUFFER AREAS WITH MANY TREES. STEPS WHICH WILL BE TAKEN TO PRESERVE AND PROTECT EXISTING TREES, ARE AS FOLLOWS:

A) NO CONSTRUCTION EQUIPMENT SHALL BE PARKED UNDER THE TREE CANOPY.
B) THERE WILL BE NO EXCAVATION OR STOCKPILING OF EARTH UNDERNEATH THE TREES.
C) TREES TO BE PRESERVED SHALL BE MARKED CONSPICUOUSLY ON ALL SIDES.
D) TREES TO BE SAVED ARE TO BE PROTECTED WITH A 4 FOOT HIGH ORANGE SNOW FENCE PLACED AT THE DRIP LINE OR AT 80% CRITICAL ROOT MASS WHICHEVER IS GREATER.
E) NO EARTH FILLS GREATER THAN 6" IN DEPTH WILL BE MADE BENEATH TREES TO BE PRESERVED.
F) IN FILL AREAS, TREES WILL BE PRESERVED IN TREE WELLS OR THROUGH THE USE OF RETAINING WALLS PLACED AT THE DRIP LINE OR AT 80% CRITICAL ROOT MASS WHICHEVER IS GREATER.
G) IN CUT AREAS, TREES WILL BE PRESERVED WITH RETAINING WALLS AT THE DRIP LINE OR AT 80% CRITICAL ROOT MASS WHICHEVER IS GREATER.

TREE PROTECTION DETAIL

N.T.S.

NOTES

1. EXISTING TREES SHOWN TO REMAIN ON THE PLAN ARE TO REMAIN UNDISTURBED. EXISTING TREES SHOWN TO REMAIN ON THE PLAN ARE TO BE PROTECTED WITH A 4 FOOT HIGH ORANGE SNOW FENCE PLACED AT THE DRIP LINE OR AT 80% CRITICAL ROOT MASS WHICHEVER IS GREATER. ANY EXISTING TREE SHOWN TO REMAIN, WHICH IS REMOVED OR DAMAGED SUFFICIENTLY TO REQUIRE REPLACEMENT DURING CONSTRUCTION, SHALL BE REPLACED BY A 2 1/2 – 3" CALIPER SHADE TREE AS DETERMINED BY THE TOWN OF CLARKSTOWN DEPARTMENT OF ENVIRONMENTAL CONTROL. WHEN AN AREA OF EXISTING TREES IS SHOWN TO BE SAVED, AND SUCH AREA OF TREES HAS BEEN REMOVED, A 2 1/2 – 3" CALIPER SHADE TREE SHALL BE PLACED FOR EACH 500 SQ FT OF AREA DISTURBED.
2. NECESSARY CARE SHALL BE TAKEN TO INSURE SURVIVAL AND APPEARANCE OF EXISTING TREES TO BE SAVED WITH BARRIER FENCING TO RESTRICT CONSTRUCTION TRAFFIC AND PERSONNEL WITHIN THE CONSTRUCTION AREA. FORM A COMPLETE ENCLOSURE ALONG DRIP LINE OF TREE OR AT 80% CRITICAL ROOT MASS WHICHEVER IS GREATER. INSTALL ORANGE CONSTRUCTION SAFETY FENCE WITH "T" POST 6' O/C. PULL FENCING TAUT AND SECURE WITH WIRE TIES TO PREVENT SAGGING. MAINTAIN BARRICADES UNTIL THEIR REMOVAL IS APPROVED BY THE TOWN OF CLARKSTOWN DEPARTMENT OF ENVIRONMENTAL CONTROL.
3. THE LANDSCAPE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT ANY EXISTING TREES TO REMAIN. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY TREES REMOVED BY THEM WITHOUT PRIOR AUTHORIZATION FROM THE TOWN OF CLARKSTOWN DEPARTMENT OF ENVIRONMENTAL CONTROL.
4. ANY DECIDUOUS TREE SHALL BE A SPECIES WHICH IS REFERRED TO IN THE U.S. SOILS CONSERVATION SERVICE AS COMPATIBLE WITH THE SOIL TYPE AND SHALL HAVE A MINIMUM SIZE OF THREE-INCH CALIPER. ANY CONIFEROUS TREE SHALL BE A SPECIES WHICH IS REFERRED TO IN THE U.S. SOILS CONSERVATION SERVICE AS COMPATIBLE WITH THE SOIL TYPE AND SHALL HAVE A MINIMUM HEIGHT, EXCLUDING ROOT BULK AT THE TIME OF PLANTING, OF EIGHT FEET.

SIGN LIST

SYMBOL	CONTENT
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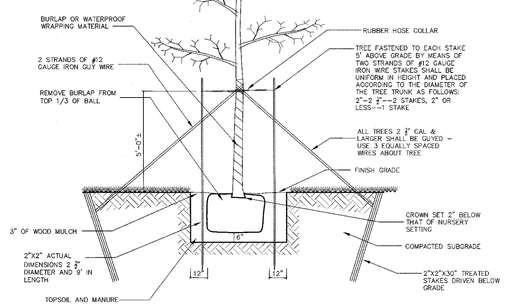
TREE LEGEND

✕ DENOTES TREE TO BE REMOVED (188)

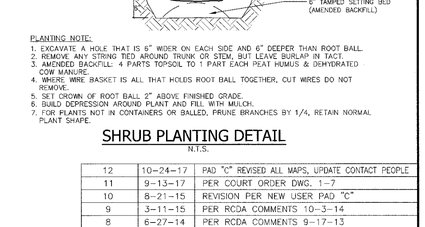
◯ DENOTES TREE PROTECTION



TREE PLANTING DETAIL

N.T.S.

PLANTING NOTE:
PLACE TOPSOIL MIXTURE IN BOTTOM OF HOLE AND SATURATE. AFTER PLACING PLANT, WORK TOPSOIL MIXTURE CAREFULLY AROUND ROOT BALL AND THEN SATURATE. WHEN HOLE IS ONE HALF FULL OF MIXTURE, SATURATE AGAIN. FILL HOLE COMPLETELY WITH TOPSOIL MIXTURE AND SATURATE AGAIN. FERTILIZE SOIL AS NECESSARY FOR PLANT SURVIVAL



PLANTING NOTE:
1. EXCAVATE A HOLE THAT IS 6" WIDER ON EACH SIDE AND 6" DEEPER THAN ROOT BALL.
2. REMOVE ANY STRING TIED AROUND TRUNK OR STEM, BUT LEAVE BURLAP IN TACT.
3. AMENDED BACKFILL: 4 PARTS TOPSOIL TO 1 PART EACH PEAT HUMUS & THOROUGHLY COW MANURE.
4. WHERE WIRE BASKET IS ALL THAT HOLDS ROOT BALL TOGETHER, CUT WIRES DO NOT REMOVE.
5. SET CROWN OF ROOT BALL 2" ABOVE FINISHED GRADE.
6. BUILD DEPRESSION AROUND PLANT AND FILL WITH MULCH.
7. FOR PLANTS NOT IN CONTAINERS OR BALLED, PRUNE BRANCHES BY 1/4, RETAIN NORMAL PLANT SHAPE.

SHRUB PLANTING DETAIL

N.T.S.

REVISION	DATE	DESCRIPTION
12	10-24-17	PAD "C" REVISED ALL MAPS, UPDATE CONTACT PEOPLE
11	9-13-17	PER COURT ORDER DWG. 1-7
10	8-21-15	REVISION PER NEW USER PAD "C"
9	3-11-15	PER RCDA COMMENTS 10-3-14
8	6-27-14	PER RCDA COMMENTS 9-17-13
7	3-10-14	PER MASER COMMENTS ON R.O.W.
6	6-12-13	REVISION PER RCDA COMMENTS 8-29-12, P1-P6 & P-9 WATER MAIN DETAILS
5	11-28-12	VARIANCES GRANTED DATE, NOTE 8 ON SHT. 3 & 4, NOTE 23 ON SHT. 3 & 5, ROAD IMPROVEMENT AT ACCESS TO P.I.P, LIGHT QTY., LANDSCAPING LEGEND
4	9-27-12	SIGNATURE BOXES, GENERAL NOTES, MINOR LANDSAPING AND LIGHTING REVISION, NEW DRAWINGS 33-37 & P-9
3	6-18-12	PROFILES, RETENTION DETAILS, VARIANCES
2	5-15-12	MAJOR REDESIGN ITEMS: RELOCATION OF EMERGENCY ACCESS, ADDITONAL RETENTION PONDS, ADDITIONAL EMERGENCY ACCESS BETWEEN PADS D & E. PHASE II DEPICTED, 20 FT. LANDSCAPE BUFFER ALONG THE EAST BOUNDARY
1	1-13-12	FIRST SUBMISSION DRAWINGS 1-23

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ENGINEERS–SURVEYORS–PLANNERS

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Web: ANZNY.com

PROJECT:

MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

SITE LANDSCAPING PLAN
SOUTHEAST QUAD

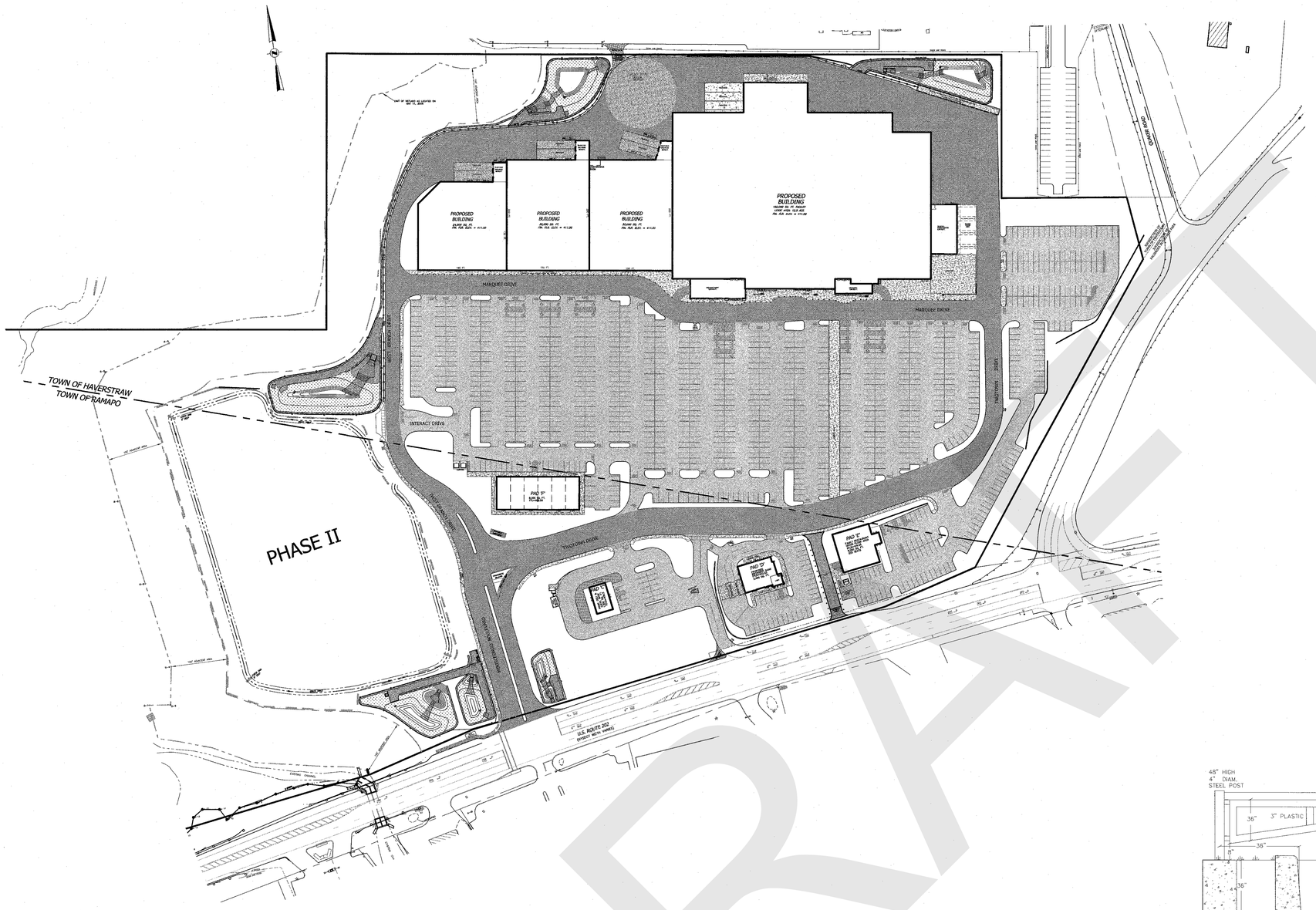
DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 13, 2012	SCALE: 1 IN. = 30 FT.
PROJECT NO: 1560	DRAWING NO: 23

THE EDUCATION LAW OF THE STATE OF NEW YORK PROHIBITS ANY PERSON ALTERING ANYTHING ON THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATIONS, UNLESS IT IS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, WHERE SUCH ALTERATIONS ARE MADE, THE ENGINEER SHALL STAMP THE PLANS WITH THE DATE AND ACKNOWLEDGE THE FULL EXTENT OF THE ALTERATION ON THE DRAWINGS AND/OR IN THE SPECIFICATIONS. (NYS EDUCATION LAW SECTION 7209-2)

"UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW."
"COPIES OF THIS SURVEY MAP NOT BEARING THE LAND SURVEYOR'S INK SIGNATURE AND ORIGINAL EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."
"I HEREBY CERTIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYORS ADOPTED BY THE DELAWARE – HUDSON LAND SURVEYORS ASSOCIATION. SAID CERTIFICATION SHALL RUN ONLY TO THOSE NAMED INDIVIDUALS AND/OR INSTITUTIONS I OR WHOM THE SURVEY WAS PREPARED. IT SHALL NOT BE TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR INDIVIDUALS, THEIR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS."

RYAN A. NASHER, P.E.
N.Y.S.P.E. LIC. No. 93066

JOHN R. ATZL
N.Y.S. R.L.S. LIC. NO. 50228



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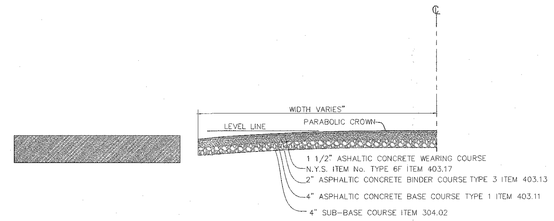
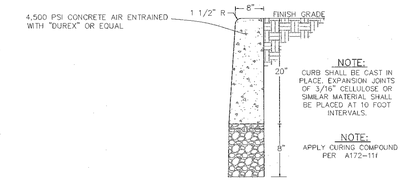
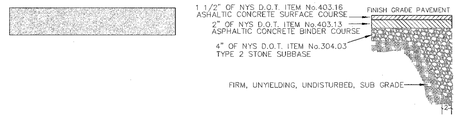


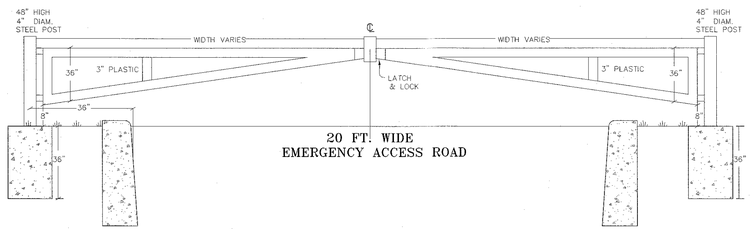
LOOP ROAD ASPHALTIC PAVEMENT DETAIL
N.T.S.



CONCRETE CURB DETAIL
N.T.S.



ASPHALTIC PAVEMENT &
FOR PARKING AREAS DETAIL
N.T.S.

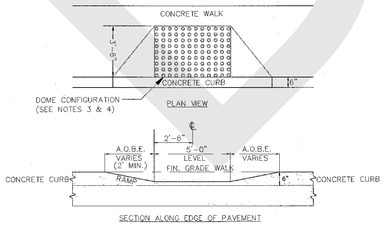


20 FT. WIDE
EMERGENCY ACCESS ROAD

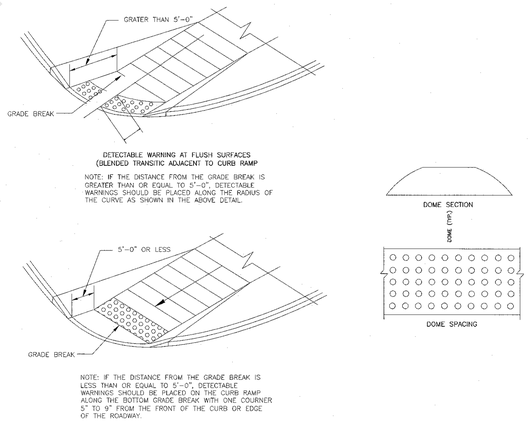
EMERGENCY ACCESS
CRASH GATE DETAIL
N.T.S.

NOTES:

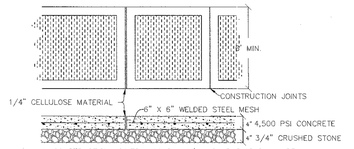
1. THE DETAILS PROVIDED ARE NOT DRAWN TO SCALE. THE QUANTITY OF DOMES DEPICTED ON THE DETECTABLE WARNING UNIT (THE DOMES AND THE ENTIRE 24" OR 610 mm LEVEL SURFACE) IS FOR ILLUSTRATION ONLY.
2. THE SIZE OF THE DETECTABLE WARNING FIELD SHALL BE 24" IN THE DIRECTION OF TRAVEL AND SHALL EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE, EXCLUSIVE OF SIDE FLARES.
3. THE ROWS OF DOMES SHALL BE ALIGNED TO BE PERPENDICULAR OR RADIAL TO THE GRADE BREAK BETWEEN THE RAMP RANGING OR CURB RAMP AND THE STREET.
4. WHERE DOMES ARE ARRAYED RADIALLY THEY MAY DIFFER IN DIAMETER AND CENTER-TO-CENTER SPACING WITHIN THE RANGES SPECIFIED ON THIS SHEET.
5. THE DETECTABLE WARNING FIELD SHALL BE THE COLOR SPECIFIED IN THE CONTRACT DOCUMENTS OR MEET THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS.
6. DETECTABLE WARNINGS SHALL BE LOCATED SO THAT THE EDGE OR CORNER OF THE WARNING FIELD NEAREST TO THE ROADWAY IS 6" TO 9" FROM THE FRONT OF THE CURB OR THE ROADWAY EDGE (12" WHERE TRAVERSABLE CURB IS USED).
7. THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 6'-0" MINIMUM AND 15'-0" MAXIMUM FROM THE CENTERLINE OF THE NEAREST RAIL.



DROP CURB AND TACTILE WARNING STRIP DETAIL
N.T.S.



DETECTABLE WARNING DETAIL
N.T.S.



1. CONSTRUCTION JOINTS HAVING A 1/4 INCH RADIUS SHALL BE PLACED AT 4 FEET INTERVALS.
2. INSTALL EXPANSION JOINTS OF 1/4 INCH CELLULOSE MATERIAL OR EQUAL AT 20 FEET INTERVALS.
3. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS.
4. CONCRETE SHALL BE AIR ENTRAINED 6% PLUS or MINUS 1%
5. SIDEWALK REINFORCEMENT SHALL CONSIST OF #6 GUAGE 6" X 6" STEEL MESH PLACED 2 INCHES FROM THE BOTTOM OF THE SIDEWALK SLAB.

CONCRETE SIDEWALK DETAIL
NTS

REVISION	DATE	DESCRIPTION
10	10-24-17	PAD "C" REVISED ALL MAPS, UPDATE CONTACT PEOPLE
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1	6-18-12	PROFILES, RETENTION DETAILS, VARIANCES

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PROJECT:

MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

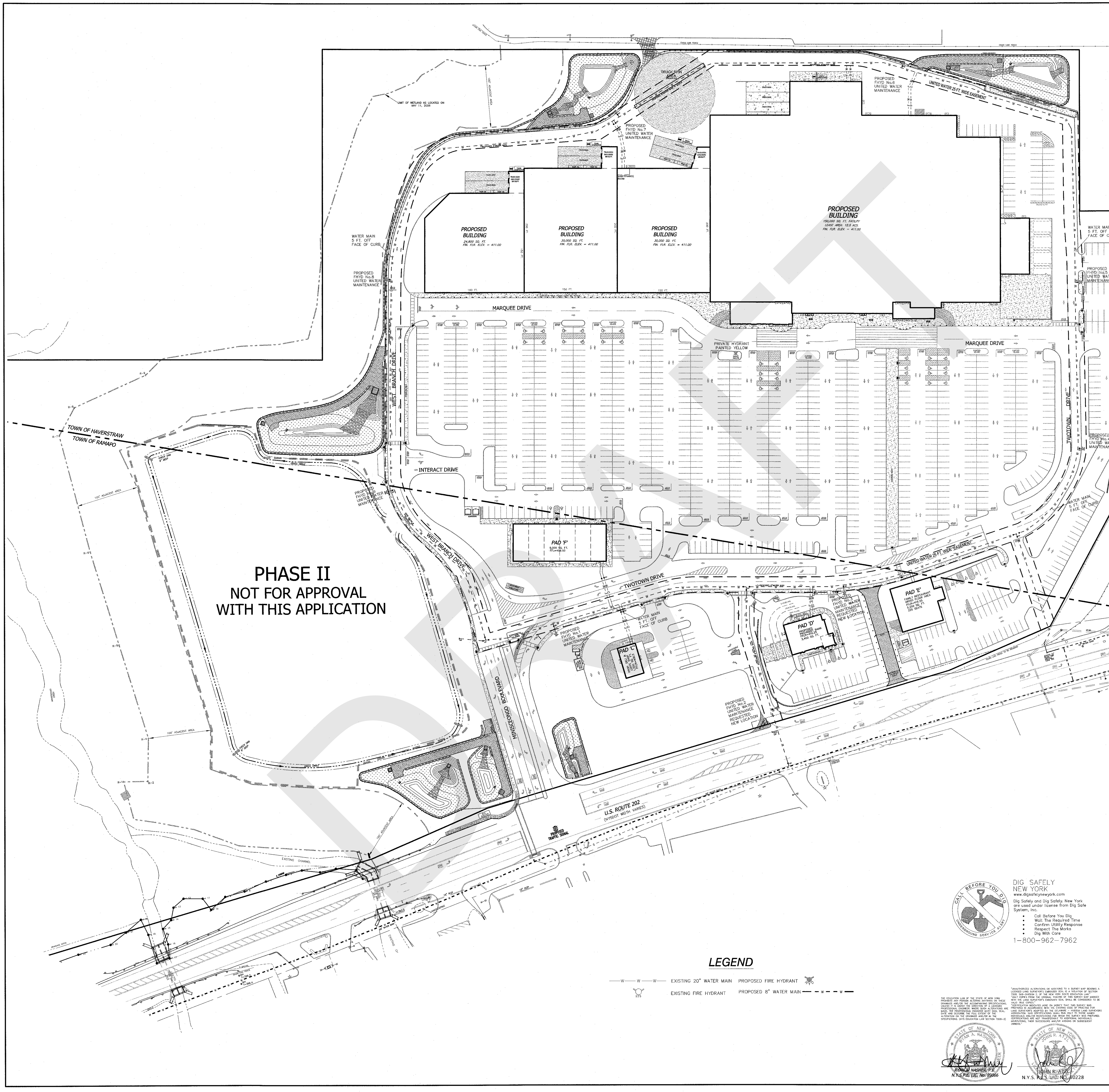
TITLE:

SIDEWALK, CURB AND PAVEMENT DETAILS

RYAN D. NASHER, P.E.
N.Y.S. P.E. LIC. No. 85966

JOHN R. ATZL
N.Y.S. L.S. LIC. NO. 50228

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JUNE 18, 2012	SCALE: 1 IN. = 100 FT.
PROJECT NO: 1560	DRAWING NO: 24



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PROJECT:

MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

WATER MAIN & EASEMENT

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JUNE 18, 2012	SCALE: 1 IN. = 60 FT.
PROJECT NO: 1560	DRAWING NO: 25

NOTES

1. ALL WATER SYSTEM INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF UNITED WATER NEW YORK, THE ROCKLAND COUNTY DEPARTMENT OF HEALTH, THE LATEST AWWA STANDARDS, AND "RECOMMENDED STANDARDS FOR WATER WORKS" (2003-CLUMB)
2. THESE PLANS INCLUDE BY REFERENCE "STANDARD AND SPECIFICATIONS FOR UNITED WATER NEW YORK, NOVEMBER 2010".
3. PIPING IS DUCTILE IRON, CEMENT LINED, CLASS 54 WITH PUSH ON JOINT, RUBBER GASKETS, AND BRONZE WEDGES.
4. DISINFECTION AND TESTING SHALL BE IN ACCORDANCE WITH AWWA C651.
5. PRESSURE AND LEAKAGE TESTING SHALL BE IN ACCORDANCE WITH AWWA C600.
6. SUPPLIERS RECORDS INDICATE ADEQUATE PRESSURE AND CAPACITY IS AVAILABLE.
7. ALL ELEVATIONS BASED ON TOPOGRAPHICAL INFORMATION PREPARED BY ATZL, SCATASSA & ZIGLER, P.C..
8. PIPE DIAMETER SHOWN IN PROFILE REPRESENTS THE NOMINAL DIAMETER OF DUCTILE IRON PIPE.
9. AVAILABLE INFORMATION AS TO THE LOCATION OF EXISTING SUBSTRUCTURES AND UTILITIES HAS BEEN COLLECTED FROM VARIOUS SOURCES THE RESULTS OF SUCH INVESTIGATIONS, AS MAY BE SHOWN ON THE CONTRACT DRAWINGS, ARE NOT GUARANTEED AS TO ACCURACY. ALL EXISTING UTILITIES ARE SHOWN FOR INFORMATION ONLY. THE CONTRACTOR SHALL DIG TEST PITS AS REQUIRED TO VERIFY TRUE AND EXACT LOCATIONS OF UNDERGROUND LINES.
10. ALL PROFILES INDICATE APPROXIMATE GROUND PROFILES.
11. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES, AND DIG SAFELY NEW YORK (1-800-962-7962), A MINIMUM OF 72 HOURS PRIOR TO EXCAVATION, AND SHALL COMPLY WITH ALL CURRENT MARKOUT REQUIREMENTS OF DIG SAFELY NEW YORK.
12. EXCAVATIONS OR TRENCHING WITHIN CLOSE PROXIMITY TO UNDERGROUND FACILITIES OR UTILITY POLES WILL REQUIRE PROTECTION TO PREVENT DAMAGE OR INTERRUPTION OF SERVICE TO UNDERGROUND FACILITIES. THE COST TO PROVIDE THIS PROTECTION WILL BE BORNE BY THE CONTRACTOR.
13. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT EXISTING THRUST BLOCKS WHICH ARE RESTRAINING EXISTING UTILITIES. EXISTING THRUST BLOCKS SHALL NOT BE UNDERMINED.
14. ALL TRENCH LINES SHALL BE CUT OR MILLED.
15. THE CONTRACTOR SHALL COMPLY WITH ALL ROAD OPENING REQUIREMENTS AND ORDINANCES OF THE GOVERNING AGENCY.
16. RESTORATION, INCLUDING THE REMOVAL OF EXCESS EXCAVATED MATERIAL AND PLACEMENT OF TEMPORARY PAVEMENT, SHALL BE PERFORMED AND COMPLETED ON A DAILY BASIS. ALL ROADS SHALL BE PASSABLE TO VEHICULAR TRAFFIC AT THE END OF EACH WORK DAY.
17. ALL TRENCHES SHALL BE BACKFILLED WITHOUT DELAY. OPEN TRENCHES SHALL BE KEPT TO A MINIMUM. OPEN TRENCHES SHALL BE STEEL PLATED. UPON BACKFILLING THE CONTRACTOR SHALL BROOM SWEEP STREETS, USE APPROPRIATE METHODS TO CONTROL DUST AND HOSE DOWN THE PAVEMENT TO KEEP SURFACE CLEAN.
18. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ALL EXCESS EXCAVATED MATERIAL TO AN OFF-SITE LOCATION.
19. THE CONTRACTOR SHALL FURNISH AND INSTALL CORPORATIONS WHEREVER NECESSARY FOR PRESSURE TESTING AND DISINFECTING THE WATER MAIN. CORPORATIONS SHALL BE 3/4" FOR MAINS SMALLER THAN 16" AND 1" FOR MAINS 16" AND LARGER. THE CONTRACTOR SHALL INSTALL AS MANY CORPORATIONS AS ARE REQUIRED FOR PROPER TESTING, FLUSHING, AIR BLEEDING AND DISINFECTION.
20. TO MAINTAIN THE HORIZONTAL AND VERTICAL ALIGNMENT SHOWN ON THE PLANS, PIPE JOINTS MAY BE DEFLECTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS, UNLESS THE SPECIFICATIONS INDICATE A MORE STRINGENT REQUIREMENT. IF NECESSARY, EITHER TO MAINTAIN THE ALIGNMENT SHOWN OR TO ADJUST THE ALIGNMENT TO MEET ACTUAL FIELD CONDITIONS, ADDITIONAL FITTINGS SHALL BE INSTALLED AT NO ADDITIONAL COST TO THE OWNER OTHER THAN THE PRICES BID.
21. ALL STATIONING SHOWN ON PLANS IS APPROXIMATE.
22. ALL CONSTRUCTION ACTIVITIES ARE TO BE CONFINED TO THE PUBLIC RIGHT-O-WAY OR TO THE LIMITS DEPICTED ON THE CONTRACT DRAWINGS.
23. THE WATER MAIN SHALL BE INSTALLED WITH A MINIMUM OF FOUR (4) FEET OFT. ANY DEVIATION FROM THIS WILL REQUIRE AUTHORIZATION FROM UNITED WATER NEW YORK'S RESIDENT OBSERVER IN THE FIELD.
24. THE CONTRACTOR SHALL TAKE STEPS NECESSARY TO PRESERVE EXISTING CURB AND MINIMIZE THE LENGTH OF CURBING THAT MUST BE REPLACED.
25. THE CONTRACTOR IS CAUTIONED THAT ALL SANITARY LATERALS AND UTILITY SERVICES HAVE NOT BEEN LOCATED. WHEN THE CONTRACTOR ENCOUNTERS AN OBSTRUCTION AND CANNOT ADJUST THE ALIGNMENT USING ALLOWABLE JOINT DEFLECTION. THE CONTRACTOR SHALL REFER TO THE WATER MAIN DETAIL SHEETS. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROMPT REPAIR OF DAMAGED UTILITIES, AND SHALL RESTORE THE SITES AS NEATLY AS POSSIBLE TO THEIR ORIGINAL CONDITION.
26. THE CONTRACTOR SHALL PROTECT ALL STRUCTURES, ROADS, PIPELINES, TREES, SHRUBBERY, GRASS AREAS, ETC. DURING THE PROGRESS OF THE WORK AND SHALL REMOVE DAILY FROM THE SITE ALL DEBRIS AND UNUSED MATERIALS. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL RESTORE THE SITES AS NEATLY AS POSSIBLE TO THEIR ORIGINAL CONDITION.
27. ALL SIDEWALK AREAS SHALL BE PASSABLE AND BROOM SWEPT AT THE END OF EACH WORK DAY.
28. DURING FLUSHING AND PRESSURE TESTING OF THE MAIN, THE WATER COMPANY WILL OPERATE ALL VALVES.
29. REFER TO DETAIL SHEET FOR STANDARD DETAILS.

$$\text{BEARING AREA (FT.}^2\text{)} = \frac{\text{THRUST FORCE (LBS)}}{\text{BEARING CAPACITY OF (INDISTURBED SOIL (LBS/FT}^2\text{)}}$$

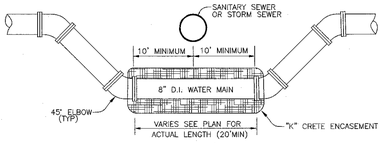
$$\text{GRAVITY BLOCK SIZE (FT.}^3\text{)} = \frac{\text{THRUST FORCE (LBS)}}{\text{DENSITY OF BLOCK MATERIAL (LBS/FT}^3\text{)}}$$

NOTE:
1. PLACE 4 mil. POLYETHYLENE BETWEEN CONCRETE AND FITTING (CONCRETE SHALL NOT INTERFERE WITH JOINT).
2. MIN. CONC. THICKNESS SHALL BE 12 INCHES.
3. THE HORIZONTAL DIMENSION (b) OF THE BEARING AREA SHALL BE BETWEEN 1.0 AND 2.0 TIMES THE VERTICAL DIMENSION (h).
4. THE VERTICAL DIMENSION (h) OF THE BEARING AREA SHALL BE EQUAL TO ONE-HALF THE TOTAL DEPTH (H) TO THE BOTTOM OF THE THRUST BLOCK BUT NOT LESS THAN THE OUTSIDE DIAMETER (Do) OF THE FITTING (Do < h <= H/2).
5. THRUST BLOCK ORIENTATION SHALL BE SUCH THAT THE CENTER OF THE FITTING CORRESPONDS WITH THE CENTER OF THE THRUST BLOCK.
6. THE MINIMUM ALLOWABLE ANGLE (EITHER VERTICAL OR HORIZONTAL) SHALL BE 45 DEGREES.

RESULTANT THRUST AT FITTINGS AT 100 PSI WATER PRESSURE

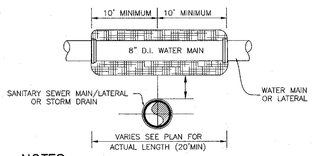
NOM. PIPE DIA. (IN)	DEAD END	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
3	1,232	1,742	943	481	241
4	1,810	2,559	1,385	706	355
6	3,739	5,288	2,862	1,459	733
8	6,433	9,097	4,923	2,510	1,261
10	9,677	13,683	7,406	3,776	1,897
12	13,685	19,351	10,474	5,340	2,683
14	18,385	26,000	14,072	7,174	3,604
16	23,779	33,628	18,199	9,278	4,661
18	29,865	42,235	22,858	11,653	5,855
20	36,644	51,822	28,046	14,298	7,183
24	52,279	73,934	40,013	20,398	10,249
30	80,425	113,738	61,554	31,380	15,766
36	115,209	162,931	88,177	44,952	22,585
42	155,528	219,950	119,036	60,684	30,489
48	202,683	286,637	155,127	79,083	39,733
54	260,214	367,999	199,160	101,531	51,011
60	298,121	421,606	228,172	116,321	58,442

NOTE:
1. TO DETERMINE THRUST AT PRESSURE OTHER THAN 100 PSI MULTIPLY THE THRUST OBTAINED IN THE TABLE BY THE RATIO OF THE PRESSURE TO 100.



"K" CRETE ENCASEMENT AT SANITARY OR STORM SEWER

N.T.S.

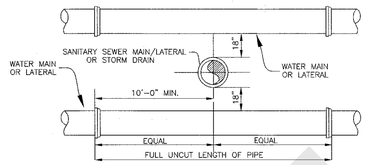


NOTES:
1. WATER MAIN MAY BE LOOPED ABOVE OBSTRUCTION IF 4'-0" MINIMUMT IS MAINTAINED ABOVE MAIN.
2. WATER MAIN SHALL BE CLASS 54 DUCTILE IRON CEMENT LINED PIPE. ALL FITTINGS SHALL BE MECHANICAL JOINTS WITH CONCRETE THRUST BLOCKS.
3. MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY OR STORM SEWER AND WATER MAIN SHALL BE 18" MINIMUM; WHEN LESS THAN MINIMUM SPECIFIED CLEARANCE, A 6" MINIMUM CONCRETE CRADLE OR ENCASEMENT SHALL BE PROVIDED. CLEARANCE BETWEEN WATER MAIN AND OTHER OBSTRUCTIONS SHALL BE 12" MINIMUM.
4. WATER MAIN INSTALLATION SHALL BE IN ACCORDANCE WITH UNITED WATER NEW YORK SPECIFICATIONS. ANY DEVIATION MUST BE APPROVED BY UNITED WATER NEW YORK PRIOR TO INSTALLATION.
5. FITTINGS TO BE POLY WRAPPED PRIOR TO THE INSTALATION OF THE "K"CRETE ENCASEMENT.

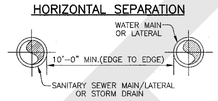
WATER AND SEWER CROSSING

N.T.S.

VERTICAL SEPARATION



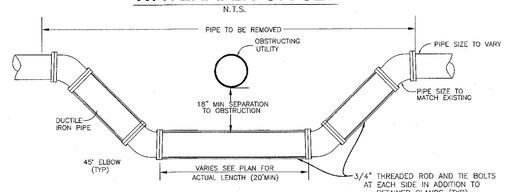
HORIZONTAL SEPARATION



NOTE:
WHEN WATER AND SEWER LINES ARE PARALLEL, MIN. HORIZONTAL SEPARATION SHALL BE 10'-0" (MEASURED FROM EDGE TO EDGE). WHERE MINIMUM CLEARANCE DISTANCES CANNOT BE MET WATER MAINS SHALL BE ENCASED IN "K" CRETE PER"K" CRETE ENCASED TRENCH DETAIL SPECIFICATIONS.

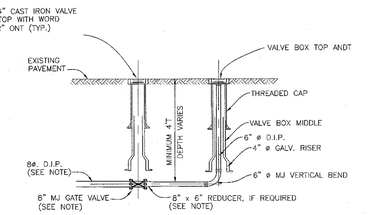
WATERMAIN OFFSET

N.T.S.



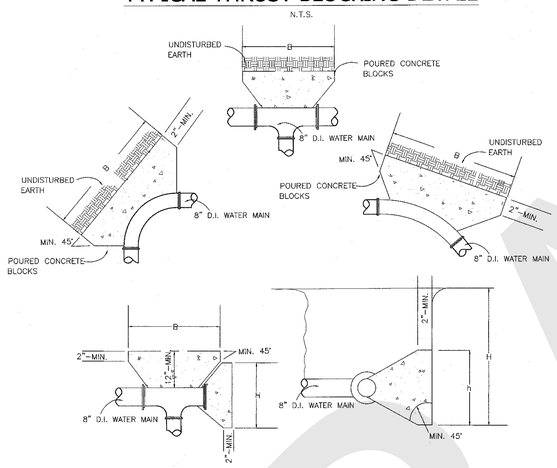
BLOW-OFF ASSEMBLY DETAIL

N.T.S.



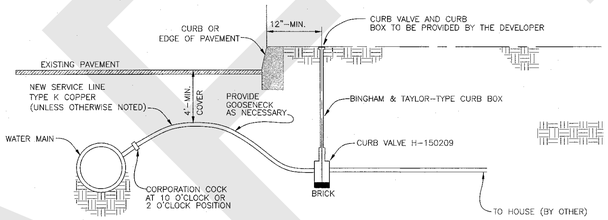
TYPICAL THRUST BLOCKING DETAIL

N.T.S.



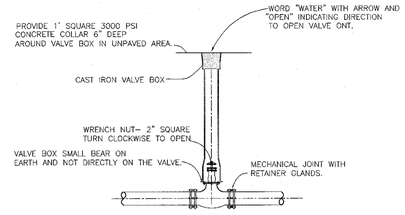
NEW SERVICE CONNECTION DETAIL

N.T.S.



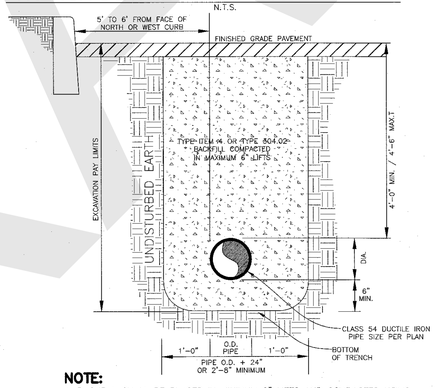
GATE VALVE INSTALLATION DETAIL

N.T.S.



TRENCH DETAIL IN NEW PAVED ROADS

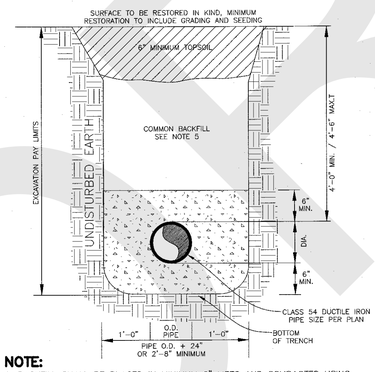
N.T.S.



NOTE:
1. BACKFILL SHALL BE PLACED IN MINIMUM 6" LIFTS AND COMPACTED USING MECHANICAL MEANS OF COMPACTION OR AS APPROVED BY UNITED WATER.
2. WOOD BLOCKING SHALL NOT BE USED BENEATH THE PIPE AS A MEANS OF SETTING GRADE.
3. ROCK AND SOIL EXCAVATION PAY LIMITS SHALL BE BASED ON A 4 FEET OF DEPTH TO PIPE CROWN, PLUS THE DIAMETER OF PIPE AND 6 INCHES OF BEDDING. THE TRENCH WIDTH SHALL BE BASED ON THE PIPE DIAMETER PLUS 24 INCHES. COSTS ASSOCIATED WITH OVEREXCAVATION SHALL BE AT THE CONTRACTORS EXPENSE
4. WHERE A 10 FOOT HORIZONTAL AND A 18 INCH VERTICAL SEPARATION BETWEEN MAIN AND SEWER CAN NOT BE MAINTAINED THE MAIN SHALL BE K-CRETE ENCASED. SEE SEWER SEPARATION DETAIL.
5. THE COSTS FOR CONSTRUCTION OF NEW ROADWAYS SHALL NOT BE INCLUDED IN THE CONTRACTORS COST.

TRENCH DETAIL IN UNPAVED AREAS

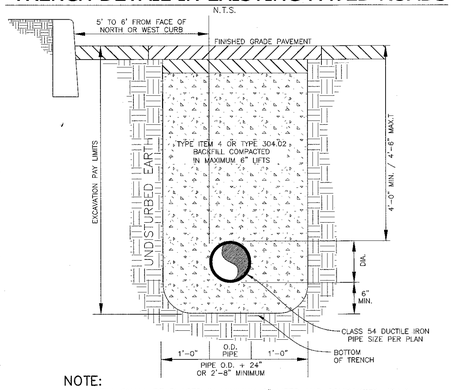
N.T.S.



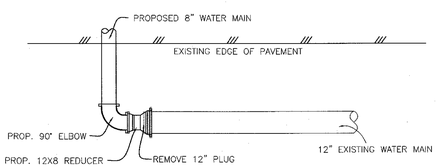
NOTE:
1. BACKFILL SHALL BE PLACED IN MINIMUM 6" LIFTS AND COMPACTED USING MECHANICAL MEANS OF COMPACTION OR AS APPROVED BY UNITED WATER.
2. WOOD BLOCKING SHALL NOT BE USED BENEATH THE PIPE AS A MEANS OF SETTING GRADE.
3. ROCK AND SOIL EXCAVATION PAY LIMITS SHALL BE BASED ON A 4 FEET OF DEPTH TO PIPE CROWN, PLUS THE DIAMETER OF PIPE AND 6 INCHES OF BEDDING. THE TRENCH WIDTH SHALL BE BASED ON THE PIPE DIAMETER PLUS 24 INCHES. COSTS ASSOCIATED WITH OVEREXCAVATION SHALL BE AT THE CONTRACTORS EXPENSE
4. WHERE A 10 FOOT HORIZONTAL AND A 18 INCH VERTICAL SEPARATION BETWEEN MAIN AND SEWER CAN NOT BE MAINTAINED THE MAIN SHALL BE K-CRETE ENCASED. SEE SEWER SEPARATION DETAIL.
5. COMMON BACKFILL SHALL CONSIST OF COMPATABLE SOILS FREE OF COBBLES GREATER THAN 4INCHES, AND JAGGED RIPPED ROCK. THE COST FOR BACKFILLING SHALL BE INCLUDED IN THE CONTRACTORS COST OF EXCAVATION.

TRENCH DETAIL IN EXISTING PAVED ROADS

N.T.S.



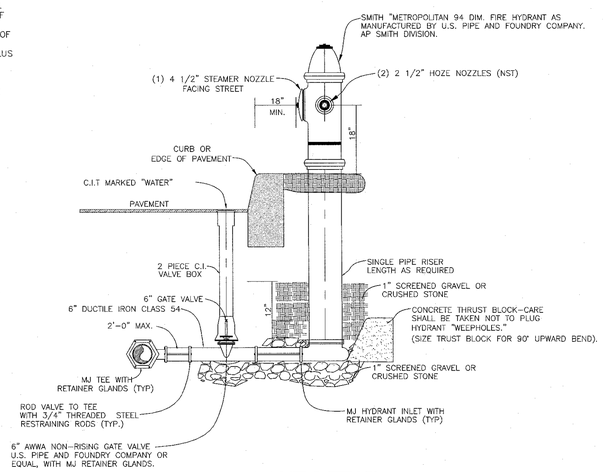
NOTE:
1. BACKFILL SHALL BE PLACED IN MINIMUM 6" LIFTS AND COMPACTED USING MECHANICAL MEANS OF COMPACTION OR AS APPROVED BY UNITED WATER.
2. WOOD BLOCKING SHALL NOT BE USED BENEATH THE PIPE AS A MEANS OF SETTING GRADE.
3. ROCK AND SOIL EXCAVATION PAY LIMITS SHALL BE BASED ON A 4 FEET OF DEPTH TO PIPE CROWN, PLUS THE DIAMETER OF PIPE AND 6 INCHES OF BEDDING. THE TRENCH WIDTH SHALL BE BASED ON THE PIPE DIAMETER PLUS 24 INCHES. COSTS ASSOCIATED WITH OVEREXCAVATION SHALL BE AT THE CONTRACTORS EXPENSE
4. WHERE A 10 FOOT HORIZONTAL AND A 18 INCH VERTICAL SEPARATION BETWEEN MAIN AND SEWER CAN NOT BE MAINTAINED THE MAIN SHALL BE K-CRETE ENCASED. SEE SEWER SEPARATION DETAIL.
5. PAVEMENT SHALL BE RESTORED IN ACCORDANCE WITH LOCAL, SLATE, OR COUNTY PERMIT REQUIREMENTS, ALL COSTS ASSOCIATED WITH RESTORATION INCLUDING SAW CUTTING, AND MILLING SHALL BE INCLUDED IN THE UNIT COST FOR EXCAVATION AND RESTORATION OF PAVEMENT



ROUTE 202

WATER MAIN CONNECTION AT ROUTE 202 DETAIL

N.T.S.



FIRE HYDRANT DETAIL

N.T.S.

REVISION	DATE	DESCRIPTION
10	10-24-17	PAD "C" REVISED ALL MAPS, UPDATE CONTACT PEOPLE
9	9-13-17	PER COURT ORDER DWG. 1-7
8	8-21-15	REVISION PER NEW USER PAD "C"
7	3-11-15	PER RCDA COMMENTS 10-3-14
6	6-27-14	PER RCDA COMMENTS 9-17-13
5	3-10-14	PER MASER COMMENTS ON R.O.W.
4	6-12-13	REVISION PER RCDA COMMENTS 8-29-12, P1-P6 & P-9 WATER MAIN DETAILS
3	11-28-12	VARIANCES GRANTED DATE, NOTE 8 ON SHT. 3 & 4, NOTE 23 ON SHT. 3 & 5, ROAD IMPROVEMENT AT ACCESS TO P.I.P. LIGHT QTY., LANDSCAPING LEGEND
2	9-27-12	SIGNATURE BOXES, GENERAL NOTES, MINOR LANDSAPING AND LIGHTING REVISION, NEW DRAWINGS 33-37 & P-9
1	6-18-12	PROFILES, RETENTION DETAILS, VARIANCES

ATZL, NASHER & ZIGLER P.C.
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P.O. Box 636, Chester, New York 10918, Tel: (845) 469-1015, Fax: (845) 469-1016
Web: ANZNY.com

PROJECT:

MINISCEONGO PARK

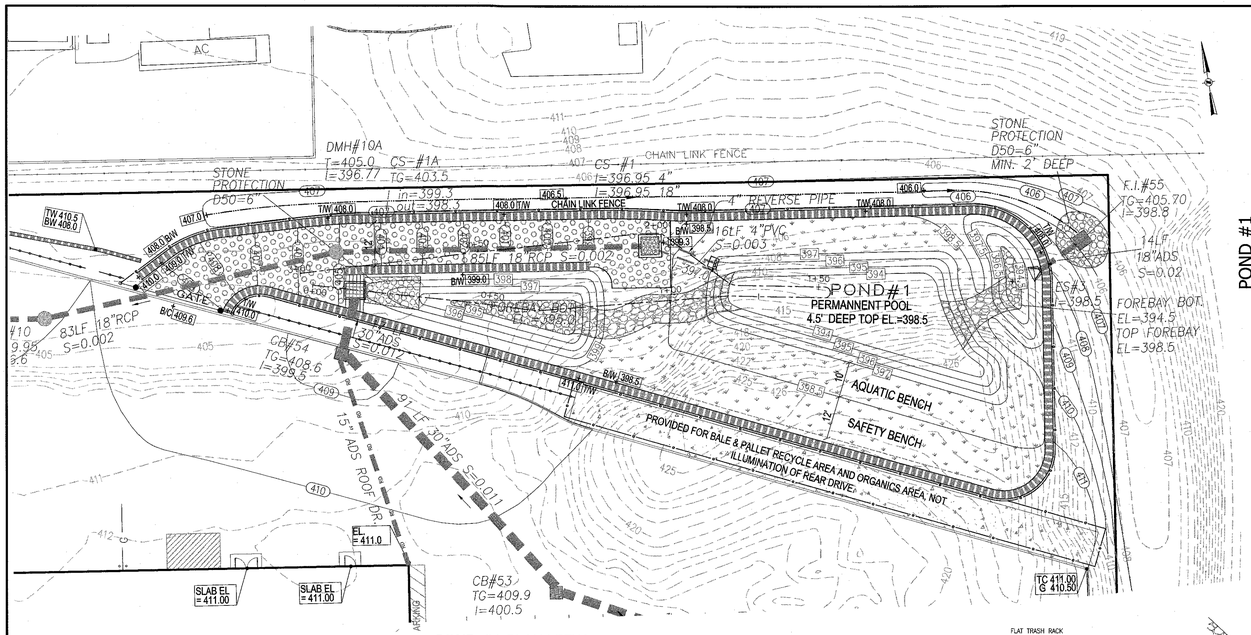
TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

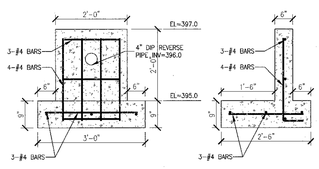
UNITED WATER NEW YORK WATER MAIN EXTENSION DETAILS

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JUNE 18, 2012	SCALE: AS NOTED
PROJECT NO: 1560	DRAWING NO: 26

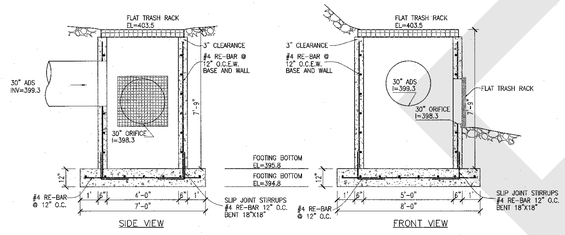
EDWARD A. MARKISH
N.Y.S. P.E. LIC. NO. 55116

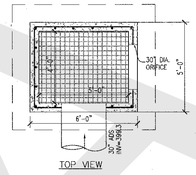


POND #1 PLAN VIEW
Scale: 1"=20'

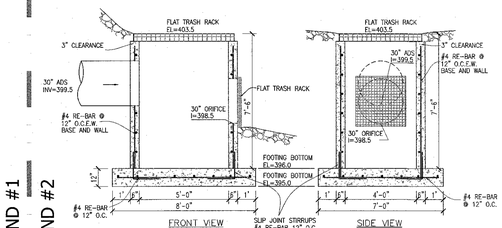


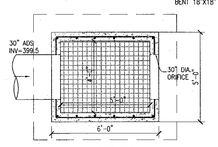
CONCRETE HW #1 & #2 DETAIL
Scale: 1/2"=1'



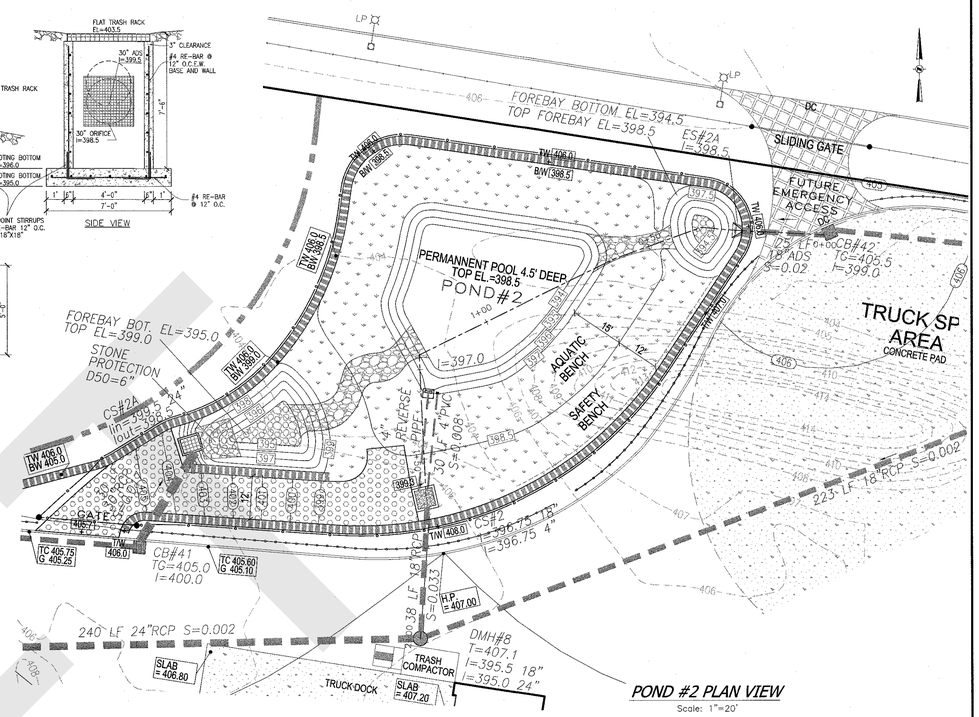


CS #1A DETAIL
SCALE: 1/4"=1'

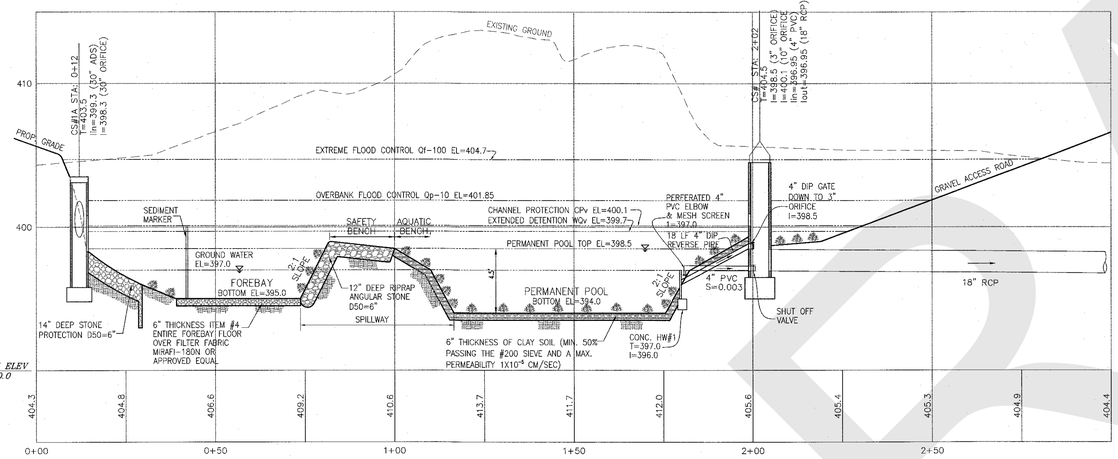




CS #2A DETAIL
SCALE: 1/4"=1'

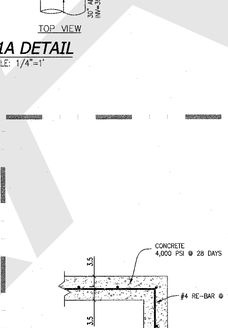


POND #2 PLAN VIEW
Scale: 1"=20'



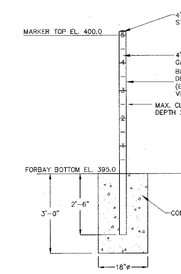
POND #1 SECTION
Scale: 1"=20' /H, 1"=5' /V

NOTE:
1. ALL RETAINING WALLS SHALL BE DESIGNED, INSPECTED AND CERTIFIED BY LICENSED PROFESSIONAL ENGINEER IN THE STATE OF NEW YORK.
2. DURING MAINTENANCE, THE PERMANENT POOL SHALL BE PARTIALLY DRAINED OUT BY GRAVITY. THE POOL WATER BELOW THE POND DRAIN PIPE INVERT SHALL BE PUMPED OUT BY 4" DIA. GAS ENGINE SUMP PUMP.
3. THE LOW FLOW REVERSE PIPE (4" DIP) SHALL MAINTAIN MIN. 6" COVER.

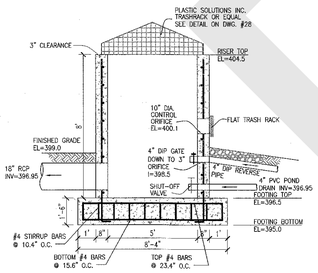


POND #2 SECTION
Scale: 1"=20' /H, 1"=5' /V

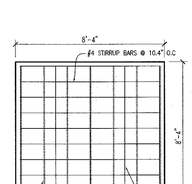
NOTE:
1. ALL RETAINING WALLS SHALL BE DESIGNED, INSPECTED AND CERTIFIED BY LICENSED PROFESSIONAL ENGINEER IN THE STATE OF NEW YORK.
2. DURING MAINTENANCE, THE PERMANENT POOL SHALL BE PARTIALLY DRAINED OUT BY GRAVITY. THE POOL WATER BELOW THE POND DRAIN PIPE INVERT SHALL BE PUMPED OUT BY 4" DIA. GAS ENGINE SUMP PUMP.
3. THE LOW FLOW REVERSE PIPE (4" DIP) SHALL MAINTAIN MIN. 6" COVER.



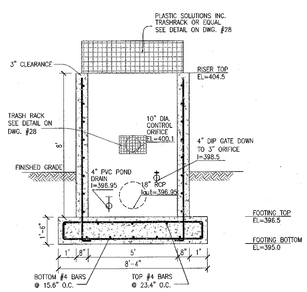
(POND #1 FOREBAY)
FIXED SEDIMENT DEPTH MARKER DETAIL
N.T.S.



SIDE VIEW



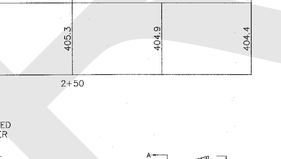
TOP VIEW



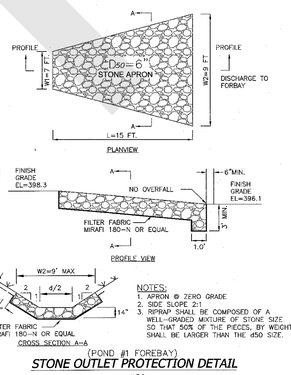
FRONT VIEW

(CONTROL STRUCTURE OF POND #1)
CS #1 DETAIL
SCALE: 1/4"=1'

FOOTING REINFORCEMENT DETAIL
SCALE: 1/4"=1'

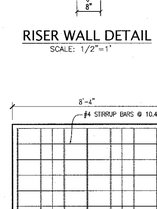


RISER WALL DETAIL
SCALE: 1/2"=1'

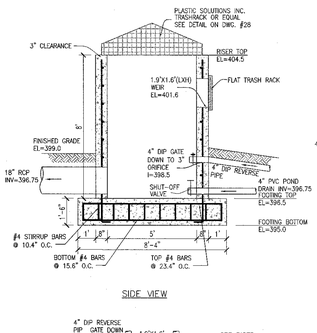


NOTES:
1. APRON @ ZERO GRADE
2. SIDE SLOPE 2:1
3. RIPRAP SHALL BE COMPOSED OF A WELL-GRADED MIXTURE OF STONE SIZE SO THAT 50% OF THE PIECES, BY WEIGHT, SHALL BE LARGER THAN THE d50 SIZE.

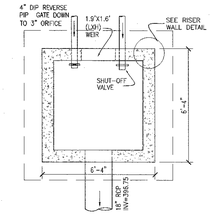
(POND #1 FOREBAY)
STONE OUTLET PROTECTION DETAIL
N.T.S.



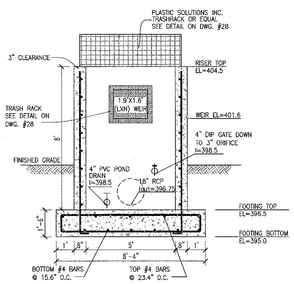
FOOTING REINFORCEMENT DETAIL
SCALE: 1/4"=1'



SIDE VIEW

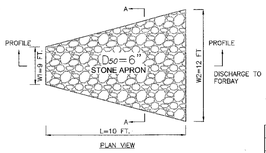


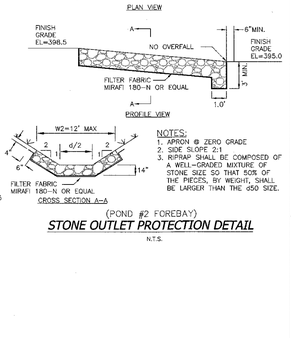
TOP VIEW



FRONT VIEW

(CONTROL STRUCTURE OF POND #2)
CS #2 DETAIL
SCALE: 1/4"=1'





NOTES:
1. APRON @ ZERO GRADE
2. SIDE SLOPE 2:1
3. RIPRAP SHALL BE COMPOSED OF A WELL-GRADED MIXTURE OF STONE SIZE SO THAT 50% OF THE PIECES, BY WEIGHT, SHALL BE LARGER THAN THE d50 SIZE.

(POND #2 FOREBAY)
STONE OUTLET PROTECTION DETAIL
N.T.S.

REVISION	DATE	DESCRIPTION
10	10-24-17	PAD "C" REVISED ALL MAPS, UPDATE CONTACT PEOPLE
9	9-13-17	PER COURT ORDER DWG. 1-7
8	8-21-15	REVISION PER NEW USER PAD "C"
7	3-11-15	PER RCDA COMMENTS 10-3-14
6	6-27-14	PER RCDA COMMENTS 9-17-13
5	3-10-14	PER MASER COMMENTS ON R.O.W.
4	6-12-13	REVISION PER RCDA COMMENTS 8-29-12, P1-P6 & P-9 WATER MAIN DETAILS
3	11-28-12	VARIANCES GRANTED DATE, NOTE 8 ON SHT. 3 & 4, NOTE 23 ON SHT. 3 & 5, ROAD IMPROVEMENT AT ACCESS TO P.I.P. LIGHT QTY., LANDSCAPING LEGEND
2	9-27-12	SIGNATURE BOXES, GENERAL NOTES, MINOR LANDSAPING AND LIGHTING REVISION, NEW DRAWINGS 33-37 & P-9
1	6-18-12	PROFILES, RETENTION DETAILS, VARIANCES

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P.O. Box 636
Chester, New York 10918
Tel: (845) 469-1015
Fax: (845) 469-1016
Web: ANZNY.com

PROJECT:
MINISCEONGO PARK

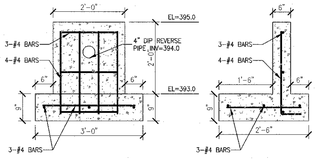
TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:
POND DETAILS 1
POND #1 & #2

DRAWN BY: LF	CHECKED BY: DMZ
DATE: JUNE 18, 2012	SCALE: 1 IN. = AS SHOWN
PROJECT NO: 1560	DRAWING NO: 27

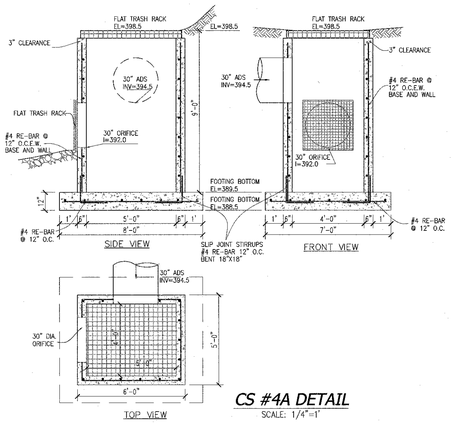
RYAN A. NASHER, P.E.
N.Y.S. P.E. LIC. NO. 89066

JOHN R. ZIGLER
N.Y.S. P.L.S. LIC. NO. 50228



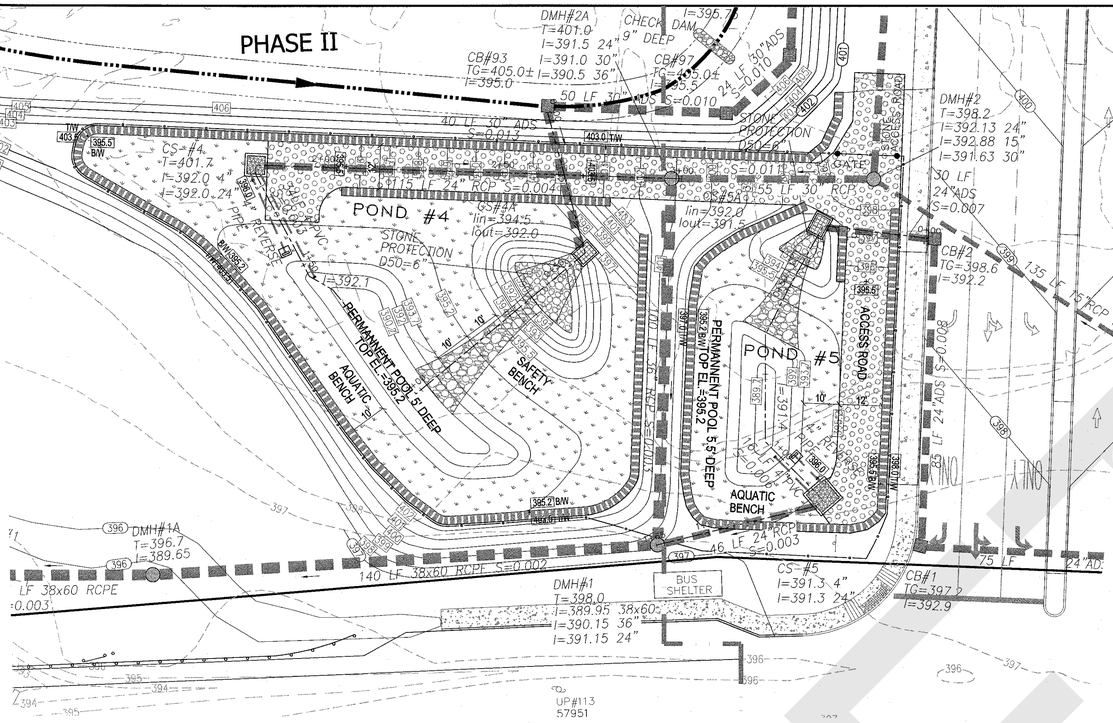
CONCRETE HW #4 DETAIL

Scale: 1/2"=1'



CS #4A DETAIL

SCALE: 1/4"=1'

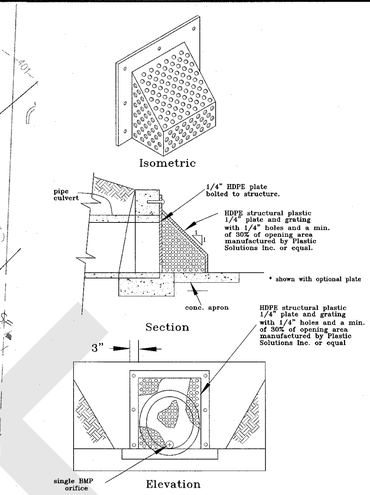


POND #4 PLAN VIEW

Scale: 1"=20'

POND #5 PLAN VIEW

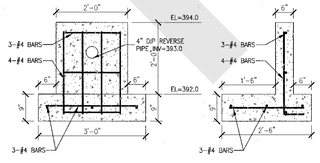
Scale: 1"=20'



(PLASTIC SOLUTIONS INC.)

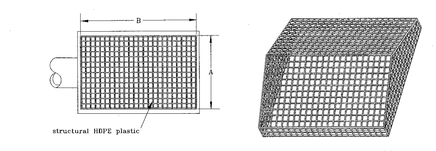
BMP TRASH RACK

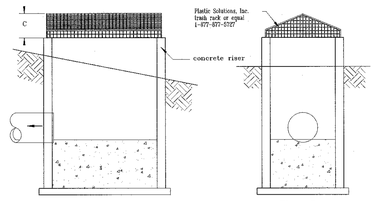
NTS



CONCRETE HW #5 DETAIL

Scale: 1/2"=1'



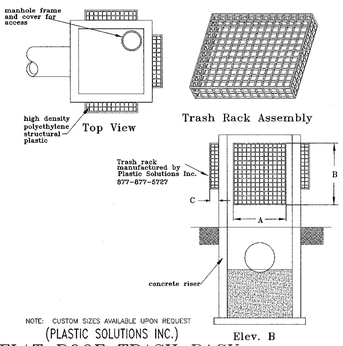


NOTE: CUSTOM SIZES AVAILABLE UPON REQUEST

(PLASTIC SOLUTIONS INC.)

PEAK ROOF TRASH RACK

NTS

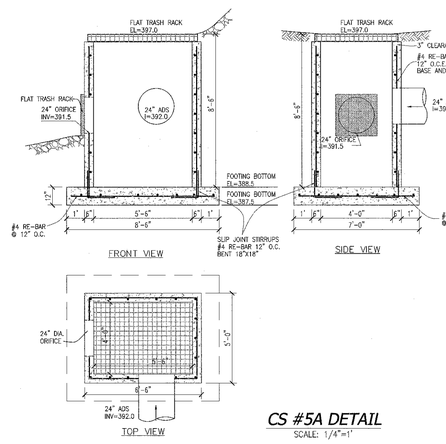


NOTE: CUSTOM SIZES AVAILABLE UPON REQUEST

(PLASTIC SOLUTIONS INC.)

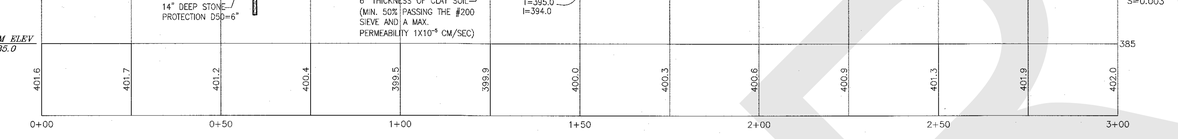
FLAT ROOF TRASH RACK

NTS



CS #5A DETAIL

SCALE: 1/4"=1'



POND #4 SECTION

Scale: 1"=20' /H, 1"=5' /V

NOTE:
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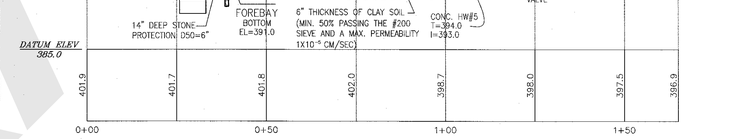
3. THE LOW FLOW REVERSE PIPE (4" DIP) SHALL MAINTAIN MIN. 6" COVER.

POND #4

POND #5



POND #5 SECTION

Scale: 1"=20' /H, 1"=5' /V

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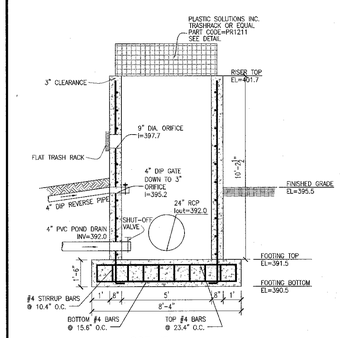
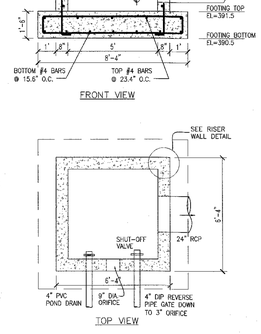
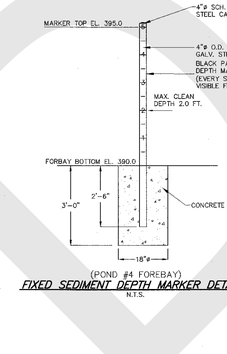




(CONTROL STRUCTURE OF POND #4)

CS #4 DETAIL

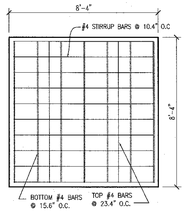
SCALE: 1/4"=1'



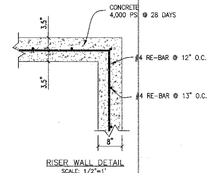
(POND #4 FOREBAY)

FIXED SEDIMENT DEPTH MARKER DETAIL

N.T.S.

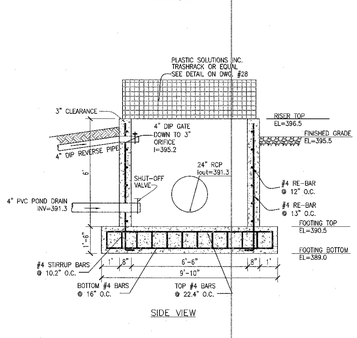


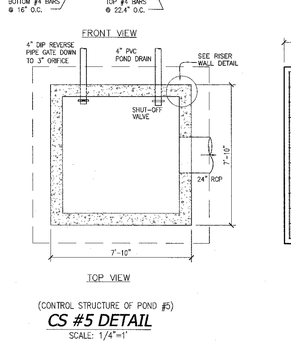
FOOTING REINFORCEMENT



RISER WALL DETAIL

SCALE: 1/2"=1'

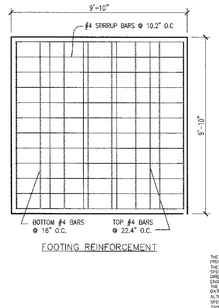




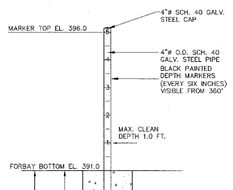
(CONTROL STRUCTURE OF POND #5)

CS #5 DETAIL

SCALE: 1/4"=1'



FOOTING REINFORCEMENT



(POND #5 FOREBAY)

FIXED SEDIMENT DEPTH MARKER DETAIL

N.T.S.

REVISION	DATE	DESCRIPTION
10	10-24-17	PAD "C" REVISED ALL MAPS, UPDATE CONTACT PEOPLE
9	9-13-17	PER COURT ORDER DWG. 1-7
8	8-21-15	REVISION PER NEW USER PAD "C"
7	3-11-15	PER RCDA COMMENTS 10-3-14
6	6-27-14	PER RCDA COMMENTS 9-17-13
5	3-10-14	PER MASER COMMENTS ON R.O.W.
4	6-12-13	REVISION PER RCDA COMMENTS 8-29-12, P1-P6 & P-9 WATER MAIN DETAILS
3	11-28-12	VARIANCES GRANTED DATE, NOTE 8 ON SHT. 3 & 4, NOTE 23 ON SHT. 3 & 5, ROAD IMPROVEMENT AT ACCESS TO P.I.P. LIGHT QTY., LANDSCAPING LEGEND
2	9-27-12	SIGNATURE BOXES, GENERAL NOTES, MINOR LANDSAPING AND LIGHTING REVISION, NEW DRAWINGS 33-37 & P-9
1	6-18-12	PROFILES, RETENTION DETAILS, VARIANCES

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Fax: (845) 634-5543

P.O. Box 636
Chester, New York 10918
Tel: (845) 469-1015
Fax: (845) 469-1016

Web: ANZNY.com

PROJECT:

MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

POND DETAILS 2
POND #4 & #5

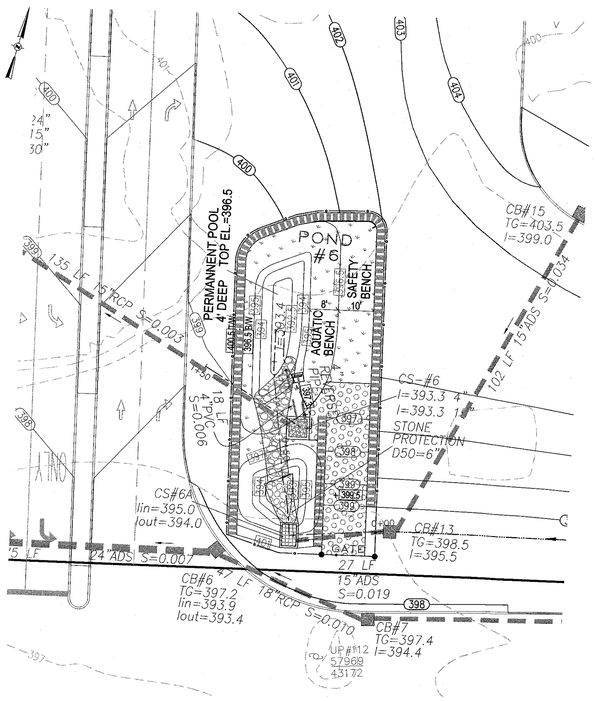
DRAWN BY: LF	CHECKED BY: DMZ
DATE: JUNE 18, 2012	SCALE: AS SHOWN
PROJECT NO: 1560	DRAWING NO: 28

STATE OF NEW YORK — RYAN A. NASHER — LICENSED PROFESSIONAL ENGINEER

RYAN A. NASHER, P.E.
N.Y.S. P.E. LIC. NO. 89066

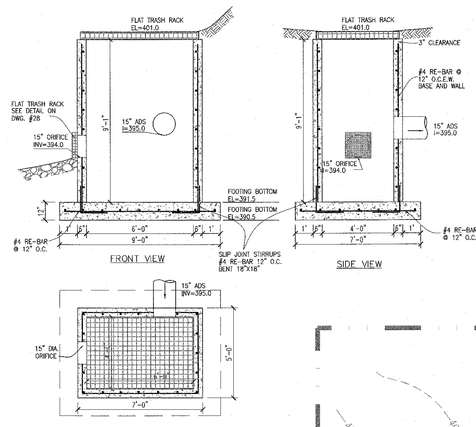
STATE OF NEW YORK — JOHN A. ATZL — LICENSED LAND SURVEYOR

JOHN R. ATZL
N.Y.S. L.S. LIC. NO. 050228



POND #6 PLAN VIEW

Scale: 1"=20'



CS #6A DETAIL

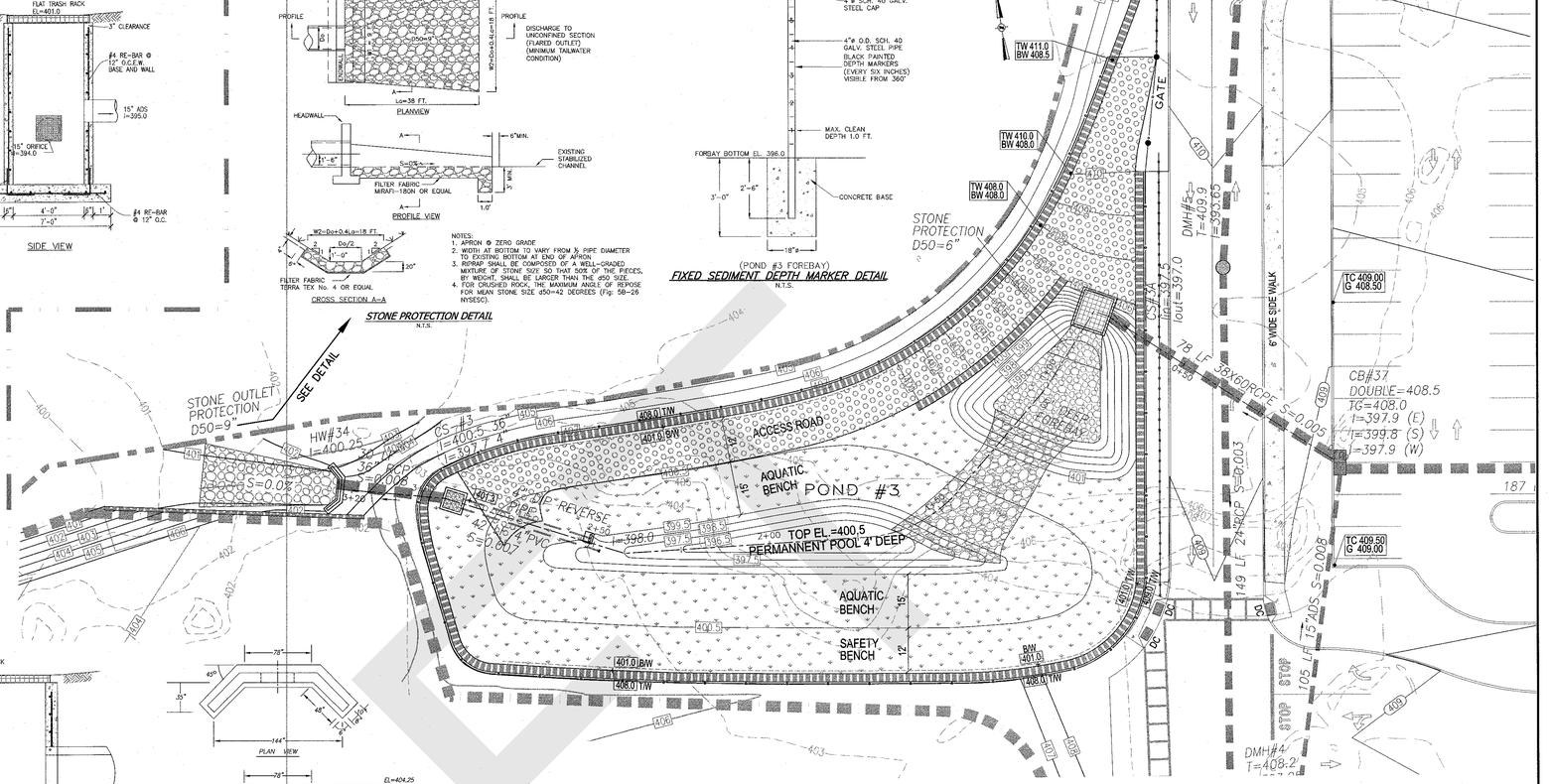
SCALE: 1/4"=1'

STONE PROTECTION DETAIL

N.T.S.

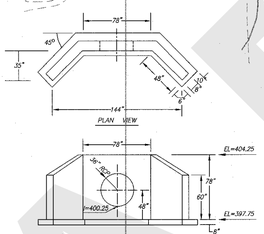
NOTES:
1. APRON @ ZERO GRADE
2. WIDTH AT BOTTOM TO VARY FROM ¾ PIPE DIAMETER TO EXISTING BOTTOM AT END OF APRON
3. RIPRAP SHALL BE COMPOSED OF A WELL-GRADED MIXTURE OF STONE SIZE SO THAT SIZE OF THE PIECES, BY WEIGHT, SHALL BE LARGER THAN THE d50 SIZE.
4. FOR CRUSHED ROCK, THE MAXIMUM ANGLE OF REPOSE FOR MEAN STONE SIZE d50=42 DEGREES (Fig. 5B-26 NYSESC).

(POND #3 FOREBAY)
FIXED SEDIMENT DEPTH MARKER DETAIL
N.T.S.



POND #3 PLAN VIEW

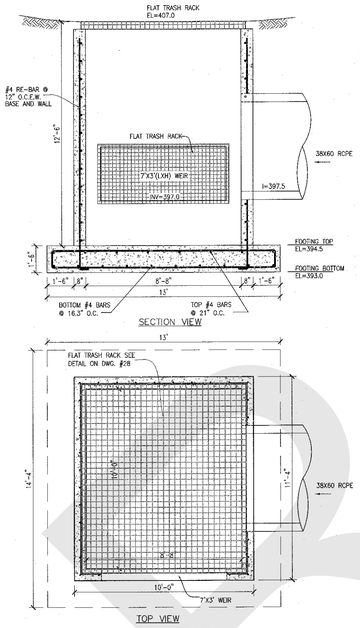
Scale: 1"=20'



NOTES
* ALL EXPOSED EDGES TO HAVE 1" BEVELED CORNERS
* APRON BY CONTRACTOR IN FIELD
* REINFORCING - NO. 4 BARS AT 12" O.C.E.W.
* CONCRETE TO TEST 4000 PSI @ 28 DAYS

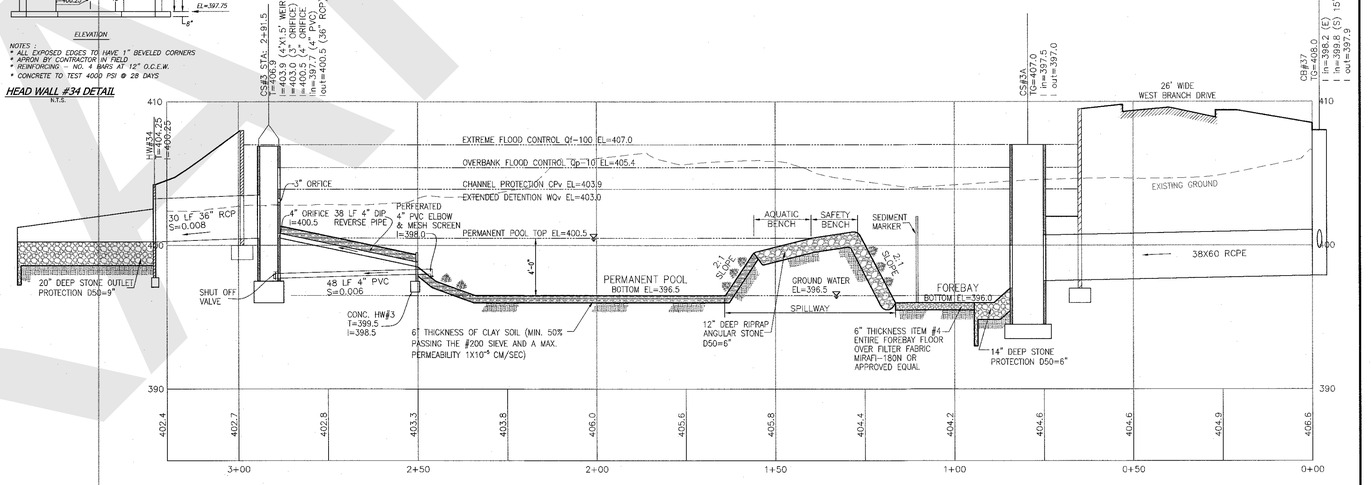
HEAD WALL #34 DETAIL

N.T.S.



CS #3A DETAIL

SCALE: 1/4"=1'



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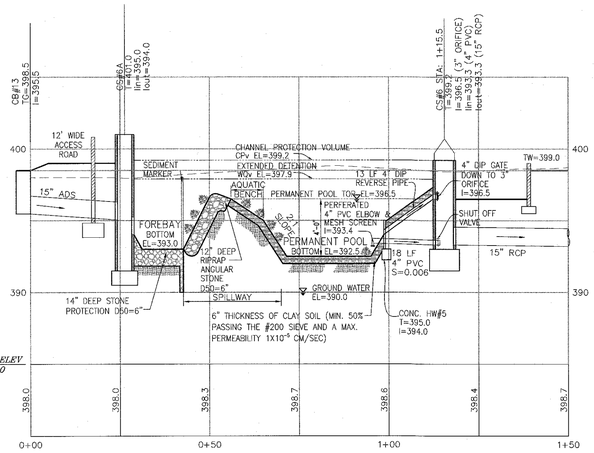
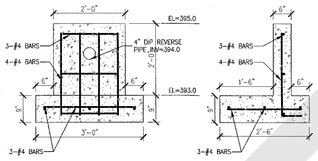
3. THE LOW FLOW REVERSE PIPE (4" DIP) SHALL MAINTAIN MIN. 6" COVER.



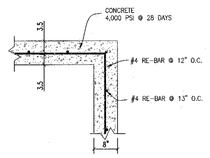
POND #6 SECTION

Scale: 1"=20' /H, 1"=5' /V



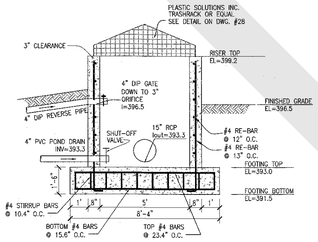
CONCRETE HW #6 DETAIL

Scale: 1/2"=1'

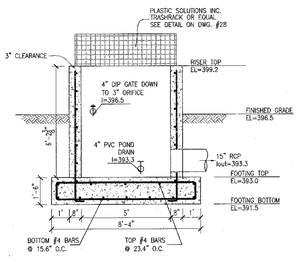


RISER WALL DETAIL

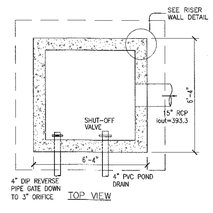
SCALE: 1/2"=1'



SIDE VIEW



FRONT VIEW

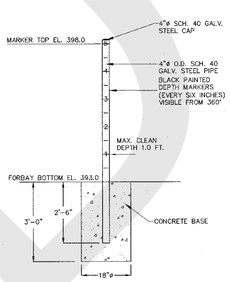


TOP VIEW

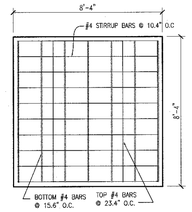
(CONTROL STRUCTURE OF POND #6)

CS #6 DETAIL

SCALE: 1/4"=1'



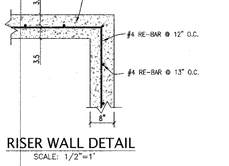
(POND #6 FOREBAY)
FIXED SEDIMENT DEPTH MARKER DETAIL
N.T.S.



FOOTING REINFORCEMENT DETAIL

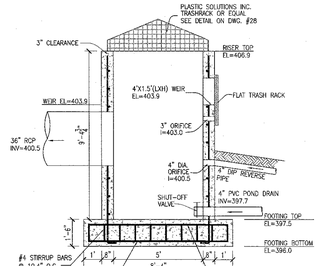
SCALE: 1/4"=1'

POND #6
POND #3

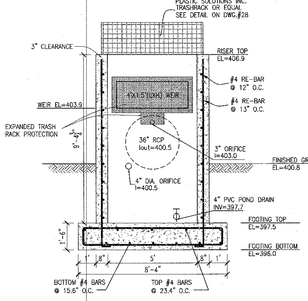


RISER WALL DETAIL

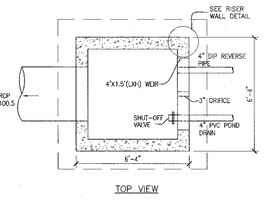
SCALE: 1/2"=1'



SIDE VIEW



FRONT VIEW



TOP VIEW

(CONTROL STRUCTURE OF POND #3)

CS #3 DETAIL

SCALE: 1/4"=1'

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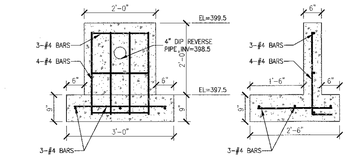
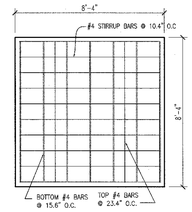
POND #3 SECTION

Scale: 1"=20' /H, 1"=5' /V



CONCRETE HW #3 DETAIL

Scale: 1/2"=1'



FOOTING REINFORCEMENT DETAIL

SCALE: 1/4"=1'

RYAN A. NASHER, P.E.
N.Y.S. P.E. LIC. NO. 89066

JOHN R. ATZL
N.Y.S. P.L.S. LIC. NO. 50228

REVISION	DATE	DESCRIPTION
10	10-24-17	PAD "C" REVISED ALL MAPS, UPDATE CONTACT PEOPLE
9	9-13-17	PER COURT ORDER DWG. 1-7
8	8-21-15	REVISION PER NEW USER PAD "C"
7	3-11-15	PER RCDA COMMENTS 10-3-14
6	6-27-14	PER RCDA COMMENTS 9-17-13
5	3-10-14	PER MASER COMMENTS ON R.O.W.
4	6-12-13	REVISION PER RCDA COMMENTS 8-29-12, P1-P6 & P-9 WATER MAIN DETAILS
3	11-28-12	VARIANCES GRANTED DATE, NOTE 8 ON SHT. 3 & 4, NOTE 23 ON SHT. 3 & 5, ROAD IMPROVEMENT AT ACCESS TO P.I.P, LIGHT QTY., LANDSCAPING LEGEND
2	9-27-12	SIGNATURE BOXES, GENERAL NOTES, MINOR LANDSAPING AND LIGHTING REVISION, NEW DRAWINGS 33-37 & P-9
1	6-18-12	PROFILES, RETENTION DETAILS, VARIANCES

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Fax: (845) 634-5543
P.O. Box 636
Chester, New York 10918
Tel: (845) 469-1015
Fax: (845) 469-1016
Web: ANZNY.com

PROJECT:

MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

POND DETAILS 3
POND #3 & #6

DRAWN BY: LF	CHECKED BY: DMZ
DATE: JUNE 18, 2012	SCALE: AS SHOWN
PROJECT NO: 1560	DRAWING NO: 29

Hydrologic Zones Description and Hydrologic Conditions per NYSDEC SWMDM

Zone 1: Deep Water Area (1- 6 Feet)

Zone 1 consist of deep pools range from one to six feet in depth, and are best colonized by submergent plants, if at all. The function of the planting is to reduce resedimentation and improve oxidation while creating a greater aquatic habitat. Plant material must be able to withstand constant inundation of water of one foot or greater in depth.

1. Plants may be submerged partially or entirely.
2. Plants to be placed at approximate 24 inch. Spacing throughout.
3. Plants should be able to enhance pollutant uptake.
4. Plants may provide food and cover for waterfowl, desirable insects, and other aquatic life.
5. Pool floor seeding mix for wildlife and plant diversity. Application rate is recommended to be 10 lbs per acres.

Zone 1 Plant Listing:

Planting Percentage/Plant Name/Note

40% Water Weed (*Elodea canadensis*) Good water oxygenator. High nutrient, copper, manganese and chromium removal.
25% Wild Celery (*Valisneria americana*) Tolerant of murkey water and high nutrient loads.
30% Pond Weed, Sago (*Potamogeton pectinatus*) Removes heavy metals.
5% Long-leaved Pond Weed (*Potamogeton nodosus*) Rapid spread/Salinity < 0.5 ppt. Flowers float on surface, Aug. - Sept.

Zone 2: Shallow Water Bench (Normal Pool to 1 Foot)

Zone 2 includes all areas that are inundated below the normal pool to a depth of one foot, and is the primary area where emergent plants will grow in a stormwater wetlands. Zone 2 also coincides with the aquatic bench found in stormwater ponds. This zone offers ideal conditions for the growth of many emergent wetland species. These areas may be located at the edge of the pond or on low mounds of earth located below the surface of the water within the pond. When planted, Zone 2 can be an important habitat for many aquatic and nonaquatic animals, creating a diverse food chain. This food chain includes predators, allowing a natural regulation of mosquito populations, thereby reducing the need for insecticidal applications.

1. Plant material must be able to withstand constant inundation of water to depths between six inches and one foot deep.
2. Plants to be placed at approximate 24 inch. Spacing throughout.
3. Plants will be partially submerged.
4. Plants should be able to enhance pollutant uptake.
5. Plants may provide food and cover for waterfowl, desirable insects and other aquatic life.
6. Plants will stabilize the bottom of the pond, as well as the edge of the pond, absorbing wave impacts and reducing erosion, when water level fluctuates.
7. Plant also slow water velocities and increase sediment deposition rates. Application rate is recommended to be 10 lbs per acres.
8. Plants can reduce resuspension of sediments caused by the wind.
9. Plants can also soften the engineered contours of the pond, and can conceal drawdowns during dry weather.

Zone 2 Plant Listing:

Planting Percentage/Plant Name/Note

25% Common Three-Square *(Scirpus pungens)* High metal removal.
25% Duckweed *(Lemma sp.)* High metal removal.
10% Hardstem Bulrush *(Scirpus acutus)*Quick to establish, fresh to brackish. Good for sediment stabilization and erosion control.
10% Spatterdock *(Nuphar luteum)*Fast colonizer. Tolerant of fluctuating water levels.
5% Arrowhead, Duck Potato *(Saggitaria latifolia)* Aggressive colonizer.
5% Soft Rush *(Juncus effusus)* Tolerates wet or dry conditions.
5% Switchgrass *(Panicum virgatum)* Tolerates wet/dry conditions.
5% Arrow arum *(Peltandra virginica)* Full sun to partial shade.
5% Pickerelweed *(Pontederia cordata)* Full sun to partial shade.
5% Rice Cutgrass *(Leersia oryzoides)* Full sun although tolerant of shade. Shoreline stabilization.

Zone 3: Shoreline Fringe *(Regularly Inundated)*

Zone 3 encompasses the shoreline of a pond or wetland, and extends vertically about one foot in elevation from the normal pool. This zone includes the safety bench of a pond, and may also be periodically inundated if storm events are subject to extended detention. In order to stabilize the soil in this zone, Zone 3 must have a vigorous cover.

1. Plants should stabilize the shoreline to minimize erosion caused by wave and wind action or water fluctuation.
2. Plant material must be able to withstand occasional inundation of water. Plants will be partially submerged at this time.
3. Plant material should, whenever possible, shade the shoreline, especially the southern exposure. This will help to reduce the water temperature. Plants should be able to enhance pollutant uptake.
4. Plants may provide food and cover for waterfowl, songbirds, and wildlife. Plants could also be selected and located to control overpopulation of waterfowl.
5. Plants should be located to reduce human access, where there are potential hazards, but should not block the maintenance access.
6. Plants should have very low maintenance requirements, since they may be difficult to reach.
7. Plants should be resistant to disease and other problems. Chemical application is not advised in stormwater ponds.

Zone 3 Plant Listing:

Planting Percentage/Plant Name/Note

20% Arrowwood Viburrium *(Viburrium dentatum* Grows best in sun to partial shade
20% Buttonbush *(Cepahlanthus occidentalis)* Full sun to partial shade. Will grow in dry areas.
20% Elderberry *(Sambucus canadensis)* Full sun to partial shade.
20% Silky Dogwood *(Cornus amomium)* Shade and drought tolerant. Good bank stabilizer.
20% Winterberry *(Ilex verticillata)* Full sun to partial shade. Seasonally flooded areas.

Zone 6: Upland Slopes *(Seldom or Never Inundated)*

The last zone extends above the maximum 100 year water surface elevation, and often includes the outer buffer of a pond or wetland. Unlike other zones, this upland area may have sidewalks, bike paths, retaining walls, and maintenance access roads. Care should be taken to locate plants so they will not overgrow these routes or create hiding places that might make the area unsafe.

1. Plant material is capable of surviving and will tolerate any inundation.
2. Ground covers should emphasize infrequent mowing to reduce the cost of maintaining this landscape.
3. Placement of plants in Zone 6 is important since they are often used to create a visual focal point, frame a desirable view, screen undesirable views, serve as a buffer.
4. Plant will provide shade to allow a greater variety of plant materials. Particular attention should be paid to seasonal color and texture of these plantings.

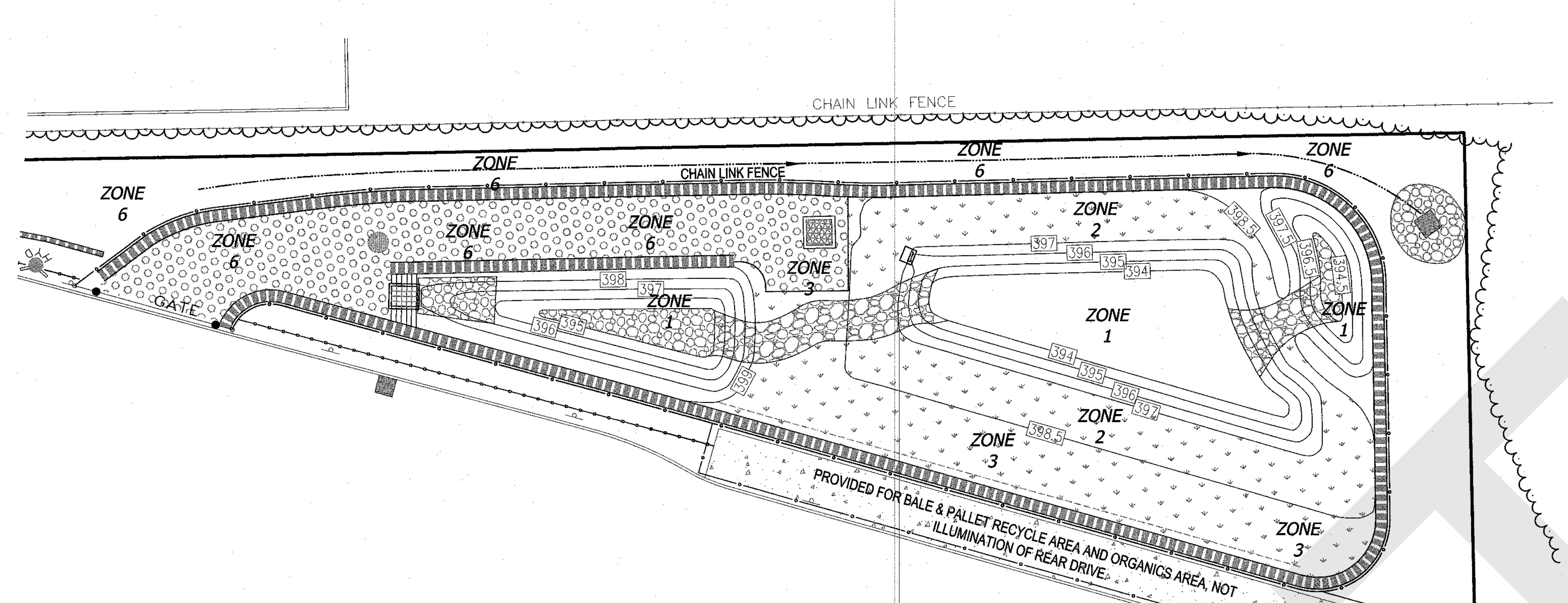
Zone 6 Plant Listing:

Planting Percentage/Plant Name/Note

20% Elderberry *(Sambucus canadensis)* Full sun to partial shade.
20% Shadowbush, Serviceberry *(Amelanchier)* High wildlife value. Nesting, cover, food for birds and mammals.
20% Birdfoot deervetch (*Lotus Corniculatus*) Infrequent inundation. High wildlife value, food for birds.
20% Cardinal flower (*Lobelia cardinalis*) Tolerates partial shade20%Switchgrass *(Panicum virgatum)* Tolerates wet/dry conditions.

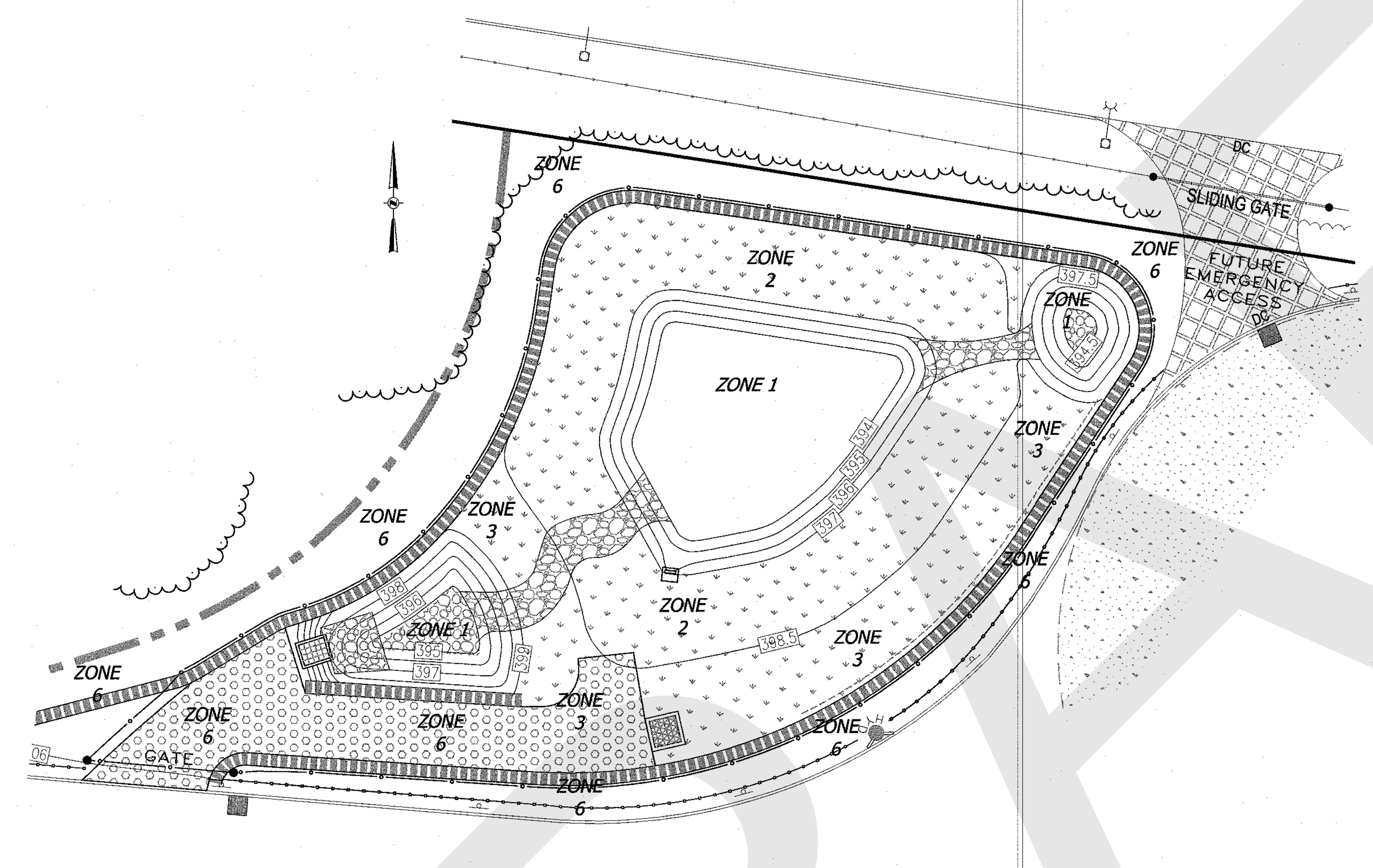
PLANTING NOTES, MAINTENANCE AND SPECIFICATION:

1. ALL PLANTING SHALL BE LOCATED, INSPECTED AND APPROVED BY A CERTIFIED LANDSCAPE ARCHITECT.
2. PLANTS SHALL BE MIXED IN GROUP IN ALL DESIGNATED ZONE 1, 2, 3 & 6
3. PLANTS TO BE PLACED AT APPROXIMATE 24 INCH. SPACING THROUGHOUT IN ZONE 1, 2 AND 3.
4. PLANTS TO BE PLACED IN GROUPS OF 5 TO 7 ALONG THE BANK AT APPROXIMATE 10 FT. SPACING THROUGHOUT IN ZONE 6.
5. ALL PLANTS SHALL BE NURSERY GROWN UNLESS OTHERWISE SPECIALLY PERMITTED IN EACH INSTANT.
6. PLANTS SHALL HAVE NORMAL, WELL-DEVELOPED BRANCHES AND BE DENSELY FOLIATED WHEN IN LEAF.
7. PLANTS SHALL BE VIGOROUS AND FREE FROM DEFECTS, DISEASE, INSECT PESTS, EGGS OR LARVAE, SUN SCALES, INJURIES AND ABRASIONS OF THE BARK. THEY SHALL HAVE WELL-DEVELOPED ROOT SYSTEMS.
8. PLANTS SHALL BE CONTAINER GROWN OR BURLAP BALLED. FRESHLY DUG PLANTS, HEELED IN PLANTS OR PLANTS FROM COLD STORAGE SHALL NOT BE ACCEPTABLE.
9. MEASUREMENT OF SHURBS SHALL BE TAKEN WHEN THEIR BRANCES ARE IN NORMAL POSITION. THE HEIGHT AND SPREAD DIMENTION SHALL BE APPROVED BY A CERTIFIED LANDSCAPE ARCHITECT.
10. GROUND COVER PLANTS SHALL BE FURNISHED IN POTS, UNLESS OTHERWISE SPECIFIED. THE PLANT SHALL HAVE SUFFICIENT GROWTH TO HOLD SOIL IN PLACE WHEN REMOVE FROM THE POT.
11. ALL THE PLANT SHALL BE SELECTED AND PLANTED AS SPECIFIED IN THE TABULATE LIST ABOVE ACCORDING TO THE NYSDEC STORMWATER MANAGEMENT DESIGN MANUAL IN APPENDIX H.
12. PLANTING SOIL SHALL BE COMPOSED OF A MIXTURE OF ONE PART TOPSOIL AND ONE PART ROOTED MANURE OR PEAT.
13. MULCH SHALL BE GROUND FIR, SPRUCE OR HEMLOCK, FREE FROM WEED SEEDS, TANNIN OR OTHER COMPOUNDS DETRIMENTAL TO PLANT LIFE. MULCH SHALL HAVE A SIZE RANGE OF 1/4 INCH TO 1 INCH WITH A MAXIMUM OF 50% PASSING A 1/2 INCH SCREEN.
14. FERTILIZER SHALL BE A STANDARD COMMERCIAL GRADE OF ORGANIC OR INORGANIC FERTILIZER OF (5-10-5) OR APPROVED EQUAL.
15. MAINTENANCE OF ALL PLANTS SHALL BE REQUIRED FROM THE TIME OF PLANTING UNTIL THE INITIAL ACCEPTANCE. MAINTENANCE SHALL INCLUDE WATERING, WEEDING, TIGHTENING, AND REPAIRING, RESETTING PLANTS TO PROPER GRADES OR UPRIGHT POSITION AND REMOVAL OF DEAD MATERIALS. NO PLANTS WILL BE ACCEPTABLE UNLESS THEY SHOW A HEALTHY AND SATISFACTORY FOLIAGE CONDITION.



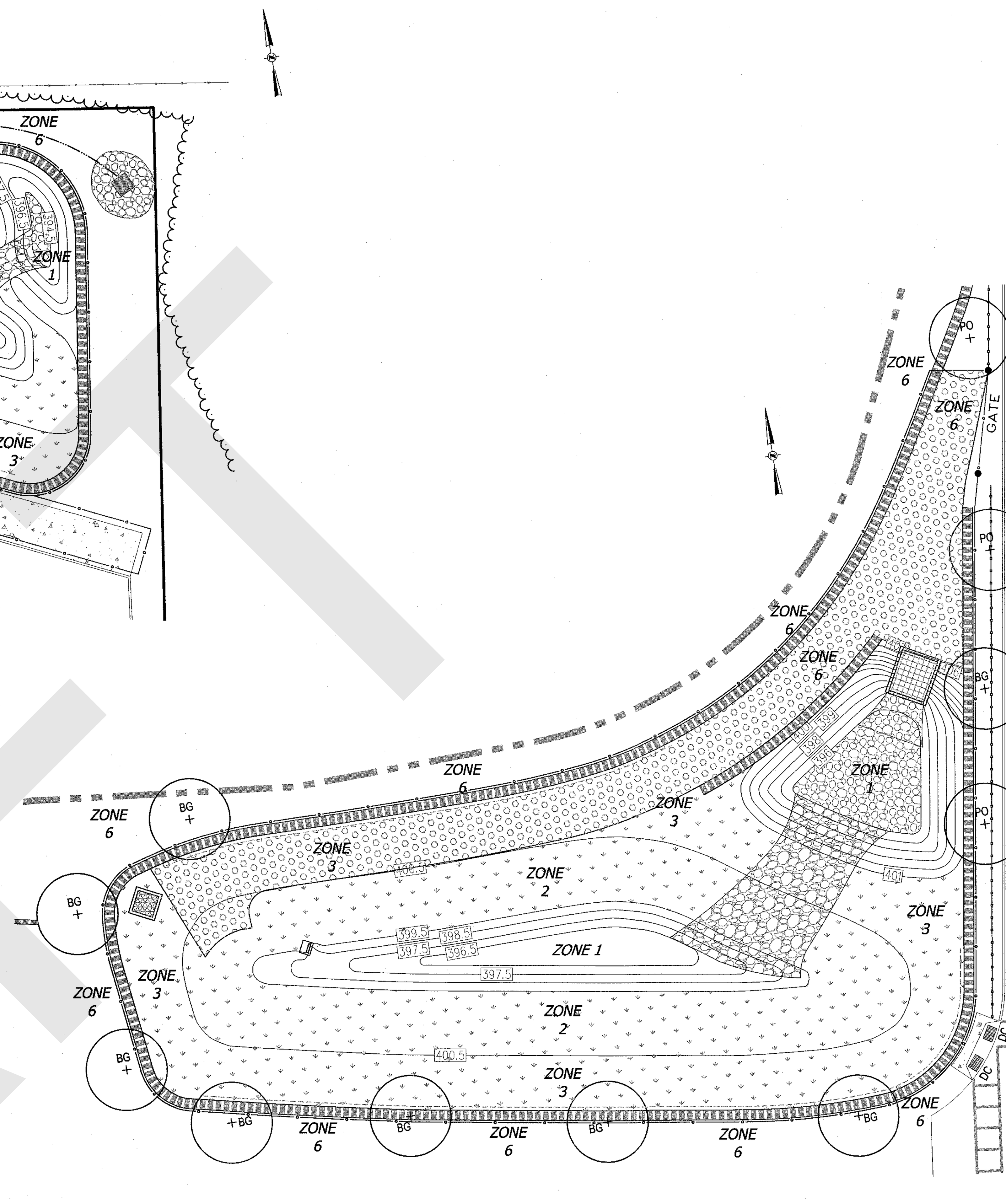
POND #1 LANDSCAPE PLAN

Scale: 1"=20'



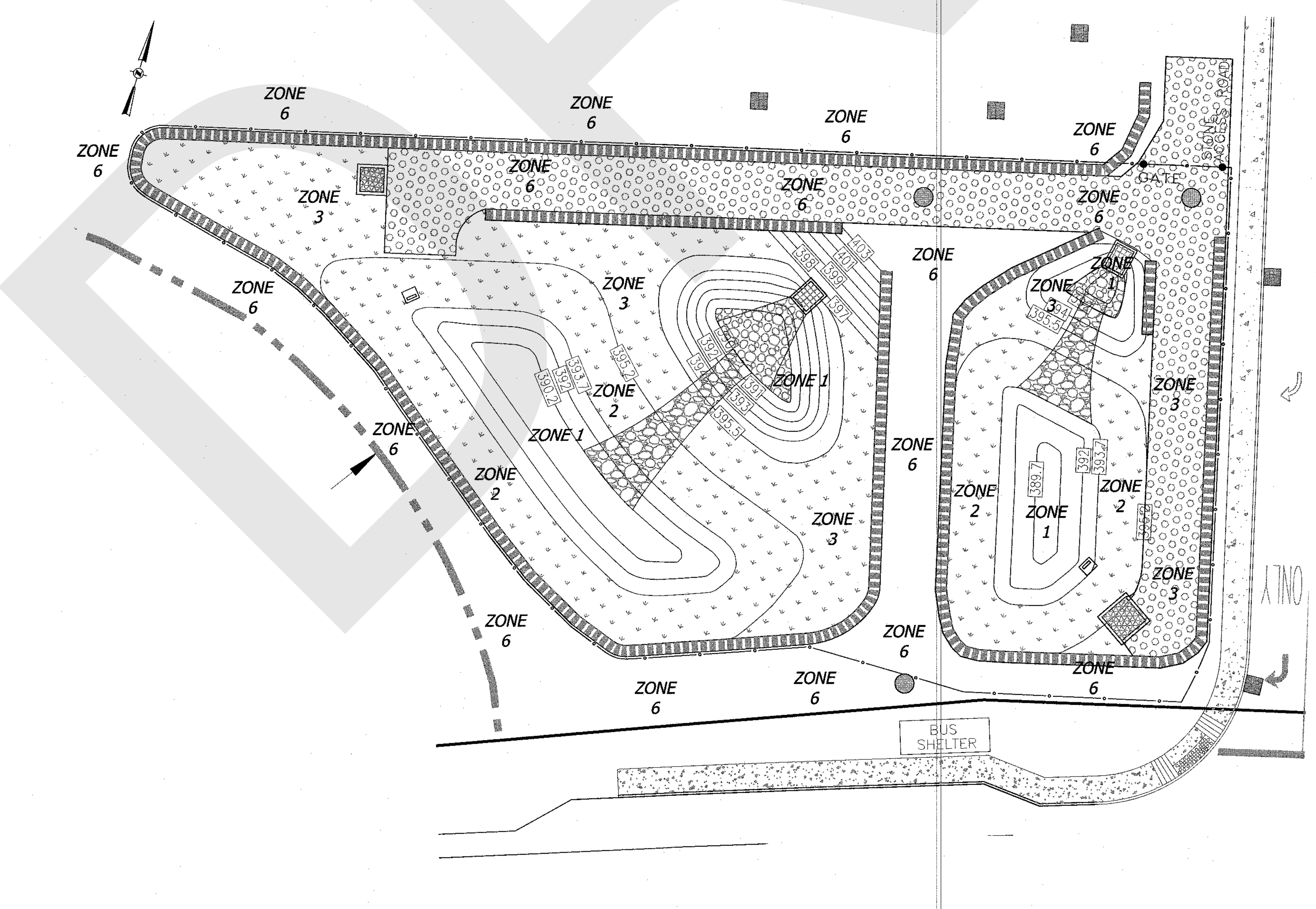
POND #2 LANDSCAPE PLAN

Scale: 1"=20'



POND #3 LANDSCAPE PLAN

Scale: 1"=20'

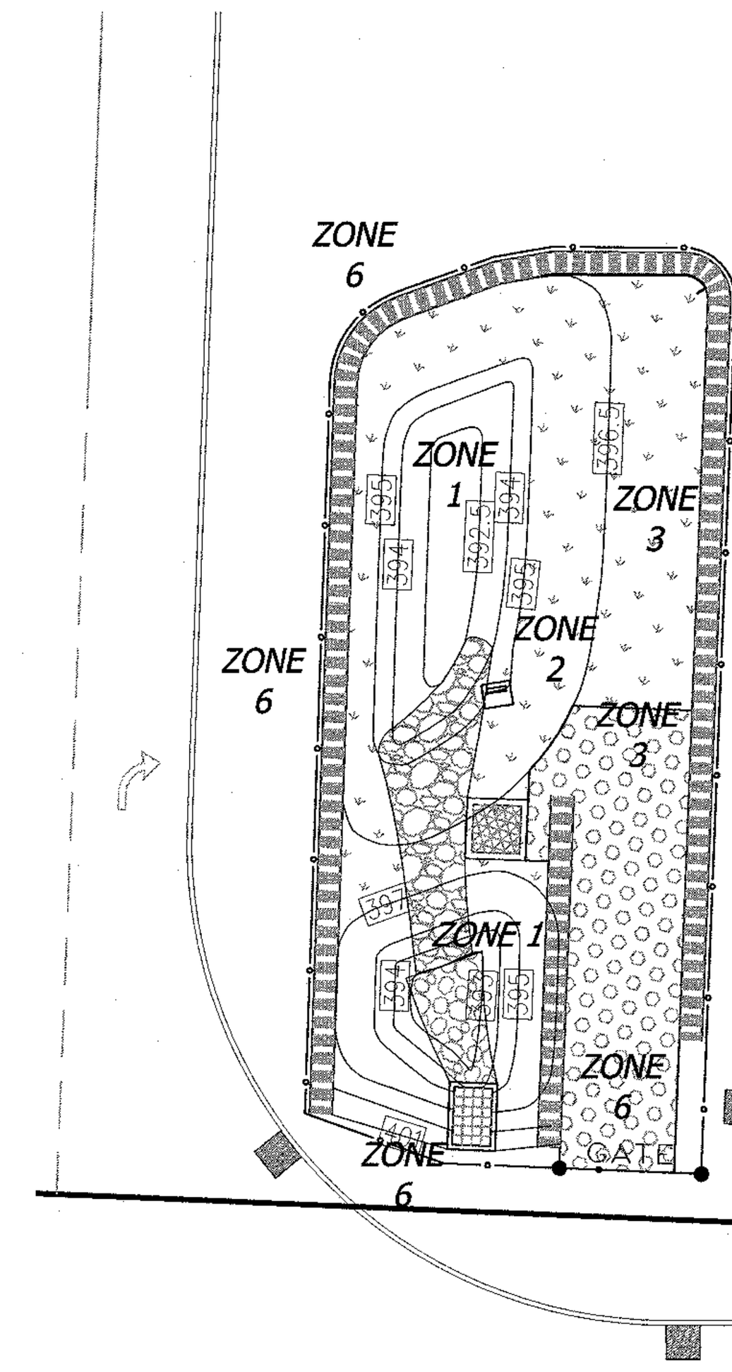


POND #4 LANDSCAPE PLAN

Scale: 1"=20'

POND #5 LANDSCAPE PLAN

Scale: 1"=20'

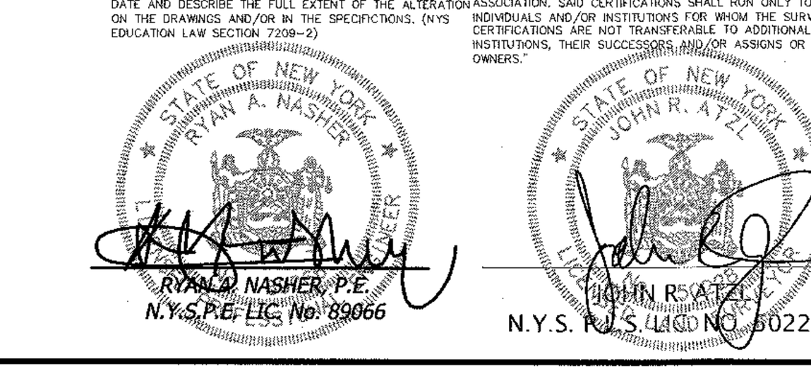


POND #6 LANDSCAPE PLAN

Scale: 1"=20'

THE EDUCATION LAW OF THE STATE OF NEW YORK PROHIBITS ANY PERSON ALTERING ANYTHING ON THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATIONS, UNLESS IT IS UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER. WHERE SUCH ALTERATIONS ARE MADE, THE PROFESSIONAL ENGINEER MUST SIGN, SEAL, DATE AND DESCRIBE THE FULL EXTENT OF THE ALTERATION ON THE DRAWINGS AND/OR IN THE SPECIFICTIONS. (NYS EDUCATION LAW SECTION 7209-2)

"UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW."
"ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."
"CERTIFICATION INDICATED HERE ON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYOR'S ADOPTED BY THE DELAWARE - HUDSON LAND SURVEYORS ASSOCIATION. SAID CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED INDIVIDUALS AND/OR INSTITUTIONS FOR WHOM THE SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS."



RYAN A. NASHER, P.E.
N.Y.S.P.E. LIC. No. 89066

JOHN R. ATZL
N.Y.S. P.L.S. LIC. NO. 50228

REVISION	DATE	DESCRIPTION
10	10-24-17	PAD "C" REVISED ALL MAPS, UPDATE CONTACT PEOPLE
9	9-13-17	PER COURT ORDER DWG. 1-7
8	8-21-15	REVISION PER NEW USER PAD "C"
7	3-11-15	PER RCDA COMMENTS 10-3-14
6	6-27-14	PER RCDA COMMENTS 9-17-13
5	3-10-14	PER MASER COMMENTS ON R.O.W.
4	6-12-13	REVISION PER RCDA COMMENTS 8-29-12, P1-P6 & P-9 WATER MAIN DETAILS
3	11-28-12	VARIANCES GRANTED DATE, NOTE 8 ON SHT. 3 & 4, NOTE 23 ON SHT. 3 & 5, ROAD IMPROVEMENT AT ACCESS TO P.I.P, LIGHT QTY., LANDSCAPING LEGEND
2	9-27-12	SIGNATURE BOXES, GENERAL NOTES, MINOR LANDSAPING AND LIGHTING REVISION, NEW DRAWINGS 33-37 & P-9
1	6-18-12	PROFILES, RETENTION DETAILS, VARIANCES

AN&Z
ATZL, NASHER & ZIGLER P.C.
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Web: ANZNY.com

PROJECT:

MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

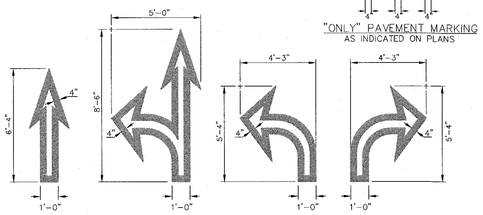
POND LANDSCAPING PLAN

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JUNE 18, 2012	SCALE: 1 IN. = 30 FT.
PROJECT NO: 1560	DRAWING NO: 30

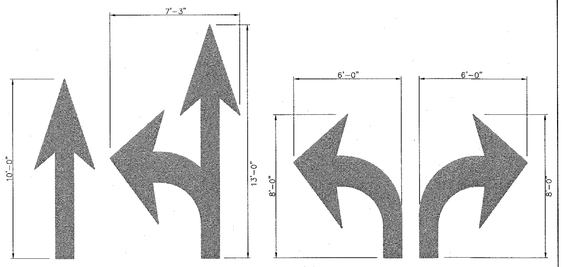
NOTES:

1. WORDS AND ARROWS SHALL BE APPLIED IN ACCORDANCE WITH SECTION 3B.20 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
2. THESE WORDS AND ARROWS ARE TO BE PAINTED RETOREFLECTIVE WHITE.
3. OPEN ARROWS SHALL CONSIST OF A 4" PERIMETER STRIPE.

"ONLY" PAVEMENT MARKING
AS INDICATED ON PLANS

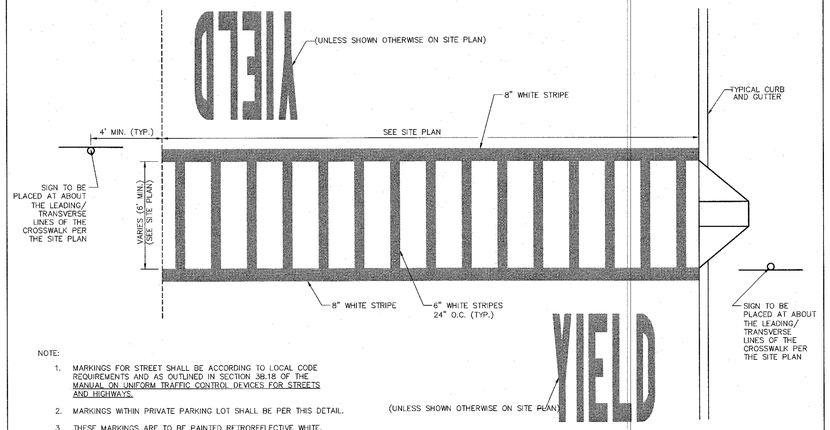


OPEN ARROW MARKINGS
USED IN THE PARKING LOT AISLES



SOLID ARROW MARKINGS
USED AT EXITS FROM THE PARKING LOT TO PUBLIC STREETS

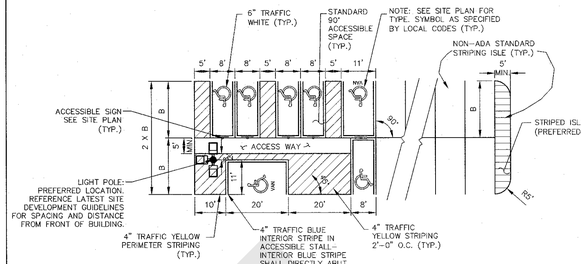
PAVEMENT MARKINGS
N.T.S.



NOTE:

1. MARKINGS FOR STREET SHALL BE ACCORDING TO LOCAL CODE REQUIREMENTS AND AS OUTLINED IN SECTION 3B.18 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
2. MARKINGS WITHIN PRIVATE PARKING LOT SHALL BE PER THIS DETAIL.
3. THESE MARKINGS ARE TO BE PAINTED RETROREFLECTIVE WHITE.

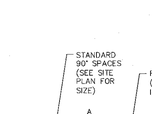
CROSSWALK/PED. CROSSING
N.T.S.



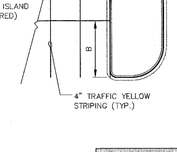
DIMENSION CHART (90°)	
A	B
9.5'	18.0'
9.5'	19.0'
9.5'	20.0'
10.0'	18.0'
10.0'	19.0'
10.0'	20.0'

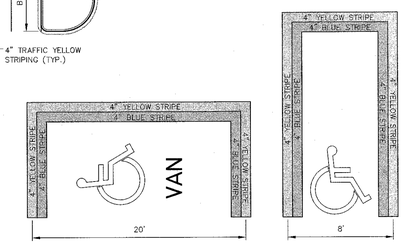
90° STRIPING DETAIL

NOTES:
1. SEE SITE PLAN FOR TOTAL LAYOUT.
2. THESE DETAILS ARE FOR REFERENCE AND DIMENSION CONTROL ONLY.
3. ALL DIMENSIONS ARE TO ℄ OF STRIPE UNLESS OTHERWISE INDICATED.
4. ALL COLORS AS SHOWN OR AS SPECIFIED BY LOCAL CODES.



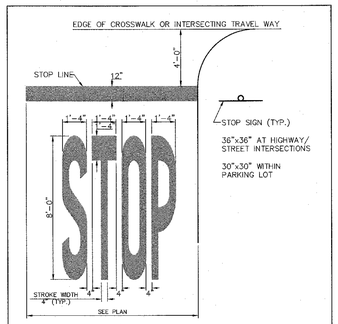
ACCESSIBLE PARKING SYMBOL
LOCATE AT EDGE OF PARKING SPACE UNLESS ACCOMPANIED BY "VAN" LETTERING





TYPICAL ACCESSIBLE STALL STRIPING

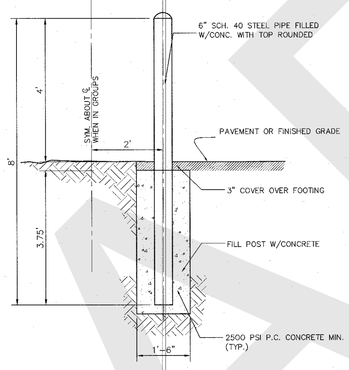
STANDARD PARKING STRIPING
N.T.S.



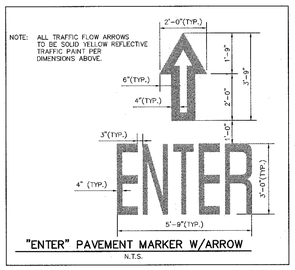
NOTE:

1. WORDS AND LINES SHALL BE APPLIED IN ACCORDANCE WITH SECTIONS 3B.16 AND 3B.20 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS.
2. THESE WORDS AND BAR ARE TO BE PAINTED RETROREFLECTIVE WHITE.

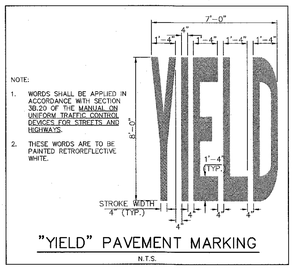
STOP SIGNAGE AND MARKING
N.T.S.



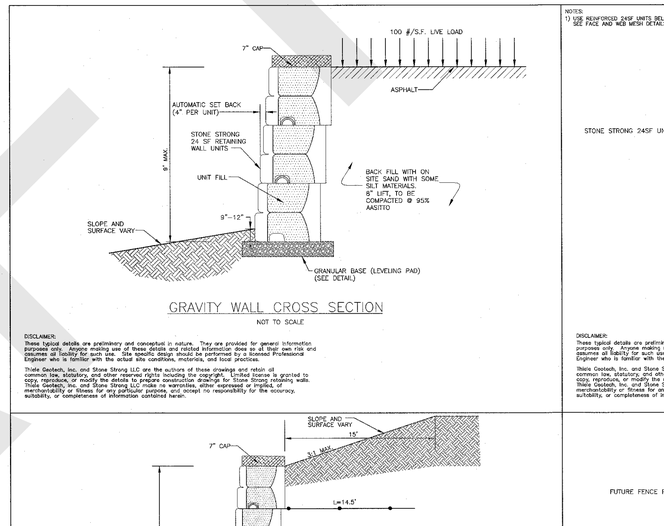
PIPE BOLLARD
N.T.S.



"ENTER" PAVEMENT MARKER W/ARROW
N.T.S.



"YIELD" PAVEMENT MARKING
N.T.S.



GRAVITY WALL CROSS SECTION
NOT TO SCALE

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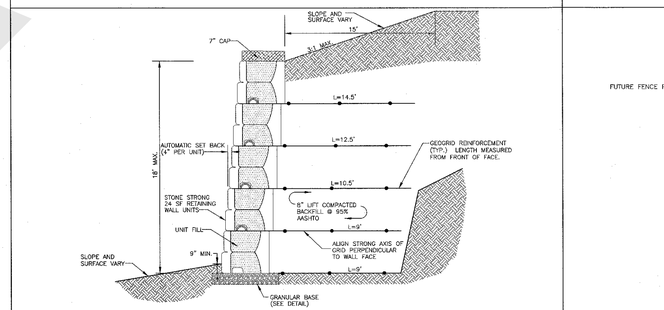

REINFORCED WALL CROSS SECTION
NOT TO SCALE

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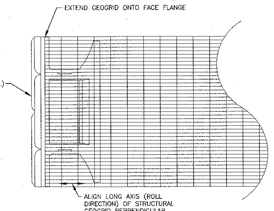
NOTE: BEARING CONDITIONS SHALL BE OBSERVED BY THE SITE GEOTECHNICAL ENGINEER. BASE DIMENSIONS MAY BE INCREASED TO ADDRESS DEFICIENT SOIL BEARING CONDITIONS.

NOTES:
1) USE REINFORCED 24SF UNITS BELOW TOP 12" IN GEOGRID REINFORCED WALLS. SEE FACE AND MEB MESH DETAILS FOR OPTIONAL REINFORCEMENT GRID.



GEOGRID ORIENTATION
NOT TO SCALE

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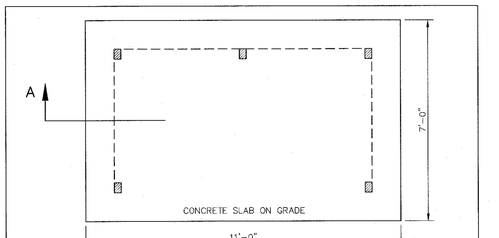
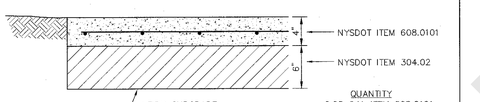


PLAN

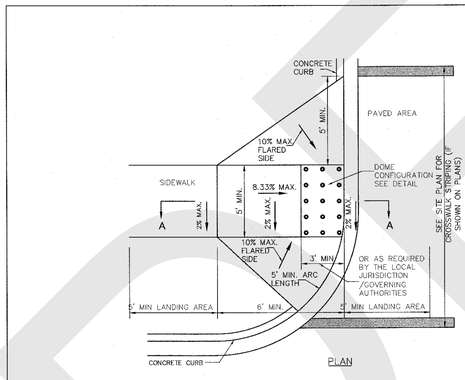


QUANTITY
0.95 C.Y. ITEM 608.0101
1.43 C.Y. ITEM 304.02

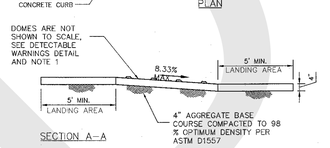
SECTION A

5'X9' BUS SHELTER
N.T.S.

BUS SHELTER BY DUO-GARD OR EQUAL
WIDTH: 5'
LENGTH: 9'
DUO-GARD INDUSTRIES INC.
40442 KOPPEMICK RD., CANTON MI 48187



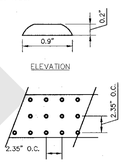
PLAN



SECTION A-A

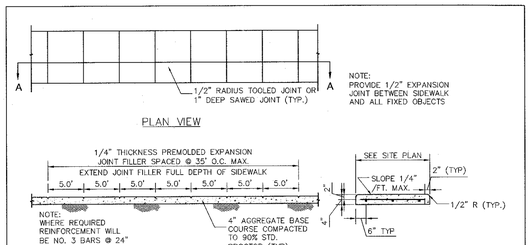
ADA RAMP IN SIDEWALK
N.T.S.

NOTE:
1. THE SURFACE OF RAMP SHALL HAVE DETECTIBLE WARNINGS AS SHOWN. DETECTABLE WARNINGS SHALL CONSIST OF RAISED TRUNCATED DOMES. SEE DETECTABLE WARNINGS DETAIL.
2. RAMP SIDE SLOPE VARIES UNIFORMLY FROM A MAXIMUM OF UP TO 10% AT CURB TO CONFORM WITH LONGITUDINAL SIDEWALK SLOPE ADJACENT TO TOP OF THE RAMP.
3. CONSTRUCT PER A.D.A. STANDARDS.
4. REFER TO PLANS FOR ADJACENT SLOPES.
5. THE CROSS SLOPE OF THE RAMP SURFACE SHALL BE NO GREATER THAN 1:50.



NOTE:
PREFABRICATED PANELS PER A.D.A. ACCESSIBILITY GUIDELINES SECTION 4.29.2 & A4.29.2 SHALL BE USED.

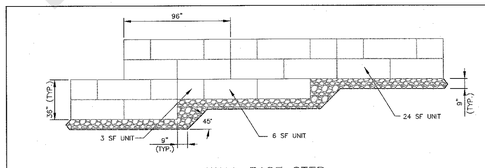
DETECTABLE WARNINGS DETAIL



SECTION A-A SECTION B-B

NOTE:
PROVIDE 1/2" EXPANSION JOINT BETWEEN SIDEWALK AND ALL FIXED OBJECTS

CONCRETE SIDEWALK
N.T.S.



WALL BASE STEP
NOT TO SCALE

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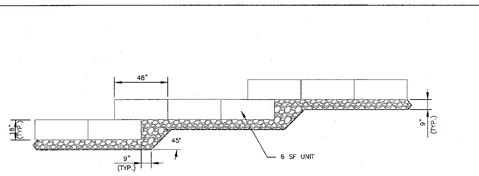

WALL BASE STEP
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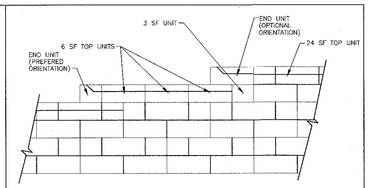

TOP OF WALL STEPS
NOT TO SCALE

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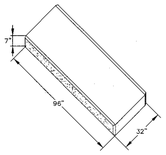

CAP-STEP BLOCK
NOT TO SCALE

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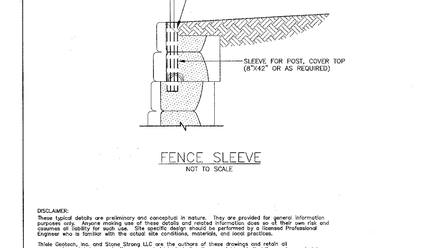

FENCE SLEEVE
NOT TO SCALE

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"ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."
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STATE OF NEW YORK
RYAN A. NASHER
LICENSED PROFESSIONAL ENGINEER

RYAN A. NASHER, P.E.
N.Y.S. P.E. LIC. No. 090966

STATE OF NEW YORK
JOHN R. ATZL
LICENSED LAND SURVEYOR

JOHN R. ATZL
N.Y.S. L.S. LIC. NO. 050228

10	10-24-17	PAD "C" REVISED ALL MAPS, UPDATE CONTACT PEOPLE
9	9-13-17	PER COURT ORDER DWG. 1-7
8	8-21-15	REVISION PER NEW USER PAD "C"
7	3-11-15	PER RCDA COMMENTS 10-3-14
6	6-27-14	PER RCDA COMMENTS 9-17-13
5	3-10-14	PER MASER COMMENTS ON R.O.W.
4	6-12-13	REVISION PER RCDA COMMENTS 8-29-12, P1-P6 & P-9 WATER MAIN DETAILS
3	11-28-12	VARIANCES GRANTED DATE, NOTE 8 ON SHT. 3 & 4, NOTE 23 ON SHT. 3 & 5, ROAD IMPROVEMENT AT ACCESS TO P.I.P, LIGHT QTY., LANDSCAPING LEGEND
2	9-27-12	SIGNATURE BOXES, GENERAL NOTES, MINOR LANDSAPING AND LIGHTING REVISION, NEW DRAWINGS 33-37 & P-9
1	6-18-12	PROFILES, RETENTION DETAILS, VARIANCES
REVISION	DATE	DESCRIPTION

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ENGINEERS–SURVEYORS–PLANNERS
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Chester, New York 10918
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Web: ANZNY.com

PROJECT:

MINISCEONGO PARK

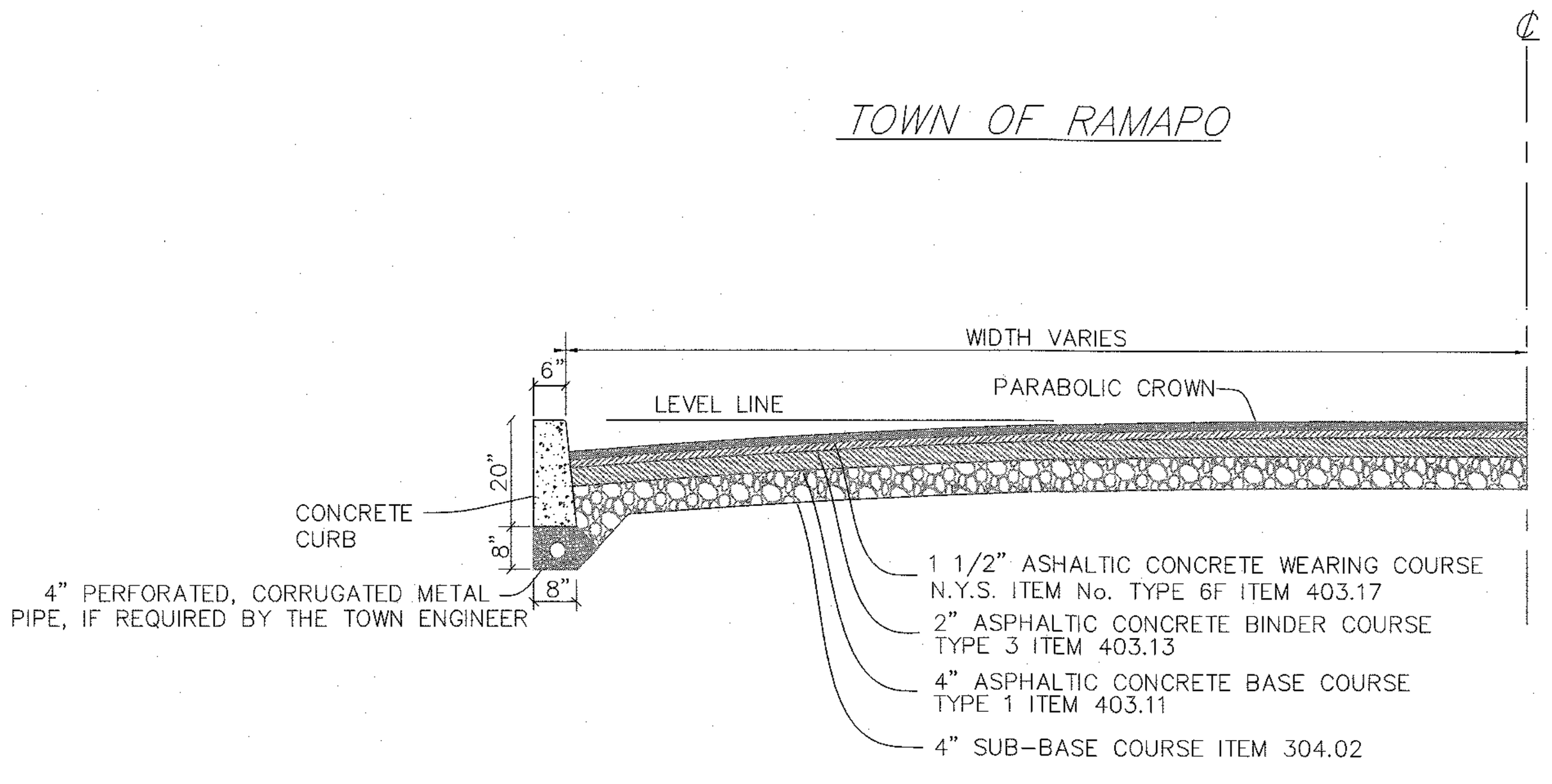
TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

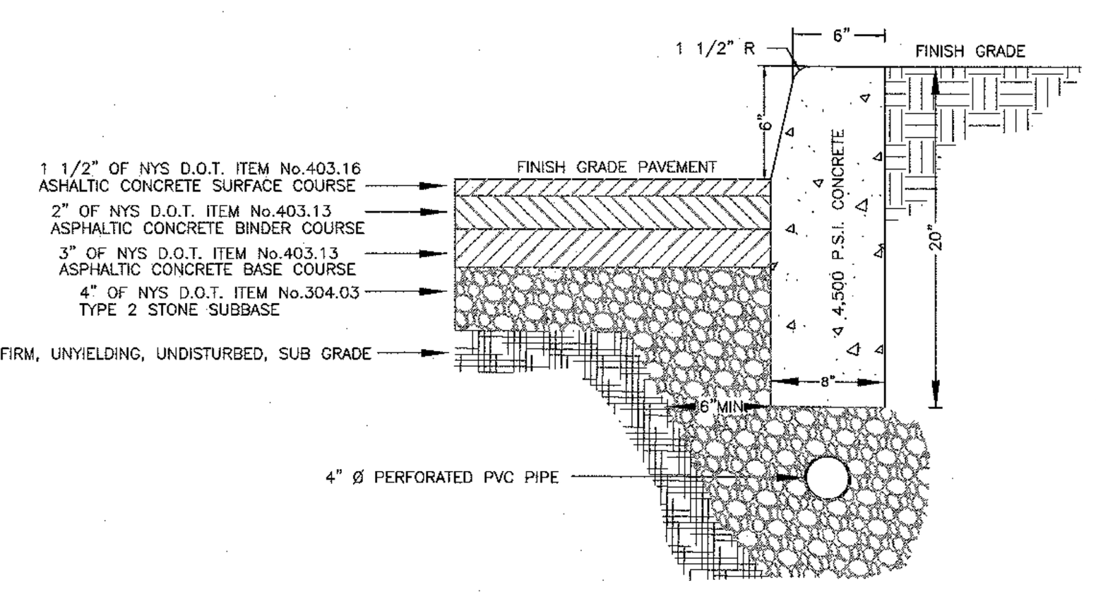
DETAILS

DRAWN BY: LF	CHECKED BY: DMZ
DATE: JUNE 18, 2012	SCALE: AS SHOWN
PROJECT NO: 1560	DRAWING NO: 31

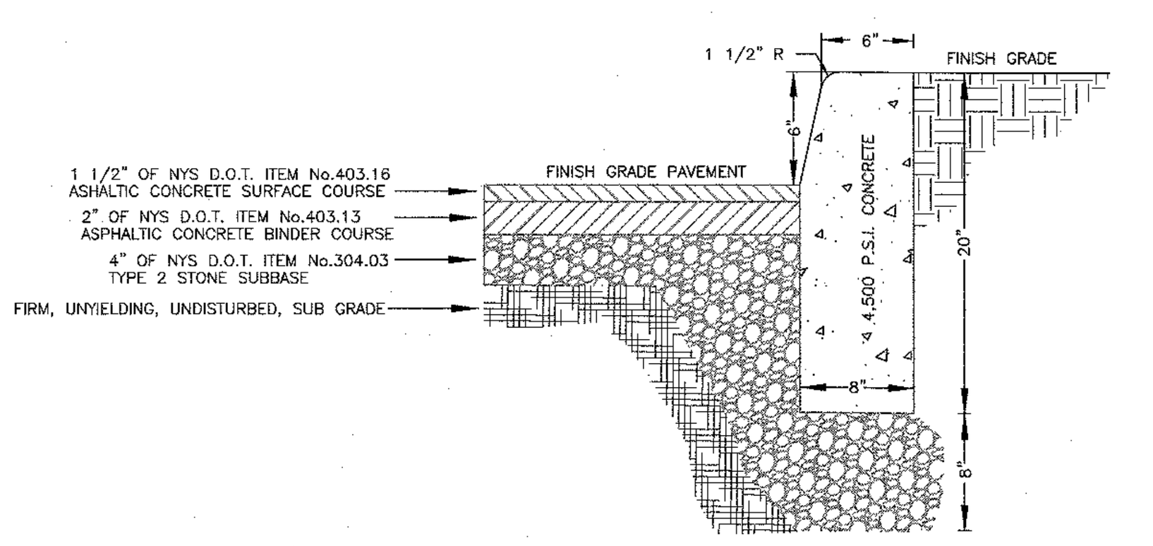
TOWN OF RAMAPO



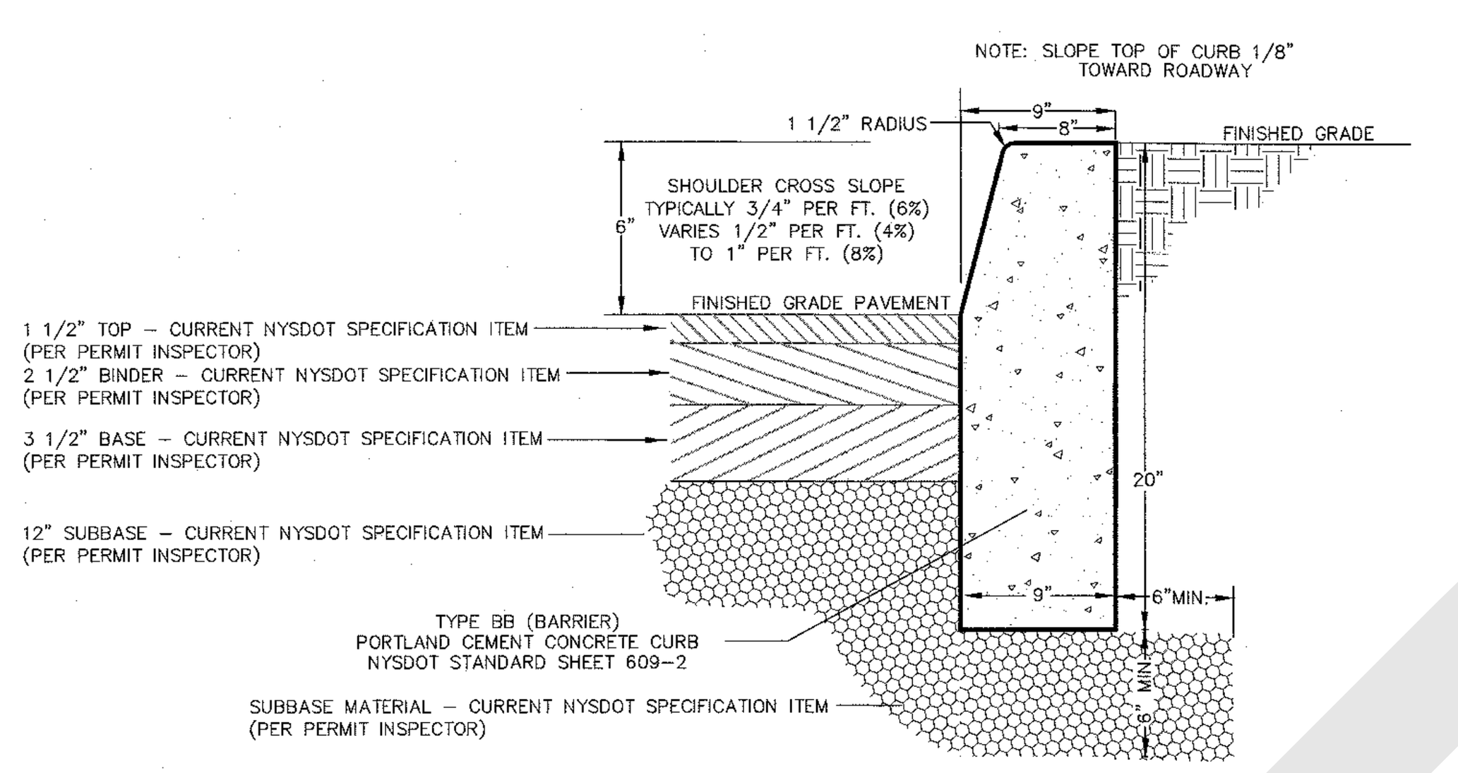
STREET SECTION & SPECIFICATION
N.T.S.



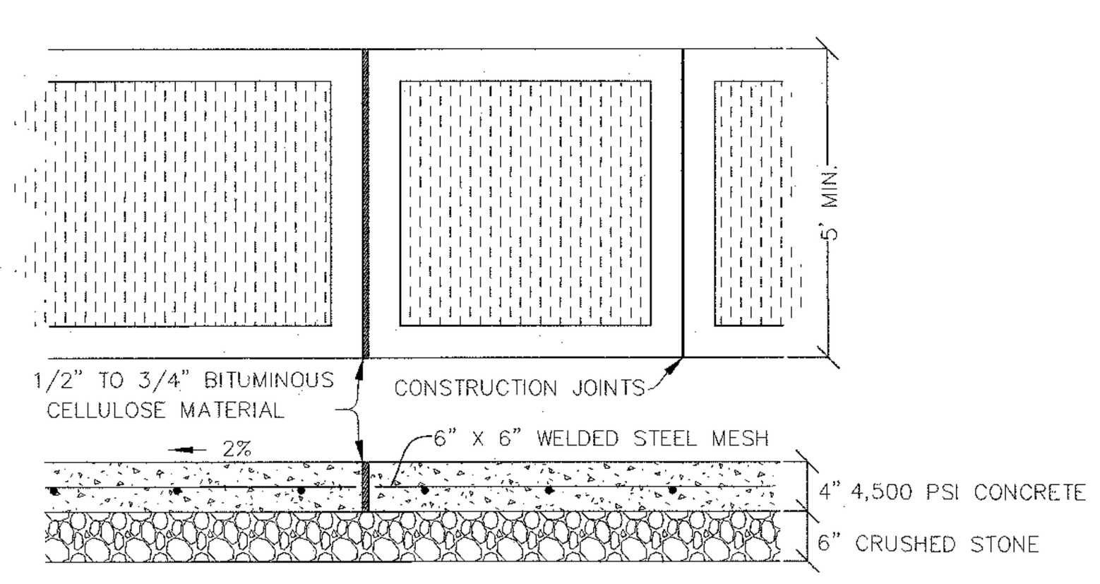
ASPHALTIC CONCRETE ROAD PAVEMENT & CONCRETE CURB DETAIL
N.T.S.



ASPHALTIC CONCRETE PAVEMENT & CONCRETE CURB DETAIL FOR PARKING AREAS
N.T.S.



N.Y.S.D.O.T. ASPHALTIC CONCRETE PAVEMENT AND CONCRETE CURB DETAIL
N.T.S.

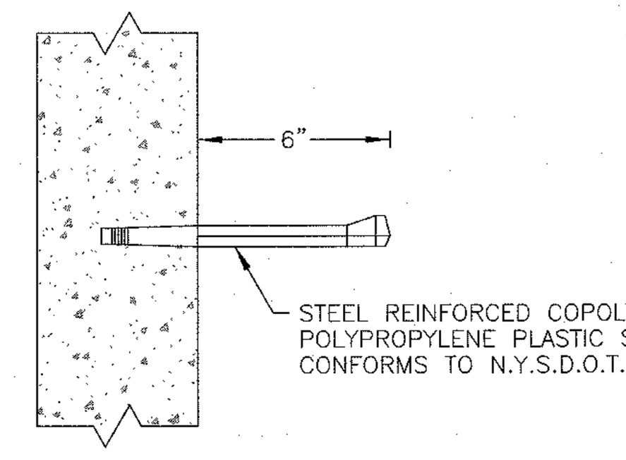


1. CONSTRUCTION JOINTS HAVING A 1/4 INCH RADIUS SHALL BE PLACED AT 4 FEET INTERVALS.
2. INSTALL EXPANSION JOINTS OF 1/4 INCH CELLULOSE MATERIAL OR EQUAL AT 20 FEET INTERVALS.
3. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,500 PSI AT 28 DAYS.
4. CONCRETE SHALL BE AIR ENTRAINED 6% PLUS or MINUS 1%.
5. SIDEWALK REINFORCEMENT SHALL CONSIST OF #6 GUAGE 6" X 6" STEEL MESH PLACED 2 INCHES FROM THE BOTTOM OF THE SIDEWALK SLAB.
6. SIDEWALK SHALL SLOPE 2% MIN. TOWARDS ROADWAY.

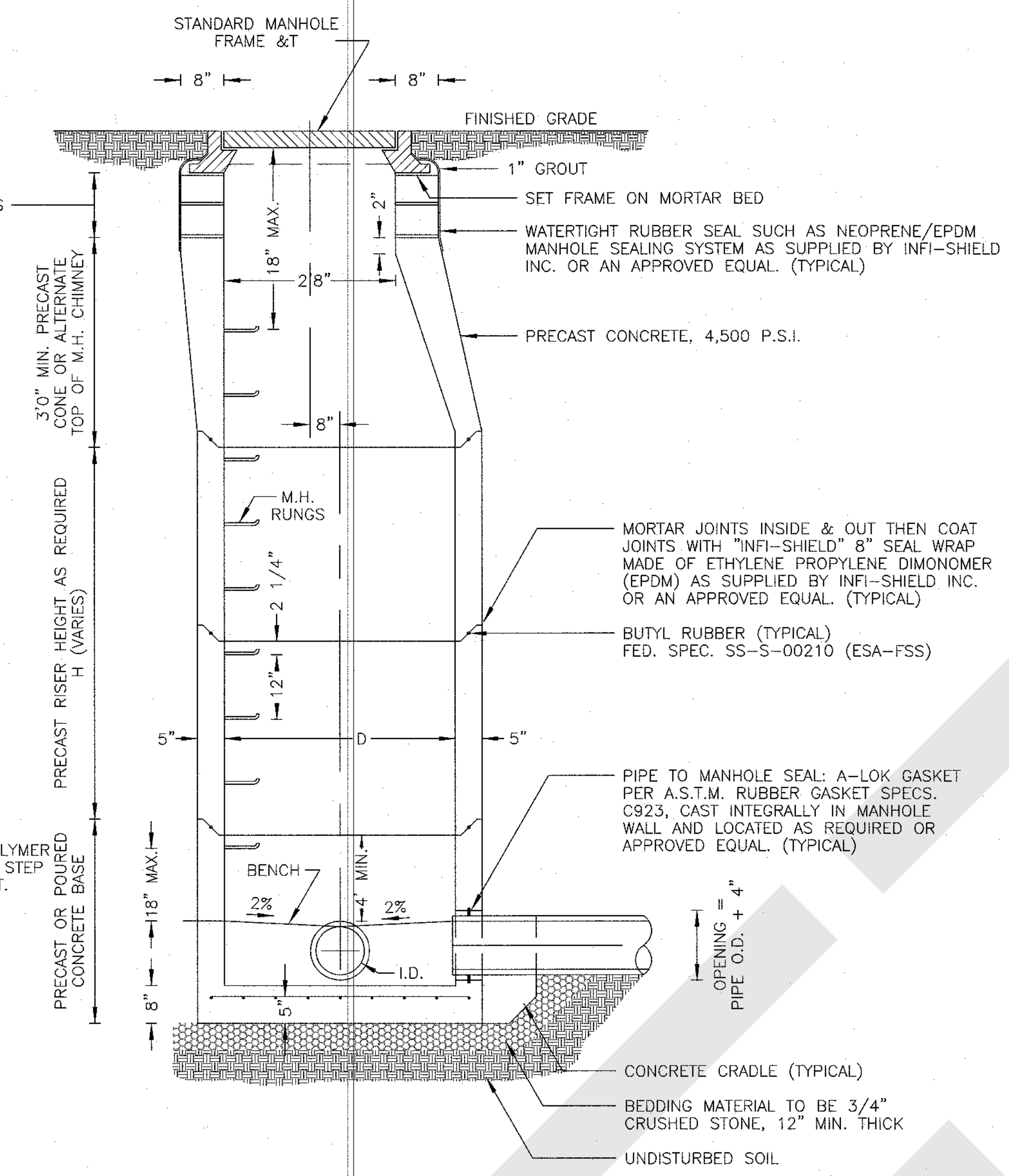
D.O.T. CONCRETE SIDEWALK DETAIL
N.T.S.

DIAMETER OF MANHOLE

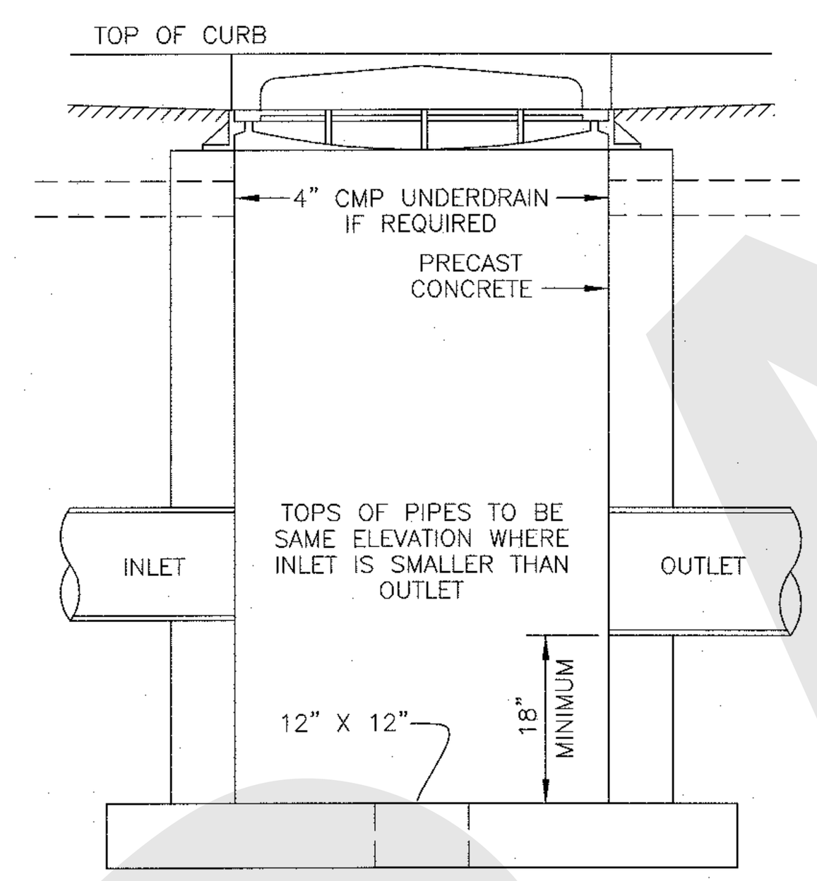
THRU PIPE SIZE (INCHES)	D (FEET–INCHES)
24" & SMALLER	4'0"
27"–30"	5'0"
36"	6'0"
42"	6'6"
48"	7'0"



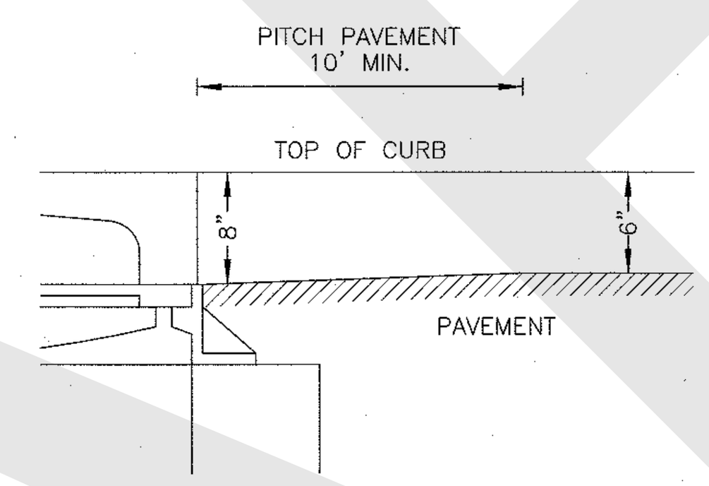
MANHOLE RUNG DETAIL



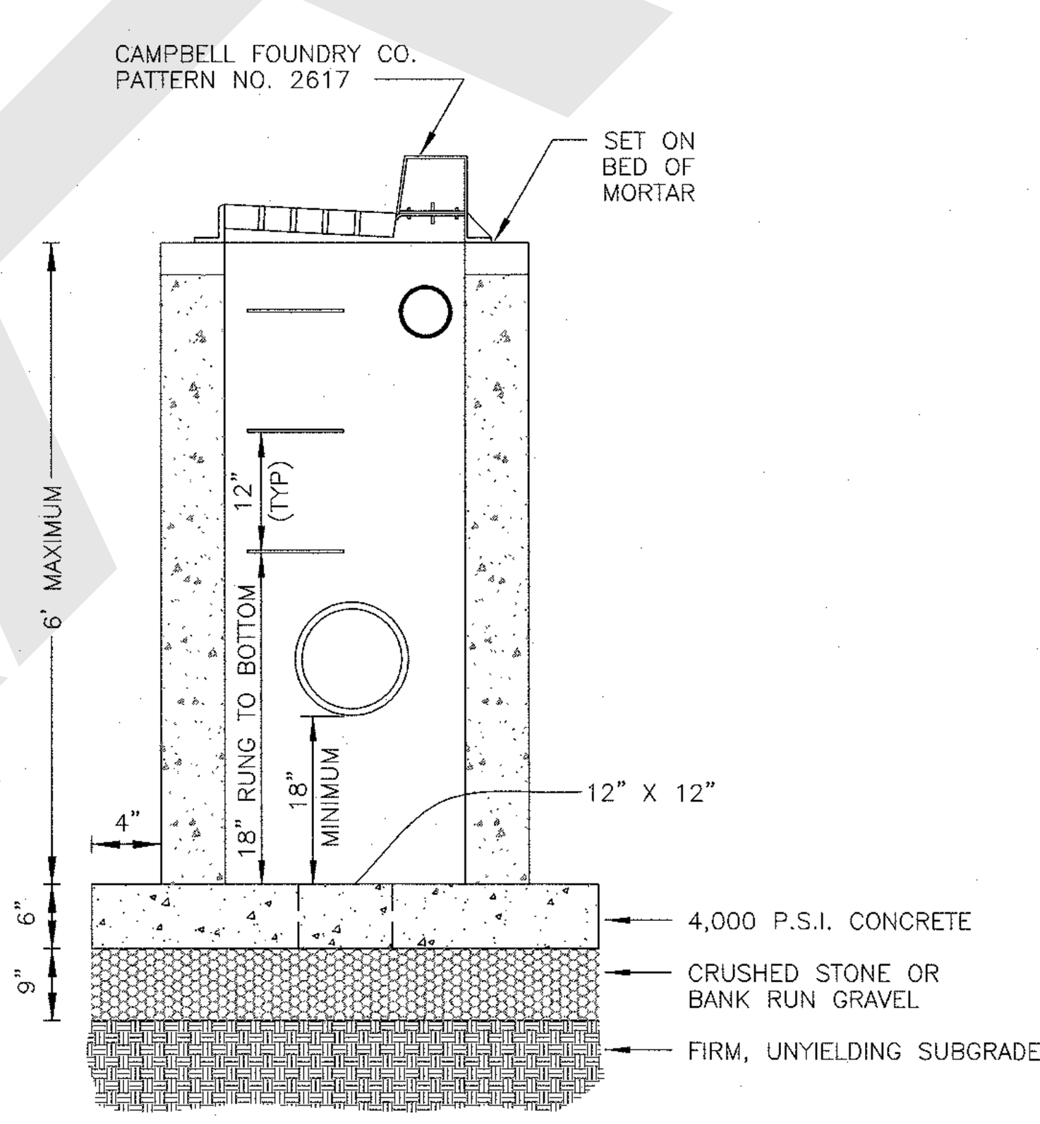
TOWN OF RAMAPO AND TOWN OF HAVERSTRAW PRECAST STANDARD MANHOLE SECTION
N.T.S.

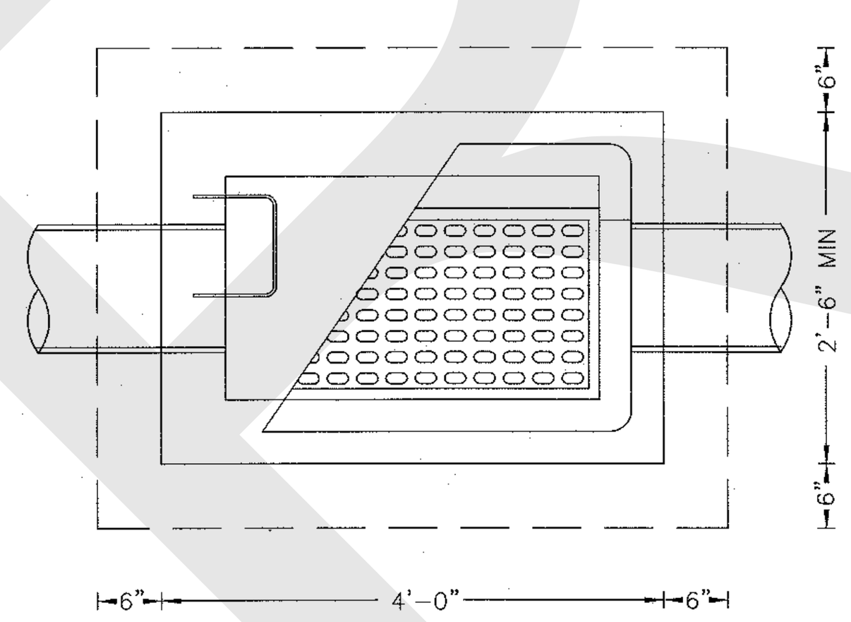


NOTE: MINIMUM STRENGTH CONCRETE 4,000 P.S.I. AT 28 DAYS WALL THICKNESS 6", WITH ADEQUATE STEEL REINFORCEMENT



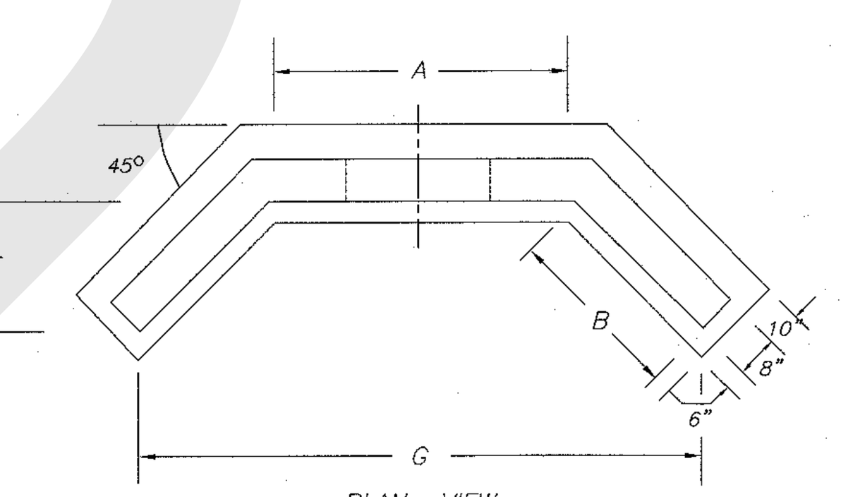
DETAIL A
N.T.S.





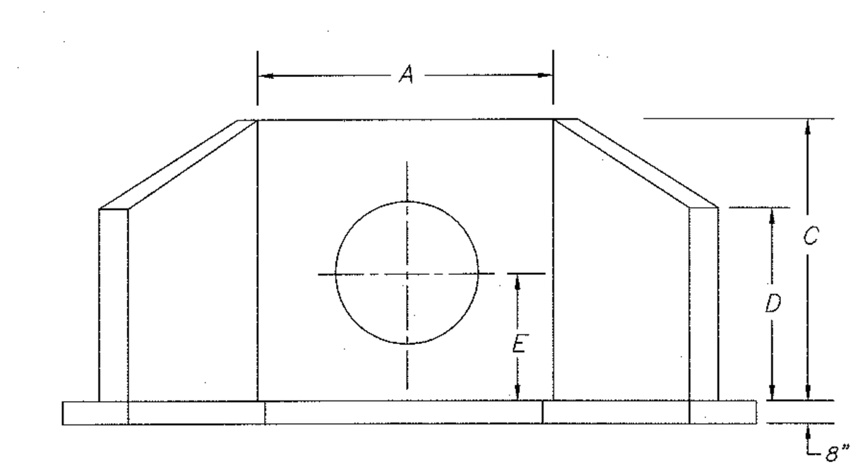
STANDARD CATCH BASIN DETAIL
N.T.S.

TOWN OF RAMAPO AND TOWN OF HAVERSTRAW PRECAST STANDARD CATCH BASIN DETAIL
N.T.S.



PLAN VIEW

PIPE DIA.	A	B	C	D	E	F	G	APPROX. WEIGHT
DIMENSION SCHEDULE								
12"	36"	30"	54"	40"	36"	22"	78"	5445 LBS.
15"	48"	30"	60"	45"	37.5"	22"	92"	6400 LBS.
18"	48"	30"	60"	45"	39"	22"	92"	6400 LBS.
24"	60"	36"	64"	48"	42"	26"	112"	7250 LBS.
30"	72"	36"	72"	54"	45"	26"	124"	9276 LBS.
36"	78"	48"	78"	60"	48"	35"	144"	11623 LBS.
48"	84"	48"	90"	66"	54"	35"	150"	12402 LBS.
SPECIAL SIZES NOT LISTED CAN BE MFG. UPON REQUEST								

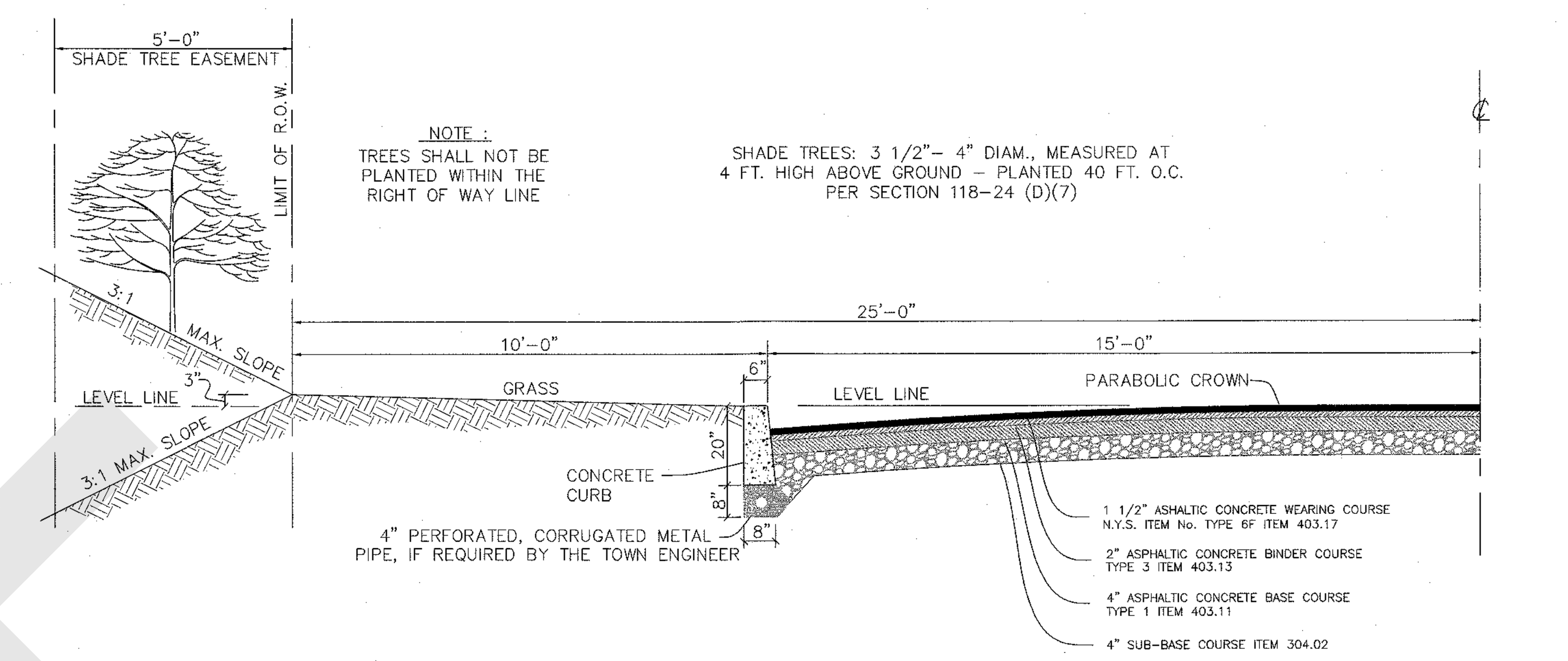


ELEVATION

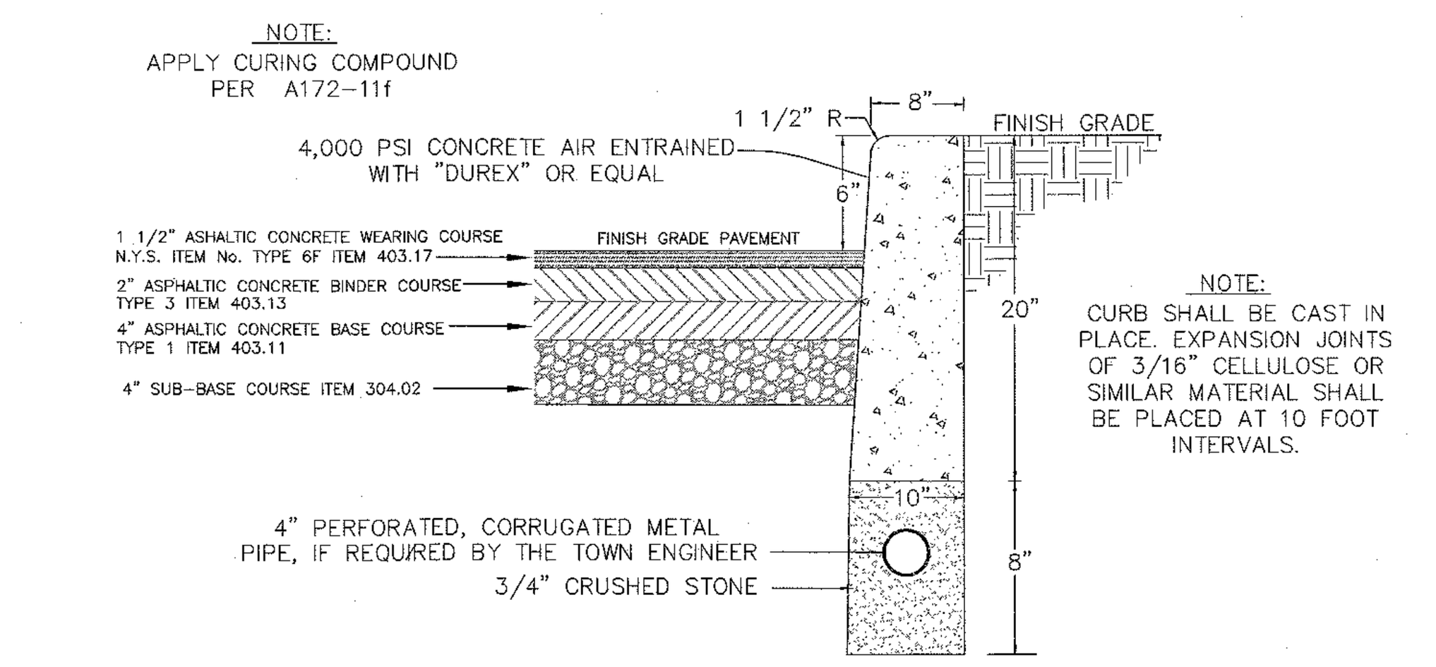
NOTES :
* ALL EXPOSED EDGES TO HAVE 1" BEVELED CORNERS
* APRON BY CONTRACTOR IN FIELD
* REINFORCING – NO. 4 BARS AT 12" O.C.E.W.
* CONCRETE TO TEST 4000 PSI @ 28 DAYS

HEAD WALL DETAIL
N.T.S.

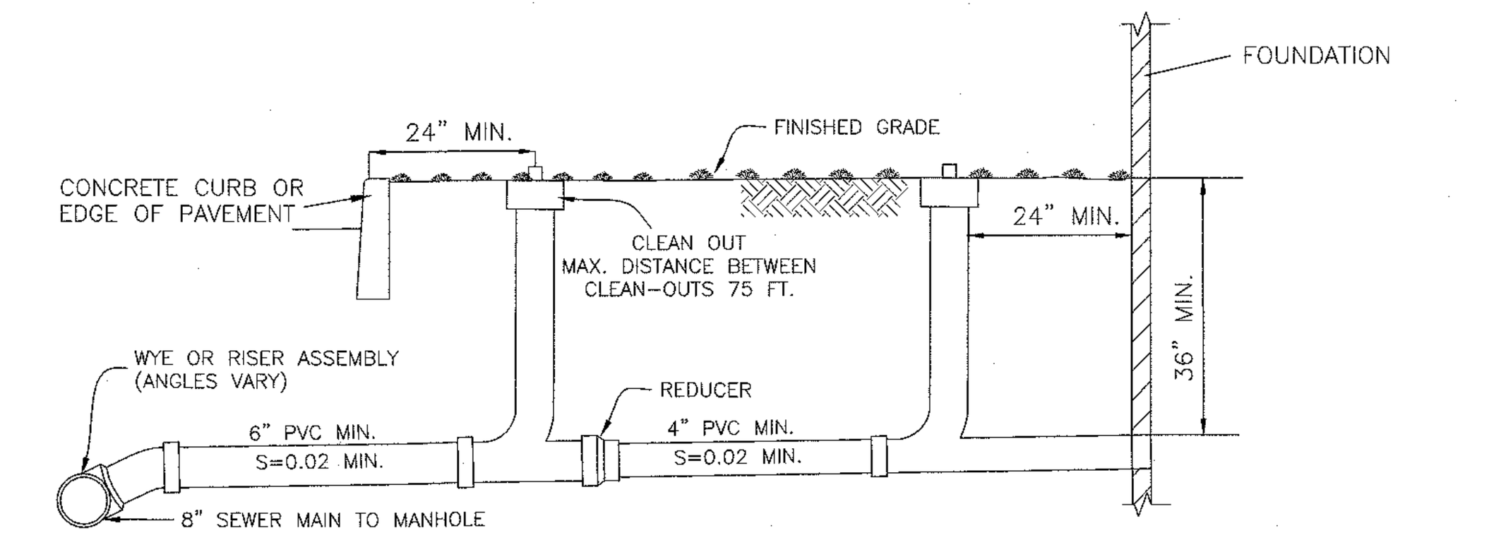
TOWN OF HAVERSTRAW



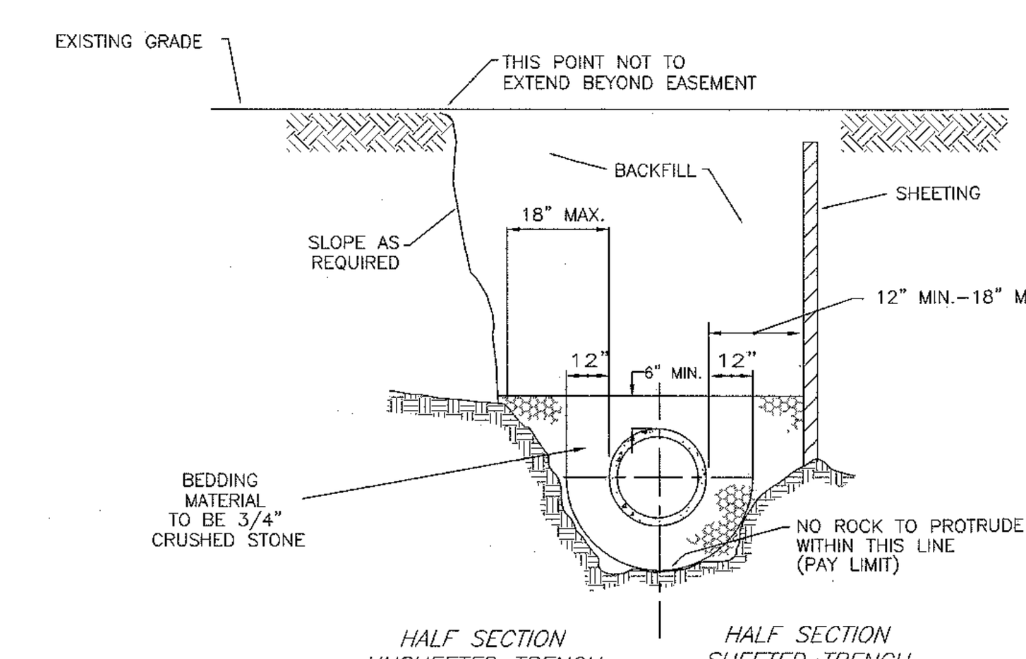
STREET SECTION & SPECIFICATION
N.T.S.



CONCRETE CURB DETAIL
N.T.S.



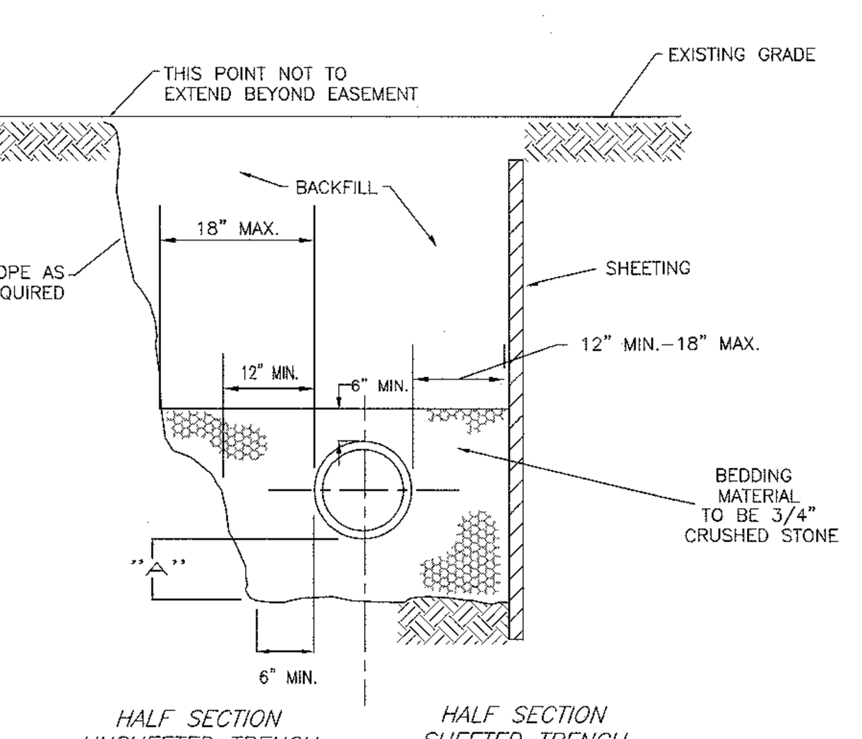
TYPICAL SEWER CONNECTION
NTS



TRENCH IN ROCK

MINIMUM FOUNDATION THICKNESS	
PIPE DIAMETER	"A"*
4"–6"	4"
8"–18"	6"
21"–24"	8"
27"–30"	10"
36"–78"	12"

*INCREASE "A" BY 1/2" FOR EVERY FOOT THAT DEPTH TO TOP OF PIPE EXCEEDS 16'



TRENCH IN EARTH

TRENCH SECTIONS
N.T.S.

REVISION	DATE	DESCRIPTION
10	10–24–17	PAD "C" REVISED ALL MAPS, UPDATE CONTACT PEOPLE
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ATZL, NASHER & ZIGLER P.C.
ENGINEERS–SURVEYORS–PLANNERS

234 North Main Street, New City, New York 10956, Tel: (845) 634-4694, Fax: (845) 634-5543
P.O. Box 636, Chester, New York 10918, Tel: (845) 469-1015, Fax: (845) 469-1016
Web: ANZNY.com

PROJECT:

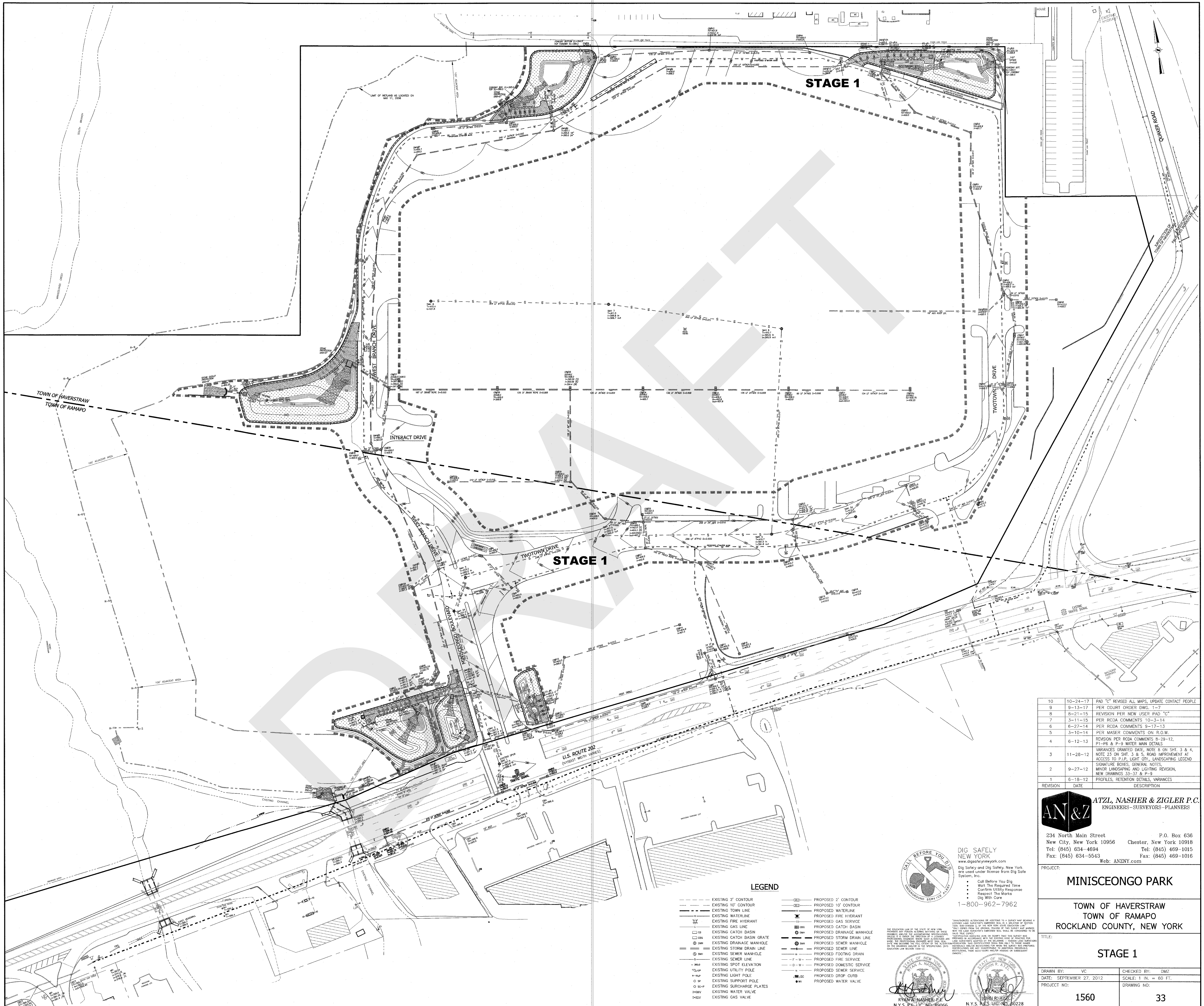
MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

DETAIL SHEET

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JUNE 18, 2012	SCALE: AS NOTED
PROJECT NO: 1560	DRAWING NO: 32



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PROJECT:

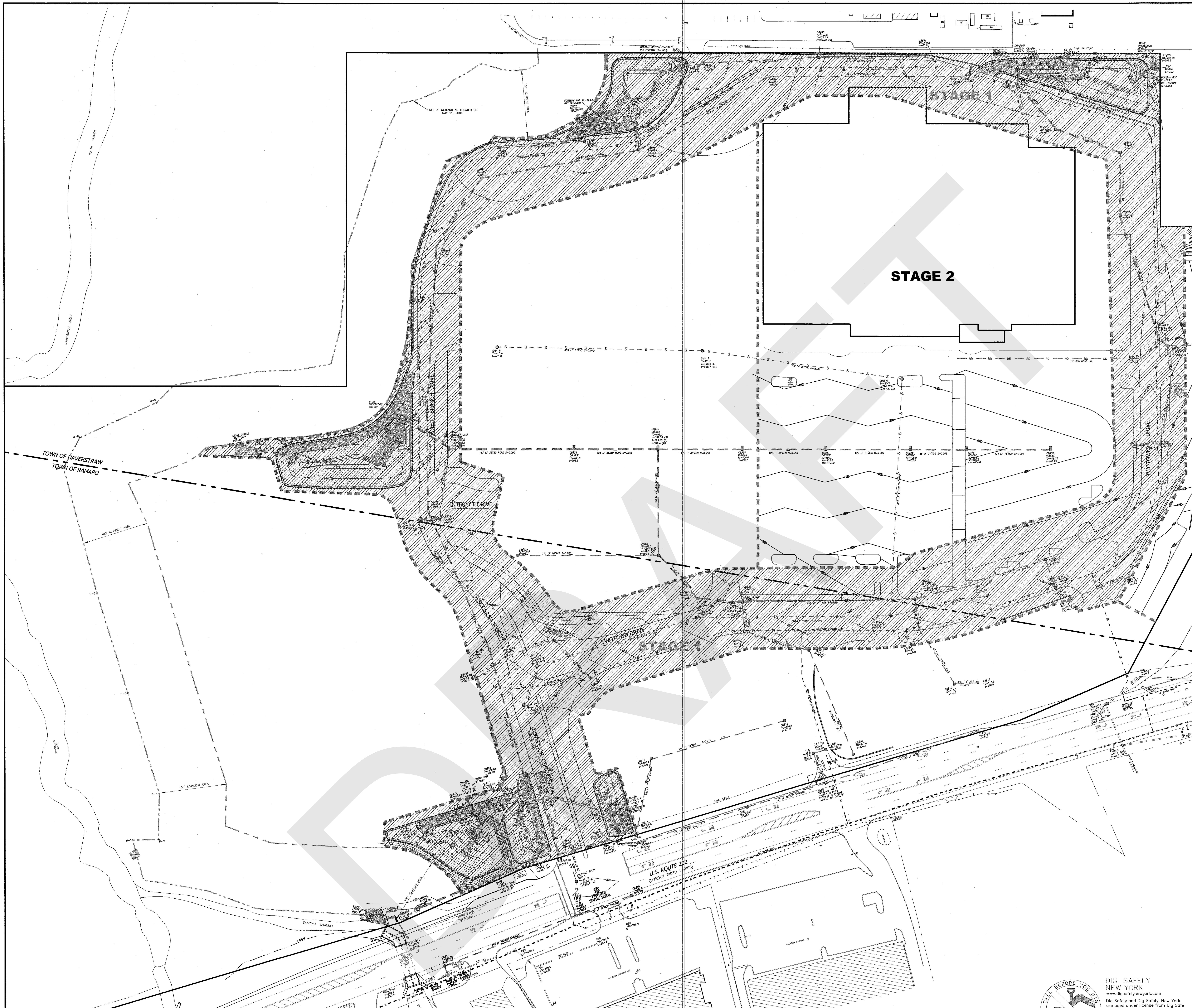
MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

STAGE 1

DRAWN BY: VC	CHECKED BY: DMZ
DATE: SEPTEMBER 27, 2012	SCALE: 1 IN. = 60 FT.
PROJECT NO: 1560	DRAWING NO: 33



LEGEND

EXISTING 2' CONTOUR	PROPOSED 2' CONTOUR
EXISTING 10' CONTOUR	PROPOSED 10' CONTOUR
EXISTING TOWN LINE	PROPOSED WATERLINE
EXISTING WATERLINE	PROPOSED FIRE HYDRANT
EXISTING FIRE HYDRANT	PROPOSED GAS SERVICE
EXISTING GAS LINE	CBG PROPOSED CATCH BASIN
CB EXISTING CATCH BASIN	DMH PROPOSED DRAINAGE MANHOLE
CBG EXISTING CATCH BASIN GRATE	PROPOSED STORM DRAIN LINE
DMH EXISTING DRAINAGE MANHOLE	SMH PROPOSED SEWER MANHOLE
EXISTING STORM DRAIN LINE	PROPOSED SEWER LINE
SMH EXISTING SEWER MANHOLE	PROPOSED FOOTING DRAIN
EXISTING SEWER LINE	PROPOSED FIRE SERVICE
+ 360.0 EXISTING SPOT ELEVATION	PROPOSED DOMESTIC SERVICE
UP EXISTING UTILITY POLE	PROPOSED SEWER SERVICE
LP EXISTING LIGHT POLE	DC PROPOSED DROP CURB
SP EXISTING SUPPORT POLE	WV PROPOSED WATER VALVE
SC-P EXISTING SURCHARGE PLATES	
WV EXISTING WATER VALVE	
GV EXISTING GAS VALVE	

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RYAN A. NASHER P.E.
N.Y.S. P.E. LIC. NO. 89066

JOHN R. ATZL
N.Y.S. P.L.S. LIC. NO. 50228

REVISION	DATE	DESCRIPTION
10	10-24-17	PAD "C" REVISED ALL MAPS, UPDATE CONTACT PEOPLE
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1	6-18-12	PROFILES, RETENTION DETAILS, VARIANCES

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PROJECT:

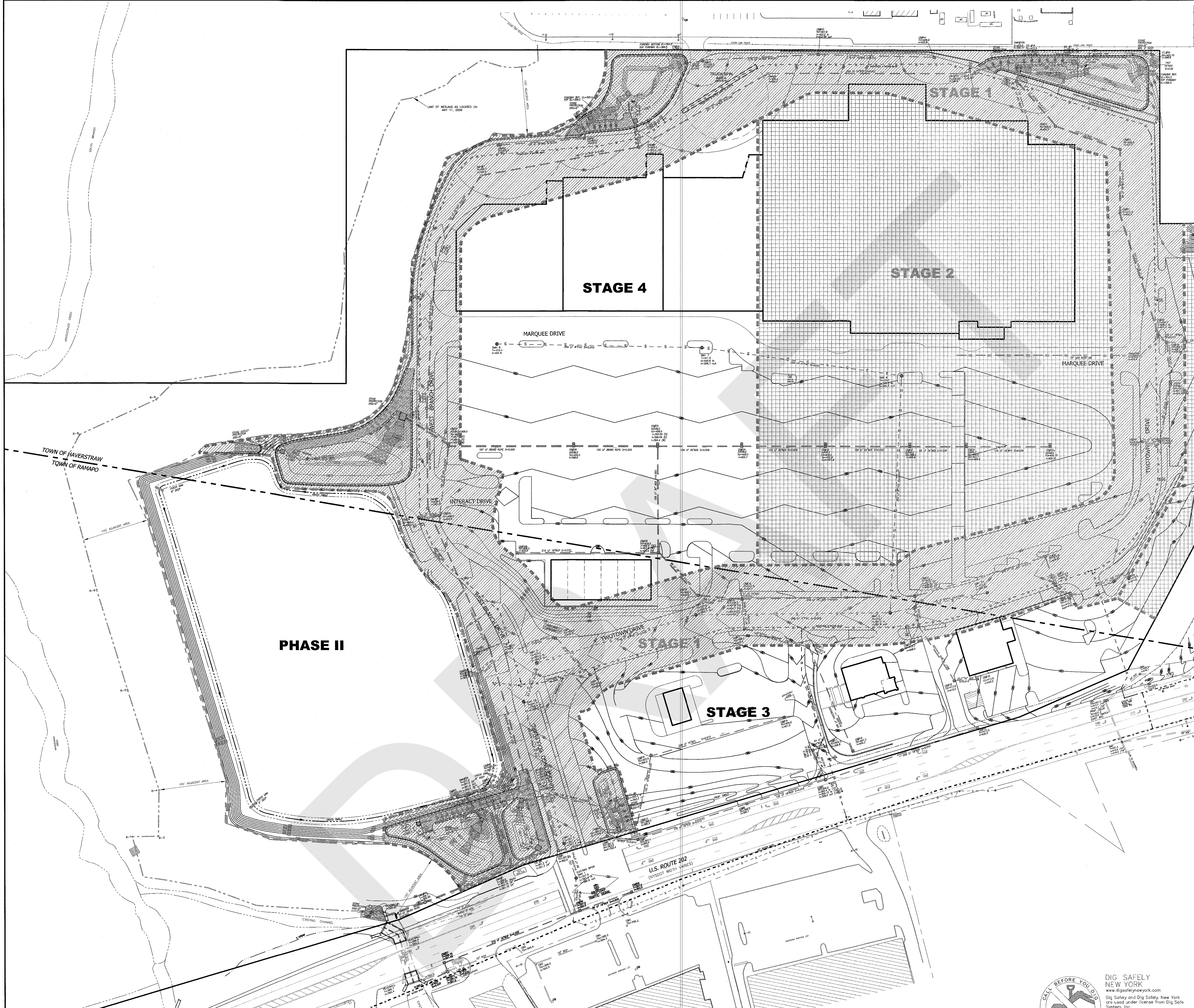
MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

STAGE 2

DRAWN BY: VC	CHECKED BY: DMZ
DATE: SEPTEMBER 27, 2012	SCALE: 1 IN. = 60 FT.
PROJECT NO: 1560	DRAWING NO: 34



LEGEND

EXISTING 2' CONTOUR	PROPOSED 2' CONTOUR
EXISTING 10' CONTOUR	PROPOSED 10' CONTOUR
EXISTING TOWN LINE	PROPOSED WATERLINE
EXISTING WATERLINE	PROPOSED FIRE HYDRANT
EXISTING FIRE HYDRANT	PROPOSED GAS SERVICE
EXISTING GAS LINE	CBG PROPOSED CATCH BASIN
CB EXISTING CATCH BASIN	DMH PROPOSED DRAINAGE MANHOLE
CBG EXISTING CATCH BASIN GRATE	PROPOSED STORM DRAIN LINE
DMH EXISTING DRAINAGE MANHOLE	SMH PROPOSED SEWER MANHOLE
EXISTING STORM DRAIN LINE	PROPOSED SEWER LINE
SMH EXISTING SEWER MANHOLE	PROPOSED FOOTING DRAIN
EXISTING SEWER LINE	PROPOSED FIRE SERVICE
+ 360.0 EXISTING SPOT ELEVATION	PROPOSED DOMESTIC SERVICE
UP EXISTING UTILITY POLE	PROPOSED SEWER SERVICE
LP EXISTING LIGHT POLE	DC PROPOSED DROP CURB
SP EXISTING SUPPORT POLE	WV PROPOSED WATER VALVE
SC-P EXISTING SURCHARGE PLATES	
WV EXISTING WATER VALVE	
GV EXISTING GAS VALVE	

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"UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW."
"ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."
"CERTIFICATION INDICATED HERE ON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYOR'S ADOPTED BY THE DELAWARE - HUDSON LAND SURVEYORS ASSOCIATION. SAID CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED INDIVIDUALS AND/OR INSTITUTIONS FOR WHOM THE SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS."

RYAN A. NASHER, P.E.
N.Y.S. P.E. LIC. NO. 89066

JOHN R. ATZL
N.Y.S. P.L.S. LIC. NO. 50228

REVISION	DATE	DESCRIPTION
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PROJECT:

MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

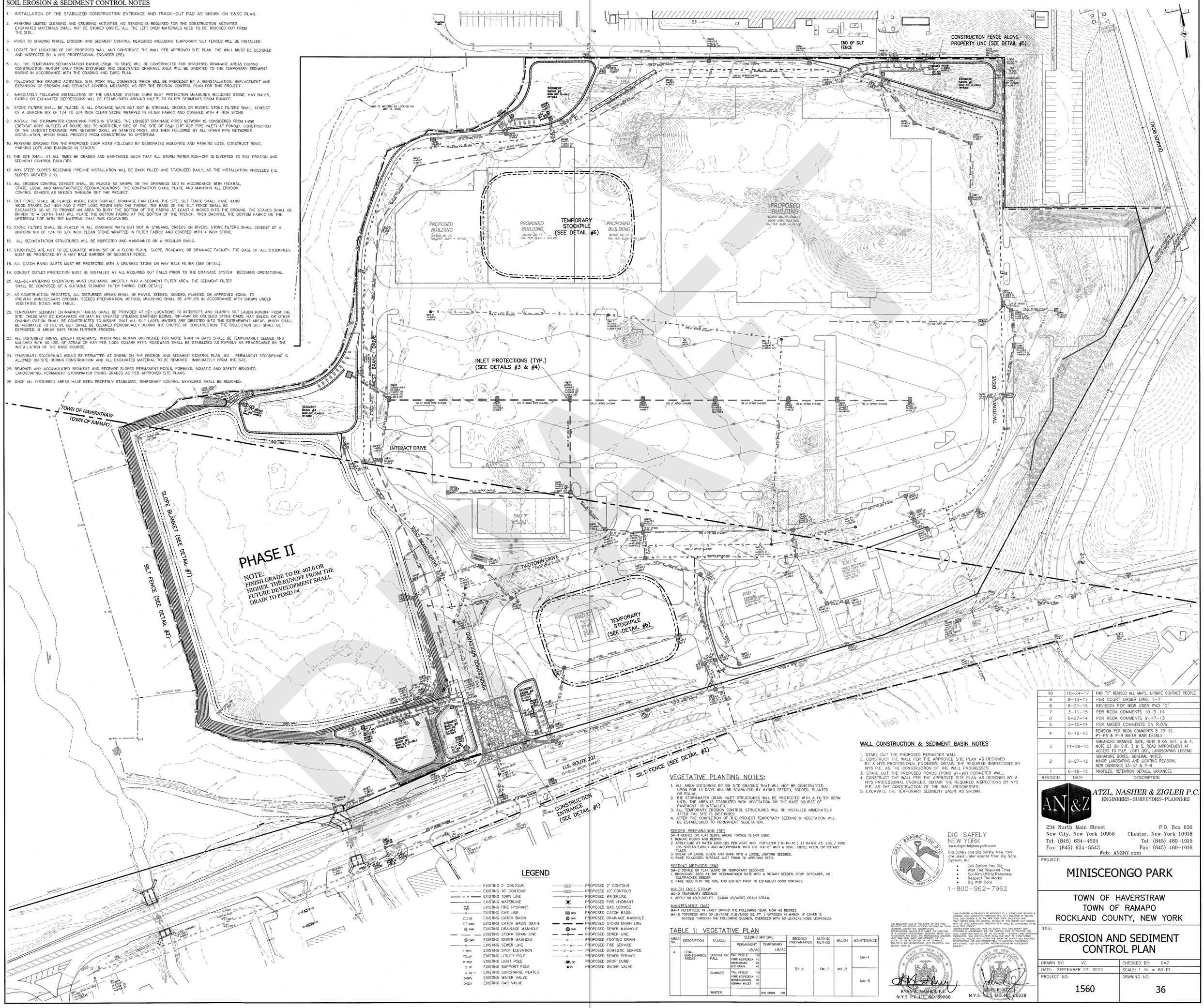
TITLE:

STAGE 3, 4 & PHASE II

DRAWN BY: VC	CHECKED BY: DMZ
DATE: SEPTEMBER 27, 2012	SCALE: 1 IN. = 60 FT.
PROJECT NO: 1560	DRAWING NO: 35

SOIL EROSION & SEDIMENT CONTROL NOTES

1. INSTALLATION OF THE STABILIZED CONSTRUCTION ENTRANCE AND TRACK-OUT PAD AS SHOWN ON E&SC PLAN.
2. PERFORM LIMITED CLEANING AND GRUBBING ACTIVITIES. NO STAGING IS REQUIRED FOR THE CONSTRUCTION ACTIVITIES. EXCAVATED MATERIALS SHALL NOT BE STORED ONSITE. ALL THE LEFT OVER MATERIALS NEED TO BE TRUCKED OUT FROM THE SITE.
3. PRIOR TO GRADING PHASE, EROSION AND SEDIMENT CONTROL MEASURES INCLUDING TEMPORARY SILT FENCES WILL BE INSTALLED
4. LOCATE THE LOCATION OF THE PROPOSED WALL AND CONSTRUCT THE WALL PER APPROVED SITE PLAN. THE WALL MUST BE DESIGNED AND INSPECTED BY A NYS PROFESSIONAL ENGINEER (PE).
5. ALL THE TEMPORARY SEDIMENTATION BASINS (SB#1 TO SB#5) WILL BE CONSTRUCTED FOR DISTURBED DRAINAGE AREAS DURING CONSTRUCTION. RUNOFF ONLY FROM DISTURBED AND DESIGNATED DRAINAGE AREA WILL BE DIVERTED TO THE TEMPORARY SEDIMENT BASINS IN ACCORDANCE WITH THE GRADING AND E&SC PLAN.
6. FOLLOWING THE GRADING ACTIVITIES, SITE WORK WILL COMMENCE WHICH WILL BE PRECEDED BY A REINSTALLATION, REPLACEMENT AND EXPANSION OF EROSION AND SEDIMENT CONTROL MEASURES AS PER THE EROSION CONTROL PLAN FOR THIS PROJECT.
7. IMMEDIATELY FOLLOWING INSTALLATION OF THE DRAINAGE SYSTEM, CURB INLET PROTECTION MEASURES INCLUDING STONE, HAY BALES, FABRIC OR EXCAVATED DEPRESSIONS WILL BE ESTABLISHED AROUND INLETS TO FILTER SEDIMENTS FROM RUNOFF.
8. STONE FILTERS SHALL BE PLACED IN ALL DRAINAGE WAYS BUT NOT IN STREAMS, CREEKS OR RIVERS. STONE FILTERS SHALL CONSIST OF A UNIFORM MIX OF 1/4 TO 3/4 INCH CLEAN STONE WRAPPED IN FILTER FABRIC AND COVERED WITH 4 INCH STONE.
9. INSTALL THE STORMWATER CONVEYING PIPES IN STAGES. THE LONGEST DRAINAGE PIPES NETWORK IS CONSIDERED FROM HW#1 (36"X60" ROPE OUTLET) AT ROUTE 202 TO NORTHERLY SIDE OF THE SITE OF CS#1 (18" RCP PIPE INLET) AT POND#1. CONSTRUCTION OF THE LONGEST DRAINAGE PIPE NETWORK SHALL BE STARTED FIRST, AND THEN FOLLOWED BY ALL OTHER PIPE NETWORKS INSTALLATION, WHICH SHALL PROCEED FROM DOWNSTREAM TO UPSTREAM.
10. PERFORM GRADING FOR THE PROPOSED LOOP ROAD FOLLOWED BY DESIGNATED BUILDINGS AND PARKING LOTS. CONSTRUCT ROAD, PARKING LOTS AND BUILDINGS IN STAGES.
11. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT ALL STORM WATER RUN-OFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
12. ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACK FILLED AND STABILIZED DAILY, AS THE INSTALLATION PROCEEDS (I.E. SLOPES GREATER 2:1).
13. ALL EROSION CONTROL DEVICES SHALL BE PLACED AS SHOWN ON THE DRAWINGS AND IN ACCORDANCE WITH FEDERAL, STATE, LOCAL AND MANUFACTURES RECOMMENDATIONS. THE CONTRACTOR SHALL PLACE AND MAINTAIN ALL EROSION CONTROL DEVICES AS NEEDED THROUGH OUT THE PROJECT.
14. SILT FENCE SHALL BE PLACED WHERE EVER SURFACE DRAINAGE CAN LEAVE THE SITE. SILT FENCE SHALL HAVE HARD WOOD STAKES 2x2 INCH AND 3 FEET LONG WOVEN INTO THE FABRIC. THE BASE OF THE SILT FENCE SHALL BE EXCAVATED SO AS TO PROVIDE AN AREA TO BURY THE BOTTOM OF THE FABRIC AT LEAST 6 INCHES INTO THE GROUND. THE STAKES SHALL BE DRIVEN TO A DEPTH THAT WILL PLACE THE BOTTOM FABRIC AT THE BOTTOM OF THE TRENCH. THEN BACKFILL THE BOTTOM FABRIC ON THE UPSTREAM SIDE WITH THE MATERIAL THAT WAS EXCAVATED.
15. STONE FILTERS SHALL BE PLACED IN ALL DRAINAGE WAYS BUT NOT IN STREAMS, CREEKS OR RIVERS. STONE FILTERS SHALL CONSIST OF A UNIFORM MIX OF 1/4 TO 3/4 INCH CLEAN STONE WRAPPED IN FILTER FABRIC AND COVERED WITH 4 INCH STONE.
16. ALL SEDIMENTATION STRUCTURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS.
17. STOCKPILES ARE NOT TO BE LOCATED WITHIN 50' OF A FLOOD PLAIN, SLOPE, ROADWAY, OR DRAINAGE FACILITY. THE BASE OF ALL STOCKPILES MUST BE PROTECTED BY A HAY BALE BARRIER OR SEDIMENT FENCE.
18. ALL CATCH BASIN INLETS MUST BE PROTECTED WITH A CRUSHED STONE OR HAY BALE FILTER (SEE DETAIL).
19. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUT FALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
20. ALL-DE-WATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTER AREA. THE SEDIMENT FILTER SHALL BE COMPOSED OF A SUITABLE SEDIMENT FILTER FABRIC. (SEE DETAIL).
21. AS CONSTRUCTION PROCEEDS, ALL DISTURBED AREAS SHALL BE PAVED, SEEDED, SODDED, PLANTED OR APPROVED EQUAL TO PREVENT UNNECESSARY EROSION. SEEDED PREPARATION, METHOD, MULCHING SHALL BE APPLIED IN ACCORDANCE WITH SHOWN UNDER VEGETATIVE NOTES AND TABLE.
22. TEMPORARY SEDIMENT ENTRAPMENT AREAS SHALL BE PROVIDED AT KEY LOCATIONS TO INTERCEPT AND CLARIFY SILT LADEN RUNOFF FROM THE SITE. THESE MAY BE EXCAVATED OR MAY BE CREATED UTILIZING EARTHEN BERMS, RIP-RAP OR CRUSHED STONE DAMS, HAY BALES, OR OTHER CHANNELIZATION SHALL BE CONSTRUCTED TO INSURE THAT ALL SILT LADEN WATERS ARE DIRECTED INTO THE ENTRAPMENT AREAS, WHICH SHALL BE PERMITTED TO FILL IN, BUT SHALL BE CLEANED PERIODICALLY DURING THE COURSE OF CONSTRUCTION. THE COLLECTION SILT SHALL BE DEPOSITED IN AREAS SAFE FROM FURTHER EROSION.
23. ALL DISTURBED AREAS, EXCEPT ROADWAYS, WHICH WILL REMAIN UNFINISHED FOR MORE THAN 14 DAYS SHALL BE TEMPORARILY SEEDED AND MULCHED WITH 90 LBS. OF STRAW OR HAY PER 1,000 SQUARE FEET. ROADWAYS SHALL BE STABILIZED AS RAPIDLY AS PRACTICABLE BY THE INSTALLATION OF THE BASE COURSE.
24. TEMPORARY STOCKPILING WOULD BE PERMITTED AS SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN. NO PERMANENT STOCKPILING IS ALLOWED ON SITE DURING CONSTRUCTION AND ALL EXCAVATED MATERIAL TO BE REMOVED IMMEDIATELY FROM THE SITE.
25. REMOVED ANY ACCUMULATED SEDIMENT AND REGRADE SLOPED PERMANENT POOLS, FORBAYS, AQUATIC AND SAFETY BENCHES, LANDSCAPING, PERMANENT STORMWATER PONDS GRADES AS PER APPROVED SITE PLANS.
26. ONCE ALL DISTURBED AREAS HAVE BEEN PROPERLY STABILIZED, TEMPORARY CONTROL MEASURES SHALL BE REMOVED.



LEGEND

- EXISTING 2' CONTOUR
- EXISTING 10' CONTOUR
- EXISTING TOWN LINE
- EXISTING WATERLINE
- EXISTING FIRE HYDRANT
- EXISTING GAS LINE
- EXISTING CATCH BASIN
- EXISTING CATCH BASIN GRATE
- EXISTING DRAINAGE MANHOLE
- EXISTING STORM DRAIN LINE
- EXISTING SEWER MANHOLE
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- EXISTING SURCHARGE PLATES
- EXISTING WATER VALVE
- EXISTING GAS VALVE
- PROPOSED 2' CONTOUR
- PROPOSED 10' CONTOUR
- PROPOSED WATERLINE
- PROPOSED FIRE HYDRANT
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- PROPOSED CATCH BASIN
- PROPOSED DRAINAGE MANHOLE
- PROPOSED STORM DRAIN LINE
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- PROPOSED SEWER LINE
- PROPOSED FOOTING DRAIN
- PROPOSED FIRE SERVICE
- PROPOSED DOMESTIC SERVICE
- PROPOSED SEWER SERVICE
- PROPOSED DROP CURB
- PROPOSED WATER VALVE

VEGETATIVE PLANTING NOTES:

1. ALL AREA DISTURBED BY ON SITE GRADING THAT WILL NOT BE CONSTRUCTED UPON FOR 14 DAYS WILL BE STABILIZED BY HYDRO SEEDED, SODDED, PLANTED OR EQUAL.
2. THE STORMWATER DRAIN INLET STRUCTURES WILL BE PROTECTED WITH A FILTER BERM UNTIL THE AREA IS STABILIZED WITH VEGETATION OR THE BASE COURSE OF PAVEMENT IS INSTALLED.
3. ALL TEMPORARY EROSION CONTROL STRUCTURES WILL BE INSTALLED IMMEDIATELY AFTER THE SITE IS DISTURBED.
4. AFTER THE COMPLETION OF THE PROJECT TEMPORARY SEEDING & VEGETATION WILL BE ESTABLISHED TO PERMANENT VEGETATION.

SEEDED PREPARATION (SP)
SP-4 GENTLE OR FLAT SLOPE WHERE TOPSOIL IS NOT USED.
1. REMOVE ROCKS AND DEBRIS.
2. APPLY LIME AT RATES 2000 LBS PER ACRE AND FERTILIZER (10-10-10) AT RATES 3.5 LBS / 1000 LBS SPREAD EVENLY AND INCORPORATE INTO THE TOP 6" WITH A DISK, CHISEL PLOW, OR ROTARY TILLER.
3. BREAK UP LARGE CLODS AND RAKE INTO A LOOSE, UNIFORM SEEDBED.
4. RAKE TO LOOSEN SURFACE JUST PRIOR TO APPLYING SEED.

SEEDING METHODS (SM)
SM-2 GENTLE OR FLAT SLOPE OR TEMPORARY SEEDINGS.
1. BROADCAST SEED AT THE RECOMMENDED RATE WITH A ROTARY SEEDER, DROP SPREADER, OR CULTIPACKER SEEDER.
2. RAKE SEED INTO THE SOIL AND LIGHTLY PACK TO ESTABLISH GOOD CONTACT.

MULCH (MU) STRAW
MU-2 TEMPORARY SEEDINGS.
1. APPLY 90 LB./1,000 FT. (4,000 LB/ACRE) GRAIN STRAW.

MAINTENANCE (MA)
MA-1 REFERTILIZE IN EARLY SPRING THE FOLLOWING YEAR. MOW AS DESIRED.
MA-5 TOPDRESS WITH 50 LB/ACRE (1LB/1,000 SQ. FT.) NITROGEN IN MARCH. IF COVER IS NEEDED THROUGH THE FOLLOWING SUMMER, OVERSEED WITH 50 LB/ACRE KOBE LESPEDEZA.

TABLE 1: VEGETATIVE PLAN

AREA No.	DESCRIPTION	SEASON	SEEDING MIXTURE	PERMANENT LB/AC	TEMPORARY LB/AC	SEEDBED PREPARATION	SEEDING METHOD	MULCH	MAINTENANCE
4	LOW-MAINTENANCE AREAS	SPRING OR FALL	TALL FESCUE	100		SP-4	SM-2	MU-2	MA-1
			KOBE LESPEDEZA	10					
			RAMADRASS	25					
			RYE GRAIN	40					MA-5
		SUMMER	TALL FESCUE	100					
			KOBE LESPEDEZA	10					
			BERMUDAGRASS	15					
			GERMAN MILLET	10					
		WINTER			RYE GRAIN 120				

WALL CONSTRUCTION & SEDIMENT BASIN NOTES

1. STAKE OUT THE PROPOSED PERIMETER WALL.
2. CONSTRUCT THE WALL PER THE APPROVED SITE PLAN AS DESIGNED BY A NYS PROFESSIONAL ENGINEER. OBTAIN THE REQUIRED INSPECTIONS BY NYS P.E. AS THE CONSTRUCTION OF THE WALL PROGRESSES.
3. STAKE OUT THE PROPOSED PONDS (POND #1-#5) PERIMETER WALL.
4. CONSTRUCT THE WALL PER THE APPROVED SITE PLAN AS DESIGNED BY A NYS PROFESSIONAL ENGINEER. OBTAIN THE REQUIRED INSPECTIONS BY NYS P.E. AS THE CONSTRUCTION OF THE WALL PROGRESSES.
5. EXCAVATE THE TEMPORARY SEDIMENT BASIN AS SHOWN.

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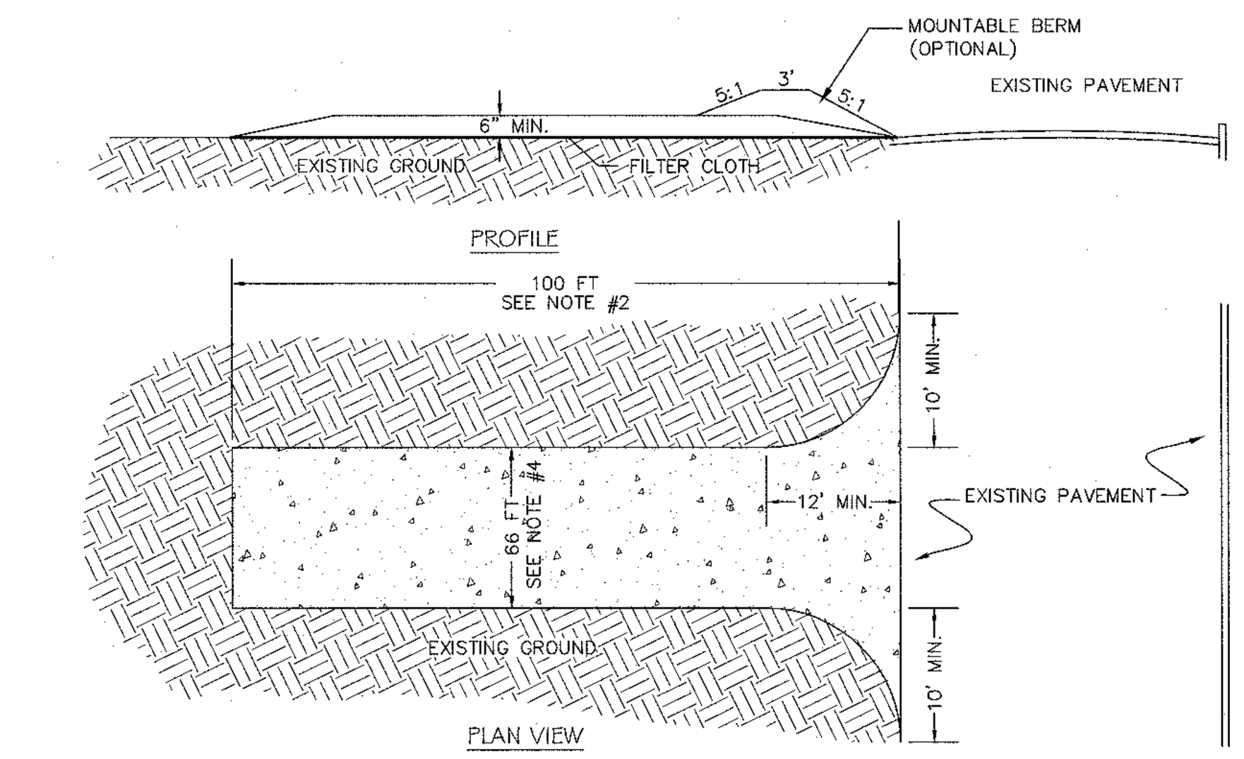
PROJECT:
MINISCEONGO PARK
TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:
EROSION AND SEDIMENT CONTROL PLAN

DRAWN BY: VC	CHECKED BY: DMZ
DATE: SEPTEMBER 27, 2012	SCALE: 1 IN. = 60 FT.
PROJECT NO: 1560	DRAWING NO: 36

RYAN A. NASHER, P.E.
N.Y.S. P.E. LIC. NO. 89066

JOHN R. ATZL
N.Y.S. L.S. LIC. NO. 050228

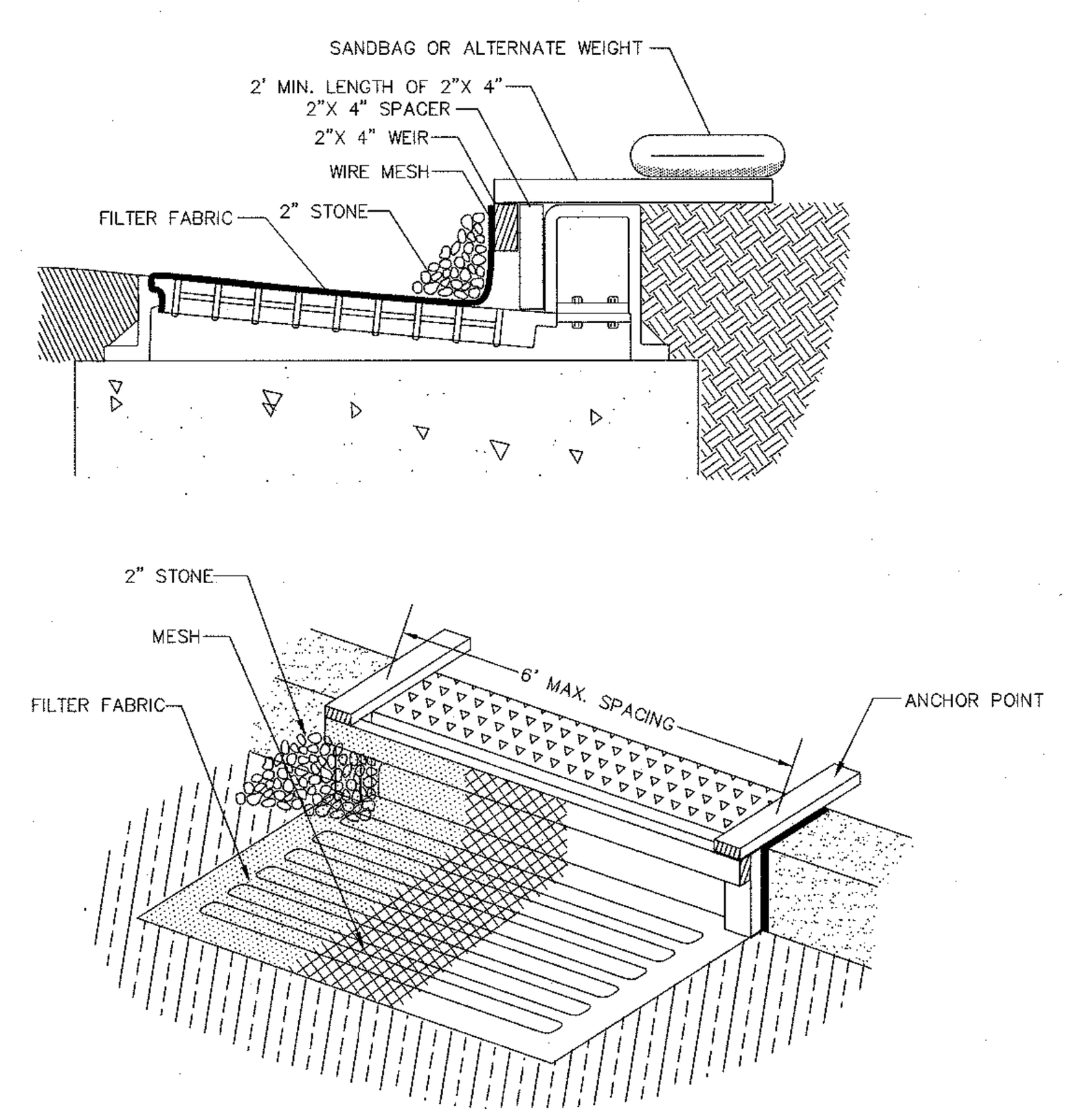


DETAIL #1 CONSTRUCTION ENTRANCE

N.T.S.

SPECIFICATIONS FOR CONSTRUCTION ENTRANCE

1. STONE SIZE – USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – NOT LESS THAN 50 FT. (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FT. MINIMUM LENGTH WOULD APPLY).
3. THICKNESS – NOT LESS THAN 6 IN..
4. WIDTH – 12 FT. MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS AND EGRESS OCCUR. 24 FT. IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO THE PLACEMENT OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. ALL SEDIMENT SPILLED , DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHT-OF-WAYS MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS TO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

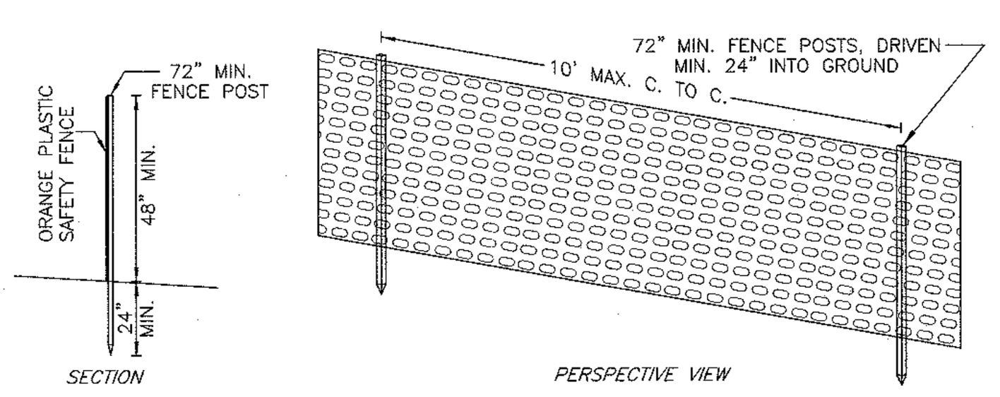


DETAIL #4 CURB INLET PROTECTION

N.T.S.

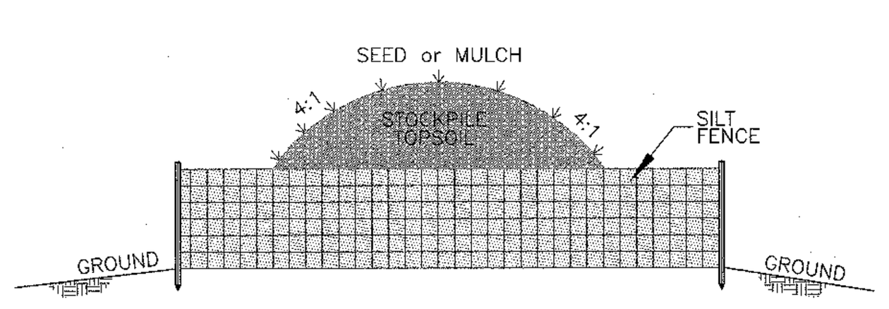
SPECIFICATIONS FOR CURB INLET PROTECTION

1. FILTER FABRIC SHALL HAVE AN EOS OF 40–85.
2. WOODEN FRAME SHALL BE CONSTRUCTED OF 2"X 4" CONSTRUCTION GRADE LUMBER.
3. WIRE MESH ACROSS THROAT SHALL BE A CONTINUOUS PIECE 30" MINIMUM WIDTH WITH A LENGTH 4 FT. LONGER THAN THE THROAT. IT SHALL BE SHAPED AND SECURELY NAILED TO A 2"X 4" WEIR.
4. THE WEIR SHALL BE SECURELY NAILED TO 2"X 4" SPACERS 9" LONG SPACED NO MORE THAN 6 FT. APART.
5. THE ASSEMBLY SHALL BE PLACED AGAINST THE INLET AND SECURED BY 2"X 4" ANCHORS 2 FT. LONG EXTENDING ACROSS THE TOP OF THE INLET AND HELD IN PLACE BY SANDBAGS OR ALTERNATE WEIGHTS.



DETAIL #5 CONSTRUCTION FENCE

N.T.S.



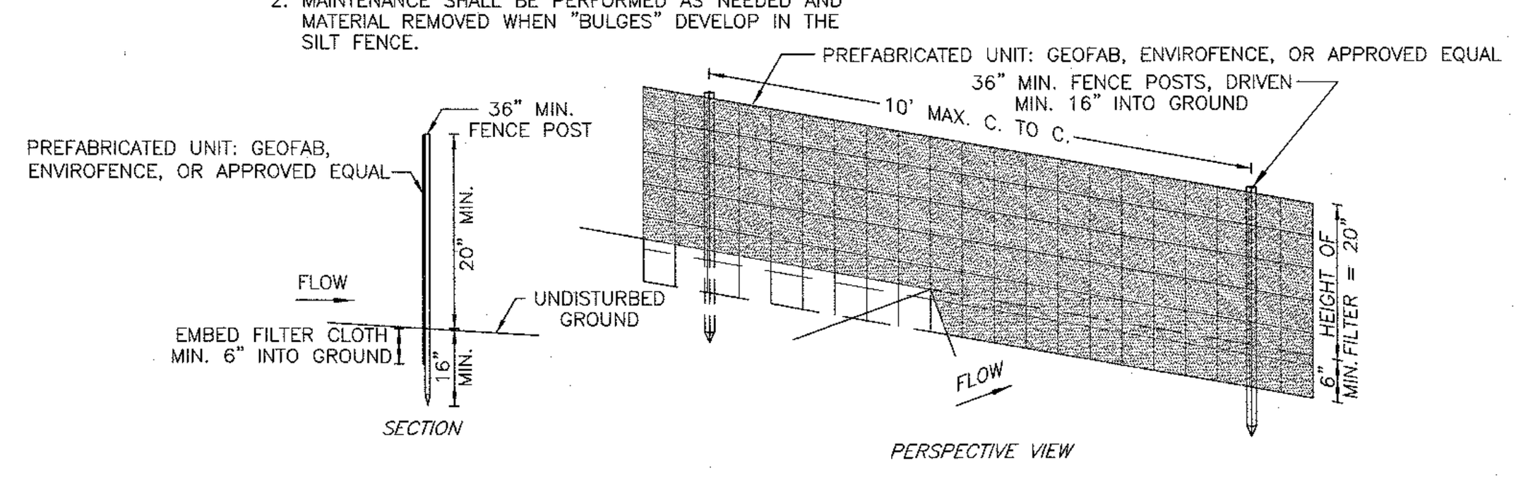
STOCKPILE DETAIL #6

N.T.S.

CONSTRUCTION NOTES FOR PRE FABRICATED SILT FENCE

PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL

1. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
2. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.



SILT FENCE DETAIL #2

N.T.S.

SEDIMENT & EROSION CONTROL NOTES

1. FABRIC FENCE WILL BE INSTALLED ALONG THE PROPOSED ROAD AND THE ADJACENT PROPERTY OWNERS AND ALL DISTURBED AREAS.
2. TEMPORARY SEEDING SHALL BE APPLIED TO DISTURBED AREAS THAT ARE LEFT BARE FOR 15 DAYS UNLESS CONSTRUCTION WILL BE BEGIN WITHIN 30 DAYS. IF CONSTRUCTION IS SUSPENDED OR COMPLETED, AREAS SHALL BE SEEDED OR MULCHED IMMEDIATELY.
3. STRUCTURAL MEASURES MUST BE MAINTAINED TO BE EFFECTIVE. IN GENERAL, THESE MEASURES MUST BE PERIODICALLY INSPECTED TO INSURE STRUCTURAL INTEGRITY, DETECT VANDALISM DAMAGE, AND FOR MAINTENANCE AND REPAIR WHENEVER NECESSARY.
4. A STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT THE BEGINNING OF THE PROPOSED ROAD.
5. MACADAM SURFACES SHALL BE SWEPT "BROOM CLEAN" AT THE END OF EACH DAY DURING CONSTRUCTION.
6. CONSTRUCTION EQUIPMENT SHALL BE LIMITED TO AREAS WITHIN THE SILT FENCE SEDIMENT PROTECTION AREA.

EROSION CONTROL PHASING

PHASE I – IMMEDIATELY AFTER CLEARING

1) STABILIZED CONSTRUCTION ENTRANCE (DETAIL #1)
2) SILT FENCING (DETAIL #2)

PHASE II – IMMEDIATELY FOLLOWING INSTALLATION OF SEWER & DRAINAGE

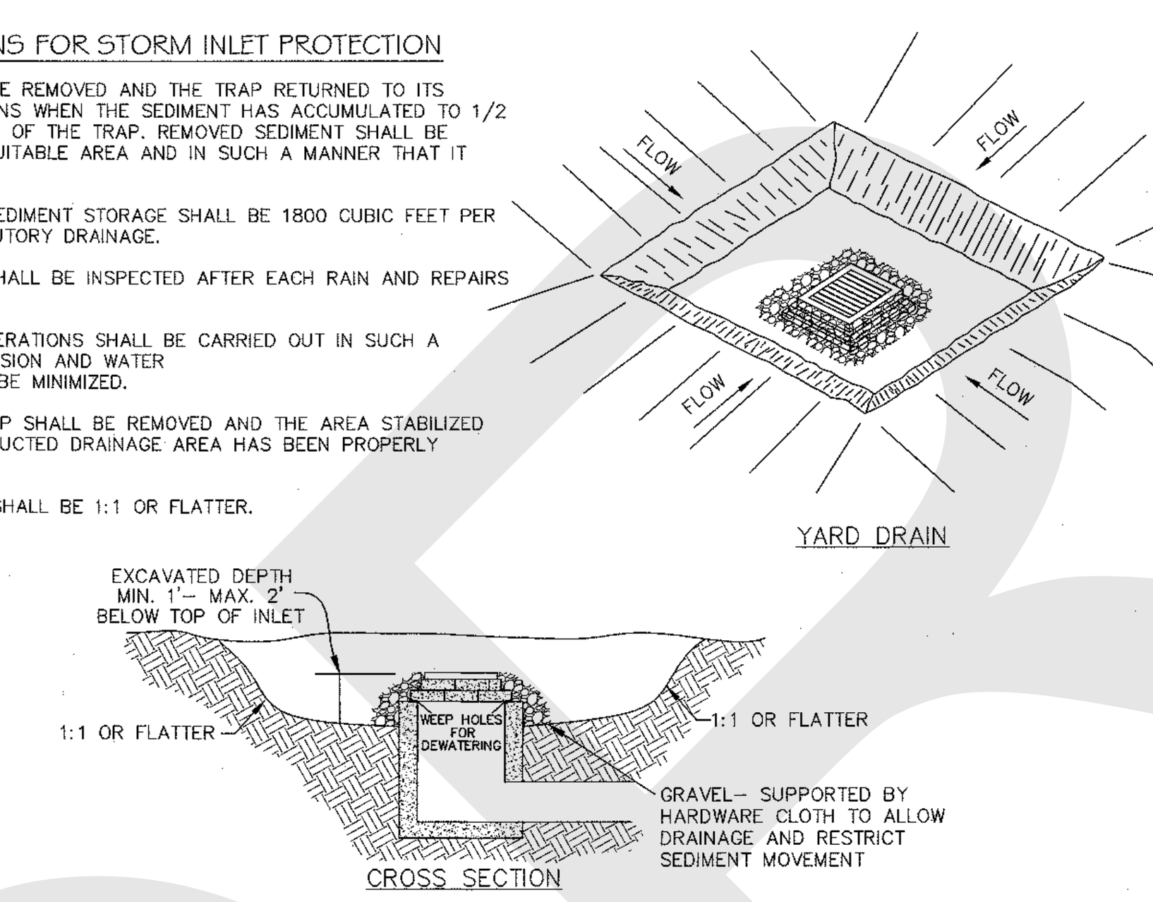
1) STORM INLET TRAP (DETAIL #3) AROUND ALL CATCH BASINS

PHASE III – IMMEDIATELY FOLLOWING PAVING OF ROADWAY & PARKING LOT

1) CURB INLET PROTECTION (DETAIL #4) AROUND ALL CATCH BASINS IN ROADWAY & PARKING AREAS.
NOTE: STORM INLET PROTECTION (DETAIL #3) ARE TO REMAIN FOR FIELD INLET & OUTLET STRUCTURES IN TEMPORARY SEDIMENT BASINS.

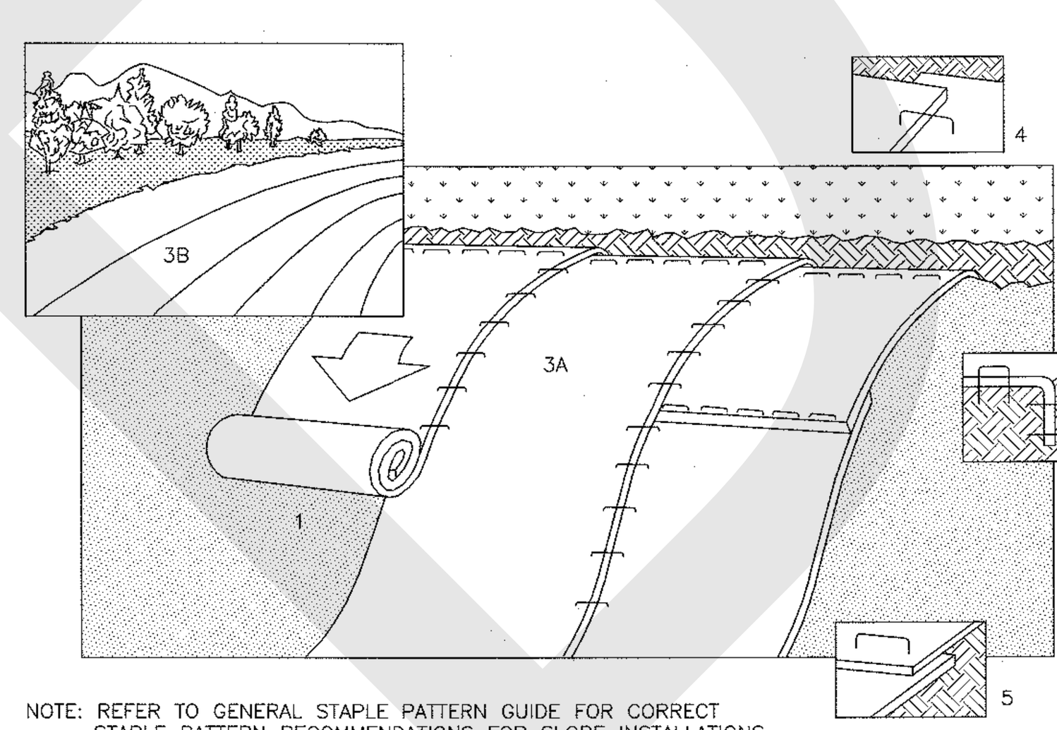
SPECIFICATIONS FOR STORM INLET PROTECTION

1. SEDIMENT SHALL BE REMOVED AND THE TRAP RETURNED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
2. THE VOLUME OF SEDIMENT STORAGE SHALL BE 1800 CUBIC FEET PER ACRE OF CONTRIBUTORY DRAINAGE.
3. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
4. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION SHALL BE MINIMIZED.
5. THE SEDIMENT TRAP SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE CONSTRUCTED DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
6. ALL CUT SLOPES SHALL BE 1:1 OR FLATTER.



DETAIL #3 STORM INLET PROTECTION

N.T.S.



NOTE: REFER TO GENERAL STAPLE PATTERN GUIDE FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOPE INSTALLATIONS.

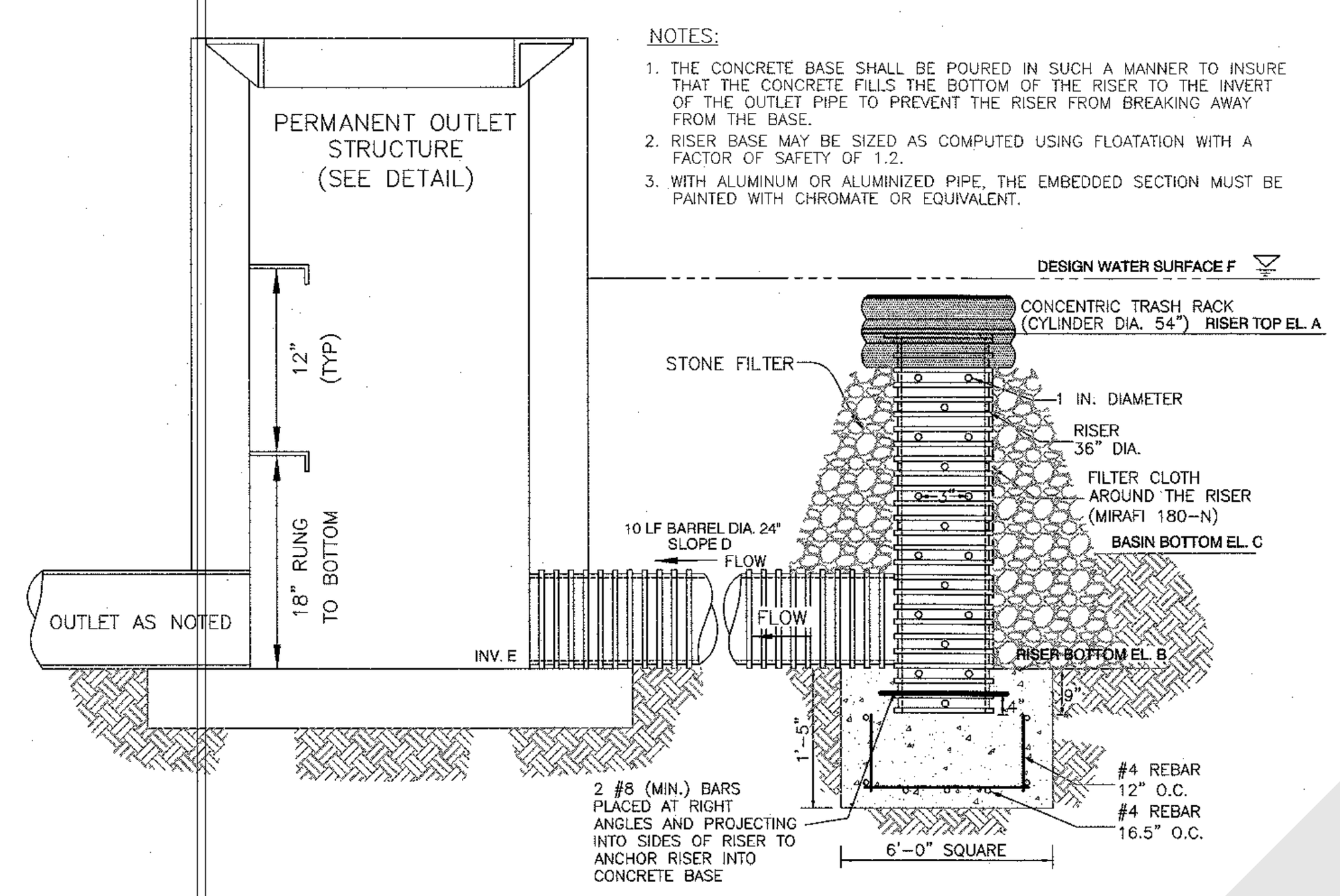
1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.

SLOPE BLANKET INSTALLATION DETAIL #7

N.T.S.

NOTES:

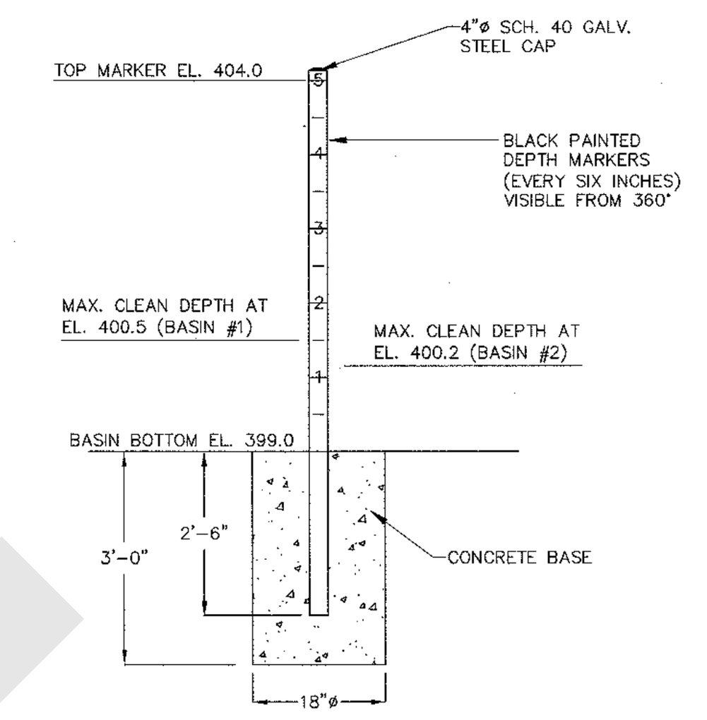
1. THE CONCRETE BASE SHALL BE POURED IN SUCH A MANNER TO INSURE THAT THE CONCRETE FILLS THE BOTTOM OF THE RISER TO THE INVERT OF THE OUTLET PIPE TO PREVENT THE RISER FROM BREAKING AWAY FROM THE BASE.
2. RISER BASE MAY BE SIZED AS COMPUTED USING FLOATATION WITH A FACTOR OF SAFETY OF 1.2.
3. WITH ALUMINUM OR ALUMINIZED PIPE, THE EMBEDDED SECTION MUST BE PAINTED WITH CHROMATE OR EQUIVALENT.



RISER ID	RISER TOP EL. (A)	RISER BOTTOM EL. (B)	BASIN BOTTOM EL. (C)	SLOPE IN BARREL (D)	INV TO OUTLET STRUCTURE (E)	DESIGN WATER SURFACE EL. (F)
1	402.0	397.0	399.0	0.005	396.95	403.1
2	401.5	397.0	399.0	0.025	396.75	404.9
4	398.0	392.1	395.5	0.010	392.0	399.1
5	395.6	391.0	393.0	0.010	390.9	396.2

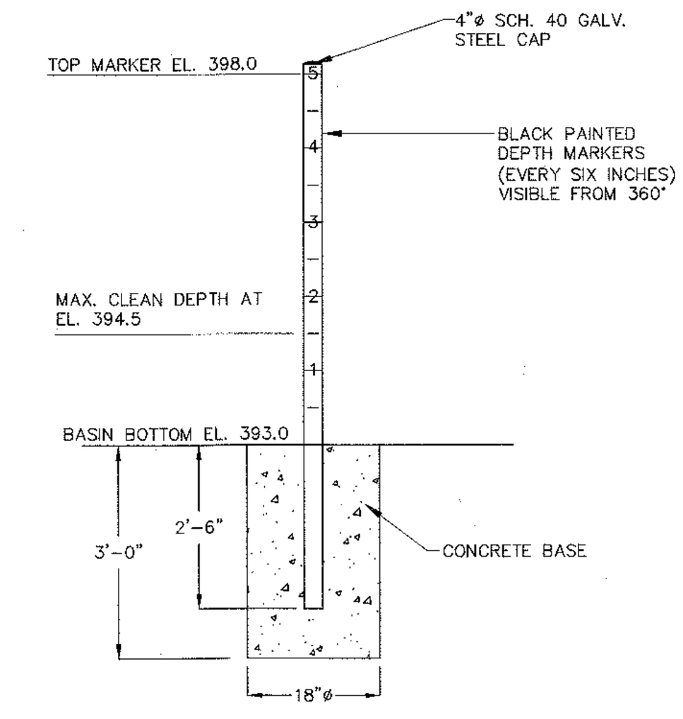
SEDIMENT BASIN RISER #1, 2, 4 & 5 DETAIL

N.T.S.



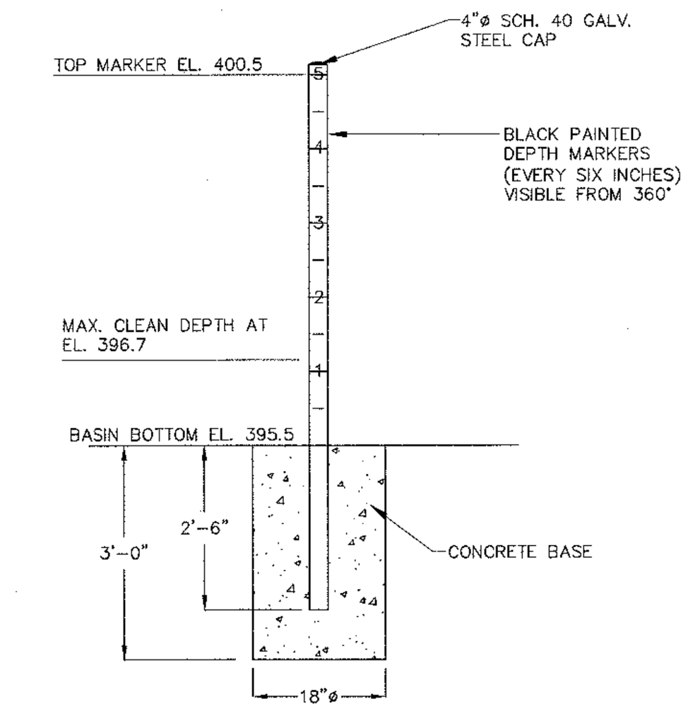
SEDIMENT BASIN #1 & 2 FIXED SEDIMENT DEPTH MARKER DETAIL

N.T.S.



SEDIMENT BASIN #5 FIXED SEDIMENT DEPTH MARKER DETAIL

N.T.S.

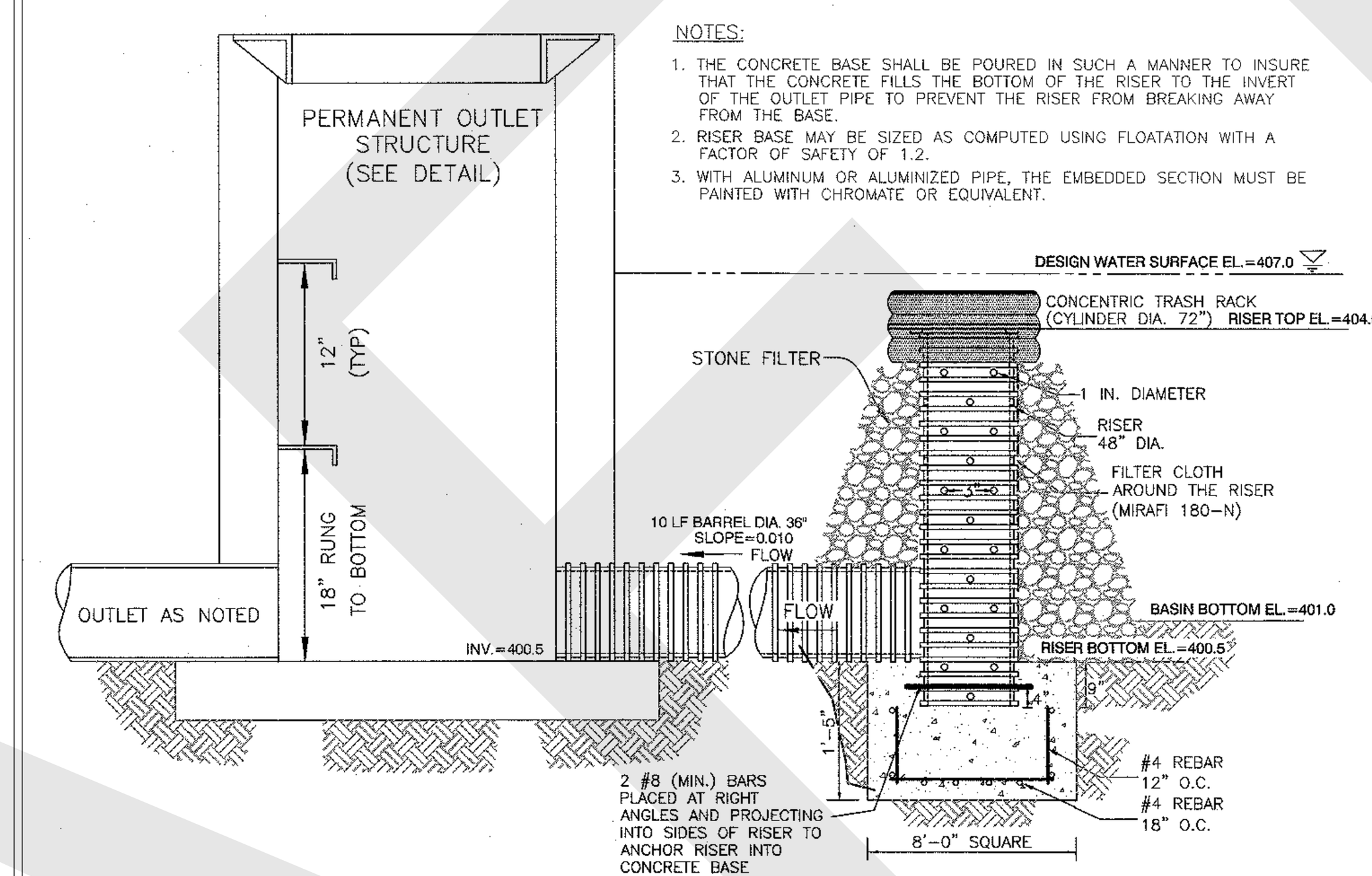


SEDIMENT BASIN #4 FIXED SEDIMENT DEPTH MARKER DETAIL

N.T.S.

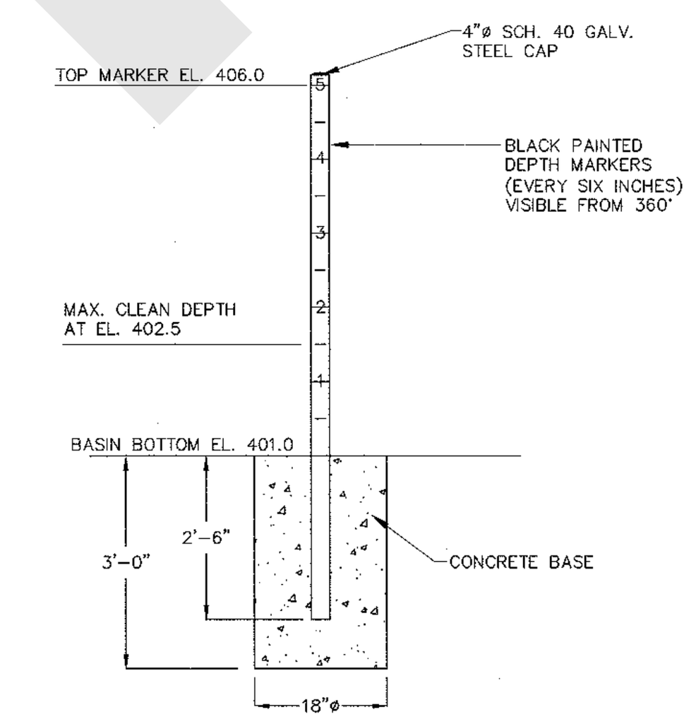
NOTES:

1. THE CONCRETE BASE SHALL BE POURED IN SUCH A MANNER TO INSURE THAT THE CONCRETE FILLS THE BOTTOM OF THE RISER TO THE INVERT OF THE OUTLET PIPE TO PREVENT THE RISER FROM BREAKING AWAY FROM THE BASE.
2. RISER BASE MAY BE SIZED AS COMPUTED USING FLOATATION WITH A FACTOR OF SAFETY OF 1.2.
3. WITH ALUMINUM OR ALUMINIZED PIPE, THE EMBEDDED SECTION MUST BE PAINTED WITH CHROMATE OR EQUIVALENT.



SEDIMENT BASIN RISER #3 DETAIL

N.T.S.

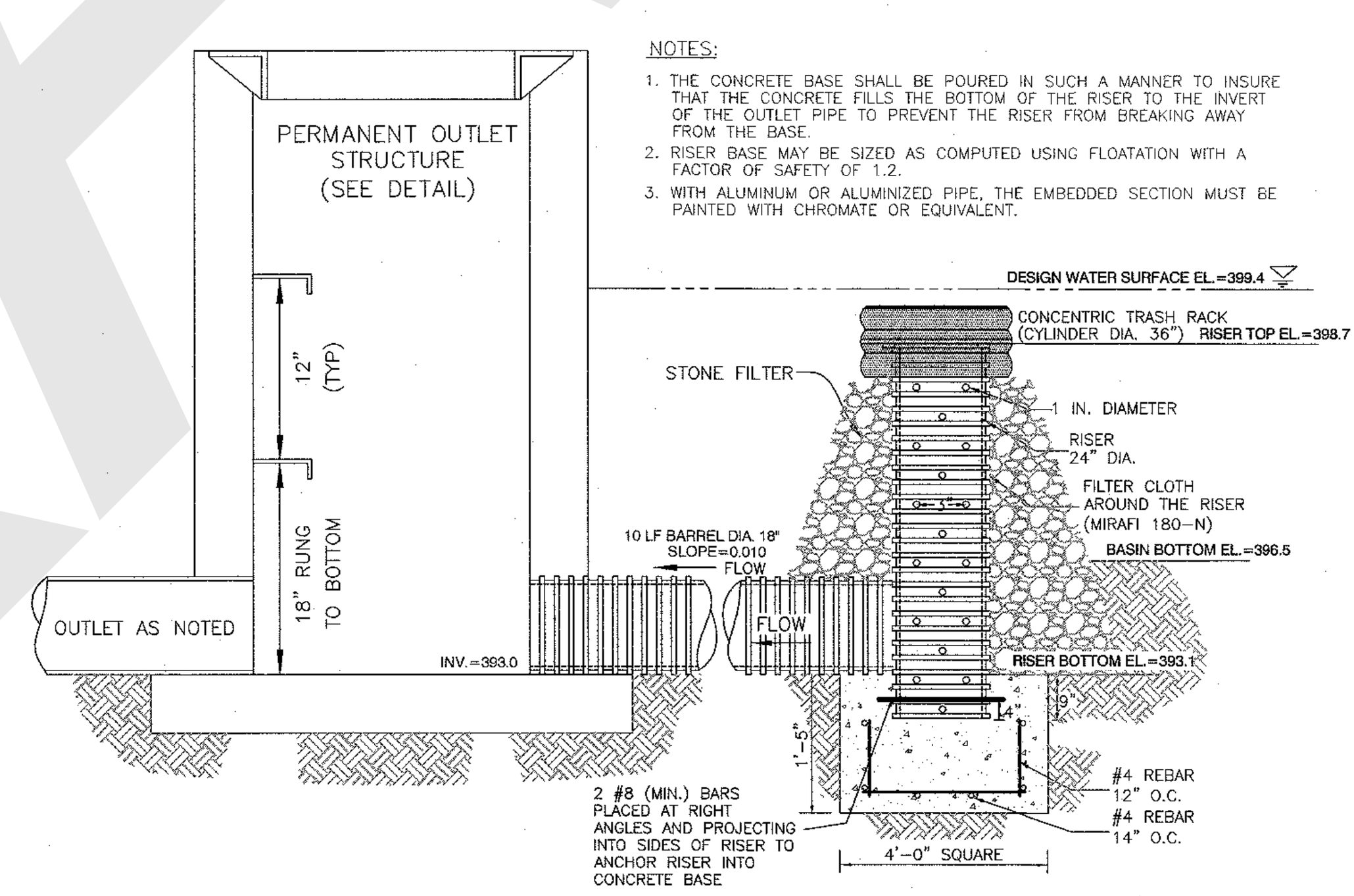


SEDIMENT BASIN #3 FIXED SEDIMENT DEPTH MARKER DETAIL

N.T.S.

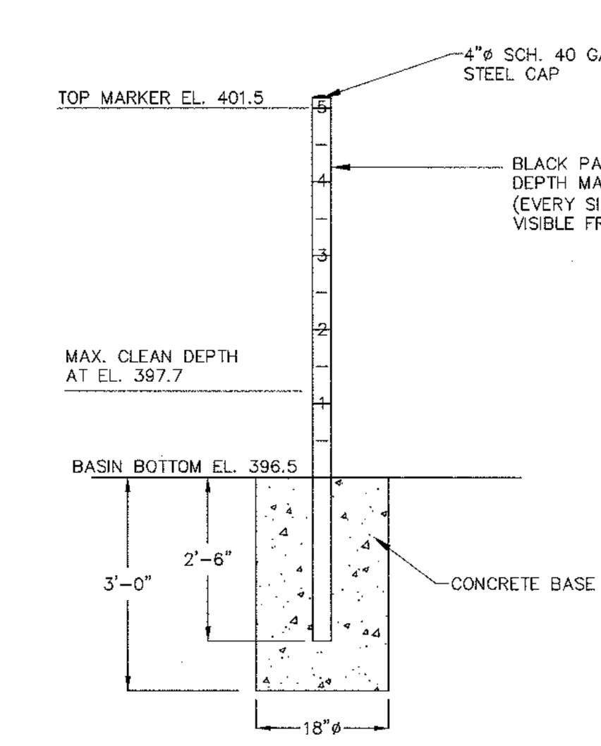
NOTES:

1. THE CONCRETE BASE SHALL BE POURED IN SUCH A MANNER TO INSURE THAT THE CONCRETE FILLS THE BOTTOM OF THE RISER TO THE INVERT OF THE OUTLET PIPE TO PREVENT THE RISER FROM BREAKING AWAY FROM THE BASE.
2. RISER BASE MAY BE SIZED AS COMPUTED USING FLOATATION WITH A FACTOR OF SAFETY OF 1.2.
3. WITH ALUMINUM OR ALUMINIZED PIPE, THE EMBEDDED SECTION MUST BE PAINTED WITH CHROMATE OR EQUIVALENT.



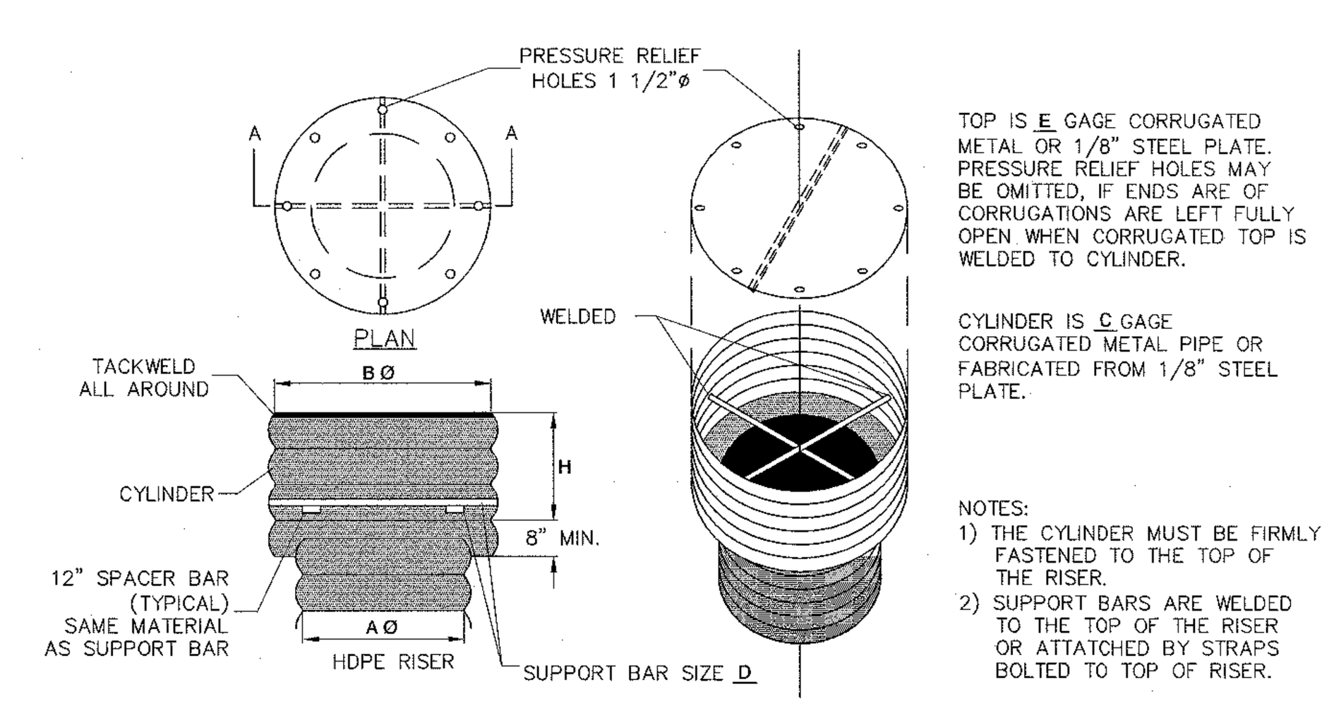
SEDIMENT BASIN RISER #6 DETAIL

N.T.S.



SEDIMENT BASIN #6 FIXED SEDIMENT DEPTH MARKER DETAIL

N.T.S.



TOP IS E GAGE CORRUGATED METAL OR 1/8" STEEL PLATE. PRESSURE RELIEF HOLES MAY BE OMITTED, IF ENDS ARE OF CORRUGATIONS ARE LEFT FULLY OPEN WHEN CORRUGATED TOP IS WELDED TO CYLINDER.

CYLINDER IS C GAGE CORRUGATED METAL PIPE OR FABRICATED FROM 1/8" STEEL PLATE.

NOTES:

1) THE CYLINDER MUST BE FIRMLY FASTENED TO THE TOP OF THE RISER.
2) SUPPORT BARS ARE WELDED TO THE TOP OF THE RISER OR ATTATCHED BY STRAPS BOLTED TO TOP OF RISER.

RISER DIA (A)	CYLINDER DIA (B)	THICK GAGE (C)	H	MIN. SUPPORT BAR SIZE (D)	MIN. TOP THICKNESS (E)
24"	36"	16	13"	#6 REBAR	14 ga.
36"	54"	14	17"	#8 REBAR	12 ga.
48"	72"	12	21"	1 1/4" PIPE OR 1 1/4x1 1/4x1/4 ANGLE	10 ga.

CONCENTRIC TRASH RACK & ANTI-VORTEX DEVICE DETAIL

N.T.S.

RYAN A. NASHER, P.E.
N.Y.S. P.E. LIC. NO. 89066

JOHN R. ATZL
N.Y.S. P.L.S. LIC. NO. 50228

REVISION	DATE	DESCRIPTION
10	10–24–17	PAD "C" REVISED ALL MAPS, UPDATE CONTACT PEOPLE
9	9–13–17	PER COURT ORDER DWG. 1–7
8	8–21–15	REVISION PER NEW USER PAD "C"
7	3–11–15	PER RCDA COMMENTS 10–3–14
6	6–27–14	PER RCDA COMMENTS 9–17–13
5	3–10–14	PER MASER COMMENTS ON R.O.W.
4	6–12–13	REVISION PER RCDA COMMENTS 8–29–12, P1–P6 & P–9 WATER MAIN DETAILS
3	11–28–12	VARIANCES GRANTED DATE, NOTE 8 ON SHT. 3 & 4, NOTE 23 ON SHT. 3 & 5, ROAD IMPROVEMENT AT ACCESS TO P.I.P, LIGHT QTY., LANDSCAPING LEGEND
2	9–27–12	SIGNATURE BOXES, GENERAL NOTES, MINOR LANDSAPING AND LIGHTING REVISION, NEW DRAWINGS 33–37 & P–9
1	6–18–12	PROFILES, RETENTION DETAILS, VARIANCES

ATZL, NASHER & ZIGLER P.C.
ENGINEERS–SURVEYORS–PLANNERS

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P.O. Box 636
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Tel: (845) 469-1015
Fax: (845) 469-1016

Web: ANZNY.com

PROJECT:

MINISCEONGO PARK

TOWN OF HAVERSTRAW
TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

EROSION CONTROL DETAILS

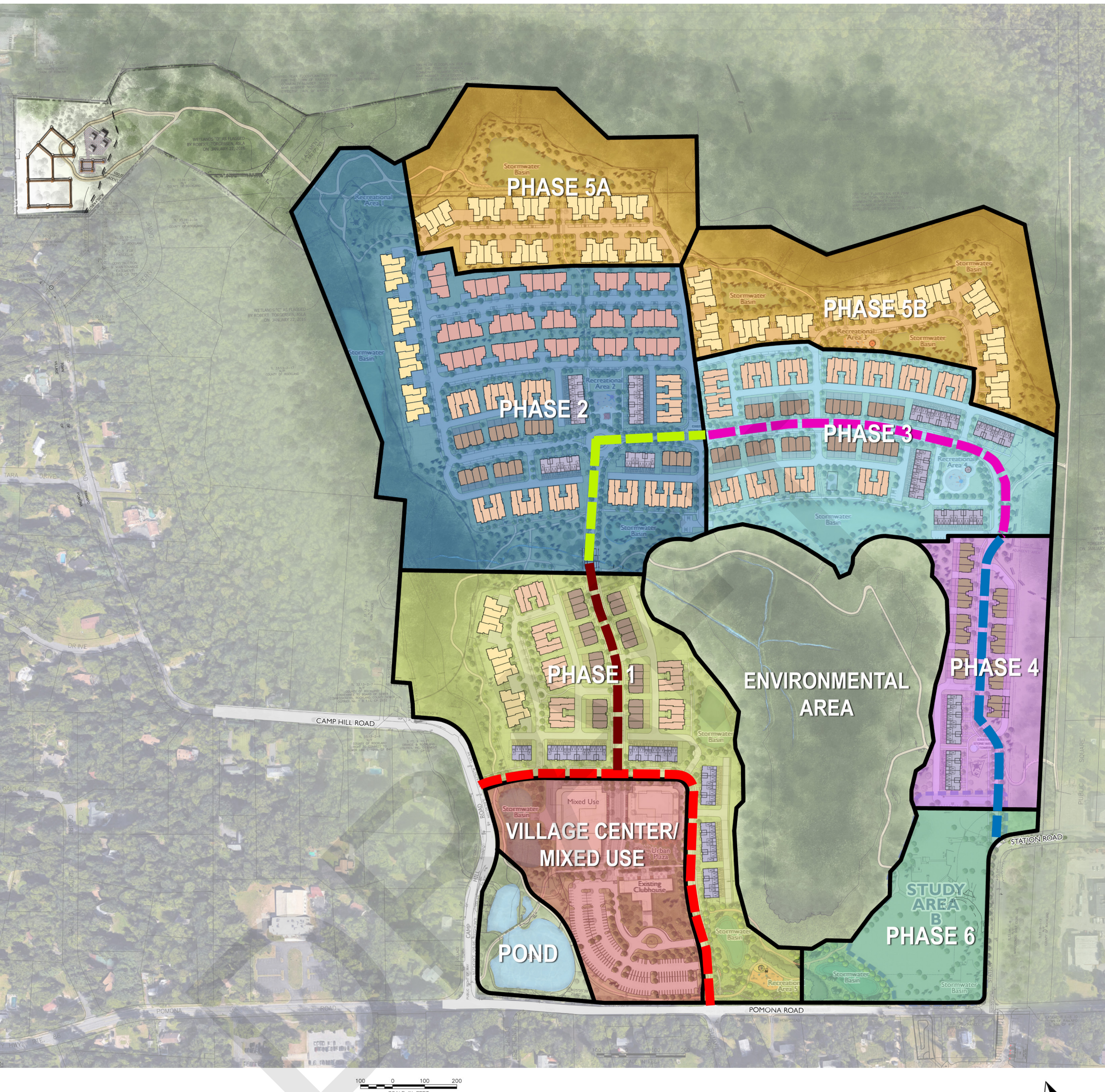
DRAWN BY: VC	CHECKED BY: DMZ
DATE: SEPTEMBER 27, 2012	SCALE: 1 IN. = 60 FT.
PROJECT NO: 1560	DRAWING NO: 37

APPENDIX M:

MILLER'S POND PROJECT INFORMATION AND CORRESPONDENCE

MILLERS POND - PHASING PLAN DIAGRAM

August 21, 2020



LEGEND

- Mixed Use Building
- Commercial Building
- Existing Club House
- Courtyard TH
- Main Street Decked TH
- Stacked Decked Manor House
- O.S.T.H. (On Street Town House)
- Quads
- Community Center House
- Exisiting Trail

Roads

- Spine Road Phase 1A
- Spine Road Phase 1B
- Spine Road Phase 2
- Spine Road Phase 3
- Spine Road 4

Village Center/Mixed Use

Residential

- Phase 1
- Phase 2
- Phase 3
- Phase 4
- Phase 5A & 5B
- Phase 6

MILLERS POND

LANTREE DEVELOPMENTS

Kimley»Horn

mbtw wai

PHASING KEY							
Ph	Phase Area	Developable Area	Building Typology	Unit Name	# Bldgs	# Units	# Bdrms
1	19.18 Acres	15.02 Acres	Main Street Decked TH (Laneway)	-	8	30	120
			Valley Edge TH (Laneway)	VE-1 & VE-2	0	0	0
			Courtyard TH (Laneway) - End	CY-1	6	12	60
			Courtyard TH (Laneway) - Int	CY-2		12	60
			Stacked Decked Manor House (Lower)	SD-1	6	24	72
			Stacked Decked Manor House (Upper)	SD-2		24	120
			Stacked Decked Manor House - Custom	C		3	18
			On Street Town House (OSTH) - Int	ST-2	0	0	0
			On Street Town House (OSTH) - End	ST-1		0	0
			Quads Large - Int	QT-1	3	6	30
			Quads Small - End	H		2	10
				QT-2		4	20
			TOTAL		23	117	510
2	29.41 Acres	22.75 Acres	Main Street Decked TH (Laneway)	-	6	24	96
			Valley Edge TH (Laneway)	VE-1 & VE-2	0	0	0
			Courtyard TH (Laneway) - End	CY-1	11	22	110
			Courtyard TH (Laneway) - Int	CY-2		18	90
			Stacked Decked Manor House (Lower)	SD-1	4	17	51
			Stacked Decked Manor House (Upper)	SD-2		17	85
			Stacked Decked Manor House - Custom	C		1	6
			On Street Town House (OSTH) - Int	ST-2	15	23	115
			On Street Town House (OSTH) - End	ST-1		30	150
			Quads Large - Int	QT-1	4	8	40
			Quads Small - End	H		6	30
				QT-2		2	10
			TOTAL		40	168	783
3	15.88 Acres	14.98 Acres	Main Street Decked TH (Laneway)	-	9	39	156
			Valley Edge TH (Laneway)	VE-1 & VE-2	0	0	0
			Courtyard TH (Laneway) End	CY-1	12	24	120
			Courtyard TH (Laneway) Int	CY-2		22	110
			Stacked Decked Manor House (Lower)	SD-1	4	19	57
			Stacked Decked Manor House (Upper)	SD-2		19	95
			Stacked Decked Manor House - Custom	C		1	6
			On Street Town House (OSTH) - Int	ST-2	0	0	0
			On Street Town House (OSTH) - End	ST-1		0	0
			Quads Large - Int	QT-1	0	0	0
			Quads Small - End	QT-2		0	0
			TOTAL		25	124	544
4	8.01 Acres	5.78 Acres	Main Street Decked TH (Laneway)	-	0	0	0
			Valley Edge TH (Laneway)	VE-1 & VE-2	8	31	171
			Courtyard TH (Laneway) - End	CY-1	0	0	0
			Courtyard TH (Laneway) - Int	CY-2		0	0
			Stacked Decked Manor House (Lower)	SD-1	2	9	27
			Stacked Decked Manor House (Upper)	SD-2		9	45
			Stacked Decked Manor House - Custom	C		0	0
			On Street Town House (OSTH) - Int	ST-2	0	0	0
			On Street Town House (OSTH) - End	ST-1		0	0
			Quads Large - Int	QT-1	0	0	0
			Quads Small - End	QT-2		0	0
			TOTAL		10	49	243

PHASING KEY							
Ph	Phase Area	Developable Area	Building Typology	Unit Name	# Bldgs	# Units	# Bdrms
5A	11.18 Acres	7.29 Acres	Main Street Decked TH (Laneway)	-	0	0	0
			Valley Edge TH (Laneway)	VE-1 & VE-2	0	0	0
			Courtyard TH (Laneway) - End	CY-1	0	0	0
			Courtyard TH (Laneway) - Int	CY-2		0	0
			Stacked Decked Manor House (Lower)	SD-1	0	0	0
			Stacked Decked Manor House (Upper)	SD-2		0	0
			Stacked Decked Manor House - Custom	C		0	0
			On Street Town House (OSTH) - Int	ST-2	0	0	0
			On Street Town House (OSTH) - End	ST-1		0	0
			Quads Large - Int	QT-1	9	18	90
			Quads Small - Ext	H		8	40
				QT-2		10	50
			TOTAL		9	36	180
5B	12.63 Acres	7.47 Acres	Main Street Decked TH (Laneway)	-	0	0	0
			Valley Edge TH (Laneway)	VE-1 & VE-2	0	0	0
			Courtyard TH (Laneway) - End	CY-1	0	0	0
			Courtyard TH (Laneway) - Int	CY-2		0	0
			Stacked Decked Manor House (Lower)	SD-1	0	0	0
			Stacked Decked Manor House (Upper)	SD-2		0	0
			Stacked Decked Manor House - Custom	C		0	0
			On Street Town House (OSTH) - Int	ST-2	0	0	0
			On Street Town House (OSTH) - End	ST-1		0	0
			Quads Large - Int	QT-1	10	20	100
			Quads Small - Ext	H		11	55
				QT-2		9	45
			TOTAL		10	40	200
6	6.66 Acres	3.75 Acres	N.A				

TOTAL PROJECT						
Unit GFA	Building Typology	Unit Name	# Bldgs	# Units	# Bdrms	
2,543 - 2,597 ft²	Main Street Decked TH (Laneway)	-	23	93	372	
3,210 - 3,577 ft²	Valley Edge TH (Laneway)	VE-1 & VE-2	8	31	171	
3,198 ft²	Courtyard TH (Laneway) End	CY-1	29	58	290	
3,194 ft²	Courtyard TH (Laneway) Int	CY-2		52	260	
2,105 ft²	Stacked Decked Manor House (Lower)	SD-1	16	69	207	
3,355 ft²	Stacked Decked Manor House (Upper)	SD-2		69	345	
2474 ft²	Stacked Decked Manor House - Custom	C		5	30	
3,337 ft²	On Street Town House (OSTH) - Int	ST-2	15	23	115	
3,738 ft²	On Street Town House (OSTH) - End	ST-1		30	150	
3,345 ft²	Quads Large - Int	QT-1	26	52	260	
3,355 ft²	Quads Small - Ext	H		27	135	
		QT-2		25	125	
	OVERALL TOTAL		117	534	2,460	

MILLERS POND - PHASING PLAN CHART

Areas - Building Typology - Unit - Rooms

March 30, 2020

MILLERS POND

Kimley»Horn

LANTREE DEVELOPMENTS

mbtw wai

CRIS PROJECT NOTIFICATION, ATTACHMENT 01_PHASE IA MEMORANDUM

TO: NEW YORK STATE OFFICE OF PARKS, RECREATION AND HISTORIC PRESERVATION, COMPLIANCE REVIEW

FROM: CAROL S. WEED, M.A. (RPA #989090)

SUBJECT: MILLER'S POND, TOWN OF RAMAPO, ROCKLAND COUNTY, NY, PHASE IA DUE DILIGENCE REVIEW

DATE: DECEMBER 20, 2019

CC: FILE 2019-002_KH_MILLERS POND/DELIVERABLE_NYSHPO NOP

The Phase IA due diligence assessment that follows was prepared under contract to Kimley-Horn, White Plains, NY, as consultant to Mount Ivy LLC (Applicant), by Carol S. Weed, MA (RPA #989090). The due diligence assessment is focused on property which, until recently, was the site of the Minisceongo Golf Course (Figures 1 and 2; Photographs 1-33).

Located at 110 Pomona Road, Pomona, NY, the property consists of three Town of Ramapo tax parcels (Section 33.13, Block 2, parcel 6 and Section 33.09, Block 2, parcels 31 and 37) and it was developed as a golf course in 1993-1994. The golf course is extant but no longer operating.

This cultural resources Phase IA assessment is being conducted in support of the State Environmental Quality Review (SEQR) of proposed improvements and uses of most of the golf course site. Figure 2 shows the extent of the 2019 Limits of Disturbance for proposed development. The area within the orange line will be under SEQR review. The plan also shows the locations of extant buildings, structures, landscape features, and wetland buffer boundaries.

The Applicant has developed a general plan for the re-development of the project site. At present, the re-development will include residential units (townhomes and apartments), some commercial uses in a small "Village Center", a community recreation center in the re-purposed golf course clubhouse, roads and infrastructure, parks, and natural open spaces with walking trails. The design concept includes planning the new development around two stone towers, an existing cemetery related to the original EuroAmerican occupations, an archeological conservation area that is protecting NYOPRHP Unique Site Number (USN) 08704.000055 (MPS1), and NYSDEC wetlands and their 100-foot regulated buffers.

Prior to the development of the golf course in the early 1990s, the project site was subject to SEQR review. The results of that SEQR review were presented in a draft Environmental Impact

Statement (DEIS)[1] and a Final EIS (FEIS)[2] both of which were dated 1992. In support of the SEQR process, Phase IA through Phase III data recovery archaeological investigations were completed by Hartgen Archaeological Associates, Inc. (HAA) and Collamer & Associates (Collamer). The Hartgen investigations were under the field direction of Douglas Mackey; Jeanette Collamer signed-off on the Collamer Phase IB investigations.[3,4,5,6]

Mackey also completed a New York State Office of Parks, Recreation, and Historic Preservation Building-Structure Inventory Form for the Five Point Farm/School for Disadvantaged Children which encompassed the buildings and structures present on the property in 1991. The form is dated October 1991 and is included in Section V (Appendix II: Studies/Background Materials Prepared in Response to Comments), Part H (Building Structure Inventory Form, Addendum to Comment Response HA-3) of the FEIS. A Unique Site Number (USN) does not appear to have been assigned to the Five Point Farm building/structure complex. However, two archaeological sites identified during the Phase IB investigations were assigned USNs 08704.000055 and 08704.000056. A third archaeological site form was created by Collamer but the artifact in question was determined to an isolated find and no USN was assigned.

The results of the cultural resources background review and field walkover are presented below in two sections: Literature Review (Archaeology and Buildings/Structures with Extant Conditions) and Conclusions/Recommendations.

[1] DEIS

[2] Bergstol Enterprises. 1992. Final Environmental Impact Statement for Minisceongo Golf Club Pomona Road, Town of Ramapo, Rockland County, New York. Prepared by the LA Group, P.C; John Collins Engineers, P.C.; Hartgen Archaeological Associates, Inc.; and Collamer and Associates, Inc.. Submitted to the Town of Ramapo Planning Board (in support of SEQR review).

[3] Hartgen Archeological Associates, Inc. (Douglas P. Mackey, preparer). 1991 (October). SEQR Stage IA Report for Archeological Potential The Minisceongo Golf Course Project Town of Ramapo, Rockland County, New York. Report submitted to Bergstol Enterprises, New City, New York.

[4] Hartgen Archeological Associates, Inc. (Douglas P. Mackey, preparer). 1992 (April). Stage II Investigations of Two Prehistoric Sites at the Minisceongo Golf Course Project, Town of Ramapo, Rockland County, New York. Report submitted to Bergstol Enterprises, New City, New York.

[5] Hartgen Archeological Associates, Inc. (Douglas P. Mackey, principal author). 1994 (March). Data Retrieval Investigations of a Multi-Component Site (MPS1) at the Minisceongo Golf Course Project, Town of Ramapo, Rockland County, New York. Report submitted to Bergstol Enterprises, New City, New York.

[6] Collamer & Associates. 1992 (revised February 14). (Jeanette Collamer, Principal Investigator and signatory). Stage 1B Cultural Resource Investigation (SEQR Report) Minisceongo Golf Course Town of Ramapo Rockland County, N.Y. Submitted to Bergstol Enterprises, New City, NY. Original submission date, 12/27/1991, 1st revision 01/20/92.

Literature Review

Archaeology

As noted, in 1991, Hartgen and Collamer conducted Phase IA and IB investigations of the proposed golf course site. Douglas Mackey (1991, October 28) reported the Phase IA investigations. In that manuscript he detailed the results of the background and literature review and the historic period land-use of the project site.

He offered three important conclusions about those occupations. First, based on proximity to Mt. Ivy Swamp (adjacent to the north), other potable water sources, arable land, and previously reported Native American sites in proximity to the project site, he concluded that there was a high probability of encountering pre-European archaeological sites in the 1991 project site. Second, based on a death date marked on a tombstone in the cemetery, he believed that farmstead occupation of the area could have been as early as 1751. Third, he provided the timeline for land uses after the farmstead era beginning with the original Five Points House of Industry in the 1920s. The Five Points House eventually was renamed the Happy Valley School for Disadvantaged Children. The Happy Valley School operated until 1969 when it was taken over by the "…Greer Woodycrest Group and made into a school for mentally handicapped children."[7] At the time of Mackey's 1991 work, the school was referred to as Crystal Run Village. Based on the available lines of evidence, Mackey recommended that Phase IB investigations were warranted.[8]

The Phase IB investigations were initially reported in late December 1991 by Collamer & Associates. That report was revised twice and the final is dated February 14, 1992. Collamer[9] noted Mackey's 1991 report "…researched and photographed the historic structures, the early historic cemetery and the field stone cisterns within the project area for evaluation by the Office of Parks, Recreation and Historic Preservation (OPRHP)." The Phase IA report had photographs of

1) cemetery tombstones (HAA 1991, photos 3 and 4);
2) buildings identified as Administration, Camp Junior, Willow Lodge, Perkins Cottage, Russell Cottage, stone tower near center of the project (HAA 1991, photos 5-10); and
3) the Albert Mills house built in 1941 (HAA 1991, photo 13).

It also contained a schematic of the tombstone layout in the cemetery and a listing of the tombstone inscriptions in Appendix III. It had no functional or architectural description of the buildings or structures except that offered in the photo captions.

[7] HAA, 1991, pg. 9
[8] Ibid.
[9] Collamer, 1992, pg. 1

Collamer reported that the entire project site was walked at 30 to 50 foot intervals and that it was proposed to excavate 851 round shovel tests in "areas of proposed construction."[10] No shovel tests were conducted "outside of the grading limits, in areas where the slope of the land is greater than 15%, disturbed or graded areas, or wetlands." Eventually, Collamer divided their study area into three sections and added plow transects to the mix as well (Figure 3). Table 1 in their report[11] summarized the proposed work and in accompanying text on pages 8 and 9, they reported the actual work completed. All of these data are summarized on the table below.

Section #	Proposed Shovel Tests	Shovel Tests Completed	Proposed Linear Feet of Plowed Transects	Surface Features Identified	Archaeological Sites Identified
1	749	562	9,090 (Transects 7 to 30 on survey map)	Fieldstone cistern, 2 historic middens, historic cemetery, 2 foundations, 2 millstones	MPS #1 (USN A08704.000055 Foundation #1 (USN form but no USN number) Foundation #2 (USN form but no USN number)
2	51	39	1,600 (Transects 1 to 5 on survey map)	Fieldstone cistern	MPS #2 (USN 08704.000056)
3	10	10	500 (Transect 6 on survey map)	Stone lined mill race, mill pond, pump house	MPS #3 (no USN form)
Note: MSP = Minisceongo Prehistoric Site; USN = Unique Site Number (NYSHPO)					

Collamer also detailed all the areas not subject to either plow transects or systematic shovel testing. To a large extent, these areas were confined to the southwest quadrant of the project site (see Figure 3). This was the area most disturbed by existing playgrounds and buildings. Also, no testing was done in the extreme northwest corner of the land. This area is separated from the main part of the property by a wood causeway over a swampy wetland.

[10] Collamer, 1992, pg. 6

[11] Collamer, 1992, pg. 8

The NYSHPO accepted the recommendation that MPS #1 and #2 be subjected to Phase II testing. This work was conducted by HAA under Mackey's direction as was the subsequent data recovery on MSP #1. MSP #1 was marked by the presence of discrete features and deposits dating to the early Middle Archaic, Late Archaic, Transitional (Terminal) and Early Woodland periods. A possible Contact-era feature also was found but its Native American association could not be confirmed.

The conclusion after the Phase III work was completed was that the site area as defined by the Phase II work would be conserved and deep fill deposits were placed over the site in its entirety. The current Applicant will continue to treat this area as conserved space as will be the cemetery and its 100-ft buffer.

Buildings and Structures

In October, 1991, Mackey (for HAA) filed an NYOPRHP Building-Structures Form with NYOPRHP for the Five Point Farm/School for Disadvantage Children (Five Point Farm). The site form was accompanied by a plan map which showed the outlines of 12 numbered buildings, 19 buildings designated by the letters 'M' and 'G', 6 undesignated buildings, two stone water towers, a pavilion, 2 storage and maintenance buildings, and a cemetery (Figure 4). Mackey indicated on the form that the various buildings and structures were built in the 20th century though as he noted in the Phase IA report gravestones in the cemetery had inscribed death dates between 1751 and 1918.[12] A red line is drawn through the 1991 buildings and structures that were demolished when the golf course was demolished.

The Five Point Farm historic site is not plotted in NYOPRHP's CRIS system though the Native American archaeological sites are plotted. Further, no comment form from the agency has been found for the building complex. It is currently unknown if the building/structure complex has been evaluated for its eligibility for listing under either State or National historic preservation laws. The current status of the buildings and structures called-out on the Mackey 1991 plan map are summarized in the next subsection, Extant Conditions.

Extant Conditions: At present, there are 8 numbered buildings within the project area (see Figure 2). In addition to the buildings, there are 20 labelled structures including the cemetery, stone towers (T1, T2), a tennis court (S1), a swimming pool (S2), three wood causeways (C1, C2, C3), and 12 stone retaining walls (W1 to W12) (see Figure 2). The 18-hole golf course has approximately 22,540 feet of paved golf cart paths, 75 golf tees, and 21 golf greens. With the exception of the current clubhouse, the two stone water towers, and the cemetery, none of the buildings, structures, or golf course features will be retained. The water pump house also will be retained but it is outside of the limits of disturbance.

The table that follows summarizes the status of all of the buildings and structures identified by Mackey and that were added during the golf course period on the project site.

[12] HAA, 1991, pg. 8

1991 Building # on Figure 4	1991 Building Name	2019 Figure 2 Status and/or Designation	2019 Proposed Action
1 (with unnumbered satellite building)	Perkins Cottage	Not present. Demolished for golf course.	
2	"Camp"	Not present. Demolished for golf course.	
3	Willow Cottage		Retaining Wall W10 may have been associated with this cottage. The wall will be demolished by the proposed project.
4	Camp Junior	Not present. Demolished for golf course	
5	Russel Cottage (foundation)	Not present. Demolished for golf course.	
6	James Cottage	6	To be demolished for proposed project
7 (with unnumbered satellite building)	Wheelock Cottage	7	To be demolished for proposed project
8	Weeks Cottage	Not present. Demolished for golf course.	
9	Ford Cottage	9	To be demolished for proposed project

1991 Building # on Figure 4	1991 Building Name	2019 Figure 2 Status and/or Designation	2019 Proposed Action
10 (with unnumbered outbuilding)	Director's House	10	To be demolished for proposed project
11	Administration / School	11	Will be used by the proposed project.
12	Gymnasium	12	To be demolished for proposed project.
M1, M2 (each has an unnumbered satellite building)	1940s Albert Mills structures	Demolished for golf course	
G (n=16)	1970s Greer Woodcrest structure	Demolished for golf course	
No #	1952 Storage & Maintenance buildings	Demolished for golf course	
No #	Stone water tower (n=2)	T1, T2	Will be conserved by the proposed project. T2 will require restoration because of 2018 water damage.
No #	Pavilion	Demolished for golf course	
No #	Tennis courts	S1	To be demolished for proposed project.
No #	Pool House	S2	To be demolished for proposed project.

1991 Building # on Figure 4	1991 Building Name	2019 Figure 2 Status and/or Designation	2019 Proposed Action
No #	Wood causeway	C1, C2, and C3	To be demolished for proposed project.
Not present	Golf Course restroom	2019-7	To be demolished for proposed project
Not present	Pond water pump house	2019-8	Outside of impact line for proposed project.

Conclusions and Recommendations

The archaeological investigations conducted by HAA and Collamer in support of the golf course SEQR review investigated or documented disturbance in all parts of the proposed 2019 project site. The reports were reviewed and the results accepted by the NYSHPO at the time. Further archaeological investigations are not recommended herein.

Photographs were taken of the buildings and structures extant in 1991 for the earlier SEQR filing and additional photographs were taken in 2016 and 2019 and reported with this current filing. However, no professional architectural historian has inventoried the 1920s-1969 era buildings/structures. I recommend inventory and assessment by Secretary of the Interior-qualified architectural historians who have experience in New York preferably with institutional facilities.

If you have any questions or concerns, I can be reached at csw13108@gmail.com or 646.276.2460.

Sincerely,

Carol S. Weed

Carol S. Weed, M.A. (RPA #989090)

cc: Bonnie Von Ohlsen

References Cited

Bergstol Enterprises. 1992. Final Environmental Impact Statement for Minisceongo Golf Club Pomona Road, Town of Ramapo, Rockland County, New York. Prepared by the LA Group, P.C; John Collins Engineers, P.C.; Hartgen Archaeological Associates, Inc.; and Collamer and Associates, Inc.. Submitted to the Town of Ramapo Planning Board (in support of SEQR review).

Collamer & Associates. 1992 (revised February 14). Stage 1B Cultural Resource Investigation (SEQR Report) Minisceongo Golf Course Town of Ramapo Rockland County, N.Y. Submitted to Bergstol Enterprises, New City, NY. Original submission date, 12/27/1991, 1st revision 01/20/92. [Title of the Phase IB version received from CRIS on 8/26/19).

Hartgen Archeological Associates, Inc. (Douglas P. Mackey, preparer). 1991 (October). SEQR Stage IA Report for Archeological Potential The Minisceongo Golf Course Project Town of Ramapo, Rockland County, New York. Report submitted to Bergstol Enterprises, New City, New York.

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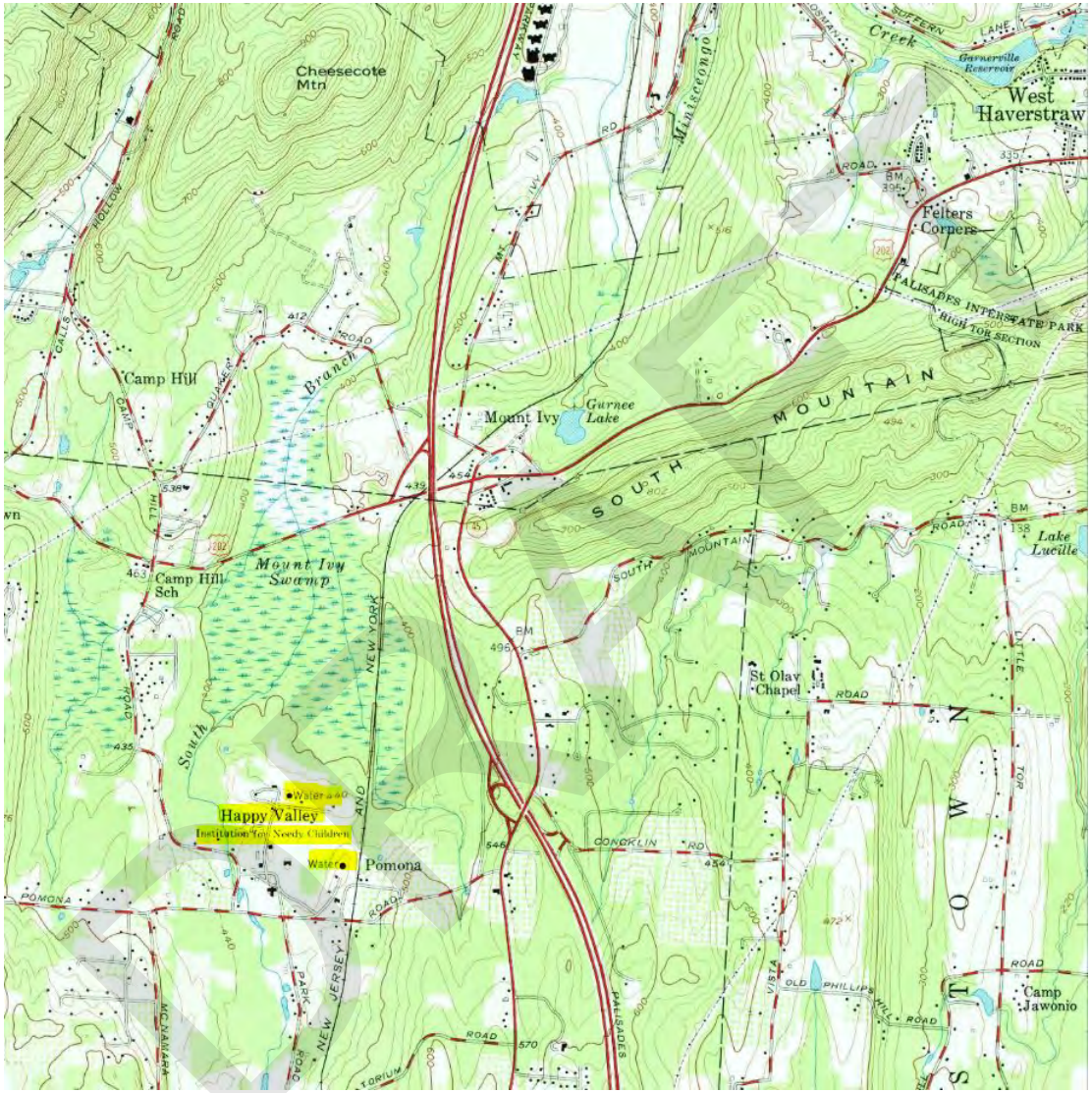
Hartgen Archeological Associates, Inc. (Douglas P. Mackey, principal author). 1994 (March). Data Retrieval Investigations of a Multi-Component Site (MPS1) at the Minisceongo Golf Course Project, Town of Ramapo, Rockland County, New York. Report submitted to Bergstol Enterprises, New City, New York.

Attachment 01 Figures

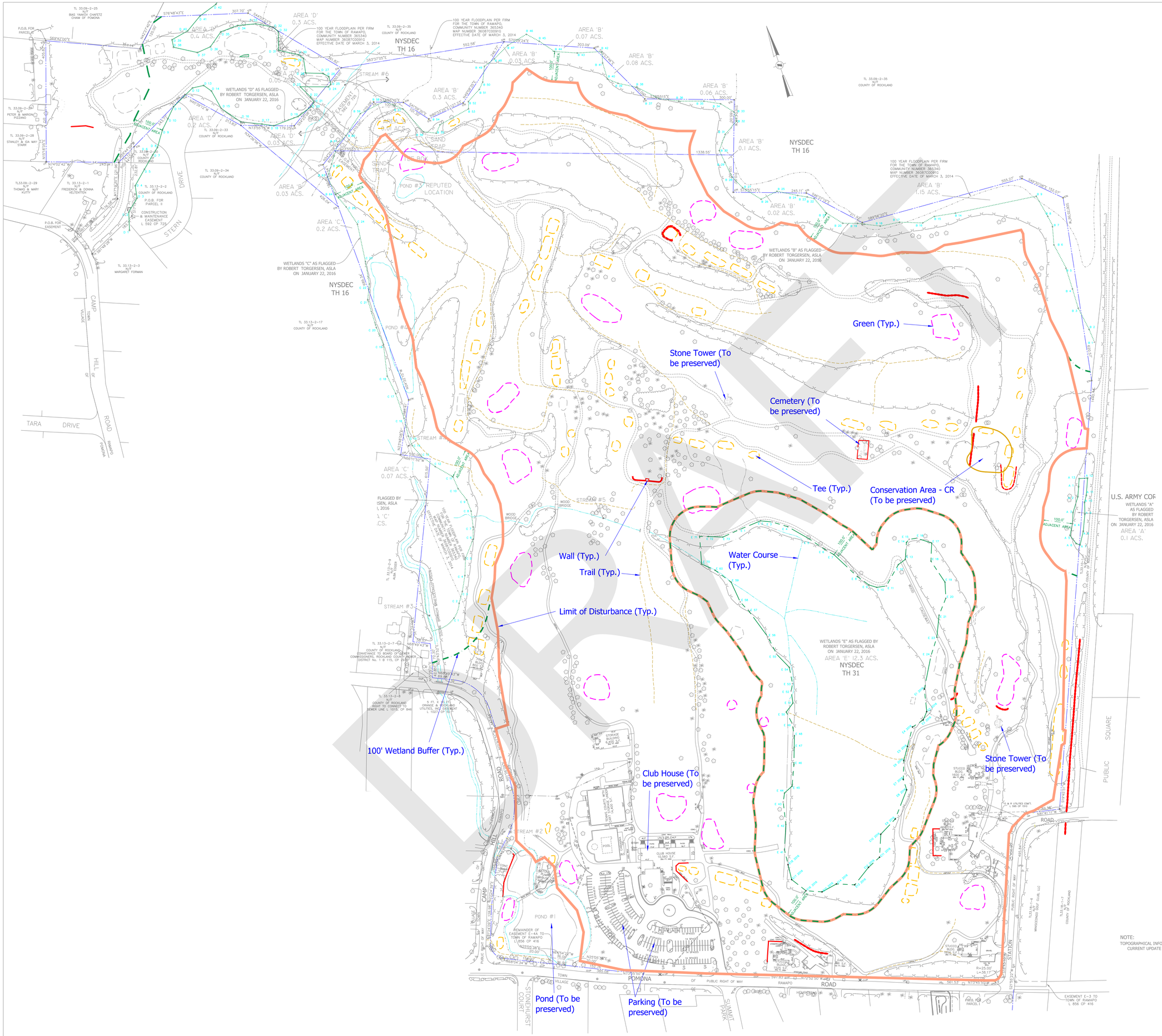


Source: ESRI USGS Historic Topographic, Thiells 1955 7.5-minute quad.

Millers Pond, Town of Ramapo. Rockland County, New York

Millers Pond Location On-site of Happy Valley Institution for Needy Children, 1955 (Highlighted)

Figure **1**



NOTE:
TOPOGRAPHICAL INFORMATION FROM 1994 CURRENT UPDATE BEING PREPARED

REVISION	DATE	DESCRIPTION

ATZL, NASHER & ZIGLER P.C.
ENGINEERS–SURVEYORS–PLANNERS
234 North Main Street
New City, New York 10956
Tel: (845) 634-4694
Fax: (845) 634-5543
P.O. Box 636
Chester, New York 10918
Tel: (845) 469-1015
Fax: (845) 469-1016
Web: ANZNY.com

PROJECT:
MOUNT IVY LLC & LINDIFRIM LIMITED PARTNERSHIP

TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:
BASE PLAN FOR CONCEPT DESIGN

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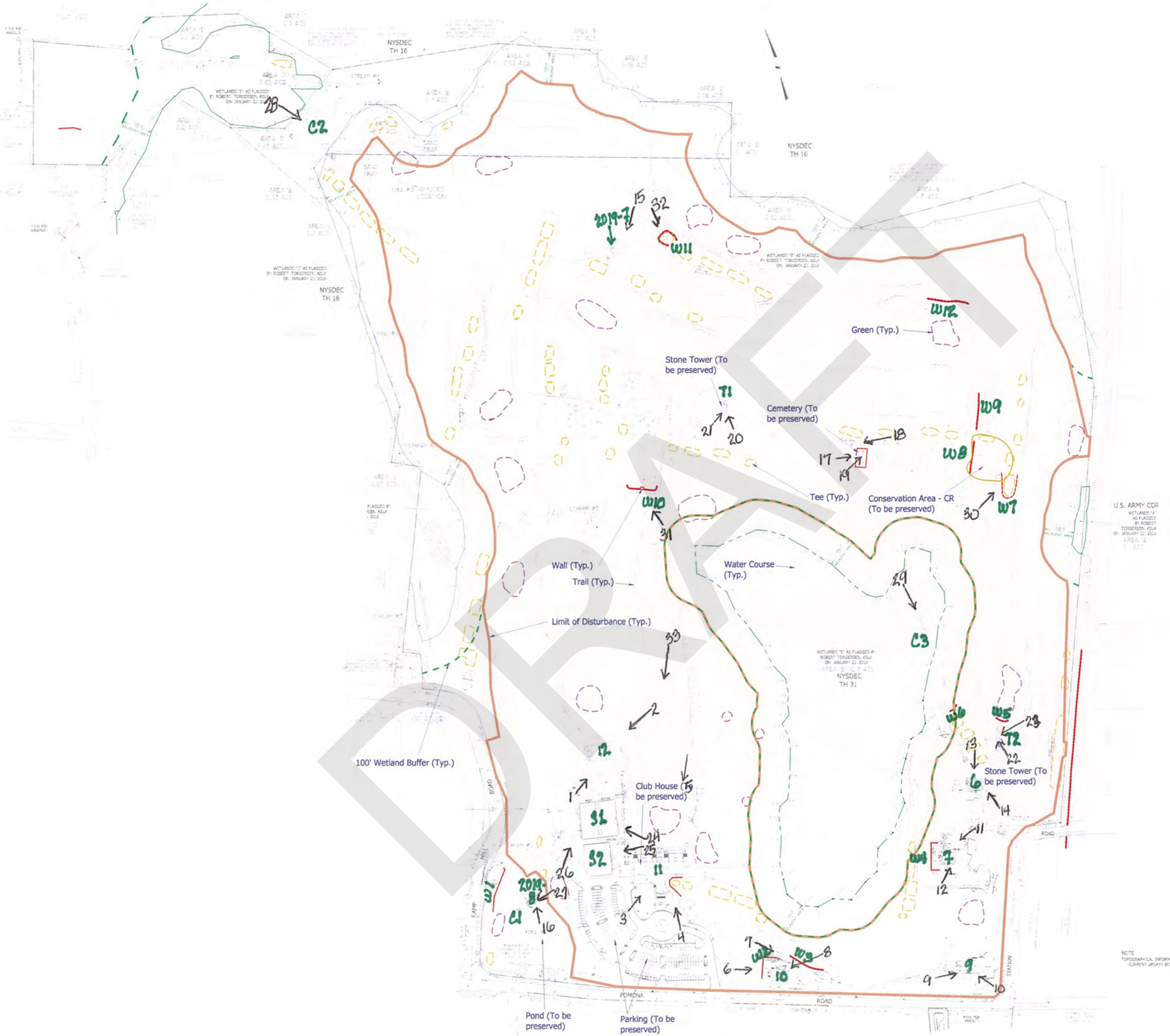
DATE: MARCH 09, 2016	SCALE: 1 IN. = 100 FT.
PROJECT NO: 2028	DRAWING NO: 2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TH 16
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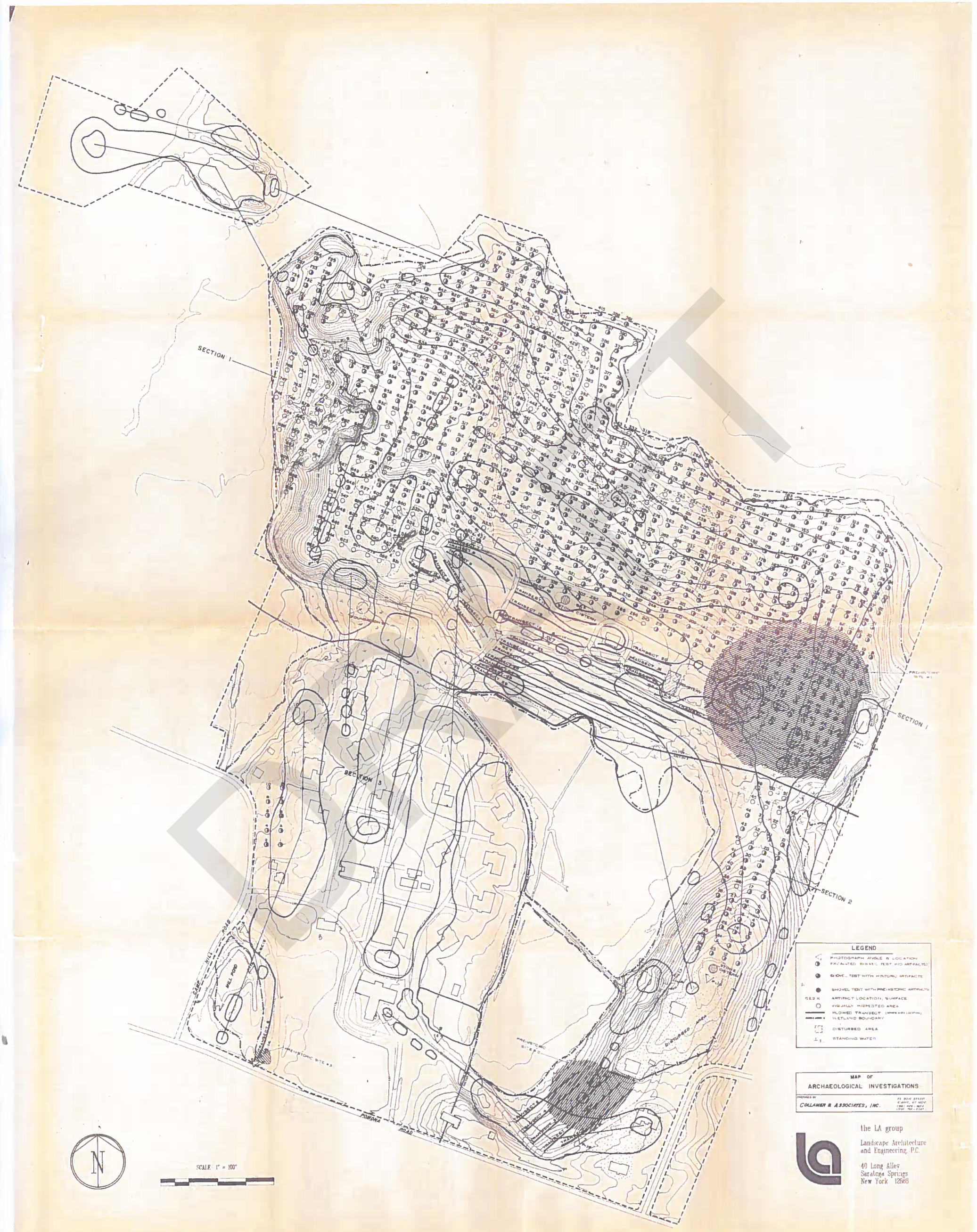
NYSDEC
TH 16
NYSDEC
TH 31
WETLANDS "D" AS FLAGGED BY ROBERT TORGERSEN, ASLA ON JANUARY 22, 2016
WETLANDS "C" AS FLAGGED BY ROBERT TORGERSEN, ASLA ON JANUARY 22, 2016
WETLANDS "E" AS FLAGGED BY ROBERT TORGERSEN, ASLA ON JANUARY 22, 2016
WETLANDS "A" AS FLAGGED BY ROBERT TORGERSEN, ASLA ON JANUARY 22, 2016
Green (Typ.)
Stone Tower (To be preserved)
Cemetery (To be preserved)
Tee (Typ.)
Conservation Area - CR (To be preserved)
Water Course (Typ.)
Wall (Typ.)
Trail (Typ.)
Limit of Disturbance (Typ.)
100' Wetland Buffer (Typ.)
Club House (To be preserved)
Stone Tower (To be preserved)
Pond (To be preserved)
Parking (To be preserved)
POMONA ROAD
ROAD
U.S. ARMY COR
NOTE
TOPOGRAPHICAL INFORMATION FROM 1994
CURRENT UPDATE BEING PREPARED
ATZL, NASHER & ZIGLER P.C.
MOUNT IVY LLC &
LINDIFRIM LIMITED
PARTNERSHIP
BASE PLAN FOR
CONCEPT DESIGN
2028
2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TRANSECT 20
TRANSECT 21
TRANSECT 22
TRANSECT 23
TRANSECT 24
TRANSECT 25
TRANSECT 26
CISTERN
CISTERN
PREHISTORIC SITE #1
PREHISTORIC SITE #2
PREHISTORIC SITE #3
DISTURBED AREA
CAPE MILL ROAD
MILL POND
POMONA ROAD
LEGEND
PHOTOGRAPH ANGLE & LOCATION
EXCAVATED SHOVEL TEST (NO ARTIFACTS)
SHOVEL TEST WITH HISTORIC ARTIFACTS
SHOVEL TEST WITH PREHISTORIC ARTIFACTS
SURFACE ARTIFACT LOCATION, SURFACE
VISUALLY INSPECTED AREA
PLOWED TRANSECT (APPROXIMATE LOCATION)
WETLAND BOUNDARY
DISTURBED AREA
STANDING WATER
MAP OF
ARCHAEOLOGICAL INVESTIGATIONS
PREPARED BY
COLLAMER & ASSOCIATES, INC.
N
SCALE 1" = 100'
the LA group
Landscape Architecture
and Engineering, P.C.
40 Long Alley
Saratoga Springs
New York 12866

MINISCEONGO GOLF CLUB

the LA group
Landscape Architecture
and Engineering, P.C.
40 Long Alley
Saratoga Springs
New York 12866

BUILT BY 5 POINTS OPERATION (1920s-30s)
1-Perkins Cottage
2-"Camp"
3-Willow Cottage
4-Camp Junior
5-Russel Cottage (foundation)
6-James Cottage
7-Wheelock Cottage
8-Weeks Cottage
9-Ford Cottage
10-Directors House
11-Administration/School
12-Gymnasium

G-Constructed by Great Woodycrest (1970s)

M-Constructed by Albert Mills (1940s)

STRUCTURE KEY

BOUNDARY OF WOODED AREA

MAP 2
PROJECT AREA

SCALE 1" = 100'

Attachment 01 Photographs

Title	Description	Date of Photograph	Photo Name
Photo 1	Bldg. 1991-12, looking NE at the south façade.	20191018	Bldg12_2019_IMG_0680
Photo 2	Bldg. 1991-12, looking SW at the north (right) and east facades.	20191018	Bldg12_2019_IMG_0681
Photo 3	Bldg. 1991-11, the golf course clubhouse. Originally, the administration building and school. Looking NE at the south entrance and west wing.	20160504	Bldg11_20160504_P1010035
Photo 4	Bldg. 1991-11, looking N/NW at the south entrance and east wing.	20160504	Bldg11_20160504_P1010036
Photo 5	Bldg. 1991-11, looking south at the north façade.	20160504	Bldg11_20160504_P1010028
Photo 6	Bldg. 1991-10, the Director's House, looking E at the north (left) and west (right) facades. Stone retaining wall W2 across picture front.	20191018	Bldg10_2019_IMG_0657
Photo 7	Bldg. 1991-10 looking E. at the house drive with the unnumbered outbuilding to picture rear and Stone retaining wall W3 to left.	20191018	Bldg10_2019_IMG_0661
Photo 8	Bldg. 1991-10, looking SW at the north (right) and east (left) facades.	20191018	Bldg10_2019_IMG_0668
Photo 9	Bldg. 1991-9, Ford Cottage, looking E/NE at the west (left) and south (right) facades.	20191018	Bldg09_2019_IMG_0640
Photo 10	Bldg. 1991-9, looking NW at the south (left) and east (right)	20191018	Bldg09_2019_P1010055
Photo 11	Bldg. 1991-7, Wheelock Cottage, looking NW at the east (left) and north (right) facades.	20191018	Bldg07_2019_IMG_0635
Photo 12	Bldg. 1991-7, looking NE at the south (right) and west (left) facades.	20191018	Bldg07_2019_P1010050

Photo 13	Bldg. 1991-6, James Cottage, looking at the north (right) and east (left) facades.	20191018	Bldg06_2019-IMG_0629
Photo 14	Bldg. 1991-6, looking NW at the east (right) and south (left) facades.	20191018	Bldg06_2019_P1010044
Photo 15	Bldg. 2019-7, golf course restroom built after 1992. Looking at the north and east facades.	20191018	Bldg2019-07_CourseRestRoom_P1010011
Photo 16	Bldg. 2019-8, water pump house not noted on Mackey's 1991 figure, looking at south facade.	20191018	Bldg2019_08_PumpHouse_IMG_0670
Photo 17	Cemetery, looking NE at the west facing entry.	20191018	CemeteryGate_2019_P1010031
Photo 18	Cemetery, looking W at the east (left) and north (right) rock walls.	20191018	CemeteryWall_2019_P1010022
Photo 19	Cemetery, interior looking NE.	20191018	CemeteryInterior_2019_P1010028
Photo 20	Stone Tower (T1), looking NW	20191018	TowerNW_2019_P1010017
Photo 21	Stone Tower (T1), door detail	20160503	TowerNW_Door_2016_P1010018
Photo 22	Stone Tower (T2), looking N	20191018	TowerSE_2019_P1010039
Photo 23	Stone Tower (T2), looking at the collapsed east side of the structure.	20191018	TowerSE_2019_IMG-0633
Photo 24	Recreational Feature S1, looking west at the tennis court fence line and foundation.	20160504	PoolTennis_2016_P1010032
Photo 25	Recreational Feature S2, looking W at the east façade of the pool house.	20140504	PoolTennis_2016_P1010022
Photo 26	Recreational Features S1 and S2, looking NE at the west (back) walls of the tennis court and pool house.	20191018	PoolTennis_2019_IMG_0678
Photo 27	Wood causeway C1, looking W.	20191018	Causeway01DamPond_2019_P1010063
Photo 28	Wood causeway C2, looking E.	20191018	Causeway02_2019_P1010001
Photo 29	Wood causeway C3, looking S with Bldg. 1991-6 in the distance.	20191018	Causeway03_2019_IMG-0688

Photo 30	Stone retaining wall W7, looking NE.	20191018	TeeRetainingWallW07_2019_P1010032
Photo31	Stone retaining wall W10, looking NW at what appears to be the entry stairs.	20191018	RetainingWallW10_2019_IMG_0686
Photo32	Stone retaining wall W11, looking SE.	20191018	TeeRetainingWallW11_2019_P1010010
Photo33	Golf Course, looking S. at Bldgs. 1991-12 (right) and 1991-11 (left).	20150504	GolfCourse_2016_P1010022

Photograph 1. Building 12 (1991), looking NE at the south facade (Field Photograph Bldg12_2019_IMG-0680, 10/18/19).

Photograph 2. Building 12 (1991), looking SW at the north (right) and east facades (Field Photograph Bldg12_2019_IMG_0681, 10/18/19).

Photograph 3. Bldg. 11 (1991), the golf course clubhouse; originally, the administration bldg. and school. Looking NE at the south entrance and west wing (Field Photograph Bldg11_20160504_P1010035, 5/4/16).

Photograph 4. Bldg. 11 (1991), looking N/NW at the south entrance and east wing. (Field Photograph Bldg11_20160504_P1010036, 5/4/16)

Photograph 5. Bldg. 11 (1991), looking south at the north façade (Field Photograph Bldg11_20160504_P1010028, 5/4/16).

Photograph 6. Building 10 (1991), the Director's House, looking E at the north (left) and west (right) facades. Stone retaining wall W2 across picture front (Field Photograph Bldg10_2019_IMG_0657, 10/18/19).

Photograph 7. Building 10 (1991), looking E at the house drive with the unnumbered outbuilding to picture rear and stone retaining wall W3 to left. (Field Photograph Bldg10 2019 IMG 0661, 10/18/19)

Photograph 8. Building 10 (1991), looking SW at the north (right) and east (left) facades (Field Photograph Bldg10 2019 IMG 0668, 10/18/19)

Photograph 9. Building 9 (1991), Ford Cottage, looking E/NE at the west (left) and south (right) facades (Field Photograph Bldg09_2019_IMG_0640, 10/18/19).

Photograph 10. Building 9 (1991), looking NW at the south (left) and east (right) facades (Field Photograph Bldg09_2019_P1010055, 10/18/19).

Photograph 11. Building 7 (1991), Wheelock Cottage, looking NW at the east (left) and north (right) facades (Field Photograph Bldg07_2019_IMG_0635, 10/18/19).

Photograph 12. Building 7 (1991), looking NE at the south (right) and west (left) facades (Field Photograph Bldg07_2019_P1010050, 10/18/19).

Photograph 13. Building 6 (1991), James Cottage, looking at the north (right) and east (left) facades (Field Photograph Bldg06_2019_IMG_0629, 10/18/19).

Photograph 14. Building 6 (1991), looking NW at the east (right) and south (left) facades (Field Photograph Bldg06_2019_P1010044, 10/18/19).

Photograph 15. Building 2019-7, golf course restroom built after 1992. Looking at the north and east (door) facades (Field Photograph Bldg2019-07_CourseRestRoom_P1010011, 10/18/19).

Photograph 16. Building 2019-8, water pump house not noted on Mackey's 1991 figure, looking at the south façade (Bldg2019-08_PumpHouse_IMG_0670, 10/18/19).

Photograph 17. Cemetery, looking NE at the west facing entry (Field Photograph CemeteryGate_2019_P1010031, 10/18/19).

Photograph 18. Cemetery, looking W at the east (left) and north (right) rock walls (Field Photograph CemeteryWall_2019_P1010022, 10/18/19).

Photograph 19. Cemetery, interior looking NE (Field Photograph CemeteryInterior_2019_P1010028, 10/18/19).

Photograph 20. Stone tower (T1), looking NW (Field Photograph TowerNW_2019_P1010017, 10/18/19).

Photograph 21. Stone tower (T1), door detail (Field Photograph TowerNW_Door_2016_P1010018, 5/4/16).

Photograph 22. Stone tower (T2), looking N (Field Photograph TowerSE_2019_P1010039, 10/18/19).

Photograph 23. Stone tower (T2), looking at the collapsed east side of the structure (Field Photograph TowerSE_2019_IMG_0633, 10/18/19).

Photograph 24. Recreational Feature S1, looking W at the tennis court fence line and foundation (Field Photograph PoolTennis_2016_P1010032, 5/4/16).

Photograph 25. Recreational Feature S2, looking W at the east façade of the pool house (Field Photograph PoolTennis_2016_P1010022, 5/4/16).

Photograph 26. Recreational Features S1 and S2, looking NE at the west (back) walls of the tennis court (left) and the pool house (right) (Field Photograph PoolTennis_2019_IMG_0678, 10/18/19).

Photograph 27. Wood causeway C1, looking W (Field Photograph Causeway01DamPond_2019_P1010063, 10/18/19).

Photograph 28. Wood causeway C2, looking E (Field Photograph Causeway02_2019_P1010001, 10/18/19).

Photograph 29. Wood causeway C3, looking S with Building 6 (1991) in the background (Field Photograph Causeway03_2019_IMG_0688, 10/18/19).

Photograph 30. Stone retaining wall W7, looking NE (TeeRetainingWall07_2019_P1010032, 10/18/19).

Photograph 31. Stone retaining wall W10, looking NW at what appears to be the entry stairs (RetainingWallW10_2019_IMG_0686, 10/18/19).

Photograph 32. Stone retaining wall W11, looking SE (Field Photograph TeeRetainingWallW11_2019_P1010010, 10/18/19).

Photograph 33. Golf Course, looking S at Bldg. 12 (1991) to right and Bldg. 11 (1991) to left (Field Photograph GolfCourse_2016_P1010022, 05/04/16).

January 15, 2020

Carol Weed
Principal
Independent Contractor
50 Saw Mill Rd.
Unit 13108
Danbury, CT 06810

Re: DEC
Miller's Pond - Minisceongo Golf Course Redevelopment
110 Pomona Rd., Pomona, NY 10970
20PR00125

Dear Carol Weed:

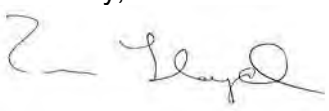
Thank you for requesting the comments of the Division for Historic Preservation of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the submitted materials in accordance with the New York State Historic Preservation Act of 1980 (section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the Division for Historic Preservation and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (5NYCRR Part 617).

We have reviewed your Phase IA Due Diligence Memo dated December 20, 2019. As detailed in the Memo, between 1991 and 1992 an archaeological survey was conducted on the property in advance of the construction of the Minisceongo Golf Course. Two Native American archaeological sites were identified during the archaeological survey, and Phase II archaeological evaluations were subsequently conducted for both sites. One of the Native American archaeological sites (OPRHP Site No. 08704.000055) was determined eligible for listing in the New York State and National Registers of Historic Places, and a Phase III data retrieval excavation was conducted to mitigate the adverse impacts of the proposed golf course. Therefore, OPRHP concurs with your recommendation that no additional archaeological investigations are necessary in advance of the proposed redevelopment of the property.

The Memo states that the cemetery on the property will be preserved. The Memo also states that Site 08704.000055 will be preserved. OPRHP appreciates and encourages the intention of the project proponent to preserve the site, but preservation of Site 08704.000055 is not necessary, from a regulatory standpoint. The Phase III data retrieval excavation completed in 1994 mitigated the adverse impacts to the site. Further archaeological excavation and/or site preservation is not necessary.

If further correspondence is required regarding this project, please refer to the OPRHP Project Review (PR) number noted above. If you have any questions, I can be reached at 518-268-2186.

Sincerely,



Tim Lloyd, Ph.D., RPA
Scientist - Archaeology
timothy.lloyd@parks.ny.gov

via e-mail only

cc: S. Kazarnovsky
B. Von Ohlsen

MEMORANDUM
PROJECT 20PR00125: MILLER'S POND/MINISCEONGO GOLF COURSE REDEVELOPMENT, RESPONSE TO REQUEST 1/21/2020

TO: NEW YORK STATE OFFICE OF PARKS, RECREATION AND HISTORIC PRESERVATION, COMPLIANCE REVIEWER (CHELSEA TOWERS)

FROM: CAROL S. WEED, M.A. (RPA #989090)

SUBJECT: MILLER'S POND, TOWN OF RAMAPO, ROCKLAND COUNTY, NY, EXISTING BUILDING INFORMATION

DATE: MARCH 22, 2020

CC: FILE 2019-002_KH_MILLERS POND/DELIVERABLE_CLUBHOUSEDOC

By an information request received in January, 2020, the New York State Office of Parks, Recreation and Historic Preservation (NYOPRHP) requested supplemental information on the existing building at the Millers Pond Project Site referred to as the Clubhouse (Unique Site Number [USN] 08704.000380). Specifically, the NYOPRHP reviewer asked for "current photos of the interior of the clubhouse keyed to a current floor plan. Include historic construction drawings/plans and historic views of the property, if possible."

The following memorandum is supported by four figures, 59 photographs of the clubhouse exterior (Photographs 1-10) and interior (Photographs 11-59) that were taken on February 10, 2020 by the author, three historic-era photographs (Photographs 60-62) shot in their frames, and two tables. Table 1 contains dimensional data provided by the Project Applicant for Rooms 1 through 9 on the building's main floor. Table 2 is a concordance which lists the original field number for each photograph and the filing numbers assigned to selected photographs presented here. It is attached at the end of this memorandum.

The clubhouse building has three floors. The floors are designated 1-Ground, 2-Main, and 3-Upper herein. Figure 1 shows the interior footprint of floor 2-Main. No architectural drawings of 1-Ground and 3-Upper are known and two sketch maps were created for these floors. Figures 2-4 are the photograph keys for the three floors. The rooms are not to scale on Figures 3 and 4.

The discussion that follows is divided into five parts: Exterior, Floor 2-Main, Floor 1-Ground, Floor 3-Upper, and Historic Pictures.

Exterior

Photographs 1 through 10 show the existing conditions of the building's exterior. Of particular note is Photograph 1. The paved walkway/cart path between the landscaping and the east facing façade provides access to the entranceway to the Ladies Locker Room alcove. This entrance is shown in Photograph 48.

Floor 2-Main (Photographs 11-33)

Floor 2 is discussed first because it was the main focal floor when the building functioned as the Administration/School center for the children's home. During the clubhouse era, this floor appears to have used as event spaces that were supported by small kitchens.

The building is oriented to the south with two prominent wings on the east and west sides of the north end of Room 1. Room 1 also may have served as a chapel or auditorium during the school era. The central staircase is located centrally between the three wings and its services the three floors.

Nine rooms were assigned numbers during the photography survey. Three spaces on the floor are unnumbered. These are two closets that may have once functioned as telephone booths and the men's restroom. The men's restroom is adjacent to the women's restroom. The toilet facilities and sinks in the men's restroom are the same as those in the men's locker room on floor 1-Ground.

Table 1 below summarizes the room sizes as provided by the Applicant for Floor 2 event spaces.

Room #	**Function**	**Square Feet**
1	"Chapel" (Banquet/Event)	2,200
2	Bar	2,300
3	Minor Banquet	750
8	Bar	609
9	Minor Banquet	741

Square footage for Rooms 4 (pantry), 5 (kitchen), 6 (kitchen), and 7 (ladies restroom) were not provided.

Floor 1-Ground (Photographs 34-53)

Floor 1 was a service floor during the golf-era. Its functions during the school-era are unknown but it may have contained schoolrooms. The men's and women's locker rooms are located on this floor as are another set of kitchen/service stations and another bar.

The men's locker room has internal subdivisions and these are labelled 10a through 10g. Rooms 10d through 10g contain wood lockers and all the spaces open to the central hall of the larger men's locker room. Rooms 10a, a shoe cleaning station with sink, 10b, the toilets and urinals, and 10c, showers, are individual rooms with doors that open to the central hallway.

Similarly, the women's locker room has subdivided space. These spaces are labelled 17a, a pantry, and 17b, a lounge, and both open to the central walk within the larger room. The only internal rooms with doors are two toilet stalls and a shower stall. These are located at the south end of the larger room. No photographs of these features are shown in the filed photographs.

The ground floor exits at four locations: into the breezeway from Room 12, an alcove outside Room 17, the west end of Room 10, and the main staircase well.

No photographs were taken of Room 14, a storage location off of Room 12; Room 15, which currently houses security equipment; and Room 16, which is currently serving as a light fixture storage location.

Floor 3-Upper (Photographs 54-59)

Floor 3 offers access to what seems to have been the original choir loft, a small office, and a larger office space. There are two exits. One is the main stair case well and the other is across the hall from the small office at the west end of the hall. An alcove feature in the east wall of Room 20, the large office, is reminiscent in form to a fireplace box but it is now completely sheathed in wallboard.

Historic Photographs (Photographs 60-62)

Three of the framed photographs curated by the Applicant show buildings. Photograph 60 shows the farm near the time the property was acquired for the first children's home. Photographs 61 and 62 show views of the James and Ford cottages in 1927 and 1917 respectively.

The Applicant proposes to demolish the James and Ford cottages and this was reported in December's filing. The plan for the renovation of the Clubhouse has been initiated.
If you have any questions or concerns, I can be reached at csw13108@gmail.com or 646.276.2460.

Sincerely,

Carol S. Weed

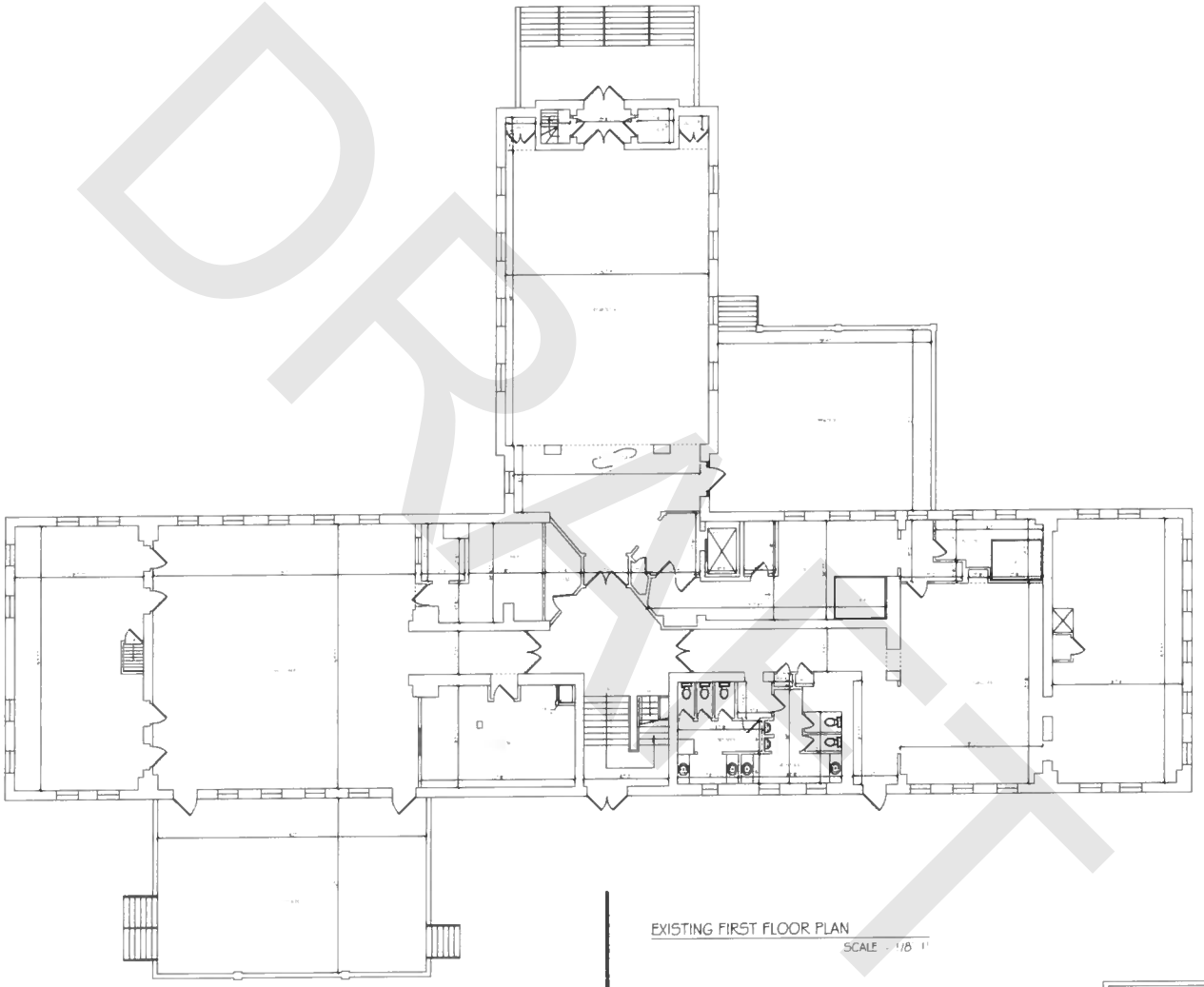
Carol S. Weed, M.A. (RPA #989090)

cc: Bonnie Von Ohlsen, Applicant

Attachment Figures

Figure 1. Floor 2-Main Plan, 2016

South



EXISTING FIRST FLOOR PLAN

SCALE : 1/8" 1'

North

BEN GREENZWEIG/DES GNSR 718-288-4571	
MINISCEOGO MAIN BUILDING	
DATE 4/11/16	110 POMONA ROAD POMONA, NY
SCALE 1/8"-1'	DWG NO 1/1
JOB NO	

Figure 2. Floor 2-Main Photo Key

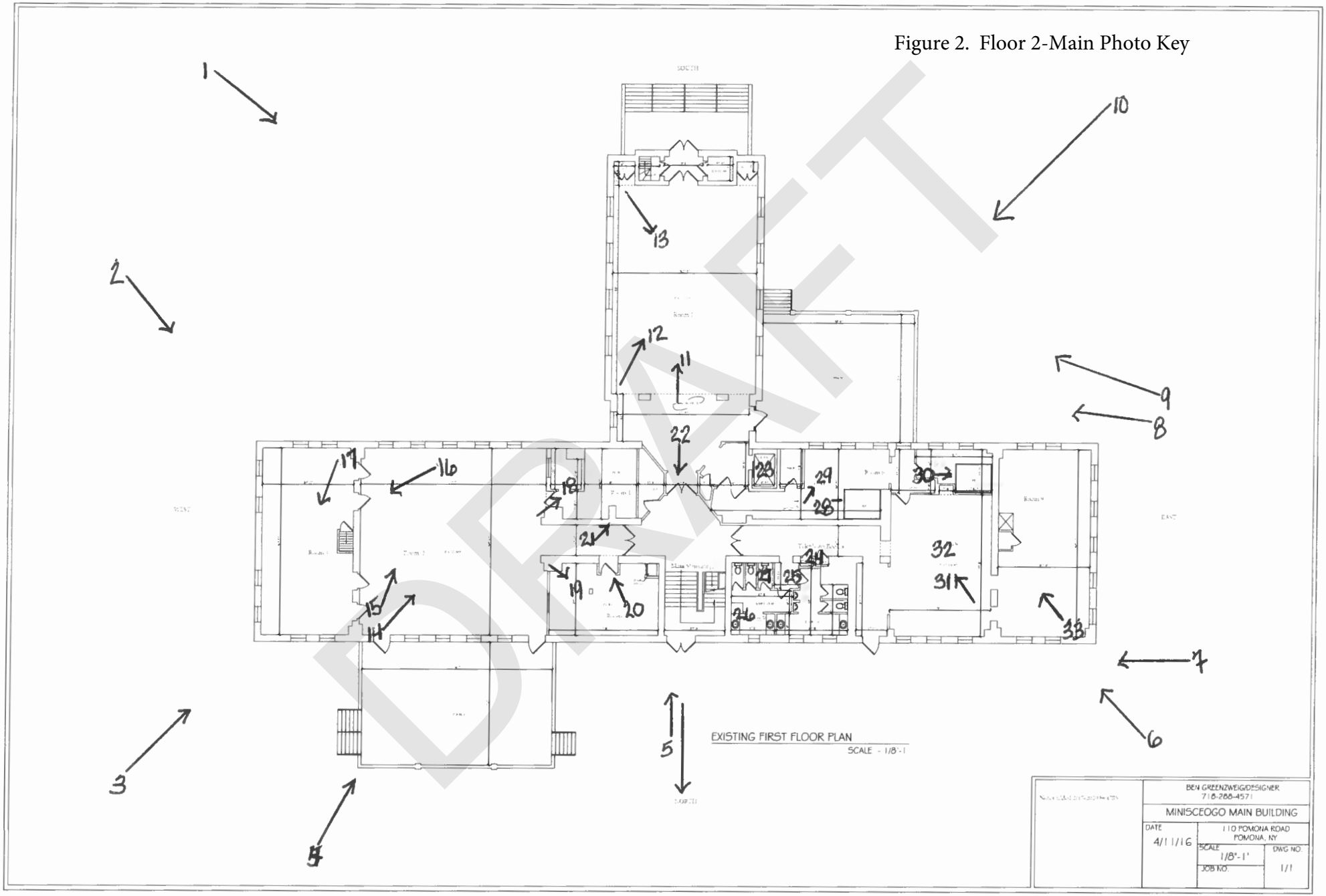


Figure 3. Floor 1-Ground Photo Key

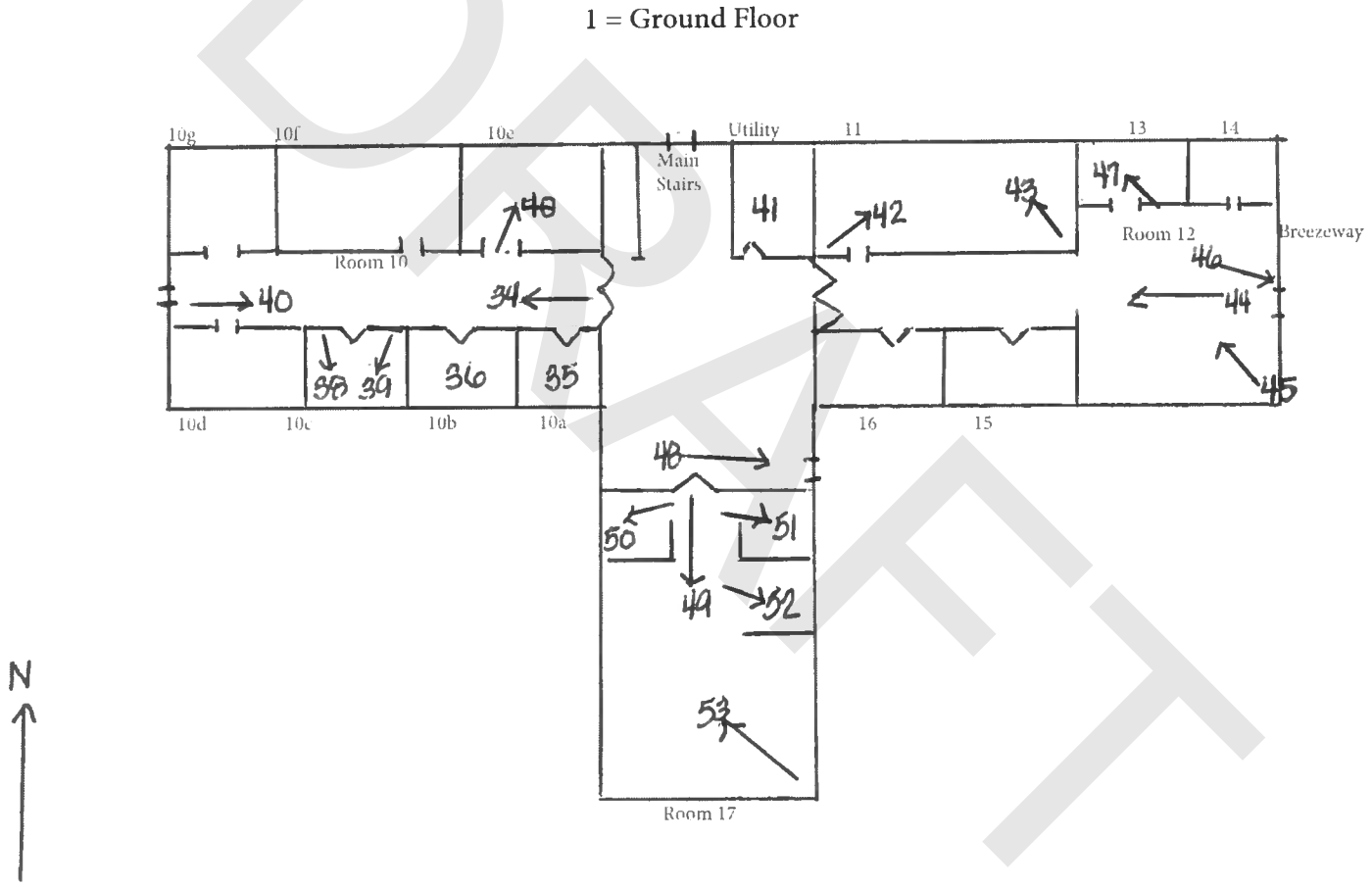
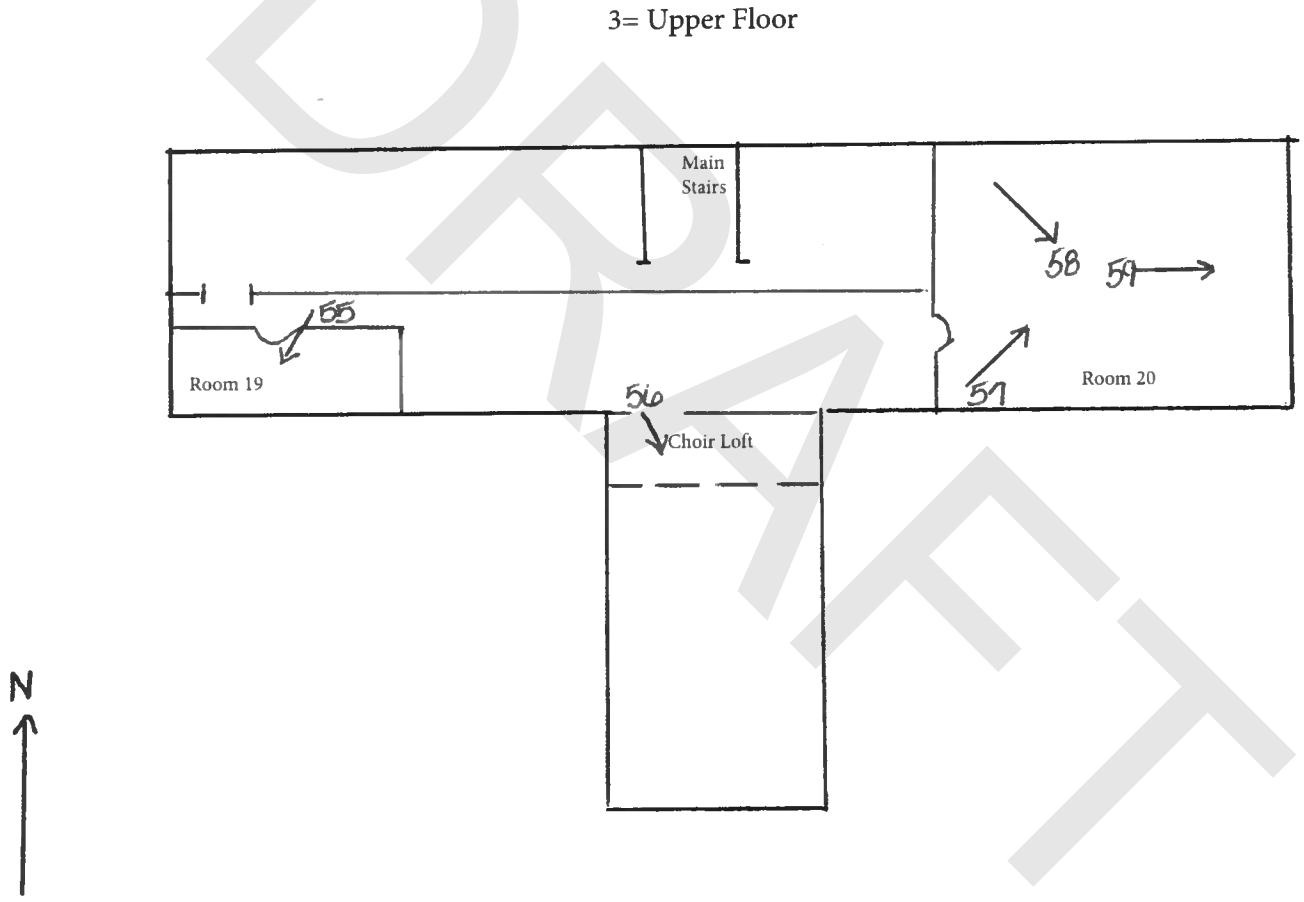


Figure 4. Floor 3-Upper Photograph Key



Attachment Photographs

Table 2 – Photograph Log

Photographs01to10_Exterior

Photographs11to24_Floor2_Main

Photographs25to33_Floor2_Main

Photographs34to46_Floor1_Ground

Photographs47to59_Floors1and3

Photographs60to62_Historic

Room #	Floor	Filing Photo #	Field Photo #	Description	Date Taken	Author	USN (Bldg) Name
Exterior	n/a	01	P1010001	Looking NW at the SE facades.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Exterior	n/a	02	P1010003	Looking NW at the S and E facades. The lower level arch (to picture right) is the south side of the breezeway.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Exterior	n/a	03	P1010004	Looking SW at the east side of the North façade. The lower level arch (to picture center, behind the staircase) is the north side of the breezeway.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Exterior	n/a	04	P1010005	Looking SW at the east half of the north façade.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Exterior	n/a	05	P1010008_Vertical	Looking S at the ground floor entrance to the building showing the flanking staircases to the 2nd (main) floor.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Exterior	n/a	06	P1010010	The west side of the north façade	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Exterior	n/a	07	P1010011	The service doors to the basement rooms.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Exterior	n/a	08	P1010012	Utility yard on the west side of the patio. Photo 13 also shows other parts of the yard.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Exterior	n/a	09	P1010013	Utility yard on the west side of the patio. Photo 12 also shows other parts of the yard.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Exterior	n/a	10	P1010015	South (left) and west (right) facades. The utility yard is behind the wood door to picture left.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse

Room01	3-Upper	11	P1010094	From balcony/choir loft looking south into Room 1.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room01	2-Main	12	P1010018_Vertical	Looking SW at Room 1 interior from NE corner.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room01	2-Main	13	P1010019	Looking N at the Room 1 interior showing the location of the original choir loft.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room02	2-Main	14	P1010026	Looking W at the second service station in Room 2. The pictures propped on the table include the historical building pictures included here.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room02	2-Main	15	P1010025	Looking SW at the Room 2 interior showing the entry arch and one of two service stations to left of entry arch.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room02	2-Main	16	P1010027	Looking E at the entry door from Room 2 into Room 3.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room03	2-Main	17	P1010028	Looking NE at the Room nterior.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room04	2-Main	18	P1010030	Room 4, pantry, that services Rooms 2 and 5	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room05	2-Main	19	P1010035	Room 5, full kitchen, which backs to Room 2.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room05	2-Main	20	P1010037_Vertical	Room 5, entrance/exit door.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Doors	2-Main	21	P1010038	Entry/exit doors from Rooms 2, 3, 4, 5 into main staircase hall.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse

Stairs	2-Main	22	P1010039	Looking at the main staircase from 2-Main to the entry/exit doors on floor 1-Ground. These doors are shown in Photograph 5 from the outside.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Elevator	2-Main	23	P1010040_Vertical	Floor 2-main looking at the elevator which is marked "2"	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Telephone Booth	2-Main	24	P1010054	Floor 2-main looking at the twin telephone booths (listed on the plan as closets).	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room07	2-Main	25	P1010044_Vertical	Room 7, the ladies restroom on Floor 2-Main.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room07	2-Main	26	P1010046_Vertical	Room 7, ladies restroom, interior fixtures.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room07	2-Main	27	P1010047_Vertical	Room 7, ladies restroom, interior fixtures.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room06	2-Main	28	P1010042	Room 6, one of the two walk-in storage refrigerators in this kitchen.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room06	2-Main	29	P1010041	Room 6, storage area.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room06	2-Main	30	P1010043_Vertical	Room 6, second walk-in storage refrigerator marked #1.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room08	2-Main	31	P1010050	Room 8, bar detail showing foot rail.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room08	2-Main	32	P1010051	Room 8, light fixture suspended above bar.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room09	2-Main	33	P1010052	Room 9, looking SW at stored event tables, chairs, and other materials	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse

Room 10, Men's Locker Room, main hall.	1-Ground	34	P1010057	Men's locker room main hal looking toward the outside exit	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 10a	1-Ground	35	P1010059	Men's locker room shoe cleaning room looking back toward the room's entry door.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 10b	1-Ground	36	P1010063	Men's locker room, toilet room urinals.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 10e	1-Ground	37	P1010060	Men's locker room easternmost locker room on the north side of the main hallway.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 10c	1-Ground	38	P1010065_vertical	Men's locker room, shower stall room.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 10b	1-Ground	39	P1010064	Men's locker room, toilet room sinks.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 10	1-Ground	40	P1010068	Men's locker room, main hall.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Utility Room	1-Ground	41	P1010091	Floor 1-ground utility room.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room11	1-Ground	42	P1010069	Floor 1 full kitchen, equipment	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room11	1-Ground	43	P1010071	Floor 1 full kitchen, equipment	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room12	1-Ground	44	P1010074	Floor 1 bar, looking west toward the floor main hall.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room12	1-Ground	45	P1010075	Floor 1 bar, looking NW toward the Room 13 doorway.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse

Breezeway	1-Ground	46	P1010079	Looking east from Room 12 toward the Floor 1 breezeway.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room13	1-Ground	47	P1010078	Room 13 equipment	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Entrance, side	1-Ground	48	P1010080	Exterior door accessing the Ladies locker-room entrance.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 17	1-Ground	49	P1010084	Ladies locker room locker clusters.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 17a, Ladies Locker room.	1-Ground	50	P1010082	Ladies locker room pantry with sink.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 17b	1-Ground	51	P1010083	Ladies locker room lounge.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 17	1-Ground	52	P1010085	Ladies locker room make-up station.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 17	1-Ground	53	P1010089	Ladies locker room, another view of the locker clusters.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Balcony hall	3-Upper	54	P1010096	Balcony walkway looking toward Room 19 doorway (left)	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 19	3-Upper	55	P1010097	Small office adjacent to the balcony/choir loft on its west side.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 18	3-Upper	56	P1010093	Balcony/choir loft looking down into Room 1.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 20	3-Upper	57	P1010098	Large office room on the east side of the balcony/choir loft looking NE.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse

Room 20	3-Upper	58	P1010101	Looking toward the SE corner of Room 20.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 20	3-Upper	59	P1010100	Alcove niche on the east wall of Room 20.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Historic	2-Main	60	P1010023	Pomona Mills Farm 1911	2/10/2020	CSWeed	Unnumbered, Happy Valley Colony
Historic	2-Main	61	P1010020	James Cottage 1927	2/10/2020	CSWeed	USN 08704.000376 (Bldg. 1991-06) James Cottage
Historic	2-Main	62	P1010022	Ford Cottage 1917	2/10/2020	CSWeed	USN 08704.000378 (Bldg. 1991-09) Ford Cottage
Exterior	n/a	not filed	P1010002	Looking ESE toward Director's House (right) and X Cottage (left)	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Exterior	n/a	not filed	P1010006	Looking NW at the north façade. The pool building is in the distance on the right side of the picture.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Exterior	n/a	not filed	P1010007	Looking S at the ground floor entrance to the building.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Exterior	n/a	not filed	P1010008	Looking S at the ground floor entrance to the building showing the flanking staircases to the 2nd (main) floor.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Exterior	n/a	not filed	P1010009	The east façade of the pool house.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Exterior	n/a	not filed	P1010014	South side of the East façade of the pool house.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room01	2-Main	not filed	P1010016	Looking south at the ceiling of Room 1.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse

Room01	2-Main	not filed	P1010017	Looking SE at Room 1 interior from NW corner.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room01	2-Main	not filed	P1010017_Vertical	Looking SE at Room 1 interior from NW corner.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room01	2-Main	not filed	P1010018	Looking SW at Room 1 interior from NE corner.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room01	2-Main	not filed	P1010019_Vertical	Looking N at the Room 1 interior showing the location of the original choir loft.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Historic	2-Main	not filed	P1010021	James Cottage 1927	2/10/2020	CSWeed	USN 08704.000376 (Bldg. 1991-06) James Cottage
Room02	2-Main	not filed	P1010024	Looking NE at the Room 2 interior. Push door in picture center leads to an outdoor deck.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Exterior	2-Main	not filed	P1010029	Looking from Room 3 south end toward the parking lots and Pomona Road in the distance.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room04	2-Main	not filed	P1010031	Room 4, pantry. Equipment view.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room04	2-Main	not filed	P1010032	Room 4, pantry. Equipment view.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room04	2-Main	not filed	P1010033	Room 4, pantry. Equipment view.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room04	2-Main	not filed	P1010034	Room 4, pantry. Equipment view.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room05	2-Main	not filed	P1010036	Room 5, full kitchen, equipment.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse

Room05	2-Main	not filed	P1010037	Room 5, entrance/exit door.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Stairs	2-Main	not filed	P1010039_Vertical	Main staircase looking north from Floor 2-main.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Elevator	2-Main	not filed	P1010040	Floor 2-main elevator.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room06	2-Main	not filed	P1010043	Room 6, second walk-in storage refrigerator marked #1.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room07	2-Main	not filed	P1010044	Room 7, the ladies restroom on Floor 2-Main.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room07	2-Main	not filed	P1010045	Room 7, the ladies restroom on Floor 2-Main.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room07	2-Main	not filed	P1010045_Vertical	Room 7, the ladies restroom on Floor 2-Main.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room07	2-Main	not filed	P1010046	Room 7, ladies restroom, interior fixtures.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room07	2-Main	not filed	P1010047	Room 7, ladies restroom, interior fixtures.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Exterior	2-Main	not filed	P1010048	Outside Deck off of Room 2, looking N	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room08	2-Main	not filed	P1010049	Room 8, bar, looking east.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room09	2-Main	not filed	P1010053	Room 9, looking SE	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse

Telephone Booth	2-Main	not filed	P1010054_Vertical	Floor 2-main looking at the twin telephone booths (listed on the plan as closets).	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Locker-room sign, Mens	1-Ground	not filed	P1010055	Men's locker-room sign adjacent to entrance door	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 10, Men's Locker Room, Dumbwaiter	1-Ground	not filed	P1010056	Dumbwaiter in the men's locker room. This dumbwaiter was serviced by the Room 5 full kitchen.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 10a	1-Ground	not filed	P1010058	Men's locker room shoe cleaning stand. There is not an equivalent in the Ladies locker room.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 10f	1-Ground	not filed	P1010061	Men's locker room middle locker room on the north side of the hall.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 10b	1-Ground	not filed	P1010062	Men's locker room, toilet room urinal.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 10c	1-Ground	not filed	P1010065	Men's locker room, shower stall room.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 10	1-Ground	not filed	P1010066	Men's locker room, utility unit.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 10	1-Ground	not filed	P1010066_vertical	Men's locker room, utility unit.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Exterior	1-Ground	not filed	P1010067	Looking west at the pool house from the Men's locker room.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room11	1-Ground	not filed	P1010070	Equipment manufacturer	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room11	1-Ground	not filed	P1010072	Floor 1 full kitchen, equipment	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse

Room12	1-Ground	not filed	P1010073	Floor 1 bar, looking NW toward the Room 13 doorway.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 13	1-Ground	not filed	P1010076	Looking from Room 13 back toward Room 12 bar.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 13	1-Ground	not filed	P1010077	Room 13 equipment	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Locker-room sign, Ladies	1-Ground	not filed	P1010081	Ladies locker room sign.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 17	1-Ground	not filed	P1010086	Ladies locker room, shower stall next to sinks.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 17	1-Ground	not filed	P1010087	Ladies locker room, one of two sinks.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 17	1-Ground	not filed	P1010088	Ladies locker room, toilet stalls.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 17	1-Ground	not filed	P1010090	Ladies locker room, another view of the locker clusters.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Utility Room	1-Ground	not filed	P1010092	Floor 1-ground utility room.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 1	3-Upper	not filed	P1010095	From balcony/choir loft with Room 1 ceiling detail.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse
Room 20	3-Upper	not filed	P1010099	Door, looking from Room 20 into the balcony hallway.	2/10/2020	CSWeed	USN 08704.000380 (Bldg. 1991-11) Clubhouse

Photograph 1. Clubhouse Exterior, looking NW at the SE facades (Field Photograph P101001, 2/10/2020).

Photograph 2. Club Exterior, looking NW at the S and E facades. The lower level arch to picture center is the south side of the breezeway (Field Photograph P1010003, 2/10/2020).

Photograph 3. Club Exterior, looking SW at the E and N facades. The lower level arch to picture center, behind the staircase, is the north side of the breezeway (Field Photograph P1010004, 2/10/2020).

Photograph 4. Club Exterior, looking SW at the east half of the N façade (Field Photograph P1010005, 2/10/2020).

Photograph 5. Club Exterior, looking S at the ground floor entrance to the building showing the flanking staircases to Floor 2-Main (Field Photograph P1010008-Vertical, 2/10/2020).

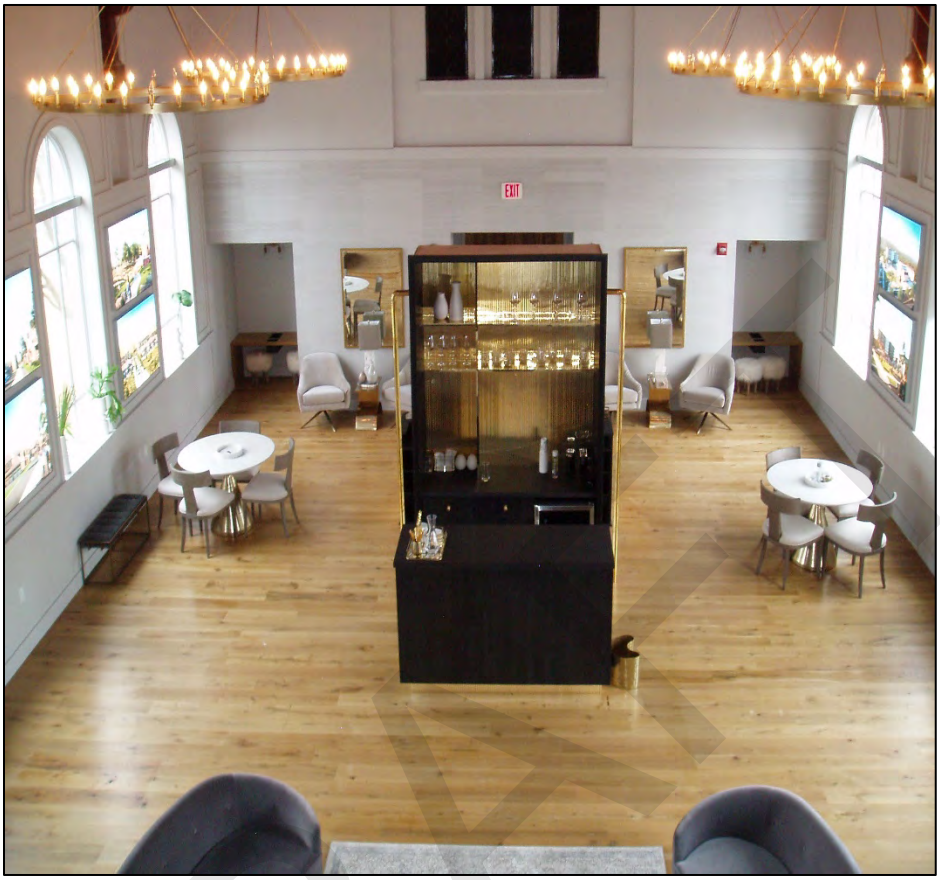
Photograph 6. Club Exterior, the west side of the N facade (Field Photograph P1010010, 2/10/2020).

Photograph 7. Club Exterior, the service entrance to the Floor 1-Ground level (Field Photograph P1010011, 2/10/2020).

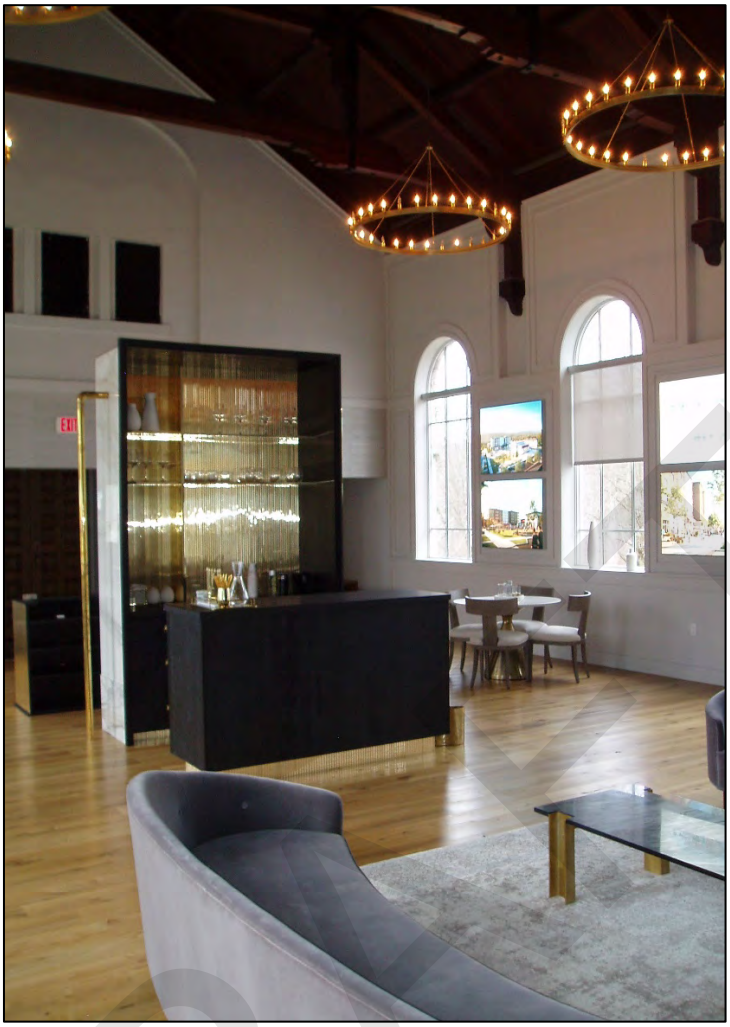
Photograph 8. Club Exterior, Utility yard on the west side of the clubhouse outside Floor 1-Ground (Field Photograph P1010012, 2/10/2020).

Photograph 9. Club Exterior, another section of the utility yard shown in Photographs 8 and 10 (Field Photograph P1010013, 2/10/2020).

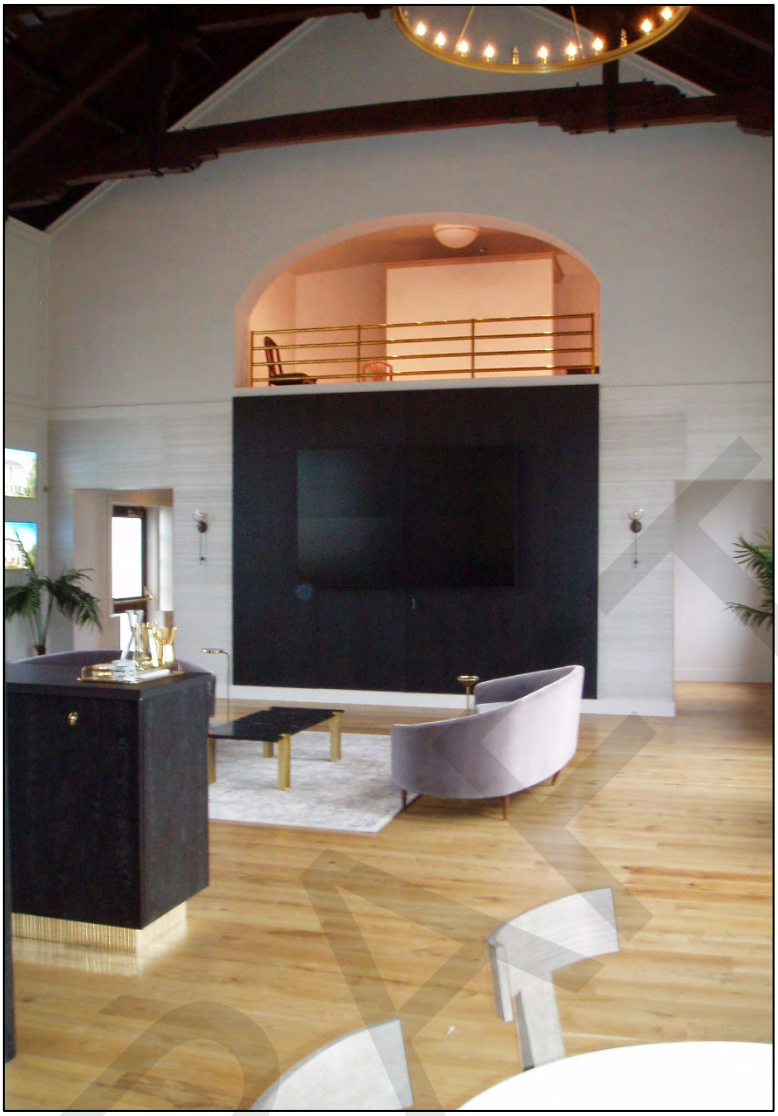
Photograph 10. Club Exterior, south and west facades. The utility yard is behind the swing doors to picture left (Field Photograph P1010015, 2/10/2020).



Photograph 11. Floor 3-Upper, looking south from the balcony/choir loft into Room 1 (Field Photograph P1010094, 2/10/2020).



Photograph 12. Floor 2-Main, Looking SW at Room 1 interior from NE corner (Field Photograph P1010018-Vertical, 2/10/2020).



Photograph 13. Floor 2-Main, Looking N at the Room 1 interior showing the location of the original choir loft (Field Photograph P1010019, 2/10/2020).

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Photograph 14. Floor 2-Main, Room 2 looking W at the north side service station in the room. The pictures propped on the table include the historical building pictures in Photographs 60-62 (Field Photograph P1010026, 2/10/2020).

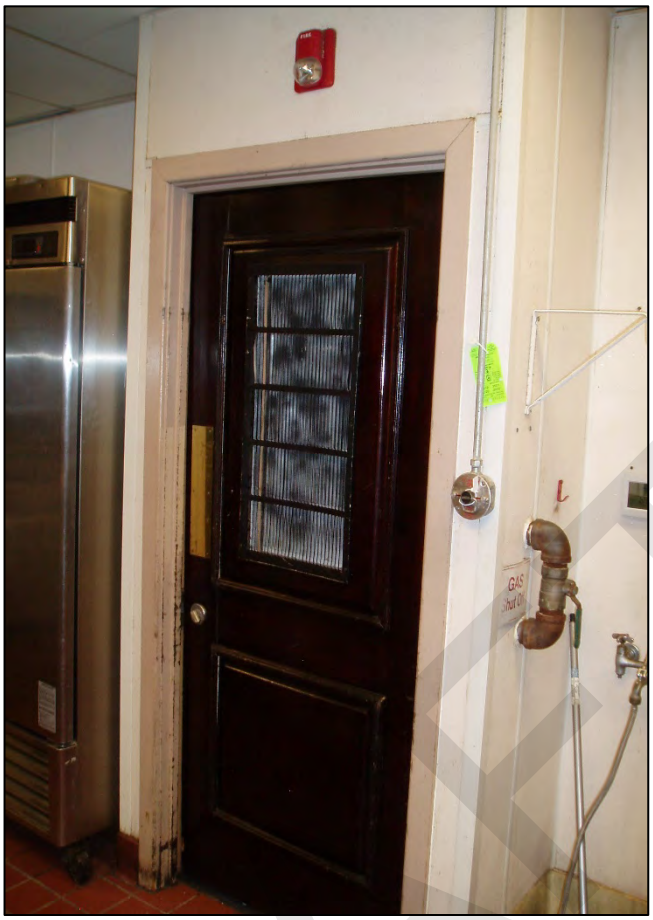
Photograph 15. Floor 2-Main, Room 2, looking SW at the room interior showing the arched entry way and the south side service station, to left of entry arch (Field Photograph P1010025, 2/10/2020).

Photograph 16. Floor 2-Main, Room 2 looking east at the entry door from Room 2 to Room 3 (Field Photograph P1010027, 2/10/2020).

Photograph 17. Floor 2-Main, Room 3, looking NE at the room interior from the entry door in Photograph 16 (Field Photograph P1010025, 2/10/2020).

Photograph 18. Floor 2-Main, Room 4 pantry. This pantry services Rooms 2 and 5 (Field Photograph P1010030, 2/10/2020).

Photograph 19. Floor 2-Main, Room 5, full kitchen that backs to Room 2 (Field Photograph P1010035, 2/10/2020).



Photograph 20. Floor 2-Main, Room 5 kitchen main entry/exit door (Field Photograph P1010037-vertical, 2/10/2020).

Photograph 21. Floor 2-Main, Entry/exit doors from Rooms 2, 3, 4, and 5 into the main staircase hall (Field Photograph P1010038, 2/10/2020).

Photograph 22. Floor 2-Main, looking at the main staircase from 2-Main to the entry/exit doors on floor 1-Ground . These doors are shown in Photograph 5 from the outside (Field Photograph P1010039, 2/10/2020).

Photograph 23. Floor 2-Main, looking at the elevator which is marked “2” (Field Photograph P1010040-Vertical, 2/10/2020).

Photograph 24. Floor 2-Main, looking at the twin closets adjacent to the restrooms. The doors fold out and the ‘closets’ may have served as telephone booths at some point (Field Photograph P1010054, 2/10/2020).

Photograph 25. Floor 2-Main, Room 7, Ladies Room entry door from the entrance alcove (Field Photograph P1010044-Vertical, 2/10/2020).

Photograph 26. Floor 2-Main, Room 7, Ladies Room sink/mirror (Field Photograph P1010046-Vertical, 2/10/2020).

Photograph 27. Floor 2-Main, Room 7, Ladies Room toilet stall, one of three in this restroom (Field Photograph P1010047-Vertical, 2/10/2020).

Photograph 28. Floor 2-Main, Room 6 showing one of the two walk-in storage refrigerators in this kitchen (Field Photograph P1010042, 2/10/2020).

Photograph 29. Floor 2-Main, Room 6, buffet warming trays and other small equipment (Field Photograph P1010041, 2/10/2020).

Photograph 30. Floor 2-Main, Room 6, walk-in storage refrigerator marked "#1" (Field Photograph P1010043-Vertical, 2/10/2020).

Photograph 31. Floor 2-Main, Room 8, bar detail showing foot rail (Field Photograph P1010050, 2/10/2020).

Photograph 32. Floor 2-Main, Room 8 bar light fixture suspended above bar (Field Photograph P1010051, 2/10/2020).

Photograph 33. Floor 2-Main, Room 9 looking SW at stored event tables, chairs, and other materials (Field Photograph P1010052, 2/10/2020).

Photograph 34. Floor 1-Ground, Men's Locker Room, main hall looking toward the outside exit (Field Photograph P1010057, 2/10/2020).

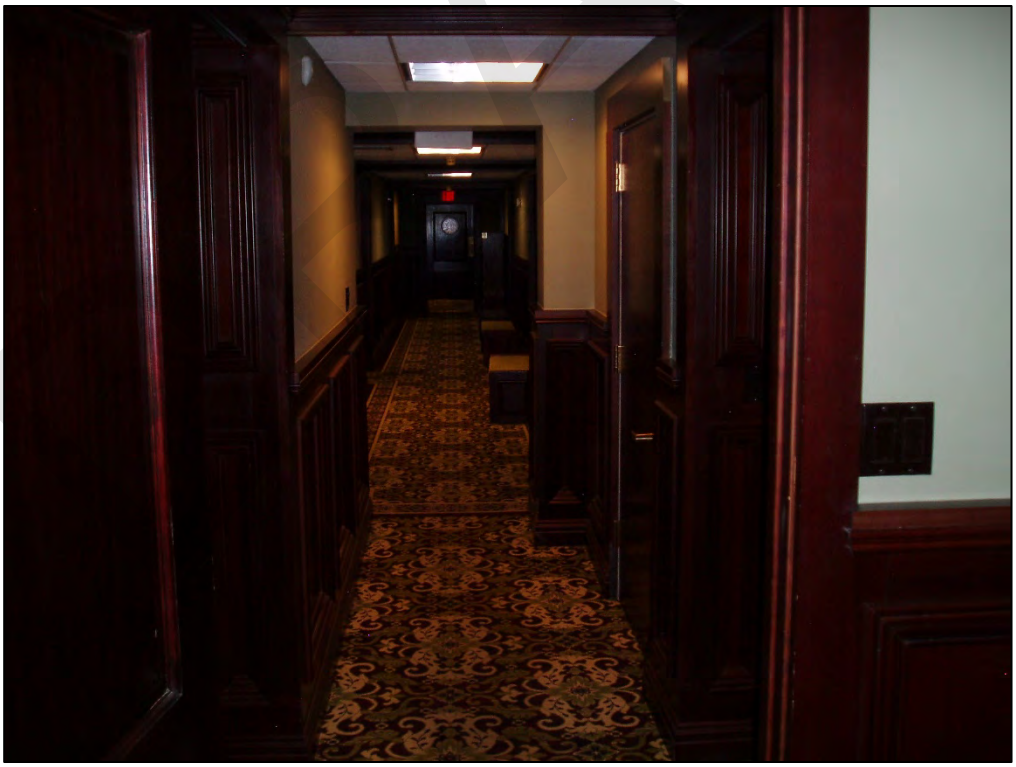
Photograph 35. Floor 1-Ground, Men's Locker Room 10a, shoe cleaning room looking back toward the room's entry door (Field Photograph P1010059, 2/10/2020).

Photograph 36. Floor 1-Ground, Men's Locker Room 10b, toilet room urinals (Field Photograph P1010063, 2/10/2020).

Photograph 37. Floor 1-Ground, Men's Locker Room 10e, easternmost locker room on the north side of the main hallway (Field Photograph P1010060, 2/10/2020).

Photograph 38. Men's Locker Room, Room 10c, stall on right is wheelchair accessible (Field Photograph P1010065-vertical, 2/10/2020).

Photograph 39. Floor 1-Ground, Men's Locker Room 10b, toilet room sinks (Field Photograph P1010064, 2/10/2020).



Photograph 40. Floor 1-Ground, Men's Locker Room main hall looking back toward the main staircase entryway (Field Photograph P1010068, 2/10/2020).

Photograph 41. Floor 1-Ground, utility room (Field Photograph P1010091, 2/10/2020).

Photograph 42. Floor 1-Ground, Room 11 full kitchen equipment section (Field Photograph P1010069, 2/10/2020).

Photograph 43. Floor 1-Ground, Room 11 equipment area (Field Photograph P1010071, 2/10/2020).

Photograph 44. Floor 1-Ground, Room 12 bar entry doors looking west toward the floor main hall (Field Photograph P1010074, 2/10/2020).

Photograph 45. Floor 1-Ground, Room 12 bar looking NW toward the Room 13 doorway (Field Photograph P1010075, 2/10/2020).

Photograph 46. Floor 1-Ground, looking east from Room 12 toward the Floor 1-Ground breezeway (Field Photograph P1010079).

Photograph 47. Floor 1-Ground, Room 13 equipment storage (Field Photograph P1010078, 2/10/2020).

Photograph 48. Floor 1-Ground, Exterior door accessing the Ladies Locker Room entrance (Field Photograph P1010080, 2/10/2020).

Photograph 49. Floor 1-Ground, Room 17, Ladies Locker Room, showing main hall and locker clusters (Field Photograph P1010084, 2/10/2020).

Photograph 50. Floor 1-Ground, Ladies Locker Room 17a, pantry (Field Photograph P1010082, 2/10/2020).

Photograph 51. Floor 1-Ground, Ladies Locker Room 17b, lounge (Field Photograph P1010083, 2/10/2020).

Photograph 52. Floor 1-Ground, Ladies Locker Room 17, makeup table (Field Photograph P1010085, 2/10/2020).

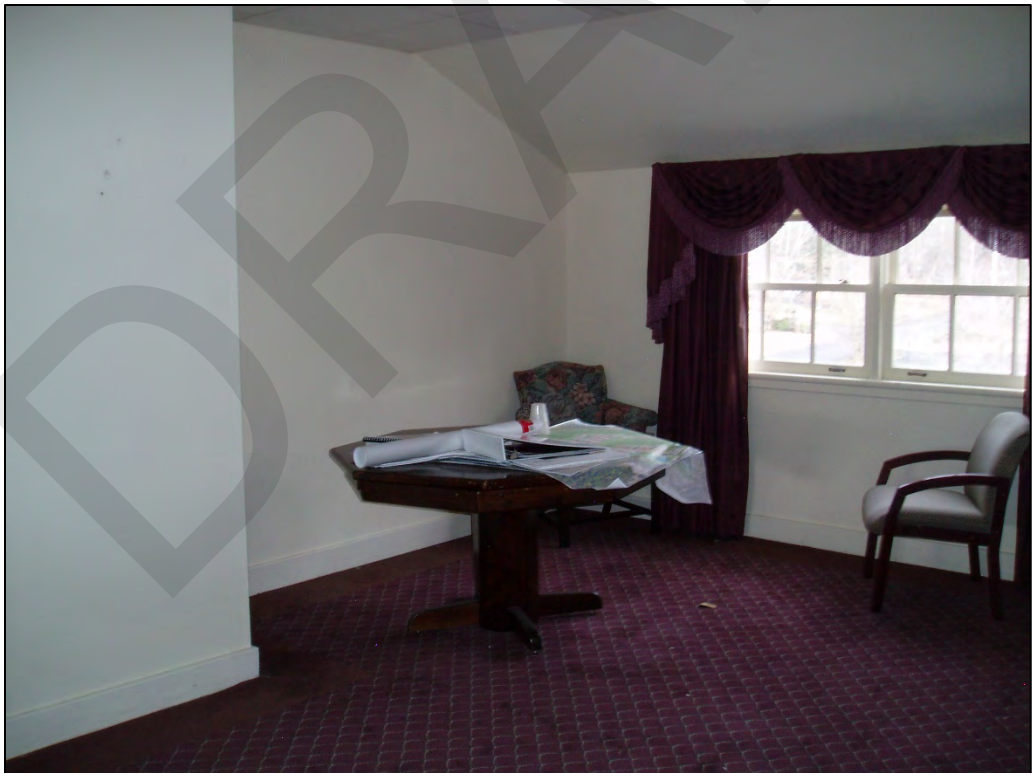
Photograph 53. Floor 1-Ground, Ladies Locker Room 17, another view of the locker clusters (Field Photograph P1010089, 2/10/2020).

Photograph 54. Floor 3-Upper, balcony walkway looking toward Room 19 doorway to left (Field Photograph P1010096, 2/10/2020).

Photograph 55. Floor 3-Upper, Room 19, small office adjacent to choir loft on the west side of the floor (Field Photograph P1010097, 2/10/2020).

Photograph 56. Floor 3-Upper, choir loft showing rail detail and another view of Room 1 below (Field Photograph P1010093, 2/10/2020).

Photograph 57. Floor 3-Upper, Room 20 large office on the east side of the choir loft looking NE (Field Photograph P1010098, 2/10/2020).



Photograph 58. Floor 3-Upper, looking toward the SE corner of Room 20 (Field Photograph P1010101, 2/10/2020).

Photograph 59. Floor 3-Upper, Room 20 looking east at the alcove in the east wall (Field Photograph P1010100, 2/10/2020).

Photograph 60. Pomona Mills Farm in 1911 before the Happy Valley Colony was established (Field Photograph CSW_P1010023, 2/10/2020).

Photograph 61. USN 08704.000376 (Bldg. 1991-006), James Cottage in 1927 (Field Photograph CSW_P1010020, 2/10/2020).

Photograph 62. USN 08704.000378 (Bldg. 1991-009), Ford Cottage in 1917 (Field Photograph CSW_P1010022, 2/10/2020).

NEW YORK STATE OF OPPORTUNITY. Parks, Recreation, and Historic Preservation

ANDREW M. CUOMO
Governor

ERIK KULLESEID
Commissioner

April 16, 2020

Carol Weed
Principal
Independent Contractor
50 Saw Mill Rd.
Unit 13108
Danbury, CT 06810

Re: DEC
Miller's Pond - Minisceongo Golf Course Redevelopment
110 Pomona Rd., Pomona, NY 10970
20PR00125

Dear Carol Weed:

Thank you for requesting the comments of the Office of Parks, Recreation and Historic Preservation (OPRHP). We have reviewed the project in accordance with the New York State Historic Preservation Act of 1980 (Section 14.09 of the New York Parks, Recreation and Historic Preservation Law). These comments are those of the OPRHP and relate only to Historic/Cultural resources. They do not include potential environmental impacts to New York State Parkland that may be involved in or near your project. Such impacts must be considered as part of the environmental review of the project pursuant to the State Environmental Quality Review Act (New York Environmental Conservation Law Article 8) and its implementing regulations (6 NYCRR Part 617).

Based upon this review, it is the opinion of OPRHP that no properties, including archaeological and/or historic resources, listed in or eligible for the New York State and National Registers of Historic Places will be impacted by this project.

If further correspondence is required regarding this project, please be sure to refer to the OPRHP Project Review (PR) number noted above.

Sincerely,

R. Daniel Mackay

Deputy Commissioner for Historic Preservation
Division for Historic Preservation

DEPARTMENT OF THE ARMY
NEW YORK DISTRICT, CORPS OF ENGINEERS
JACOB K. JAVITS FEDERAL BUILDING
26 FEDERAL PLAZA
NEW YORK, NEW YORK 10278-0090

Regulatory Branch

SEP 2 0 2018

SUBJECT: Permit Application Number NAN-2018-00360
by Mount Ivy LLC

Peter Torgersen
110 Town Line Road
Pearl River, NY 10965

Dear Mr. Torgersen:

On March 13, 2018, the New York District of the U.S. Army Corps of Engineers received a request for a Department of the Army jurisdictional determination for the above referenced project. The site consists of approximately 144 acres, in the South Branch Minisceongo Creek watershed, in the Town of Ramapo, Rockland County, NY.

In the letter received on March 13, 2018, your office submitted a proposed delineation of the extent of waters of the United States within the project boundary. A site inspection was conducted by representatives of this office on July 26, 2018, in which it was agreed that changes would be made to the delineation and that the modified delineation would be submitted to this office. On September 7, 2018, this office received the modified delineation.

Based on the material submitted and the observations of the representatives of this office during the site visit, this site has been determined to contain jurisdictional waters of the United States based on: the presence of wetlands determined by the occurrence of hydrophytic vegetation, hydric soils and wetland hydrology according to criteria established in the 1987 "Corps of Engineers Wetlands Delineation Manual," Technical Report Y-87-1 that are either adjacent to or part of a tributary system; the presence of a defined water body (e.g. stream channel, lake, pond, river, etc.) which is part of a tributary system; and the fact that the location includes property below the ordinary high water mark, high tide line or mean high water mark of a water body as determined by known gage data or by the presence of physical markings including, but not limited to, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter or debris or other characteristics of the surrounding area.

These jurisdictional waters of the United States are shown on the drawing entitled "NYSDEC Wetlands – Wetland Delineation Map", prepared by AN&Z Engineers, dated January 29, 2016 and last revised September 4, 2018. This drawing indicates that there are five (5) principal wetland areas, four (4) distinct stream reaches and two (2) open water areas on the project site which are part of a tributary system, and are considered to be waters of the United States.

SEP 2 0 2018

This determination regarding the delineation shall be considered valid for a period of five years from the date of this letter unless new information warrants revision of the determination before the expiration date.

This determination was documented using the Interim Approved Jurisdictional Determination Form, promulgated by the Corps of Engineers in October, 2015. A copy of that document is enclosed with this letter, and will be posted on the New York District website at:
http://www.nan.usace.army.mil/Missions/Regulatory/JurisdictionalDeterminations/RecentJurisdictionalDeterminations.aspx

This delineation/determination has been conducted to identify the limits of the Corps Clean Water Act jurisdiction for the particular site identified in this request. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed is a combined Notification of Appeal Process (NAP) and Request For Appeal (RFA) form. If you request to appeal this determination you must submit a completed RFA form to the North Atlantic Division Office at the following address:

James W. Haggerty, Regulatory Program Manager, CENAD-PD-OR
North Atlantic Division, U.S. Army Engineer Division
Fort Hamilton Military Community
General Lee Avenue, Building 301
Brooklyn, New York 11252-6700

In order for an RFA to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Park 331.5, and that it has been received by the Division Office within 60 days of the date of the NAP. Should you decide to submit an RFA form, it must be received at the above address by NOV 1 9 2018. It is not necessary to submit an RFA form to the Division Office if you do not object to the determination in this letter.

This delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

It is strongly recommended that the development of the site be carried out in such a manner as to avoid as much as possible the discharge of dredged or fill material into the delineated waters of the United States. If the activities proposed for the site involve such discharges, authorization from this office may be necessary prior to the initiation of the proposed work. The extent of such discharge of fill will determine the level of authorization that would be required.

SEP 2 0 2018

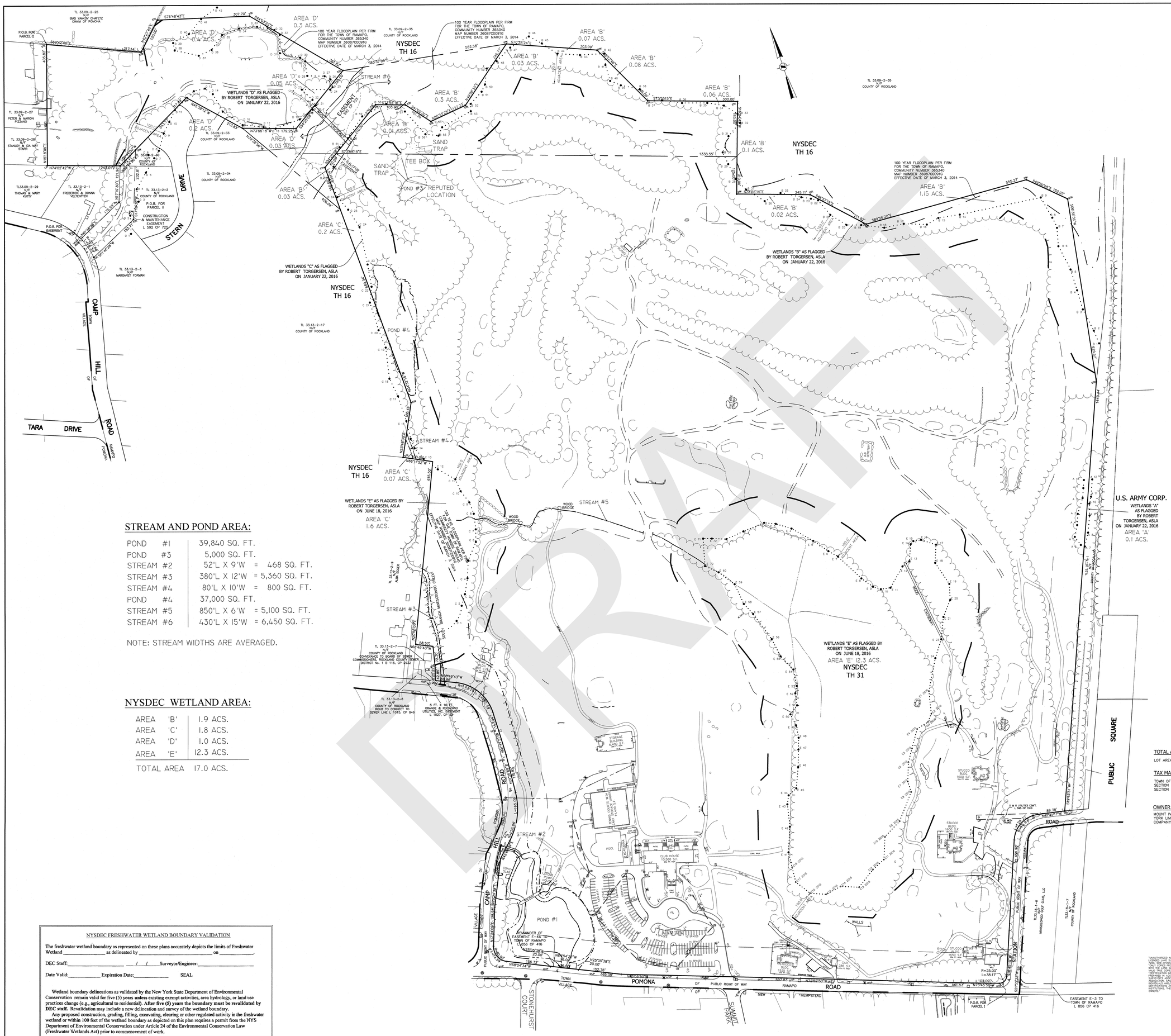
In order for us to better serve you, please complete our Customer Service Survey located at http://www.nan.usace.army.mil/Missions/Regulatory/CustomerSurvey.aspx.

If any questions should arise concerning this matter, please contact Peter Steinour, of my staff, at (917) 790-8518.

Sincerely,

Rosita Miranda
Chief, Western Section

Enclosures



DRAFT

STREAM AND POND AREA:

POND	#1	39,840 SQ. FT.	
POND	#3	5,000 SQ. FT.	
STREAM	#2	52'L X 9'W	= 468 SQ. FT.
STREAM	#3	380'L X 12'W	= 5,360 SQ. FT.
STREAM	#4	80'L X 10'W	= 800 SQ. FT.
POND	#4	37,000 SQ. FT.	
STREAM	#5	850'L X 6'W	= 5,100 SQ. FT.
STREAM	#6	430'L X 15'W	= 6,450 SQ. FT.

NOTE: STREAM WIDTHS ARE AVERAGED.

NYSDEC WETLAND AREA:

AREA	'B'	1.9 ACS.
AREA	'C'	1.8 ACS.
AREA	'D'	1.0 ACS.
AREA	'E'	12.3 ACS.
TOTAL AREA		17.0 ACS.

NYSDEC FRESHWATER WETLAND BOUNDARY VALIDATION

The freshwater wetland boundary as represented on these plans accurately depicts the limits of Freshwater Wetland ______________ as delineated by ______________________ on ___________.

DEC Staff:___________________ ___/___/_____Surveyor/Engineer:__________________

Date Valid:___________ Expiration Date:____________ SEAL

Wetland boundary delineations as validated by the New York State Department of Environmental Conservation remain valid for five (5) years **unless** existing exempt activities, area hydrology, or land use practices change (e.g., agricultural to residential). **After five (5) years the boundary must be revalidated by DEC staff.** Revalidation may include a new delineation and survey of the wetland boundary.

Any proposed construction, grading, filling, excavating, clearing or other regulated activity in the freshwater wetland or within 100 feet of the wetland boundary as depicted on this plan requires a permit from the NYS Department of Environmental Conservation under Article 24 of the Environmental Conservation Law (Freshwater Wetlands Act) prior to commencement of work.

LEGEND

SMH ⊕	EXISTING SANITARY SEWER MANHOLE	✱	EXISTING HYDRANT
DMH ○	EXISTING DRAINAGE MANHOLE	LP ☼	EXISTING LIGHT POLE
MH ○	EXISTING MANHOLE	LP ✱	EXISTING BOLLARD LIGHT POLE
CB ☐	EXISTING CATCH BASIN	UP ⊝	EXISTING UTILITY POLE
STK ■	EXISTING WOOD STAKE	ADS	EXISTING STORM DRAIN
I.P. ●	EXISTING IRON PIPE	ET	ELECTRIC TRANSFORMER
FP ∘	EXISTING FLAGPOLE	PIN ●	EXISTING IRON PIN

TOTAL AREA:

LOT AREA = 143.6365 ACRES

TAX MAP REFERENCE:

TOWN OF RAMAPO TAX MAP
SECTION 33.13, BLOCK 2, PARCEL 6
SECTION 33.09, BLOCK 2, PARCELS 31 AND 37

OWNER:

MOUNT IVY LLC A NEW YORK LIMITED LIABILITY COMPANY

"UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW."
"ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."
"CERTIFICATION INDICATED HERE ON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYOR'S ADOPTED BY THE DELAWARE – HUDSON LAND SURVEYORS ASSOCIATION. SAID CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED INDIVIDUALS AND/OR INSTITUTIONS FOR WHOM THE SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS."

JOHN R. ATZL
N.Y.S. P.L.S. LIC. NO. 50228

REVISION	DATE	DESCRIPTION
7	09-04-18	RENAME POND 1 & ADD STREAM LENGTHS
7	08-03-18	ADDED POND #1 & STREAM AREAS & AREA B
6	04-23-18	ADDED POND & STREAM AREAS
5	07-07-16	NEW TOTAL AREA NYSDEC WETLANDS
4	06-29-16	ADDED NYSDEC TH 16 31 AND U.S. ARMY CORP.
3	06-20-16	ADD NEW AREA "E" WETLAND FLAGES
2	03-09-16	ADJACENT AREAS
1	03-04-16	ADDED DELINEATION AREAS A–D

AN&Z
ATZL, NASHER & ZIGLER P.C.
ENGINEERS–SURVEYORS–PLANNERS

234 North Main Street
New City, New York 10956
Tel: (845) 634-4694
Fax: (845) 634-5543

P.O. Box 636
Chester, New York 10918
Tel: (845) 469-1015
Fax: (845) 469-1016

Web: ANZNY.com

PROJECT:
MOUNT IVY LLC &
LINDIFRIM LIMITED
PARTNERSHIP

TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:
NYSDEC WETLANDS
WETLAND DELINEATION MAP

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 29, 2016	SCALE: 1 IN. = 100 FT.
PROJECT NO: 2028	DRAWING NO: 1

ARCHITECTURAL OVERVIEW

May 8, 2020

COMMUNITY HIGHLIGHTS

- A master planned community consisting of approximately 650 cluster type town homes and 90-120 rental apartments supported by a vibrant village center featuring a variety of retail and community uses as well as a multitude of community recreational and outdoor amenities.
- Approximately 40 acres of preserved wetlands & open space areas, Millers Pond, a village green, pocket parks, walking trails and preservation of historic elements including a historic cemetery and (2) stone silos.
- The Village Center/Mixed-Use area will include the clubhouse, mid-rise mixed use building with approx. 40,000 SF of retail space, 90-120 rental apartments and ground level amenities.

MILLERS POND

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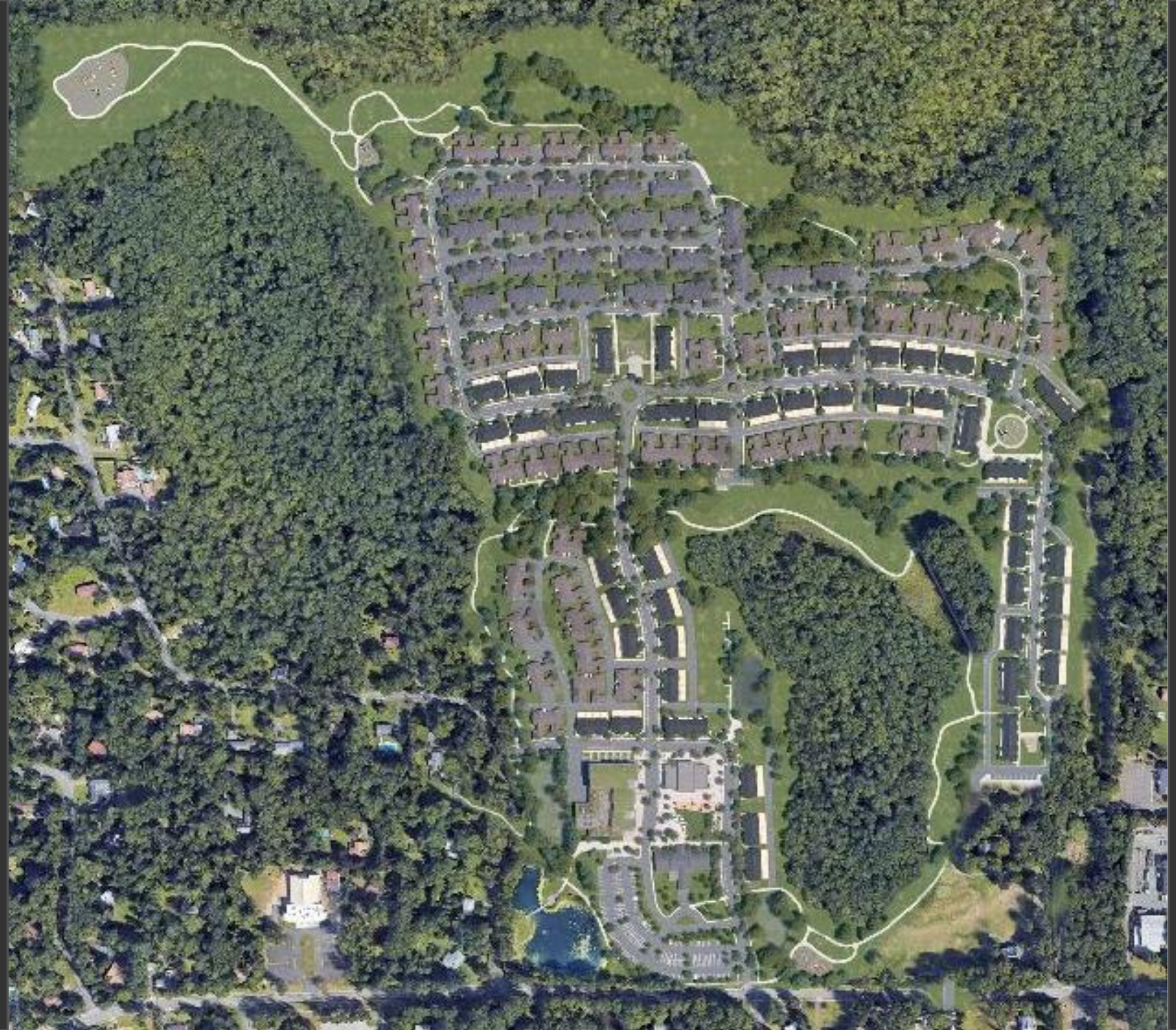
POND



MILLERS POND

MILLERS POND

ARCHITECTURAL HIGHLIGHTS

- The site will include a Town Center, a mid-rise mixed use building of retail, amenities and 90-120 rental apartments located within the Village Center.
- The town home portion of the site will include six (6) unique clustered designs:
  - Main Street Decked Town Homes
  - Valley Edge Town Homes
  - Courtyard Town Homes
  - Stacked Deck Manor Homes
  - On-Street Town Homes
  - Quad Town Homes

MILLERS POND

TOWN CENTER / TOWN HOME RENDERINGS

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MILLERS POND

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TOWN HOME SUMMARY

The community will include a mix of the six (6) unique clustered town home designs with a breakdown as follows:

Unit GFA	Building Typology	Unit Name	# Bldgs	# Units	# Bdrms
2,543 - 2,597 ft^2	Main Street Decked TH (Laneway)	-	23	93	372
3,210 - 3,577 ft^2	Valley Edge TH (Laneway)	VE-1 &VE-2	8	31	171
3,198 ft^2	Courtyard TH (Laneway) End	CY-1	29	58	290
3,194 ft^2	Courtyard TH (Laneway) Int	CY-2		52	260
2,105 ft^2	Stacked Decked Manor House (Lower)	SD-1	16	69	207
3,355 ft^2	Stacked Decked Manor House (Upper)	SD-2		69	345
2474 ft^2	Stacked Decked Manor House - Custom	C		5	30
3,337 ft^2	On Street Town House (OSTH) - Int	ST-2	15	23	115
3,738 ft^2	On Street Town House (OSTH) - End	ST-1		30	150
3,345 ft^2	Quads Large - Int	QT-1	26	52	260
3,355 ft^2	Quads Small - Ext	H		27	135
		QT-2		25	125
	OVERALL TOTAL		117	534	2,460

MAIN STREET DECKED TOWN HOME ELEVATIONS & FLOORPLANS

MILLERS POND

FRONT ELEVATION 'A' EXT.
VE-2 (REV)

FRONT ELEVATION 'A' INT.
VE-1

FRONT ELEVATION 'A' INT.
VE-1 (REV)

FRONT ELEVATION 'A' EXT.
VE-2

FRONT ELEVATION 'A'

FRONT ELEVATION 'B' EXT.
VE-2 (REV)

FRONT ELEVATION 'B' INT.
VE-1

FRONT ELEVATION 'B' INT.
VE-1 (REV)

FRONT ELEVATION 'B' EXT.
VE-2

FRONT ELEVATION 'B'

MILLERS POND

FRONT ELEVATION 'C' EXT.
VE-2

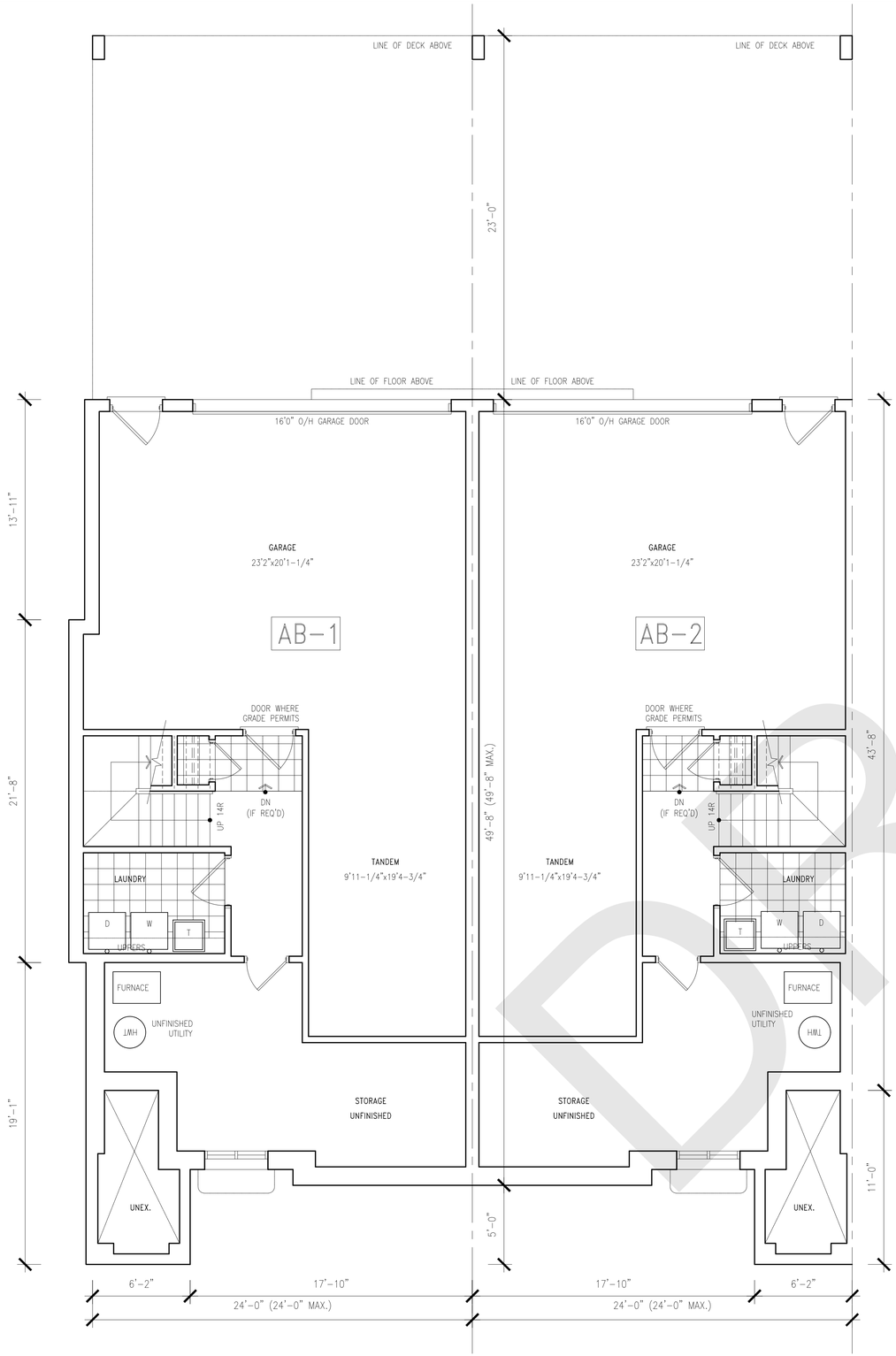
FRONT ELEVATION 'C' INT.
VE-1

FRONT ELEVATION 'C' INT.
VE-1 (REV.)

FRONT ELEVATION 'C' EXT.
VE-2 (REV.)

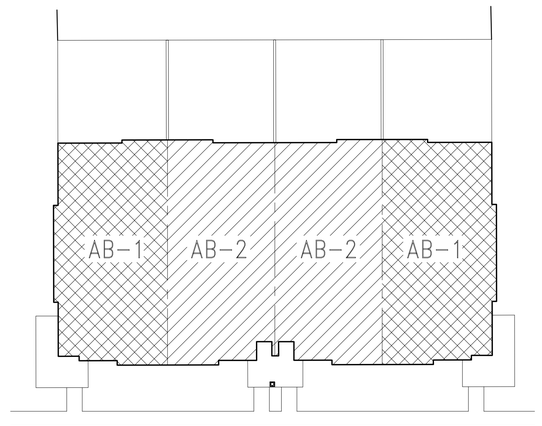
FRONT ELEVATION 'C'

MILLERS POND



1 A-100 AB-1 BASEMENT FLOOR PLAN
SCALE: 1/4" = 1'-0"

2 A-100 AB-2 BASEMENT FLOOR PLAN
SCALE: 1/4" = 1'-0"



DCAK · MSA
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53 HUDSON AVENUE
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www.DCAK-MSA.com
Email: info@DCAK-MSA.com
Tel 845-353-1300

Project name:
MILLERS POND

TYPE AB:
MAIN STREET 24' LOT DECKED
TOWNHOMES 24' LOT

Project Address:
110 Pomona Rd
Pomona, NY 10970

Consultants
MEP Engineering Consultant
Fellenzer Engineering LLP
22 Mulberry Street, Suite 2A
Middletown, NY-10940

Structural Consultant
RCM Technologies USA, Inc.
99 Bauer Drive, Suite 101
Oakland, NJ-07436

Seal:

REVISIONS

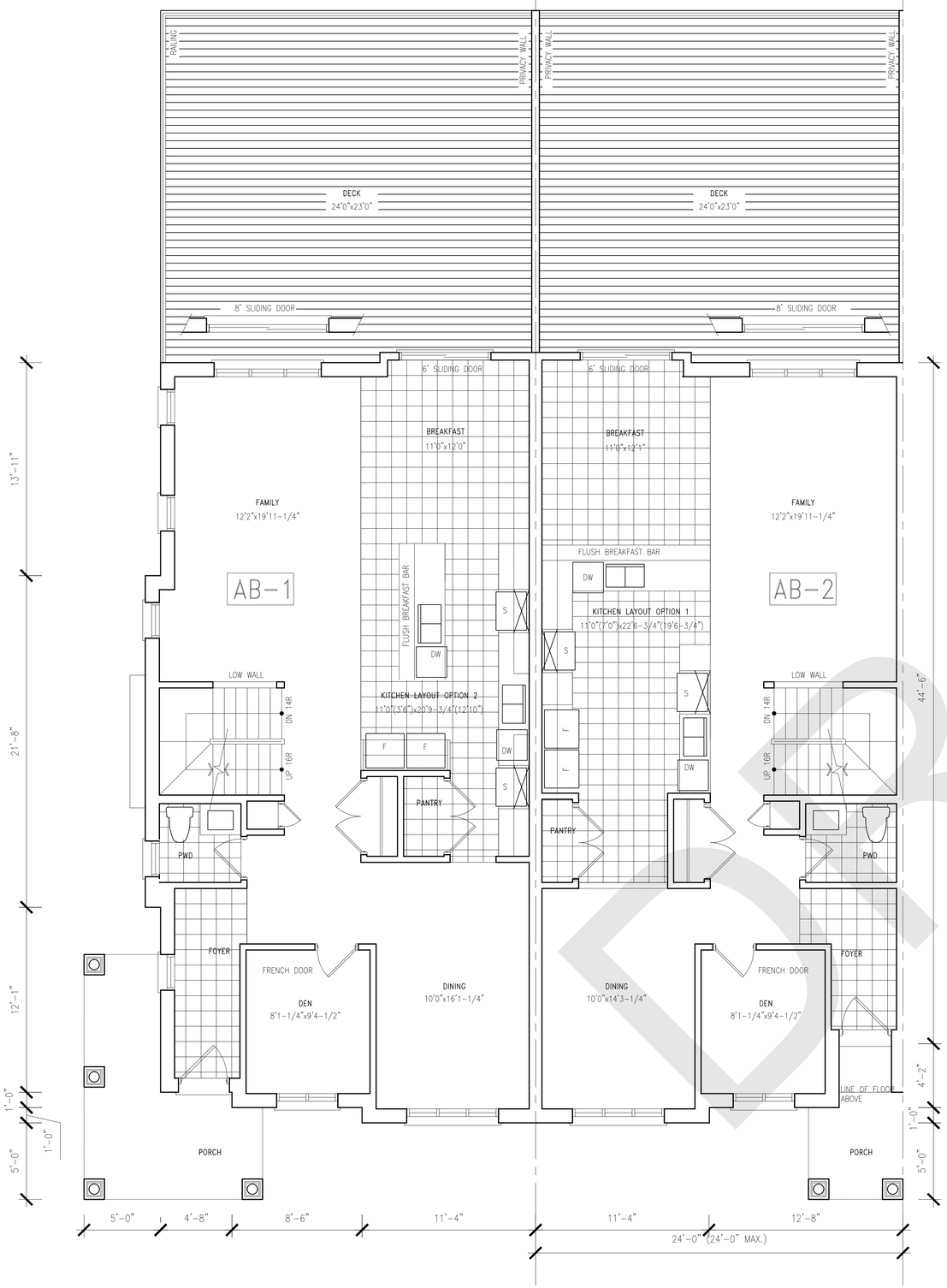
No:	Date:	Description:	Responsible Party:
-	04-27-2020	Concept Revisions	RC

Drawing:
BASEMENT FLOOR PLANS

Project Number:	Responsible Party:	Reviewed By:
20011	SP	DC

Scale:
AS NOTED

Drawing number:
A-100

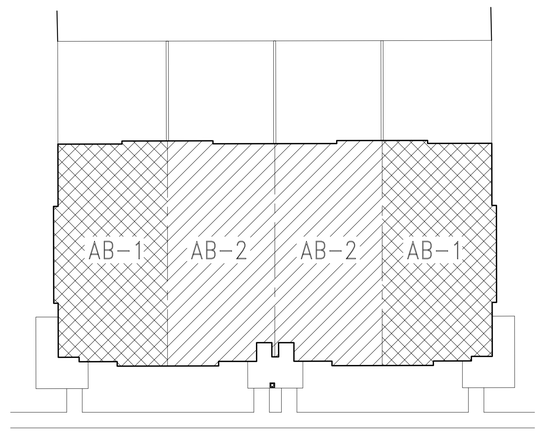


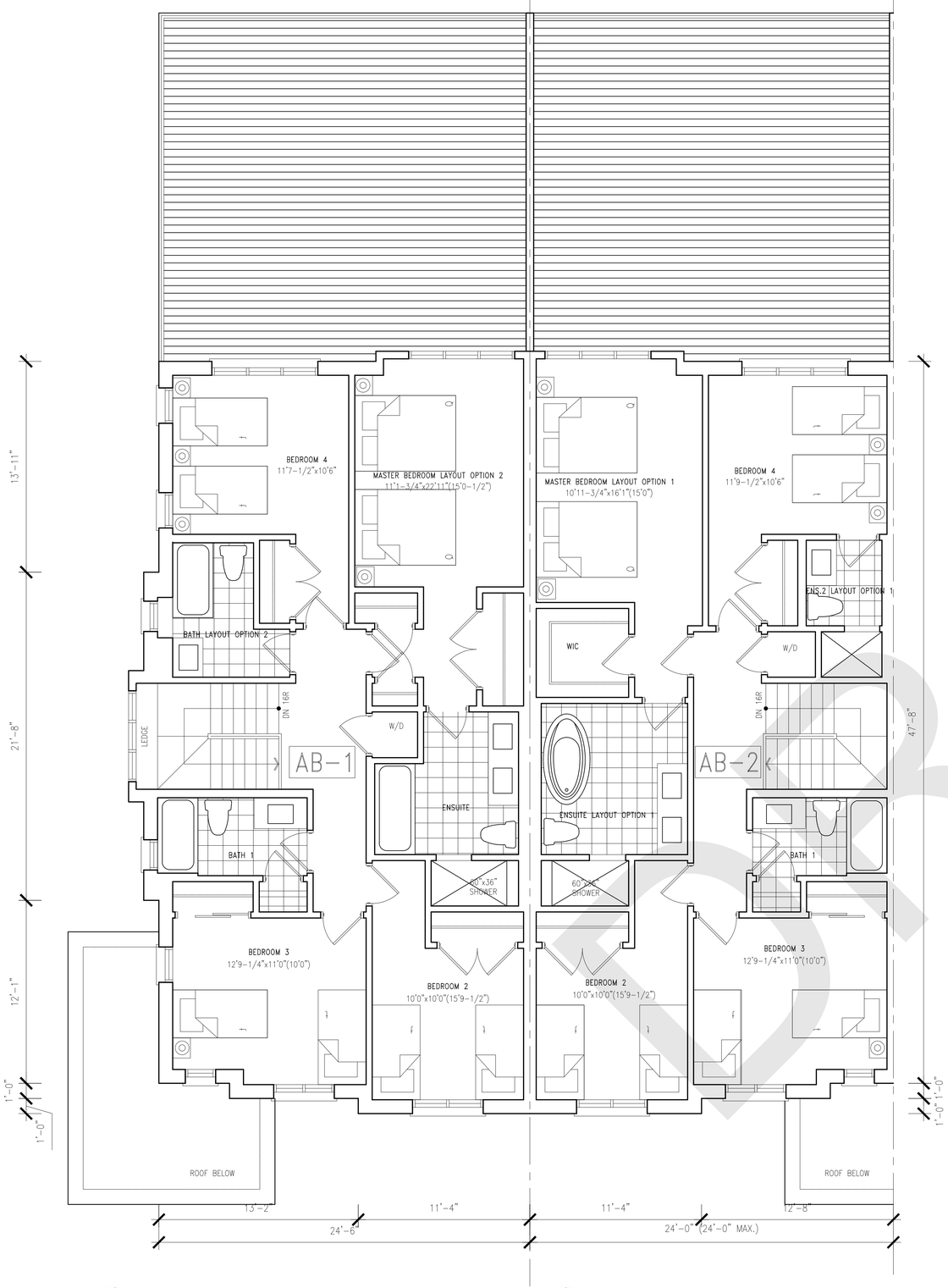
1 A-101 **AB-1 FIRST FLOOR PLAN**

SCALE: 1/4" = 1'-0"

2 A-101 **AB-2 FIRST FLOOR PLAN**

SCALE: 1/4" = 1'-0"



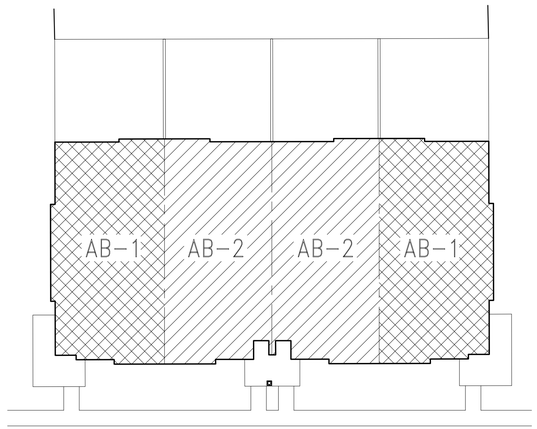


1 A-102 **AB-1 SECOND FLOOR PLAN**

SCALE: 1/4" = 1'-0"

2 A-102 **AB-2 SECOND FLOOR PLAN**

SCALE: 1/4" = 1'-0"



VALLEY EDGE TOWN HOME ELEVATIONS & FLOORPLANS

MILLERS POND

FRONT ELEVATION 'A' EXT.
VE-2 (REV)

FRONT ELEVATION 'A' INT.
VE-1

FRONT ELEVATION 'A' INT.
VE-1 (REV)

FRONT ELEVATION 'A' EXT.
VE-2

FRONT ELEVATION 'A'

FRONT ELEVATION 'B' EXT.
VE-2 (REV)

FRONT ELEVATION 'B' INT.
VE-1

FRONT ELEVATION 'B' INT.
VE-1 (REV)

FRONT ELEVATION 'B' EXT.
VE-2

FRONT ELEVATION 'B'

MILLERS POND

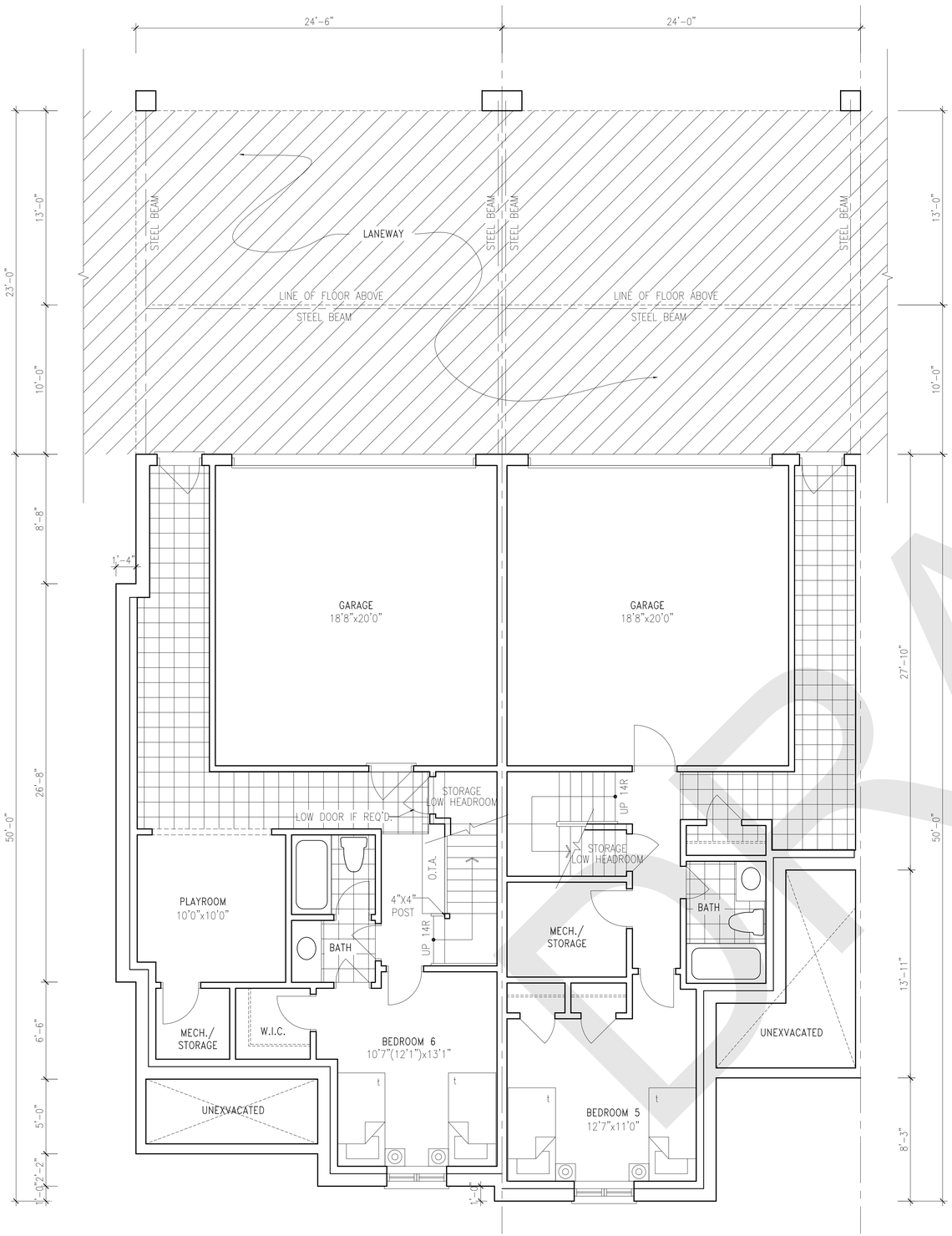
FRONT ELEVATION 'C' EXT.
VE-2

FRONT ELEVATION 'C' INT.
VE-1

FRONT ELEVATION 'C' INT.
VE-1 (REV.)

FRONT ELEVATION 'C' EXT.
VE-2 (REV.)

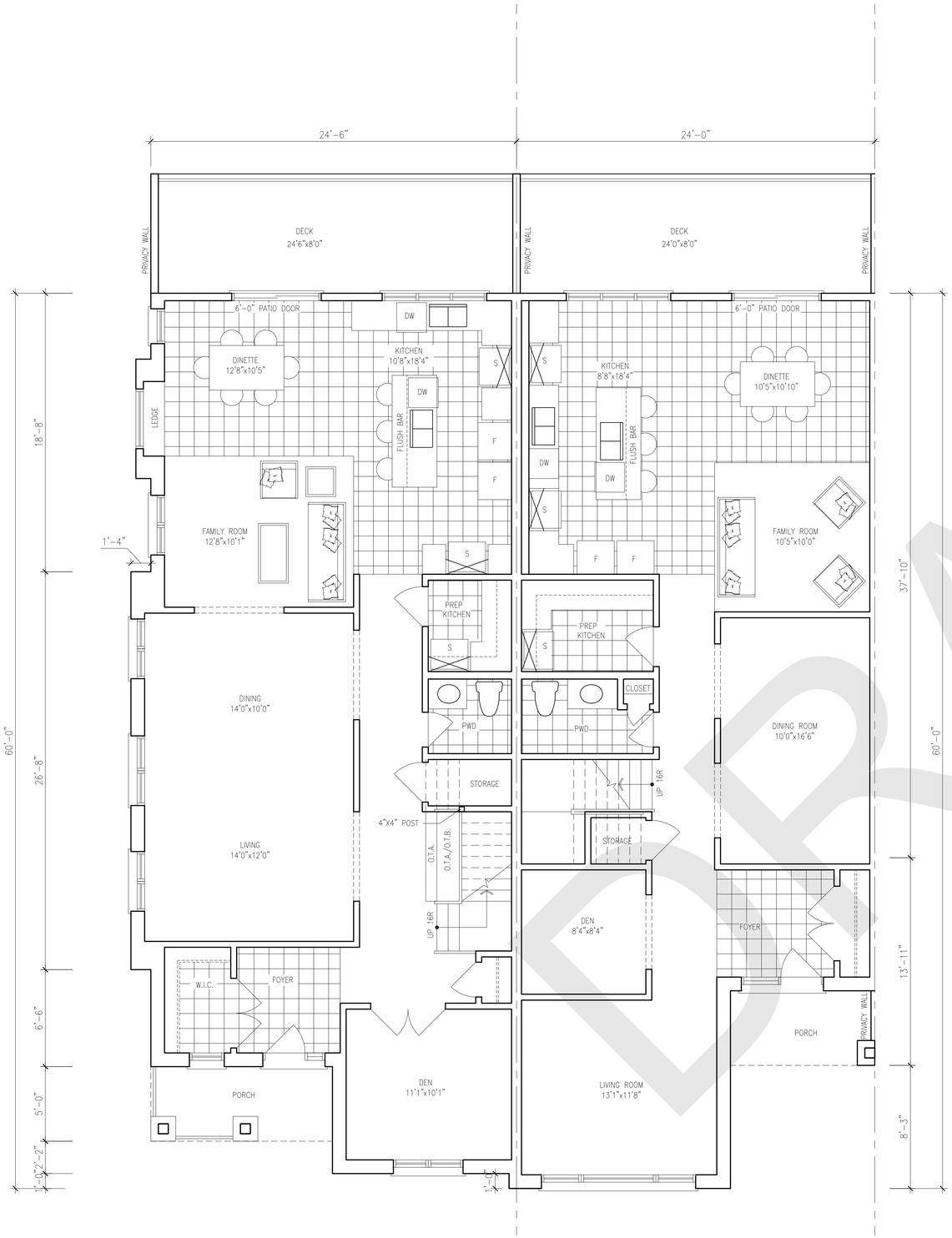
FRONT ELEVATION 'C'



1 A-100.2 BASEMENT FLOOR PLAN (VE-2)
SCALE: 1/4" = 1'-0"

2 A-100.2 BASEMENT FLOOR PLAN (VE-1)
SCALE: 1/4" = 1'-0"

VALLEY EDGE DECKED TH W/ 2 CAR PARKING

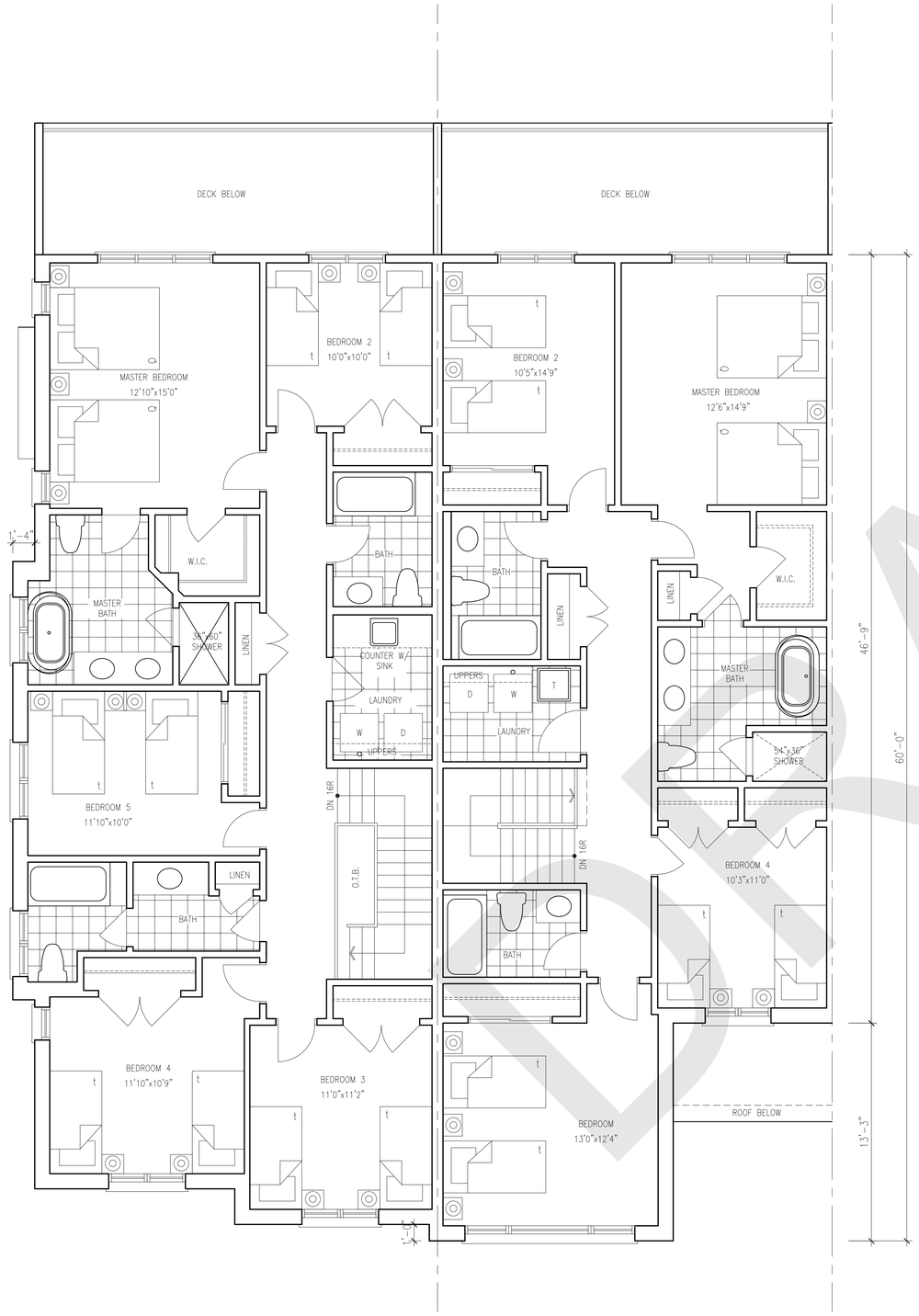


1 A-101 FIRST FLOOR PLAN (VE-2)

SCALE: 1/4" = 1'-0"

2 A-101 FIRST FLOOR PLAN (VE-1)

SCALE: 1/4" = 1'-0"



1 A-102 SECOND FLOOR PLAN (VE-2)
SCALE: 1/4" = 1'-0"

2 A-102 SECOND FLOOR PLAN (VE-1)
SCALE: 1/4" = 1'-0"

COURTYARD TOWN HOME ELEVATIONS & FLOORPLANS

MILLERS POND

FRONT ELEVATION 'A' EXT.
CY '1' (REV)

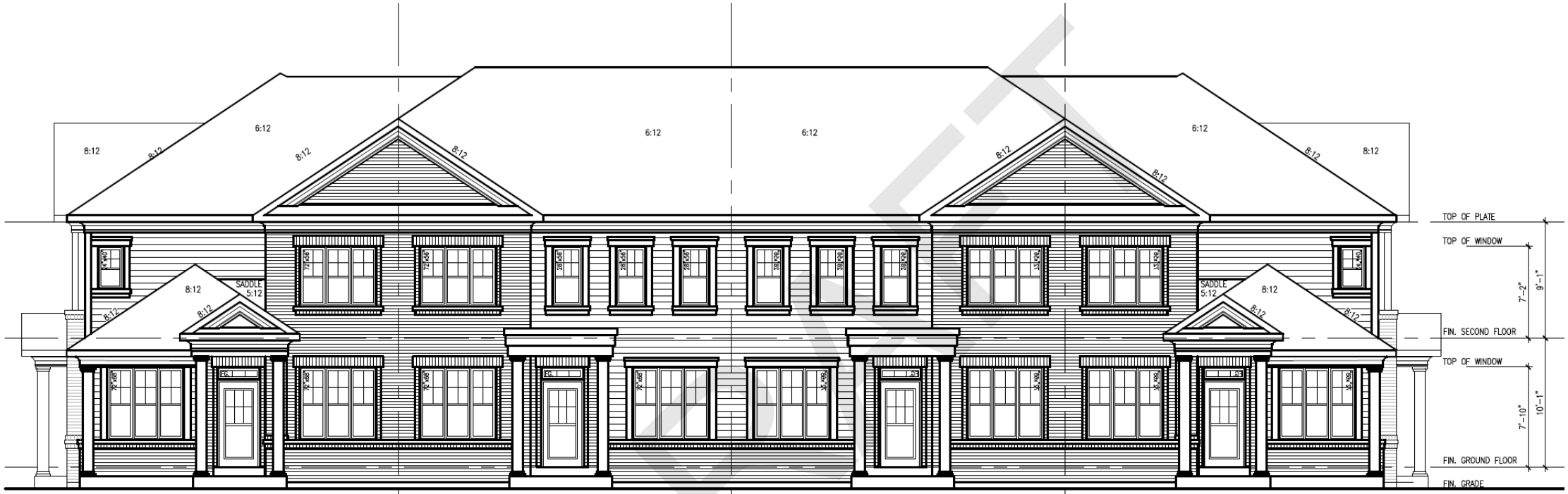
FRONT ELEVATION 'A' INT.
CY '2'

FRONT ELEVATION 'A' INT.
CY '2' (REV.)

FRONT ELEVATION 'A' EXT.
CY '1'

FRONT ELEVATION 'A'

MILLERS POND



FRONT ELEVATION 'B' EXT. UPGRADE TYPE 'C'

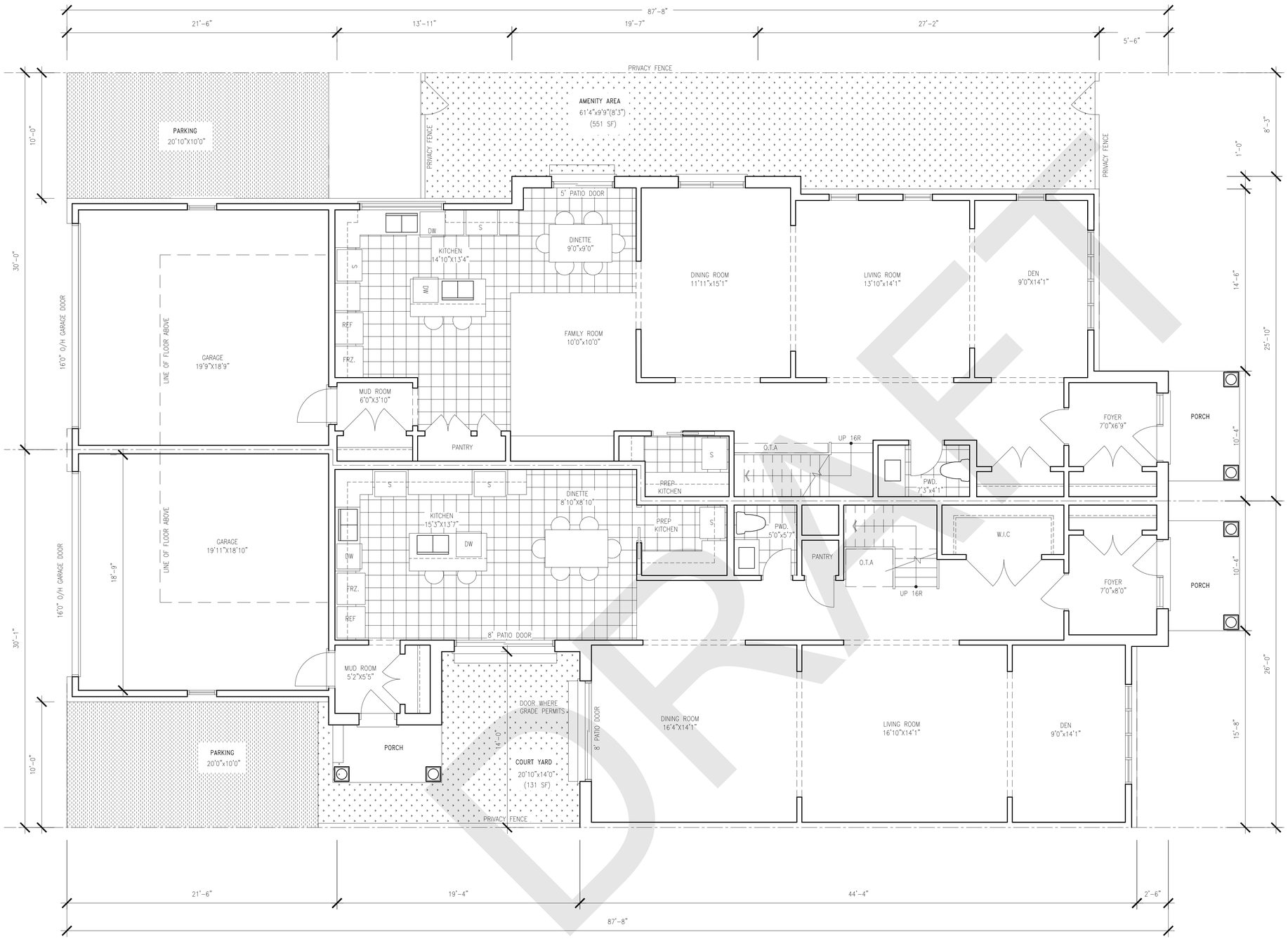
FRONT ELEVATION 'B' INT. TYPE 'C'

FRONT ELEVATION 'B' INT. TYPE 'C'

FRONT ELEVATION 'B' EXT. TYPE 'C'

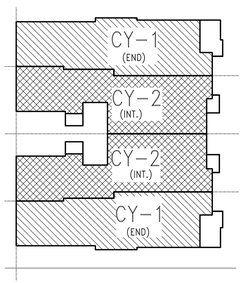
FRONT ELEVATION 'B'

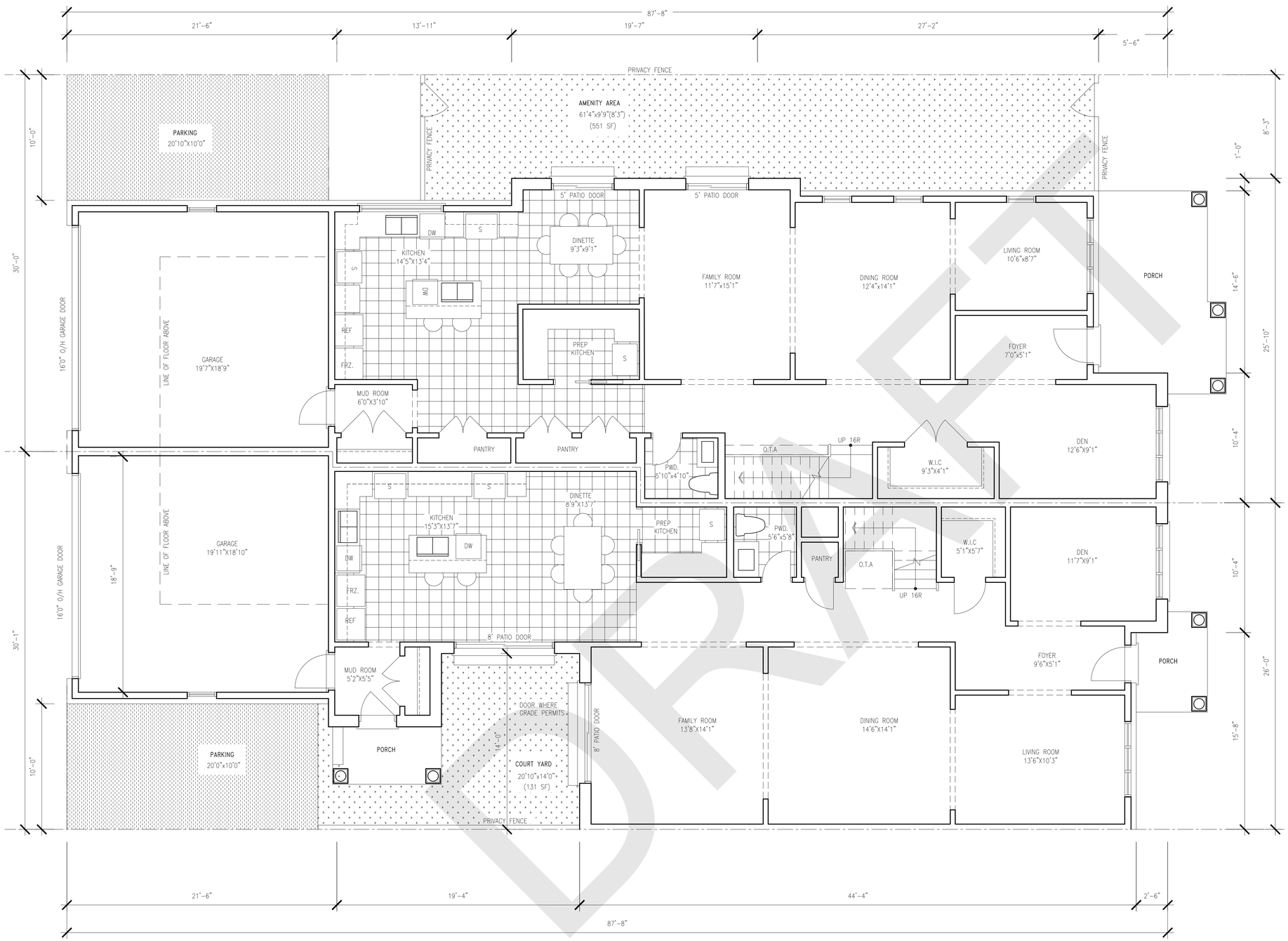
MILLERS POND



1 / A-101.1 FIRST FLOOR PLAN- CY-1 (END)
SCALE: 1/4" = 1'-0"

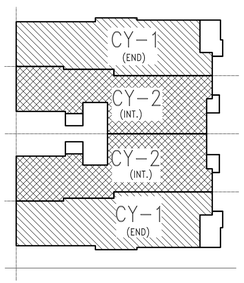
2 / A-101.1 FIRST FLOOR PLAN- CY-2 (INT.)
SCALE: 1/4" = 1'-0"





1 / A-101.2 FIRST FLOOR PLAN- CY-1 (END)
SCALE: 1/4" = 1'-0"

2 / A-101.2 FIRST FLOOR PLAN- CY-2 (INT.)
SCALE: 1/4" = 1'-0"



1 / A-102 SECOND FLOOR PLAN- CY-1 (END)

SCALE: 1/4" = 1'-0"

2 / A-102 SECOND FLOOR PLAN - CY-2 (INT.)

SCALE: 1/4" = 1'-0"

STACKED DECK MANOR TOWN HOME ELEVATIONS & FLOORPLANS

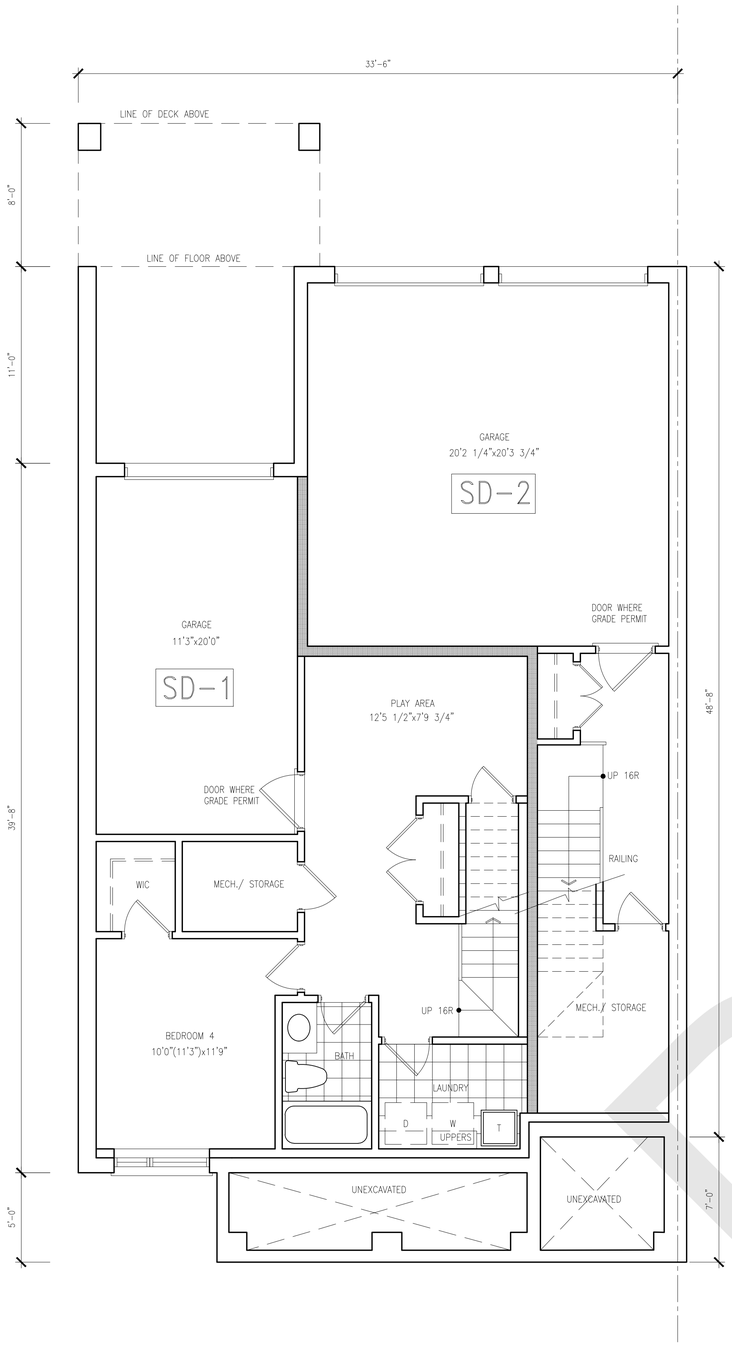
MILLERS POND

FRONT ELEVATION 'A'

MILLERS POND

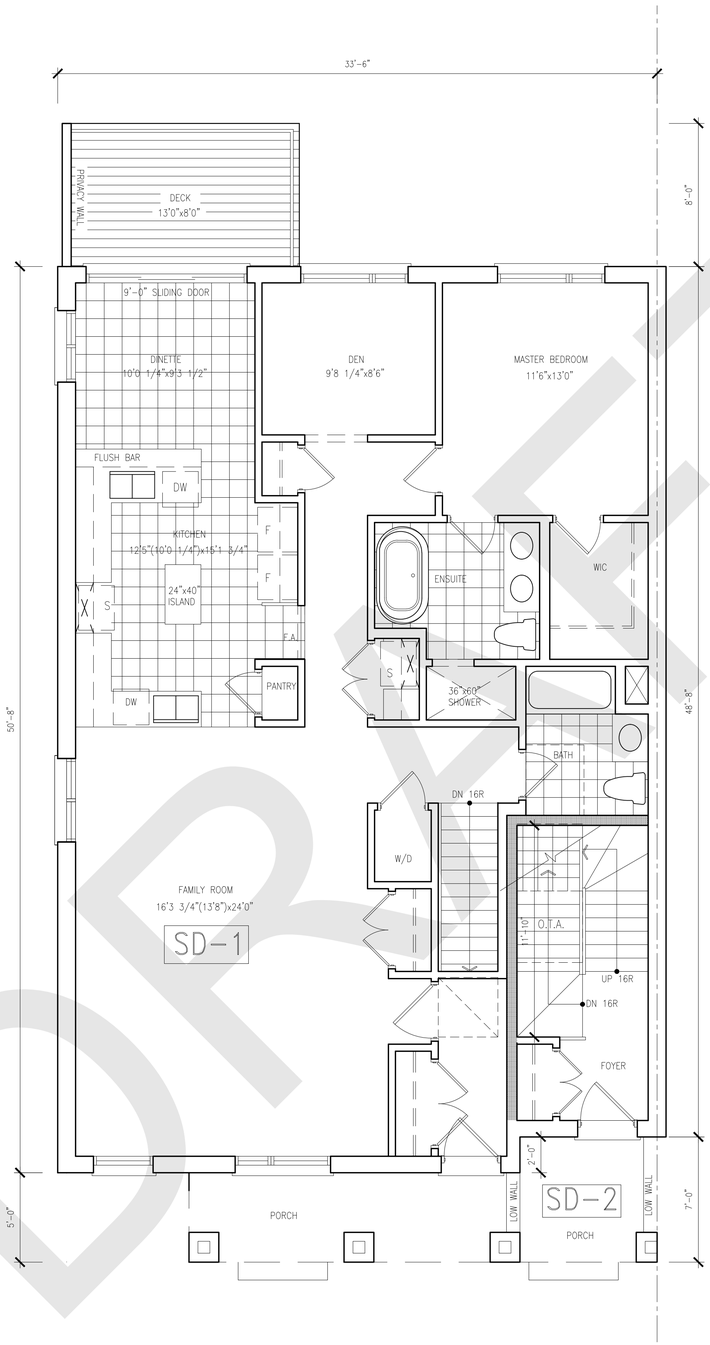
FRONT ELEVATION 'B'

MILLERS POND



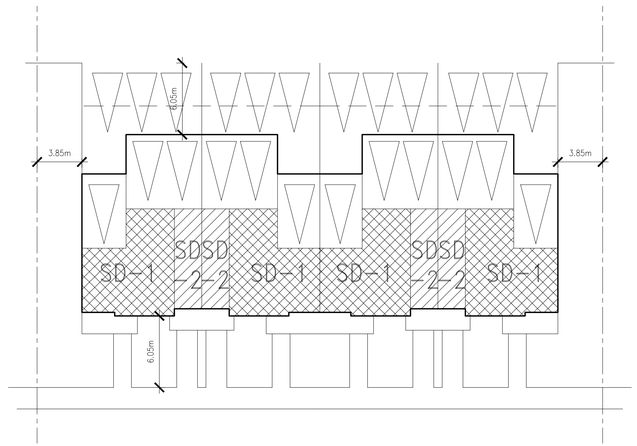
1 A-100 BASEMENT FLOOR PLAN 'A' END COND.

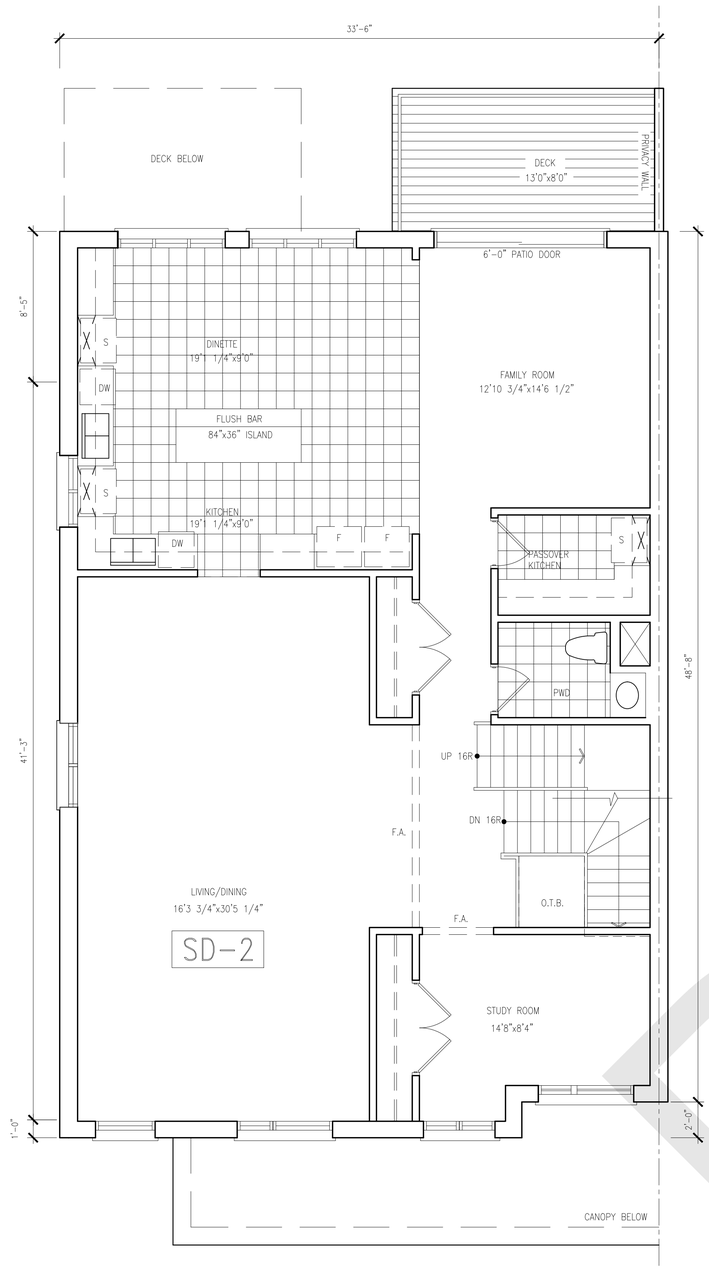
SCALE: 1/4" = 1'-0"



2 A-100 FIRST FLOOR PLAN 'A' END COND.

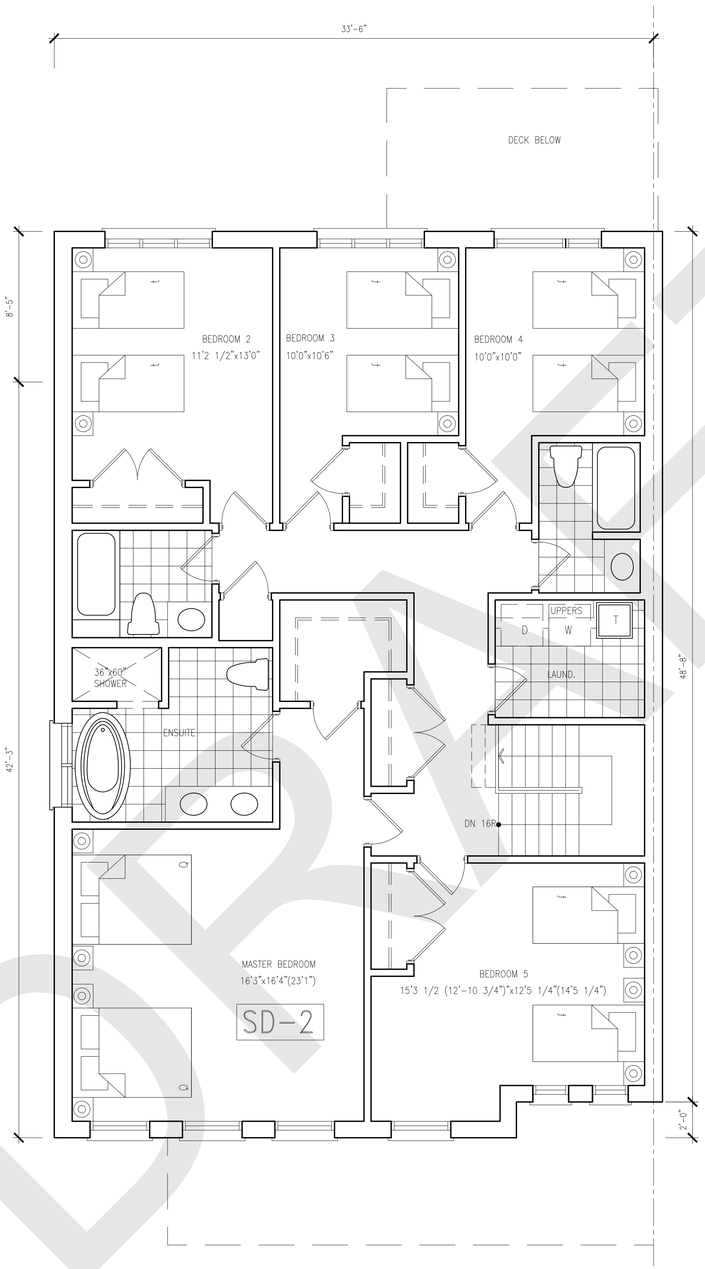
SCALE: 1/4" = 1'-0"





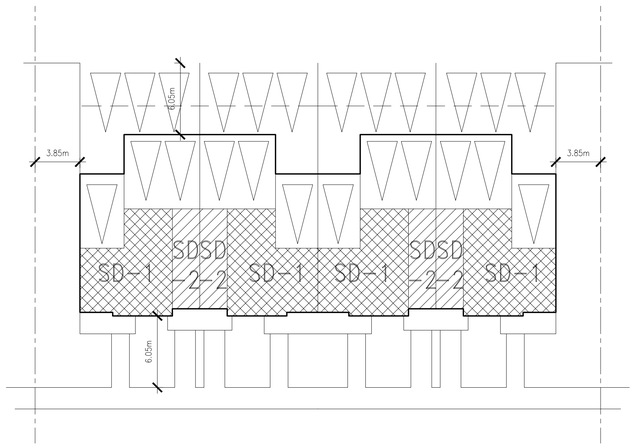
1 A-101 SECOND FLOOR PLAN 'A' END COND.

SCALE: 1/4" = 1'-0"



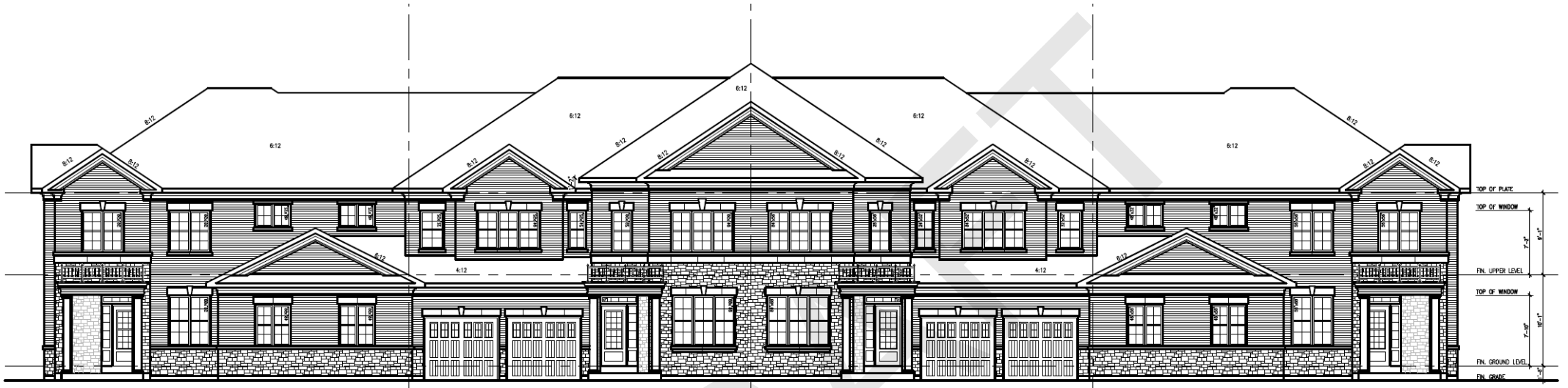
2 A-101 THIRD FLOOR PLAN 'A' END COND.

SCALE: 1/4" = 1'-0"



ON-STREET TOWN HOME ELEVATIONS & FLOORPLANS

MILLERS POND



FRONT ELEVATION 'A'
TYPE 'G'

FRONT ELEVATION 'A'
TYPE 'F'

FRONT ELEVATION 'A'
TYPE 'F'

FRONT ELEVATION 'A'
TYPE 'G'

FRONT ELEVATION 'A'

MILLERS POND

FRONT ELEVATION 'B'
TYPE 'G'

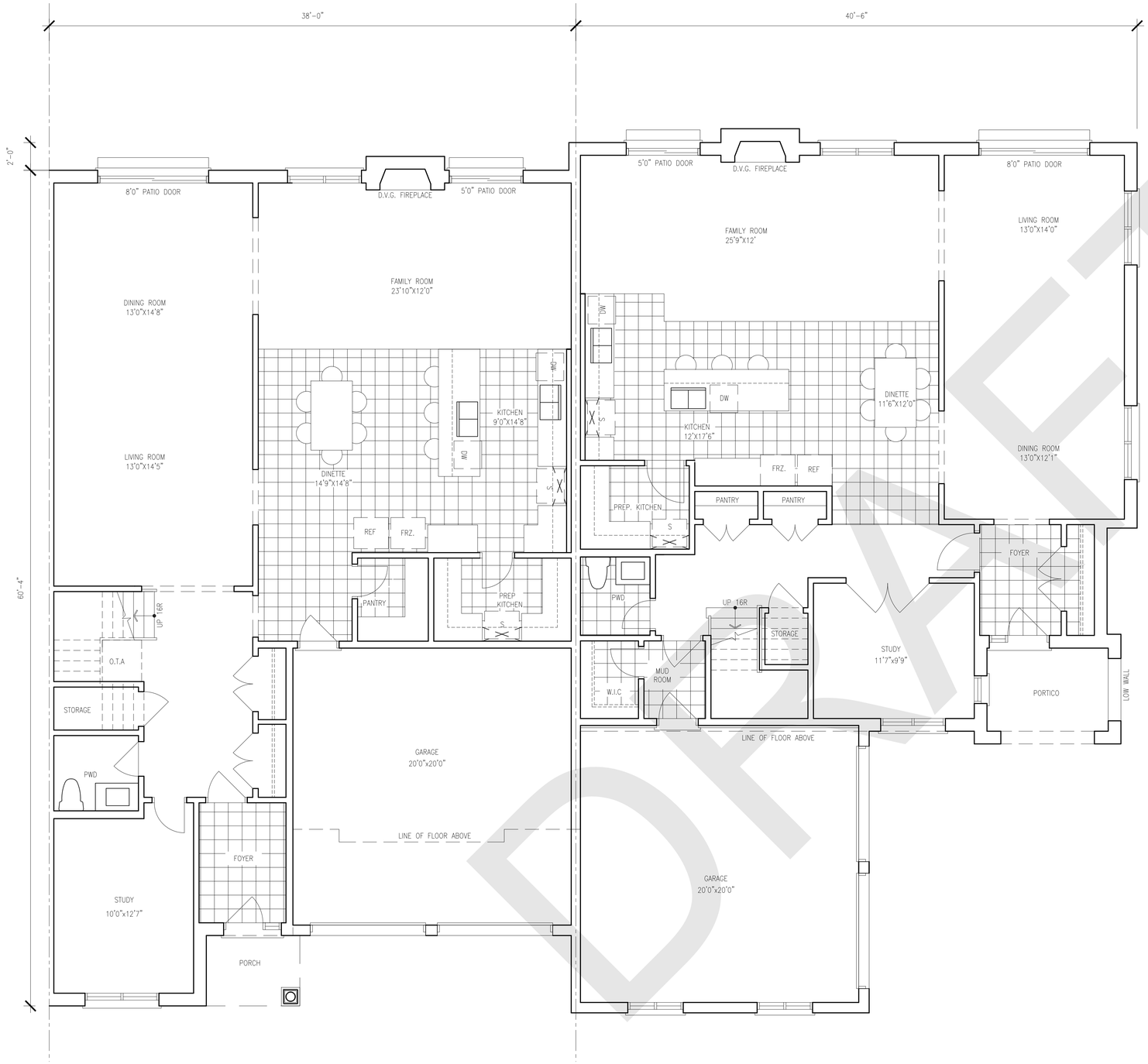
FRONT ELEVATION 'B'
TYPE 'F'

FRONT ELEVATION 'B'
TYPE 'F'

FRONT ELEVATION 'B'
TYPE 'G'

FRONT ELEVATION 'B'

MILLERS POND

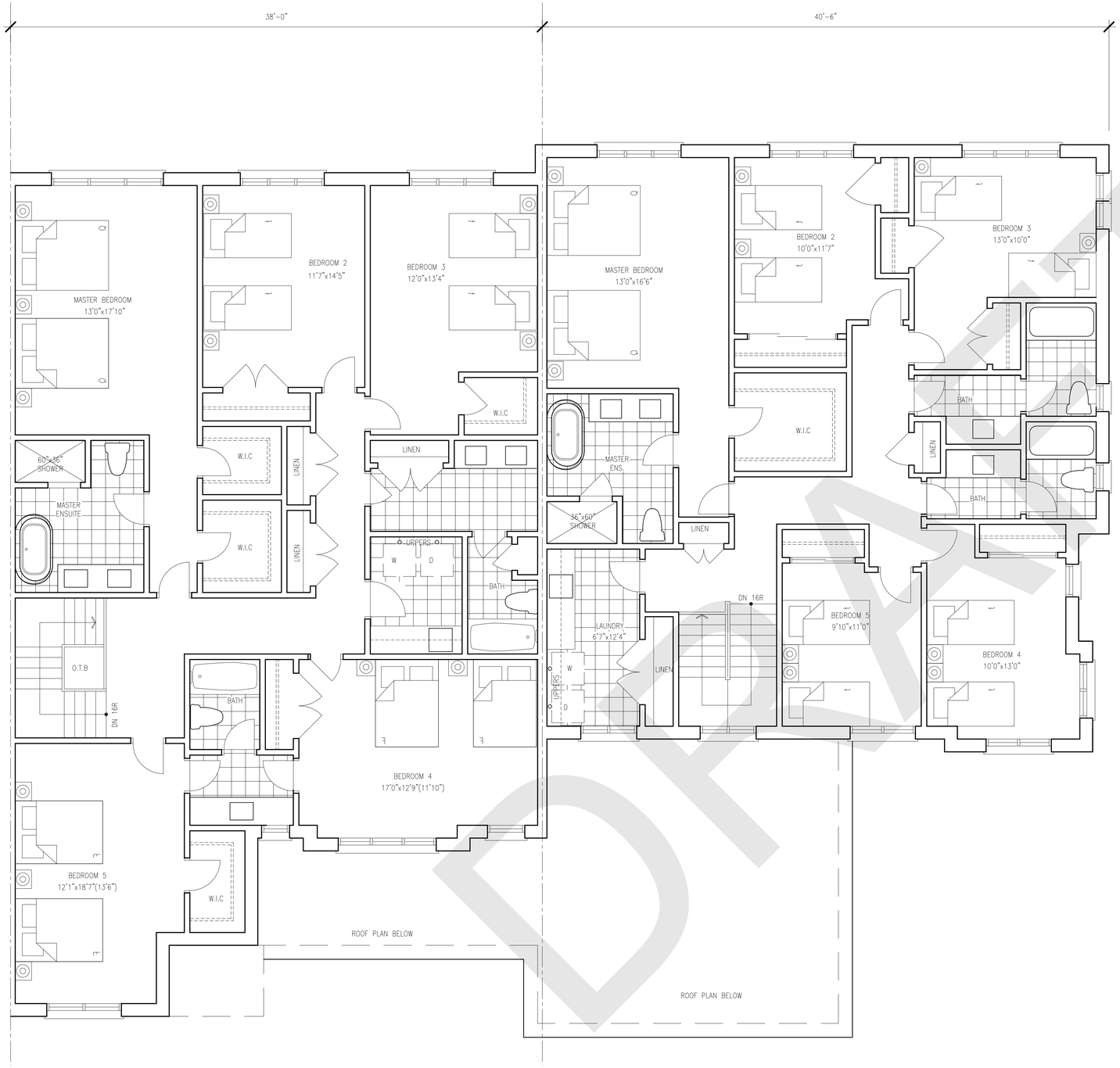


1 A-101 ST-2 FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

2 A-101 ST-1 FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"



1 A-102 ST-2 SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"

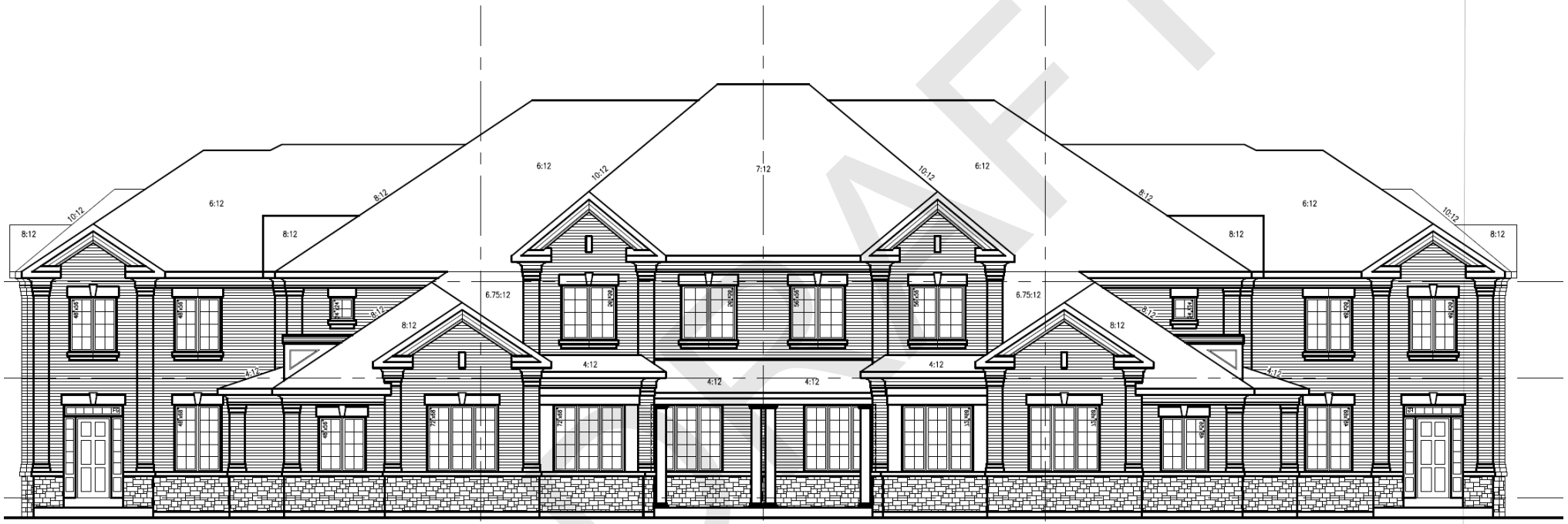
2 A-102 ST-1 SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"

QUAD TOWN HOME ELEVATIONS & FLOORPLANS

MILLERS POND

QUAD TOWN HOME - FRONT ENTRY TYPE ELEVATION



FRONT ELEVATION 'A'
TYPE 'H'

FRONT ELEVATION 'A'
TYPE 'I'

FRONT ELEVATION 'A'
TYPE 'I'

FRONT ELEVATION 'A'
TYPE 'H'

FRONT ELEVATION 'A'

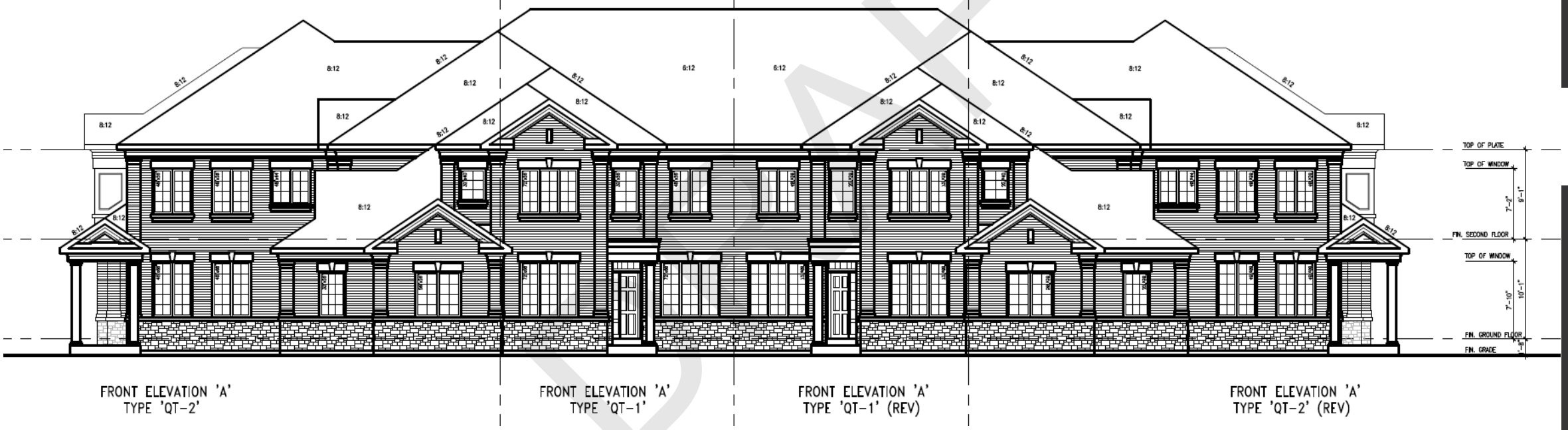
MILLERS POND

QUAD TOWN HOME - FRONT ENTRY TYPE ELEVATION

FRONT ELEVATION 'B'

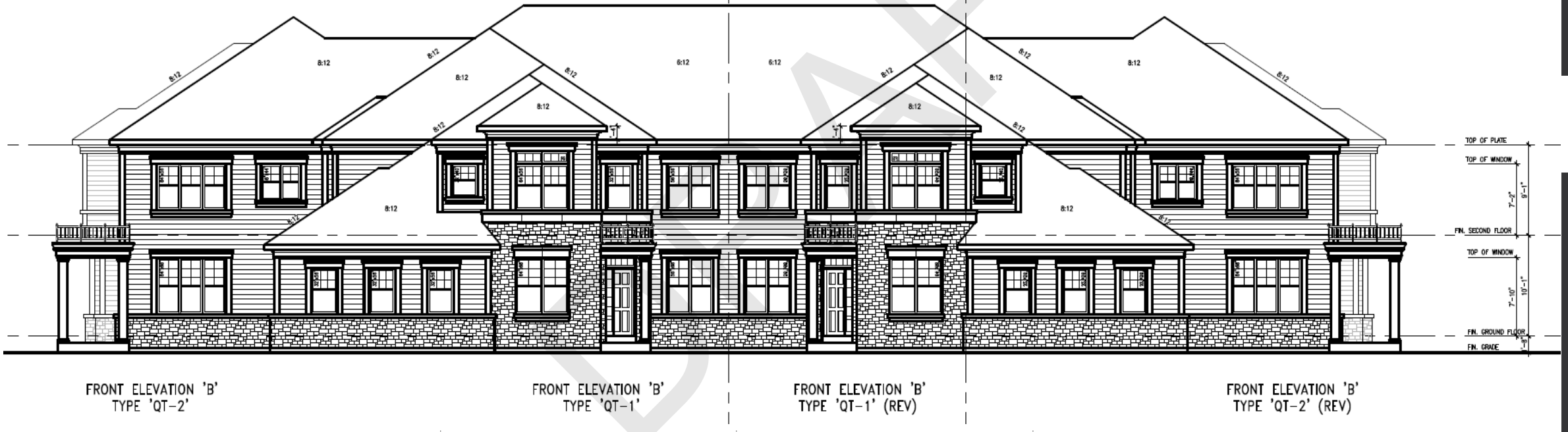
MILLERS POND

QUAD TOWN HOME - SIDE ENTRY TYPE ELEVATION



FRONT ELEVATION 'A'

QUAD TOWN HOME - SIDE ENTRY TYPE ELEVATION



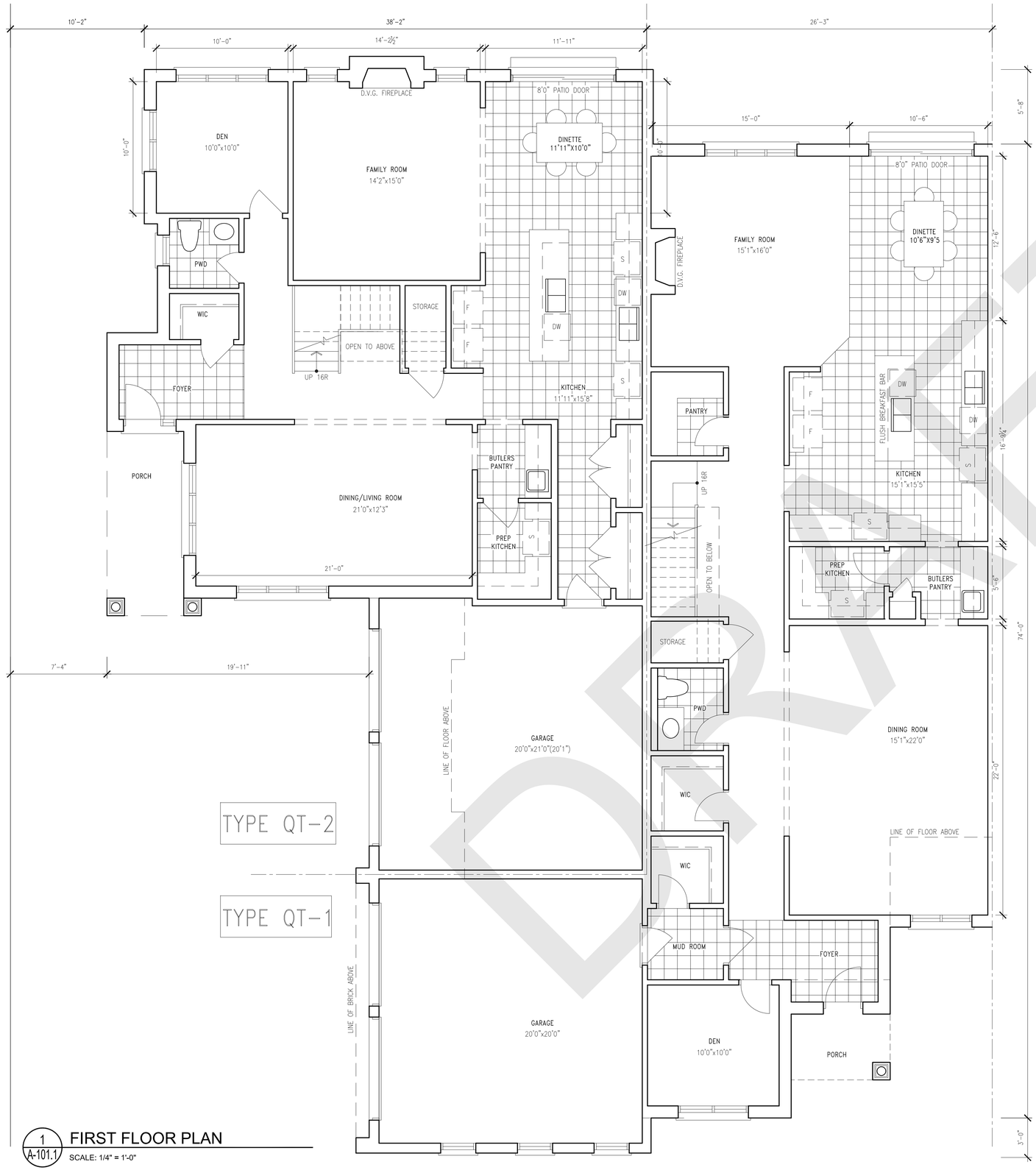
FRONT ELEVATION 'B'
TYPE 'QT-2'

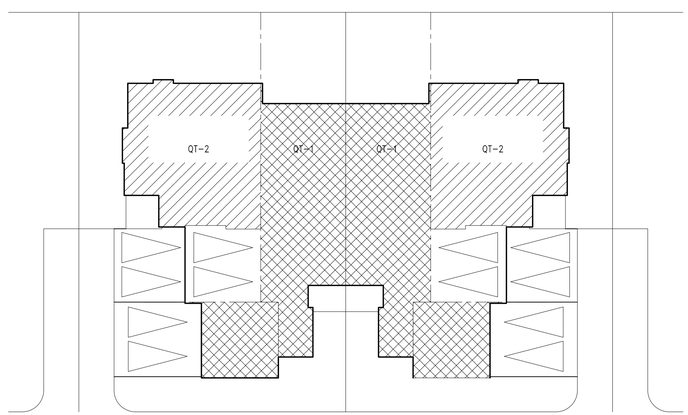
FRONT ELEVATION 'B'
TYPE 'QT-1'

FRONT ELEVATION 'B'
TYPE 'QT-1' (REV)

FRONT ELEVATION 'B'
TYPE 'QT-2' (REV)

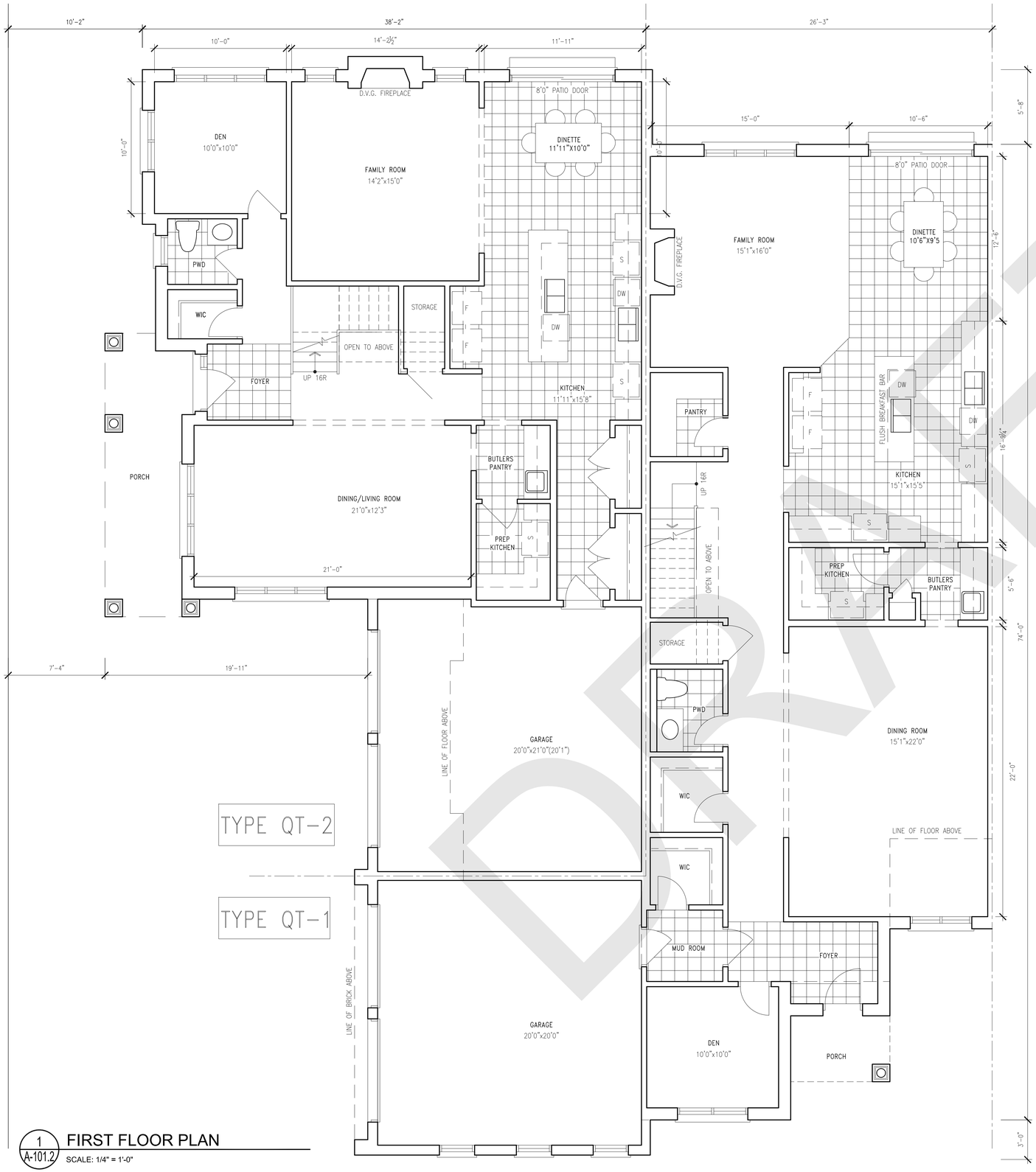
FRONT ELEVATION 'B'





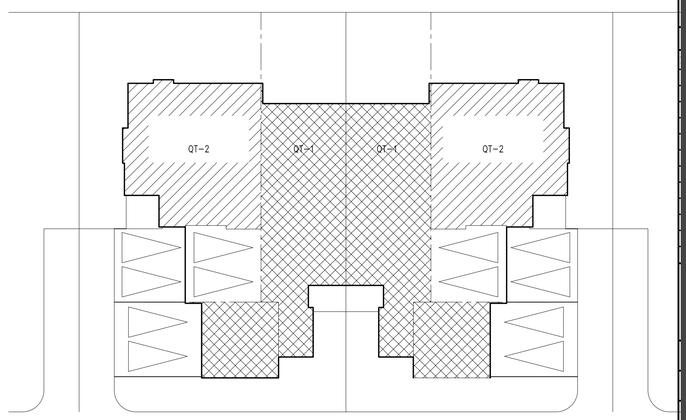
1 A-101.1 FIRST FLOOR PLAN

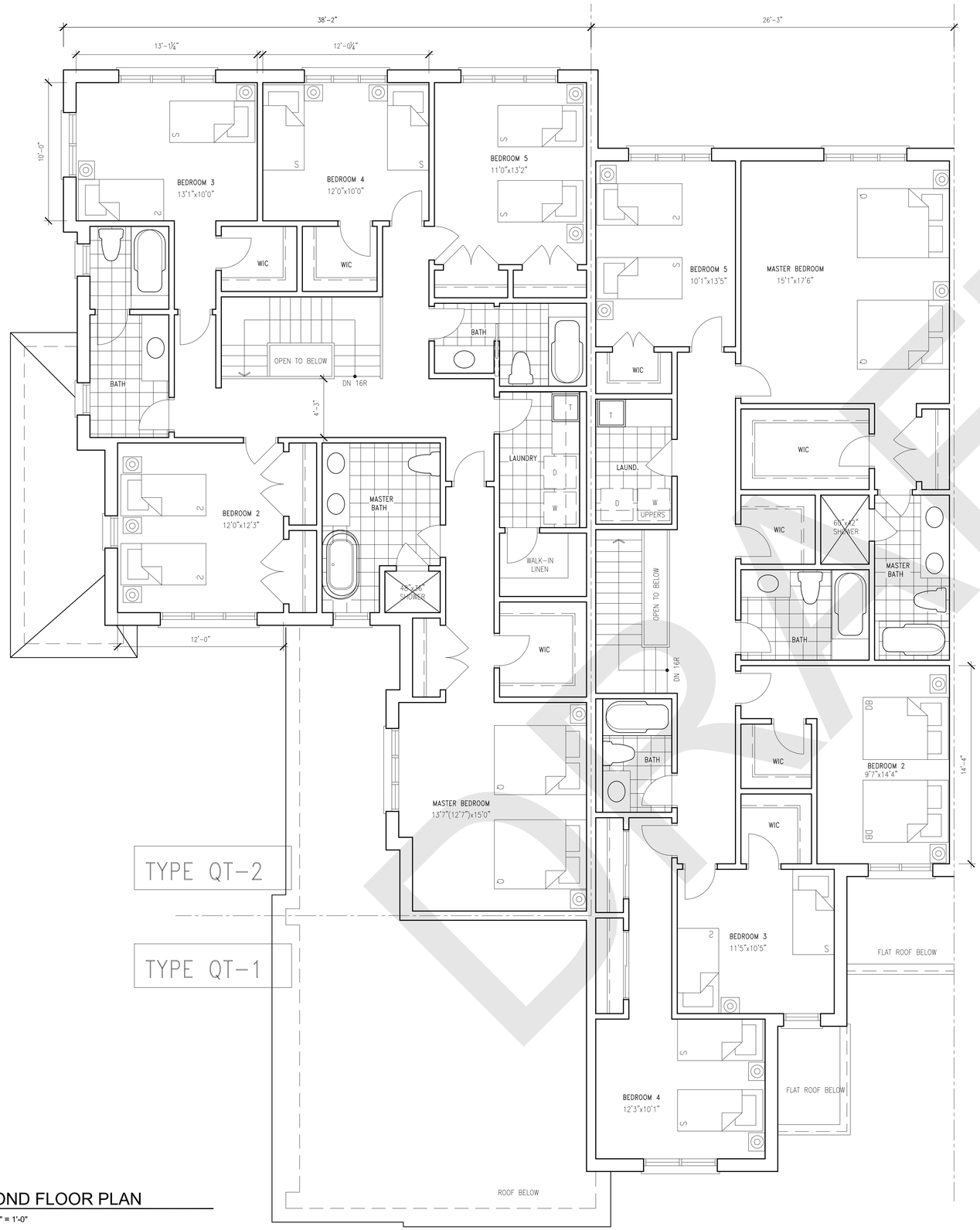
SCALE: 1/4" = 1'-0"



1 A-101.2 FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"





1 / A-102 SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"

MILLERS POND IMAGES

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MILLERS
POND

MILLERS POND

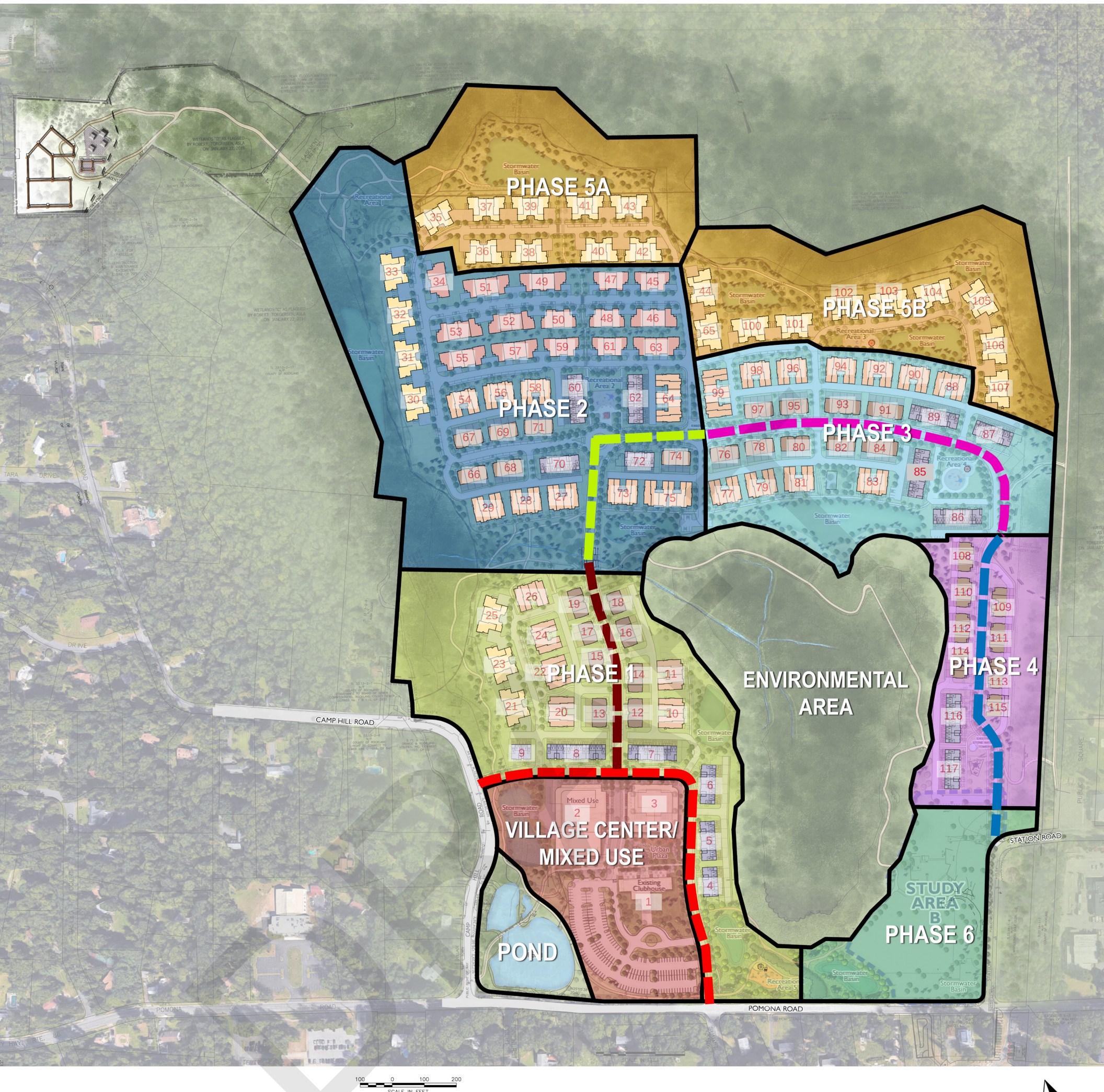
BUILDING HEIGHT SUMMARY

Bldg. No.	Dwelling Type	Building Height in Stories	Building Height in Feet Elevation Options: Option A	Option B	Option C
1	Existing Clubhouse				
2	Mixed Use Building				
3	Retail Building				
4	Stacked Deck Manor Town Home	3	39.875	39.6	
5	Stacked Deck Manor Town Home	3	39.875	39.6	
6	Stacked Deck Manor Town Home	3	39.875	39.6	
7	Stacked Deck Manor Town Home	3	39.875	39.6	
8	Stacked Deck Manor Town Home	3	39.875	39.6	
9	Stacked Deck Manor Town Home	3	39.875	39.6	
10	Courtyard Town Home	2	23.25	25.125	
11	Courtyard Town Home	2	23.25	25.125	
12	Main Street Town Home	2	31.44		
13	Main Street Town Home	2	31.44		
14	Main Street Town Home	2	31.44		
15	Main Street Town Home	2	31.44		
16	Main Street Town Home	2	31.44		
17	Main Street Town Home	2	31.44		
18	Main Street Town Home	2	31.44		
19	Main Street Town Home	2	31.44		
20	Courtyard Town Home	2	23.25	25.125	
21	Quad Town Home	2	26.3	26.1	
22	Courtyard Town Home	2	23.25	25.125	
23	Quad Town Home	2	26.3	26.1	
24	Courtyard Town Home	2	23.25	25.125	
25	Quad Town Home	2	26.3	26.1	
26	Courtyard Town Home	2	23.25	25.125	
27	Courtyard Town Home	2	23.25	25.125	
28	Courtyard Town Home	2	23.25	25.125	
29	Courtyard Town Home	2	23.25	25.125	
30	Quad Town Home	2	26.3	26.1	
31	Quad Town Home	2	26.3	26.1	
32	Quad Town Home	2	26.3	26.1	
33	Quad Town Home	2	26.3	26.1	
34	On-Street Town Home	2	26.25	26.2	
35	Quad Town Home	2	26.3	26.1	
36	Quad Town Home	2	26.3	26.1	
37	Quad Town Home	2	26.3	26.1	
38	Quad Town Home	2	26.3	26.1	
39	Quad Town Home	2	26.3	26.1	
40	Quad Town Home	2	26.3	26.1	
41	Quad Town Home	2	26.3	26.1	
42	Quad Town Home	2	26.3	26.1	
43	Quad Town Home	2	26.3	26.1	
44	Quad Town Home	2	26.3	26.1	
45	On-Street Town Home	2	26.25	26.2	
46	On-Street Town Home	2	26.25	26.2	
47	On-Street Town Home	2	26.25	26.2	
48	On-Street Town Home	2	26.25	26.2	
49	On-Street Town Home	2	26.25	26.2	
50	On-Street Town Home	2	26.25	26.2	
51	On-Street Town Home	2	26.25	26.2	
52	On-Street Town Home	2	26.25	26.2	
53	On-Street Town Home	2	26.25	26.2	
54	Courtyard Town Home	2	23.25	25.125	
55	On-Street Town Home	2	26.25	26.2	
56	Courtyard Town Home	2	23.25	25.125	
57	On-Street Town Home	2	26.25	26.2	
58	Courtyard Town Home	2	23.25	25.125	

		Building Height in	Building Height in Feet Elevation Options:		
Bldg. No.	Dwelling Type	Stories	Option A	Option B	Option C
59	On-Street Town Home	2	26.25	26.2	
60	Stacked Deck Manor Town Home	3	39.875	39.6	
61	On-Street Town Home	2	26.25	26.2	
62	Stacked Deck Manor Town Home	3	39.875	39.6	
63	On-Street Town Home	2	26.25	26.2	
64	Courtyard Town Home	2	23.25	25.125	
65	Quad Town Home	2	26.3	26.1	
66	Main Street Town Home	2	31.44		
67	Main Street Town Home	2	31.44		
68	Main Street Town Home	2	31.44		
69	Main Street Town Home	2	31.44		
70	Stacked Deck Manor Town Home	3	39.875	39.6	
71	Main Street Town Home	2	31.44		
72	Stacked Deck Manor Town Home	3	39.875	39.6	
73	Courtyard Town Home	2	23.25	25.125	
74	Main Street Town Home	2	31.44		
75	Courtyard Town Home	2	23.25	25.125	
76	Main Street Town Home	2	31.44		
77	Courtyard Town Home	2	23.25	25.125	
78	Main Street Town Home	2	31.44		
79	Courtyard Town Home	2	23.25	25.125	
80	Main Street Town Home	2	31.44		
81	Courtyard Town Home	2	23.25	25.125	
82	Main Street Town Home	2	31.44		
83	Courtyard Town Home	2	23.25	25.125	
84	Main Street Town Home	2	31.44		
85	Stacked Deck Manor Town Home	3	39.875	39.6	
86	Stacked Deck Manor Town Home	3	39.875	39.6	
87	Stacked Deck Manor Town Home	3	39.875	39.6	
88	Courtyard Town Home	2	23.25	25.125	
89	Stacked Deck Manor Town Home	3	39.875	39.6	
90	Courtyard Town Home	2	23.25	25.125	
91	Main Street Town Home	2	31.44		
92	Courtyard Town Home	2	23.25	25.125	
93	Main Street Town Home	2	31.44		
94	Courtyard Town Home	2	23.25	25.125	
95	Main Street Town Home	2	31.44		
96	Courtyard Town Home	2	23.25	25.125	
97	Main Street Town Home	2	31.44		
98	Courtyard Town Home	2	23.25	25.125	
99	Courtyard Town Home	2	23.25	25.125	
100	Quad Town Home	2	26.3	26.1	
101	Quad Town Home	2	26.3	26.1	
102	Quad Town Home	2	26.3	26.1	
103	Quad Town Home	2	26.3	26.1	
104	Quad Town Home	2	26.3	26.1	
105	Quad Town Home	2	39.875	39.6	
106	Quad Town Home	2	26.3	26.1	
107	Quad Town Home	2	26.3	26.1	
108	Valley Edge Town Home	2	31.1	31.125	31.5
109	Valley Edge Town Home	2	31.1	31.125	31.5
110	Valley Edge Town Home	2	31.1	31.125	31.5
111	Valley Edge Town Home	2	31.1	31.125	31.5
112	Valley Edge Town Home	2	31.1	31.125	31.5
113	Valley Edge Town Home	2	31.1	31.125	31.5
114	Valley Edge Town Home	2	31.1	31.125	31.5
115	Stacked Deck Manor Town Home	3	39.875	39.6	
116	Valley Edge Town Home	2	31.1	31.125	31.5
117	Stacked Deck Manor Town Home	3	39.875	39.6	

BUILDING NUMBER REFERENCE SITE PLAN

May 8, 2020



LEGEND

- Mixed Use Building
- Commercial Building
- Existing Club House
- Courtyard TH
- Main Street Decked TH
- Stacked Decked Manor House
- O.S.T.H. (On Street Town House)
- Quads
- Community Center House
- Exisiting Trail

Roads

- Spine Road Phase 1A
- Spine Road Phase 1B
- Spine Road Phase 2
- Spine Road Phase 3
- Spine Road 4

Village Center/Mixed Use

Residential

- Phase 1
- Phase 2
- Phase 3
- Phase 4
- Phase 5A & 5B
- Phase 6
- # Building Number

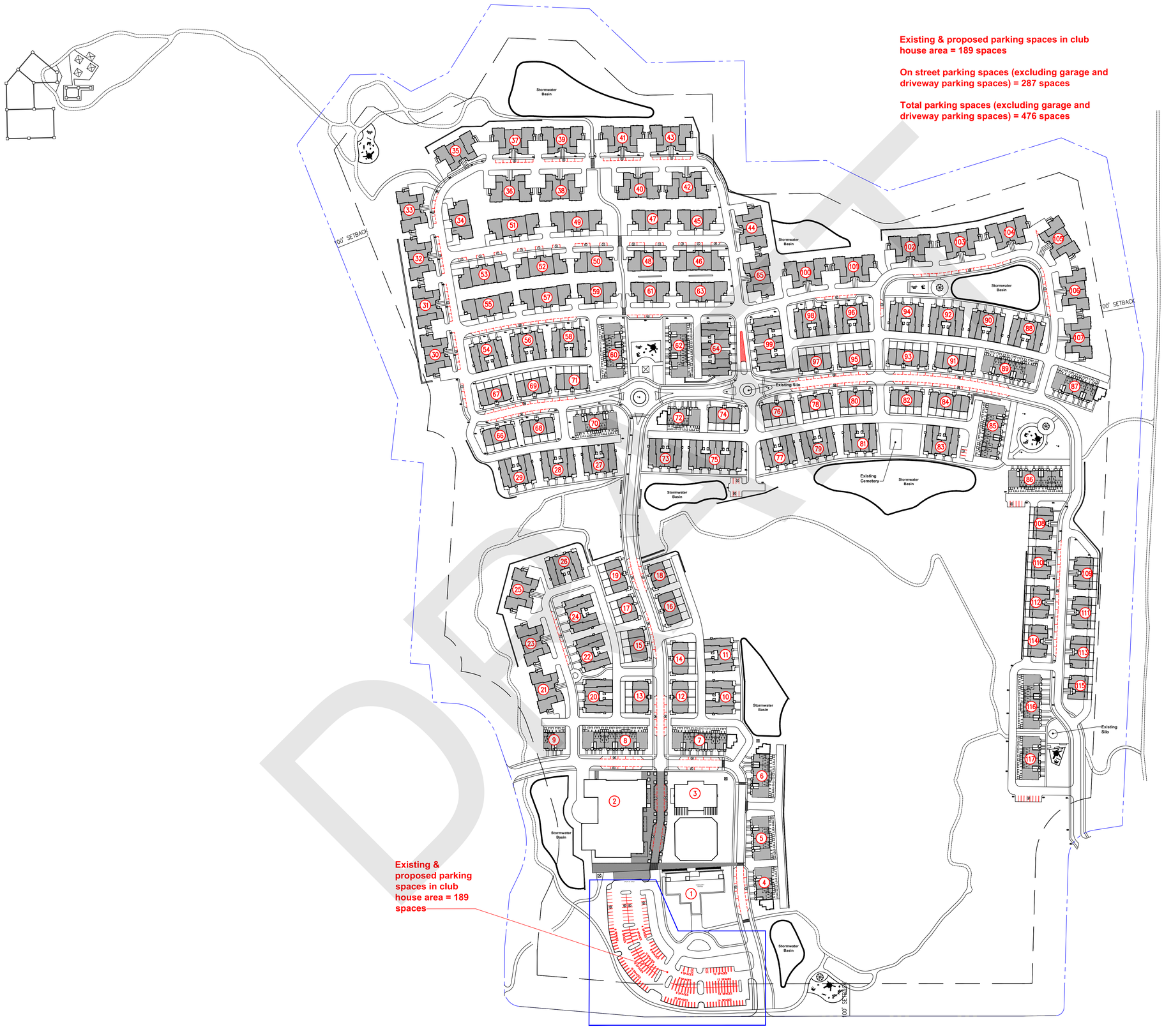
MILLERS POND

LANTREE DEVELOPMENTS

Kimley»Horn

mbtw wai

K:\WHP_Civil\112069000_MillersPond-Ramapo\6. CAD\Planmisc\2020-05-05 Parking count\Parking Count Plan.dwg



NO.	REVISIONS	DATE	BY
	DRAFT for review 03/30/2020		

NOT FOR CONSTRUCTION

Kimley»Horn of New York, P.C.

1 NORTH LEXINGTON AVENUE, SUITE 1575
WHITE PLAINS, NY 10601
PHONE: 914-368-9200
WWW.KIMLEY-HORN.COM

LANTREE DEVELOPMENTS

Michael W. Junghans
N.Y. Professional Engineer
No. 072072

KHA PROJECT	112069000
DATE	XX-XX-20XX
SCALE:	AS SHOWN
DESIGNED BY:	XXX
DRAWN BY:	XXX
CHECKED BY:	MWJ

SURFACE PARKING COUNT

MILLERS POND
RESIDENTIAL DEVELOPMENT
110 POMONA ROAD
SUFFERN, NY 10901
TOWN OF RAMAPO NEW YORK

SHEET NUMBER
PK

Proactive by Design

July 14, 2017
GZA Project No.: 41.0162511.00

Mr. Joseph Kazarnovsky
Mount Ivy LLC
1 Chester Circle
New Brunswick, NJ 08901

Re: Preliminary Geotechnical Engineering Report
Mount Ivy Estates
110 Pomona Road, Ramapo, New York

Dear Mr. Kazarnovsky:

GZA GeoEnvironmental of New York (GZA) is pleased to submit this preliminary geotechnical engineering report to Mount Ivy LLC (Client) for the proposed Mount Ivy Estates project. Our objectives were to evaluate the subsurface conditions at the site and provide preliminary geotechnical engineering design and construction recommendations for the proposed development.

SCOPE OF SERVICES

Our services were performed in accordance with our proposal number 41.P000152.18, dated April 17, 2017, executed on April 20, 2017, and are subject to the terms of our proposal and the limitations presented in Appendix A.

Our scope of services included:

- Research of readily available subsurface data in the project vicinity;
- A preliminary subsurface exploration program consisting of 12 test borings;
- Limited geotechnical laboratory testing;
- Geotechnical engineering analyses of the subsurface conditions encountered at the site;
- Preparation of this preliminary geotechnical engineering report which summarizes our observations and preliminary engineering recommendations for the project.

Elevations in this report are in feet and are referenced to North American Vertical Datum of 1988 (NAVD 88), unless otherwise noted.

SITE AND PROJECT BACKGROUND

Our project understanding is based on the *Concept Layout Drawing*, Drawing No. CSP-17, developed by VHB, dated March 15, 2016, the *Base Plan for Concept Design*, Drawing No. 2, developed by Atzl, Nasher & Zigler, P.C., dated March 9, 2016, our discussions with Kimley Horn and Associates, and through our site visits.

The project site is located on the grounds of the former Minisceogo Golf Course. The roughly 120-acre site is generally bounded by Pomona Road to south, South Camp Hill Road to the west, wooded areas to the north and east, and Station Road to the southeast. Existing golf course structures on the site include a club house, a storage building, tennis courts, a pool, and a parking lot in the southwest corner of the site, as well as four stucco buildings in the southeast corner of the site. The golf course fairways and paths occupy the site north of the existing structures. The South Branch Minisceongo Creek runs along the northwest corner of the site and then generally runs parallel to the western edge of the property in a

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north-south direction. Wetlands have been identified around the northern perimeter of the site and also occupy the southeast quarter of the site.

The ground surface elevations vary widely across the site. In the southwest corner of the site, near the existing golf course facilities, the grades vary from a low of about El 420 to a high of about El 438, rising from west to east. Site grades in the eastern half of the site vary from a low of about El 430 to a high of about El 466 along the eastern property boundary. Site grades north of the central wetlands gradually grade down from a high of about El 440 to about El 400 in both the northeast and northwest corners of the site. A Site Locus has been included as Figure 1.

We understand that the former golf course will be redeveloped into a 582-building mixed-used development including new commercial/retail buildings in the southeast corner of the site and new single-family homes, townhouses, and multi-family residential units in the eastern corner and northern half of the site. The proposed development will also include new roadways, utilities, playgrounds, recreation areas, and stormwater detention basins. Grading plans were not available as of the writing of this report. We have assumed that overall site grading will be limited to cuts and fills of about 5 feet. We have assumed that the proposed buildings will be wood-framed with concrete slabs-on-grade with no below-grade levels. Based on our experience with similar developments, we estimate column loads will be about 75 kips and wall loads will be about 8 kips/linear foot (klf). Our geotechnical engineering recommendations may change depending on final grading plans, the inclusion of basement levels, and/or final structural loads.

SUBSURFACE EXPLORATION PROGRAM

We conducted a preliminary subsurface exploration and laboratory testing program to evaluate the materials underlying the project site. GZA's subsurface exploration program consisted of 12 test borings and geotechnical laboratory testing of selected soil samples obtained from the borings. Figure 2 shows the approximate boring locations. The boring logs and log key are included in Appendix B.

Test Borings

The test borings were advanced by Craig Test Boring Co., Inc., of Mays Landing, New Jersey, under the observation of our field representative between May 30 and June 1, 2017. The borings were advanced using an ATV-mounted drill rig with mud rotary drilling techniques and metal casing as needed to stabilize the boreholes. The borings extended to depths of approximately 11 to 27 feet below the ground surface.

Soil samples were visually classified in the field by our representative in accordance with the Modified Burmister Soil Classification System. Standard Penetration Tests (SPT) were performed during drilling within the top 12 feet of the borings and at five-foot intervals thereafter in general accordance with ASTM D-1586. A 140-pound automatic hammer was used to drive the split-spoon sampler through a distance of 24-inches for each SPT sample. The number of blows required to drive the split-spoon sampler from 6 to 18-inches is known as the N-value, a commonly used indicator of soil density and consistency. The hammer blows and SPT N-values at various depths are recorded on the boring logs as well as the Modified Burmister description for each stratum.

After practical split-spoon sampler refusal, rock coring was performed in five of the 12 test borings using a double-tube NQ-sized rock core barrel. Recovered rock cores were described using the Modified International Society for Rock Mechanics (ISRM) System. The rock description, the amount of rock core sample recovery and the Rock Quality Designations (RQD) for each core run are recorded on the test boring logs. The rock descriptions, recovery values, and RQD values provide a qualitative understanding of the physical and engineering properties of the rock. The RQDs reflect the fracture frequency and spacing within each core run. The RQD for each run is calculated as the summation of intact core pieces 4-inches or more in length divided by the total length of the core run.

Upon completion, the borings were backfilled with soil cuttings, except Boring B-07. A temporary groundwater observation well was installed in Boring B-07 to a depth of approximately 20 feet below the ground surface to enable measurement of groundwater depths. Groundwater depths were recorded during the subsurface exploration program and up to 28 days after drilling.

Soil Laboratory Testing Program

Select soil samples from the borings were sent to Thielsch Engineering, LLC of Cranston, Rhode Island, to check our field classifications and provide data used in the development of our recommendations. Soil testing included grain size distribution tests (ASTM D-422). Laboratory test results are included in Appendix C and have been incorporated in the boring logs and subsurface stratigraphy where applicable.

SITE GEOLOGY AND SUBSURFACE CONDITIONS

Local Geology

Based on our review of available resources, including the *Geologic Map of New York State*, the site is underlain by the Upper Triassic-aged Brunswick Formation, which is underlain by Sandstone and Conglomerate.

Generalized Soil Stratigraphy

Based on the results of our subsurface exploration program, the subsurface conditions at the site generally consist of the following, in order of increasing depth:

- SURFACE COVER – Surface cover at the borings consisted of about 3 to 6-inches of rootmat and topsoil.

- FILL – Fill, consisting of light-brown to brown, fine to coarse grained sand, containing up to 35 percent silt, and up to 20 percent gravel, was encountered in 9 of 12 test borings to depths of approximately 2 to 6 feet. Borings B-01, B-08, and B-11 did not encounter the Fill stratum. The Fill was generally loose to medium dense with SPT N-values ranging from 2 to 15 blows per foot (bpf). The average SPT N-value for the Fill stratum was 8 bpf.

- SAND – A natural Sand stratum, consisting of tan-brown to red-brown, fine to coarse grained sand, containing up to 50 percent silt, and up to 20 percent gravel, was encountered in the test borings to depths of approximately 8 to 27 feet. At boring locations B-04, B-05, B-06, and B-09, the Sand stratum extended to the maximum depth of exploration, about 27 feet. The Sand stratum was generally loose to very dense, with SPT N-values varying between 3 and 50. The average SPT N-value for the Sand stratum was 35 bpf. The USCS for this stratum is generally SM or SP-SM.

- WEATHERED ROCK – Weathered Rock was encountered beneath the Sand stratum in Borings B-01, B-02, B-03, B-07, B-08, B-10, B-11 and B-12 to depths of approximately 6 to 26 feet (El 410 to 447. The Weathered Rock consists of red-brown, fine to coarse grained Sand and Gravel, containing up to 5 percent silt. The Weathered Rock was very dense, with SPT N-values ranging from greater than 50 to hammer refusal.

- ROCK – Rock was encountered below the Weathered Rock stratum and cored at boring locations B-01, B-02, B-03, B-07, B-08, and B-11. The observed Rock consists of red, medium hard to hard, slightly to moderately weathered Sandstone. Measured core recovery values varied from 43 to 93 percent; measured Rock Quality Designation (RQD) values varied from about 41 to 88 percent. The approximate depth and elevation to the top of Weathered Rock and Rock are displayed in the table below.

Approximate Depth and Elevation of Top of Weathered Rock and Rock

Boring Number	Approximate Ground Surface Elevation (ft)	Top of Weathered Rock		Top of Rock	
		Approximate Depth (ft)	Approximate Elevation (ft)	Approximate Depth (ft)	Approximate Elevation (ft)
B-01	425	9	416	15	410
B-02	435	10	425	15	420
B-03	455	2	453	20	435
B-07	455	9	446	15	440
B-08	425	3	422	6	419
B-10	440	18	422	*N/E*	*N/E*
B-11	430	9	421	20	410
B-12	435	25	410	*N/E*	*N/E*
**N/E = not encountered*					

Groundwater

A temporary groundwater observation well was installed in Boring B-06 to a depth of approximately 20 feet below the ground surface. Groundwater was measured during the subsurface exploration program and approximately four weeks after drilling. The measured depth to groundwater varied from about 15.3 feet to 17.0 feet, or about El 414.7 to 413.0. Due to the geologic conditions at the project site, we have assumed that groundwater is likely to be present along the soil-to-rock interface.

Changes in groundwater levels will occur due to variations in seasonal influences, stream levels, precipitation amounts, local pumping, surface runoff, utility leakage, and other factors different from those existing at the time the observations were made.

GEOTECHNICAL ENGINEERING RECOMMENDATIONS FOR PRELIMINARY DESIGN

General Discussion

Our preliminary geotechnical analysis is based on the information developed from our subsurface exploration and laboratory testing programs, the initial design plans, and our assumptions related to site grading and structural loading. We have also assumed that buildings will not be constructed in wetland areas, where highly compressible, unsuitable bearing material is expected to be present.

Existing site grades vary widely across the site and the proposed final site grades are not yet known. For our preliminary analyses, we have assumed that proposed grading will be fairly limited, with maximum cuts and fills of about 5 feet; however, more extensive site grading may impact our design and construction recommendations. Fill was generally encountered in borings to the north and east of the central wetlands, while shallow weathered rock and rock were generally encountered in the borings advanced in the southern half of the site. Final site grading may impact foundation design and constructability.

Based on our preliminary analysis, we recommend shallow spread footing foundations for support of the proposed Mount Ivy Estates structures. Ground improvement techniques may be required in the areas where new structures will be supported on existing fill soils. Rock excavation techniques may also be required to facilitate foundation construction where weathered rock and rock were encountered at shallow depths.

Selection of the final foundation system will depend upon the results of the supplemental subsurface exploration program, the configuration of the proposed structures, finished floor grades, and site grades. If the foundation loads are greater than we have estimated, or if the supplemental subsurface exploration program encounters soft, loose, or otherwise unsuitable materials at proposed foundation bearing grades, an intermediate or deep foundation system may be required.

Shallow Spread Footings

Preliminarily, shallow spread footings are considered suitable for support of the proposed structures. Spread footings should be supported on suitable improved existing Fill (after implementation of some ground improvement), suitable natural Sand, Weathered Rock, Rock, or on new compacted Sand/Gravel structural fill. We anticipate that the allowable bearing pressures for footings founded on the materials mentioned above will range from 2,000 to 12,000 pounds per square foot (psf) per the requirements of the 2015 International Building Code as adopted by New York State (IBCNYS). To account for the variability in the subsurface conditions at the site, we recommend considering a net allowable bearing pressure of 2,000 psf for preliminary design. The preliminary design bearing pressure can be further refined after a review of final grading plans, completion of the supplemental subsurface exploration program, and consideration of the materials encountered at foundation bearing grades.

If unsuitable soils are encountered at the foundation bearing grades (soils that are soft, loose, or wet beyond optimum moisture content), these soils should be excavated and replaced with new compacted Sand/Gravel structural fill.

Section 1809 of the 2015 IBCNYS stipulates a minimum shallow foundation width of 12-inches, and a minimum thickness of 8-inches. However, we recommend a minimum design width of 24-inches for strip footings and 36-inches for spread footings for shear considerations. Footings should be designed to bear a minimum depth of 48-inches below grade for frost protection. Footings bearing on rock may be designed to bear at shallower depths as rock is not susceptible to freeze/thaw cycles.

The recommended coefficient of friction for sliding resistance between concrete footings and natural soils or Sand/Gravel structural fill is 0.25.

Foundation Settlement

We estimate settlement for shallow foundations bearing on suitable fill, undisturbed natural sands, Weathered Rock, and Rock will not exceed about 1-inch. The majority of the settlement will be elastic (short-term) and is expected to occur as structural loads are applied.

Differential settlement between similarly loaded footings bearing on similar materials is not expected to exceed about three quarters of the total settlement value. Potential abrupt differential settlement may occur where adjacent footings are founded on different types of bearing materials (i.e. foundation on rock adjacent to foundations on compacted Sand/Gravel fill). "Hard spots" can be eliminated by undercutting rock at footing subgrade levels and backfilling up to the design subgrade elevation with new compacted Sand/Gravel fill.

Floor Slabs-On-Grade

Floor slabs can be constructed as slabs-on-grade and should be supported on undisturbed natural soil subgrades consisting of the natural Sand strata or upon new compacted Sand/Gravel fill placed over the undisturbed Sand or Weathered Rock. Compacted fill shall meet the gradation and compaction requirements specified in Table 1 and Table 2 at the end of this report, respectively.

Floor slabs-on-grade should be designed using a unit modulus of subgrade reaction of 125 pounds per cubic inch, referenced to a 1-foot by 1-foot square plate area. The recommended modulus value is contingent on subgrade preparation work being performed as described in the Construction Considerations section of this report.

Lateral Earth Pressures (Below-Grade Walls)

If below-grade foundation walls with unbalanced loading are required for the project, they should be designed to resist lateral earth pressures due to soil weight, groundwater, construction equipment, and other surcharges. We recommend an equivalent fluid pressure of 60 pounds per cubic foot (pcf) for the design of all permanent (rigid, fixed) walls and an equivalent fluid pressure of 40 pcf for the design of temporary (flexible, cantilever) walls when exposed to soil lateral loads.

An additional uniform horizontal pressure equal to one-half of the anticipated vertical surcharge load should be used for design of permanent and temporary walls where surcharges are anticipated due to vehicular traffic, adjacent footings, etc.

Seismic Design Parameters

Based on the subsurface conditions encountered in the boring and in accordance with the IBCNYS and ASCE-7, we recommend adopting a Seismic Site Class D for calculation of seismic loading and the corresponding response spectrum as defined in the IBCNYS.

We performed a liquefaction analysis using the methodology set forth by Idriss & Boulanger (2008) considering the SPT N-values, overburden stress, hammer energy, approximate fines content, and design earthquake magnitude of 5.2. The results of the analysis indicate that liquefaction of soil at the site is unlikely for the design earthquake magnitude and does not need to be considered for the building design.

Groundwater Control and Waterproofing

Groundwater was observed in the observation well at depths of approximately 15.3 to 17 feet, about El 414.7 to El 413, indicating that groundwater is potentially perched/trapped or traveling along the top of rock surface. We recommend using a design groundwater elevation of 416 feet (NAVD 88) considering some rise in elevation over time.

We recommend waterproofing all below grade foundation and cellar walls and floor slabs in order to reduce the potential for water infiltration. The waterproofing manufacturer should perform laboratory testing to confirm the compatibility of the waterproofing material with the foundation soils and submit a certificate of compliance to the Client. The contractor installing the waterproofing shall be approved by the waterproofing manufacturer.

CONSTRUCTION RECOMMENDATIONS

Site and Subgrade Preparation

Surface cover, topsoil, tree stumps, and any existing utilities should be completely removed from subgrades prior to placement of grading fill. We encountered about 4 to 6-inches of topsoil in the borings at the Site. Considering the variable nature of the topsoil depth, we recommend a minimum topsoil stripping depth of 6-inches for project planning. The actual depth of topsoil stripping will be dependent on the depths encountered in the field.

Compacted structural fill subgrades should consist of suitable existing fill and the natural soils of the Sand Stratum, Weathered Rock, or Rock. Very loose to loose density Fill and natural Sands were encountered from just below the ground cover materials to depths of 2 to 8 feet in roughly half of the borings. These very loose to loose soils may not be suitable for support of new structural fill, foundations, floor slabs, or pavements, and some additional evaluation of the suitability

of the existing fill soils will likely be required if they are encountered at the proposed fill subgrade elevations. This additional evaluation will likely include proof-rolling, as described below, probing with a penetrometer, drilling hand-auger borings, observing test pits, or a combination of these methods.

Before commencing with fill placement activities, the exposed fill subgrades should be compacted to a stable and firm consistency with a minimum of four passes of a vibratory walk behind double drum roller, or other large compaction equipment. Subgrades should be proof-rolled with a loaded dump truck or other heavy, wheeled equipment to evaluate the subgrade suitability. Areas of unstable ground observed during proof-rolling evidenced by pumping, weaving, or rutting, should be scarified, dried and re-compacted, or over-excavated until the exposed ground is stable and firm and replaced with new compacted granular fill meeting the gradation requirements of Table 1. Compaction methods should be performed as according to Table 2, included at the end of this report.

Subgrades should be kept free of standing water, debris, and ice. Subgrades should be protected from frost and fill should not be placed over frozen soil.

Earthwork

Imported fill material should consist of granular fill and/or Sand-Gravel fill that meets the gradation requirements outlined in Table 1. The fill should be compacted to at least 95 percent of its maximum dry density, as determined by the Modified Proctor Test (ASTM D1557). The recommended maximum loose lift thickness of fill and minimum number of passes of compaction equipment are presented in Table 2. We recommend performing at least one gradation and one moisture-density test per each 300 cubic yards of fill imported to the site.

If on-site excavated material meets the requirements of Table 1, they may be re-used as fill material. Based on the results of the laboratory testing, we anticipate that excavated on-site soils can be reused as granular/structural fill provided they are culled of organics, boulders, construction debris and other deleterious materials and can be adequately compacted. Fill should not contain particles greater than 3-inches.

Scarifying and drying of fill soils is likely to result in delay and may not be possible during the late fall, winter, and spring seasons. We recommend that earthwork be performed during the warmer times of the year – generally from May to October.

Any excess soil should be disposed of off-site in accordance with any applicable local, State, and Federal regulations.

Excavation

The Owner and the Contractor should make themselves aware of and become familiar with applicable local, state, and federal safety regulations, including the current Occupational Safety and Health Administration (OSHA) Excavation and Trench Safety Standards. Construction site safety generally is the sole responsibility of the Contractor, who shall also be solely responsible for the means, methods, and sequencing of construction operations. We are providing this information solely as a service to our client. Under no circumstances should the information provided herein be interpreted to mean that GZA is assuming responsibility for construction site safety or the Contractor's activities, such responsibility is not being implied and shall not be inferred.

The Contractor should be aware that slope height, slope inclination, or excavation depth should in no case exceed those specified in local, state, or federal safety regulations, such as OSHA Health and Safety Standards for Excavations, 29 CFR Part 1926, or successor regulations. Such regulations are strictly enforced and, if they are not followed, the Owner, Contractor, and/or earthwork and utility subcontractors could be liable for substantial penalties.

Per OSHA requirements, if any excavation is extended to a depth of more than 20 feet, a Professional Engineer must design the side slopes and shoring.

Rock Excavation

Weathered Rock and Rock were generally encountered in the southern portion of the Site. Depending on final site grading, Weathered Rock and Rock may be encountered at proposed foundation bearing grades. If rock excavation is required, suitable rock excavation techniques include mechanical excavation with hydraulic hoe-ram/breakers, drilling and chemical splitting, and/or controlled blasting. The method of rock excavation is typically a function of multiple factors, including the Contractor's ability, Owner/Contractor preference, cost analyses, and perceived risk to adjacent structures. We anticipate that drilling and chipping will be the method of choice.

Temporary Groundwater Control

Based on our current understanding of the project, we do not anticipate deep excavations will be required for foundation construction at the site. Considering a design groundwater elevation of 416 feet, we do not anticipate that construction dewatering will be required at the site. However, in the event that construction dewatering is required, we anticipate that pumping of groundwater using submersible pumps will be adequate.

RECOMMENDATIONS FOR A SUPPLEMENTAL GEOTECHNICAL ENGINEERING STUDY

The above discussion of preliminary geotechnical engineering recommendations is intended to give a generalized assessment of the area for site planning and is not intended for final design. A supplemental geotechnical engineering study should be performed at the site during the design phase after final grading plans and structural loading estimates have been completed. The supplemental study should include a sufficient number of borings to determine the depth to the top of rock and bearing stratums for foundations. A more robust geotechnical laboratory testing program should be part of the supplemental engineering study to evaluate the strength and compressibility of the on-site soils, soil permeability, and the moisture content and compaction criteria of anticipated cut soils. Foundation recommendations should include net allowable soil bearing pressure, bearing grades, estimated settlements for spread footings, or intermediate foundation recommendations, if required. Earthwork recommendations should include subgrade preparation and structural fill requirements, recommendations for retaining walls, detention basins, and include pavement design. Additional construction considerations related to the geotechnical engineering recommendations should also be provided in the supplemental geotechnical engineering report.

CLOSING

We appreciate the opportunity to work with you on this project. Should you have any questions, please contact us.
Very truly yours,

GZA GEOENVIRONMENTAL OF NEW YORK

Jesse M. Volpe, P.E.
Assistant Project Manager

Frank J. Romano, P.E.
Project Manager

Cassandra A. Wetzel, P.E.
Associate Principal

Patrick D. Mahon, P.E.
Consultant Reviewer

Attachments:
Table 1 – Recommended Use and Gradation Criteria for Fill Materials
Table 2 – Suggested Compaction Methods
Figure 1 – Site Locus
Figure 2 – Boring Location Plan
Appendix A – Geotechnical Limitations
Appendix B – Boring Log Key and Boring Logs
Appendix C – Laboratory Testing Results

TABLES

Table 1: Recommended Use and Gradation Criteria For Fill Materials

USE OF FILL MATERIAL

Granular Fill: Below footings and slab base course, and 3 feet laterally behind walls provided that amount passing Sieve No. 200 is less than 8 percent.

Sand-Gravel: Slab base course and 3 feet laterally behind walls

Crushed Stone: Drain line backfill and foundation protective layer. Crushed stone should be wrapped in non-woven filter fabric.

GRADATION REQUIREMENTS

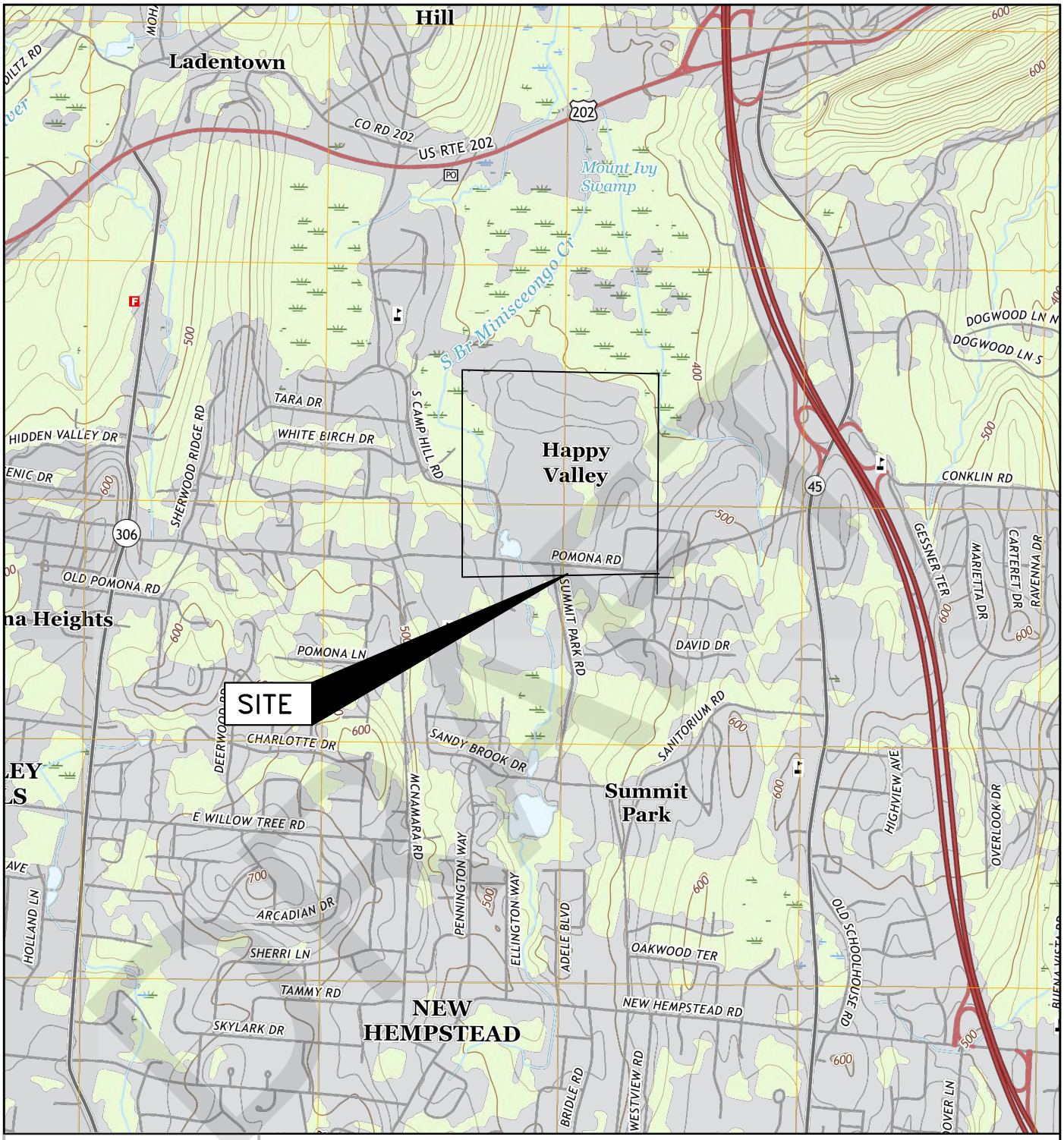
Sieve Size	Percent Finer by Weight
Granular Fill	Shall be free from ice and snow, roots, sod, rubbish and other deleterious or organic matter. Granular Fill shall conform to the following gradation requirements:
2/3 of the loose lift thickness	100
No. 10	30 – 95
No. 40	10 – 70
No. 200	*0 – 15 *0 – 8 where used behind walls
Sand-Gravel	Shall consist of durable sand and gravel and shall be free from ice and snow, roots, sod, rubbish and other deleterious or organic matter. Sand-Gravel shall conform to the following gradation requirements:
3 inch	100
½ inch	50 – 85
No. 4	40 – 75
No. 40	10 – 35
No. 200	0 – 8
Crushed Stone	Shall consist of durable crushed rock or durable crushed gravel stone and shall be free from ice and snow, roots, sod, rubbish and other deleterious or organic matter or material. Crushed Stone shall conform to the following gradation requirements:
1 inch	100
¾ inch	90 – 100
½ inch	10 – 50
3/8 inch	0 – 20
No. 4	0 – 5
No. 200	0 – 1

Table 2: Compaction Methods

Compaction Method	Max. Stone Size*	Maximum Loose Lift Thickness		Minimum Number of Passes	
		Below Structures and Pavement	Less Critical Area	Below Structures and Pavement	Less Critical Area
GRANULAR FILL, SAND-GRAVEL FILL, CRUSHED STONE					
Hand-operated vibratory plate or light roller in confined areas	4"	6"	8"	4	4
Hand-operated vibratory drum rollers weighing at least 1,000# in confined areas	6"	10"	12"	4	4
Light vibratory drum roller Min. weight at drum 3000# Min dynamic force 10,000#	8"	12"	18"	4	4
Medium vibratory drum roller Min. weight at drum 10,000# Min dynamic force 20,000#	8"	18"	24"	6	6

* Indicates not to exceed more than 2/3 the lift thickness

FIGURES



NEW YORK

QUADRANGLE LOCATION

SOURCE:

USGS TOPOGRAPHIC MAPS: THIELLS, NY (2016).
CONTOUR INTERVAL 20 FT., NAVD 1988, ORIGINAL SCALE 1:24,000 (1" = 2000').

N
W E
S

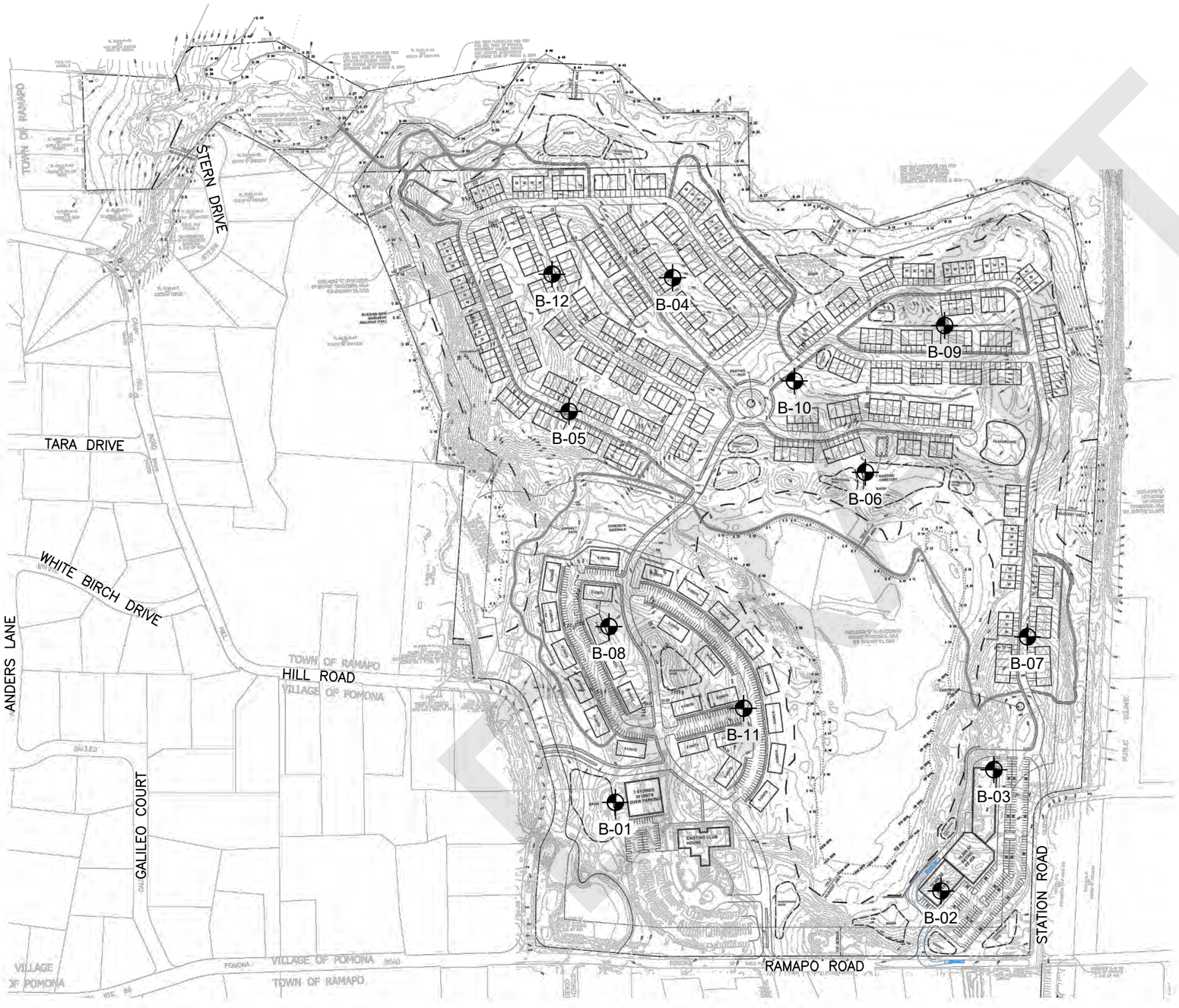
MOUNT IVY ESTATES
110 POMONA ROAD
TOWN OF RAMAPO, NY

PREPARED BY:
GZA GeoEnvironmental of NY
Engineers and Scientists
www.gza.com

PREPARED FOR:
MOUNT IVY, LLC.

SITE LOCUS

PROJ MGR: FR	REVIEWED BY: FR	CHECKED BY: CAW	FIGURE 1
DESIGNED BY: MM	DRAWN BY: MM	SCALE: 1" = 2000'	
DATE: JULY 2017	PROJECT NO. 41.0162511.00	REVISION NO. 0	SHEET NO. 1 OF 2



GENERAL NOTES

1. BASE MAP DEVELOPED FROM DRAWING ENTITLED CSP–17, PREPARED BY VHB ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C., DATED MARCH 15, 2016. ORIGINAL SCALE 1" = 200' AND FROM DRAWING ENTITLED BASE PLAN FOR CONCEPT DESIGN, PREPARED BY ATZL, NASHER & ZIGLER, P.C. ENGINEERS, SURVEYORS, PLANNERS, DATED MARCH 9, 2016.
2. THE SOIL BORING LOCATIONS WERE APPROXIMATELY DETERMINED BY TAPE MEASUREMENTS FROM EXISTING SITE FEATURES AND SHOULD BE CONSIDERED ACCURATE ONLY THE DEGREE IMPLIED BY THE METHOD USED.
3. THE SOIL BORINGS WERE COMPLETED BY CRAIG TEST BORING OF MAYS LANDING, NEW JERSEY BETWEEN MAY 30 AND JUNE 1, 2017. THE TEST BORINGS WERE OBSERVED AND LOGGED BY GZA PERSONNEL.

LEGEND

APPROXIMATE SOIL BORING LOCATION

B-01

N

0 10 400 800

SCALE IN FEET (1" = 400')

NO.	ISSUE/DESCRIPTION	BY	DATE

MOUNT IVY ESTATES
110 POMONA ROAD
TOWN OF RAMAPO, NEW YORK

BORING LOCATION PLAN

PREPARED BY: GZA GeoEnvironmental of NY Engineers and Scientists www.gza.com		PREPARED FOR: MOUNT IVY, LLC.	
PROJ MGR: FR	REVIEWED BY: REV	CHECKED BY: CAW	FIGURE 2
DESIGNED BY: DSP	DRAWN BY: DSP	SCALE: 1" = 400'	
DATE: JULY, 2017	PROJECT NO. 41.062511.00	REVISION NO. 0	SHEET NO. 2 OF 2

APPENDIX A

GEOTECHNICAL LIMITATIONS

GEOTECHNICAL LIMITATIONS

Use of Report

1. GZA prepared this report on behalf of, and for the exclusive use of our Client for the stated purpose(s) and location(s) identified in the Proposal for Services and/or Report. Use of this report, in whole or in part, at other locations, or for other purposes, may lead to inappropriate conclusions; and we do not accept any responsibility for the consequences of such use(s). Further, reliance by any party not expressly identified in the agreement, for any use, without our prior written permission, shall be at that party's sole risk, and without any liability to GZA.

Standard of Care

2. GZA's findings and conclusions are based on the work conducted as part of the Scope of Services set forth in Proposal for Services and/or Report, and reflect our professional judgment. These findings and conclusions must be considered not as scientific or engineering certainties, but rather as our professional opinions concerning the limited data gathered during the course of our work. If conditions other than those described in this report are found at the subject location(s), or the design has been altered in any way, GZA shall be so notified and afforded the opportunity to revise the report, as appropriate, to reflect the unanticipated changed conditions.

3. GZA's services were performed using the degree of skill and care ordinarily exercised by qualified professionals performing the same type of services, at the same time, under similar conditions, at the same or a similar property. No warranty, expressed or implied, is made.

Subsurface Conditions

4. The generalized subsurface conditions provided in our Report are based on widely-spaced subsurface explorations and are intended only to convey trends in subsurface conditions. The boundaries between strata are approximate and idealized, and were based on our assessment of subsurface conditions. The composition of strata, and the transitions between strata, may be more variable and more complex than indicated. For more specific information on soil conditions at a specific location refer to the exploration logs.

5. In preparing this report, GZA relied on certain information provided by the Client, state and local officials, and other parties referenced therein which were made available to GZA at the time of our evaluation. GZA did not attempt to independently verify the accuracy or completeness of all information reviewed or received during the course of this evaluation.

6. Water level readings have been made in test holes (as described in the Report) and monitoring wells at the specified times and under the stated conditions. These data have been reviewed and interpretations have been made in this Report. Fluctuations in the level of the groundwater however occur due to temporal or spatial variations in areal recharge rates, soil heterogeneities, the presence of subsurface utilities, and/or natural or artificially induced perturbations. The water table encountered in the course of the work may differ from that indicated in the Report.

7. GZA's services did not include an assessment of the presence of oil or hazardous materials at the property. Consequently, we did not consider the potential impacts (if any) that contaminants in soil or groundwater may have on construction activities, or the use of structures on the property.

8. Recommendations for foundation drainage, waterproofing, and moisture control address the conventional geotechnical engineering aspects of seepage control. These recommendations may not preclude an environment that allows the infestation of mold or other biological pollutants.

Compliance with Codes and Regulations

9. We used reasonable care in identifying and interpreting applicable codes and regulations. These codes and regulations are subject to various, and possibly contradictory, interpretations. Compliance with codes and regulations by other parties is beyond our control.

Additional Services

10. GZA recommends that we be retained to provide services during any future: site observations, design, implementation activities, construction and/or property development/redevelopment. This will allow us the opportunity to: i) observe conditions and compliance with our design concepts and opinions; ii) allow for changes in the event that conditions are other than anticipated; iii) provide modifications to our design; and iv) assess the consequences of changes in technologies and/or regulations.

APPENDIX B

BORING LOG KEY AND BORING LOGS

Modified Burmister Soil Classification

Soil samples are visually classified by the Modified Burmister System using the following format and order:

1. Density or Consistency
2. Color
3. MAJOR SOIL TYPE
4. Minor Components
5. Special Components

Density or Consistency – Density or consistency estimates are based on the measured N-Values obtained from the Standard Penetration Test (SPT). For granular soils (sand, gravel, silt), density is reported. For plastic soils, consistency is reported. Broken gravel, if encountered at the tip of the spoon, is indicated on the log and will affect the measured SPT N-Value.

Table A-1: Density and Consistency of Soils

Granular Soils		Plastic Soils	
SPT N-Value	Relative Density	SPT N-Value	Consistency
0-4	Very Loose	<2	Very Soft
4-10	Loose	2-4	Soft
10-30	Medium Dense	4-8	Medium Stiff
30-50	Dense	8-15	Stiff
>50	Very Dense	15-30	Very Stiff
		>30	Hard

Color - The color of the soil matrix is estimated in the field by the engineer or geologist observing the borehole.

Major Soil Type - The soil type is determined by the major component of the soil that comprises 50% or more of the sample by weight. The major component in the description is capitalized (e.g. SAND, GRAVEL, SILT).

Table A-2: Soil Types/Components

Sieve Size	Description	Visual Description
Passing No. 200	SILT	No grains, cannot roll into thread
	Clayey SILT	Can roll into 1/4" thread*
	SILT & CLAY	Can roll into 1/8" thread*
	CLAY & SILT	Can roll into 1/16" thread*
	Silty CLAY	Can roll into 1/32" thread*
	CLAY	Can roll into 1/64" thread*
No. 200 – No. 40	Fine SAND	Finest Visible Particles
No. 40 – No. 10	Medium SAND	1/64 to 1/16"
No. 10 – No. 4	Coarse SAND	1/16 to 1/4"
No. 4 – 3/4 Inch	Fine GRAVEL	1/4 to 3/4"
3/4 Inch – 3 Inch	Coarse GRAVEL	
3 Inch – 6 Inch	Cobbles	
>6 Inch	Boulders	

* May need to moisten sample to determine thread diameter

Table A-3: Expanded Sand/Gravel Soil Descriptions

Granular Description	Proportions of Component
Fine	Less than 10% coarse and medium
Medium	Less than 10% coarse and fine
Fine to Medium	Less than 10% coarse
Medium to Coarse	Less than 10% fine
Fine to Coarse	All greater than 10%

Minor Components – Minor components are described after the major component in order of decreasing percentages. Only the first letter of the minor component is capitalized, except if "and" is used (e.g. trace Silt).

Table A-4: Definition of Proportional Terms

Proportional Term	Percent by Weight of Total Sample
and	35-50
some	20-35
little	10-20
trace	<10

Special Components – anthropogenic materials encountered in the fill such as Glass, Brick fragments, etc. Proportional terms used are occasional (<15% by weight) and frequent (15% or more by weight).

Modified ISRM Rock Classification

Rock cores are visually classified by the Modified ISRM System using the following format and order: Field hardness, weathering, grain size, color, ROCK TYPE, foliation thickness, foliation dip angle, foliation joint/fracture shape and roughness, foliation joint/fracture spacing, dip angle of other joints and fractures, condition of joint surfaces, other features such as minerals.

FIELD HARDNESS:
Very Hard – Cannot be scratched with knife or sharp pick. Breaking of hand specimens requires several hard blows of geologists pick.
Hard – Can be scratched with knife or pick only with difficulty. Hard blow of hammer required to detach hand specimen.
Medium – Can be grooved or gouged 1/16 in. deep by firm pressure on knife or pick point. Can be excavated in small chips to pieces about 1 in. maximum size by hard blows from the point of a geologist's pick.
Soft – Can be gouged or grooved readily with knife or pick point. Can be excavated in chips to pieces several inches in size by moderate blows of a pick point. Small thin pieces can be broken by finger pressure.
Very Soft – Can be carved with knife. Can be excavated readily with point of pick. Pieces 1 in. or more in thickness can be broken with finger pressure. Can be scratched readily by fingernail.

WEATHERING:
Fresh – Rock fresh, crystals bright, few joints may show slight staining. Rock rings under hammer if crystalline.
Slight – Rock generally fresh, joints stained, and discoloration and weathering effects. In granitoid rocks some occasional feldspar crystals are dull and discolored. Crystalline rocks ring under hammer.
Moderate – Significant portions of rock show discoloration and weathering effects. In granitoid rock, most feldspars are dull and discolored; some show clayey. Rock has dull sound under hammer and shows significant loss of strength as compared with fresh rock.
Severe – All rock except quartz discolored or stained. Rock "fabric" clear and evident, but reduced in strength to strong soil. In granitoid rocks, all feldspars kaolinized to some extent. Some fragments of strong rock usually left.
Complete – Rock reduced to "soil". Rock "fabric" not discernible or discernible only in small scattered locations. Quartz may be present as dikes or Stringers.

GRAIN SIZE:
Fine Grained – Barely seen with naked eye.
Coarse Grained: 1/8 in. to 1/4 in.
Amorphous: Too small to be seen with naked eye.
Medium Grained: Barely seen with naked eye to 1/8 in.
Very Coarse Grained: >1/4 in.

DISCONTINUITIES:
Healed Joint – A partial or incomplete fracture.
Joint/Fracture – A simple fracture along which no shear displacement has occurred. May form sets.
Shear – A zone of fractures along which differential movement has taken place parallel to the surface sufficient to produce slickensides, striations, or polishing. May be accompanied by a zone of fractured rock up to a few inches wide.
Fault – A fracture along which there has been displacement and accompanying slickensides, striations, or polishing by gouge and/or severely fractured adjacent zone.
Shear or Fault Zone – A band or zone of parallel, closely spaced shears or faults accompanied by gouge, maylonite, and breccia.

Table A-5: Fractures and Foliation Spacing and Attitude

Fractures	Foliation	Spacing	Attitude	Angle
Very close	Very thin	Less than 2 in.	Horizontal	0° - 5°
Close	Thin	2 in. - 1 ft.	Subhorizontal	5° - 35°
Moderately close	Medium	1 ft. - 3 ft.	Moderately dipping	35° - 55°
Wide	Thick	3 ft. - 10 ft.	Subvertical	55° - 85°
Very Wide	Very thick	More than 10 ft.	Vertical	85° - 90°

Table A-6: Condition of Joint/Fracture Surfaces

Descriptive Term	Conditions
Planar	A flat surface
Curved	A curved surface
Irregular	Multi-curved surface
Slick	A polished and striated surface indicating sliding along a plane; also referred to as slickensided.
Smooth	Few irregularities, but no obvious indication of sliding; adjacent pieces of core can be slid past on another with relative ease.
Rough	Many irregularities; difficult to slide adjacent pieces of core by each other.

GZA reports the total core recovery and rock quality designation for each core run* on the boring logs. The definitions of these terms are as follows:

TOTAL CORE RECOVERY (REC)

$$\textbf{REC (\%)} = \frac{\text{Sum of Recovered Core}}{\text{Length of Core Run}} \times 100$$

ROCK QUALITY DESIGNATION (RQD)

$$\textbf{RQD (\%)} = \frac{\text{Sum of Lengths of intact Core with Full Diameter in Pieces 4 in. and Longer}}{\text{Length of Core Run}} \times 100$$

The RQD is in general accordance with methodology described by Deere and Deere (1988). In addition, significant vertical to sub-vertical foliation/cross-foliation joints/fractures occur within the rock mass and influence ground behavior. The length of core exhibiting the vertical to sub-vertical joints/fractures has been deducted from the RQD, which is consistent with the "pieces of intact rock core" criteria. The vertical to sub-vertical joints/fractures have been identified on the rock core or the upside divider in the core box with permanent "dots" spaced every 0.1 feet apart. These dots have been counted and entered in the fractures per foot column on the boring log.

* - RQD not reported for severely and/or completely weathered rock or core runs with length of 2.0 feet or less.

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Mount Ivy LLC
Mount Ivy Estates
110 Pomona Road
Ramapo, New York

EXPLORATION NO.: B-01
SHEET: 1 of 1
PROJECT NO: 41.0162511.00
REVIEWED BY: F. Romano

Logged By: J. Jackson
Drilling Co.: Craig Test Boring Co., Inc.
Foreman: P. Mullins

Type of Rig: ATV
Rig Model: CME-550X
Drilling Method: MR

Boring Location: See Location Plan
Ground Surface Elev. (ft.): 425
Final Boring Depth (ft.): 20
Date Start - Finish: 6/1/2017 - 6/1/2017

H. Datum: N/A
V. Datum: NAVD 88

Hammer Type: Automatic Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D Dia (in.): 4.00

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: NQ2

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Casing Blows/ Core Rate	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Sample Blows (per 6 in.)	Sample SPT Value	Sample Description and Identification (Modified Burmister Procedure)	Remark	Field Test Data	Stratum Depth (ft.)	Stratum Description	Stratum Elev. (ft.)
		S1	0.0-2.0	24	13	2 6 5 5	11	S1: 6-Inches: Rootmat and topsoil. 12-inches: Medium dense, red-brown, fine to medium, SAND, little Silt.			0.5	TOPSOIL	424.5
		S2	2.0-4.0	24	10	12 12 10 12	22	S2: Medium dense, red-brown, fine to medium SAND, little Silt.					
5		S3	4.0-6.0	24	11	4 4 5 2	9	S3: Loose, red-brown, fine to medium SAND, little Silt.				SAND	
		S4	6.0-8.0	24	15	2 2 2 2	4	S4: Loose, red-brown, fine to medium SAND, little Silt, trace Gravel.					
		S5	8.0-9.1	13	10	20 45 50/1"	R	S5: Very dense, red-brown, fine to coarse, SAND, little Silt, trace Gravel.			9		416.0
10		S6	10.0-10.2	2	1	50/2"	R	S6: Very dense, red-brown, fine to coarse SAND & GRAVEL, trace Silt.	1			WEATHERED ROCK	
15		C1	15.0-20.0	60	26			C1: Medium hard, moderately weathered, SANDSTONE (REC = 43%; RQD = 44%).			15		410.0
												ROCK	
20											20		405.0
								End of exploration at 20 feet.	2				
25													
30													

REMARKS

1 - 4-inch diameter steel casing installed to a depth of about 10 feet.
2 - Borehole backfilled with soil cuttings upon completion.

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: B-01

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Mount Ivy LLC
Mount Ivy Estates
110 Pomona Road
Ramapo, New York

EXPLORATION NO.: B-02
SHEET: 1 of 1
PROJECT NO: 41.0162511.00
REVIEWED BY: F. Romano

Logged By: J. Volpe
Drilling Co.: Craig Test Boring Co., Inc.
Foreman: P. Mullins

Type of Rig: ATV
Rig Model: CME-550X
Drilling Method: MR

Boring Location: See Location Plan
Ground Surface Elev. (ft.): 435
Final Boring Depth (ft.): 20
Date Start - Finish: 5/30/2017 - 5/30/2017

H. Datum: N/A
V. Datum: NAVD 88

Hammer Type: Automatic Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D Dia (in.): 4.00

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: NQ2

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time

Depth (ft)	Casing Blows/ Core Rate	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Sample Blows (per 6 in.)	Sample SPT Value	Sample Description and Identification (Modified Burmister Procedure)	Remark	Field Test Data	Stratum Depth (ft.)	Stratum Description	Stratum Elev. (ft.)
	1	S-1	0.0-2.0	24	18	2 4 6 7	10	S-1: 6-Inches: Rootmat and topsoil. 12-Inches: Medium dense, light brown, fine to medium SAND, dry.			0.5	TOPSOIL	434.5
	0.5	S-2	2.0-4.0	24	12	9 20 42 20	62	S-2: Very dense, brown, fine to coarse SAND, little fine to medium Gravel, dry.			2	FILL	433.0
5	0.5 0.5	S-3	4.0-6.0	24	0	8 8 10 10	18	S-3: No Recovery.	1				
		S-4	6.0-8.0	24	9	12 9 14 14	23	S-4: Medium dense, brown to red, fine to medium SAND, little fine Gravel, trace Silt, moist.	2			SAND	
		S-5	8.0-10.0	24	9	14 6 39 27	45	S-5: Dense, red, fine to coarse SAND, some Silt, little fine Gravel.					
10		S-6	10.0-10.3	3	2	50/3"	R	S-6: Very dense, red, fine to coarse SAND, little Silt, little fine Gravel, rock fragment in tip.	3		10	WEATHERED ROCK	425.0
15		S-7	15.0-15.0	0	0	50/0"	R	S-7: No Recovery.			15		420.0
		C-1	15.0-20.0	60	56			C-1: Medium to moderately hard, slightly weathered, slightly fractured, fine-grained, red SANDSTONE (REC = 93%; RQD = 73%).				ROCK	
20											20		415.0
								End of exploration at 20 feet.	4				
25													
30													

REMARKS

1 - Rig chatter at 4 feet bgs.
2 - Rig chatter at 7 to 8 feet bgs.
3 - Rig chatter at 11 to 15 feet bgs.
4 - Borehole backfilled with soil cuttings upon completion.

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: B-02

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Mount Ivy LLC
Mount Ivy Estates
110 Pomona Road
Ramapo, New York

EXPLORATION NO.: B-03
SHEET: 1 of 1
PROJECT NO: 41.0162511.00
REVIEWED BY: F. Romano

Logged By: J. Volpe
Drilling Co.: Craig Test Boring Co., Inc.
Foreman: P. Mullins

Type of Rig: ATV
Rig Model: CME-550X
Drilling Method: MR

Boring Location: See Location Plan
Ground Surface Elev. (ft.): 455
Final Boring Depth (ft.): 25
Date Start - Finish: 5/30/2017 - 5/30/2017

H. Datum: N/A
V. Datum: NAVD 88

Hammer Type: Automatic Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D Dia (in.): 4.00

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: NQ2

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Casing Blows/ Core Rate	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Sample Blows (per 6 in.)	Sample SPT Value	Sample Description and Identification (Modified Burmister Procedure)	Remark	Field Test Data	Stratum Depth (ft.)	Stratum Description	Stratum Elev. (ft.)
		S-1	0.0-2.0	24	14	2 2 2 2	4	S-1: 4-Inches: Rootmat and topsoil. 10-Inches: Loose, brown, fine to medium SAND, some Silt, moist.			0.3	TOPSOIL	454.7
		S-2	2.0-4.0	24	4	3 2 2 2	4	S-2: Loose, brown, fine to medium SAND, little Silt, moist.			2	FILL	453.0
5		S-3	4.0-6.0	24	3	3 2 3 4	5	S-3: Loose, brown, fine to medium SAND, little Silt.				SAND	
		S-4	6.0-8.0	24	4	6 1 2 1	3	S-4: Loose, brown, fine to medium SAND, little Silt.			8		447.0
		S-5	8.0-9.1	13	7	9 42 50/1"	R	S-5: Very dense, brown, fine to medium SAND, little Silt.					
10		S-6	10.0-10.0	0	0	50/0"	R					WEATHERED ROCK	
15		S-7	15.0-16.8	22	13	5 21 47 50/4"	68	S-7: Very dense, red, fine to medium SAND, little Silt, little fine Gravel, moist.					
20		C-1	20.0-25.0	60	56			C-1: Hard, slightly weathered, red-brown SANDSTONE (REC = 93%; RQD = 58%).			20	ROCK	435.0
25								End of exploration at 25 feet.	1		25		430.0
30													

REMARKS

1 - Borehole backfilled with soil cuttings upon completion.

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: B-03

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Mount Ivy LLC
Mount Ivy Estates
110 Pomona Road
Ramapo, New York

EXPLORATION NO.: B-04
SHEET: 1 of 1
PROJECT NO: 41.0162511.00
REVIEWED BY: F. Romano

Logged By: J. Jackson
Drilling Co.: Craig Test Boring Co., Inc.
Foreman: P. Mullins

Type of Rig: ATV
Rig Model: CME-550X
Drilling Method: MR

Boring Location: See Location Plan
Ground Surface Elev. (ft.): 430
Final Boring Depth (ft.): 27
Date Start - Finish: 6/1/2017 - 6/1/2017

H. Datum: N/A
V. Datum: NAVD 88

Hammer Type: Automatic Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D Dia (in.): 4.00

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: NQ2

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Casing Blows/ Core Rate	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Sample Blows (per 6 in.)	Sample SPT Value	Sample Description and Identification (Modified Burmister Procedure)	Remark	Field Test Data	Stratum Depth (ft.)	Stratum Description	Stratum Elev. (ft.)
		S1	0.0-2.0	24	11	1 2 4 13	6	S1: 4-Inches: Rootmat and topsoil. 7-Inches: Loose, brown, fine SAND, some Silt..			0.3	TOPSOIL	429.7
												FILL	
		S2	2.0-4.0	24	13	43 13 17 15	30	S2: Medium dense, tan-brown, fine to coarse, SAND, little Silt, little fine Gravel.			2		428.0
5		S3	4.0-6.0	24	12	15 18 19 15	37	S3: Dense, tan-brown, fine to coarse, SAND & GRAVEL, little Silt.					
		S4	6.0-8.0	24	6	27 20 20 19	40	S4: Dense, tan-brown, fine to coarse, SAND & GRAVEL, trace Silt.					
		S5	8.0-10.0	24	7	15 16 19 7	35	S5: Dense, tan-brown, fine to coarse, SAND & GRAVEL, trace Silt.					
10		S6	10.0-12.0	24	6	6 6 10 8	16	S6: Medium dense, tan-brown, fine to coarse SAND, little Gravel, trace Silt.					
15		S7	15.0-17.0	24	7	27 25 26 30	51	S7: Very dense, tan-brown, fine to coarse, SAND & GRAVEL, little Silt.	1			SAND	
20		S8	20.0-22.0	24	8	11 11 12 12	23	S8: Medium dense, gray-brown, fine to coarse SAND, little Gravel, trace Silt.					
25		S9	25.0-27.0	24	9	15 10 10 7	20	S9: Medium dense, gray-tan, fine to coarse, SAND, trace Gravel, trace Silt.			27		403.0
								End of exploration at 27 feet.	2				
30													

REMARKS

1 - 4-inch diameter steel casing advanced to a depth of about 15 feet.
2 - Borehole backfilled with soil cuttings upon completion.

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: B-04

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Mount Ivy LLC
Mount Ivy Estates
110 Pomona Road
Ramapo, New York

EXPLORATION NO.: B-05
SHEET: 1 of 1
PROJECT NO: 41.0162511.00
REVIEWED BY: F. Romano

Logged By: J. Jackson
Drilling Co.: Craig Test Boring Co., Inc.
Foreman: P. Mullins

Type of Rig: ATV
Rig Model: CME-550X
Drilling Method: MR

Boring Location: See Location Plan
Ground Surface Elev. (ft.): 435
Final Boring Depth (ft.): 27
Date Start - Finish: 6/1/2017 - 6/1/2017

H. Datum: N/A
V. Datum: NAVD 88

Hammer Type: Automatic Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D Dia (in.): 4.00

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: NQ2

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Casing Blows/ Core Rate	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Sample Blows (per 6 in.)	Sample SPT Value	Sample Description and Identification (Modified Burmister Procedure)	Remark	Field Test Data	Stratum Depth (ft.)	Stratum Description	Stratum Elev. (ft.)
		S1	0.0-2.0	24	7	1 1 1 8	2	S1: 3-Inches: Rootmat and topsoil. 4-Inches: Very loose, brown & tan, fine to medium, SAND, trace Silt.			0.25	TOPSOIL	434.8
		S2	2.0-4.0	24	8	6 6 9 8	15	S2: Medium dense, tan-brown, fine to coarse SAND and Gravel, trace Silt.				FILL	
5		S3	4.0-6.0	24	7	6 5 4 3	9	S3: Medium dense, tan-brown, fine to medium SAND, trace Silt.			6		429.0
		S4	6.0-8.0	24	4	4 4 5 5	9	S4: Loose, brown, fine SAND, little Silt.					
		S5	8.0-10.0	24	12	6 5 7 5	12	S5: Medium dense, light brown, fine SAND and SILT.					
10		S6	10.0-12.0	24	13	10 11 12 11	23	S6: Medium dense, tan-brown, fine SAND, little Silt.					
15		S7	15.0-17.0	24	11	8 7 9 9	16	S7: Medium dense, tan-brown, fine SAND, little Silt.	1			SAND	
20		S8	20.0-22.0	24	10	15 10 11 6	21	S8: Medium dense, brown, fine SAND, some Silt, trace Gravel.					
25		S9	25.0-27.0	24	16	16 12 13 11	25	S9: Medium dense, brown, fine to coarse SAND, little Silt, little Gravel.			27		408.0
								End of exploration at 27 feet.	2				
30													

REMARKS

1 - 4-inch diameter steel casing advanced to a depth of about 15 feet.
2 - Borehole backfilled with soil cuttings upon completion.

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: B-05

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Mount Ivy LLC
Mount Ivy Estates
110 Pomona Road
Ramapo, New York

EXPLORATION NO.: B-06
SHEET: 1 of 1
PROJECT NO: 41.0162511.00
REVIEWED BY: F. Romano

Logged By: J. Jackson
Drilling Co.: Craig Test Boring Co., Inc.
Foreman: P. Mullins

Type of Rig: ATV
Rig Model: CME-550X
Drilling Method: MR

Boring Location: See Location Plan
Ground Surface Elev. (ft.): 430
Final Boring Depth (ft.): 27
Date Start - Finish: 5/31/2017 - 5/31/207

H. Datum: N/A
V. Datum: NAVD 88

Hammer Type: Automatic Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D Dia (in.): 4.00

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: NQ2

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time
05/31/2017	11:45:00 AM	17.00	0 min
06/28/2017	11:15:00 AM	15.30	672.0 hours

Depth (ft)	Casing Blows/ Core Rate	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Sample Blows (per 6 in.)	Sample SPT Value	Sample Description and Identification (Modified Burmister Procedure)	Remark	Field Test Data	Stratum Depth (ft.)	Stratum Description	Stratum Elev. (ft.)
		S1	0.0-2.0	24	20	2 2 5 7	7	S1: 6-Inches: Rootmat and topsoil. 14-Inches: Loose, green-brown, fine to medium SAND, some Silt.			0.5	TOPSOIL	429.5
		S2	2.0-4.0	24	18	14 8 8 27	16	S2: Medium dense, brown, fine to medium, SAND, some Silt, little Gravel.			2	FILL	428.0
5		S3	4.0-6.0	24	8	6 43 36 8	79	S3: Very dense, brown, fine to medium SAND, little Silt, trace Gravel.					
		S4	6.0-8.0	24	13	5 5 5 5	10	S4: Medium dense, brown, fine to medium SAND, some Silt, trace Gravel.					
		S5	8.0-10.0	24	15	5 5 5 4	10	S5: Medium dense, brown, fine to coarse, SAND, some Silt, trace Gravel.					
10		S6	10.0-12.0	24	19	5 6 10 8	16	S6: Medium dense, green-brown, SAND & SILT.					
15		S7	15.0-17.0	24	18	33 14 15 14	29	S7: Medium dense, tan-brown, fine SAND & SILT.	1			SAND	
20		S8	20.0-22.0	24	12	12 12 12 6	24	S8: Medium dense, green-brown, fine SAND, some Silt, little Gravel.					
25		S9	25.0-27.0	24	11	14 4 7 4	11	S9: Medium dense, brown, fine to medium SAND, some Silt, little Gravel.			27		403.0
								End of exploration at 27 feet.	2				
30													

REMARKS

1 - 4-inch diameter steel casing advanced to a depth of about 15 feet.
2 - Groundwater monitoring well installed upon completion to depth of 20 feet.

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: B-06

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Mount Ivy LLC
Mount Ivy Estates
110 Pomona Road
Ramapo, New York

EXPLORATION NO.: B-07
SHEET: 1 of 1
PROJECT NO: 41.0162511.00
REVIEWED BY: F. Romano

Logged By: J. Jackson
Drilling Co.: Craig Test Boring Co., Inc.
Foreman: P. Mullins

Type of Rig: ATV
Rig Model: CME-550X
Drilling Method: MR

Boring Location: See Location Plan
Ground Surface Elev. (ft.): 455
Final Boring Depth (ft.): 20
Date Start - Finish: 5/31/2017 - 5/31/207

H. Datum: N/A
V. Datum: NAVD 88

Hammer Type: Automatic Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D Dia (in.): 4.00

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: NQ2

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Casing Blows/ Core Rate	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Sample Blows (per 6 in.)	Sample SPT Value	Sample Description and Identification (Modified Burmister Procedure)	Remark	Field Test Data	Stratum Depth (ft.)	Stratum Description	Stratum Elev. (ft.)
		S1	0.0-2.0	24	5	2 1 2 1	3	S1: 3-Inches: Rootmat and topsoil. 2-Inches: Very loose, brown, fine to medium SAND, some Silt.			0.5	TOPSOIL	454.5
		S2	2.0-4.0	24	6	7 3 4 8	7	S2: Loose, red-brown, SAND & SILT.			2	FILL	453.0
5		S3	4.0-6.0	24	4	16 7 13 60/3"	20	S3: Medium dense, red-brown, fine to coarse SAND, little Silt, trace Gravel.				SAND	
		S4	6.0-8.0	24	7	73 50/1"	R	S4: Very dense, red-brown, fine to medium SAND, some Silt, trace fine Gravel.					
		S5	8.0-10.0	24	12	4 4 60 50/3"	64	S5: Very dense, red-brown, fine to coarse SAND, little Silt, trace Gravel.			9		446.0
10		S6	10.0-12.0	24	5	7 50/3"	R	S6: Very dense, red-brown, fine to coarse SAND, little Gravel, little Silt.	1			WEATHERED ROCK	
15		C1	15.0-20.0	60	50			C1: Medium hard, moderately fractured, red-brown, SANDSTONE (REC = 83%; RQD = 53%).			15		440.0
												ROCK	
20								End of exploration at 20 feet.			20		435.0
25													
30													

REMARKS

1 - 4-inch diameter steel casing installed to a depth of about 10 feet.

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: B-07

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Mount Ivy LLC
Mount Ivy Estates
110 Pomona Road
Ramapo, New York

EXPLORATION NO.: B-08
SHEET: 1 of 1
PROJECT NO: 41.0162511.00
REVIEWED BY: F. Romano

Logged By: J. Volpe
Drilling Co.: Craig Test Boring Co., Inc.
Foreman: P. Mullins

Type of Rig: ATV
Rig Model: CME-550X
Drilling Method: MR

Boring Location: See Location Plan
Ground Surface Elev. (ft.): 425
Final Boring Depth (ft.): 11
Date Start - Finish: 5/30/2017 - 5/30/2017

H. Datum: N/A
V. Datum: NAVD 88

Hammer Type: Automatic Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D Dia (in.): 4.00

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: NQ2

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Casing Blows/ Core Rate	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Sample Blows (per 6 in.)	Sample SPT Value	Sample Description and Identification (Modified Burmister Procedure)	Remark	Field Test Data	Stratum Depth (ft.)	Stratum Description	Stratum Elev. (ft.)
	1.5	S-1	0.0-2.0	24	14	1 5 13 9	18	S-1: 6-Inches: Rootmat and topsoil. 8-Inches: Medium dense, red-brown, fine to medium SAND, little Silt, dry.			0.5	TOPSOIL	424.5
	1.5 1.5	S-2	2.0-3.7	20	19	37 48 76 50/2"	>100	S-2: Very dense, red-brown, fine to medium SAND, little Silt, dry.			3	SAND	422.0
5	1.5 1.5	S-3	4.0-4.1	1	0	50/1"	R	S-3: Rock fragment in spoon tip, dry.	1		6	WEATHERED ROCK	419.0
		S-4	6.0-6.0	0	0	50/0"	R	S-4: No recovery.					
		C-1	6.0-11.0	60	55			C-1: Moderately hard to hard, slightly weathered, slightly fractured, fine grained, red SANDSTONE (REC = 83%; RQD = 42%).				ROCK	
10											11		414.0
								End of exploration at 11 feet.	2				
15													
20													
25													
30													

REMARKS

1 - Rig chatter at 4.5 feet bgs.
2 - Borehole backfilled with soil cuttings upon completion.

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: B-08

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Mount Ivy LLC
Mount Ivy Estates
110 Pomona Road
Ramapo, New York

EXPLORATION NO.: B-09
SHEET: 1 of 1
PROJECT NO: 41.0162511.00
REVIEWED BY: F. Romano

Logged By: J. Jackson
Drilling Co.: Craig Test Boring Co., Inc.
Foreman: P. Mullins

Type of Rig: ATV
Rig Model: CME-550X
Drilling Method: MR

Boring Location: See Location Plan
Ground Surface Elev. (ft.): 430
Final Boring Depth (ft.): 27
Date Start - Finish: 5/31/2017 - 5/31/207

H. Datum: N/A
V. Datum: NAVD 88

Hammer Type: Automatic Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D Dia (in.): 4.00

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: NQ2

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Casing Blows/ Core Rate	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Sample Blows (per 6 in.)	Sample SPT Value	Sample Description and Identification (Modified Burmister Procedure)	Remark	Field Test Data	Stratum Depth (ft.)	Stratum Description	Stratum Elev. (ft.)
		S1	0.0-2.0	24	20	1 1 3 2	4	S1: 6-Inches: Rootmat and topsoil. 14-Inches: Loose, tan-brown, fine to medium SAND, little Silt.			0.5	TOPSOIL	429.5
		S2	2.0-4.0	24	14	1 1 2 1	3	S2: Very loose, brown, fine, SAND, some Silt.				FILL	
5		S3	4.0-6.0	24	16	2 3 4 8	7	S3: Loose, gray, tan, fine, SAND & SILT, little Gravel.			6		424.0
		S4	6.0-8.0	24	11	16 13 23 22	36	S4: Dense, tan, fine to medium, SAND & SILT, trace Gravel.					
		S5	8.0-9.0	12	11	56 35 50/0"	R	S5: Very dense, tan-brown, fine to coarse SAND & GRAVEL, little Silt.					
10		S6	10.0-12.0	24	15	24 23 23 23	46	S6: Dense, tan-brown, fine to coarse, SAND, some Silt, little Gravel.					
15		S7	15.0-17.0	24	11	11 11 11 11	22	S7: Medium dense, tan-brown, SAND & GRAVEL, some Silt.	1			SAND	
20		S8	20.0-22.0	24	13	7 7 11 26	18	S8: Medium dense, brown, fine to coarse SAND & GRAVEL, little Silt.					
25		S9	25.0-26.5	18	12	17 17 26 50/0"	43	S9: Dense, red-brown, fine SAND & Silt, little Gravel.			27		403.0
								End of exploration at 27 feet.	2				
30													

REMARKS

1 - 4-inch diameter steel casing advanced to a depth of about 15 feet.
2 - Borehole backfilled with soil cuttings upon completion.

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: B-09

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Mount Ivy LLC
Mount Ivy Estates
110 Pomona Road
Ramapo, New York

EXPLORATION NO.: B-10
SHEET: 1 of 1
PROJECT NO: 41.0162511.00
REVIEWED BY: F. Romano

Logged By: J. Jackson
Drilling Co.: Craig Test Boring Co., Inc.
Foreman: P. Mullins

Type of Rig: ATV
Rig Model: CME-550X
Drilling Method: MR

Boring Location: See Location Plan
Ground Surface Elev. (ft.): 440
Final Boring Depth (ft.): 20.6
Date Start - Finish: 5/31/2017 - 5/31/207

H. Datum: N/A
V. Datum: NAVD 88

Hammer Type: Automatic Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D Dia (in.): 4.00

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: NQ2

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Casing Blows/ Core Rate	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Sample Blows (per 6 in.)	Sample SPT Value	Sample Description and Identification (Modified Burmister Procedure)	Remark	Field Test Data	Stratum Depth (ft.)	Stratum Description	Stratum Elev. (ft.)
		S1	0.0-2.0	24	11	2 2 11 11	13	S1: 6-Inches: Rootmat and topsoil. 5-Inches: Medium dense, tan, fine SAND, little Silt.			0.5	TOPSOIL	439.5
		S2	2.0-4.0	24	5	11 11 11 13	22	S2: No Recovery.			2	FILL	438.0
5		S3	4.0-6.0	24	6	5 7 22 16	29	S3: Medium dense, tan, fine to coarse, SAND, some Silt, little Gravel.					
		S4	6.0-8.0	24	8	13 12 16 13	28	S4: Medium dense, tan, fine to coarse SAND & GRAVEL, little Silt.					
		S5	8.0-10.0	24	6	18 16 15 18	31	S5: Dense, tan, fine to coarse SAND, some Gravel, little Silt.					
10		S6	10.0-12.0	24	5	24 15 13 8	28	S6: Medium dense, fine to coarse SAND & GRAVEL, little Silt.				SAND	
15		S7	15.0-17.0	24	11	19 17 19 22	36	S7: Dense, tan and brown, SAND & GRAVEL, little Silt.	1				
											18	WEATHERED ROCK	422.0
20		S8	20.0-20.6	7	5	12 50/1"	R	S8: Very dense, fine to coarse, SAND & GRAVEL, little Silt.	2		20.6		419.4
								End of exploration at 20.6 feet.					
25													
30													

REMARKS

1 - 4-inch diameter steel casing advanced to a depth of about 15 feet.
2 - Borehole backfilled with soil cuttings upon completion.

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: B-10

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Mount Ivy LLC
Mount Ivy Estates
110 Pomona Road
Ramapo, New York

EXPLORATION NO.: B-11
SHEET: 1 of 1
PROJECT NO: 41.0162511.00
REVIEWED BY: F. Romano

Logged By: J. Volpe
Drilling Co.: Craig Test Boring Co., Inc.
Foreman: P. Mullins

Type of Rig: ATV
Rig Model: CME-550X
Drilling Method: MR

Boring Location: See Location Plan
Ground Surface Elev. (ft.): 430
Final Boring Depth (ft.): 25
Date Start - Finish: 5/30/2017 - 5/30/2017

H. Datum: N/A
V. Datum: NAVD 88

Hammer Type: Automatic Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D Dia (in.): 4.00

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: NQ2

Groundwater Depth (ft.)			
Date	Time	Water Depth	Stab. Time

Depth (ft)	Casing Blows/ Core Rate	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Sample Blows (per 6 in.)	Sample SPT Value	Sample Description and Identification (Modified Burmister Procedure)	Remark	Field Test Data	Stratum Depth (ft.)	Stratum Description	Stratum Elev. (ft.)
	1	S-1	0.0-2.0	24	21	3 6 10 6	16	S-1: 6-Inches: Rootmat and topsoil. 15-Inches: Medium dense, brown, fine to medium SAND, some Silt, fine to medium Gravel, dry.			0.5	TOPSOIL	429.5
	0.5 0.5	S-2	2.0-4.0	24	11	8 10 28 32	38	S-2: Dense, orange-brown, fine to medium SAND, little Silt, little fine Gravel, moist, rock fragment in spoon tip.					
5	0.5 0.5	S-3	4.0-6.0	24	11	10 9 10 6	19	S-3: Medium dense, orange-brown, fine to medium SAND, little Silt, little Gravel.	1			SAND	
		S-4	6.0-8.0	24	10	9 7 15 15	22	S-4: Medium dense, orange-brown, fine to medium SAND, some Silt.					
		S-5	8.0-10.0	24	0	19 18 43 44	61	S-5: No Recovery.			9		421.0
10		S-6	10.0-11.3	15	11	45 26 50/3"	R	S-6: Very dense, orange-brown, fine to medium SAND, little Silt, trace Gravel.	2				
									3			WEATHERED ROCK	
15		S-7	15.0-15.1	1	0	50/1"	R	S-7: No Recovery.					
20		S-8	20.0-20.0	0	0	50/0"	R	S-8: No recovery.			20		410.0
		C-1	20.0-25.0	60	56			C-1: Medium to moderately hard, slightly weathered, sound, fine-grained, red SANDSTONE (REC 93%; RQD = 88%).				ROCK	
25											25		405.0
								End of exploration at 25 feet.	4				
30													

REMARKS

1 - Rig chatter at 4 feet bgs.
2 - Rig chatter at 10 feet bgs.
3 - Hard drilling at 13 feet bgs.
4 - Borehole backfilled with soil cuttings upon completion.

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: B-11

TEST BORING LOG

GZA GeoEnvironmental, Inc.
Engineers and Scientists

Mount Ivy LLC
Mount Ivy Estates
110 Pomona Road
Ramapo, New York

EXPLORATION NO.: B-12
SHEET: 1 of 1
PROJECT NO: 41.0162511.00
REVIEWED BY: F. Romano

Logged By: J. Jackson
Drilling Co.: Craig Test Boring Co., Inc.
Foreman: P. Mullins

Type of Rig: ATV
Rig Model: CME-550X
Drilling Method: MR

Boring Location: See Location Plan
Ground Surface Elev. (ft.): 435
Final Boring Depth (ft.): 26.1
Date Start - Finish: 6/1/2017 - 6/1/2017

H. Datum: N/A
V. Datum: NAVD 88

Hammer Type: Automatic Hammer
Hammer Weight (lb.): 140
Hammer Fall (in.): 30
Auger or Casing O.D./I.D Dia (in.): 4.00

Sampler Type: SS
Sampler O.D. (in.): 2.0
Sampler Length (in.): 24
Rock Core Size: NQ2

Groundwater Depth (ft.)

Date	Time	Water Depth	Stab. Time

Depth (ft)	Casing Blows/ Core Rate	Sample No.	Sample Depth (ft.)	Sample Pen. (in)	Sample Rec. (in)	Sample Blows (per 6 in.)	SPT Value	Sample Description and Identification (Modified Burmister Procedure)	Remark	Field Test Data	Stratum Depth (ft.)	Stratum Description	Stratum Elev. (ft.)
		S1	0.0-2.0	24	6	1 4 4 5	8	S1: 3-Inches: Rootmat and topsoil. 3-Inches: Loose, tan, fine to medium SAND, little Silt.			0.25	TOPSOIL	434.8
												FILL	
		S2	2.0-4.0	24	8	6 5 7 7	12	S2: Medium dense, brown, fine to coarse, SAND, little Silt, trace Gravel.			2		433.0
5		S3	4.0-6.0	24	4	11 9 12 10	21	S3: Medium dense, tan-brown, fine to coarse, SAND, trace Gravel, trace Silt.					
		S4	6.0-8.0	24	18	11 10 11 10	21	S4: Medium dense, tan-brown, fine to coarse SAND, trace Gravel, trace Silt.					
		S5	8.0-10.0	24	5	9 13 13 12	26	S5: Medium dense, tan-brown, SAND & GRAVEL, trace Silt.					
10		S6	10.0-12.0	24	13	9 6 7 6	13	S6: Medium dense, brown, fine to coarse, SAND & GRAVEL, trace Silt.				SAND	
15		S7	15.0-17.0	24	14	32 24 20 18	44	S7: Dense, tan-brown, fine to coarse SAND & GRAVEL, trace Silt.	1				
20		S8	20.0-22.0	24	18	11 20 20 21	40	S8: Dense, gray-brown, fine to coarse, SAND, little Gravel, trace Silt.					
25		S9	25.0-26.1	13	11	29 50 50/1"	R	S9: Very dense, gray-brown, SAND & GRAVEL, trace Silt.	2		25	WEATHERED ROCK	410.0
								End of exploration at 26.1 feet.					
30													

REMARKS

1 - 4-inch diameter steel casing advanced to a depth of about 15 feet.
2 - Borehole backfilled with soil cuttings upon completion.

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Exploration No.: B-12

APPENDIX C

LABORATORY TESTING RESULTS

LABORATORY TESTING DATA SHEET

Project Name **Mount Ivy Estates** Location New York, NY Reviewed By

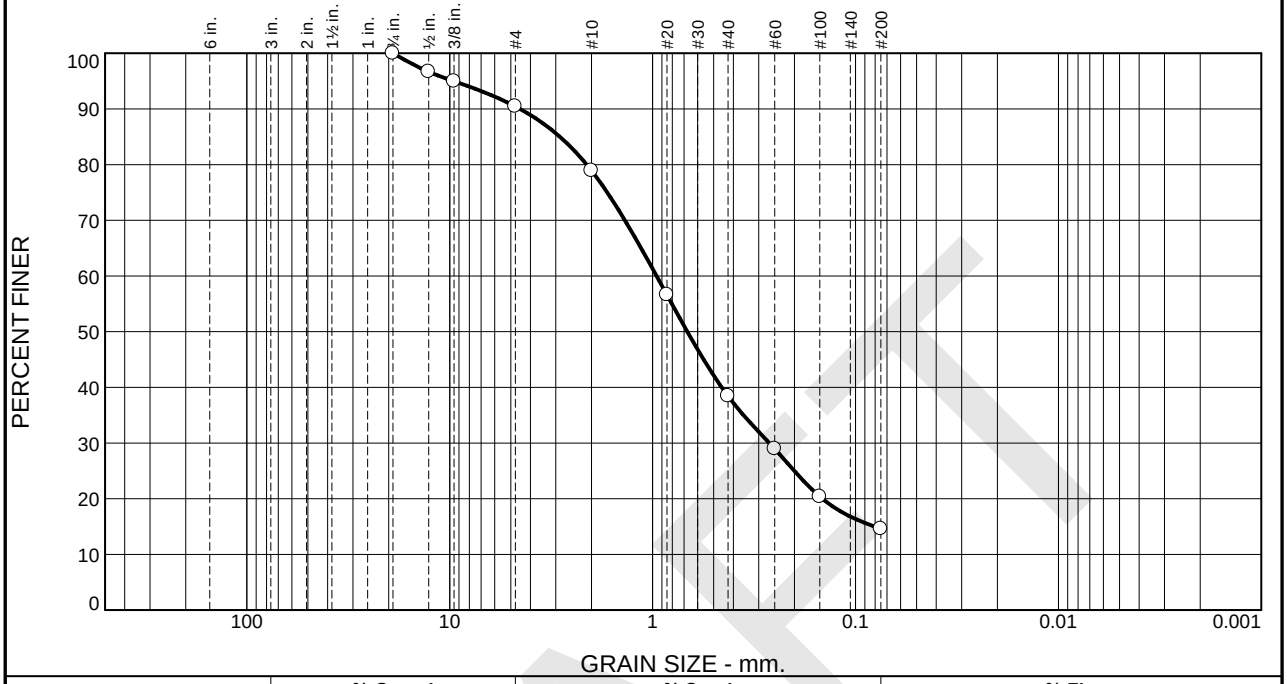
Project No. **41.0162511.00** Assigned By Dharmil Patel

Project Manager Frank Romano Report Date 06.14.17 Date Reviewed *06.16.17*

Boring/ Test Pit No.	Sample No.	Depth ft.	Lab No.	Identification Tests							Corrosivity				
				Water Content %	LL %	PL %	Gravel %	Sand %	Fines (<#200) %	Org. %	Sulfate (mg/kg)	Chloride (mg/kg)	Resistivity (Mohms-cm)	GTL Resist	Laboratory Log and Soil Description
B-1	S-2	2-4	1				9.5	75.9	14.6						Red f-c SAND, little Silt, trace fine Gravel
B-2	S-5	8-10	2				15.4	61.5	23.1						Red f-c SAND, some Silt, little fine Gravel
B-4	S-2	2-4	3				16.9	63.6	19.5						Yellowish Brown f-c SAND, little Silt, little fine Gravel
B-5	S-2	2-4	4				41.1	53.4	5.5						Yellowish Brown f-c SAND and f-c GRAVEL, trace Silt
B-5	S-5	8-10	5				0.0	50.3	49.7						Brown fine SAND and SILT
B-6	S-4	6-8	6				6.6	61.4	32.0						Dark Brown f-m SAND, some Silt, trace fine Gravel
B-7	S-4	6-8	7				3.8	73.0	23.2						Red f-m SAND, some Silt, trace fine Gravel
B-9	S-3	4-6	8				16.6	47.2	36.2						Yellow f-c SAND and SILT, little f-c Gravel
B-10	S-4	6-8	9				37.5	53.3	9.2						Grey f-c SAND and fine GRAVEL, trace Silt
B-12	S-2	2-4	10				5.1	83.2	11.7						Yellowish Brown f-c SAND, little Silt, trace fine Gravel

THIELSCH ENGINEERING
195 Frances Avenue
Cranston, RI 02910 401-467-6454

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	9.5	11.6	40.5	23.8	14.6	

TEST RESULTS (D6913)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
0.75"	100.0		
0.5"	96.7		
0.375"	95.0		
#4	90.5		
#10	78.9		
#20	56.6		
#40	38.4		
#60	28.9		
#100	20.4		
#200	14.6		

* (no specification provided)

Material Description

Red f-c SAND, little Silt, trace fine Gravel

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=** NP

Classification

USCS (D 2487)= SM **AASHTO (M 145)=** A-1-b

Coefficients

D_{90}= 4.5033 D_{85}= 2.8637 D_{60}= 0.9558
D_{50}= 0.6742 D_{30}= 0.2660 D_{15}= 0.0804
D_{10}= C_u= C_c=

Remarks

Date Received: 06.09.17 **Date Tested:** 06.12.17

Tested By: SA

Checked By: Matthew Colman P.E.

Title: Laboratory Manager

Source of Sample: Borings **Depth:** 2-4' **Date Sampled:**

Sample Number: B-1 / S-2

Thielsch Engineering Inc.

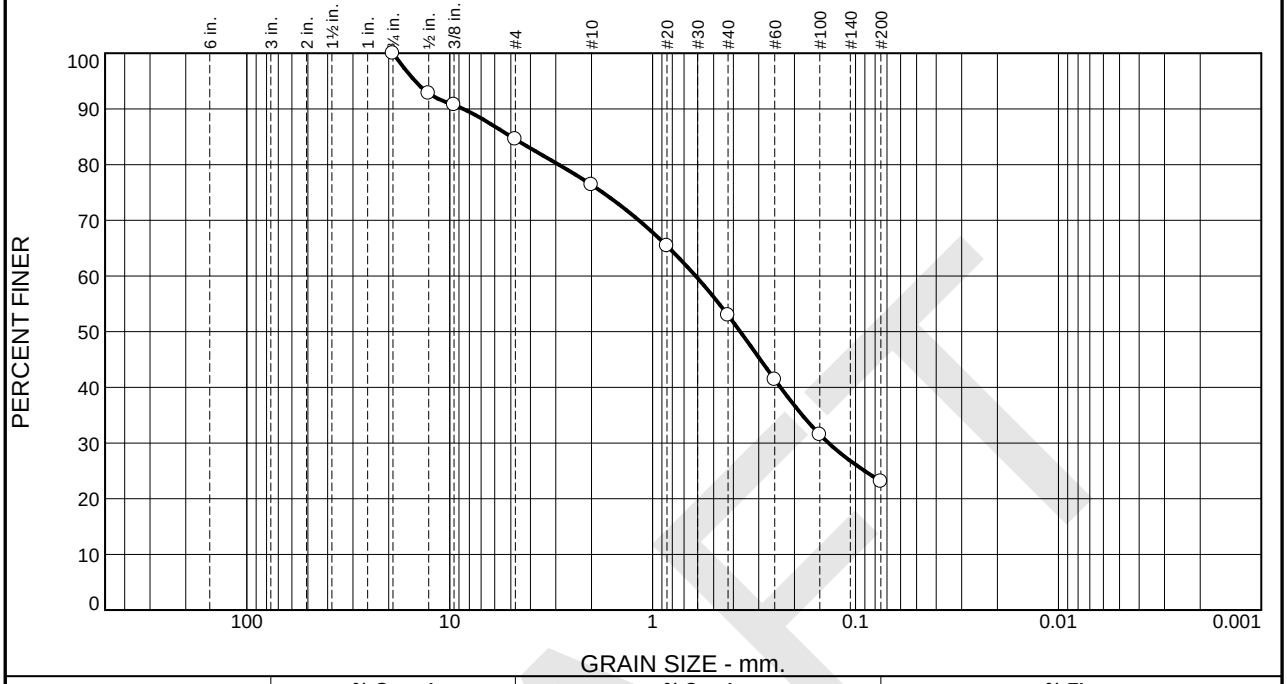
Cranston, RI

Client: GZA GeoEnviormental

Project: Mount Ivy Estates
New York, NY

Project No: 41.0162511.00 **Figure** S-1

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	15.4	8.2	23.4	29.9	23.1	

TEST RESULTS (D6913)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
0.75"	100.0		
0.5"	92.8		
0.375"	90.7		
#4	84.6		
#10	76.4		
#20	65.4		
#40	53.0		
#60	41.4		
#100	31.5		
#200	23.1		

* (no specification provided)

Material Description

Red f-c SAND, some Silt, little fine Gravel

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=** NP

Classification

USCS (D 2487)= SM **AASHTO (M 145)=** A-2-4(0)

Coefficients

D_{90}= 8.5614 D_{85}= 4.9685 D_{60}= 0.6132
D_{50}= 0.3698 D_{30}= 0.1358 D_{15}=
D_{10}= C_u= C_c=

Remarks

Date Received: 06.09.17 **Date Tested:** 06.12.17

Tested By: SA

Checked By: Matthew Colman P.E.

Title: Laboratory Manager

Source of Sample: Borings **Depth:** 8-10' **Date Sampled:**

Sample Number: B-2 / S-5

Thielsch Engineering Inc.

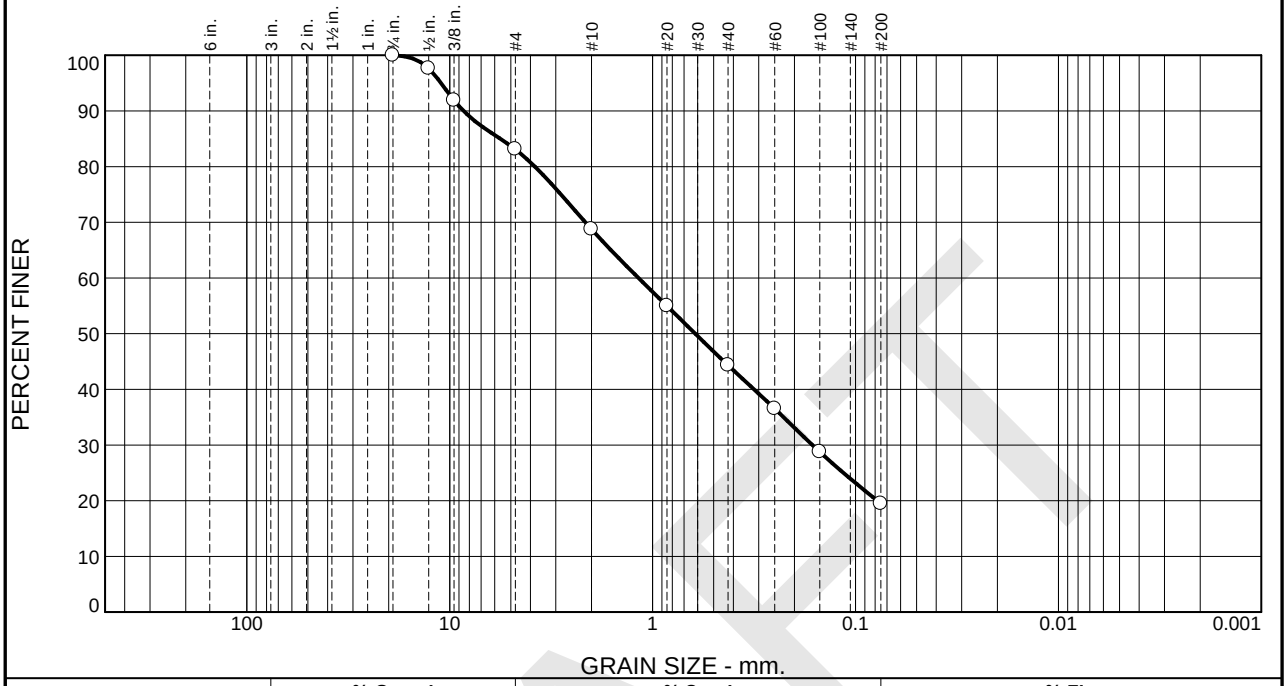
Cranston, RI

Client: GZA GeoEnviormental

Project: Mount Ivy Estates
New York, NY

Project No: 41.0162511.00 **Figure** S-2

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	16.9	14.3	24.5	24.8	19.5	

TEST RESULTS (D6913)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
0.75"	100.0		
0.5"	97.6		
0.375"	91.9		
#4	83.1		
#10	68.8		
#20	55.0		
#40	44.3		
#60	36.5		
#100	28.7		
#200	19.5		

* (no specification provided)

Material Description

Yellowish Brown f-c SAND, little Silt, little fine Gravel

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=** NP

Classification

USCS (D 2487)= SM **AASHTO (M 145)=** A-1-b

Coefficients

D_{90}= 8.5490 D_{85}= 5.6281 D_{60}= 1.1738
D_{50}= 0.6166 D_{30}= 0.1633 D_{15}=
D_{10}= C_u= C_c=

Remarks

Date Received: 06.09.17 **Date Tested:** 06.12.17

Tested By: SA

Checked By: Matthew Colman P.E.

Title: Laboratory Manager

Source of Sample: Borings **Depth:** 2-4' **Date Sampled:**

Sample Number: B-4 / S-2

Thielsch Engineering Inc.

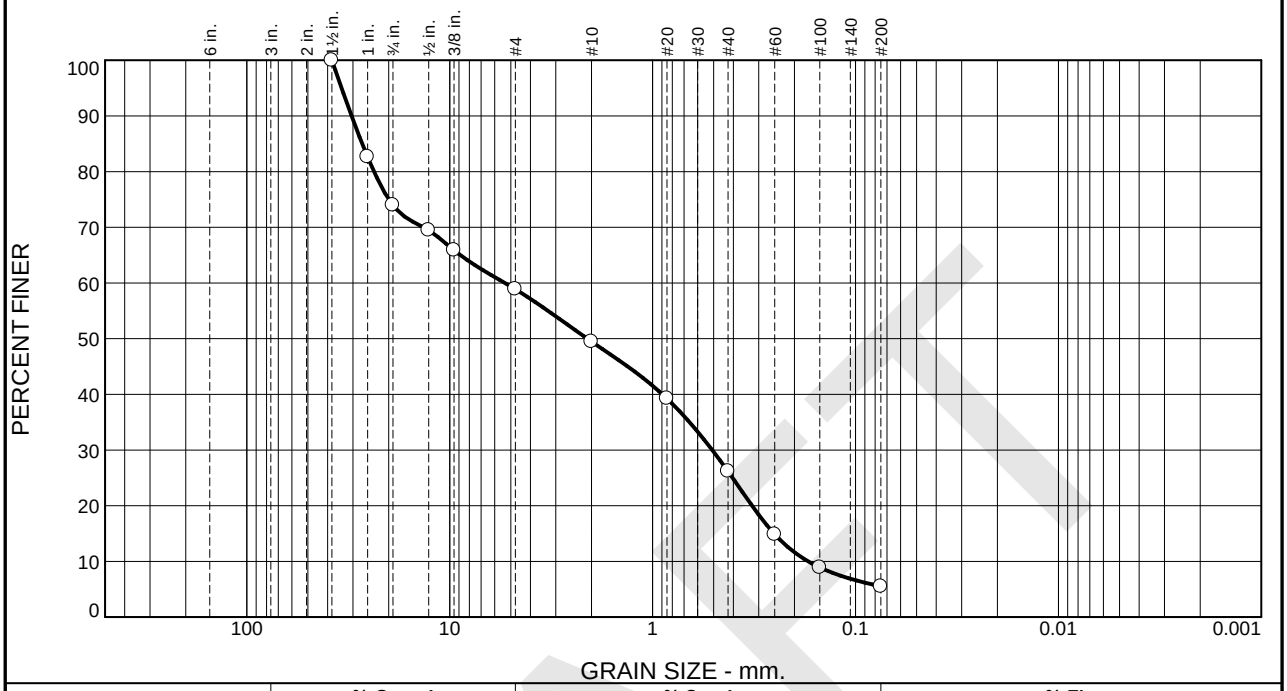
Cranston, RI

Client: GZA GeoEnviormental

Project: Mount Ivy Estates
New York, NY

Project No: 41.0162511.00 **Figure** S-3

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	26.0	15.1	9.4	23.3	20.7	5.5	

TEST RESULTS (D6913)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
1.5"	100.0		
1"	82.6		
0.75"	74.0		
0.5"	69.5		
0.375"	65.9		
#4	58.9		
#10	49.5		
#20	39.2		
#40	26.2		
#60	14.9		
#100	8.9		
#200	5.5		

* (no specification provided)

Material Description

Yellowish Brown f-c SAND and f-c GRAVEL, trace Silt

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=** NP

Classification

USCS (D 2487)= SP-SM **AASHTO (M 145)=** A-1-a

Coefficients

D_{90}= 30.4475 D_{85}= 26.9965 D_{60}= 5.3489
D_{50}= 2.0978 D_{30}= 0.5083 D_{15}= 0.2522
D_{10}= 0.1712 C_u= 31.25 C_c= 0.28

Remarks

Date Received: 06.09.17 **Date Tested:** 06.12.17

Tested By: SA

Checked By: Matthew Colman P.E.

Title: Laboratory Manager

Source of Sample: Borings **Depth:** 2-4' **Date Sampled:**

Sample Number: B-5 / S-2

Thielsch Engineering Inc.

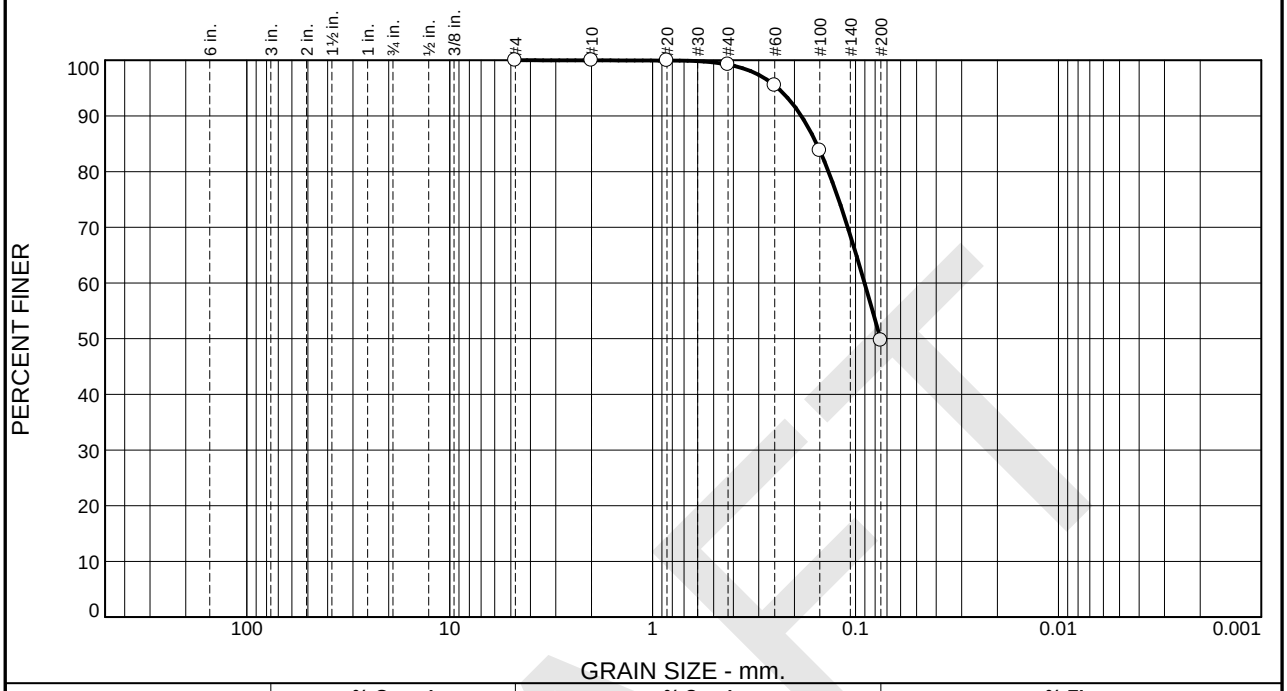
Cranston, RI

Client: GZA GeoEnviormental

Project: Mount Ivy Estates
New York, NY

Project No: 41.0162511.00 **Figure** S-4

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	0.8	49.5	49.7	

TEST RESULTS (D6913)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#4	100.0		
#10	100.0		
#20	99.9		
#40	99.2		
#60	95.5		
#100	83.8		
#200	49.7		

* (no specification provided)

Material Description

Brown fine SAND and SILT

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=** NP

Classification

USCS (D 2487)= SM **AASHTO (M 145)=** A-4(0)

Coefficients

D_{90}= 0.1851 D_{85}= 0.1554 D_{60}= 0.0903
D_{50}= 0.0754 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Remarks

Date Received: 06.09.17 **Date Tested:** 06.12.17

Tested By: SA

Checked By: Matthew Colman P.E.

Title: Laboratory Manager

Source of Sample: Borings **Depth:** 8-10' **Date Sampled:**

Sample Number: B-5 / S-5

Thielsch Engineering Inc.

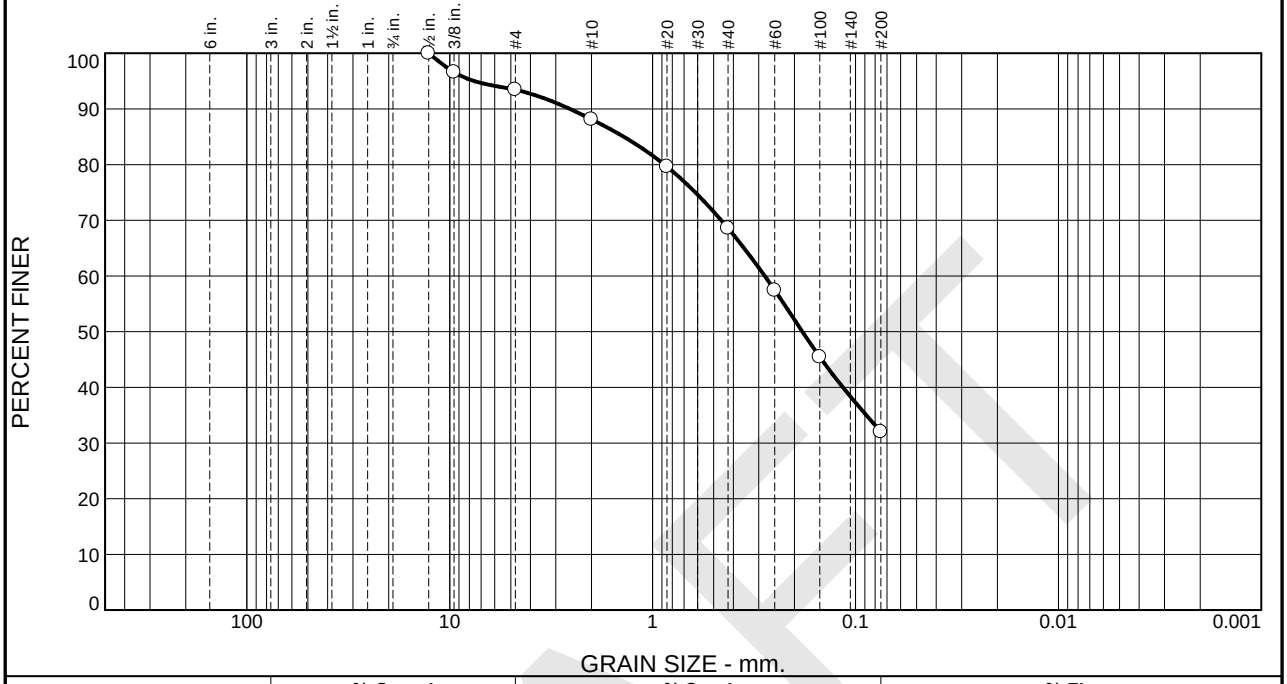
Cranston, RI

Client: GZA GeoEnviormental

Project: Mount Ivy Estates
New York, NY

Project No: 41.0162511.00 **Figure** S-5

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	6.6	5.3	19.5	36.6	32.0	

TEST RESULTS (D6913)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
0.5"	100.0		
0.375"	96.6		
#4	93.4		
#10	88.1		
#20	79.6		
#40	68.6		
#60	57.4		
#100	45.4		
#200	32.0		

* (no specification provided)

Material Description

Dark Brown f-m SAND, some Silt, trace fine Gravel

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=** NP

Classification

USCS (D 2487)= SM **AASHTO (M 145)=** A-2-4(0)

Coefficients

D_{90}= 2.5586 D_{85}= 1.3877 D_{60}= 0.2801
D_{50}= 0.1828 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Remarks

Date Received: 06.09.17 **Date Tested:** 06.12.17

Tested By: SA

Checked By: Matthew Colman P.E.

Title: Laboratory Manager

Source of Sample: Borings **Depth:** 6-8' **Date Sampled:**

Sample Number: B-6 / S-4

Thielsch Engineering Inc.

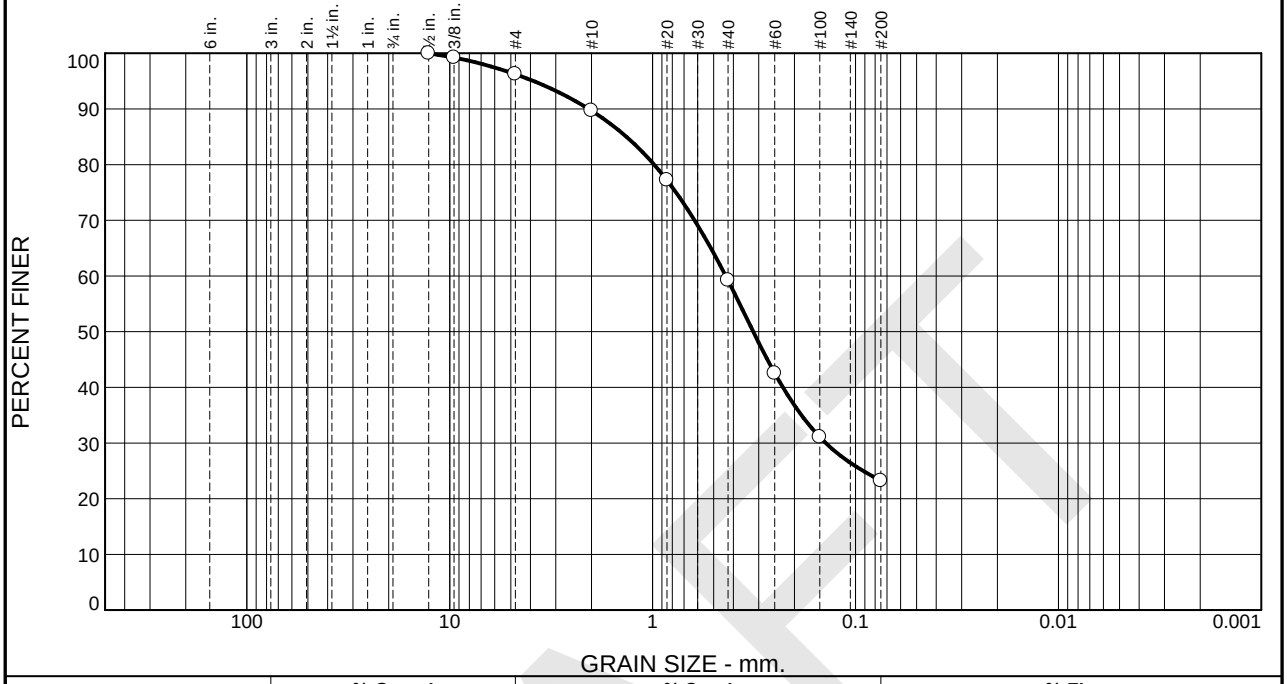
Cranston, RI

Client: GZA GeoEnviormental

Project: Mount Ivy Estates
New York, NY

Project No: 41.0162511.00 **Figure** S-6

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	3.8	6.5	30.5	36.0	23.2	

TEST RESULTS (D6913)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
0.5"	100.0		
0.375"	99.2		
#4	96.2		
#10	89.7		
#20	77.2		
#40	59.2		
#60	42.5		
#100	31.1		
#200	23.2		

* (no specification provided)

Material Description

Red f-m SAND, some Silt, trace fine Gravel

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=** NP

Classification

USCS (D 2487)= SM **AASHTO (M 145)=** A-2-4(0)

Coefficients

D_{90}= 2.0662 D_{85}= 1.3469 D_{60}= 0.4360
D_{50}= 0.3191 D_{30}= 0.1403 D_{15}=
D_{10}= C_u= C_c=

Remarks

Date Received: 06.09.17 **Date Tested:** 06.12.17

Tested By: SA

Checked By: Matthew Colman P.E.

Title: Laboratory Manager

Source of Sample: Borings **Depth:** 6-8' **Date Sampled:**

Sample Number: B-7 / S-4

Thielsch Engineering Inc.

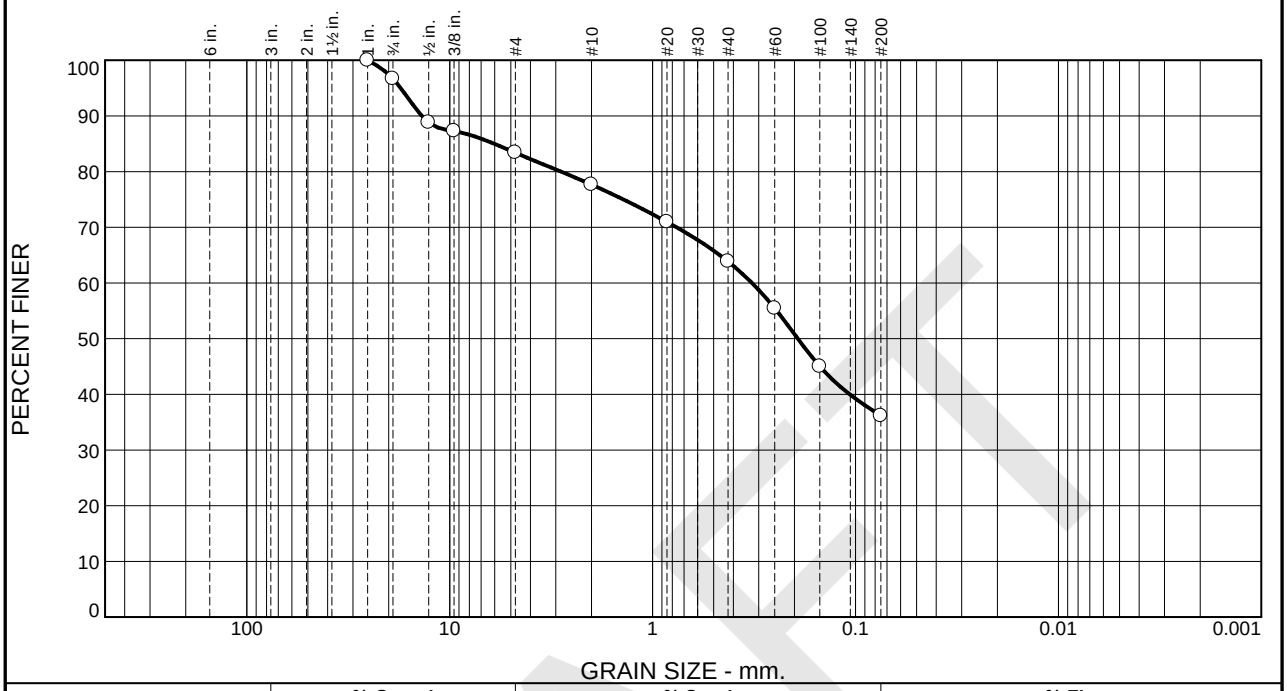
Cranston, RI

Client: GZA GeoEnviormental

Project: Mount Ivy Estates
New York, NY

Project No: 41.0162511.00 **Figure** S-7

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	3.3	13.3	5.7	13.8	27.7	36.2	

TEST RESULTS (D6913)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
1"	100.0		
0.75"	96.7		
0.5"	88.8		
0.375"	87.3		
#4	83.4		
#10	77.7		
#20	71.0		
#40	63.9		
#60	55.4		
#100	45.0		
#200	36.2		

* (no specification provided)

Material Description

Yellow f-c SAND and SILT, little f-c Gravel

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=** NP

Classification

USCS (D 2487)= SM **AASHTO (M 145)=** A-4(0)

Coefficients

D_{90}= 13.7177 D_{85}= 6.0296 D_{60}= 0.3238
D_{50}= 0.1925 D_{30}= D_{15}=
D_{10}= C_u= C_c=

Remarks

Date Received: 06.09.17 **Date Tested:** 06.12.17

Tested By: SA

Checked By: Matthew Colman P.E.

Title: Laboratory Manager

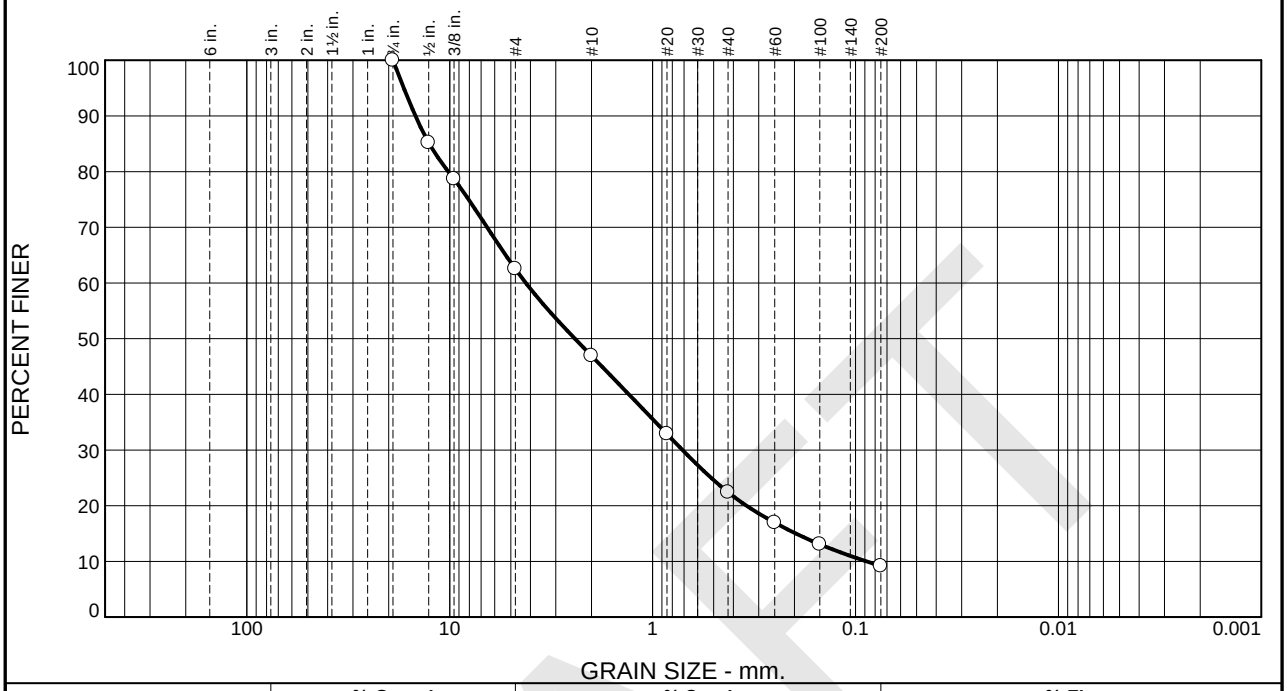
Source of Sample: Borings **Depth:** 4-6' **Date Sampled:**
Sample Number: B-9 / S-3

Thielsch Engineering Inc.

Cranston, RI

Client: GZA GeoEnviormental
Project: Mount Ivy Estates
New York, NY
Project No: 41.0162511.00 **Figure** S-8

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	37.5	15.6	24.5	13.2	9.2	

TEST RESULTS (D6913)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
0.75"	100.0		
0.5"	85.2		
0.375"	78.7		
#4	62.5		
#10	46.9		
#20	32.9		
#40	22.4		
#60	17.0		
#100	13.1		
#200	9.2		

* (no specification provided)

Material Description

Grey f-c SAND and fine GRAVEL, trace Silt

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=** NP

Classification

USCS (D 2487)= SW-SM **AASHTO (M 145)=** A-1-a

Coefficients

D_{90}= 14.7557 D_{85}= 12.6188 D_{60}= 4.2134
D_{50}= 2.4162 D_{30}= 0.7120 D_{15}= 0.1966
D_{10}= 0.0882 C_u= 47.76 C_c= 1.36

Remarks

Date Received: 06.09.17 **Date Tested:** 06.12.17

Tested By: SA

Checked By: Matthew Colman P.E.

Title: Laboratory Manager

Source of Sample: Borings **Depth:** 6-8' **Date Sampled:**

Sample Number: B-10 / S-4

Thielsch Engineering Inc.

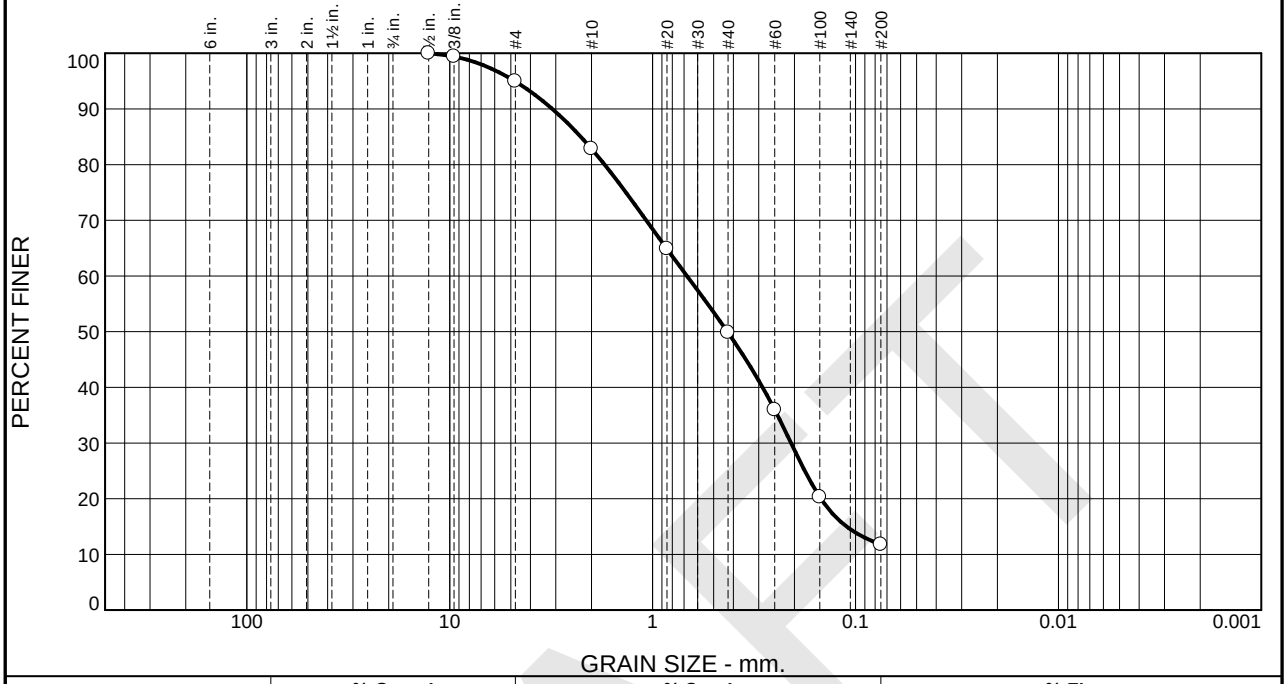
Cranston, RI

Client: GZA GeoEnviormental

Project: Mount Ivy Estates
New York, NY

Project No: 41.0162511.00 **Figure** S-9

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	5.1	12.1	33.0	38.1	11.7	

TEST RESULTS (D6913)

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
0.5"	100.0		
0.375"	99.4		
#4	94.9		
#10	82.8		
#20	64.9		
#40	49.8		
#60	35.9		
#100	20.3		
#200	11.7		

* (no specification provided)

Material Description

Yellowish Brown f-c SAND, little Silt, trace fine Gravel

Atterberg Limits (ASTM D 4318)

PL= NP **LL=** NV **PI=** NP

Classification

USCS (D 2487)= SP-SM **AASHTO (M 145)=** A-1-b

Coefficients

D_{90}= 3.1207 D_{85}= 2.2589 D_{60}= 0.6771
D_{50}= 0.4281 D_{30}= 0.2080 D_{15}= 0.1108
D_{10}= C_u= C_c=

Remarks

Date Received: 06.09.17 **Date Tested:** 06.12.17

Tested By: SA

Checked By: Matthew Colman P.E.

Title: Laboratory Manager

Source of Sample: Borings **Depth:** 2-4' **Date Sampled:**

Sample Number: B-12 / S-2

Thielsch Engineering Inc.

Cranston, RI

Client: GZA GeoEnviormental

Project: Mount Ivy Estates
New York, NY

Project No: 41.0162511.00 **Figure** S-10

Millers Pond, Ramapo, NY

Notes from Environmental Mapper/Desktop review:

5/7/20

Initial site information was pulled using the EAF Mapper tool on the NYSDEC website on 5/06/2020. According to the EAF Mapper, the site is within 2,000 feet of a NYSDEC Environmental Remediation and Superfund site (DEC ID 344064) known as the "Ramapo Paint Sludge Site." The address of the site is 24 Chestnut St, Spring Valley,NY 10977. According to the DEC, remediation of on-site paint sludge in OperableU 1 and 2 was substantially completed in April 2016. However, contaminants are still present in Operable-Unit 3, which is the OU-3 is the Camp Hill Road Area. See attached pdf for more information regarding the site.

The EAF mapper identified a classification C stream (ID 864-501) on site, in addition to state and federal regulated wetlands in the vicninity: NYS Wetland TH-16 (269.9 acres), NYS Wetland TH-31 (19.6 acres). Portions of the site are located in the 100-year floodplain, and surrounding principal and primary aquifers.

According to the US Fish and Wildlife IPaC tool report (attached) pulled on 5/06/2020, the threatened bog turtle is the only endangered or threatened species that exists within the vicinity. There are no critical habitats identified on site. The US Fish and Wildlife Service should be contacted directly to determine if there is a potential impact to the bog turtle on site. The IPaC tool also identified 12 migratory bird species of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in the project site. These birds are detailed in the attached IPaC report.

A project screening request was submitted to the New York Natural Heritage Program on 5/07/2020. Response time is 3-4 weeks, although projects extending over large areas or requiring more information may take longer.

NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

Environmental Site Remediation Database Search Details

Site Record

Administrative Information

Site Name: Ramapo Paint Sludge Site
Site Code: 344064
Program: State Superfund Program
Classification: A
EPA ID Number:

Location

DEC Region: 3
Address: Route 17
City: Ramapo Zip: 10911
County: Rockland
Latitude: 41.138128386
Longitude: -74.165382784
Site Type:
Estimated Size: 10 Acres

Site Owner(s) and Operator(s)

Site Document Repository

Name: Finkelstein Memorial Library
Address: 24 Chestnut St
Spring Valley,NY 10977
Name: Village of Hillburn
Address: Village Hall
31 Mountain Avenue Hillburn,NY 10931
Name: Town of Ramapo
Address: 237 Route 59
Suffern,NY 10901

Site Description

Location: The Ramapo Paint Sludge Site consists of areas where paint sludge was reportedly disposed of in the Town of Ramapo, Rockland County. At present, three locations have been identified. These include the North of Ramapo Well Field Area, the Torne Valley Road Area and the Camp Hill Road Area. The North of Ramapo Well Field and the Torne Valley Road Area are located in

an undeveloped area approximately two miles north of the Village of Suffern. The Camp Hill Road Area is located in a suburban area approximately one mile southwest of the intersection of the Palisades Parkway and Route 202. Current Zoning/Use: The North of Ramapo Well Field is undeveloped and is utilized as a well field operated by United Water. Access to the Ramapo Well Field is restricted by a site access gate. The Torne Valley Road Area is vacant and primarily wooded. Both of these areas are zoned for residential use; however, the town has filed a restrictive covenant that prohibits single family homes in these areas. The Camp Hill Road Area includes a pond approximately one acre in size and encroaches on New York State (NYS) regulated wetland TH-16. The Camp Hill Road area is adjacent to an area that is zoned residential. Past Uses of the Site: The North of Ramapo Well Field and Torne Valley Road Area have had several historic uses including rock mining and heavy equipment storage. The Torne Valley Road Area was reportedly used as a waste transfer station for the adjacent Ramapo Landfill and may have been reworked during the time that the landfill was in operation. The Camp Hill Road Area was formally used as a day camp in the early 1970s. All three areas were the location of illegal disposal of waste paint sludge from the Ford¿s Mahwah, New Jersey assembly plant. Operable Units: The site is divided into three operable units. An operable unit represents a portion of a remedial program for a site that for technical or administrative reasons can be addressed separately to investigate, eliminate or mitigate a release, threat of release or exposure pathway resulting from the site contamination. Operable Unit 1 (OU-1) is the North of Ramapo Well Field and consists of a 40-acre area bounded on the east by the Ramapo River and bounded on the west by railroad tracks and Bridge Street. OU-2 is the Torne Valley Road Area and consists of an area to the west of Torne Valley Road and to the east of the Torne Brooke (northern area), and an additional smaller area to the east of Torne Valley Road (southern area). OU-3 is the Camp Hill Road Area and consists of a small area that encroaches on a NYS regulated wetland and is adjacent to a residential development. OU-3 is approximately six miles northeast of OU-1 and OU-2. Site Geology and Hydrogeology: The North of Ramapo Well Field and Torne Valley Road Area are adjacent to the Ramapo River and Torne Brook. The depth to competent bedrock varies at the site from between 72 and 100 feet. Bedrock is covered by stratified drift which consists of unconsolidated deposits composed of sand, gravel, silt, and clay. Overburden groundwater is present at approximately 10 feet below ground surface and generally flows south following the Torne Brook and Ramapo River. United Water supply wells in Operable Unit 1 are screened at depths ranging from 46 feet to 98 feet within the stratified drift. The Camp Hill Road Area is adjacent to a man-made pond. The pond is fed by a small stream from the northwest and has an overflow which discharges to another small stream on the east side of the pond, which then flows into the regulated wetland.

Contaminants of Concern (Including Materials Disposed)

Contaminant Name/Type

benzo(a)pyrene
ethylbenzene
manganese

methyl ethyl ketone
zinc
toluene
acetone
xylene (mixed)
benzene
benzo(b)fluoranthene
chrysene
benzo(a)anthracene
indeno(1,2,3-CD)pyrene
arsenic
mercury
selenium
barium
cadmium
copper
lead
naphthalene
nickel

Site Environmental Assessment

Based upon investigations conducted to date, the primary contaminant of concern (COC) for all OUs were those associated with paint sludge. The paint sludge contains volatile organic compounds (VOCs) including benzene, toluene, ethylbenzene, and xylene (BTEX), the semi-volatile organic compound (SVOC) naphthalene, as well as several metals including barium, cadmium, copper mercury, nickel, zinc and most notably lead. Remediation of paint sludge has been completed in OU-1 and OU-2. An Interim Remedial Measure was completed in OU-1 in April 2014. Following the IRM, post-excavation samples in OU-1 indicate exceedances of Unrestricted SCOs for VOCs, SVOCs, and metals. Remediation of on-site paint sludge was substantially completed in OU-2 in April 2016. Off-site paint sludge near OU-2 must still be addressed. In the OU-3 areas, paint sludge is present in one concentrated area in the sub-surface within a regulated dam adjacent to a pond, and some pieces of paint sludge material are present along the shallow eastern bank of the on-site pond and the surface of the dam. Paint sludge in OU-3 extends from 0 to 16 feet below the ground surface.

Site Health Assessment

Measures are in place to prevent people from coming into contact with any remaining contamination in Operable Unit (OU) 1 and OU-2. OU-3 is not fenced and persons who enter OU-3 could contact contaminants in soil by digging or otherwise disturbing the soil.

For more Information: E-mail Us

Refine This Search

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Rockland County, New York

Local offices

Long Island Ecological Services Field Office

(631) 286-0485
(631) 286-4003

340 Smith Road
Shirley, NY 11967-2258

New York Ecological Services Field Office

(607) 753-9334

(607) 753-9699

3817 Luker Road
Cortland, NY 13045-9385

http://www.fws.gov/northeast/nyfo/es/section7.htm

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

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1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Reptiles

NAME	STATUS

Bog Turtle Clemmys muhlenbergii Threatened

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/6962

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle *Haliaeetus leucocephalus* This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Sep 1 to Aug 31
Black-billed Cuckoo *Coccyzus erythropthalmus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Black-capped Chickadee *Poecile atricapillus practicus* This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds Apr 10 to Jul 31
Bobolink *Dolichonyx oryzivorus* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Canada Warbler *Cardellina canadensis* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Cerulean Warbler *Dendroica cerulea* This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974	Breeds Apr 27 to Jul 20

Golden-winged Warbler Vermivora chrysoptera This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/8745	Breeds May 1 to Jul 20
Prairie Warbler Dendroica discolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Rusty Blackbird Euphagus carolinus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31
Yellow-bellied Sapsucker sphyrapicus varius This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/8792	Breeds May 10 to Jul 15

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any

week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.

3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

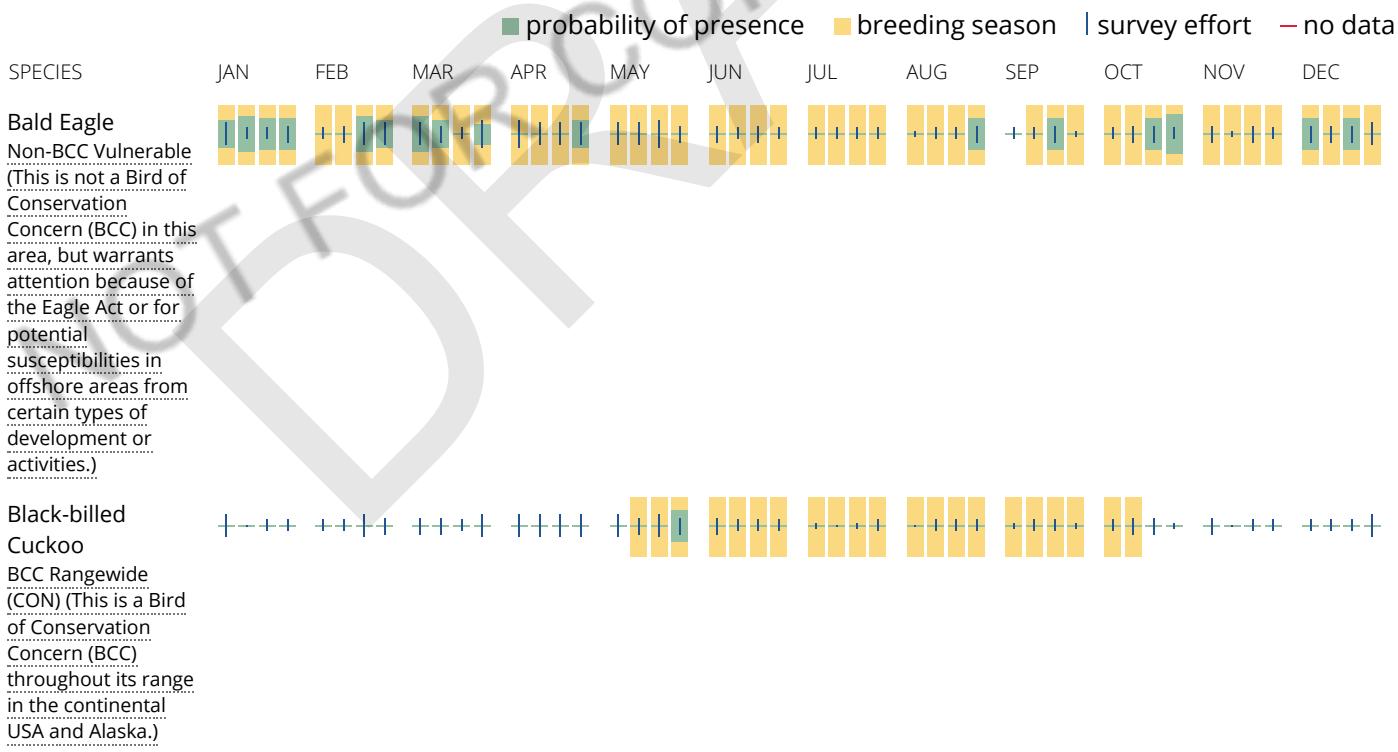
Breeding Season (■)
Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

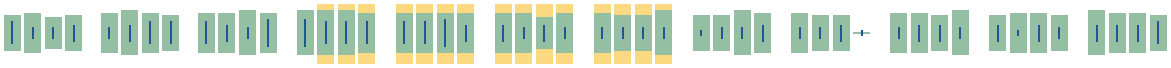
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (–)
A week is marked as having no data if there were no survey events for that week.

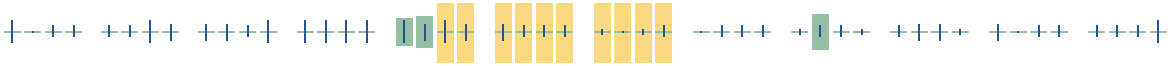
Survey Timeframe
Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



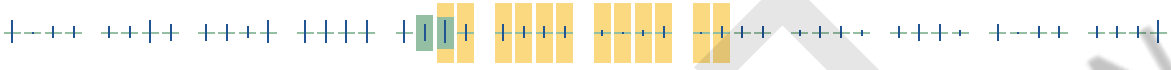
Black-capped Chickadee
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



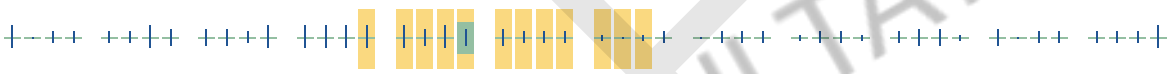
Bobolink
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



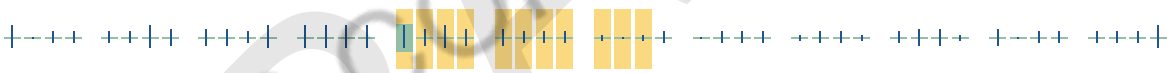
Canada Warbler
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Cerulean Warbler
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)



Golden-winged Warbler
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

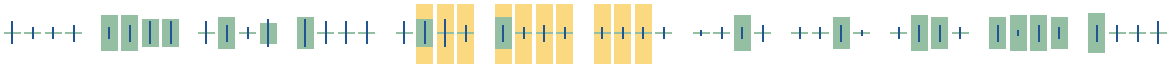


Prairie Warbler
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Rusty Blackbird
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Wood Thrush
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Yellow-bellied Sapsucker
BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA)



Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the AKN Phenology Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1Ed
- PSS1E
- PFO1C
- PFO1E
- PSS1C

FRESHWATER POND

- PUBHx
- PUBHh

RIVERINE

- R2UBH
- R5UBH

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

Kimley»Horn
of New York, P.C.

MEMORANDUM

To:	David Gilmour, Laberge Group
From:	Bonnie Von Ohlsen, AICP, RLA Kimley Horn of NY, PC
Date:	May 8, 2020
Subject:	Millers Pond (former Minisceongo golf course site), Ramapo NY **Response to Site Information request**

As per our phone conversations and virtual meetings in April 2020, we are providing several responses to your requests for information regarding the Millers Pond site. Where we are still compiling some information/responses, and we have indicated below when we anticipate that to be delivered as well. The responses are listed in no particular order.

1. Are there are plans for sidewalks on Pomona Rd.?
    - ***Response – While there are no current plans for sidewalks on Pomona Road, we are open to including sidewalks or other traffic control systems that might be necessary on Pomona Road.***

2. Regarding the stone pillars on either side of the existing entry driveway, are they proposed to be removed, preserved, or rebuilt?
    - ***Response – Our intent is to preserve and update the monuments, but should Pomona Road improvements (i.e. egress lane, traffic light, potential sidewalk, etc.) encroach too close to the monuments, we will replace them with new monuments and use the existing monuments for inspiration.***

3. Is the intention for the adaptively reused clubhouse to be open to the public? Or will it be for homeowners assoc./residents only? What facilities will be available?
    - ***Response - It is likely that the lower level will be dedicated homeowner association amenities such as men's and women's fitness, yoga, lounge, etc. The main level, including the center space with vaulted ceiling, will initially support sales and marketing of the project, continuing to serve as our sales information center. As part of this, we will build out 3 new temporary sales offices in the western end of the large meeting room. The balance of the main level, including the dining room, kitchen and outside deck, may be converted to a restaurant that would likely be open to the public. The balance of the large meeting room will likely be made available for homeowner association events and could be open to the public for select community events. Finally, a portion of the loft/upper***

level will be dedicated to property management and developer support staff.

4. Regarding dedication of the roadways to the town, road ownership and road maintenance:
   - ***Response – Our preference is to retain ownership of the roads in an effort to ensure timely, on-going maintenance.***

5. Regarding length of proposed trails, and materials envisioned:
   - ***Response – The proposed trail system shown on the initial plan is approximately 11,100 linear feet (or 2.1 miles total). This includes proposed new trails connecting to existing cart paths to remain. New trails are intended to meet the same design width and material as the existing cart paths that traverse the site.***

6. Regarding the documentation from NYSOPRHP (SHPO) and submittals on CRIS, we have provided the attached (see attachment 1):
   - ***Historic and archaeology letters received from SHPO***
   - ***Copies of the 2 historic data submittals to CRIS (including photos of stone towers, clubhouse, cemetery)***

7. Regarding wetlands, we have provided (see attachment 2):
   - ***Jurisdictional Determination letter from USACOE, dated 9/20/18***
   - ***Wetland map dated 9/4/18, confirmed in the field by NYSDEC (signed map to be forwarded once available)***

8. Project description, building types, visual appearance, architectural styles (preliminary elevations) are provided in Community-Architectural Overview dated 5/8/20 (see attachment 3).

9. Proposed building height summary (in stories and feet), with building number reference plan (provided in attachment 4).

10. Preliminary surface parking summary, excluding garages and driveways (provided in attachment 5).

11. Preliminary Geotechnical Engineering Report (GZA), July 2017 (provided in attachment 6).

12. Results of habitat/species desktop review (provided in attachment 7).

13. Perspective view from Camp Hill Road looking into the site (to the east) from the intersection of the proposed new road – to be provided next week (Tuesday, 5/12/20).

Enclosures/attachments 1 through 7


MILLERS POND

Ramapo Paint Sludge Site - 344064

May 20, 2020

1:18,056

0 0.1 0.2 0.4 mi

0 0.17 0.35 0.7 km

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

NYS Department of Environmental Conservation
Not a legal document

OWNER:

MOUNT IVY LLC A NEW YORK LIMITED LIABILITY COMPANY

REVISION	DATE	DESCRIPTION
5	07-07-16	NEW TOTAL AREA NYSDEC WETLANDS
4	06-29-16	ADDED NYSDEC TH 16 31 AND U.S.ARMY CORP.
3	06-20-16	ADD NEW AREA "E" WETLAND FLAGES
2	03-09-16	ADJACENT AREAS
1	03-04-16	ADDED DELINEATION AREAS A-D

ATZL, NASHER & ZIGLER P.C.
ENGINEERS-SURVEYORS-PLANNERS

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Fax: (845) 634-5543

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Tel: (845) 469-1015
Fax: (845) 469-1016

Web: ANZNY.com

PROJECT:

MOUNT IVY LLC & LINDIFRIM LIMITED PARTNERSHIP

TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:

NYSDEC WETLANDS WETLAND DELINEATION MAP

DRAWN BY: VC	CHECKED BY: DMZ
DATE: JANUARY 29, 2016	SCALE: 1 IN. = 100 FT.
PROJECT NO: 2028	DRAWING NO: 1

"UNAUTHORIZED ALTERATIONS OR ADDITIONS TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S EMBOSSED SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW."
"ONLY COPIES FROM THE ORIGINAL TRACING OF THIS SURVEY MAP MARKED WITH THE LAND SURVEYOR'S EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES."
"CERTIFICATION INDICATED HERE ON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYOR'S ADOPTED BY THE DELAWARE - HUDSON LAND SURVEYORS ASSOCIATION. SAID CERTIFICATIONS SHALL RUN ONLY TO THOSE NAMED INDIVIDUALS AND/OR INSTITUTIONS FOR WHOM THE SURVEY WAS PREPARED. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INDIVIDUALS, INSTITUTIONS, THEIR SUCCESSORS AND/OR ASSIGNS OR SUBSEQUENT OWNERS."

STATE OF NEW YORK
JOHN R. ATZL

JOHN R. ATZL
N.Y.S. P.L.S. LIC. NO. 50228

E-3 TO
AMAPO
P 416

NYSDEC FRESHWATER WETLAND BOUNDARY VALIDATION

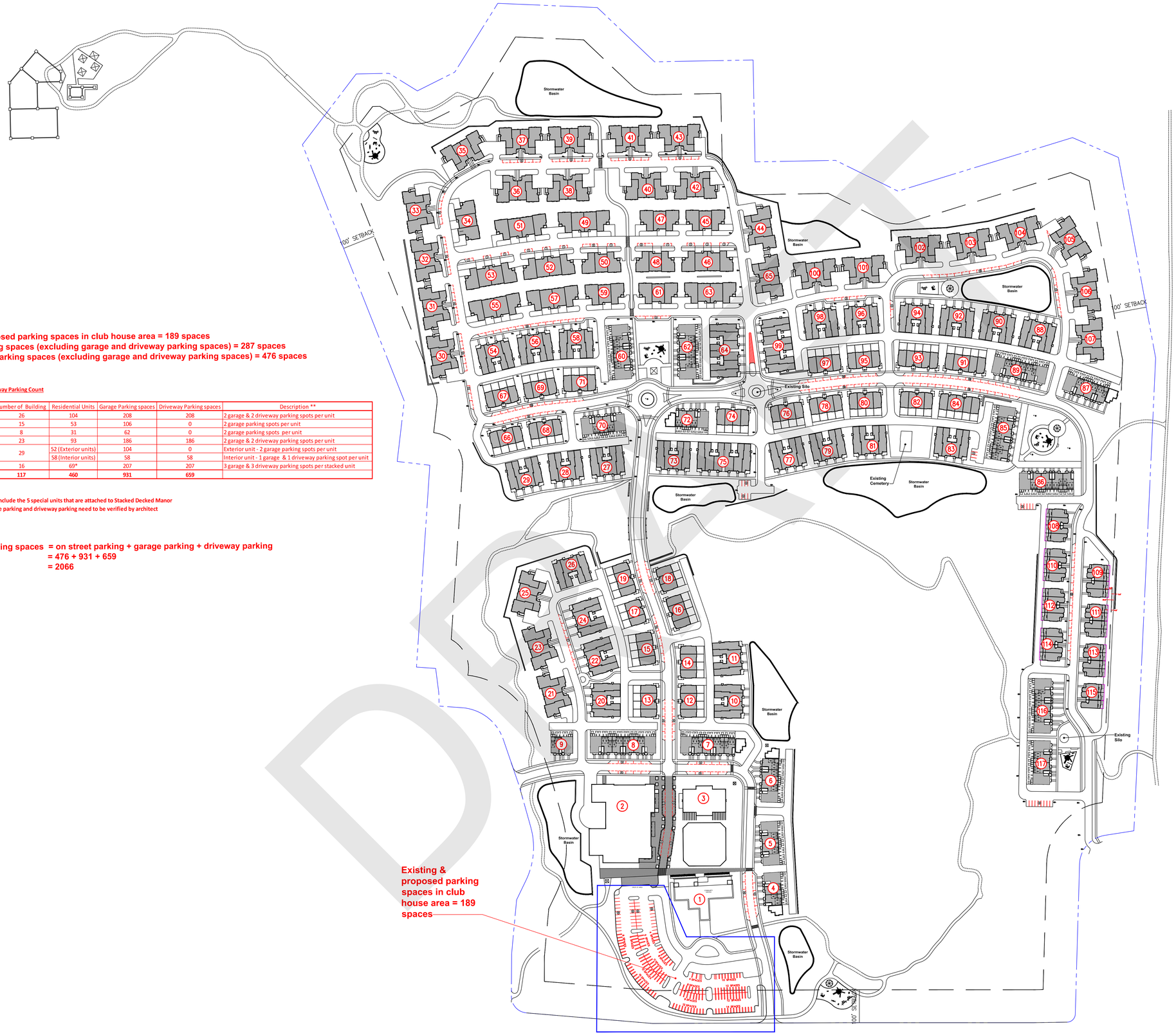
The freshwater wetland boundary as represented on these plans accurately depicts the limits of Freshwater Wetland TH-16 TH-31 as delineated by Robert Torgerson on 6-18-16

DEC Staff: _____ 8/1/16 Surveyor/Engineer: _____

Date Valid: 8/1/16 Expiration Date: 8/1/21 SEAL

Wetland boundary delineations as validated by the New York State Department of Environmental Conservation remain valid for five (5) years **unless** existing exempt activities, area hydrology, or land use practices change (e.g., agricultural to residential). **After five (5) years the boundary must be revalidated by DEC staff.** Revalidation may include a new delineation and survey of the wetland boundary.

Any proposed construction, grading, filling, excavating, clearing or other regulated activity in the freshwater wetland or within 100 feet of the wetland boundary as depicted on this plan requires a permit from the NYS Department of Environmental Conservation under Article 24 of the Environmental Conservation Law (Freshwater Wetlands Act) prior to commencement of work.



Existing & proposed parking spaces in club house area = 189 spaces
On street parking spaces (excluding garage and driveway parking spaces) = 287 spaces
Total on street parking spaces (excluding garage and driveway parking spaces) = 476 spaces

Building Garage and Driveway Parking Count

Building Type	Number of Building	Residential Units	Garage Parking spaces	Driveway Parking spaces	Description **
Quad	26	104	208	208	2 garage & 2 driveway parking spots per unit
OSTH	15	53	106	0	2 garage parking spots per unit
Valley Edge TH	8	31	62	0	2 garage parking spots per unit
Main Street TH	23	93	186	186	2 garage & 2 driveway parking spots per unit
Courtyard TH	29	52 (Exterior units)	104	0	Exterior unit - 2 garage parking spots per unit
		58 (Interior units)	58	58	Interior unit - 1 garage & 1 driveway parking spot per unit
Stacked Decked Manor	16	69*	207	207	3 garage & 3 driveway parking spots per stacked unit
Total	**117**	**460**	**931**	**659**	

Note:
*** 69 stacked unit. Doesn't include the 5 special units that are attached to Stacked Decked Manor**
**** Typical number of garage parking and driveway parking need to be verified by architect**

Total on site parking spaces = on street parking + garage parking + driveway parking
= 476 + 931 + 659
= 2066

Existing & proposed parking spaces in club house area = 189 spaces

GRAPHIC SCALE IN FEET
0 60 120 240

NORTH

DRAFT for review 03/30/2020

NO.	REVISIONS	DATE	BY

NOT FOR CONSTRUCTION

Kimley»Horn of New York, P.C.
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WHITE PLAINS, NY 10601
PHONE: 914-368-9200
WWW.KIMLEY-HORN.COM

LANDTREE DEVELOPMENTS

Michael W. Junghans
N.Y. Professional Engineer
No. 072072

KHA PROJECT	112069000
DATE	XX-XX-20XX
SCALE:	AS SHOWN
DESIGNED BY:	XXX
DRAWN BY:	XXX
CHECKED BY:	MWJ

ONSITE PARKING COUNT

MILLERS POND RESIDENTIAL DEVELOPMENT
110 POMONA ROAD
SUFFERN, NY 10901
TOWN OF RAMAPO NEW YORK

SHEET NUMBER
PK

From:	Von Ohlsen, Bonnie
To:	David Gilmour (DGilmour@labergegroup.com)
Cc:	Nicole Allen (nallen@labergegroup.com); Junghans, Mike; Matt Rodgers (MRogers@Labergegroup.com); David Schiff (David.Schiff@kimley-horn.com)
Bcc:	Jay McDermott; Jessica Petraccoro; raphael@lantreedev.com; Daniel A. Ruzow (druzow@woh.com)
Subject:	responses to email - Millers Pond Site
Date:	Monday, July 13, 2020 9:40:00 AM
Attachments:	NYSDEC Natural Heritage Letter 06012020.pdf 2020-07-10 notes on Veg Wildlife.pdf Plan to SHPO Dec 2019.pdf

---

Hi David - in response to your email of 7/10/20, please see below and attached:

- SHPO map with Area of Disturbance provided in December 2019 - area of disturbance corresponding with that footprint is 94.3 acres.
- Steep slopes - (provide information on areas of disturbance of slopes 15% or greater, and 25% or greater) - areas provided on attachment
- See attached vegetation and wildlife narrative prepared by Peter Torgersen (2018)
- See attached NYSDEC Natural Heritage letter (June 2020)
- We will not be providing a grading plan at this point in the process.

Thank you

Bonnie Von Ohlsen, AICP, RLA (NY, CT, NJ), LEED Green Assoc. | Associate
Kimley-Horn | 1 North Lexington Avenue, Suite 1575, White Plains, NY 10601
Direct: 914 368 9196 | Main: 914 368 9200 | Mobile: 203 830 9081
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Vegetation and Wildlife

Notes from Peter Torgersen – Millers Pond site

Vegetation

Because the site was developed as a golf course the majority of the onsite habitat has been significantly altered. Because of this development there are a number of unranked cultural habitats to be found. Terrestrial Communities onsite are Urban Structure Exterior, Paved Path, Mowed Lawn and Mowed Lawn with Trees. There are two Riverine Communities onsite, Natural Stream with a ranking of G4 S3 and Ditch/Artificial Stream which is unranked cultural. There are two examples of Palustrine Communities onsite. The first is Red Maple/Hardwood Swamp with a rank of GS S4S5. The second is Shallow Emergent Marsh with a rank of GS SS. Terrestrial Communities found onsite is the Chestnut Oak Forest with a rank of GS S4. There are two Lacustrine Communities onsite, the first is Farm Pond/artificial pond and the second is Reservoir/artificial impoundment. The pond is located along the west edge of the site about halfway back and the artificial impoundment is the pond located at the south west corner of the site next to Pomona Road.

The upland forested portions of the site have Red Oak, White Oak, Red Maple, Black Cherry, Poplar, Tulip and Ash as typical species. Shrub species are Black Huckleberry, Multiflora Rose and Spice Bush. The forested wetland areas have Swamp White Oak, Red Maple, Pin Oak and River Birch as the dominant tree species. These wetlands have Highbush Blueberry, Spice Bush and Silky Dogwood as the dominant shrub layer. Ground cover within the forested wetlands is Soft Rush, Sensitive Fern, Cinnamon Fern, Sphagnum Moss, Skunk Cabbage and Tussock Sedge. There are a few small areas of emergent meadow wetlands to found onsite. These areas are dominated by Highbush Blueberry, Broadleaf Cattail, Skunk Cabbage, Soft Rush, Sensitive Fern and Tussock Sedge.

Wildlife

The animal species present onsite are the usual ones found in a semirural setting in lower New York State. While working onsite during 2016 I saw Whitetail Deer, Cottontail Rabbit, Ground Hog, Grey Squirrel and Chipmunk. I saw footprints of Raccoons and Opossums along the banks of the stream. Reptile species observed were Garter Snake and Painted Turtle. American Toad, Green Frog Wood Frog and Leopard Frog were the only amphibians seen. Regarding bird sightings I consistently saw or heard Red tail Hawks, Wild Turkey, Blue Jay, Robin, Starlings, Catbirds and Carolina Wrens. The U.S Fish & Wildlife Service currently lists three animals that are known or believed to occur in Rockland County, these are the Indiana Bat, the Northern Long Eared Bat and the Bog Turtle. According to the11-30-17 letter from NYSDEC there are no state listed species within or near the project site. There have been no documented occurrences of either bat or turtle in Rockland County. The Timber Rattlesnake is a federally protected animal that is known to exist in the Palisade Park system specifically west of Route 202. The Indiana Bat and the Northern Long Eared Bat both prefer to roost and den in trees that have peeling or exfoliated bark and also receive a significant amount of sun. Living trees such as Shagbark Hickories are their first choice. Trees that are dead or damaged that have cracks or holes also are a prime example. Due to the previous golf course use any dead or damaged trees were routinely

removed. There is a small number of Shagbark Hickories still to be found onsite. Further north offsite and within the large wetland itself one may find numerous trees that conform to the published definition of potential roost trees. The Bog Turtle lives in fens or marshes that have a ground water source of hydrology as well as open habitat to allow them to sun themselves. The emergent meadow portions of the project site are fed primarily by storm water runoff, a feature that effectively eliminates these areas from being potential Bog Turtle habitat. Areas fed by storm water runoff have a water table that varies too much for the turtles to successfully hatch since any large storm will drown the eggs.

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Fish and Wildlife, New York Natural Heritage Program
625 Broadway, Fifth Floor, Albany, NY 12233-4757
P: (518) 402-8935 | F: (518) 402-8925
www.dec.ny.gov

June 1, 2020

Audrey Vogel
Kimley-Horn
1 N Lexington Ave, Suite 1575
White Plains, NY 1575

Re: Millers Pond
County: Rockland Town/City: Ramapo

Dear Ms. Vogel:

In response to your recent request, we have reviewed the New York Natural Heritage Program database with respect to the above project.

We have no records of rare or state-listed animals or plants, or significant natural communities at the project site or in its immediate vicinity.

The absence of data does not necessarily mean that rare or state-listed species, significant natural communities, or other significant habitats do not exist on or adjacent to the proposed site. Rather, our files currently do not contain information that indicates their presence. For most sites, comprehensive field surveys have not been conducted. We cannot provide a definitive statement on the presence or absence of all rare or state-listed species or significant natural communities. Depending on the nature of the project and the conditions at the project site, further information from on-site surveys or other resources may be required to fully assess impacts on biological resources.

This response applies only to known occurrences of rare or state-listed animals and plants, significant natural communities, and other significant habitats maintained in the Natural Heritage database. Your project may require additional review or permits; for information regarding other permits that may be required under state law for regulated areas or activities (e.g., regulated wetlands), please contact the NYS DEC Region 3 Office, Division of Environmental Permits, at dep.r3@dec.ny.gov.

Sincerely,

Heidi Krahling
Environmental Review Specialist
New York Natural Heritage Program

548

Green (Typ.)

Stone Tower (To be preserved)

Cemetery (To be preserved)

Tee (Typ.)

Conservation Area - CR (To be preserved)

Wall (Typ.)

Trail (Typ.)

Water Course (Typ.)

Limit of Disturbance (Typ.)

100' Wetland Buffer (Typ.)

Club House (To be preserved)

Stone Tower (To be preserved)

Pond (To be preserved)

Parking (To be preserved)

LEGEND

SMH	EXISTING SANITARY SEWER MANHOLE		EXISTING HYDRANT
DMH	EXISTING DRAINAGE MANHOLE	LP	EXISTING LIGHT POLE
MH	EXISTING MANHOLE	LP	EXISTING BOLLARD LIGHT POLE
CB	EXISTING CATCH BASIN	UP	EXISTING UTILITY POLE
S/K	EXISTING WOOD STAKE	SD	EXISTING STORM DRAIN
I.P.	EXISTING IRON PIPE		ELECTRIC TRANSFORMER
FP	EXISTING FLAGPOLE	PIN	EXISTING IRON PIN

NOTE:
TOPOGRAPHICAL INFORMATION FROM 1994
CURRENT UPDATE BEING PREPARED

REVISION	DATE	DESCRIPTION

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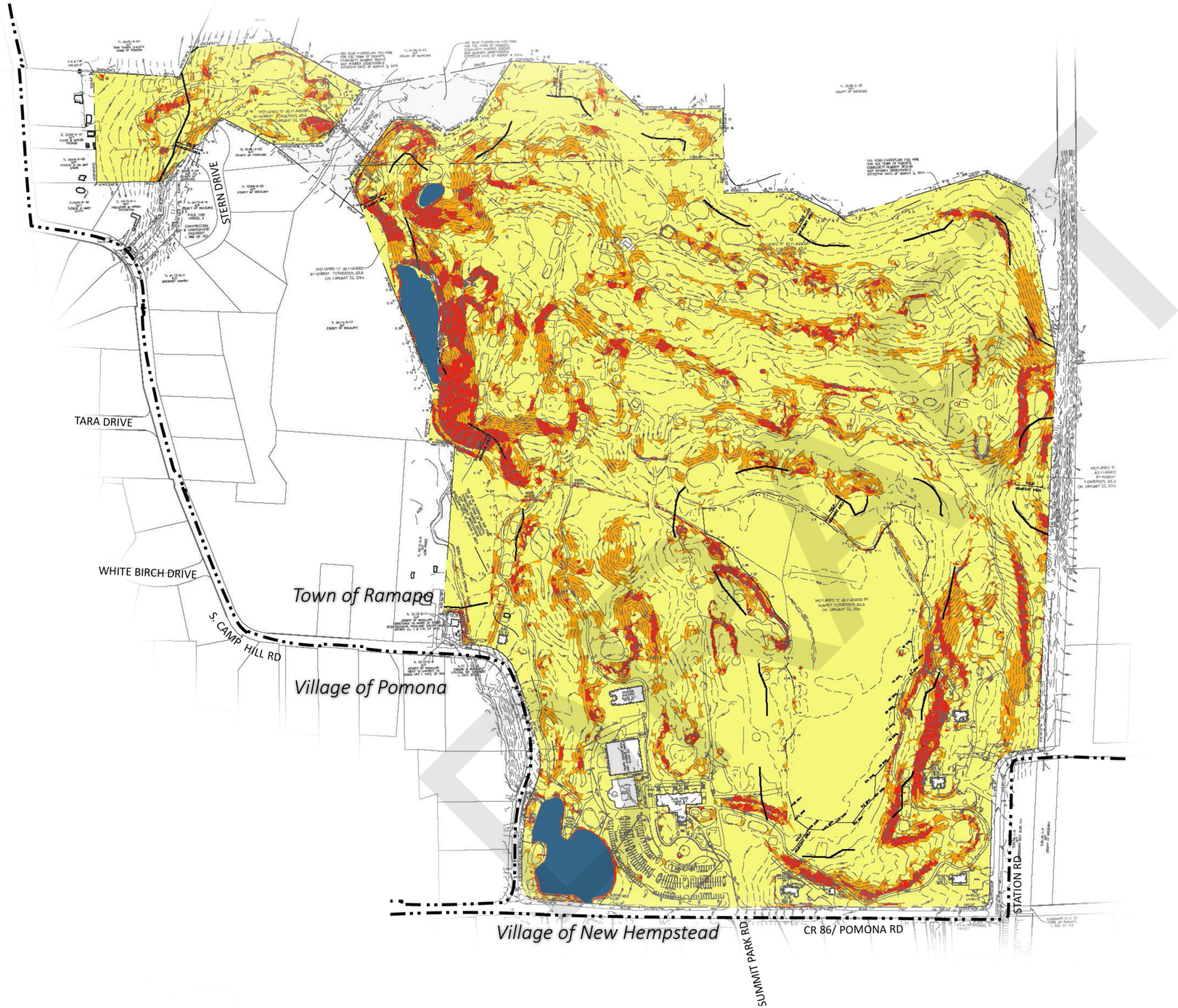
P.O. Box 636
Chester, New York 10918
Tel: (845) 469-1015
Fax: (845) 469-1016
Web: ANZNY.com

PROJECT:
MOUNT IVY LLC &
LINDIFRIM LIMITED
PARTNERSHIP

TOWN OF RAMAPO
ROCKLAND COUNTY, NEW YORK

TITLE:
BASE PLAN FOR
CONCEPT DESIGN

DRAWN BY:	VC	CHECKED BY:	DMZ
DATE:	MARCH 09, 2016	SCALE:	1 IN. = 100 FT.
PROJECT NO:	2028	DRAWING NO:	2



Slopes

- 0-15%
- 15-25%
- 25+%
- Existing Building
- Open Water

0 400'

1inch = 400 feet

MILLER'S POND
Ramapo, New York

Kimley»Horn

Exhibit III. C-3
Slope Analysis

DRAFT 6/12/18

SURFACE SLOPE DATA

NUMBER	MINIMUM SLOPE	MAXIMUM SLOPE	AREA (AC)	COLOR
1	0%	15%	115.21	
2	15%	25%	20.31	
3	25%	70%	10.04	