



PLANNING BOARD MEETING AGENDA

June 26, 2024 at 7:30 PM

432 Route 306, Wesley Hills, NY 10952

Phone: 845-354-0400 | Fax: 845-354-4097

CALL TO ORDER

CONTINUED PUBLIC HEARING

- 1. CONTINUED PUBLIC HEARING ON THE APPLICATION SUBMITTED BY ROCKLAND TREE EXPERT CO., INC. DBA IRA WICKES/ARBORISTS FOR AN AMENDED SITE PLAN AND SPECIAL PERMIT.** Affecting property located on the South side of McNamara Road, 0 feet West of Union Road. Designated on the Town of Ramapo Tax Map as Parcel ID#42.13-1-22. Subject property is located at 11 McNamara Road.

PUBLIC HEARING

- 2. PUBLIC HEARING ON THE APPLICATION OF CONGREGATION AHAVAS YITZCHAK FOR A REVISION OF A SPECIAL PERMIT AND REVISED SITE PLAN APPROVAL FOR A NEIGHBORHOOD GATHERING.** Affecting property located on the west side of Forshay Road at the intersection with Parker Blvd. Designated on the Town of Ramapo Tax Map as Parcel ID #41.18-1-12. Subject property is located at 73 Forshay Road.

DISCUSSIONS

- 3. CONTINUED DISCUSSION OF THE APPLICATION OF NANCY RUBIN ON BEHALF OF MARK NUSSEN FOR A CLEARING/FILLING/EXCAVATING PERMIT.** Affecting property located on the west side of Astor Place, 0 feet from the intersection of Ardley Place. Designated on the Town of Ramapo Tax Map as Parcel ID#41.06-1-78. Subject property is located at 33 Astor Place.
- 4. DISCUSSION ON THE APPLICATION SUBMITTED BY JAY COURT HOLDINGS, LLC FOR SKETCH PLAT APPROVAL OF THE 2 LOT SUBDIVISION KNOWN AS JAY COURT HOLDINGS SUBDIVISION.** Affecting property located on the north side of East Willow Tree Road, approximately 200 feet from the intersection of Rainbow Court. Designated on the Town of Ramapo Tax Map as Parcel ID #41.08-1-34 & 41.08-1-44.2. Subject property is located at 2 Charlotte Drive & 106 East Willow Tree Road.
- 5. DISCUSSION:** Recommendation to Board of Trustees on proposed Zoning Law Amendment.

APPROVAL OF MINUTES

- 6.** May 29, 2024

ADJOURNMENT

January 3, 2024

Village of Wesley Hills Planning Board
432 Route 306
Wesley Hills, NY 10952

Attn. Chair Brown and Honorable members of the Planning Board

Re: Wickes Arborists – 11 McNamara Road
Response to Site Plan and Special Permit Review comments

Dear Chair Brown,

The following are in response to comments prepared by Brooker Engineering, PLLC dated May 23, 2023.

- 1. Special Permit notes are provided in a condensed format. We defer to the Planning Board Attorney if this is an acceptable format. Expanded info does not appear to be provided in the latest narrative.**

Response: Comment Noted.

- 2. Our office takes no objection to the location of additional access to Union Road for emergency services.**

Response: Comment Noted.

- 3. Existing material storage containment areas appear not to be in conformance with the Village code. Four 100 cubic yard containers are depicted on the plans and described in the narrative. Code allows a maximum of 25 CY for stone/gravel per container and 50 CY per container for other materials.**

Response: The Stipulation of Settlement provides the storage of 400 cubic yards of mulch and/or woodchips in storage structures with a 100 cubic yard capacity. No storage of stone and/or gravel is proposed.

- 4. Confirmation is requested by the applicant that gravel is a suitable finished surface for ADA parking & accessible route area.**

Response: The ADA compliant parking spaces and accessible route are now being proposed to have concrete pavement.

- 5. Further information is requested for the intended method of parking space delineation. Striping paint may not be suitable for permanent markings on a gravel surface.**

Response: The markings on the plans are to demonstrate there is enough room for the proposed parking spaces. Painted striping will not be done on the gravel surface. The parking is primarily for employee parking which can be monitored.

- 6. Proposed concrete curb limits to be confirmed. Previous plan set included only a limited area of concrete curb along the border of the rain garden to convey and pretreat stormwater runoff.**

Civil Tec Engineering & Surveying P.C.

139 Lafayette Avenue, 2nd Floor, Suffern, NY 10901 Tel 845.547.2241 Fax 845.547.2243

111 Main Street, Chester, NY 10918 Tel 845.610.3621

Civil-Tec.com

Response: The Concrete curb is to be installed along the border of the rain garden to channel the flow into the rain garden through the pretreatment structures. The remaining concrete curbing has been removed.

- 7. Discussion is requested for the parking and material storage area to the southwest in regard to sufficient traffic maneuverability. Conflicts may exist for 'heavy duty' and 'very heavy duty' trucks.**

Response: The company exists, and the use of heavy duty and very heavy-duty trucks occurs on a regular basis. Any conflicts are resolved internally.

- 8. Our office defers to the Building Inspector / ZBA if minor driveway modifications triggers requirements of 230-34-C for a blacktop or comparable surface for at least 50 feet from the right-of-way on McNamara Road.**

Response: Comment noted.

- 9. Various site plan elements appear to be absent from the previously approved site plan, including but not limited to:**

- a. "No left turn for trucks" signage
- b. Fire zone signage
- c. Proposed fence limits
- d. Block wall adjustments (or note current heights)
- e. Lighting Plan

A thorough review shall be performed to confirm all previously approved site plan elements have been incorporated to the new plans.

Response: A thorough review of the approved site plan was performed, and revisions were made to the plans.

Grading, Drainage, Utilities Plan

- 10. Grading detail is limited. Additional spot grades shall be provided to demonstrate:**

- a. Maximum pitch of 2% at ADA spaces is achieved.
- b. Positive discharge to catch basins/flo-gard prefilters.

Response: Additional spot grades have been provided to clarify the proposed grading in the named areas.

- 11. Additional drop curbs appear necessary to accommodate proposed configuration of catch basins/flo-gard prefilters. Outlet of catch basin to be clarified. Detail suggests a piped overflow is needed. Grading/inverts to be confirmed.**

Response: An additional Drop curbs and an additional flo-gard pre-filter have been proposed. The overflow has been designed to flow overland in a grass swale to McNamara Road drainage system. An underdrain is not required in the rain garden if the soil infiltration rate is not sufficient. If soil testing determines an underrating is required, we will design it before construction.

- 12. It is unclear why a catch/basin/flo-gard is not provided for the northern most curb cut near the entrance of McNamara.**

Response: A flo-gard unit has been proposed in the northern most curb cut location.

- 13. The discharge point for the underdrain system and domed overflow riser are absent from the plan. Overflow invert, underdrain invert, and discharge location & invert shall be provided.**

Response: Overflow has been designed to flow overland in a grass swale to McNamara Road drainage system.

Landscaping & Erosion Control Plan

- 14. Various landscaping plan elements appear to be absent from the previously approved site plan, including but not limited to:**

a. Raised bed planting schedule

Response: Raised Bed planting schedule is provided.

b. Bamboo Plantings (show existing and proposed limits if necessary)

Response: Bamboo plantings have been removed from the details and planting schedules. Native Rain Garden plants have been indicated.

c. Trees to be relocated

Response: Trees to be relocated have been labeled.

d. Rain garden planting schedule

Response: The Rain Garden Planting schedule is provided.

- 15. It is noted that the proposed scope of work appears to be under an acre of disturbance and therefore a SWPPP is not required. Approximate disturbance area shall be noted.**

Response: The Limits of Disturbance has been indicated and the area of disturbance is 27,297 s.f.

Details

- 16. Grass-crete detail/cross section to be provided.**

Response: Additional Details have been provided.

- 17. Range of rain garden soil media/stone depths to be removed and replaced with actual design depths. Elevations to be indicated on detail including domed riser, top of bank, mulch, soil media, stone, and underdrain inverts.**

Response: Additional Details are provided.

- 18. All applicable details from previously approved plans shall be transferred and incorporated into the new plan set.**

Response: Additional Details are provided.

The following are in response to comments prepared by Nelson Pope Voorhis dated May 22, 2023.

Zoning Comments

1.A ZBA variance will be required for impervious surface ratio as proposed at 0.46.

Response: Comment noted.

Planning Comments

2. We have no problem with the gated emergency access drive connecting the east parking area to Union Road. We believe this would satisfy the condition of the Court decision without any undue adverse impact to Union Road. The grasscrete installation will provide a lawn appearance and will not add impervious surfaces to the site.

Response: Comment noted.

3. We appreciate the gravel removal west of the main driveway and restoration of the stream bank with the installation of the “proposed landscape berm.” Please provide details of the height and plant materials proposed for this berm feature as part of the landscape plan (which were not included on sheet 3).

Response: Additional details have been provided.

4. We note that on sheet 3 a rain garden is proposed east of the main driveway. We note that on existing conditions sheet 4, about a dozen large trees (including one 24” and one 16”) are located within this rain garden area but are not shown as “to be removed.” Typically when a rain garden is constructed, and underdrain system must be installed, which would require the clearing of all existing vegetation. Please clarify what will happen to the large existing trees if a rain garden is installed in this area indicated.

Response: The existing trees in the rain garden location will be removed. The trees to be removed have been indicated on the plans.

5. We note that in the northeast area of the Arborist parking lot (closest to the existing dwelling), the removal of five trees (two are 14” diameter) is proposed, to make way for two overnight truck parking spaces. Could these not be placed on an already cleared and disturbed part of the site? Please provide additional information on the parking demand for the various types of vehicles proposed to be parked on the site. Are 29 automobile parking spaces needed? Are truck parking spaces needed? Please consider whether the gravel parking area expansion proposed, as compared to the existing gravel area, is necessary for the proposed operations. If proposed additional parking can be reduced, it will lessen the size of the ZBA variance need for the impervious surfaces ratio.

Response: The location of the two overnight parking spaces was requested by the planning board during the previous approval process. The car parking spaces are required for employee parking.

GML/SEQRA Comments

6. GML review of the project by the Rockland County Planning Department will be needed as the site fronts on two County roads. The project application must be circulated to the Village of New Hempstead for their review and comments per GML 239-nn.

Response: Comment noted.

7. Before the previous approval of this project, by resolution 10-16, the Planning Board granted a negative declaration of environmental significance for this unlisted action. We will defer to the opinion of the Planning Board Attorney regarding how re-affirming this Negative Declaration should be handled, given the Court's holding in this case. Please let me know if you have any questions or comments regarding this review.

Response: Comment noted.

The following are in response to comments prepared by Lange Planning and Consulting dated July 31, 2023.

- 1. Traffic needs to be assessed with the number of daily vehicles projected and the impacts on the county roads determined. I could not find any information regarding ingress and egress trips or peak rates.**

Response: A traffic study is being prepared to address the comment.

- 2. Did the design for the rain garden include percolation tests or was it based on theoretical constructs. I would recommend percolation tests to be completed.**

Response: Percolation tests have not been completed. The minimum percolation rate was used for design purposes. Percolation and soil logs will be provided when available.

- 3. The emergency access road should align with Fairway Oval on New Hempstead Road for better traffic flow.**

Response: The emergency access road has been widened to 26 feet wide as requested by the Fire inspector and realigned to be compatible with Fairway Oval. Traffic flow was not a consideration for this access is only for emergency access use and not for traffic.

- 4. Did Rockland County Department of Highways comment on the emergency access connection?**

Response: Rockland County Department of Highway's comments and responses are attached.

5. **Although the plans show lines demarking parking spaces, gravel surfaces will not preserve the lines. How will the spaces be maintained?**

Response: The car parking spaces are primarily for employee parking. Painted parking spaces are not required. The lines are for design purposes.

6. **The concept of gravel as the travelway surface is not ideal. Did the Village consider more permanent pavement? Permanent curbs are proposed.**

Response: The gravel parking area has been in use for many years and works well for this use. The permanent curbs are only located around the rain garden to funnel the stormwater through the pretreatment structures.

7. **The use of gravel as the surface for mixing and moving materials seems inappropriate as it will not last, nor will it maintain drainage under active conditions.**

Response: The material storage units detail provides a concrete floor. The mixing and moving of materials has been an ongoing activity for many years without any major problems.

8. **It appears that the rain garden will be draining a significant area as sufficient elevation for the property all show a slope forward to the rain garden. The distance exceeds 100 linear feet of runoff. Will this small rain garden be sufficient?**

Response: The rain garden is large enough to provide water quality volume for the project. Rain Garden calculations are attached.

9. **No details were provided for the proposed landscaping berm, the elevation is lower than the nearby 486 contour line.**

Response: The grading has been revised and more details have been provided.

10. **As mentioned in the narrative, granting of this special permit will travel with the property. Is this what the Village of Wesley Hills desires as the long term(forever) use of the property? It appears to me that an interim solution rather than a permanent solution might be a better alternative.**

Response: Comment noted.

The following are in response to comments prepared by Wesley Hill Fire Inspector dated July 10, 2023.

1 – I would look for the access road to be 26 feet wide. I know on the proposal it shows 20 feet wide, however with the size of the fire trucks and the fire load at this location I would ask kindly to consider the extra width for the fire service.

Response: The Grasscrete Emergency Access Road has been widened to 26 feet wide.

2 – The crash gate on the property line would require a Knox Box lock on this so the F.D would be able to open at their discretion

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Response: A Knox Box has been noted on the site plan.

3 – The parking lot be re-done with the appropriate Fire Zones and parking spots allowing for the Fire Department to operate accordingly.

Response: The Fire zones and signage has been located on the site plan.

4 – Confirm the correct Fire Department is on the proposed drawings.

Response: The Fire Department has been revised.

5 – Make sure the road is not on top of a septic tank.

Response: The abandoned septic tank is in the front yard of the existing house and not in the location of the Emergency access road.

The following are in response to comments prepared by Rockland County Sewer District #1 dated July 24, 2023.

1. The sanitary sewers from this site are connected to the District's sewer system.

- a. **Upon review of this application, the District has determined that an impact fee is required, in accordance with Section 502A and 1317 of the Rockland County Sewer Use Law as last amended in 2010.**

Response: Comment noted.

- b. **Approval of this application for an emergency access road onto a 96,083 s.f. lot in the R-35 District,**

- i. **To which tax rolls dating back to 2012 assign two (2) sewer units,**
- ii. **Which contains a commercial structure with a landscaping business, and**
- iii. **Which contains a residential structure with a two-family dwelling,**

will result in one (1) additional sewer unit. Therefore, the applicant must submit a check in the amount of one thousand eight hundred fifty dollars (\$1850.00) payable to Rockland County Sewer District #1 within thirty (30) days of Planning Board approval.

Response: Comment noted.

- c. **If the use or occupancy of the property exceeds three (3) units (e.g. with additional dwelling units), the District will further review and the owner will have to pay an additional impact fee.**

Response: Comment noted.

- d. **We request that the Planning Board notify the District upon approval of the project.**

Response: Comment noted.

2. **As this is a non-residential project, Rockland County Sewer District No. 1's "Commercial/Non-residential Wastewater Questionnaire" and the County Planning Information Certification must be submitted to and approved by this office for the landscaping business. The business owner must sign the Wastewater questionnaire.**

Response: The "Commercial/Non-residential Wastewater Questionnaire" will be submitted when appropriate.

The following are in response to comments prepared by Rockland County Center for Environmental Health dated July 17, 2023.

1. **Application is to be made to the RCDOH for review of the stormwater management system for compliance with the County Mosquito Code.**

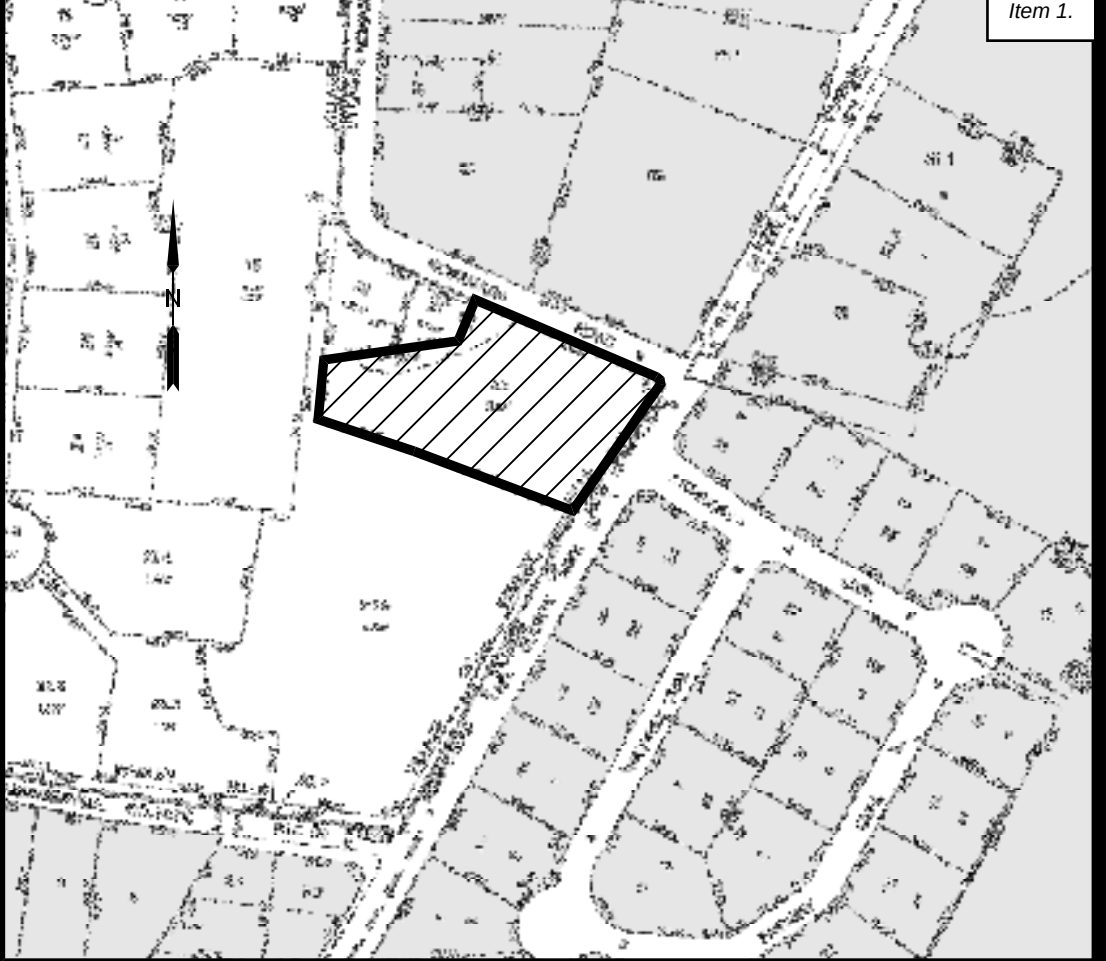
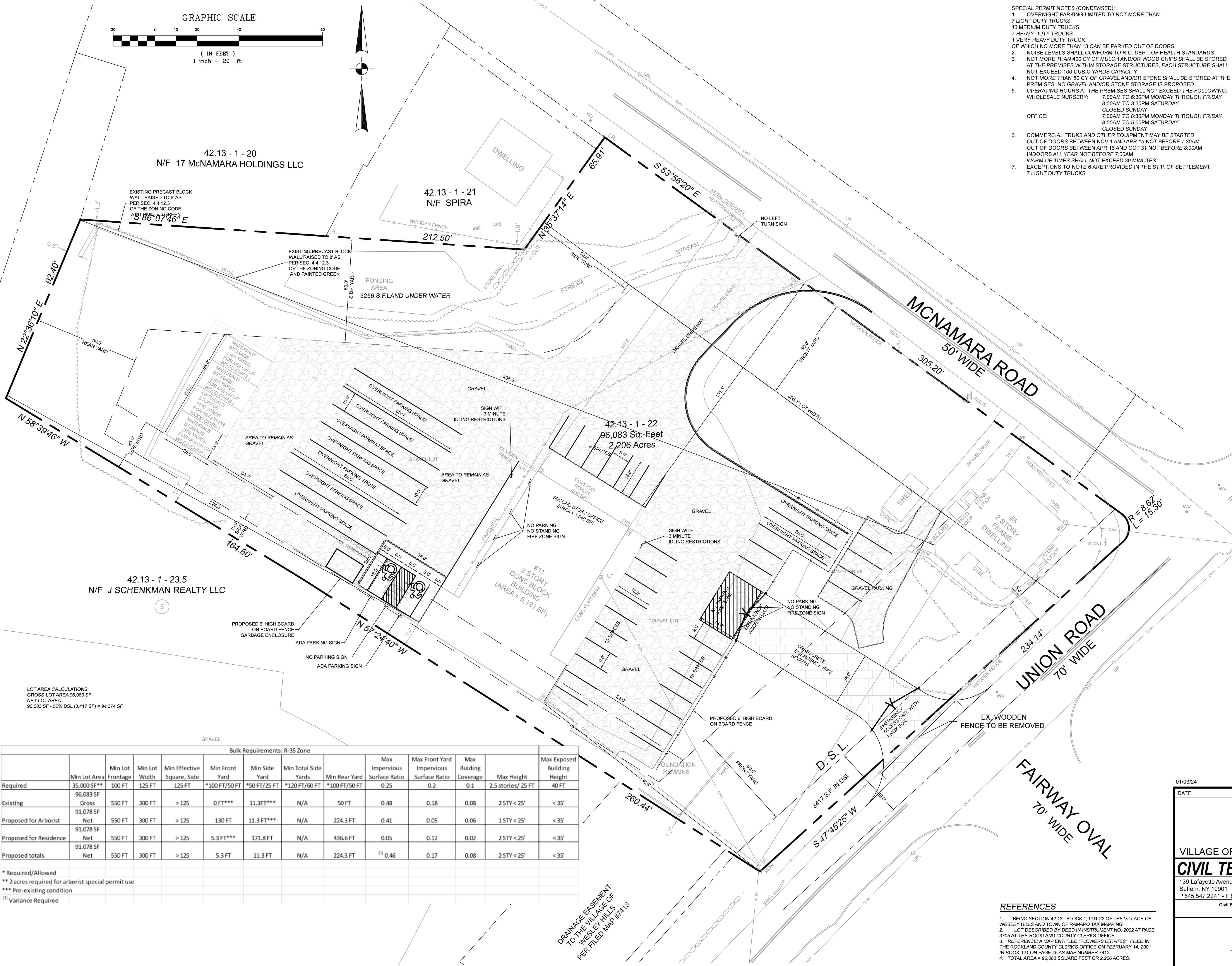
Response: The Mosquito Breeding suppression Application will be made when applicable.

The following are in response to comments prepared by Rockland County Highway Department in an email dated September 5, 2023.

- **The proposed emergency access shall be gated and closed unless there would be an emergency at the site. The Village will have to enforce it to mitigate the potential traffic congestion issues and promote traffic safety in the area.**

Response: Comment noted.

The responses to the comments prepared by Rockland County Planning Department dated July 24, 2023, were prepared by the applicant's attorney, Ira M. Emanuel, Esq., and are attached.



VICINITY MAP
1" = 300'

- SITE PLAN NOTES:
- THIS IS LOT SECTION 42.13 BLOCK 1 LOT 22 AS SHOWN ON THE TOWN OF RAMAPO TAX MAPS.
 - AREA OF TRACT: 2.21 ACRES
 - ZONE: R-35
 - USE: ARBORISTS
 - RECORD OWNER: IJJ, LLC
11 MCNAMARA ROAD
SPRING VALLEY, NY 10977
 - APPLICANT: SAME AS ABOVE
 - FIRE DISTRICT: MOLESTON FIRE DISTRICT
 - SCHOOL DISTRICT: EAST RAMAPO
 - WATER DISTRICT: VEOLIA WATER
 - SEWER DISTRICT: ROCKLAND COUNTY SEWER DISTRICT NO. 1
 - DATUM: NAVD83
 - ALL UTILITIES SHALL BE INSTALLED UNDERGROUND. ELECTRIC SERVICE SHALL BE CONDUIT OF NOT LESS THAN 2 INCH DIAMETER.
 - THERE ARE NO COVENANTS, DEED RESTRICTIONS, EASEMENTS OR OTHER RESERVATIONS OF LAND RELATIVE TO THIS SITE EXCEPT AS SHOWN ON THIS PLAN, SUBJECT TO THE FINDINGS OF A COMPLETE AND UP TO DATE TITLE SEARCH.
 - 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.
 - THE UNDERSIGNED, OWNER AND/OR APPLICANT, AS A CONDITION OF APPROVAL OF THIS SITE PLAN, HEREBY AGREES TO COMPLETE THE WITHIN SITE DEVELOPMENT PLAN AS DRAWN AND ALL IMPROVEMENTS AS SHOWN THEREON AS CONDITION OF THE ISSUANCE OF A BUILDING PERMIT. THE APPLICANT/OWNER IS AWARE THAT NO CHANGES IN THIS PLAN MAY BE MADE UNLESS APPROVED BY THE PLANNING BOARD.
 - APPLICANT DATE OWNER DATE
 - PRIOR TO 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 LANDSCAPING ARCHITECT LICENSED TO PRACTICE IN THE STATE OF NEW YORK. SAID CERTIFIED LANDSCAPING DRAWING SHALL INDICATE THE DEGREE OF COMPLETION OF SAID LANDSCAPING IMPROVEMENTS IN ACCORDANCE WITH THE APPROVED SITE PLAN.
 - PLANS ARE BASED ON FIELD ENGINEERING DATA AND CERTIFIED HERETO:
 - LICENSED PROFESSIONAL ENGINEER OR LAND SURVEYOR DATE: BOUNDARY AND TOPOGRAPHIC SURVEYS ARE FROM ACTUAL FIELD MEASUREMENTS UNDER THE DIRECTION OF STEPHEN DOLSON, PLS COMPLETED ON MAY 2022.
 - ALL ENCROACHMENTS SHALL BE RELOCATED.

- SPECIAL PERMIT NOTES (CONDENSED):
- OVERNIGHT PARKING LIMITED TO NOT MORE THAN 7 LIGHT DUTY TRUCKS
13 MEDIUM DUTY TRUCKS
7 HEAVY DUTY TRUCKS
1 VERY HEAVY DUTY TRUCK
OF WHICH NO MORE THAN 13 CAN BE PARKED OUT OF DOORS
 - NOISE LEVELS SHALL CONFORM TO R.C. DEPT. OF HEALTH STANDARDS
NOT MORE THAN 400 CY OF MULCH AND/OR WOOD CHIPS SHALL BE STORED AT THE PREMISES WITHIN STORAGE STRUCTURES. EACH STRUCTURE SHALL NOT EXCEED 100 CUBIC YARDS CAPACITY.
 - NOT MORE THAN 50 CY OF GRAVEL AND/OR STONE SHALL BE STORED AT THE PREMISES. NO GRAVEL AND/OR STONE STORAGE IS PROPOSED.
 - OPERATING HOURS AT THE PREMISES SHALL NOT EXCEED THE FOLLOWING:
WHOLESALE NURSERY: 7:00AM TO 6:30PM MONDAY THROUGH FRIDAY
8:00AM TO 3:30PM SATURDAY
CLOSED SUNDAY
7:00AM TO 8:30PM MONDAY THROUGH FRIDAY
8:00AM TO 5:00PM SATURDAY
CLOSED SUNDAY
 - COMMERCIAL TRUCKS AND OTHER EQUIPMENT MAY BE STARTED OUT OF DOORS BETWEEN NOV 1 AND APR 15 NOT BEFORE 7:30AM OUT OF DOORS BETWEEN APR 16 AND OCT 31 NOT BEFORE 8:00AM INDOORS ALL YEAR NOT BEFORE 7:00AM
WARM UP TIMES SHALL NOT EXCEED 30 MINUTES
EXCEPTIONS TO NOTE 6 ARE PROVIDED IN THE STIP. OF SETTLEMENT.
7 LIGHT DUTY TRUCKS

LOT AREA CALCULATIONS:
GROSS LOT AREA 96,083 SF
NET LOT AREA
96,083 SF - 50% DSL (3,417 SF) = 94,374 SF

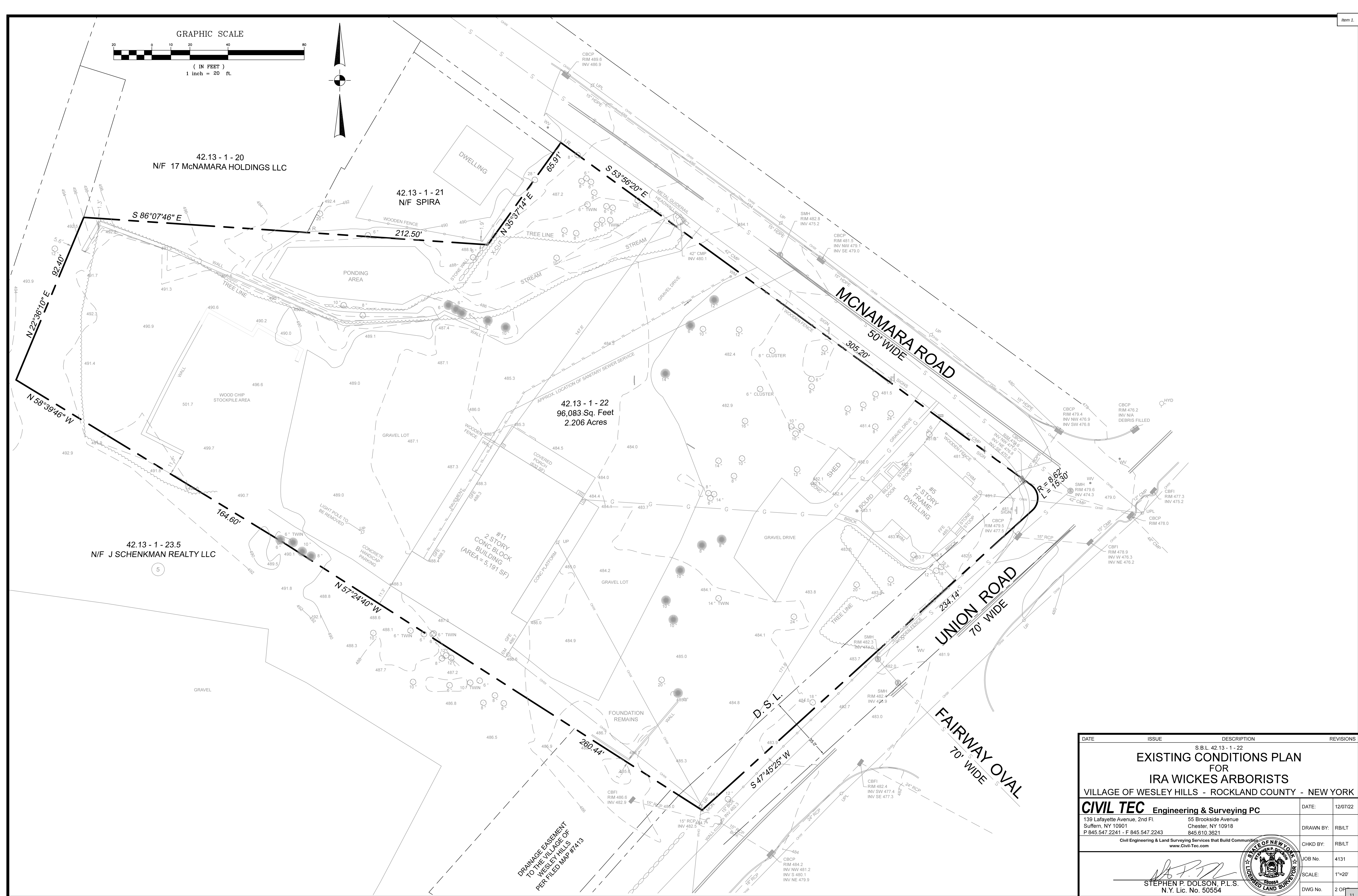
Bulk Requirements: R-35 Zone												
	Min Lot Area	Min Lot Frontage	Min Lot Width	Min Effective Square, Side	Min Front Yard	Min Side Yard	Min Total Side Yards	Min Rear Yard	Max Impervious Surface Ratio	Max Front Yard Impervious Surface Ratio	Max Building Coverage	Max Height
Required	35,000 SF**	100 FT	125 FT	125 FT	*100 FT/50 FT	*50 FT/25 FT	*120 FT/60 FT	*100 FT/50 FT	0.25	0.2	0.1	2.5 stories/ 25 FT
Existing	96,083 SF Gross	550 FT	300 FT	> 125	0 FT***	11.3 FT***	N/A	50 FT	0.48	0.18	0.08	2 STY < 25'
Proposed for Arborist	91,078 SF Net	550 FT	300 FT	> 125	130 FT	11.3 FT***	N/A	224.3 FT	0.41	0.05	0.06	1 STY < 25'
Proposed for Residence	91,078 SF Net	550 FT	300 FT	> 125	5.3 FT***	171.8 FT	N/A	436.6 FT	0.05	0.12	0.02	2 STY < 25'
Proposed totals	91,078 SF Net	550 FT	300 FT	> 125	5.3 FT	11.3 FT	N/A	224.3 FT	(1) 0.46	0.17	0.08	2 STY < 25'

* Required/Allowed
** 2 acres required for arborist special permit use
*** Pre-existing condition
(1) Variance Required

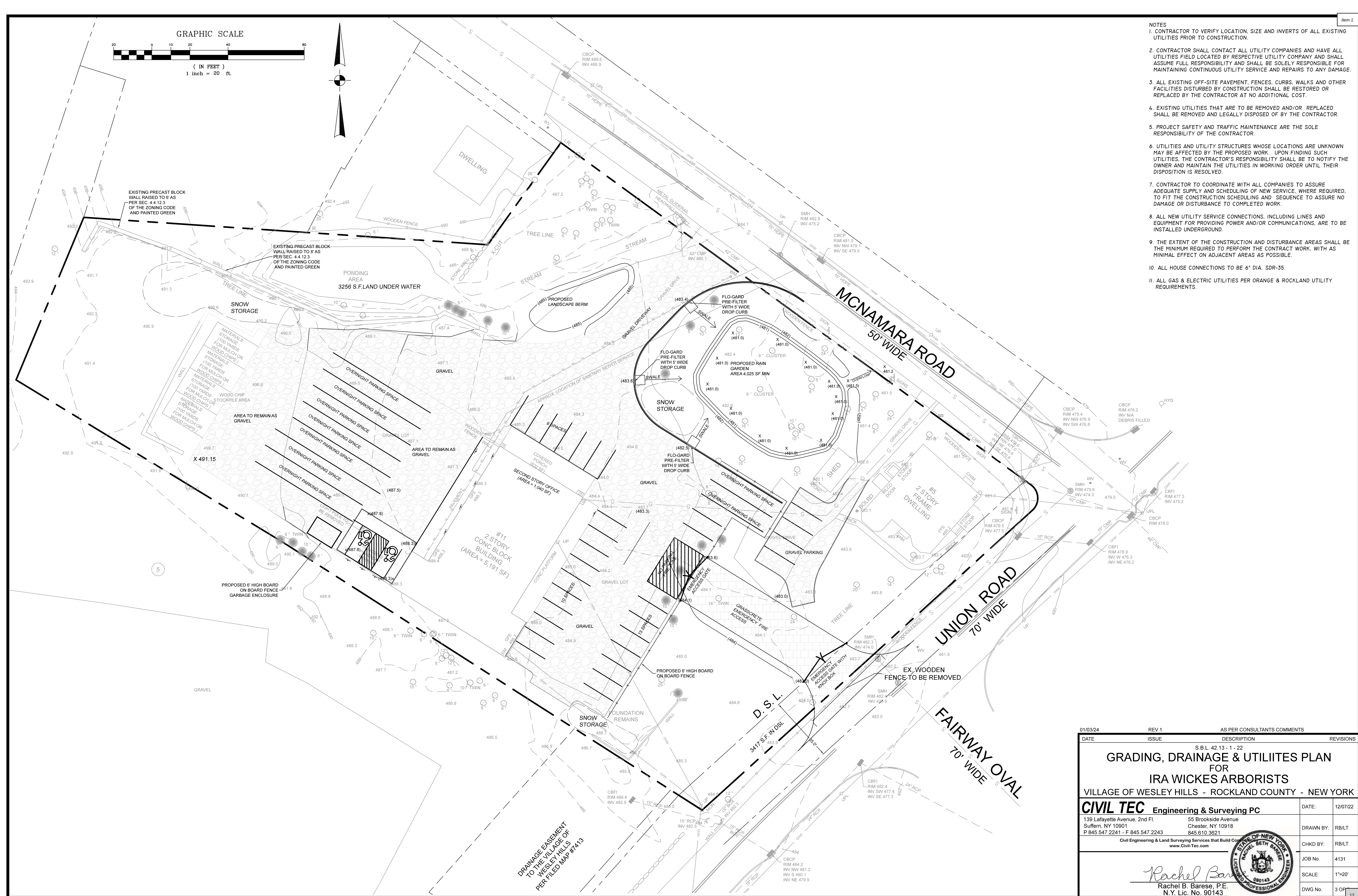
REFERENCES

- BEING SECTION 42.13, BLOCK 1, LOT 22 OF THE VILLAGE OF WESLEY HILLS AND TOWN OF RAMAPO TAX MAPPING.
- LOT DESCRIBED BY DEED IN INSTRUMENT NO. 2002 AT PAGE 3705 AT THE ROCKLAND COUNTY CLERKS OFFICE.
- REFERENCE A MAP ENTITLED "FLOWERS ESTATES" FILED IN THE ROCKLAND COUNTY CLERKS OFFICE ON FEBRUARY 14, 2001 IN BOOK 121 ON PAGE 45 AS MAP NUMBER 7413.
- TOTAL AREA = 96,083 SQUARE FEET OR 2.206 ACRES.

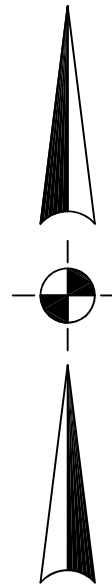
01/03/24	REV 1	AS PER CONSULTANTS COMMENTS	
DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 42.13 - 1-22			
SITE PLAN			
FOR			
IRA WICKES ARBORISTS			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC		DATE:	12/07/22
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243		55 Brookside Avenue Chester, NY 10918 845.610.3621	DRAWN BY: RB/LT
Civil Engineering & Land Surveying Services that Build Communities www.Civil-Tec.com		CHKD BY: RB/LT	JOB No. 4131
Rachel B. Barese, P.E. N.Y. Lic. No. 90143		SCALE: 1"=20'	DWG No. 1 OF 10



- NOTES
1. CONTRACTOR TO VERIFY LOCATION, SIZE AND INVERTS OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION.
 2. CONTRACTOR SHALL CONTACT ALL UTILITY COMPANIES AND HAVE ALL UTILITIES FIELD LOCATED BY RESPECTIVE UTILITY COMPANY AND SHALL ASSUME FULL RESPONSIBILITY AND SHALL BE SOLELY RESPONSIBLE FOR MAINTAINING CONTINUOUS UTILITY SERVICE AND REPAIRS TO ANY DAMAGE.
 3. ALL EXISTING OFF-SITE PAVEMENT, FENCES, CURBS, WALKS AND OTHER FACILITIES DISTURBED BY CONSTRUCTION SHALL BE RESTORED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST.
 4. EXISTING UTILITIES THAT ARE TO BE REMOVED AND/OR REPLACED SHALL BE REMOVED AND LEGALLY DISPOSED OF BY THE CONTRACTOR.
 5. PROJECT SAFETY AND TRAFFIC MAINTENANCE ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
 6. UTILITIES AND UTILITY STRUCTURES WHOSE LOCATIONS ARE UNKNOWN MAY BE AFFECTED BY THE PROPOSED WORK. UPON FINDING SUCH UTILITIES, THE CONTRACTOR'S RESPONSIBILITY SHALL BE TO NOTIFY THE OWNER AND MAINTAIN THE UTILITIES IN WORKING ORDER UNTIL THEIR DISPOSITION IS RESOLVED.
 7. CONTRACTOR TO COORDINATE WITH ALL COMPANIES TO ASSURE ADEQUATE SUPPLY AND SCHEDULING OF NEW SERVICE, WHERE REQUIRED, TO FIT THE CONSTRUCTION SCHEDULING AND SEQUENCE TO ASSURE NO DAMAGE OR DISTURBANCE TO COMPLETED WORK.
 8. ALL NEW UTILITY SERVICE CONNECTIONS, INCLUDING LINES AND EQUIPMENT FOR PROVIDING POWER AND/OR COMMUNICATIONS, ARE TO BE INSTALLED UNDERGROUND.
 9. THE EXTENT OF THE CONSTRUCTION AND DISTURBANCE AREAS SHALL BE THE MINIMUM REQUIRED TO PERFORM THE CONTRACT WORK, WITH AS MINIMAL EFFECT ON ADJACENT AREAS AS POSSIBLE.
 10. ALL HOUSE CONNECTIONS TO BE 6" DIA. SDR-35.
 11. ALL GAS & ELECTRIC UTILITIES PER ORANGE & ROCKLAND UTILITY REQUIREMENTS.



DATE	ISSUE	DESCRIPTION	REVISIONS
01/03/24	REV 1	AS PER CONSULTANTS COMMENTS	
S.B.L. 42.13 - 1 - 22			
GRADING, DRAINAGE & UTILITIES PLAN			
FOR			
IRA WICKES ARBORISTS			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC			DATE: 12/07/22
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901			DRAWN BY: RB/LT
P 845 547 2241 - F 845 547 2243			CHKD BY: RB/LT
55 Brookside Avenue Chester, NY 10918			JOB No. 4131
845 610 3621			SCALE: 1"=20'
Civil Engineering & Land Surveying Services that Build Confidence www.Civil-Tec.com			DWG No. 3 OF 12
Rachel B. Barese, P.E. N.Y. Lic. No. 90143			



Standard Landscape Notes

- 1) Mulch all plant beds and trees with a 4" depth of sugar cane or licorice root mulch.
- 2) Stake all trees with 2 cedar stakes, rubber hose around tree 6'(0" above grade) and twisted #10 gauge galvanized wire.
- 3) Plant pits shall be 12" wider and 6" deeper than the root ball. Remove all existing soil and backfill with a mixture of one part peat-humus to 4 parts topsoil. Add 3 year Eessey grow fertilizer packets (or equal) – 1 per inch of tree caliper or per 12" height of shrub.
- 4) Guarantee all plants and workmanship for two planting seasons.
- 5) All planting shall be placed under the direction of an appropriate licensed design professional. Notify 48 hours prior to planting.
- 6) Provide the Town of Ramapo building inspector with a copy of the State Certificate of Source for all plant material.
- 7) All plant material shall be nursery grown and shall conform to the American Association of Nursery Men's Standards.

[illegible]

PLANTING LIST			
KEY	QUANTITY	COMMON NAME/BOTANICAL NAME	SIZE COMMENT
TREES			
WP	39	WHITE PINE/PINUS STROBUS	7'-8' HT
		LANDSCAPE BERM PLANTING	
GG	7	GREEN GIANT/THUJA	3'-4' HT
MV	3	MAPLE-LEAF VIBURNUM/Viburnum acerifolium	3'-4' ht.
VR	6	VIRGINIA ROSE/ Rosa virginiana	2'-3- ht.

NOTES

1. ALL VEGETATION SHOWN ON THIS PLAN SHALL BE MAINTAINED IN A HEALTHY AND VIGOROUS GROWING CONDITION THROUGHOUT THE DURATION OF THE PROPOSED USE OF THE SITE. ALL VEGETATION NOT SO MAINTAINED SHALL BE REPLACED WITH NEW COMPARABLE VEGETATION AT THE BEGINNING OF THE NEXT GROWING SEASON.
2. ALL LIGHTING SHOWN ON THIS PLAN SHALL BE DIRECTED AND/OR SHIELDED SO AS TO PRECLUDE OBJECTIONABLE GLARE FROM BEING OBSERVABLE FROM ADJOINING STREETS AND PROPERTIES.

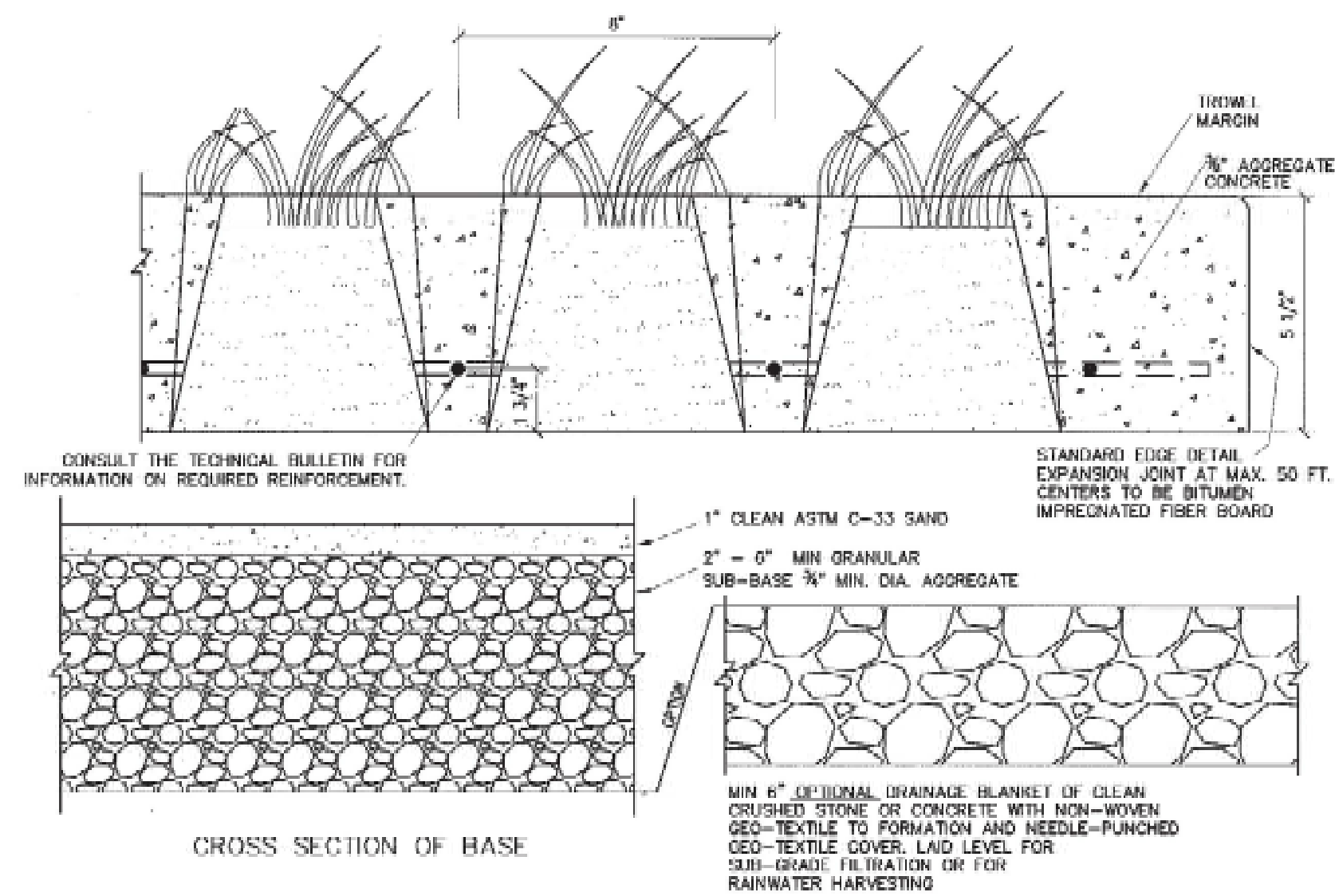
Standard Erosion Control Notes

An Erosion control system will be utilized by the developer to minimize the production of sediment from the site. Methods to be utilized will be those found most effective for the site and shall include one or more of the following, as applicable:

- 1) Temporary sedimentation 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 suitable materials. Diversion swales, berms, or other channelization shall be constructed to ensure that all silt laden waters are directed into the entrapment areas, which shall not be permitted to fill in, but shall be cleaned periodically during the course of construction. The collected silt shall be deposited in areas safe from further erosion.
- 2) All disturbed areas, except roadways, which will remain unfinished for more than 30 days shall be temporarily seeded with $\frac{1}{2}$ lb. of rye grass or mulched with 100 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.
- 3) Silt that leaves the site in spite of the required precautions shall be collected and removed as directed by appropriate municipal authorities.
- 4) At the completion of the project, all temporary siltation devices shall be removed.

01/03/24	REV 1	AS PER CONSULTANTS COMMENTS	
DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 42.13 - 1 - 22			
LANDSCAPING & EROSION CONTROL PLAN			
FOR			
IRA WICKES ARBORISTS			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC 139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DATE: 12/07/22 DRAWN BY: RB/LT CHKD BY: RB/LT JOB No. 4131 SCALE: 1"=20' DWG No. 4 OF 13
Civil Engineering & Land Surveying Services that Build Confidence www.Civil-Tec.com			
 <i>Rachel Barese</i> Rachel B. Barese, P.E. N.Y. Lic. No. 90143			

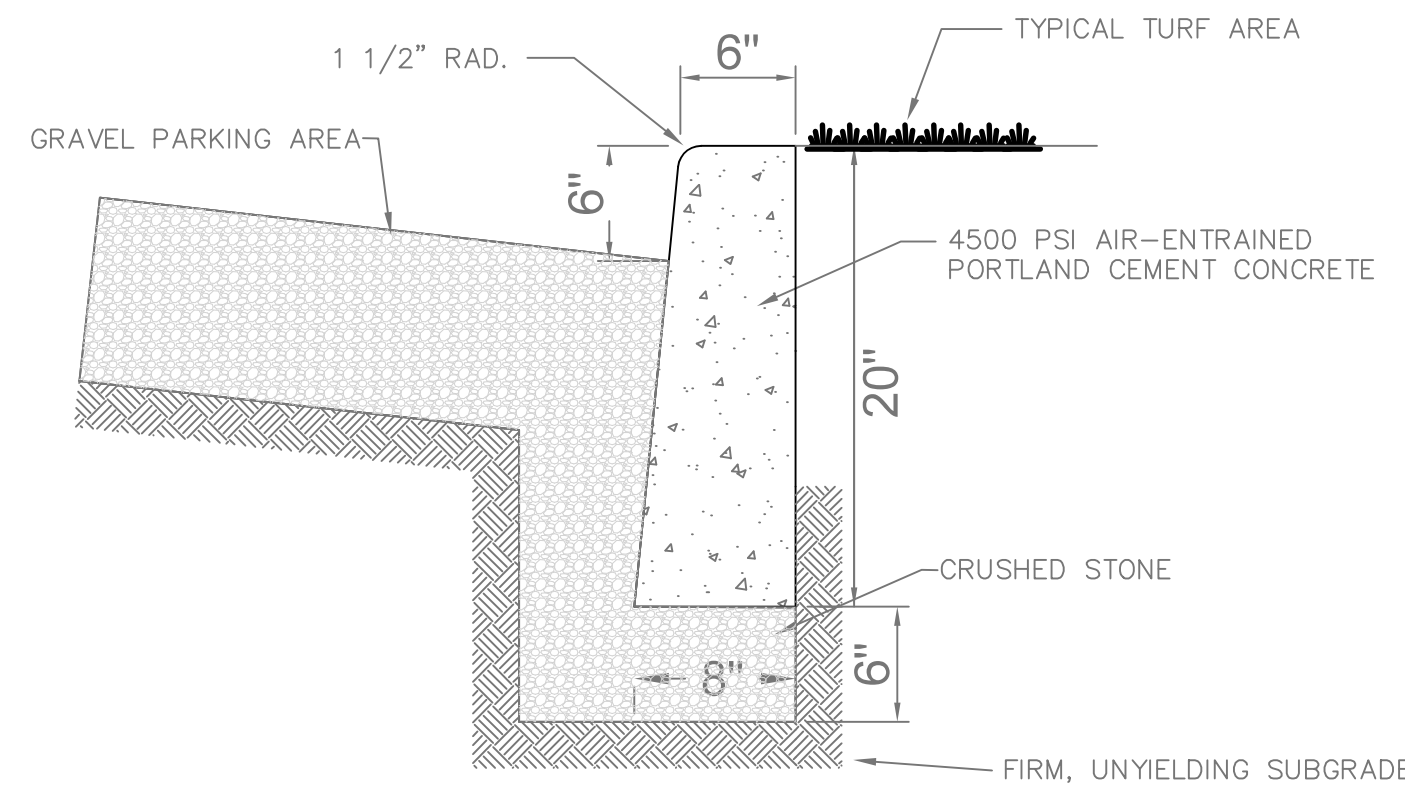
SINGLE USE 5 1/2" MOLDED PULP VOID GRASSED SYSTEM



DATE: 03/02/2007

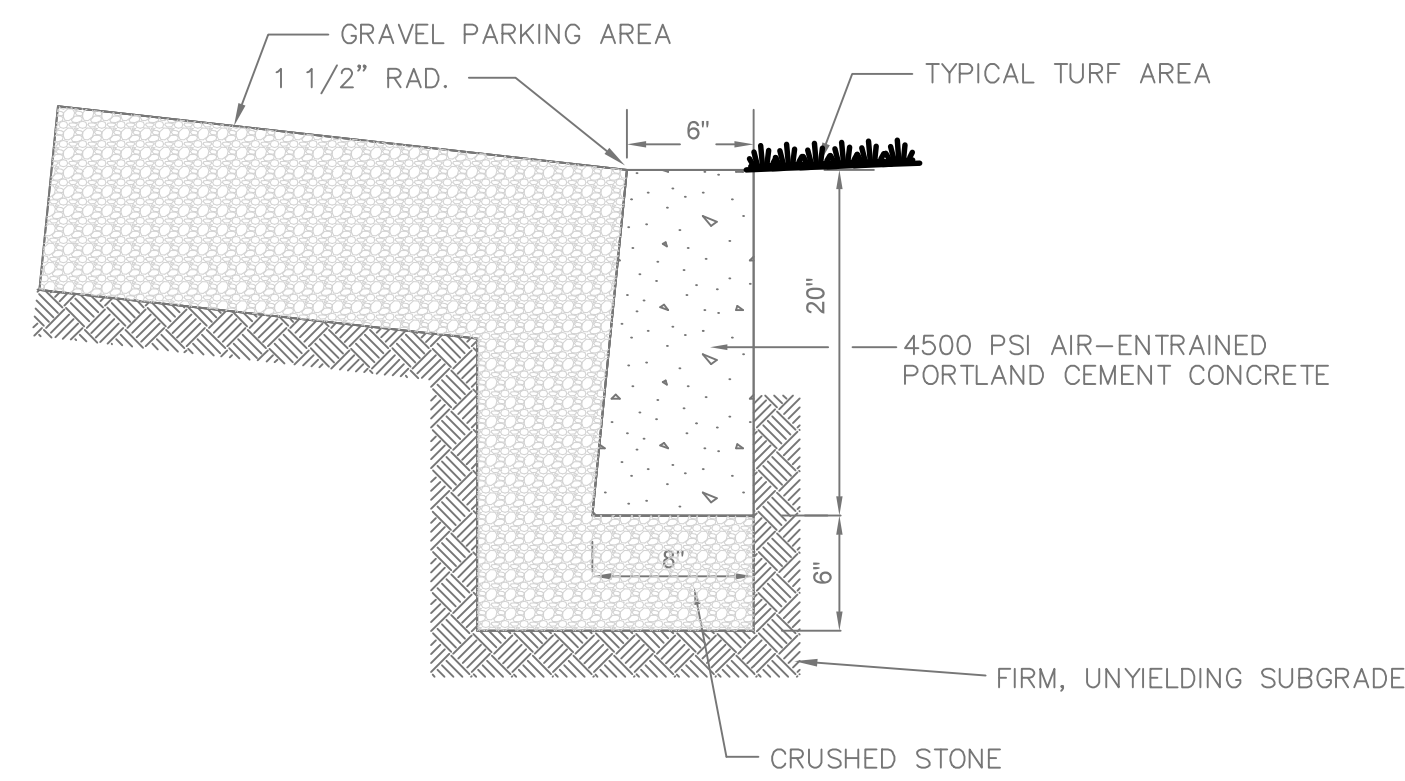
GRASSCRETE PERVIOUS PAVEMENT DETAIL

SCALE: N. T. S.



CONCRETE CURB DETAIL

NOT TO SCALE



CONCRETE DROP CURB DETAIL

NOT TO SCALE

DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 42.13 - 1 - 22			
DETAILS			
FOR			
IRA WICKES ARBORISTS			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC			DATE: 01/03/24
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DRAWN BY: RB/LT
55 Brookside Avenue Chester, NY 10918 845.610.3621			CHKD BY: RB/LT
Civil Engineering & Land Surveying Services that Build Confidence www.Civil-Tec.com			JOB No. 4131
Rachel B. Barese, P.E. N.Y. Lic. No. 90143			SCALE: 1"=20'
			DWG No. 6 OF 15



Statistics

Designer
az
Date
10/11/2023
Scale
Not to Scale
Drawing No.
Summary



Memorandum

To: Village of Wesley Hills Planning Board

From: Jonathan T. Lockman, AICP

Re: IJJ, LLC, dba Ira Wickes, Arborist, 11 McNamara Road
 SBL# 42.14-1-22

Date: January 11, 2024

cc: Matthew Trainor, P.E., Village Engineer
 Frank Brown, Esq., Planning Board Attorney
 Alicia Schultz, Deputy Village Clerk
 John Layne, Building Inspector
 Ira Emanuel, Esq., for the Applicant
 Rachel Barese, P.E., for the Applicant

Received and reviewed for this memorandum:

- Responses to GML Review, Letter from Ira Emanuel, Esq., Emanuel Law P.C., to Planning Board, Application for Site Plan/Special Permit, for IJJ LLC, dated January 3, 2024.
- Responses to Brooker and NPV memoranda, Village of New Hempstead/John Lange, Wesley Hills Fire Inspector, RC Sewer District #1, RC Center for Environmental Health, and RC Highway Dept.; from CivilTec Engineering + Surveying, dated January 3, 2024.
- Site Plan Set, 7 Sheets, for Ira Wickes Arborists, stamped by Rachel Barese, P.E., Civil Tec Engineering and Surveying PC, dated December 7, 2022, with latest revision date of January 3, 2024, as follows:
 - o 1, Site Plan
 - o 2, Existing Condition Plan
 - o 3, Grading, Drainage & Utilities Plan
 - o 4, Landscaping & Erosion Control Plan
 - o 5, 6, Details
 - o 7, Lighting Plan (by Visual, dated October 11, 2023)

Project Summary

The subject application is for a site plan approval and special permit for an existing Arborist operation. The Village of Wesley Hills Planning Board approved a site plan and special permit in May of 2010. However, the project was subject to a legal challenge. The SC Appellate division, 2nd Department annulled the approvals on November 24, 2021. The Court annulled the approvals because of the lack of a practical access to a second major road, and impervious surfaces in excess of 0.25 (25%). The applicant's attorney has provided a comprehensive history of the case in the Narrative Summary, should the Board wish to understand further details.

The 2.21-acre (gross) subject lot is located in the R-35 District at the southwest corner of McNamara Road (C.R. 67) and Union Road (C.R. 80). The applicant is proposing to continue to use the existing two-story concrete block commercial building as well as the two-story frame dwelling that already exists on the property. In response to the Court's first objection to the 2010 approvals, a new proposed feature is a grasscrete emergency gated fire access drive off Union Road. In response to the Court's second objection to the 2010 approvals, the applicant will apply for a ZBA variance for the excess impervious surfaces. (In its 2010 approvals, the Planning Board relied upon the interpretation that the excess impervious surface was a legally nonconforming preexisting condition for which a variance was not required – and the Court did not agree.)

Zoning Comments

1. A ZBA variance will be required for impervious surface ratio as proposed at 0.46.

Planning Comments

2. Regarding comment 2 of our previous memorandum dated May 22, 2023, **we have no problem with the gated emergency access drive connecting the east parking area to Union Road.** We believe this would satisfy the condition of the Court decision without any undue adverse impact to Union Road. The grasscrete installation will provide a lawn appearance and will not add impervious surfaces to the site. **A comment letter was received from the Fire Inspector dated July 10, 2023, and the latest design on sheet 1 of the site plan set indicates it will be 26 feet in width as requested.**
3. Regarding comment 3 of our previous memorandum, we appreciate the gravel removal west of the main driveway and restoration of the stream bank with the installation of the "proposed landscape berm." As requested, the height and plant materials proposed for this berm feature are now indicated on the landscaping plan (sheet 4), and our comment has been resolved.
4. Regarding comment 4 of our previous memorandum, the tree removals required for the construction of the proposed rain garden are now shown, and our comment has been resolved.
5. Regarding comment 5 of our previous memorandum, the proposed removal of five trees to make way for two overnight truck parking spaces, remains on the plans, as requested by the Planning Board. Our comment has been resolved.

GML/SEQRA Comments

6. GML review of the project by the Rockland County Planning Department was required as the site fronts on two County roads. The project application was also circulated to the Village of New Hempstead for their review and comments per GML 239-nn.

A GML review letter was received, dated July 24, 2023. The applicant's attorney has provided responses to comments in a letter dated January 3, 2024. **The applicant has not requested the Planning Board to override any of the GML comments.**

A comment letter from the Village of New Hempstead was received, dated August 1, 2023, prepared by Village Planner John Lange. The applicant's engineer has provided responses to

comments in a letter dated January 3, 2024. **New Hempstead's comments have been addressed, except for the requested traffic study and percolation tests, which have not yet been conducted.**

7. Before the previous approval of this project, by resolution 10-16, the Planning Board granted a negative declaration of environmental significance for this unlisted action. At the last Planning Board meeting where this matter was discussed on July 26, 2023, the applicant promised an EAF Part III submittal reviewing the previous neg dec and its supporting background documents and updating any of the supporting documentation that needed new, refreshed information to reflect any changed conditions since 2016. The applicant indicated that a new traffic study will be undertaken, in response to comments from New Hempstead (see comment 6 above). **Please submit a part III SEQRA document as discussed.**

Please let me know if you have any questions or comments regarding this review.

Items Submitted on or about July 21, 2023

- Responses to RC Highway Dept., from Rhonda Smith, CivilTec Engineering + Surveying, dated July 13, 2023.
- Letter from Elizabeth Mello, P.E., Rockland County Center for Environmental Health, dated July 17, 2023.
- Site Plan Set (identical to those submitted in May 2023), 5 Sheets, for Ira Wickes Arborists, stamped by Rachel Barese, P.E., Civil Tec Engineering and Surveying PC, dated December 7, 2022, as follows:
 - o 1, Site Plan
 - o 2, Existing Condition Plan
 - o 3, Grading, Drainage & Utilities Plan
 - o 4, Landscaping & Erosion Control Plan
 - o 5, Details

Items Reviewed for our Previous Memorandum, dated May 22, 2023

- Application for Site Plan/Special Permit, for IJJ LLC, dated March 20, 2023.
- Narrative Summary, re: Rockland Tree Expert Co., Inc., by Ira Emanuel, Esq., Emanuel Law P.C., dated March 16, 2023.
- Water Quality Assessment, by Environmental Management Ltd., and Geovation Engineering, P.C., dated March 30, 2007.
- Document entitled "Copy of Best Management Plan for preparation and storage of plant health materials, Exhibit 4," with transmittal letter, submitted by James Wickes, dated August 3, 2006 (contains NYSDEC Publication DSHM-PES-05-03 Pesticide Storage Guidelines, with latest revisions August 11, 2005).
- Resolutions 10-16 Negative Declaration, 10-17 Special Permit, and 10-18 Site Plan, of the Planning Board of the Village of Wesley Hills
- Stipulation of Settlement, Justice Court, Village of Wesley Hills, in re: "People of the State of New York v. Ira Wickes Arborist/Ira F. Wickes Jr. and Esther Wickes, signed September 8, 2004.

- Supreme Court of the State of New York, Appellate Division: Second Judicial Department, In the Matter of Neil Marcus, appellant v. Planning Board of the Village of Wesley Hills, et al., Decision and Order, dated November 24, 2021.
- Site Plan Set, 5 Sheets, for Ira Wickes Arborists, stamped by Rachel Barese, P.E., Civil Tec Engineering and Surveying PC, dated December 7, 2022, as follows:
 - o 1, Site Plan
 - o 2, Existing Condition Plan
 - o 3, Grading, Drainage & Utilities Plan
 - o 4, Landscaping & Erosion Control Plan
 - o 5, Details



Memorandum

To: Village of Wesley Hills Planning Board

From: Jonathan T. Lockman, AICP

Re: IJJ, LLC, dba Ira Wickes, Arborist, 11 McNamara Road
SBL# 42.14-1-22

Date: May 22, 2023

cc: Matthew Trainor, P.E., Village Engineer
Frank Brown, Esq., Planning Board Attorney
Alicia Schultz, Deputy Village Clerk
John Layne, Building Inspector
Ira Emanuel, Esq., for the Applicant
Rachel Barese, P.E., for the Applicant

Received and reviewed for this memorandum:

- Application for Site Plan/Special Permit, for IJJ LLC, dated March 20, 2023.
- Narrative Summary, re: Rockland Tree Expert Co., Inc., by Ira Emanuel, Esq., Emanuel Law P.C., dated March 16, 2023.
- Water Quality Assessment, by Environmental Management Ltd., and Geovation Engineering, P.C., dated March 30, 2007.
- Document entitled "Copy of Best Management Plan for preparation and storage of plant health materials, Exhibit 4," with transmittal letter, submitted by James Wickes, dated August 3, 2006 (contains NYSDEC Publication DSHM-PES-05-03 Pesticide Storage Guidelines, with latest revisions August 11, 2005).
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- Stipulation of Settlement, Justice Court, Village of Wesley Hills, in re: "People of the State of New York v. Ira Wickes Arborist/Ira F. Wickes Jr. and Esther Wickes, signed September 8, 2004.
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 - o 4, Landscaping & Erosion Control Plan
 - o 5, Details

Project Summary

The subject application is for a site plan approval and special permit for an existing Arborist operation. The Village of Wesley Hills Planning Board approved a site plan and special permit in May of 2010. However, the project was subject to a legal challenge. The SC Appellate division, 2nd Department annulled the approvals on November 24, 2021. The Court annulled the approvals because of the lack of a practical access to a second major road, and impervious surfaces in excess of 0.25 (25%). The applicant's attorney has provided a comprehensive history of the case in the Narrative Summary, should the Board wish to understand further details.

The 2.21-acre subject lot is located in the R-35 District at the southwest corner of McNamara Road (C.R. 67) and Union Road (C.R. 80). The applicant is proposing to continue to use the existing two-story concrete block commercial building as well as the two-story frame dwelling that already existing on the property. In response to the Court's first objection to the 2010 approvals, a new proposed feature is a grasscrete emergency gated fire access drive off of Union Road. In response to the Court's second objection to the 2010 approvals, the applicant will apply for a ZBA variance for the excess impervious surfaces. (In its 2010 approvals, the Planning Board relied upon the interpretation that the excess impervious surface was a legally nonconforming preexisting condition for which a variance was not required – and the Court did not agree.)

A aerial photograph of the site (from Google Maps, 2023) is shown below for reference.



Zoning Comments

1. A ZBA variance will be required for impervious surface ratio as proposed at 0.46.

Planning Comments

2. We have no problem with the gated emergency access drive connecting the east parking area to Union Road. We believe this would satisfy the condition of the Court decision without any undue adverse impact to Union Road. The grasscrete installation will provide a lawn appearance and will not add impervious surfaces to the site.
3. We appreciate the gravel removal west of the main driveway and restoration of the stream bank with the installation of the "proposed landscape berm." Please provide details of the height and plant materials proposed for this berm feature as part of the landscape plan (which were not included on sheet 3).
4. We note that on sheet 3 a rain garden is proposed east of the main driveway. We note that on existing conditions sheet 4, about a dozen large trees (including one 24" and one 16") are located within this rain garden area but are not shown as "to be removed." Typically when a rain garden is constructed, and underdrain system must be installed, which would require the clearing of all existing vegetation. Please clarify what will happen to the large existing trees if a rain garden is installed in this area indicated.
5. We note that in the northeast area of the Arborist parking lot (closest to the existing dwelling), the removal of five trees (two are 14" diameter) is proposed, to make way for two overnight truck parking spaces. Could these not be placed on an already cleared and disturbed part of the site? Please provide additional information on the parking demand for the various types of vehicles proposed to be parked on the site. Are 29 automobile parking spaces needed? Are truck parking spaces needed? Please consider whether the gravel parking area expansion proposed, as compared to the existing gravel area, is necessary for the proposed operations. If proposed additional parking can be reduced, it will lessen the size of the ZBA variance need for the impervious surfaces ratio.

GML/SEQRA Comments

6. GML review of the project by the Rockland County Planning Department will be needed as the site fronts on two County roads. The project application must be circulated to the Village of New Hempstead for their review and comments per GML 239-nn.
7. Before the previous approval of this project, by resolution 10-16, the Planning Board granted a negative declaration of environmental significance for this unlisted action. We will defer to the opinion of the Planning Board Attorney regarding how re-affirming this Negative Declaration should be handled, given the Court's holding in this case.

Please let me know if you have any questions or comments regarding this review.

STATE ENVIRONMENTAL QUALITY REVIEW NOTICE OF INTENT TO BECOME LEAD AGENCY

This notice is issued pursuant to Part 617 of the implementing regulations pertaining to Article 8 (State Environmental Quality Review Act) of the Environmental Conservation Law.

The Planning Board of the Village of Wesley Hills hereby indicates its intent to assume Lead Agency status for the below-referenced project.

Involved Agencies objecting to the Village of Wesley Hills assuming Lead Agency status for this action must inform the Board in writing within 30 days at the address below:

Contact Person: Vera Brown, Chairman
Village Hall
432 Route 306
Wesley Hills, NY 10952
(845) 354-0400

Title of Action: IJJ LLC d/b/a Wickes/Arborists
Site Plan & Special Permit Application for Existing Operation

Date: July 26, 2023

SEQR Status: Unlisted

Description of Action:

The subject application is for a site plan approval and special permit for an existing Arborist operation. The Village of Wesley Hills Planning Board approved a site plan and special permit in May of 2010. However, the project was subject to a legal challenge. The SC Appellate division, 2nd Department annulled the approvals on November 24, 2021. The Court annulled the approvals because of the lack of a practical access to a second major road, and impervious surfaces in excess of 0.25 (25%).

The applicant is proposing to continue to use the existing two-story concrete block commercial building as well as the two-story frame dwelling that already exist on the property. In response to the Court's first objection to the 2010 approvals, a new proposed feature is a grasscrete emergency gated fire access drive off of Union Road. In response to the Court's second objection to the 2010 approvals, the applicant will apply for a ZBA variance for the excess impervious surfaces. (In its 2010 approvals, the Planning Board relied upon the interpretation that the excess impervious surface was a legally nonconforming preexisting condition for which a variance was not required – and the Court did not agree.)

Location: The 2.21-acre subject lot is located in the R-35 District at 11 McNamara Road, at the southwest corner of McNamara Road (C.R. 67) and Union Road (C.R. 80).

Application and Background Documents

The application and background documents may be found at this link:

<https://bit.ly/3qbx3XW>

If paper copies are preferred, please contact the Village of Wesley Hills Building Department, Alicia Schultz, at (845) 354-0400 or buildingdept@wesleyhills.org

Involved Agency Circulation: This notice is being sent to the following Involved Agencies:

Variances

Wesley Hills Zoning Board of Appeals
Village Hall
432 Route 306
Wesley Hills, NY 10952

Sewer Hookups, Water Hookups, Road Opening

Town of Ramapo DPW/Highway Department
16 Pioneer Avenue
Tallman, NY 10982

Sewer Hookups

Rockland County Sewer District #1
4 Route 340
Orangeburg, NY 10962

Sewer Extension, Mosquito Control

Rockland County Health Dept
Robert L. Yeager Health Center
50 Sanatorium Rd, Bldg D
Pomona, NY 10970

Driveway

Rockland County Highway Department
23 New Hempstead Road
New City, NY 10956

Interested Agency Circulation: This notice is being sent to the following Interested Agencies:

Rockland County Department of Planning
50 Sanatorium Road, Building T
Pomona, NY 10970

Rockland County Drainage Agency
23 New Hempstead Road
New City, New York 10956

Fire Inspector, Village of Wesley Hills
432 Route 306
Wesley Hills, New York 10952-1221



RECEIVED

AUG - 4 2023

The Village of New Hempstead **VILLAGE OF WESLEY HILLS**
The Planning Board

108 Old Schoolhouse Rd. • New City, NY 10956
• (845) 354-8100 • FAX (845) 354-7121 •

8/1/2023

VILLAGE OF WESLEY HILLS
432 ROUTE 306
WESLEY HILLS, NY 10952

RE: GML RESPONSE-11 MCNAMARA RD.-42.13-1-22

Dear Board Members,

The Village of New Hempstead has reviewed the above referenced proposal. Attached please find the comments provided by the Village Planner, John Lange with Lange Planning and Consulting.

Thank you for providing us with the opportunity to respond to this project. Please keep us informed of all developments in this project.

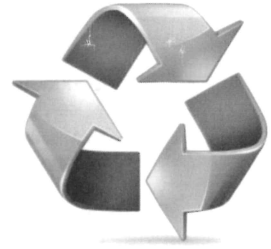
All the best,

Allison Weinraub
Village Clerk-Treasurer

108 Old Schoolhouse Rd. • New City, NY 10956
• (845) 354-8100 • FAX (845) 354-7121 •

Lange Planning and Consulting

Land Use, Environment, & Sustainability Planning



Date: July 31, 2023

To: Mayor Abe Sicker
 CC: Mr. Mel Poliakoff - Planning Board Chairman,
 Village of New Hempstead

Ref: Ira Wickes Arborist - Special Permit Application

Mayor and Chairman,

As requested, this office has reviewed the following documents as a basis for preparing this review letter. This is in response to the Rockland Count GML letter which noted that the Village should review the proposal for impacts to community character, traffic, water quality and quantity, drainage, stormwater and sanitary sewer service. The documents are:

1. July 24th 2023 GML review letter from the Rockland County Planning Department
2. Set of Plans dated July 18th 2023 consisting of 5 sheets from CivilTech Engineering
3. A short form EAF dated November 22, 2022 from CivilTech Engineering
4. A project narrative from Ira Emanuel dated March 16, 2023 consisting of 8 pages
5. A Stormwater Summary dated December 2022 prepared by CivilTec Engineering

General Comments:

The site is located on 2.2 acres in an R-35 zone. It borders two county roads, MacNamara Road and New Hempstead Road. The current application is the result of changes from existing law suits and Village changes to the Special Permit

Environmental Comments:

The narrative provided noted that a full EAF form was provided. However, only a short form (3 page) EAF was provided. Although the County GML asked for the Village of New Hempstead to review the impact of traffic, no traffic information was provided.

The narrative noted that this operation has been in existence since 1972. It noted that despite planning approval from the Town of Ramapo, the use has never been a legally permitted use. As such a stipulation agreement between the Wickes Family and the Village Board was created which the Village Board would "consider" the adoption of an amendment to the Zoning Law which permitted arborist services, landscape services and wholesale nurseries in the Village. The amendment, Local Law 3 of 2006 was adopted on June 13, 2006. The special permit conditions listed on the plans included the following:

Lange Planning and Consulting
 1511 Yellow Sand Lane, Odenton Md. 21113

SPECIAL PERMIT NOTES (CONDENSED):

1. OVERNIGHT PARKING LIMITED TO NOT MORE THAN
 7 LIGHT DUTY TRUCKS
 13 MEDIUM DUTY TRUCKS
 7 HEAVY DUTY TRUCKS
 1 VERY HEAVY DUTY TRUCK
 OF WHICH NO MORE THAN 13 CAN BE PARKED OUT OF DOORS
2. NOISE LEVELS SHALL CONFORM TO R.C. DEPT. OF HEALTH STANDARDS
3. NOT MORE THAN 400 CY OF MULCH AND/OR WOOD CHIPS SHALL BE STORED AT THE PREMISES
4. NOT MORE THAN 50 CY OF GRAVEL AND/OR STONE SHALL BE STORED AT THE PREMISES
5. OPERATING HOURS AT THE PREMISES SHALL NOT EXCEED THE FOLLOWING:
 WHOLESALE NURSERY: 7:00AM TO 6:30PM MONDAY THROUGH FRIDAY
 8:00AM TO 3:30PM SATURDAY
 CLOSED SUNDAY
 OFFICE: 7:00AM TO 8:30PM MONDAY THROUGH FRIDAY
 8:00AM TO 5:00PM SATURDAY
 CLOSED SUNDAY
6. COMMERCIAL TRUCKS AND OTHER EQUIPMENT MAY BE STARTED
 OUT OF DOORS BETWEEN NOV 1 AND APR 15 NOT BEFORE 7:30AM
 OUT OF DOORS BETWEEN APR 16 AND OCT 31 NOT BEFORE 8:00AM
 INDOORS ALL YEAR NOT BEFORE 7:00AM
 WARM UP TIMES SHALL NOT EXCEED 30 MINUTES
7. EXCEPTIONS TO NOTE 6 ARE PROVIDED IN THE STIP. OF SETTLEMENT.
 7 LIGHT DUTY TRUCKS

A review of the Rockland County GIS aerial and the Google Earth aerial of the site noted the following:

1. A large frontend loader
2. A second earth moving machine
3. Fourteen other trucks of various sizes
4. Existing site has no hard surface pavement
5. Existing site has no curbs
6. Existing site has access only to McNamara Road.

Evidence of these conditions is presented below:

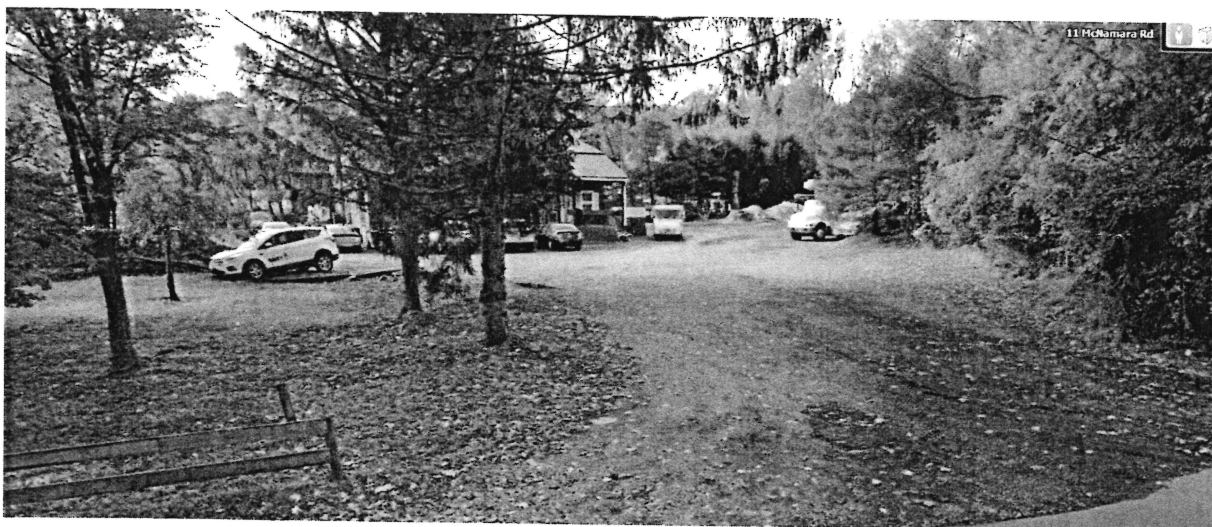


Figure 1 - Site entrance on McNamara Road



Figure 2 - Existing Conditions Google Earth Aerial

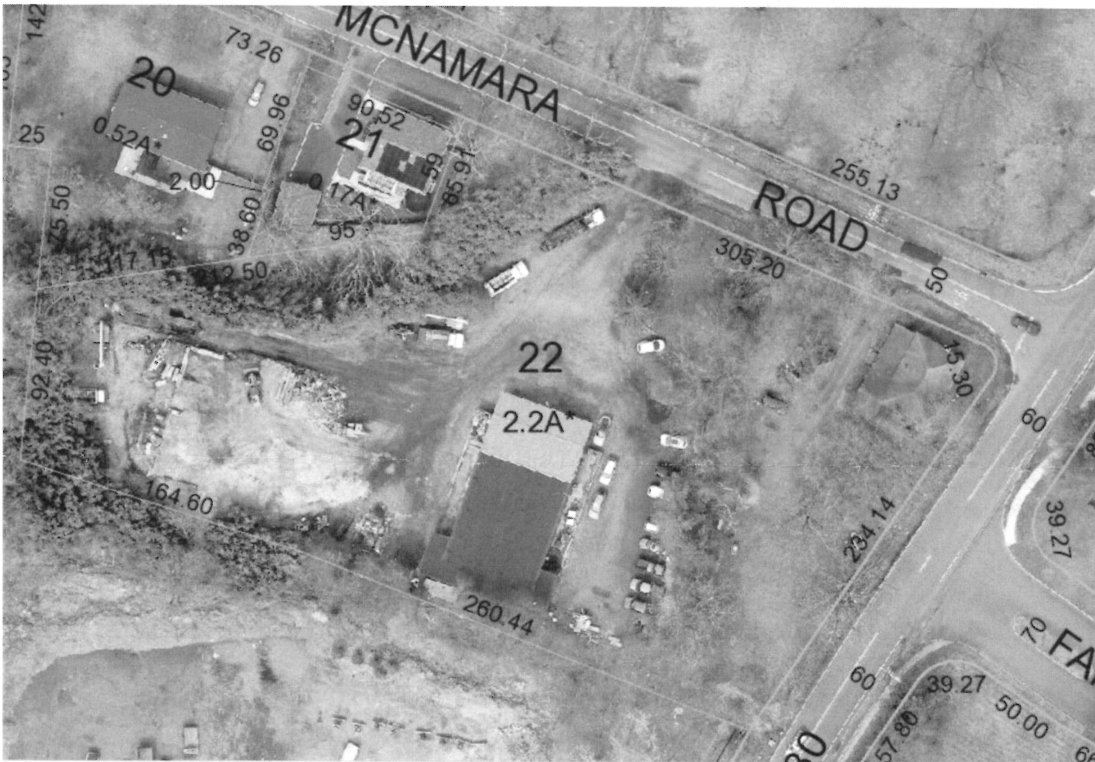


Figure 3 - RCPD Aerial showing heavy earth moving equipment

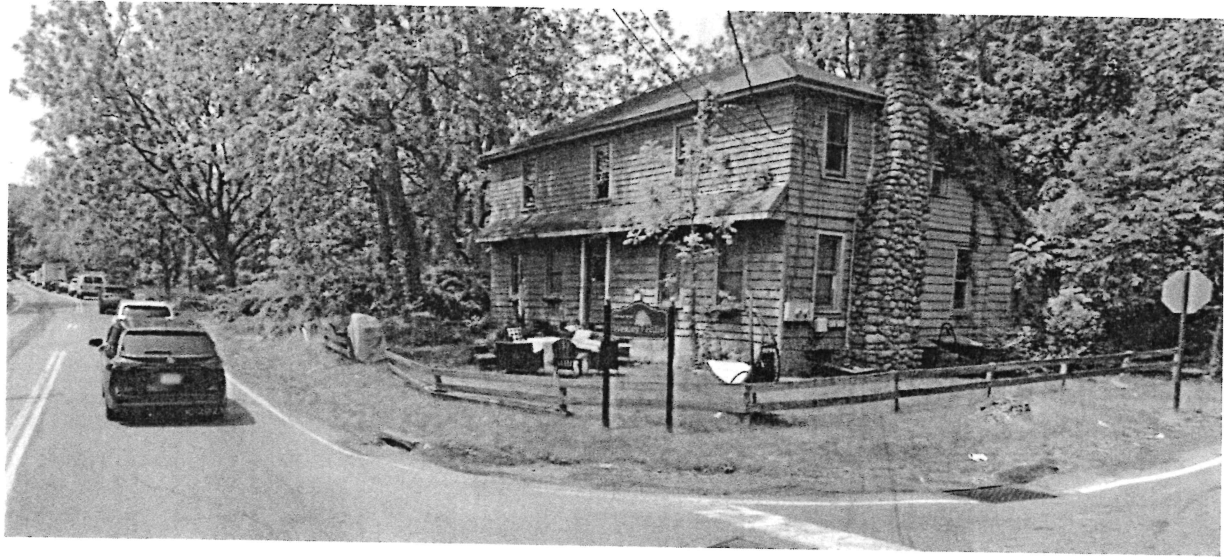


Figure 4 - Intersection of New Hempstead Road and McNamara Road – Note heavy traffic on New Hempstead

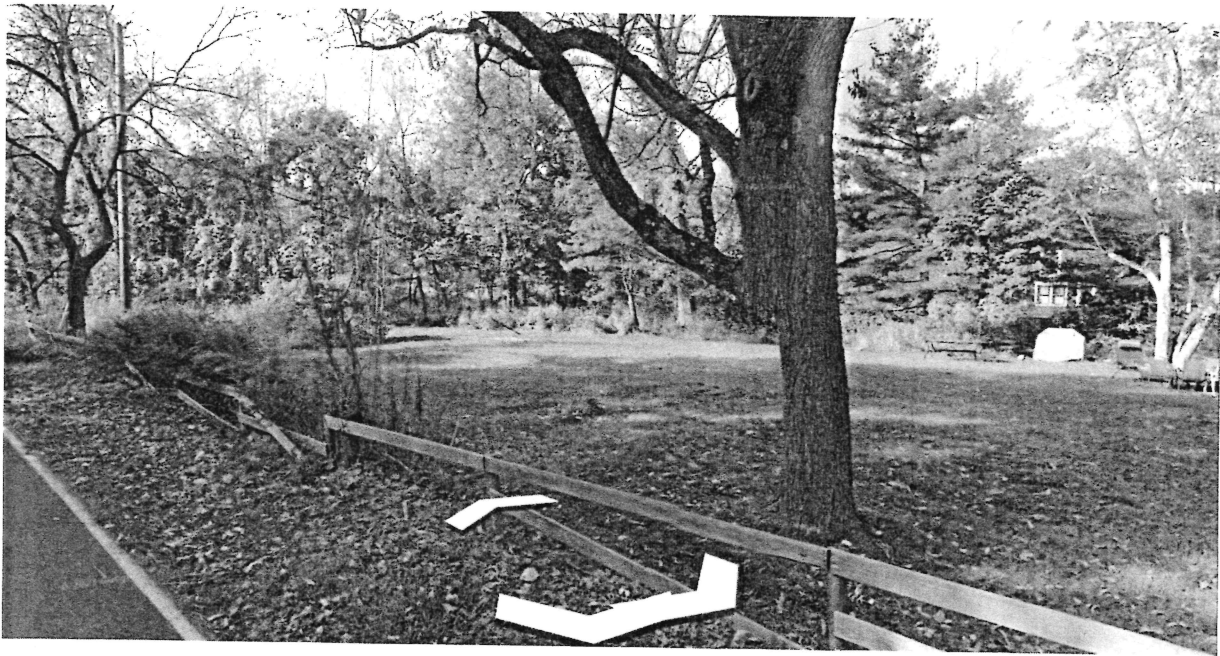


Figure 5 - No access from New Hempstead Road

Based upon this office's review of all of the documents provided LPC offers the following comments:

1. Traffic needs to be assessed with the number of daily vehicles projected and the impacts on the county roads determined. I could not find any information regarding ingress and egress trips or peak rates.
2. Did the design for the rain garden include percolation tests or was it based on theoretical constructs. I would recommend percolation tests to be completed

3. The emergency access should align with Fairway Oval on New Hempstead Road for better traffic flow.
4. Did Rockland County Department of Highways comment on the emergency access connection?
5. Although the plans show lines demarking parking spaces, gravel surfaces will not preserve the lines. How will the spaces be maintained?
6. The concept of gravel as the travel way surface is not ideal. Did the Village consider more permanent paving? Permanent curbs are proposed.
7. The use of gravel as the surface for mixing and moving materials seems inappropriate as it will not last, nor will it maintain drainage under active conditions.
8. It appears that the rain garden will be draining a significant area as the elevation for the property all show a slope forward to the rain garden. The distance exceeds 100 linear feet or runoff. Will this small rain garden be sufficient?
9. No details were provided for the proposed landscaping berm; the elevation is lower than the nearby 486 contour line.
10. As mentioned in the narrative, granting of this special permit will travel with the property. Is this what the Village of Wesley Hills desires as the long term (forever) use of the property? It appears to me that an interim solution rather than a permanent solution might be a better alternative.

Should you have any questions regarding any of these comments, please do not hesitate to contact me.

Kind regards,



John F. Lange

Village Planning Consultant



EMANUEL LAW P.C.

Ira M. Emanuel, Esq. | Amy Mele, Esq. *Of Counsel*
Counsel to Freeman & Loftus, RLLP

Four Laurel Road
 New City, NY 10956

Info@EmanuelLaw.com

www.EmanuelLaw.com

Tel: 845-634-4141

January 3, 2024

Planning Board, Village of Wesley Hills
 432 Route 306
 Wesley Hills, NY 10952

Re: Rockland Tree Experts Co., Inc., d/b/a Ira Wickes/Arborists

Dear Members:

We represent the applicant in the above matter, which seeks approval of a site plan and special permit to continue an arborist/landscaping service at the subject site. The Rockland County Planning Department issued a GML review dated July 24, 2023, which recommended modifications to the project. The review was triggered by the site's proximity to two County roads (Union Rd/New Hempstead Rd and McNamara Rd) and the Village of New Hempstead.

The applicant's responses follow.

1 Special permit uses are, by definition, subject to a higher standard of review than as-of-right uses. The Village shall be satisfied that the arborist service, landscape surface, and wholesale nursery complies with the general standards for special permit uses outlined in Section 230-22, as well as the individual standards and requirements listed in Section 230-26N.

The applicant's narrative addresses the special permit requirements.

2 Section 230-26N(2) requires the proposed use to have frontage on, and practical access to, two major roads. Standard access to the site is via McNamara road and emergency access will be provided from Union Road. Since "practical access" is not defined in the Village Code, the Planning Board shall be assured that this requirement is met for the site.

Comment noted.

3 Section 230-26N(12) prohibits the grinding or chipping of trees, branches, and stumps; preparation of mulch or other material resulting from the decomposition of organic material; storage of mulch produced elsewhere except in compartments and areas expressly designated for such storage and in amounts in compliance with Subsection N(6); and the on-site retail sale of plants or other materials. The project narrative states

the site complies with the first three restrictions, but does not address the retail sale of plants and other materials. The Planning Board shall be assured that no on-site sales of these materials will occur.

There will be no on-site retail sales.

4 Section 230-26N(13) states that the applicant must demonstrate that the proposed activities will not result in a degradation of surface water or groundwater quality by the submission of a water quality assessment. The project narrative indicates the assessment was prepared in January 2005. The Planning Board shall determine whether this is sufficient, or if a new one must be prepared since over 15 years have passed since the previous assessment was prepared.

Comment noted.

5 The applicant shall satisfactorily address the comments made by the Rockland County Highway Department in their letter dated June 13, 2023.

The applicant responded to the Rockland County Highway Department by letter dated July 17, 2023 (copy attached). The applicant will continue to work with the Department to resolve differences.

6 As per their letter dated July 17, 2023, application is to be made to the Rockland County Department of Health for review of the stormwater management system to ensure compliance with the County Mosquito Code.

Agreed.

7 The Village of New Hempstead is one of the reasons this proposal was referred to this department for review. The municipal boundary is along the northern and eastern property lines of the site. New York State General Municipal Law states that the purposes of Sections 239-I, 239-m and 239-n shall be to bring pertinent inter-community and county-wide planning, zoning, site plan and subdivision considerations to the attention of neighboring municipalities and agencies having jurisdiction. Such review may include inter-community and county-wide considerations with respect to the compatibility of various land uses with one another; traffic generating characteristics of various land uses in relation to the effect of such traffic on other land uses and to the adequacy of existing and proposed thoroughfare facilities; and the protection of community character as regards to predominant land uses, population density, and the relation between residential and nonresidential areas. In addition, Section 239-nn was enacted to encourage the coordination of land use development and regulation among adjacent municipalities, and as a result development occurs in a manner which is supportive of the goals and objectives of the general area.

The Village of New Hempstead must be given the opportunity to review the proposal and its impact on community character, traffic, water quantity and quality, drainage,

stormwater runoff and sanitary sewer service. The areas of countywide concern noted above that directly impact the Village of New Hempstead must be considered and satisfactorily addressed, as well as any additional concerns about the proposal.

Comment noted. The Village of New Hempstead submitted comments in a letter dated August 1, 2023.

8 Section 230-26N(7) of the Village's zoning regulations states "The preparation of all plant health materials shall be conducted in an environmentally safe manner on the premises in accordance with all other relevant laws and regulations." The application, storage, or sale of pesticides requires licenses from the New York State Department of Environmental Conservation (NYSDEC). More information can be found at <https://www.dec.ny.gov/permits/96354.html> and <https://www.dec.ny.gov/regulations/8527.html>. The Village must be assured that all necessary licenses from the NYSDEC have been obtained if any pesticides are to be used, stored, or sold on the site.

The applicant possesses all necessary NYSDEC licenses for storage of pesticides on-site (copies attached). No pesticides are sold or applied on-site.

9 Prior to the start of construction or grading, all soil and erosion control measures must be in place for the site. These measures must meet the latest edition (November 2016) of the New York State Standards for Erosion and Sediment Control.

Comment noted.

10 There shall be no net increase in the peak rate of discharge from the site at all design points.

The applicant has submitted drainage calculations showing compliance with this standard.

11 A total of 28 standard parking spaces are proposed, with one accessible space included. As required by the Americans with Disabilities Act (ADA), parking areas with 26 - 50 spaces must provide at least two accessible spaces, one of which must be van-accessible. An additional accessible space must be provided to comply with ADA standards.

An additional accessible parking space has been added to the right of the existing proposed space near the southwestern corner of the building.

12 Areas designated for snow removal must be clearly delineated on the site plan and in the field so that the plow drivers will know where to place the snow piles. Providing specific locations on the site for the snow piles will reduce the loss of available parking spaces meant to be used by employees. In addition, this will help to protect the proposed landscaping from damage due to the weight of the snow and salt intrusion.

Snow storage has been shown in three locations: in the western portion of the site, adjacent to the materials storage bins and opposite the building entrance, and at the southeastern corner of the site.

13 The garbage enclosure to the west of the accessible space appears to encroach into the southernmost truck space. The enclosure must be relocated, or the truck spaces redesigned, so that there are no conflicts.

The garbage enclosure has been redesigned to eliminate any conflicts.

14 No SEQRA documentation was provided with this application. When our department reviewed the site plan and special permit in February 2010, a Full Environmental Assessment Form was submitted. Updated SEQRA documents must be submitted.

A short EAF was submitted with the initial application materials. As the action is an Unlisted action under SEQRA, a short EAF is acceptable.

15 The project narrative references several sections of the Village Zoning Code, such as Sections 4.3.7 and 6.9.16. This is a former version of the Code and it is no longer structured in this manner. The Zoning Code is now Chapter 230 of the Village Code. The project narrative must be corrected to reference the current Code.

Subsequent versions of the narrative will refer to new code numbers. The substance of the code sections cited has not changed.

16 No lighting plan was provided. If any new lighting is proposed, a lighting plan shall be submitted that demonstrate that the intensity of the candle lumens is less than 0.1 at the property line.

No new lighting is proposed.

17 If any new signage is proposed, it must be shown on the site plan and conform to Section 230-26N(11). If any variances are required for the signage, we request the opportunity to review them, as required by New York State General Municipal Law, Section 239-m (3)(a)(v).

Comment noted.

18 We request the opportunity to review any variances that may be needed to implement the proposed site plan, as required by New York State General Municipal Law, Section 239-m (3)(a)(v).

Comment noted.

19 Pursuant to General Municipal Law (GML) Section 239-m and 239-n, if any of the conditions of this GML review are overridden by the board, then the local land use board must file a report with the County Commissioner of Planning of the final action taken. If the final action is contrary to the recommendation of the Commissioner, the local land use board must state the reasons for such action.

Comment noted.

20 In addition, pursuant to Executive Order 01-2017 signed by County Executive Day on May 22, 2017, County departments are prohibited from issuing a County permit, license, or approval until the report is filed with the County Commissioner of Planning. The applicant must provide to any County agency which has jurisdiction of the project: 1) a copy of the Commissioner report approving the proposed action; or 2) a copy of the Commissioner of Planning recommendations to modify or disapprove the proposed action, and a certified copy of the land use board statement overriding the recommendations to modify or disapprove, and the stated reasons for the land use board's override.

Comment noted.

21 The following additional comment is offered strictly as an observation and is not part of our General Municipal Law (GML) review. The board may have already addressed this point or may disregard it without any formal vote under the GML process:

21.1 Section 230-17B of the Village Code, as posted online at ecode360.com, indicates arborist services, landscape services, and/or wholesale nurseries are a permitted special permit use in the R-50, R-20, and R-15 zoning districts, but not the R-35 zoning district. This shall be corrected.

The applicant has no control over the content of online code postings by or on behalf of the Village. This is an internal Village administration matter.

Very truly yours,
EMANUEL LAW P.C.



By: _____
Ira M. Emanuel, Esq.

Cc: Client

PLANNING BOARD
Village of Wesley Hills
Rockland County, New York

Resolution# 23-30

WICKES ARBORISTS SPECIAL PERMIT & SITE PLAN

WHEREAS, Rockland Tree Expert, Inc. d/b/a Ira Wickes, Arborist made application for approval of a special permit and a site plan for the use of premises located on the southerly side of McNamara Road and the westerly side of Union Road known as 11 McNamara Road and designated on the Town of Ramapo Tax Map as Section 42.13, Block 1, Lot 22 as an arborist service in or about 2006; and

WHEREAS, on May 26, 2010, this Board granted said application; and

WHEREAS, judicial review of this Board's grant of approvals was sought, resulting in a decision by the Appellate Division, Second Department annulling the said approvals (Matter of Marcus v. Plannina Board of the Villaae of Wesley Hills, Case Nos. 2017-05963 and 2017-12184); and

WHEREAS, the Appellate Division in said decision remitted the matter to this Board with a directive to issue new determinations denying the said applications for the reasons set forth in its decision;

NOW, THEREFORE, BE IT RESOLVED, that such previous application of Rockland Tree Expert, Inc. d/b/a Ira Wickes, Arborist for approval *Of* a special permit and site plan heretofore made as set forth above is hereby denied for the following reasons, as determined by the Appellate Division: (1) failure to provide actual access to a second major road as a consequence of incorrectly deciding that potential practical access to a second major road was sufficient to satisfy the requirement of the Zoning Law for practical access thereto, and (2) having an impervious surface ratio greater than the maximum ratio permitted by the Zoning Law; and

BE IT FURTHER RESOLVED, that nothing herein shall be deemed to prevent the applicant from reapplying for said approvals of

revised plans that are consistent with the decision of the Appellate Division.

Dated: August 30, 2023

WICKES ABORIST
TRAFFIC IMPACT STUDY
VILLAGE OF NEW HEMPSTEAD, NY

February 12, 2024

Prepared By:
Harry Baker & Associates
190 Old Colony Road
Hyannis, Ma 02601

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INTRODUCTION

Wickes Arborist is located on McNamara Road in the Village of Wesley Hills. The site is located in an R-35 zone with a lot size of 2.2 acres. Located near the southerly border of the property is a two-story concrete block building having a gross square footage of 6,321 sq. ft. In this building are offices, workspace, storage, and truck and trailer parking. The parking lot is constructed with gravel and the access is from McNamara Road. There is also a two-family home located in the northeasterly corner with accessory structures.

The current site plan has been revised from the 2010 plan that was submitted and approved by the Village's Planning Board. We have added emergency access to Union Road. The site will now have two access points in compliance with the current zoning. Even with this emergency access point, vehicles will use the McNamara Road driveway.

There are currently 18 employees. Two will stay on site and the remainder take a truck and go into the for their daily work. Most employees arrive between 6:30 to 7:00 am. As you can see from the traffic counts, there are a few that arrive after 7:00 am. Between 7:00 am and 8:00 am, the trucks leave the yard. As shown in the traffic counts, not all the trucks leave by 8:00 am and not all of the trucks go into the field each day. There are days when there are two-person crews due to the nature of that day's work.

Over the next few years, Wickes hopes to add six additional employees. Several may stay on site to oversee material deliveries, but the remainder will team up with a current truck driver to create a two-person team. There will be no additional trucks added to the fleet.

Figure 1 shows the project location. We have based our analysis on the site plan prepared by Civil Tec, dated December 7, 2022. For traffic purposes, the future build-year is 2025.

The purpose of this study is to determine the potential traffic impact of the proposed increase in staff will have on the adjacent roadway network, and where necessary, make recommendations for roadway improvements necessary to serve the existing and future traffic volumes.

EXISTING ROADWAY NETWORK

The proposed project is located on McNamara Road. A description of the existing local roadway system is provided below.

- Union Road (CR80) is a two-lane roadway that runs in a north-south direction under the control of Rockland County. It

Untitled Map

Write a description for your map.

Legend

Item 1.

Brant Point Wildlife Sand

Bungalow Bar

Dubos Point Wildlife Sanctuary

Feature 1

Feature 2

Jamaica Bay Wildlife Refuge

Marina 59

Rockaway Brewing Company

Stop & Shop

Tacoway Beach (SUMMER ONLY)



PROJECT LOCATION

PROJECT LOCATION
FIGURE 1

begins at its intersection with Maple Avenue in Spring Valley and continues north to the intersection of Summit/Park Road/New Hempstead Road/Hempstead Road at its northern terminus. The posted speed limit is 30-mph. Near the project site, Union Road has one travel lane in each direction. The land-use composition is comprised of single-family homes. There are signalized intersections along Union Road. At the project site, McNamara Road (CR67) intersects approaching from the west forming a T-intersection.

- McNamara Road (CR67) is a two-lane roadway that runs in an east-west direction under the control of Rockland County. The posted speed limit is 30 mph. It begins at the intersection of Union Road and continues west and then turns north to its terminus at Pomona Road. Development in the vicinity is comprised of single-family homes.

EXISTING TRAFFIC CONDITIONS – WEEKDAY

Manual Traffic Counts -

In order to properly assess the impacts of the proposed project, manual turning movement counts were taken during a typical weekday. The manual counts were conducted on Tuesday, December May 5, 2023, at the following intersections:

- Union Road/McNamara Road – unsignalized
- McNamara Road/Wickes Arborist Driveway – unsignalized

The traffic counts were conducted in 15-minute intervals. The counts were classified by cars, trucks, buses, and school buses. Full size school buses were considered trucks for this study.

The time periods analyzed are as follows:

- 7:00 to 8:00 am and 4:00-5:00 pm.

The traffic volumes are shown in **Figures 2 and 3** and show the peak our traffic. Appendix C shows the traffic counts for the manual counts.

The current staff has 18 employees. Most arrive before 7 am to get their trucks ready and leave between 7 to 8 am. The trucks return between 4 and 5 pm. On a typical day, there are 16 staff members in the field and 2 in the office. Deliveries of materials such as mulch, stone, and wood chips are made throughout the day. Deliveries are based on project needs. Therefore, there could be days when there

are no deliveries. The company does work on Saturday and Sundays, as necessary. Vehicles typically leave by 9 am and return when the project is completed. These projects are typically related to the removal of debris. There are also deliveries made of wood chips.

Capacity Analysis

The Synchro 11 software (standard Highway Capacity Manual) was used to calculate the Level of Service for each intersection. The traffic analysis is performed by calculating the capacity of the facility (e.g., intersection approach roadway) to process traffic. In general, the capacity of a facility is defined as the maximum number of vehicles or pedestrians that can reasonably be expected to traverse a point or section of roadway during a given time period under prevailing roadway, traffic, and control conditions. Therefore, capacity analyses are a set of procedures used to estimate the traffic carrying capabilities of facilities over a range of defined operational conditions. They provide tools for the analysis and improvement of existing facilities and for the planning and design of future facilities.

Unsignalized Intersections

The operation of signalized intersections in the Study Area was analyzed by applying the Percentile Delay Methodology included in the Synchro 11 traffic signal software (latest version approved by NYSDOT).

LOS can be characterized for the entire intersection, each intersection approach, and each lane group. Control delay alone is used to characterize LOS for the entire intersection or an approach. Delay quantifies the increase in travel time due to traffic signal control. It is also a surrogate measure of driver discomfort and fuel consumption. The volume-to-capacity ratio quantifies the degree to which a phase's capacity is utilized by a lane group.

LOS A describes operation with a control delay of 10 seconds per vehicle or less and volume-to capacity ratio no greater than 1.0. This level is typically assigned when the volume-to capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.

LOS B describes operation with a control delay between 10 and 20 seconds per vehicle or less and volume-to capacity ratio no greater than 1.0. This level is typically assigned when the volume-to capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. More vehicles will stop than with LOS A.

LOS C describes operation with a control delay between 20 and 35 seconds per vehicle or less and volume-to capacity ratio no greater than 1.0. This level is typically assigned when the volume-to capacity ratio is moderate. Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may appear at this level. The number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.

LOS D describes operation with a control delay between 35 and 55 seconds per vehicle or less and volume-to capacity ratio no greater than 1.0. This level is typically assigned when the volume-to capacity ratio is high and either progression is ineffective, or the cycle length is long. Many vehicles stop and individual cycle failures are noticeable.

LOS E describes operation with a control delay between 55 and 80 seconds per vehicle or less and volume-to capacity ratio no greater than 1.0. This level is typically assigned when the volume-to capacity ratio is high, progression is unfavorable, and the cycle length is long. Individual cycle failures are frequent.

LOS F describes operation with a control delay is greater than 80 seconds per vehicle or less and volume-to capacity ratio greater than 1.0. This level is typically assigned when the volume-to capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.

A lane group can incur a delay less than 80 seconds per vehicle when the volume-to capacity ratio exceeds 1.0. This condition typically occurs when the cycle length is short, the signal progression is favorable, or both. As a result, both the delay and volume-to capacity ratio are considered when lane group LOS is established. A ratio of 1.0 or more indicates that cycle capacity is fully utilized and represents failure from a capacity perspective (just as delay in excess of 50 seconds per vehicle represents failure from a delay perspective.)

The LOS criteria for both TWSC and AWSC unsignalized intersections are summarized in **Table 1**.

Control Delay Per Vehicle	Level of Service (LOS)	
	v/c ratio $\leq$ 1.0	v/c ratio $\geq$ 1.0
≤ 10.0 Seconds	A	F
>10.0 and 15.0 seconds	B	F
>15.0 and 25.0 seconds	C	F
>25.0 and 35.0 seconds	D	F
>35.0 and 50.0 seconds	E	F
>50.0 seconds	F	F
Source: Transportation Research Board 2016 <i>Highway Capacity Manual</i>		

Note: (1) For TWSC intersections, the LOS criteria apply to each lane on a given approach and to each approach on the minor street (for TWSC intersections.) LOS is not calculated for major-street approaches or for the intersection as a whole.

Note that the LOS criteria for unsignalized intersections are somewhat different from the criteria used in signalized intersections. At TWSC intersections, drivers on the stop-controlled approaches are required to select gaps in the major-street flow in order to execute crossing or turning maneuvers. In the presence of a queue, each driver on the controlled approach must also use some time to move into the front-of-queue position and prepare to evaluate gaps in the major-street flow. AWSC intersections require drivers on all approaches to stop before proceeding into the intersection.

The results of the existing capacity analyses are shown in **Tables 2** for the existing conditions.

At the Union Road/McNamara Road intersection, the McNamara Road eastbound approach is operating at LOS “D” in the morning peak hour. The remaining approaches and intersections are operating at LOS “C” or better.

2025 NO-BUILD CONDITIONS

The no-build conditions represent the traffic volumes that would be on the street network prior to the completion of the development. We used a background growth rate of 1.02% based on the NYMTC projections for Rockland County.

The traffic volumes are shown in **Figures 3 and 4** show the peak hour traffic

The results the weekday capacity analyses are shown in **Tables 3** for the 2025 no-build conditions.

At the Union Road/McNamara Road intersection, the McNamara Road eastbound approach is projected to change from LOS “C” to “D” in the evening peak hour.

The remaining approaches will remain at the LOS for the existing conditions.,

2025 BUILD CONDITIONS

There are currently 18 employees. Two will stay on site and the remainder take a truck and go into the for their daily work. Most employees arrive between 6:30 to 7:00 am. As you can see from the traffic counts, there are a few that arrive after 7:00 am. Between 7:00 am and 8:00 am, the trucks leave the yard. As shown in

TABLE 2
CAPACITY ANALYSIS SUMMARY
2023 EXISTING CONDITIONS WEEKDAY
UNSIGNALIZED INTERSECTIONS

	7:00-8:00 V/C			4:00-5:00 V/C		
	LOS	Ratio	Delay	LOS	Ratio	Delay
Union Road/McNamara Road						
Union Road						
Northbound Lt + Th	A	0.09	9.3	A	0.08	9.1
McNamara Road						
Eastbound Lt + Rt	D	0.58	31.2	C	0.48	24.7
McNamara Road/Wickes Driveway						
McNamara Road						
Westbound Lt + th	A	0.00	7.6	A	0.00	0.0
Wickes Driveway						
Northbound Lt + Rt	B	0.01	10.6	A	0.01	10.0

the traffic counts, not all the trucks leave by 8:00 am and not all of the trucks go into the field each day. There are days when there are two-person crews due to the nature of that day's work.

Over the next few years, Wickes hopes to add six additional employees. Several may stay on site to oversee material deliveries, but the remainder will team up with a current truck driver to create a two-person team. There will be no additional trucks added to the fleet. For this analysis, we have assumed that six new cars will enter between 7:00 am and 8:00 am and leave between 4:00 pm and 5:00 pm. There will be no change in the truck operations.

Figure 6 shows the distribution for the six vehicle trips and **Figures 7 and 8** show the peak hour traffic volumes for the 2025 Build condition.

There will be no change in the LOS for any of the movements from the No-Build to the Build conditions.

CALCULATION OF SIGHT DISTANCE

The intersection sight distance is based on the AASHTO Design Manual "A Policy for Geometric Design of Highways and Streets." Chapter 9 discusses the sight triangle requirements for a stop-controlled intersection and how to calculate the sight distance.

The sight triangle area must be clear of obstructions so a driver sitting in the driveway can see oncoming traffic and vice versa. Plantings in the sight triangle should not be more than two feet high. It is preferable that there be no plantings in the sight triangle.

The intersection sight distance is calculated based on the formula on Page 9-37. For a left turn from stop, Table 9-5 provides the Time Gap in seconds for the Design Speed of Major Road. For a passenger car, the Time Gap is 7.5 seconds. For a single unit truck, 9.5 seconds and for a combination truck 11.5 seconds. We measured the sight distance in the field and the results are as follows:

For the existing driveway on McNamara Road, if approaching from the east to make a right-turn into the driveway, the sight distance is 313 feet. Looking to the right making a left-turn out of the driveway, the sight distance is 222 feet to the stop bar on McNamara Road at its intersection with Union Road. For 30 mph, the required sight distance is 335 feet. The stopping sight distance is 200 feet. We are short by 22 feet for the intersection sight distance but do meet the stopping sight distance. Since we meet the stopping sight distance, the location of the driveway is acceptable.

TABLE 3
CAPACITY ANALYSIS SUMMARY
2025 NO-BUILD CONDITIONS WEEKDAY
UNSIGNALIZED INTERSECTIONS

	7:00-8:00 V/C			4:00-5:00 V/C		
	LOS	Ratio	Delay	LOS	Ratio	Delay
Union Road/McNamara Road						
Union Road						
Northbound Lt + Th	A	0.09	9.3	A	0.08	9.1
McNamara Road						
Eastbound Lt + Rt	D	0.60	33.4	D	0.50	25.9
McNamara Road/Wickes Driveway						
McNamara Road						
Westbound Lt + th	A	0.00	7.6	A	0.00	0.0
Wickes Driveway						
Northbound Lt + Rt	B	0.01	10.7	A	0.01	10.0

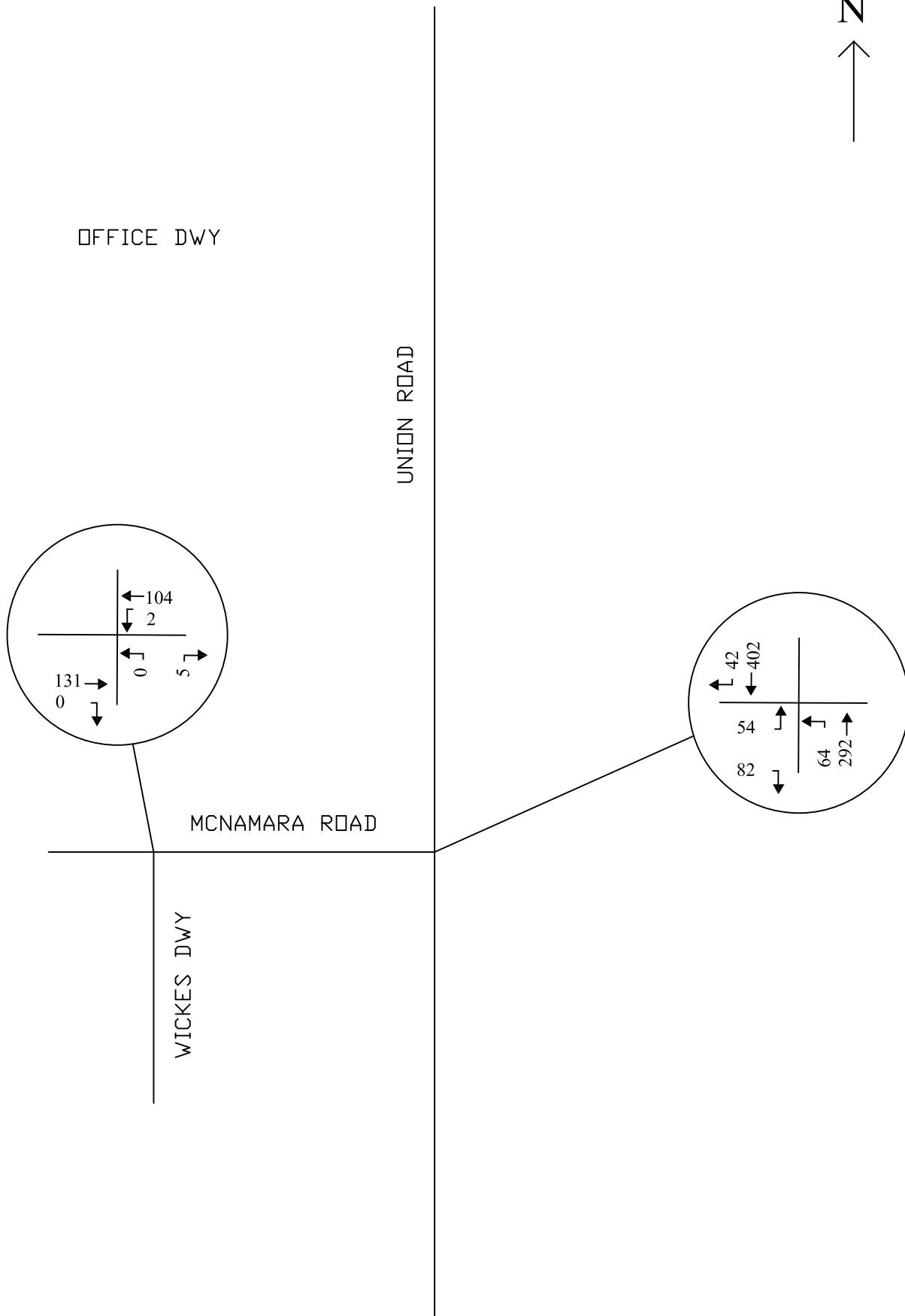
TABLE 4
CAPACITY ANALYSIS SUMMARY
2025 BUILD CONDITIONS WEEKDAY
UNSIGNALIZED INTERSECTIONS

	7:00-8:00 V/C			4:00-5:00 V/C		
	LOS	Ratio	Delay	LOS	Ratio	Delay
Union Road/McNamara Road						
Union Road						
Northbound Lt + Th	A	0.10	9.4	A	0.08	9.1
McNamara Road						
Eastbound Lt + Rt	D	0.61	34.1	D	0.52	26.7
McNamara Road/Wickes Driveway						
McNamara Road						
Westbound Lt + th	A	0.00	7.6	A	0.00	0.0
Wickes Driveway						
Northbound Lt + Rt	B	0.01	10.7	A	0.02	9.9

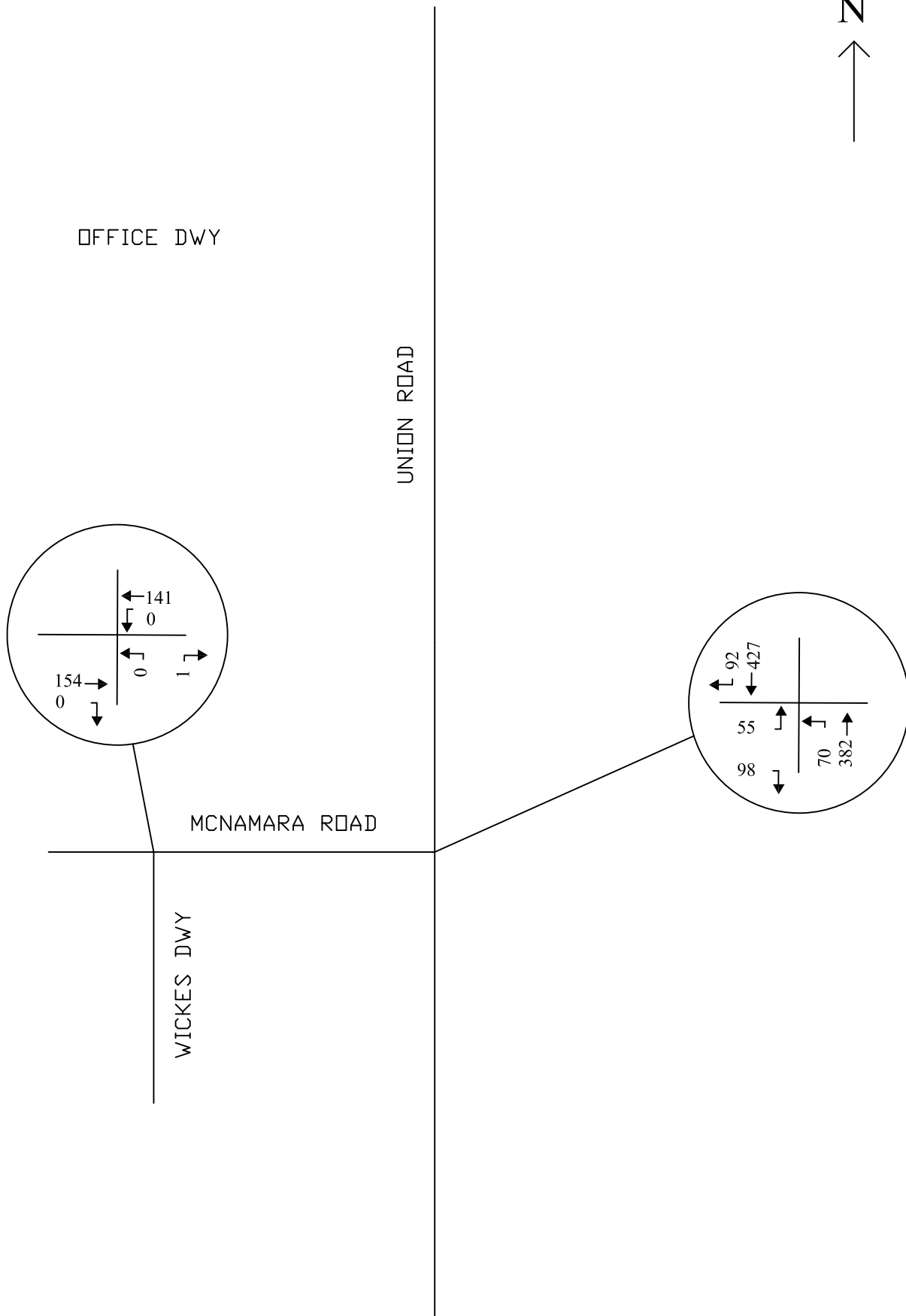
CONCLUSIONS

1. The existing Wickes Arborist business plans to add six new employees over the next several years.
2. The LOS for the existing driveway is “A” or “B” and the McNamara Road eastbound approach is projected to operate at LOS “D” when these employees are added.

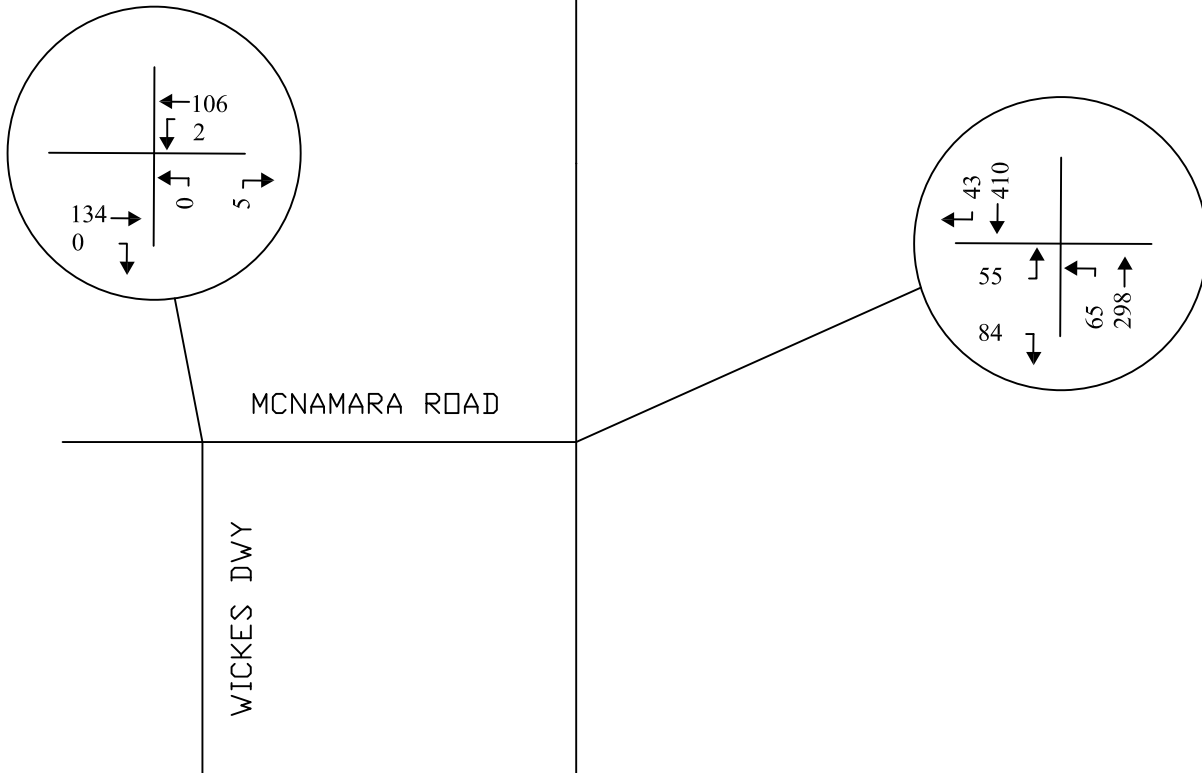
APPENDIX A TRAFFIC VOLUME FIGURES



2023 EXISTING AM PEAK HOUR TRAFFIC
7:00 AM - 8:00 AM
FIGURE 2



2023 EXISTING PM PEAK HOUR TRAFFIC
4:00 PM - 5:00 PM
FIGURE 3



2025 NO-BUILD AM PEAK HOUR TRAFFIC
7:00 AM - 8:00 AM
FIGURE 4

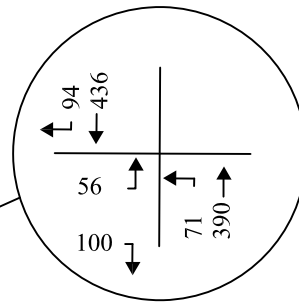
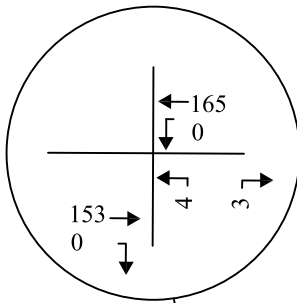


OFFICE DWY

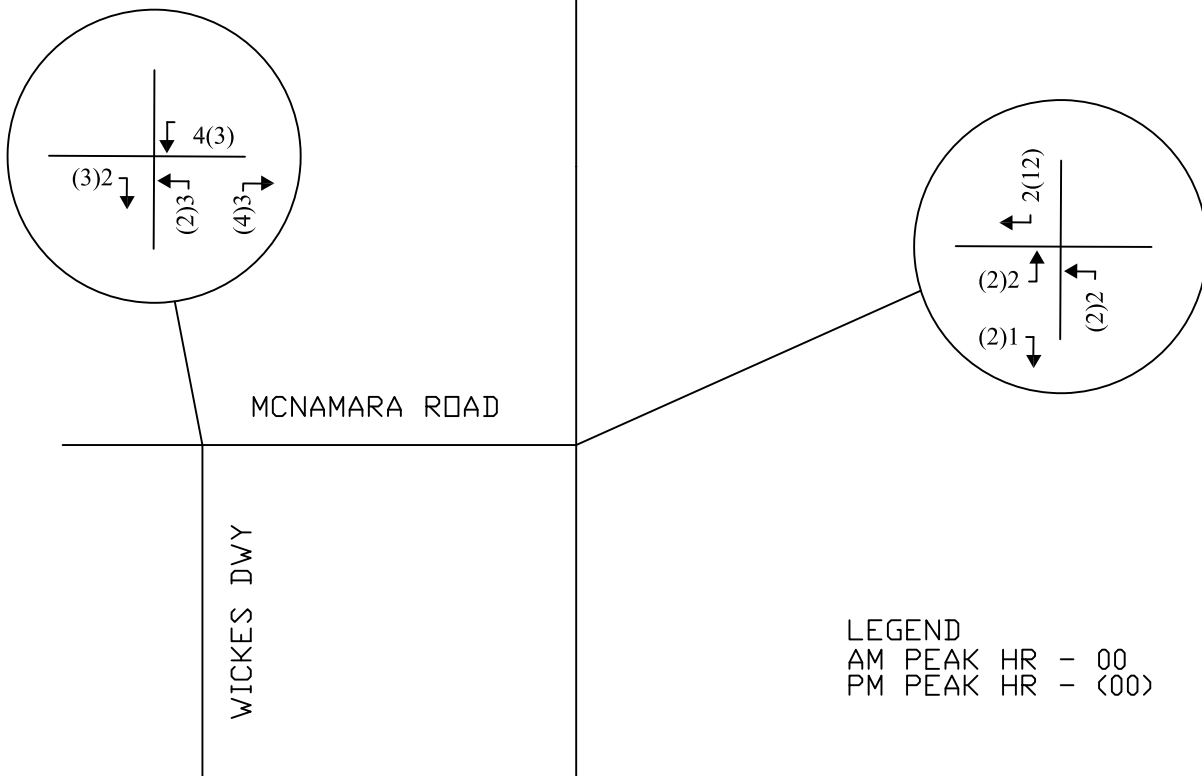
UNION ROAD

MCNAMARA ROAD

WICKES DWY



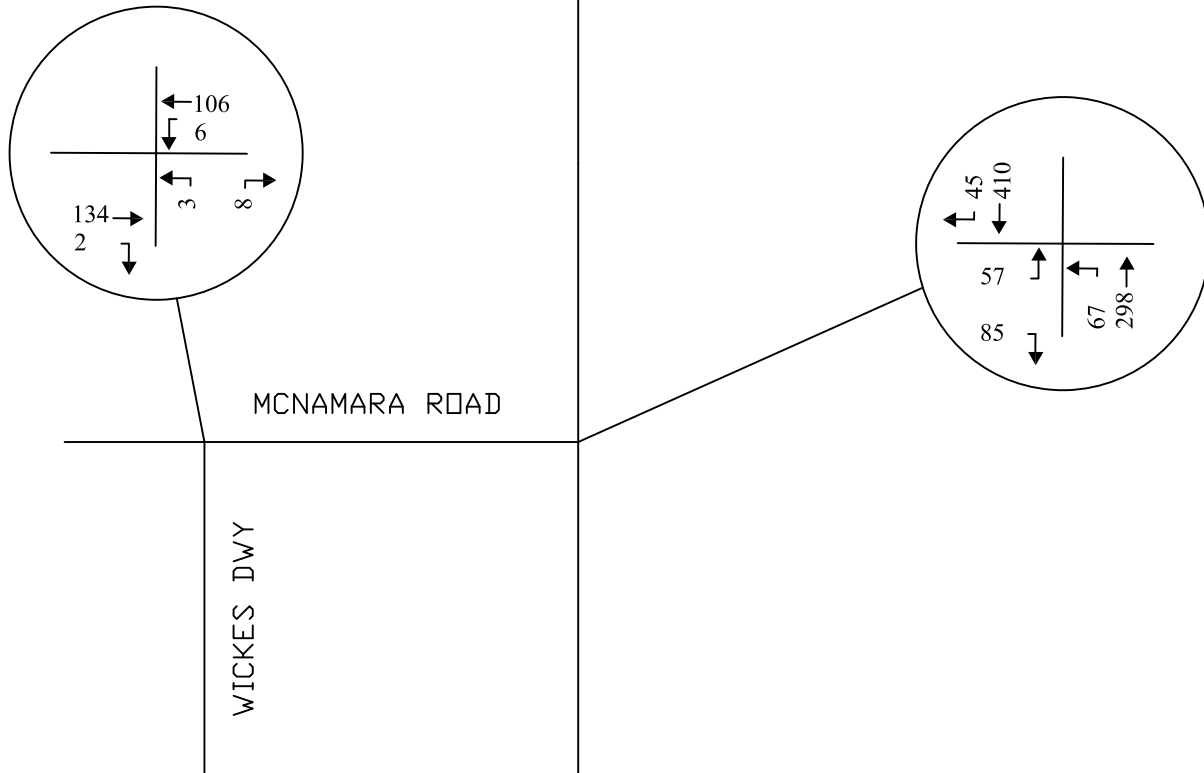
2025 NO-BUILD PM PEAK HOUR TRAFFIC
4:00 PM - 5:00 PM
FIGURE 5



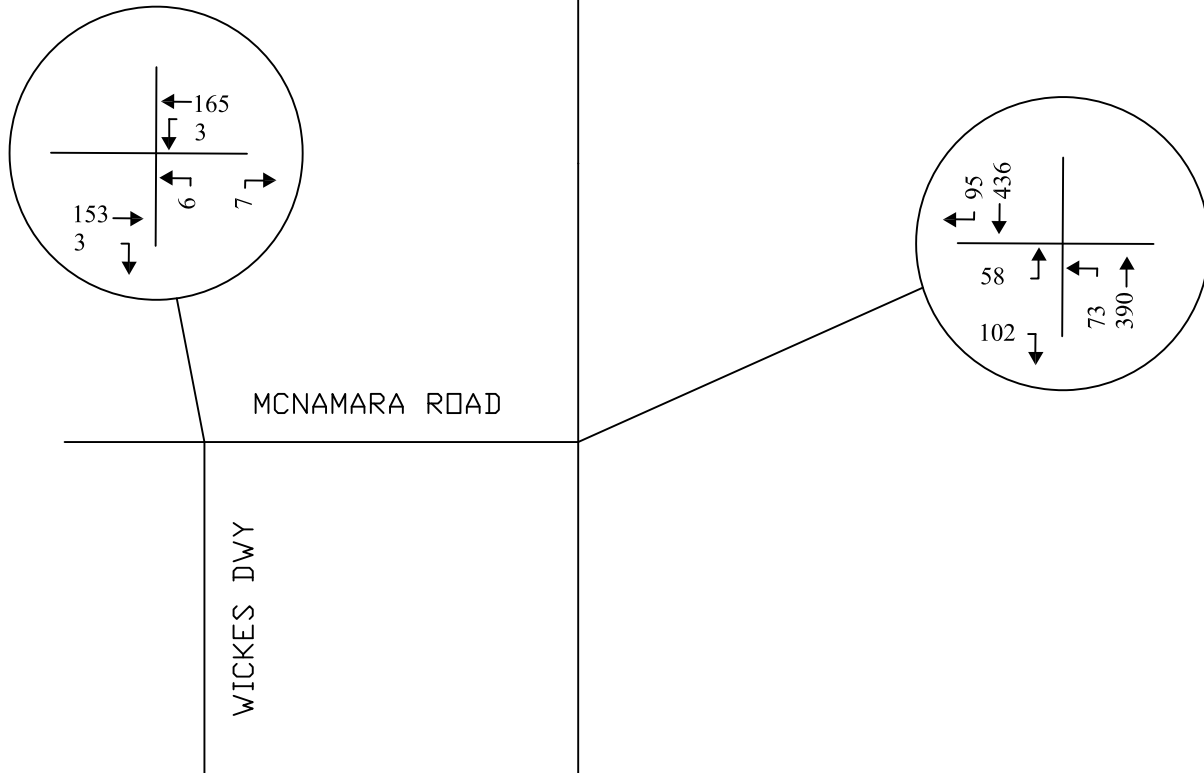
LEGEND
AM PEAK HR - 00
PM PEAK HR - 000

TRIP DISTRIBUTION

FIGURE 6



2025 NO-BUILD AM PEAK HOUR TRAFFIC
7:00 AM - 8:00 AM
FIGURE 4



2025 BUILD PM PEAK HOUR TRAFFIC
4:00 PM - 5:00 PM
FIGURE 8

APPENDIX B CAPACITY ANALYSIS SUMMARIES

CAPACITY ANALYSIS SUMMARY EXISTING CONDITIONS

Intersection						
Int Delay, s/veh	5.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	54	83	64	292	402	42
Future Vol, veh/h	54	83	64	292	402	42
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	11	16	17	14	12	17
Mvmt Flow	71	109	84	384	529	55

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1109	557	584	0	-	0
Stage 1	557	-	-	-	-	-
Stage 2	552	-	-	-	-	-
Critical Hdwy	6.51	6.36	4.27	-	-	-
Critical Hdwy Stg 1	5.51	-	-	-	-	-
Critical Hdwy Stg 2	5.51	-	-	-	-	-
Follow-up Hdwy	3.599	3.444	2.353	-	-	-
Pot Cap-1 Maneuver	223	504	921	-	-	-
Stage 1	556	-	-	-	-	-
Stage 2	559	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	197	504	921	-	-	-
Mov Cap-2 Maneuver	197	-	-	-	-	-
Stage 1	492	-	-	-	-	-
Stage 2	559	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	31.2	1.7	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	921	-	312	-	-
HCM Lane V/C Ratio	0.091	-	0.578	-	-
HCM Control Delay (s)	9.3	0	31.2	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.3	-	3.4	-	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	131	0	2	104	0	5
Future Vol, veh/h	131	0	2	104	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	66	66	66	66	66	66
Heavy Vehicles, %	11	0	0	17	0	100
Mvmt Flow	198	0	3	158	0	8

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	198	0	362	198
Stage 1	-	-	-	-	198	-
Stage 2	-	-	-	-	164	-
Critical Hdwy	-	-	4.1	-	6.4	7.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	4.2
Pot Cap-1 Maneuver	-	-	1387	-	641	646
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	870	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1387	-	640	646
Mov Cap-2 Maneuver	-	-	-	-	640	-
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	868	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	646	-	-	1387	-
HCM Lane V/C Ratio	0.012	-	-	0.002	-
HCM Control Delay (s)	10.6	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection

Int Delay, s/veh 3.9

Movement EBL EBR NBL NBT SBT SBR

Lane Configurations 

Traffic Vol, veh/h 55 98 70 382 427 92

Future Vol, veh/h 55 98 70 382 427 92

Conflicting Peds, #/hr 0 0 0 0 0 0

Sign Control Stop Stop Free Free Free Free

RT Channelized - None - None - None

Storage Length 0 - - - - -

Veh in Median Storage, # 0 - - 0 0 -

Grade, % 0 - - 0 0 -

Peak Hour Factor 93 93 93 93 93 93

Heavy Vehicles, % 13 14 13 14 9 9

Mvmt Flow 59 105 75 411 459 99

Major/Minor Minor2 Major1 Major2

Conflicting Flow All 1070 509 558 0 - 0

Stage 1 509 - - - - -

Stage 2 561 - - - - -

Critical Hdwy 6.53 6.34 4.23 - - -

Critical Hdwy Stg 1 5.53 - - - - -

Critical Hdwy Stg 2 5.53 - - - - -

Follow-up Hdwy 3.617 3.426 2.317 - - -

Pot Cap-1 Maneuver 233 541 960 - - -

Stage 1 582 - - - - -

Stage 2 550 - - - - -

Platoon blocked, % - - -

Mov Cap-1 Maneuver 209 541 960 - - -

Mov Cap-2 Maneuver 209 - - - - -

Stage 1 523 - - - - -

Stage 2 550 - - - - -

Approach EB NB SB

HCM Control Delay, s 24.7 1.4 0

HCM LOS C

Minor Lane/Major Mvmt NBL NBT EBLn1 SBT SBR

Capacity (veh/h) 960 - 344 - -

HCM Lane V/C Ratio 0.078 - 0.478 - -

HCM Control Delay (s) 9.1 0 24.7 - -

HCM Lane LOS A A C - -

HCM 95th %tile Q(veh) 0.3 - 2.5 - -

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	150	0	0	162	4	3
Future Vol, veh/h	150	0	0	162	4	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	13	0	0	10	0	0
Mvmt Flow	167	0	0	180	4	3
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	167	0	347	167
Stage 1	-	-	-	-	167	-
Stage 2	-	-	-	-	180	-
Critical Hdwy	-	-	4.1	-	6.4	6.2
Critical Hdwy Stg 1	-	-	-	-	5.4	-
Critical Hdwy Stg 2	-	-	-	-	5.4	-
Follow-up Hdwy	-	-	2.2	-	3.5	3.3
Pot Cap-1 Maneuver	-	-	1423	-	654	882
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	856	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1423	-	654	882
Mov Cap-2 Maneuver	-	-	-	-	654	-
Stage 1	-	-	-	-	867	-
Stage 2	-	-	-	-	856	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		10	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	735	-	-	1423	-	
HCM Lane V/C Ratio	0.011	-	-	-	-	
HCM Control Delay (s)	10	-	-	0	-	
HCM Lane LOS	B	-	-	A	-	
HCM 95th %tile Q(veh)	0	-	-	0	-	

CAPACITY ANALYSIS SUMMARY 2025 NO-BUILD CONDITIONS

Intersection

Int Delay, s/veh 5.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
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Lane Configurations	Y			Y	Y	
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Traffic Vol, veh/h	55	84	65	298	410	43
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Future Vol, veh/h	55	84	65	298	410	43
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Conflicting Peds, #/hr	0	0	0	0	0	0
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Sign Control	Stop	Stop	Free	Free	Free	Free
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RT Channelized	-	None	-	None	-	None
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Storage Length	0	-	-	-	-	-
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Veh in Median Storage, #	0	-	-	0	0	-
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Grade, %	0	-	-	0	0	-
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Peak Hour Factor	76	76	76	76	76	76
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Heavy Vehicles, %	11	16	17	14	12	17
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Mvmt Flow	72	111	86	392	539	57
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Major/Minor	Minor2	Major1	Major2
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Conflicting Flow All	1132	568	596
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Stage 1	568	-	-
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Stage 2	564	-	-
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Critical Hdwy	6.51	6.36	4.27
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Critical Hdwy Stg 1	5.51	-	-
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Critical Hdwy Stg 2	5.51	-	-
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Follow-up Hdwy	3.599	3.444	2.353
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Pot Cap-1 Maneuver	216	497	911
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Stage 1	550	-	-
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Stage 2	552	-	-
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Platoon blocked, %			
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Mov Cap-1 Maneuver	190	497	911
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Mov Cap-2 Maneuver	190	-	-
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Stage 1	483	-	-
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Stage 2	552	-	-
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Approach	EB	NB	SB
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HCM Control Delay, s	33.4	1.7	0
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HCM LOS	D		
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Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
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Capacity (veh/h)	911	-	303	-	-
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HCM Lane V/C Ratio	0.094	-	0.604	-	-
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HCM Control Delay (s)	9.4	0	33.4	-	-
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HCM Lane LOS	A	A	D	-	-
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HCM 95th %tile Q(veh)	0.3	-	3.7	-	-
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Intersection

Int Delay, s/veh 0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	134	0	2	106	0	5
Future Vol, veh/h	134	0	2	106	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	66	66	66	66	66	66
Heavy Vehicles, %	11	0	0	17	0	100
Mvmt Flow	203	0	3	161	0	8

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	203
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	4.1	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	2.2	-
Pot Cap-1 Maneuver	-	1381	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1381	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	641	-	-	1381	-
HCM Lane V/C Ratio	0.012	-	-	0.002	-
HCM Control Delay (s)	10.7	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	4.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	56	100	71	390	436	94
Future Vol, veh/h	56	100	71	390	436	94
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	13	14	13	14	9	9
Mvmt Flow	60	108	76	419	469	101

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1091	520	570	0	-	0
Stage 1	520	-	-	-	-	-
Stage 2	571	-	-	-	-	-
Critical Hdwy	6.53	6.34	4.23	-	-	-
Critical Hdwy Stg 1	5.53	-	-	-	-	-
Critical Hdwy Stg 2	5.53	-	-	-	-	-
Follow-up Hdwy	3.617	3.426	2.317	-	-	-
Pot Cap-1 Maneuver	226	533	950	-	-	-
Stage 1	575	-	-	-	-	-
Stage 2	544	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	202	533	950	-	-	-
Mov Cap-2 Maneuver	202	-	-	-	-	-
Stage 1	515	-	-	-	-	-
Stage 2	544	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	25.9	1.4	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	950	-	336	-	-
HCM Lane V/C Ratio	0.08	-	0.499	-	-
HCM Control Delay (s)	9.1	0	25.9	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.3	-	2.7	-	-

Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	153	0	0	165	4	3
Future Vol, veh/h	153	0	0	165	4	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	13	0	0	10	0	0
Mvmt Flow	170	0	0	183	4	3

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	170
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	4.1	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	2.2	-
Pot Cap-1 Maneuver	-	1420	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	1420	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	731	-	-	1420	-
HCM Lane V/C Ratio	0.011	-	-	-	-
HCM Control Delay (s)	10	-	-	0	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-

CAPACITY ANALYSIS SUMMARY 2025 BUILD CONDITIONS

Intersection						
Int Delay, s/veh	5.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	55	84	67	298	410	45
Future Vol, veh/h	55	84	67	298	410	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	76	76	76	76	76	76
Heavy Vehicles, %	11	16	17	14	12	17
Mvmt Flow	72	111	88	392	539	59

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1137	569	598	0	-	0
Stage 1	569	-	-	-	-	-
Stage 2	568	-	-	-	-	-
Critical Hdwy	6.51	6.36	4.27	-	-	-
Critical Hdwy Stg 1	5.51	-	-	-	-	-
Critical Hdwy Stg 2	5.51	-	-	-	-	-
Follow-up Hdwy	3.599	3.444	2.353	-	-	-
Pot Cap-1 Maneuver	214	496	909	-	-	-
Stage 1	549	-	-	-	-	-
Stage 2	550	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	187	496	909	-	-	-
Mov Cap-2 Maneuver	187	-	-	-	-	-
Stage 1	481	-	-	-	-	-
Stage 2	550	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	34.1	1.7	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	909	-	300	-	-
HCM Lane V/C Ratio	0.097	-	0.61	-	-
HCM Control Delay (s)	9.4	0	34.1	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.3	-	3.7	-	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	134	2	4	106	0	5
Future Vol, veh/h	134	2	4	106	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	66	66	66	66	66	66
Heavy Vehicles, %	11	0	0	17	0	100
Mvmt Flow	203	3	6	161	0	8

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	206	0	378
Stage 1	-	-	-	-	205
Stage 2	-	-	-	-	173
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1377	-	628
Stage 1	-	-	-	-	834
Stage 2	-	-	-	-	862
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1377	-	625
Mov Cap-2 Maneuver	-	-	-	-	625
Stage 1	-	-	-	-	834
Stage 2	-	-	-	-	858

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	640	-	-	1377	-
HCM Lane V/C Ratio	0.012	-	-	0.004	-
HCM Control Delay (s)	10.7	-	-	7.6	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	4.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	58	102	71	390	436	94
Future Vol, veh/h	58	102	71	390	436	94
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	13	14	13	14	9	9
Mvmt Flow	62	110	76	419	469	101

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1091	520	570	0	-	0
Stage 1	520	-	-	-	-	-
Stage 2	571	-	-	-	-	-
Critical Hdwy	6.53	6.34	4.23	-	-	-
Critical Hdwy Stg 1	5.53	-	-	-	-	-
Critical Hdwy Stg 2	5.53	-	-	-	-	-
Follow-up Hdwy	3.617	3.426	2.317	-	-	-
Pot Cap-1 Maneuver	226	533	950	-	-	-
Stage 1	575	-	-	-	-	-
Stage 2	544	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	202	533	950	-	-	-
Mov Cap-2 Maneuver	202	-	-	-	-	-
Stage 1	515	-	-	-	-	-
Stage 2	544	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	26.7	1.4	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	950	-	334	-	-
HCM Lane V/C Ratio	0.08	-	0.515	-	-
HCM Control Delay (s)	9.1	0	26.7	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.3	-	2.8	-	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	153	0	0	165	6	7
Future Vol, veh/h	153	0	0	165	6	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	13	0	0	10	0	0
Mvmt Flow	170	0	0	183	7	8

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	170	0	353
Stage 1	-	-	-	-	170
Stage 2	-	-	-	-	183
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1420	-	649
Stage 1	-	-	-	-	865
Stage 2	-	-	-	-	853
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1420	-	649
Mov Cap-2 Maneuver	-	-	-	-	649
Stage 1	-	-	-	-	865
Stage 2	-	-	-	-	853

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	755	-	-	1420	-
HCM Lane V/C Ratio	0.019	-	-	-	-
HCM Control Delay (s)	9.9	-	-	0	-
HCM Lane LOS	A	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

APPENDIX C TRAFFIC COUNTS

COUNT TYPE: Turning Movement
NODE ID:
LOCATION 1: Wickes Driveway
LOCATION 2: McNamara Rd
BOROUGH CODE:
COLLECT DATE:
START DATE: 12/05/2023
START TIME: 07:00:00
END DATE: 12/05/2023
END TIME: 19:00:00
PERIOD: 2
INTERVAL (Min): 15
COMMENT:

Item 1.

From	To	DIR	WB L	WB T	WB U	NB L	NB R	NB U	EB T	EB R	EB U			
		Vehicle Class												
07:00:00	07:15:00	Auto	0	12	0	0	0	0	21	0	0	33		
		Trucks	0	0	0	0	0	0	0	0	0	0		
		Bus	0	5	0	0	0	0	1	0	0	6	39	
07:15:00	07:30:00	Auto	1	11	0	0	0	0	26	0	0	38		
		Trucks	0	0	0	0	5	0	0	0	0	5		
		Bus	0	2	0	0	0	0	2	0	0	4	47	
07:30:00	07:45:00	Auto	0	21	0	0	0	0	33	0	0	54		
		Trucks	0	0	0	0	0	0	1	0	0	1		
		Bus	0	5	0	0	0	0	4	0	0	9	64	
07:45:00	08:00:00	Auto	1	42	0	0	0	0	37	0	0	80		
		Trucks	0	1	0	0	0	0	1	0	0	2		
		Bus	0	5	0	0	0	0	5	0	0	10	92	242 0.66
08:00:00	08:15:00	Auto	0	50	0	0	0	0	27	0	0	77		
		Trucks	0	0	0	0	1	0	1	0	0	2		
		Bus	0	5	0	0	0	0	4	0	0	9	88	291
08:15:00	08:30:00	Auto	0	39	0	1	0	0	34	0	0	74		
		Trucks	0	0	0	0	0	0	0	0	0	0		
		Bus	0	6	0	0	0	0	8	0	0	14	88	332
08:30:00	08:45:00	Auto	0	44	0	0	0	0	34	0	0	78		
		Trucks	0	2	0	0	0	0	1	0	0	3		
		Bus	0	3	0	0	0	0	2	0	0	5	86	354
08:45:00	09:00:00	Auto	0	42	0	0	1	0	57	0	0	100		
		Trucks	0	0	0	0	0	0	0	0	0	0		
		Bus	0	2	0	0	0	0	3	0	0	5	105	367 0.87
16:00:00	16:15:00	Auto	0	35	0	4	2	0	41	0	0	82		
		Trucks	0	0	0	0	0	0	1	0	0	1		
		Bus	0	4	0	0	0	0	2	0	0	6	89	
16:15:00	16:30:00	Auto	0	45	0	0	0	0	24	0	0	69		
		Trucks	0	2	0	0	0	0	0	0	0	2		
		Bus	0	5	0	0	0	0	4	0	0	9	80	
16:30:00	16:45:00	Auto	0	29	0	0	1	0	32	0	0	62		
		Trucks	0	1	0	0	0	0	3	0	0	4		
		Bus	0	1	0	0	0	0	5	0	0	6	72	
16:45:00	17:00:00	Auto	0	36	0	0	0	0	33	0	0	69		
		Trucks	0	1	0	0	0	0	3	0	0	4		
		Bus	0	3	0	0	0	0	2	0	0	5	78	319 0.90
17:00:00	17:15:00	Auto	0	48	0	0	0	0	52	0	0	100		
		Trucks	0	0	0	0	0	0	1	0	0	1		
		Bus	0	1	0	0	0	0	6	0	0	7	108	338 0.78
17:15:00	17:30:00	Auto	0	41	0	0	0	0	24	0	0	65		
		Trucks	0	0	0	0	0	0	0	0	0	0		
		Bus	0	1	0	0	0	0	4	0	0	5	70	328
17:30:00	17:45:00	Auto	0	39	0	0	0	0	36	0	0	75		
		Trucks	0	0	0	0	0	0	0	0	0	0		
		Bus	0	3	0	0	0	0	2	0	0	5	80	336
17:45:00	18:00:00	Auto	0	34	0	0	0	0	34	0	0	68		
		Trucks	0	0	0	0	0	0	1	0	0	1		
		Bus	0	2	0	0	0	0	3	0	0	5	74	332
8:00-9:00		WB L WBTH				NBLT	NBRT		EBST	EBRT		Totals		
		Auto	0	175		1	1		152	0		329		
		Trucks	0	2		0	1		2	0		5		
		Bus	0	16		0	0		17	0		33		
		Totals	0	193		1	2		171	0		367		
		% HV	#####	9%		0%	50%		11%	#####		10%		
		PHF	0.87	0.87		0.87	0.87		0.87	0.87		0.87		
4:15-5:15		WB L WBTH				NBLT	NBRT		EBST	EBRT		Totals		
		Auto	0	158		0	1		141	0		300		
		Trucks	0	4		0	0		7	0		11		
		Bus	0	10		0	0		17	0		27		
		Totals	0	154		0	1		141	0		296		
		% HV	#####	9%		#####	0%		17%	#####		13%		
		PHF	0.78	0.78		0.78	0.78		0.78	0.78		0.78		
7:00-8:00		WB L WBTH				NBLT	NBRT		EBST	EBRT		Totals		
		Auto	2	86		0	0		117	0		205		
		Trucks	0	1		0	5		2	0		8		
		Bus	0	17		0	0		12	0		29		
		Totals	2	104		0	5		131	0		242		
		% HV	0%	17%		#####	100%		11%	#####		15%		
		PHF	0.66	0.66		0.66	0.66		0.66	0.66		0.66		
4:00-5:00		WB L WBTH				NBLT	NBRT		EBST	EBRT		Totals		
		Auto	0	145		4	3		130	0		282		
		Trucks	0	4		0	0		7	0		11		
		Bus	0	13		0	0		13	0		26		
		Totals	0	162		4	3		150	0		319		
		% HV	#####	10%		0%	0%		13%	#####		12%		
		PHF	0.90	0.90		0.90	0.90		0.90	0.90		0.90		

COUNT TYPE: Turning Movement
NODE ID:
LOCATION 1: Union Rd
LOCATION 2: McNamara Rd
BOROUGH CODE:
COLLECT DATE:
START DATE: 12/05/2023
START TIME: 07:00:00
END DATE: 12/05/2023
END TIME: 19:00:00
PERIOD: 2
INTERVAL (Min): 15
COMMENT:

Item 1.

From	To	DIR	SB T	SB R	SB U	NB L	NB T	NB U	EB L	EB R	EB U			
		Vehicle Class												
07:00:00	07:15:00	Auto	55	4	0	8	43	0	12	10	0	132		
		Trucks	2	0	0	0	2	0	0	0	0	4		
		Bus	8	1	0	4	9	0	0	1	0	23	159	
07:15:00	07:30:00	Auto	77	7	0	5	54	0	16	9	0	168		
		Trucks	6	0	0	0	2	0	4	1	0	13		
		Bus	8	1	0	1	8	0	1	1	0	20	201	
07:30:00	07:45:00	Auto	113	9	0	12	67	0	11	22	0	234		
		Trucks	6	0	0	0	4	0	0	1	0	11		
		Bus	7	1	0	4	6	0	1	3	0	22	267	
07:45:00	08:00:00	Auto	108	15	0	28	88	0	9	28	0	276		
		Trucks	2	1	0	0	4	0	0	1	0	8		
		Bus	10	3	0	2	5	0	0	5	0	25	309	936 0.76
08:00:00	08:15:00	Auto	90	21	0	29	81	0	12	15	0	248		
		Trucks	3	0	0	0	4	0	0	2	0	9		
		Bus	11	1	0	4	3	0	0	4	0	23	280	1057
08:15:00	08:30:00	Auto	80	16	0	23	75	0	13	21	0	228		
		Trucks	2	0	0	0	2	0	0	0	0	4		
		Bus	8	2	0	4	5	0	2	4	0	25	257	1113
08:30:00	08:45:00	Auto	93	15	0	29	76	0	17	19	0	249		
		Trucks	4	2	0	0	2	0	1	0	0	9		
		Bus	9	1	0	2	5	0	1	1	0	19	277	1123
08:45:00	09:00:00	Auto	108	15	0	27	80	0	19	39	0	288		
		Trucks	3	0	0	0	3	0	0	0	0	6		
		Bus	4	0	0	2	13	0	2	1	0	22	316	1130 0.89
16:00:00	16:15:00	Auto	100	23	0	12	97	0	17	26	0	275		
		Trucks	4	0	0	0	4	0	0	1	0	9		
		Bus	10	2	0	2	9	0	0	2	0	25	309	
16:15:00	16:30:00	Auto	97	29	0	16	93	0	9	15	0	259		
		Trucks	1	2	0	0	2	0	0	0	0	5		
		Bus	11	2	0	3	12	0	1	4	0	33	297	
16:30:00	16:45:00	Auto	89	13	0	16	64	0	11	21	0	214		
		Trucks	3	0	0	1	3	0	2	1	0	10		
		Bus	6	0	0	1	6	0	2	3	0	18	242	
16:45:00	17:00:00	Auto	104	19	0	17	76	0	11	22	0	249		
		Trucks	1	0	0	1	5	0	2	1	0	10		
		Bus	1	2	0	1	11	0	0	2	0	17	276	1124
17:00:00	17:15:00	Auto	91	20	0	28	87	0	11	41	0	278		
		Trucks	1	0	0	0	2	0	0	1	0	4		
		Bus	6	1	0	0	4	0	1	5	0	17	299	1114 0.93
17:15:00	17:30:00	Auto	99	20	0	21	80	0	6	18	0	244		
		Trucks	2	0	0	0	1	0	0	0	0	3		
		Bus	3	0	0	1	8	0	1	3	0	16	263	1080
17:30:00	17:45:00	Auto	73	21	0	18	57	0	12	24	0	205		
		Trucks	0	0	0	0	0	0	0	0	0	0		
		Bus	5	0	0	3	4	0	2	0	0	14	219	1057
17:45:00	18:00:00	Auto	97	13	0	21	79	0	12	22	0	244		
		Trucks	1	0	0	0	1	0	0	1	0	3		
		Bus	3	0	0	2	3	0	2	1	0	11	258	1039 0.87
8:00-9:00		SBST	SBRT			NBLT	NBST		EBLT	EBRT		Totals		
		Auto	371	67		108	312		61	94		1013		
		Trucks	12	2		0	11		1	2		28		
		Bus	32	4		12	26		5	10		89		
		Totals	415	73		120	349		67	106		1130		
		% HV	11%	8%		10%	11%		9%	11%		10%		
		PHF	0.89	0.89		0.89	0.89		0.89	0.89		0.89		
4:15-5:15		SBST	SBRT			NBLT	NBST		EBLT	EBRT		Totals		
		Auto	381	81		77	320		42	99		1000		
		Trucks	6	2		2	12		4	3		29		
		Bus	24	5		5	33		4	14		85		
		Totals	411	88		84	365		50	116		1114		
		% HV	7%	8%		8%	12%		16%	15%		10%		
		PHF	0.93	0.93		0.93	0.93		0.93	0.93		0.93		
7:00-8:00		SBST	SBRT			NBLT	NBST		EBLT	EBRT		Totals		
		Auto	353	35		53	252		48	69		810		
		Trucks	16	1		0	12		4	3		36		
		Bus	33	6		11	28		2	10		90		
		Totals	402	42		64	292		54	82		936		
		% HV	12%	17%		17%	14%		11%	16%		13%		
		PHF	0.76	0.76		0.76	0.76		0.76	0.76		0.76		
4:00-5:00		SBST	SBRT			NBLT	NBST		EBLT	EBRT		Totals		
		Auto	390	84		61	330		48	84		997		
		Trucks	9	2		2	14		4	3		34		
		Bus	28	6		7	38		3	11		93		
		Totals	427	92		70	382		55	98		1124		
		% HV	9%	9%		13%	14%		13%	14%		11%		
		PHF	0.93	0.93		0.93	0.93		0.93	0.93		0.93		



EMANUEL LAW P.C.

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PLANNING BOARD VILLAGE OF WESLEY HILLS

ROCKLAND TREE EXPERT CO., INC.
 d/b/a IRA WICKES/ARBORIST

EAF PART III - SUPPLEMENT

At the Planning Board's meeting of January 24, 2024, the Board, as lead agency, recognized that a negative declaration was previously granted to this project and that the proposed changes to the project as a result of the Appellate Division's order were minor. The Board recognized that most of the environmental review previously performed was still valid. It asked for updates on two items: (1) a repeated test of well water quality to support the original testing for chemicals and petroleum products; and (2) an updated traffic impact study ("TIS") to determine if the predicted traffic from the original TIS was still in range and to assess current conditions.

- (1) Ground Water Analysis - Attached are reports from SimpleLab, an EPA-registered laboratory, providing test results of samples taken from the well head located at the subject property on May 13, 2024. The first report simply states the levels of materials found in the water. The second report evaluates the sample. On the second report, called a "Tap Score Report", no health concerns were detected.
- (2) Traffic Impact Study - An updated Traffic Impact Study ("TIS") was prepared by Harry Baker and Associates, dated February 12, 2024, and previously submitted to the Board. The TIS discussed existing conditions and calculated the impact of the proposed project based on a 2025 Build Year. The TIS noted that the applicant expected to add up to six additional employees and included that data in its conclusions. The TIS concluded that the site driveway will operate at Levels of Service ("LOS") A or B and that the McNamara Road eastbound approach to Union Road will operate at LOS D under both the 2025 Build and No-Build conditions. In other words, the proposed project will have no adverse impact on traffic.

Dated: June 20, 2024
 New City, New York

EMANUEL LAW P.C.

by: 
 Ira M. Emanuel

VILLAGE OF WESLEY HILLS PLANNING BOARD

ROCKLAND TREE EXPERT CO., INC.
d/b/a IRA WICKES/ARBORISTS
SPECIAL PERMIT AND SITE PLAN

FULL ENVIRONMENTAL ASSESSMENT FORM
PART 3

Exhibit 11

Traffic Impact Information:
review of RC Highway
Department data and traffic
study conducted for Yeshiva
Darchei Noam

**Traffic Summary
Attachment TS-1
Rockland County Highway Department Data**

The following stations are monitored by the County of Rockland for traffic in the project area:

Sta.	Road	Route	Location
403	New Hempstead	80	just west of Route 45
418	Grandview	80	just east of Route 306
492	McNamara	67	between East Willow Tree and New Hempstead

However, the Rockland County Highway Department website does not have any recent (less than 10 years old) data for these roads.

Upon inquiry it was determined that data were collected in 2005 on McNamara Road, Station 492, on August 24 and 25th. The location is just west/north of the project site. These data were collected using a “Nu-Metrics Traffic Analyzer”. Details are as follows:

Item	Northbound (away from New.Hemp.Rd.)	Southbound (towards New.Hemp.Rd.)
Total 48-hr volume	3,067	3,020
AADT (per direction)	1,534	1,510
Peak 15 min (5pm)	42	
Peak 15 min (7:45am)		44
Headway during peak	20.9 secs	20.0 secs
Percent cars	97.0	97.2
Percent trucks/buses	0.7	0.7
Percent small trucks	2.1	1.8

So, the peak morning hour would be 176 vehicles (4 times 44). [This converts to 3 a minute which matches with the headway count).

Using these data, the impact of Ira Wickes/arborists on the traffic is as follows:

General	These measurements were taken while the facility was in operation, which is the same as currently proposed. Therefore, there is no impact on these measurements and no potential increase in impact.
---------	--

AM Peak	The AM peak hour, if extrapolated, would be from 7:30 to 8:30 am. The EAF calls for a peak trip generation of 30 per hour, which would occur prior to and at the start of the peak AM hour. Assuming half of Wickes trucks leave during the peak hours, less than 9% of the measured traffic belongs to Wickes. During school periods, this percentage will be less.
PM Peak	Generally, during summer operations, truck returns to the site are scattered and are later than the PM Peak hour. Obviously, the opposite occurs during the shorter and colder days. In addition, trucks can return from either direction so their component of the measured traffic is a lower percentage.
Conclusion	Traffic generation from this site was included in the Rockland County Traffic Study, and is less than 2% of the measured vehicle counts. Therefore, there is no potential increase in impact.

**Traffic Summary
Attachment TS-2
Traffic Impact and Access Analysis for Darchei Noam School**

TRAFFIC IMPACT & ACCESS ANALYSIS

Darchei Noam School
New Hempstead Road
New Hempstead, New York

Prepared for:
Yeshiva Darchei Noam

Prepared by:
FREDERICK P. CLARK ASSOCIATES, INC.
Rye, New York • Fairfield, Connecticut

January 2003

EXISTING CONDITIONS

This section of the report describes field surveys, existing peak hour traffic hour volumes for weekday School-related peak periods and Sunday mornings to coincide with peak arrival and departure times for Sunday morning classes. This section also provides a discussion of accident history along New Hempstead Road, capacity analysis procedures and results.

Roadways

As previously noted, the subject property is located along the southerly side of New Hempstead Road (designated County Route 80) in the Village of New Hempstead, New York. This roadway is a two-way, two-lane, east-west roadway in the immediate vicinity of the subject property. This road begins to the west as a continuation of Union Road in the immediate vicinity of Grandview Avenue, which continues as County Route 80 to the west. It continues to the east intersecting Summit Park Drive (County Route 51)/Hempstead Road and North Main Street, designated New York Route 45. This road continues to the east and intersects at a full-movement interchange at the Palisades Interstate Parkway. The road has a posted speed limit of 30 miles per hour and most intersections are controlled with STOP signs on the side street local approaches, except for the intersection of Summit Park Drive/Hempstead Road, which is controlled with a two-phase traffic signal and the intersection with North Main Street, which is controlled by a multi-phase traffic signal.

North Main Street is a north-south, two-lane, two-way, State-maintained roadway located to the east of the subject property. This road has a posted speed limit of 45 miles per hour. Summit Park Drive is also a north-south, County-maintained roadway located to the east of the subject property.

Hempstead Road is a continuation of Summit Park Drive; however, a Village-maintained roadway. it is a narrow, two-lane road with a posted speed limit of 30 miles per hour and a sidewalk provided along the westerly side.

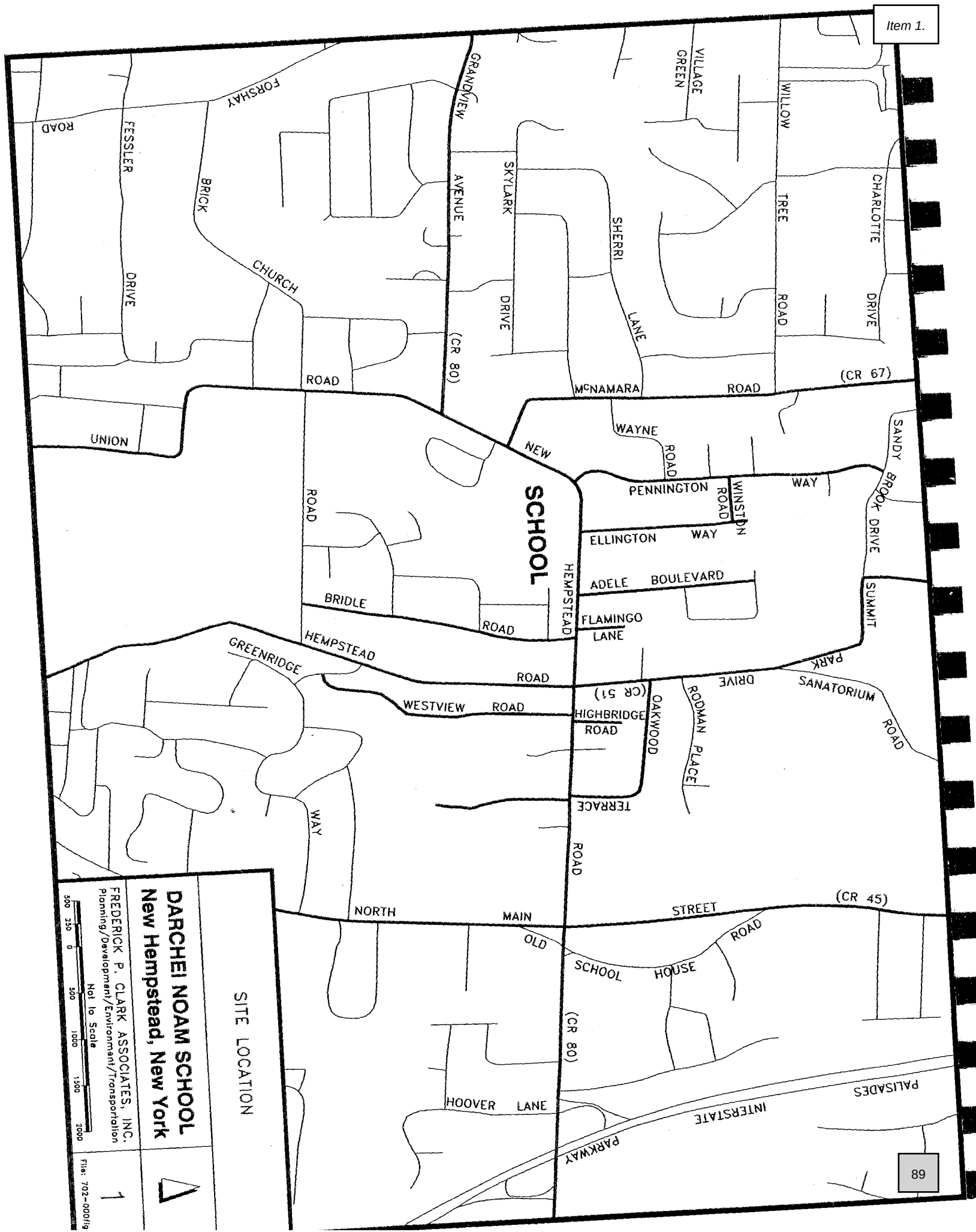
McNamara Road is generally a north-south, County-maintained roadway, which is designated County Route 67, beginning at New Hempstead Road and located west of the subject property. This two-lane road provides access to surrounding areas north of the property. It begins at New Hempstead Road at a STOP sign-controlled intersection.

Grandview Avenue (designated County Route 80) is an east-west, two-lane, two-way roadway beginning at the Union Road/New Hempstead Road intersection. As noted above, this road is a continuation of County Route 80 on New Hempstead Road. It has a posted speed limit of 30 miles per hour.

Pennington Way is a local, north-south, two-lane, two-way local roadway beginning at New Hempstead Road and immediately west of the subject property. This road is controlled with a STOP sign at New Hempstead Road. This road also provides a sidewalk along the westerly side. It is important to note that most roads in the Study Area do not include sidewalks.

Ellington Way is a local Village-maintained roadway beginning at New Hempstead Road directly opposite the proposed access drive to the School. It is a road that serves a residential development and intersects Winston Road, which intersects Pennington Way. Ellington Way is a wide roadway controlled with a STOP sign at the New Hempstead Road intersection.

Other roads, which intersect New Hempstead Road, include Adele Boulevard, Flamingo Lane and Bridle Road. Other roadways identified by residents along New Hempstead Road and east of the Summit Park Drive/Hempstead Road intersection include the intersections of Westview Road, Highbridge Road and Oak Wood Terrace. However, it is important to note that there are other local roadways east of the Oak Wood Terrace intersection, which intersect New Hempstead Road. Figure 1 shows the site location in relation to regional and local roadways. Figure 2 shows a summary of roadway inventory and photographs are included in the Appendix of area roadways. To develop baseline traffic conditions on area roadways and nearby intersections, manual traffic volume surveys were conducted by Frederick P. Clark Associates, Inc. at the following intersections along New Hempstead Road:



SITE LOCATION

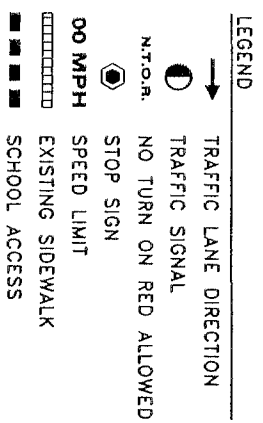
DARCHEI NOAM SCHOOL
New Hempstead, New York

FREDERICK P. CLARK ASSOCIATES, INC.
Planning/Development/Environment/Transportation

1

Not to Scale
500 750 0 500 1000 1500 2000

File: 702-00019



SCHOOL

INVENTORY/TRAFFIC CONTROL	
DARCHEI NOAM SCHOOL New Hempstead, New York	Δ
FREDERICK P. CLARK ASSOCIATES, INC. Planning/Development/Environment/Transportation	
Not to Scale	2
File: 702-000192	

- North Main Street (Route 45);
- Oakwood Terrace/School Bus facility;
- Highbridge Road;
- Westview Road;
- Summit Park Drive/Hempstead Road;
- Bridle Road;
- Flamingo Lane;
- Adele Boulevard;
- Ellington Way;
- McNamara Road; and,
- Grandview Avenue.

These field surveys were conducted during typical weekdays and at major intersections on Sunday mornings to coincide with the anticipated hours of activity for the proposed School. Therefore, the weekday surveys were conducted from 7:00 to 9:00 A.M. and from 2:00 to 7:00 P.M. The Sunday morning surveys were conducted from 8:30 to 10:00 A.M. and from 11:00 A.M. to 1:30 P.M. These field surveys were conducted in 15-minute increments to identify peaking characteristics and peak hour conditions. Also, to coincide with the anticipated peaking characteristics of the School-related traffic, peak hour volumes were identified for these intersections for both the morning, weekday afternoon, Sunday morning and Sunday midday conditions.

For the purposes of identifying peak hour conditions for the weekday morning, traffic volumes for 8:00 to 9:00 A.M. were identified to coincide with the anticipated peaking characteristics for drop-off activities for the School. For the weekday afternoon, the 3:15 to 4:15 P.M. time period was selected to coincide with the majority of students anticipated to be dismissed. However, in both time periods, it is important to note a certain level of students will either be dropped off or dismissed outside the identified peak hour for the School. It is anticipated that extra-curricular School activities will be

spread out over a period of time to reduce the impact on area roadways. Again, this is discussed in a later section.

Based on the results of the field surveys identifying peak hour conditions, two-way volumes for New Hempstead Road and other area roadways were identified. It was found that New Hempstead Road carries the highest two-way volume adjacent to the subject property during the weekday morning time period with 926 vehicles. For comparison purposes, Route 45 has a two-way volume, north of the New Hempstead Road intersection of 892 vehicles during this same time period. Other roadways, such as Ellington Way, has a peak two-way volume of 38 vehicles during the weekday afternoon peak hour. Table 1 shows a more detailed breakdown of recorded two-way volumes for each of the four peak hours identified for the purposes of conducting this traffic analysis. Figures 3 through 6 show peak hour volumes by turning movements at each of the 12 intersections included in this traffic analysis.

Accident History

Accident history was obtained from the New York State Department of Transportation (NYSDOT) for a three-year period beginning May 1, 1998 through April 30, 2001. The Study Area included New Hempstead Road from Union Road to Route 45. During the 36-month period there were 65 reported accidents with 45 accidents occurring at intersections. It was found that approximately 33 percent involved rear-end collisions, 27 percent involved right-angle accidents and 15 percent included left turning vehicles. There were no accidents reported at the Ellington Way intersection. As many as 9 accidents occurred at the Summit Park Road/Hempstead Road intersection in one year. Table 2 lists each accident and Table 3 summarizes accidents by intersection.

Capacity Analysis Procedures – Signalized and Unsignalized Intersections

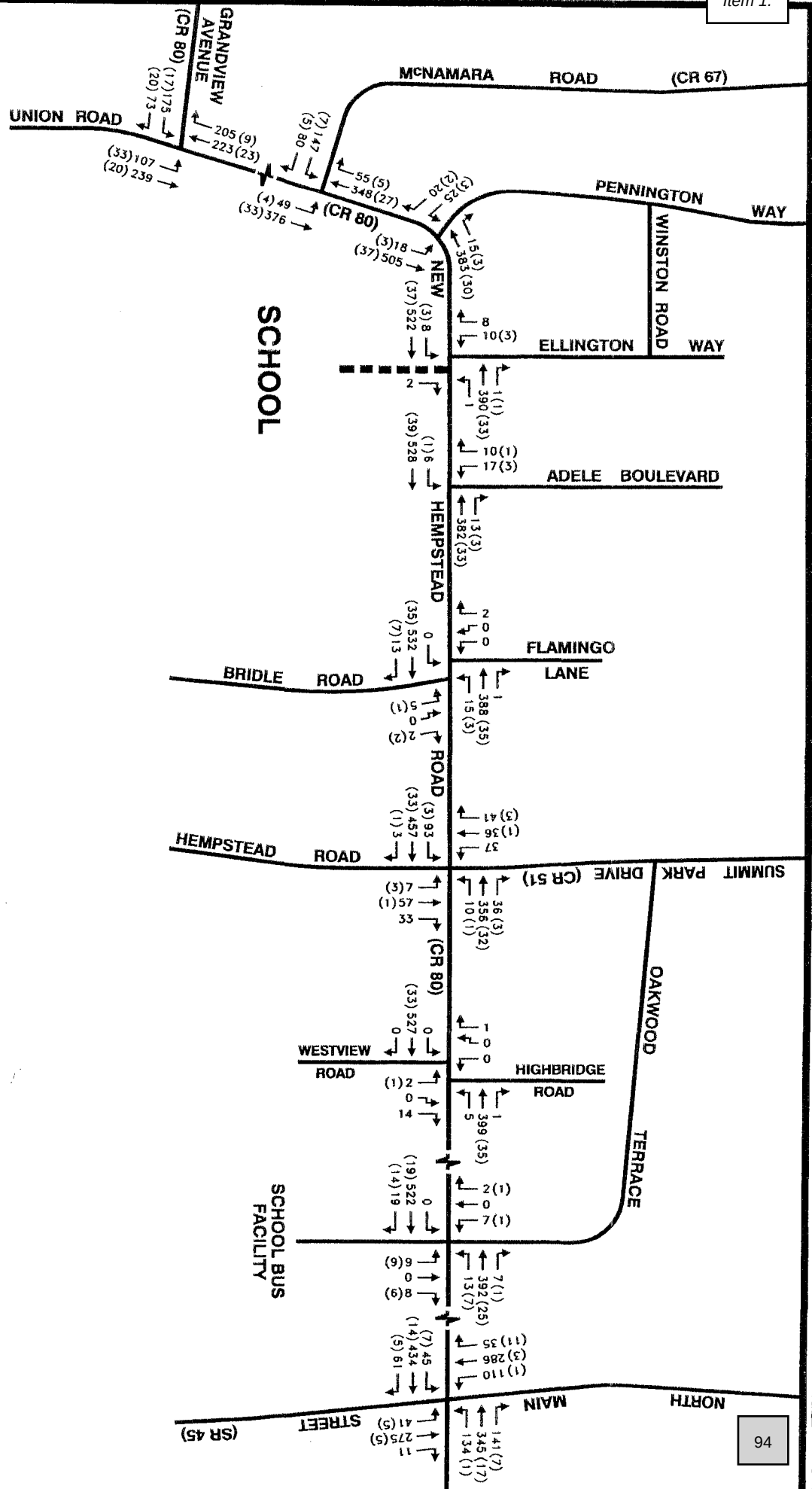
Procedures have been established by the Transportation Research Board through which roadway segments and intersections can be tested to determine their ability to accommodate traffic volumes. These procedures are described in this section.

Table 1
 2002 EXISTING TWO-WAY VOLUMES – PEAK HOURS
 Darchei Noam School
 New Hempstead, New York

ROADWAY SEGMENT	VEHICLES			
	Weekday Morning	Weekday Afternoon	Sunday Morning	Sunday Midday
New Hempstead Road (C.R. 80) east of Route 45	1,175	1,168	456	813
New Hempstead Road (C.R. 80) at site	926	896	323	623
Grandview Avenue (C.R. 80) west of Union Road	560	467	199	345
Route 45, north of New Hempstead Road	892	1,062	350	662
Summit Park Drive (C.R. 51), north of New Hempstead Road	300	390	58	101
Ellington Way, north of New Hempstead Road	27	38	17	25
McNamara Road, north of New Hempstead Road	331	210	102	191
Union Road, south of C.R. 80	642	467	199	345

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Note: Field surveys conducted on Wednesday, September 18, Tuesday October 29, Wednesday October 30, and Monday November 4, 2002.

LEGEND
 00 ALL VEHICLES
 (00) SCHOOL BUSES
 SCHOOL ACCESS

DARCHEI NOAM SCHOOL
 New Hempstead, New York

2002 EXISTING TRAFFIC VOLUMES
 WEEKDAY MORNING SCHOOL PEAK HOUR
 (8:00 - 9:00 AM)

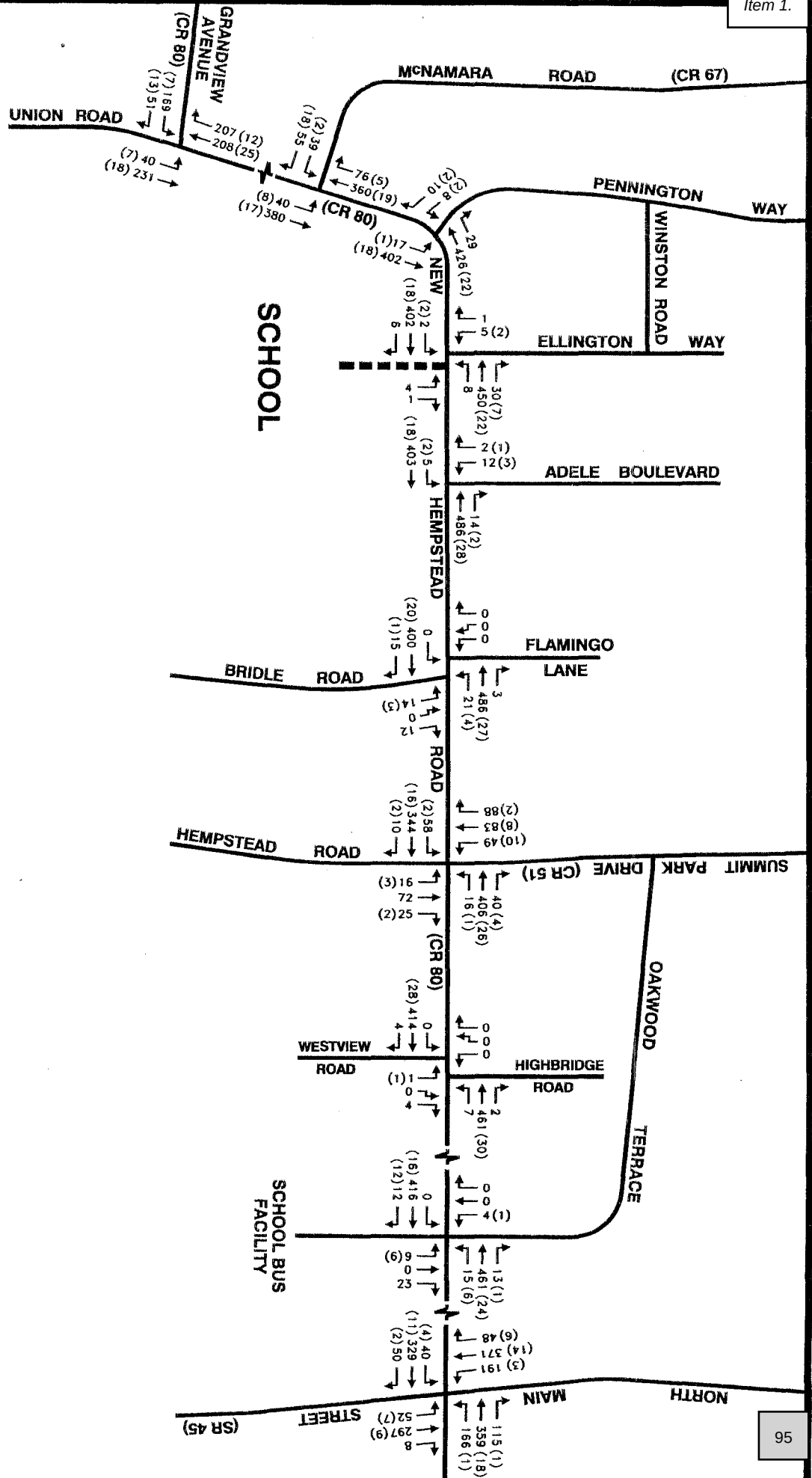
FREDERICK P. CLARK ASSOCIATES, INC.
 Planning/Development/Environment/Transportation

Not to Scale

File: 702-000fig3



3



Note: Field surveys conducted on Wednesday,
September 18, Tuesday October 29,
Wednesday October 30, and Monday
November 4, 2002.

LEGEND

- 00 ALL VEHICLES
- (00) SCHOOL BUSES
- SCHOOL ACCESS

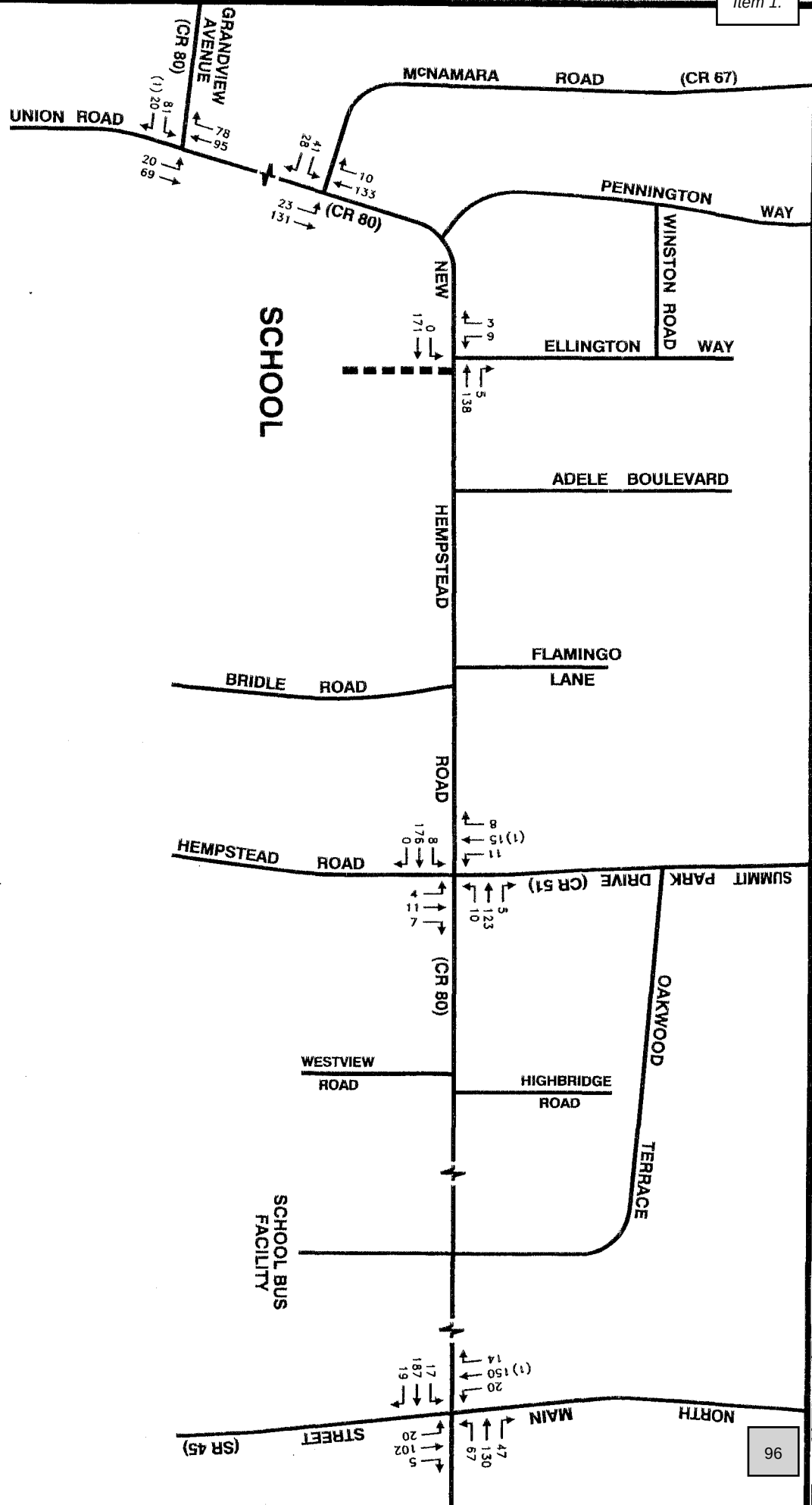
2002 EXISTING TRAFFIC VOLUMES
WEEKDAY AFTERNOON SCHOOL PEAK HOUR
(3:15 - 4:15 PM)

DARCHEI NOAM SCHOOL
New Hempstead, New York



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Not to Scale

File: 702-0001g4



Note: Field surveys conducted on Sunday, November 3, 2002.

LEGEND
 00 ALL VEHICLES
 (00) SCHOOL BUSES
 SCHOOL ACCESS

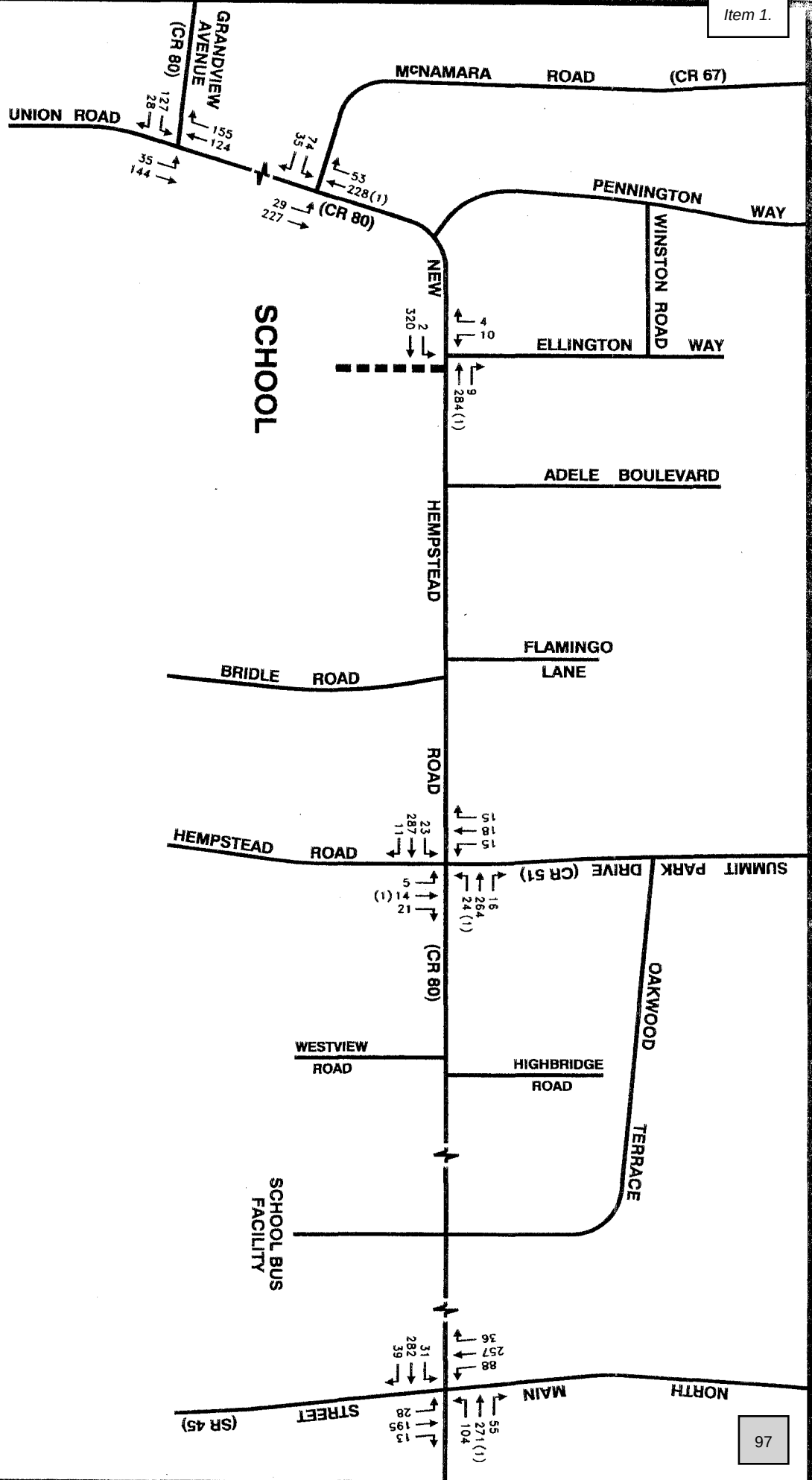
2002 EXISTING TRAFFIC VOLUMES
 SUNDAY MORNING ARRIVAL PERIOD
 (8:30 - 9:30 AM)

DARCHEI NOAM SCHOOL
 New Hempstead, New York



FREDERICK P. CLARK ASSOCIATES, INC.
 Planning/Development/Environment/Transportation
 Not to Scale

File: 702-0001195



Note: Field surveys conducted on Sunday, November 3, 2002.

LEGEND

- 00 ALL VEHICLES
- (00) SCHOOL BUSES
- SCHOOL ACCESS

2002 EXISTING TRAFFIC VOLUMES
SUNDAY MIDDAY DISMISSAL HOUR
(12:30 - 1:30 PM)

DARCHEI NOAM SCHOOL
New Hempstead, New York



FREDERICK P. CLARK ASSOCIATES, INC.
Planning/Development/Environment/Transportation
Not to Scale

File: 702-000196

Table 2
 ACCIDENT SUMMARY – COUNTY ROUTE 80
 Darchei Noam School
 New Hempstead, New York

LOCATION	DAY/DATE	INJURIES	VEHICLES INVOLVED	ROAD CONDITIONS	WEATHER	TIME	TYPE OF ACCIDENT	PROBABLE CAUSE
Route 80 between Sansberry Lane and Union Road	Monday 12/20/99	0	1	Snow/ice	Cloudy	7:00 AM	Fixed object	Pavement slippery
Route 80 between Sansberry Lane and Union Road	Thursday 12/24/98	0	3	Snow/ice	Snow	6:00 AM	Rear-end	Pavement slippery
Route 80 at Union Road	Wednesday 5/20/98	0	2	Dry	Cloudy	1:00 PM	Rear-end	Unsafe speed
Route 80 at Union Road	Friday 8/21/98	1	2	Dry	Clear	5:00 PM	Left turn	Failed to grant right-of-way
Route 80 at Union Road	Thursday 12/3/98	0	2	Dry	Cloudy	2:00 PM	Right angle	Driver inattention
Route 80 at Union Road	Wednesday 1/13/99	0	2	Wet	Cloudy	9:00 AM	Left turn (same direction)	Unknown
Route 80 at Union Road	Thursday 6/17/99	2	2	Wet	Cloudy	11:00 PM	Rear-end	Unsafe speed
Route 80 at Union Road	Tuesday 3/21/00	1	2	Dry	Cloudy	2:00 PM	Right angle	Failed to grant right-of-way
Route 80 at Union Road	Wednesday 6/14/00	1	2	Dry	Cloudy	1:00 PM	Left turn (same direction)	Failed to grant right-of-way
Route 80 at Union Road	Sunday 9/3/00	1	2	Dry	Cloudy	7:00 AM	Right angle	Failed to grant right-of-way
Route 80 at Union Road	Monday 9/25/00	0	2	Dry	Clear	11:00 AM	Right angle	Failed to grant right-of-way
Route 80 at Union Road	Monday 3/12/01	1	2	Dry	Clear	8:00 AM	Right turn	Unknown
Between Union Road and Fairway Oval	Thursday 11/26/98	1	2	Wet	Cloudy	7:00 PM	Right angle	Failed to grant right-of-way
Route 80 at Fairway Oval	Wednesday 1/31/01	1	2	Dry	Clear	4:00 PM	Right angle	Failed to grant right-of-way
Route 80 at McNamara Road	Tuesday 9/8/98	0	2	We	Cloudy	4:00 PM	Right angle	Failed to grant right-of-way
Route 80 at McNamara Road	Thursday 2/18/99	0	2	Wet	Cloudy	4:00 PM	Right angle	Failed to grant right-of-way
Route 80 at McNamara Road	Sunday 4/4/99	0	2	Dry	Cloudy	11:00 AM	Left turn	Improper turn
Route 80 at McNamara Road	Monday 4/26/99	0	2	Dry	Clear	5:00 PM	Rear-end	Following too close

Table 2 (cont'd.)

LOCATION	DAY/DATE	INJURIES	VEHICLES INVOLVED	ROAD CONDITIONS	WEATHER	TIME	TYPE OF ACCIDENT	PROBABLE CAUSE
Route 80 at McNamara Road	Wednesday 5/19/99	1	3	Wet	Rain	6:00 PM	Fixed object	--
Route 80 at McNamara Road	Monday 11/22/99	1	2	Wet	Cloudy	9:00 AM	Rear-end	Unsafe speed
Route 80 at McNamara Road	Monday 9/4/00	1	2	Dry	Cloudy	4:00 PM	Right angle	Failed to grant right-of-way
Between McNamara and Pennington Way	Tuesday 11/10/98	1	1	Wet	Rain	11:00 AM	Fixed object	Tire failure/pavement slippery
Between McNamara and Pennington Way	Thursday 12/14/00	0	3	Snow/Ice	Snow	8:00 AM	Unknown	Unknown
Between McNamara and Pennington Way	Thursday 1/25/01	0	2	Dry	Clear	11:00 AM	Right turn	Unknown
Between McNamara and Pennington Way	Tuesday 3/6/01	0	1	Snow/Ice	Snow	Unknown	Fixed object	Slippery pavement
Between McNamara and Pennington Way	Friday 3/9/01	0	2	Snow/Ice	Snow	8:00 AM	Rear-end	Following too close
Route 80 at Pennington Way	Friday 11/27/98	1	2	Dry	Clear	11:00 AM	Rear-end	Following too close
Route 80 at Pennington Way	Tuesday 3/16/99	1	1	Dry	Clear	8:00 AM	Fixed object	Unknown
Route 80 at Pennington Way	Wednesday 11/1/00	1	3	Dry	Clear	3:00 PM	Unknown	Glare
Between Pennington Way and Flamingo Lane	Friday 4/27/01	1	1	Dry	Clear	10:00 AM	Pedestrian/bicyclist	Driver lane use improper
Between Bridle Road and Hempstead Road	Wednesday 9/23/98	1	4	Dry	Clear	6:00 PM	Rear-end	Following too close
Between Bridle Road and Hempstead Road	Wednesday 1/13/99	0	2	Snow/Ice	Freezing rain	5:00 PM	Head-on	Unsafe speed
Between Bridle Road and Hempstead Road	Tuesday 8/3/99	0	2	Dry	Clear	8:00 AM	Rear-end	Glare
Between Bridle Road at Hempstead Road	Saturday 9/16/00	0	2	Dry	Clear	7:00 AM	Right angle	Glare, view obstructed
Route 80 at Hempstead Road	Monday 5/18/98	3	2	Dry	Clear	11:00 AM	Left turn	Failure to grant right-of-way
Route 80 at Hempstead Road	Wednesday 10/20/99	0	2	Wet	Cloudy	3:00 PM	Rear-end	Following too close
Route 80 at Hempstead Road	Tuesday 1/25/00	0	1	Slush	Snow	9:00 AM	Fixed object	Unknown (turning)
Route 80 at Hempstead Road	Friday 10/27/00	0	1	Dry	Cloudy	8:00 AM	Fixed object	Improper turn

Table 2 (cont'd.)

LOCATION	DAY/DATE	INJURIES	VEHICLES INVOLVED	ROAD CONDITIONS	WEATHER	TIME	TYPE OF ACCIDENT	PROBABLE CAUSE
Route 80 at Hempstead Road	Sunday 12/24/00	1	2	Wet	Cloudy	11:00 PM	Right angle	Pavement slippery
Route 80 at Hempstead Road	Wednesday 12/27/00	3	2	Dry	Clear	12:00 PM	Right angle	Traffic control disregarded
Between Hempstead Road and Westview Road	Tuesday 9/21/99	1	2	Wet	Rain	12:00 PM	Rear-end	Pavement slippery, following too close
Between Hempstead Road and Westview Road	Wednesday 11/17/99	0	1	Unknown	Unknown	3:00 PM	Fixed object	Avoiding object in road
Route 80 at Westview Road	Sunday 3/25/01	0	2	Dry	Clear	2:00 PM	Overtaking	Following too close
Between Westview and Highridge Road	Sunday 3/4/01	0	1	Snow/ice	Snow	4:00 PM	Fixed object	Pavement slippery
Route 80 at Highridge Road	Tuesday 10/26/99	3	3	Dry	Clear	7:00 PM	Rear-end	Following too close
Route 80 at Highridge Drive	Monday 11/20/00	0	1	Wet	Rain	6:00 PM	--	Avoiding object in road
Route 80 at Apple Gate	Tuesday 12/8/98	0	2	Wet	Rain	4:00 PM	Rear-end	Pavement slippery, following too close
Between Apple Gate and Route 45	Thursday 6/22/00	2	3	Dry	Clear	6:00 PM	Rear-end	Following too close
Between Apple Gate and Route 45	Thursday 6/22/00	2	3	Dry	Clear	6:00 PM	Rear-end	Following too close
Between Apple Gate and Route 45	Sunday 11/12/00	1	1	Dry	Clear	4:00 AM	--	Avoiding object in road
Route 80 at Route 45	Saturday 8/29/98	0	2	Dry	Clear	7:00 PM	Rear-end	Driver inattention
Route 80 at Route 45	Thursday 5/20/99	1	2	Dry	Clear	10:00 AM	Overtaking	Failure to yield right-of-way
Route 80 at Route 45	Tuesday 7/13/99	2	2	Dry	Clear	4:00 PM	Rear-end	Following too close
Route 80 at Route 45	Monday 9/27/99	2	2	Dry	Cloudy	11:00 AM	Rear-end	Following too close
Route 80 at Route 45	Saturday 12/4/99	0	2	Dry	Clear	3:00 PM	Rear-end	Driver inattention
Route 80 at Route 45	Wednesday 12/8/99	1	2	Dry	Clear	7:00 PM	Left turn	Traffic control disregarded
Route 80 at Route 45	Sunday 1/30/00	3	2	Snow/ice	Snow	8:00 PM	Rear-end	Unsafe speed
Route 80 at Route 45	Wednesday 3/29/00	1	3	Dry	Cloudy	12:00 PM	Rear-end	Driver inattention

Table 2 (cont'd.)

LOCATION	DAY/DATE	INJURIES	VEHICLES INVOLVED	ROAD CONDITIONS	WEATHER	TIME	TYPE OF ACCIDENT	PROBABLE CAUSE
Route 80 at Route 45	Monday 4/24/00	1	2	Dry	Clear	2:00 PM	Right angle	View obstructed, limited
Route 80 at Route 45	Sunday 5/7/00	1	2	Dry	Clear	4:00 PM	Right angle	Failure to yield right-of-way
Route 80 at Route 45	Wednesday 5/17/0-0	2	2	Dry	Clear	11:00 AM	Rear-end	Following too close
Route 80 at Route 45	Wednesday 9/20/00	0	2	Dry	Clear	2:00 PM	Right angle	Failure to yield right-of-way
Route 80 at Route 45	Wednesday 9/20/00	0	2	Dry	Clear	4:00 PM	Rear-end	Driver inattention
Route 80 at Route 45	Thursday 12/28/00	1	2	Dry	Clear	1:00 PM	Left turn (against)	Failure to yield right-of-way
Route 80 at Route 45	Monday 4/16/01	0	2	Dry	Cloudy	10:00 AM	Right turn (with)	Passenger distraction

Source: New York State Department of Transportation, time period from May 1, 1998 through April 30, 2001

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Table 3
CHARACTERISTICS OF ACCIDENTS AT INTERSECTIONS - MAY 1, 1998 - APRIL 30, 2001
Darchet Noam School
New Hempstead, New York

INTERSECTION	REAR END	RIGHT ANGLE	LEFT TURN	RIGHT TURN	OVER- TAKING	FIXED OBJECT	ANIMAL	UNKNOWN	TOTAL
May 1, 1998 - April 30, 1999									
New Hempstead Road/ Grandview Avenue/Union Road	1	1	2						4
New Hempstead Road at McNamara Road	1	2	1						4
New Hempstead Road at Pennington Way	1					1			2
New Hempstead Road at Summit Park Drive/ Hempstead Road			1						1
New Hempstead Road at Westview Road/Highridge Road									0
New Hempstead Road at Route 45	1								1
YEARLY TOTAL	4	3	4	0	0	1	0	0	12
May 1, 1999 - April 30, 2000									
New Hempstead Road/Grandview Avenue/Union Road	1	1							2
New Hempstead Road at McNamara Road	1					1			2
New Hempstead Road at Pennington Way									0
New Hempstead Road at Summit Park Drive/Hempstead Road	1					1			2
New Hempstead Road at Westview Road/Highridge Road	1								1
New Hempstead Road at Route 45	5	1	1		1				8
YEARLY TOTAL	9	2	1	0	1	2	0	0	15
May 1, 2000 - April 30, 2001									
New Hempstead Road/Grandview Avenue/Union Road		2	1	1					4
New Hempstead Road at McNamara Road		1							1
New Hempstead Road at Pennington Way								1	1
New Hempstead Road at Summit Park Drive/Hempstead Road		2				1			3
New Hempstead Road at Westview Road/Highridge Road					1	1	1		3
New Hempstead Road at Route 45	2	2	1	1					6
YEARLY TOTAL	2	7	2	2	1	2	1	1	18
Three-Year Totals									
New Hempstead Road/Grandview Avenue/Union Road	2	4	3	1	0	0	0	0	10
New Hempstead Road at McNamara Road	2	3	1	0	0	1	0	0	7
New Hempstead Road at Pennington Way	1	0	0	0	0	1	0	1	3
New Hempstead Road at Summit Park Drive/Hempstead Road	2	4	1	0	0	2	0	0	9
New Hempstead Road at Westview Road/Highridge Road	1	0	0	0	1	2	1	0	5
New Hempstead Road at Route 45	8	3	2	1	1	0	0	0	15
GRAND TOTAL	15	12	7	2	2	5	1	1	45

Source: New York State Department of Transportation

Includes accidents within 50 feet of listed intersections

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Two methods of analysis are needed to evaluate intersections. These methods are based on procedures found in the Highway Capacity Manual (Special Report No. 209, Fourth Edition, 2000 update) and are described below.

Signalized Intersections - Capacity at signalized intersections is defined for each lane group. Lane group capacity is the maximum hourly rate at which vehicles may pass through the intersection under prevailing traffic, roadway, and signalization conditions. The flow rate is generally measured or projected for a 15-minute peak period, and capacity is stated in vehicles per hour.

Traffic conditions include volumes on each approach, the distribution of vehicles by movement (left, through, right), the vehicle type distribution within each movement, the location and use of bus stops within the intersection area, pedestrian crossing flows, and parking movements within the intersection area.

Roadway conditions include the basic geometry of the intersection, including the number and width of lanes, grades, and lane-use allocations (including parking lanes). Signalization conditions include a full definition of the signal phasing, timing, type of control, and signal progression on each approach.

Level of Service for a signalized intersection is defined in terms of the average control delay per vehicle for each lane group and approach and for the intersection as a whole during a peak 15-minute period during a peak 1-hour period. Six Levels of Service from A to F have been established as measures of vehicle delay. These levels and their related delay terms are as follows:

LEVEL OF SERVICE	CONTROL DELAY (SECONDS PER VEHICLE)
A	≤ 10.0
B	10.1 to 20.0
C	20.1 to 35.0
D	35.1 to 55.0
E	55.1 to 80.0
F	more than 80.0

More specific definitions of the six levels are best given by the Highway Capacity Manual:

Level of Service A - describes operations with very low delay, i.e., less than or equal to 10.0 seconds per vehicle. This occurs when progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delays.

Level of Service B - describes operations with delays in the range of 10.1 to 20.0 seconds per vehicle. This generally occurs with good progression and/or cycle lengths. More vehicles stop than for Level of Service A, causing higher levels of average delay.

Level of Service C - describes operations with delay in the range of 20.1 to 35.0 seconds per vehicle. These higher delays may result from fair progression and/or short cycle lengths. Individual cycle failures may begin to appear in this level. The number of vehicles stopping is significant, although many still pass through the intersection without stopping.

Level of Service D - describes operations with delay in the range of 35.1 to 55.0 seconds per vehicle. At Level D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths or high

volume to capacity (V/C) ratios. Many vehicles stop and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

Level of Service E - describes operations with delay in the range of 55.1 to 80.0 seconds per vehicle. This is considered to be the limit of acceptable delay. These high delay values generally indicate poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences.

Level of Service F - describes operations with delay in excess of 80.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with oversaturation, i.e. when arrival flow rates exceed the capacity of the intersection. It may also occur at high V/C ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Unsignalized Intersections – Highway Capacity Manual 2000, Chapter 17, analyzes the capacity and level of service of two-way STOP-controlled (TWSC) and all-way STOP-controlled (AWSC) intersections. Level of service (LOS) for a TWSC intersection is determined by the computed or measured control delay and is defined for each minor movement. Control delay is defined as the total elapsed time from the time a vehicle stops at the end of the queue to the time the vehicle departs from the STOP line. Control delay includes initial deceleration delay, queue move-up time, stopped delay and final acceleration delay. Control delay per vehicle for AWSC is computed for each lane and each approach. The approach delay is the weighted average of the delay on each lane and the intersection delay is the weighted average of the delay on each approach.

LEVEL OF SERVICE	CONTROL DELAY (SECONDS PER VEHICLE)
A	≤ 10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F	more than 50.0

Capacity Analysis Results

Results of the analysis of the two signalized intersections along New Hempstead Road, which were included in the traffic analysis, show both operate at acceptable levels of service during each of the peak hours included for purposes of evaluating impact from the proposed School. The New Hempstead Road/Route 45 intersection operates at overall Level of Service "C" or better during the weekday time periods and an overall Level of Service "B" during both the morning time periods. The New Hempstead Road/Summit Park Drive/Hempstead Road intersection operates at an overall Level of Service "B" or better during each of the four peak hours analyzed.

The unsignalized intersections along New Hempstead Road, which were included in the analysis, focus on the intersections with the highest volumes recorded on the side street approaches, results show that each operates at Levels of Service "D" or better during the peak hours analyzed, except for the eastbound Grandview Avenue approach to New Hempstead Road. This approach operates at Level of Service "F" during the morning peak hour; however, Level of Service "C" or better during each of the other three time periods. Table 4 shows the results of the analysis for existing conditions.

Table 4
 EXISTING CONDITIONS – LEVEL OF SERVICE SUMMARY – PEAK SCHOOL HOURS
 Darchei Noam School
 New Hempstead, New York

INTERSECTION	APPROACH/ MOVEMENT		EXISTING CONDITIONS			
			Weekday Morning	Weekday Afternoon	Sunday Morning	Sunday Midday
New Hempstead Road (CR 80) at New York State Route 45 (Signalized)	EB	L	B/17.0	B/16.2	B/14.7	B/15.1
		TR	D/35.9	C/21.7	B/16.8	B/18.8
	WB	L	B/17.5	B/13.8	A/8.0	B/10.7
		TR	B/10.8	B/10.3	A/7.9	A/8.8
	NB	L	B/18.4	C/26.0	B/15.7	B/16.5
		TR	C/21.5	C/22.3	B/16.9	B/19.0
	SB	L	C/23.3	D/47.9	B/15.7	B/18.6
		TR	C/23.8	C/31.9	B/18.1	C/21.7
	Overall		C/22.6	C/23.1	B/14.2	B/16.4
New Hempstead Road (CR 80) at Summit park Drive (CR 51)/Hempstead Road (Signalized)	EB	LTR	B/12.9	A/9.1	A/7.0	A/7.8
	WB	LTR	A/8.5	A/9.1	A/6.7	A/7.7
	NB	LTR	B/16.7	B/7.1	B/15.7	A/15.9
	SB	LTR	B/17.3	C/21.5	B/15.9	A/16.1
	Overall		B/12.1	B/12.1	A/8.2	A/8.7
New Hempstead Road (CR 80) at Ellington Way/Site Entrance Drive (Unsignalized)	EB	L	A/8.8	B/10.3	A/7.5	A/8.0
	WB	L	A/8.6	A/8.3	A/7.6	A/8.0
	NB	LTR	B/11.9	C/19.5	N/A	--
	SB	LTR	C/19.1	C/22.5	B/10.4	B/14.3
New Hempstead Road (CR 80) at Pennington Way (Unsignalized)	NB	L	A/8.4	A/8.6	N/A	N/A
	EB	LR	C/16.7	C/16.0		
New Hempstead Road (CR 80) at McNamara Road (CR 67) (Unsignalized)	NB	L	A/8.5	A/8.8	A/7.6	A/8.0
	EB	LR	D/34.7	C/17.3	B/10.4	B/14.5
New Hempstead Road (CR 80)/Grandview Avenue (CR 80)/Union Road (Unsignalized)	NB	L	A/9.5	A/8.6	A/7.6	A/7.9
	EB	LR	F/76.0	C/21.4	B/10.7	B/13.6

Level of Service/Average Vehicle Delay.

EB =Eastbound

NB = Northbound

L = Left turn

R = Right turn

WB =Westbound

SB = Southbound

T = Through

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CLIENT INFORMATION

Client: Jim Wickes
Requested On: Apr 29, 2024
Phone:
Email: jim@irawickes.com

hello@gosimplelab.com

EPA LAB ID: CT00008
Louisa Viens
Dayville, CT

TESTING PERFORMED

Testing Requested: Advanced Home Water Test
Matrix: Drinking Water
Testing / Report ID: YST82D

SAMPLE INFORMATION

Collection Date: May 13, 2024
Collected By: Jim Wickes
Received Date: May 15, 2024
Reported On: May 21, 2024
Sample Location: well head
Sample Address: 11 MCNAMARA RD, Spring Valley, NY
10977, United States

TESTING NOTES

There were no problems with analytical events associated with this report unless noted. Quality control data is within laboratory defined or method specified acceptance limits except where noted. If you have any questions regarding these test results, please contact hello@gosimplelab.com

SUMMARY ANALYSIS

ANALYTE	UNIT	RESULT	METHOD	EVALUATION
pH	pH	7.7	SM 4500-H+B	OK
Total Dissolved Solids	mg/L	571	SM 2510 B	
Turbidity	NTU	0.23	SM 2130 B	
Conductivity	umhos/cm	980	SM 2510 B	
Hardness (Ca,Mg)	mg/L	314.95		
Hardness (Total)	mg/L	315.22		
Grains per gallon	Grains	18.44		
Alkalinity (as CaCO3)	mg/L	240	SM 2320 B	
Langelier Saturation Index		0.54		
Sodium Adsorption Ratio		1.42		
Total THMs	µg/L	0		

TEST RESULTS

ANALYTE	UNIT	RESULT	MDL	METHOD	EVALUATION
1,1,1,2 Tetrachloroethane	µg/L	NOT DETECTED	0.21	EPA 524.2	
1,1,1 Trichloroethane	µg/L	NOT DETECTED	0.08	EPA 524.2	
1,1,2,2 Tetrachloroethane	µg/L	NOT DETECTED	0.1	EPA 524.2	

1,1,2 Trichloroethane	µg/L	NOT DETECTED	0.15	EPA 524.2	Item 1.
1,1 Dichloroethane	µg/L	NOT DETECTED	0.11	EPA 524.2	
1,1 Dichloroethylene	µg/L	NOT DETECTED	0.15	EPA 524.2	
1,1 Dichloropropene	µg/L	NOT DETECTED	0.17	EPA 524.2	
1,2,3 Trichlorobenzene	µg/L	NOT DETECTED	0.28	EPA 524.2	
1,2,3 Trichloropropane	µg/L	NOT DETECTED	0.21	EPA 524.2	
1,2,4 Trichlorobenzene	µg/L	NOT DETECTED	0.24	EPA 524.2	
1,2,4 Trimethylbenzene	µg/L	NOT DETECTED	0.11	EPA 524.2	
1,2 Dichlorobenzene	µg/L	NOT DETECTED	0.13	EPA 524.2	
1,2 Dichloroethane	µg/L	NOT DETECTED	0.08	EPA 524.2	
1,2 Dichloropropane	µg/L	NOT DETECTED	0.13	EPA 524.2	
1,3,5 Trimethylbenzene	µg/L	NOT DETECTED	0.1	EPA 524.2	
1,3 Dichlorobenzene	µg/L	NOT DETECTED	0.12	EPA 524.2	
1,3 Dichloropropane	µg/L	NOT DETECTED	0.14	EPA 524.2	
1,4 Dichlorobenzene	µg/L	NOT DETECTED	0.1	EPA 524.2	
2,2 Dichloropropane	µg/L	NOT DETECTED	0.21	EPA 524.2	
Aluminum	mg/L	NOT DETECTED	0.00618	EPA 200.7	
Antimony	mg/L	NOT DETECTED	3.0E-5	EPA 200.8	
Arsenic	mg/L	NOT DETECTED	7.0E-5	EPA 200.8	
Barium	mg/L	0.232	0.0001	EPA 200.8	< HGL
Benzene	µg/L	NOT DETECTED	0.13	EPA 524.2	
Beryllium	mg/L	NOT DETECTED	5.0E-5	EPA 200.8	
Boron	mg/L	0.0309	0.00312	EPA 200.7	< HGL
Bromobenzene	µg/L	NOT DETECTED	0.18	EPA 524.2	
Bromochloromethane	µg/L	NOT DETECTED	0.11	EPA 524.2	
Bromodichloromethane	µg/L	NOT DETECTED	0.09	EPA 524.2	
Bromoform	µg/L	NOT DETECTED	0.11	EPA 524.2	
Bromomethane	µg/L	NOT DETECTED	0.24	EPA 524.2	
Cadmium	mg/L	NOT DETECTED	7.0E-5	EPA 200.8	
Calcium	mg/L	78.8	0.0351	EPA 200.7	
Carbon Tetrachloride	µg/L	NOT DETECTED	0.16	EPA 524.2	
Chloride	mg/L	130	1.37	EPA 300.0	
Chlorobenzene	µg/L	NOT DETECTED	0.08	EPA 524.2	
Chloroethane	µg/L	NOT DETECTED	0.18	EPA 524.2	
Chloroform	µg/L	NOT DETECTED	0.44	EPA 524.2	
Chloromethane	µg/L	NOT DETECTED	0.13	EPA 524.2	
Chlorotoluene 2	µg/L	NOT DETECTED	0.08	EPA 524.2	
Chlorotoluene 4	µg/L	NOT DETECTED	0.12	EPA 524.2	
Chromium (Total)	mg/L	NOT DETECTED	2.0E-5	EPA 200.8	
cis 1,2 Dichloroethylene	µg/L	NOT DETECTED	0.2	EPA 524.2	

cis 1,3 Dichloropropene	µg/L	NOT DETECTED	0.13	EPA 524.2	Item 1.
Cobalt	mg/L	NOT DETECTED	1.0E-5	EPA 200.8	
Copper	mg/L	NOT DETECTED	4.0E-5	EPA 200.8	
Dibromochloromethane	µg/L	NOT DETECTED	0.14	EPA 524.2	
Dibromochloropropane	µg/L	NOT DETECTED	0.39	EPA 524.2	
Dibromomethane	µg/L	NOT DETECTED	0.18	EPA 524.2	
Dichlorodifluoromethane	µg/L	NOT DETECTED	0.12	EPA 524.2	
Dichloromethane	µg/L	NOT DETECTED	0.31	EPA 524.2	
E. coli	P/A	NOT DETECTED		SM 9223B	
Ethylbenzene	µg/L	NOT DETECTED	0.08	EPA 524.2	
Ethylene dibromide	µg/L	NOT DETECTED	0.1	EPA 524.2	
Fluoride	mg/L	NOT DETECTED	0.005	EPA 300.0	
Hexachlorobutadiene	µg/L	NOT DETECTED	0.2	EPA 524.2	
Iron	mg/L	NOT DETECTED	0.00428	EPA 200.7	
Isopropylbenzene	µg/L	NOT DETECTED	0.11	EPA 524.2	
Lead	mg/L	NOT DETECTED	5.0E-5	EPA 200.8	
Lithium	mg/L	NOT DETECTED	0.00555	EPA 200.7	
Magnesium	mg/L	28.7	0.00896	EPA 200.7	
Manganese	mg/L	0.0157	0.0001	EPA 200.8	< HGL
Mercury	mg/L	NOT DETECTED	0.0001	EPA 200.8	
Methyl Tertiary Butyl Ether	µg/L	NOT DETECTED	0.24	EPA 524.2	
Molybdenum	mg/L	NOT DETECTED	4.0E-5	EPA 200.8	
m,p Xylene	µg/L	NOT DETECTED	0.13	EPA 524.2	
Naphthalene	µg/L	NOT DETECTED	0.1	EPA 524.2	
n Butylbenzene	µg/L	NOT DETECTED	0.17	EPA 524.2	
Nickel	mg/L	NOT DETECTED	0.0001	EPA 200.8	
Nitrate (as N)	mg/L	3.06	0.005	EPA 300.0	< HGL
Nitrite (as N)	mg/L	NOT DETECTED	0.002	EPA 300.0	
n Propylbenzene	µg/L	NOT DETECTED	0.1	EPA 524.2	
o Xylene	µg/L	NOT DETECTED	0.11	EPA 524.2	
Phosphorus	mg/L	NOT DETECTED	0.0755	EPA 200.7	
p Isopropyltoluene	µg/L	NOT DETECTED	0.11	EPA 524.2	
Potassium	mg/L	1.18	0.0437	EPA 200.7	
sec Butylbenzene	µg/L	NOT DETECTED	0.06	EPA 524.2	
Selenium	mg/L	NOT DETECTED	0.0004	EPA 200.8	
Silica	mg/L	8.28	0.0177	EPA 200.7	
Silver	mg/L	NOT DETECTED	3.0E-5	EPA 200.8	
Sodium	mg/L	57.8	0.188	EPA 200.7	
Strontium	mg/L	0.0591	0.00011	EPA 200.7	< HGL
Styrene	µg/L	NOT DETECTED	0.14	EPA 524.2	

Sulfate	mg/L	15.2	0.671	EPA 300.0	< HGL	Item 1.
tert Butylbenzene	µg/L	NOT DETECTED	0.16	EPA 524.2		
Tetrachloroethylene	µg/L	NOT DETECTED	0.13	EPA 524.2		
Thallium	mg/L	NOT DETECTED	6.0E-5	EPA 200.8		
Tin	mg/L	NOT DETECTED	4.0E-5	EPA 200.8		
Titanium	mg/L	NOT DETECTED	0.00019	EPA 200.7		
Toluene	µg/L	NOT DETECTED	0.12	EPA 524.2		
Total Coliform	P/A	NOT DETECTED		SM 9223B		
trans 1,3 Dichloropropene	µg/L	NOT DETECTED	0.11	EPA 524.2		
Trichloroethylene	µg/L	NOT DETECTED	0.17	EPA 524.2		
Trichlorofluoromethane	µg/L	NOT DETECTED	0.1	EPA 524.2		
Uranium	mg/L	NOT DETECTED	3.0E-5	EPA 200.8		
Vanadium	mg/L	NOT DETECTED	3.0E-5	EPA 200.8		
Vinyl Chloride	µg/L	NOT DETECTED	0.07	EPA 524.2		
Zinc	mg/L	NOT DETECTED	0.00495	EPA 200.7		

How To Read Your SimpleLab PDF Report

Your results are being evaluated with the Health Guidance Level.

This is a health protective, non-enforceable drinking water benchmark. HGL is based on the most protective human health benchmark used among public health agencies for a contaminant. Drinking water at or near the HGL over the course of your lifetime is thought to be safe.

MDL: Method Detection Limit. MDL is the lowest concentration of an analyte which testing instrumentation and the analysis team is configured to measure.

How To Read Your SimpleLab PDF Report

Item 1.

Your results are being evaluated with the Simple Lab Recommendation.

This is a health protective, non-enforceable drinking water benchmark. SLR is based on the most protective human health benchmark used among public health agencies for a contaminant. Drinking water at or near the SLR over the course of your lifetime is thought to be safe.

MOL: Method Detection Limit. MDL is the lowest concentration of an analyte which testing instrumentation and the analysis team configured to measure.



Did you know?

This Tap Score report is easier to understand when viewed online. Access in-depth information about every detection, including health risks and treatment solutions.

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Sample Info

Sharing

tap score
EVALUATION

84

OUT
OF 99

Health: 95
No concerns
detected

Aesthetics: 45
3 concerns detected

Plumbing: 60
2 concerns detected

FILTRATION
& TREATMENT

Certificate of Analysis: YST82D
Drinking Water | Labs

May 13, 2024
09:25 AM

well head
11 MCNAMARA RD

Not treated
Private Well

All Results

Properties

Health

Aesthetics 3

Plumbing 2

Treatment

Comparisons

Search

Change Evaluation

Glossary

Parameter		Result	Evaluation: HGL	Method, MDL and RL		Analysis Date	Details
	Nitrate (as N) Inorganics	3.06 PPM	HGL: 10 PPM	EPA 300.0 MDL 0.005 PPM	RL 0.5 PPM	15 May 2024	View
	Barium Metals	0.232 PPM	HGL: 2 PPM	EPA 200.8 MDL 0.0001 PPM	RL 0.0051 PPM	15 May 2024	View
	Boron Inorganics	0.0309 PPM	HGL: 0.5 PPM	EPA 200.7 MDL 0.00312 PPM	RL 0.0051 PPM	15 May 2024	View
	Manganese Metals	0.0157 PPM	HGL: 0.1 PPM	EPA 200.8 MDL 0.0001 PPM	RL 0.001 PPM	15 May 2024	View
	Strontium Metals	0.0591 PPM	HGL: 3 PPM	EPA 200.7 MDL 0.000112 PPM	RL 0.0102 PPM	15 May 2024	View
		15.2		EPA 300.0			

	Sulfate Inorganics	PPM	HGL: 500 PPM	MDL 0.671 PPM	RL 1 PPM	15 May 2024	View	Item 1.
	Alkalinity (as CaCO3) Properties	240 PPM	No HGL exists	SM 2320 B		15 May 2024	View	
	Bicarbonate Minerals	▼ 291.23 PPM	No HGL exists	Bicarbonate		15 May 2024	View	
	Calcium Minerals	78.8 PPM	No HGL exists	EPA 200.7 MDL 0.0351 PPM	RL 0.05 PPM	15 May 2024	View	
	Carbonate Minerals	▼ 0.673 PPM	No HGL exists	Carbonate		15 May 2024	View	
	Chloride Inorganics	130 PPM	No HGL exists	EPA 300.0 MDL 1.37 PPM	RL 5 PPM	15 May 2024	View	
	Conductivity Properties	980 umhos/cm	No HGL exists	SM 2510 B MDL 1 umhos/cm	RL 1 umhos/cm	15 May 2024	View	
	CSMR Properties	▼ 8.55	No HGL exists	CSMR		15 May 2024	View	
	Grains per gallon Properties	▼ 18.44 Grains	No HGL exists	GPG		15 May 2024	View	
	Hardness (Ca,Mg) Properties	▼ 314.95 PPM	No HGL exists	Hardness (Ca,Mg)		15 May 2024	View	
	Hardness (Total) Properties	▼ 315.22 (Total) PPM	No HGL exists	Hardness (Total)		15 May 2024	View	
	Langelier Saturation Index Properties	0.54	No HGL exists	Langelier Saturation Index		15 May 2024	View	
	Magnesium Minerals	28.7 PPM	No HGL exists	EPA 200.7 MDL 0.00896 PPM	RL 0.051 PPM	15 May 2024	View	
	pH Properties	7.7	No HGL exists	SM 4500-H+B		15 May 2024	View	
	Potassium Minerals	1.18 PPM	No HGL exists	EPA 200.7 MDL 0.0437 PPM	RL 0.204 PPM	15 May 2024	View	
	Silica Inorganics	8.28 PPM	No HGL exists	EPA 200.7 MDL 0.0177 PPM	RL 2.18 PPM	15 May 2024	View	
		57.8	No HGL exists	EPA 200.7		15 May 2024	View	114

	Sodium	PPM		MDL 0.188 PPM	RL 1.02 PPM	Item 1.	
	Sodium Adsorption Ratio  Properties	1.42	No HGL exists	SAR	15 May 2024		View
	Total Dissolved Solids Properties	571 PPM	No HGL exists	SM 2510 B MDL 1.92 PPM	RL 1.92 PPM	15 May 2024	View
	Turbidity Properties	0.23 NTU	No HGL exists	SM 2130 B MDL 0.039 NTU	RL 0.1 NTU	15 May 2024	View
	1,1 Dichloroethane VOCs	Not Detected		EPA 524.2 MDL 0.11 PPB	RL 0.5 PPB	15 May 2024	View
	1,1 Dichloroethylene VOCs	Not Detected		EPA 524.2 MDL 0.15 PPB	RL 0.5 PPB	15 May 2024	View
	1,1 Dichloropropene VOCs	Not Detected		EPA 524.2 MDL 0.17 PPB	RL 0.5 PPB	15 May 2024	View
	1,1,1 Trichloroethane VOCs	Not Detected		EPA 524.2 MDL 0.08 PPB	RL 0.5 PPB	15 May 2024	View
	1,1,1,2 Tetrachloroethane VOCs	Not Detected		EPA 524.2 MDL 0.21 PPB	RL 0.5 PPB	15 May 2024	View
	1,1,2 Trichloroethane VOCs	Not Detected		EPA 524.2 MDL 0.15 PPB	RL 0.5 PPB	15 May 2024	View
	1,1,2,2 Tetrachloroethane VOCs	Not Detected		EPA 524.2 MDL 0.1 PPB	RL 0.5 PPB	15 May 2024	View
	1,2 Dichlorobenzene VOCs	Not Detected		EPA 524.2 MDL 0.13 PPB	RL 0.5 PPB	15 May 2024	View
	1,2 Dichloroethane VOCs	Not Detected		EPA 524.2 MDL 0.08 PPB	RL 0.5 PPB	15 May 2024	View
	1,2 Dichloropropane VOCs	Not Detected		EPA 524.2 MDL 0.13 PPB	RL 0.5 PPB	15 May 2024	View
	1,2,3 Trichlorobenzene VOCs	Not Detected		EPA 524.2 MDL 0.28 PPB	RL 0.5 PPB	15 May 2024	View
	1,2,3 Trichloropropane VOCs	Not Detected		EPA 524.2 MDL 0.21 PPB	RL 0.5 PPB	15 May 2024	View
		Not Detected		EPA 524.2		15 May 2024	View

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	1,2,4 Trichlorobenzene	Not Detected	MDL 0.24 PPB	RL 0.5 PPB	15 May 2024	View	Item 1.
	1,2,4 Trimethylbenzene VOCs		EPA 524.2 MDL 0.11 PPB	RL 0.5 PPB			
	1,3 Dichlorobenzene VOCs	Not Detected	EPA 524.2 MDL 0.12 PPB	RL 0.5 PPB	15 May 2024	View	
	1,3 Dichloropropane VOCs	Not Detected	EPA 524.2 MDL 0.14 PPB	RL 0.5 PPB	15 May 2024	View	
	1,3,5 Trimethylbenzene VOCs	Not Detected	EPA 524.2 MDL 0.1 PPB	RL 0.5 PPB	15 May 2024	View	
	1,4 Dichlorobenzene VOCs	Not Detected	EPA 524.2 MDL 0.1 PPB	RL 0.5 PPB	15 May 2024	View	
	2,2 Dichloropropane VOCs	Not Detected	EPA 524.2 MDL 0.21 PPB	RL 0.5 PPB	15 May 2024	View	
	Aluminum Metals	Not Detected	EPA 200.7 MDL 0.00618 PPM	RL 0.051 PPM	15 May 2024	View	
	Antimony Metals	Not Detected	EPA 200.8 MDL 0.00003 PPM	RL 0.001 PPM	15 May 2024	View	
	Arsenic Metals	Not Detected	EPA 200.8 MDL 0.00007 PPM	RL 0.001 PPM	15 May 2024	View	
	Benzene Petroleum Compounds	Not Detected	EPA 524.2 MDL 0.13 PPB	RL 0.5 PPB	15 May 2024	View	
	Beryllium Metals	Not Detected	EPA 200.8 MDL 0.00005 PPM	RL 0.001 PPM	15 May 2024	View	
	Bromobenzene VOCs	Not Detected	EPA 524.2 MDL 0.18 PPB	RL 0.5 PPB	15 May 2024	View	
	Bromochloromethane Disinfection Byproducts	Not Detected	EPA 524.2 MDL 0.11 PPB	RL 0.5 PPB	15 May 2024	View	
	Bromodichloromethane Disinfection Byproducts	Not Detected	EPA 524.2 MDL 0.09 PPB	RL 0.5 PPB	15 May 2024	View	
	Bromoform Disinfection Byproducts	Not Detected	EPA 524.2 MDL 0.11 PPB	RL 0.5 PPB	15 May 2024	View	
	Not Detected		EPA 524.2 MDL 0.24 PPB	RL 0.5 PPB	15 May 2024	View	116

 Bromomethane Cadmium Metals	Not Detected	EPA 200.8 MDL 0.00007 PPM RL 0.001 PPM	15 May 2024	View	Item 1.
 Carbon Tetrachloride VOCs	Not Detected	EPA 524.2 MDL 0.16 PPB RL 0.5 PPB	15 May 2024	View	
 Chlorobenzene VOCs	Not Detected	EPA 524.2 MDL 0.08 PPB RL 0.5 PPB	15 May 2024	View	
 Chloroethane VOCs	Not Detected	EPA 524.2 MDL 0.18 PPB RL 0.5 PPB	15 May 2024	View	
 Chloroform Disinfection Byproducts	Not Detected	EPA 524.2 MDL 0.44 PPB RL 0.5 PPB	15 May 2024	View	
 Chloromethane VOCs	Not Detected	EPA 524.2 MDL 0.13 PPB RL 0.5 PPB	15 May 2024	View	
 Chlorotoluene 2 VOCs	Not Detected	EPA 524.2 MDL 0.08 PPB RL 0.5 PPB	15 May 2024	View	
 Chlorotoluene 4 VOCs	Not Detected	EPA 524.2 MDL 0.12 PPB RL 0.5 PPB	15 May 2024	View	
 Chromium (Total) Metals	Not Detected	EPA 200.8 MDL 0.00002 PPM RL 0.001 PPM	15 May 2024	View	
 cis 1,2 Dichloroethylene VOCs	Not Detected	EPA 524.2 MDL 0.2 PPB RL 0.5 PPB	15 May 2024	View	
 cis 1,3 Dichloropropene VOCs	Not Detected	EPA 524.2 MDL 0.13 PPB RL 0.5 PPB	15 May 2024	View	
 Cobalt Metals	Not Detected	EPA 200.8 MDL 0.00001 PPM RL 0.001 PPM	15 May 2024	View	
 Copper Metals	Not Detected	EPA 200.8 MDL 0.00004 PPM RL 0.001 PPM	15 May 2024	View	
 Dibromochloromethane Disinfection Byproducts	Not Detected	EPA 524.2 MDL 0.14 PPB RL 0.5 PPB	15 May 2024	View	
 Dibromochloropropane VOCs	Not Detected	EPA 524.2 MDL 0.39 PPB RL 0.5 PPB	15 May 2024	View	
 Dibromomethane Disinfection Byproducts	Not Detected	EPA 524.2 MDL 0.18 PPB RL 0.5 PPB	15 May 2024	View	117

	Dichlorodifluoromethane VOCs	Not Detected	EPA 524.2 MDL 0.12 PPB RL 0.5 PPB	15 May 2024	View	Item 1.
	Dichloromethane VOCs	Not Detected	EPA 524.2 MDL 0.31 PPB RL 0.5 PPB	15 May 2024	View	
	E. coli Bacteria	Not Detected	SM 9223B	15 May 2024	View	
	Ethylbenzene Petroleum Compounds	Not Detected	EPA 524.2 MDL 0.08 PPB RL 0.5 PPB	15 May 2024	View	
	Ethylene dibromide VOCs	Not Detected	EPA 524.2 MDL 0.1 PPB RL 0.5 PPB	15 May 2024	View	
	Fluoride Inorganics	Not Detected	EPA 300.0 MDL 0.005 PPM RL 0.1 PPM	15 May 2024	View	
	Hexachlorobutadiene VOCs	Not Detected	EPA 524.2 MDL 0.2 PPB RL 0.5 PPB	15 May 2024	View	
	Iron Metals	Not Detected	EPA 200.7 MDL 0.00428 PPM RL 0.05 PPM	15 May 2024	View	
	Isopropylbenzene VOCs	Not Detected	EPA 524.2 MDL 0.11 PPB RL 0.5 PPB	15 May 2024	View	
	Lead Metals	Not Detected	EPA 200.8 MDL 0.00005 PPM RL 0.0004 PPM	15 May 2024	View	
	Lithium Metals	Not Detected	EPA 200.7 MDL 0.00555 PPM RL 0.051 PPM	15 May 2024	View	
	m,p Xylene Petroleum Compounds	Not Detected	EPA 524.2 MDL 0.13 PPB RL 0.5 PPB	15 May 2024	View	
	Mercury Metals	Not Detected	EPA 200.8 MDL 0.0001 PPM RL 0.0002 PPM	15 May 2024	View	
	Methyl Tertiary Butyl Ether Petroleum Compounds	Not Detected	EPA 524.2 MDL 0.24 PPB RL 0.5 PPB	15 May 2024	View	
	Molybdenum Metals	Not Detected	EPA 200.8 MDL 0.00004 PPM RL 0.001 PPM	15 May 2024	View	
	Naphthalene Petroleum Compounds	Not Detected	EPA 524.2 MDL 0.1 PPB RL 0.5 PPB	15 May 2024	View	118

	n Butylbenzene VOCs	Not Detected	EPA 524.2 MDL 0.17 PPB RL 0.5 PPB	15 May 2024	View Item 1.
	Nickel Metals	Not Detected	EPA 200.8 MDL 0.0001 PPM RL 0.001 PPM	15 May 2024	View
	Nitrite (as N) Inorganics	Not Detected	EPA 300.0 MDL 0.002 PPM RL 0.1 PPM	15 May 2024	View
	n Propylbenzene VOCs	Not Detected	EPA 524.2 MDL 0.1 PPB RL 0.5 PPB	15 May 2024	View
	o Xylene Petroleum Compounds	Not Detected	EPA 524.2 MDL 0.11 PPB RL 0.5 PPB	15 May 2024	View
	Phosphorus Inorganics	Not Detected	EPA 200.7 MDL 0.0755 PPM RL 1.02 PPM	15 May 2024	View
	p Isopropyltoluene VOCs	Not Detected	EPA 524.2 MDL 0.11 PPB RL 0.5 PPB	15 May 2024	View
	sec Butylbenzene VOCs	Not Detected	EPA 524.2 MDL 0.06 PPB RL 0.5 PPB	15 May 2024	View
	Selenium Metals	Not Detected	EPA 200.8 MDL 0.0004 PPM RL 0.0051 PPM	15 May 2024	View
	Silver Metals	Not Detected	EPA 200.8 MDL 0.00003 PPM RL 0.001 PPM	15 May 2024	View
	Styrene VOCs	Not Detected	EPA 524.2 MDL 0.14 PPB RL 0.5 PPB	15 May 2024	View
	tert Butylbenzene VOCs	Not Detected	EPA 524.2 MDL 0.16 PPB RL 0.5 PPB	15 May 2024	View
	Tetrachloroethylene VOCs	Not Detected	EPA 524.2 MDL 0.13 PPB RL 0.5 PPB	15 May 2024	View
	Thallium Metals	Not Detected	EPA 200.8 MDL 0.00006 PPM RL 0.0004 PPM	15 May 2024	View
	Tin Metals	Not Detected	EPA 200.8 MDL 0.00004 PPM RL 0.0041 PPM	15 May 2024	View
	Titanium Metals	Not Detected	EPA 200.7 MDL 0.000194 PPM RL 0.00204 PPM	15 May 2024	View

	Toluene Petroleum Compounds	Not Detected	EPA 524.2 MDL 0.12 PPB RL 0.5 PPB	15 May 2024	View Item 1.
	Total Coliform Bacteria	Not Detected	SM 9223B	15 May 2024	View
	trans 1,3 Dichloropropene VOCs	Not Detected	EPA 524.2 MDL 0.11 PPB RL 0.5 PPB	15 May 2024	View
	Trichloroethylene VOCs	Not Detected	EPA 524.2 MDL 0.17 PPB RL 0.5 PPB	15 May 2024	View
	Trichlorofluoromethane VOCs	Not Detected	EPA 524.2 MDL 0.1 PPB RL 0.5 PPB	15 May 2024	View
	Uranium Metals	Not Detected	EPA 200.8 MDL 0.0000306 PPM RL 0.001 PPM	15 May 2024	View
	Vanadium Metals	Not Detected	EPA 200.8 MDL 0.00003 PPM RL 0.001 PPM	15 May 2024	View
	Vinyl Chloride VOCs	Not Detected	EPA 524.2 MDL 0.07 PPB RL 0.5 PPB	15 May 2024	View
	Zinc Metals	Not Detected	EPA 200.7 MDL 0.00495 PPM RL 0.0051 PPM	15 May 2024	View
	Total THMs Disinfection Byproducts	Not Detected	Total THMs	15 May 2024	View

Add self-test

End of results. [Questions?](#)

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May 9, 2024

Village of Wesley Hills
432 Route 306
Wesley Hills, New York 10952

Re: Cong. Ahavas Yitzchak
73 Forshay Road
Tax Lot 41.18-1-12

Attached please find a site plan for Cong. Ahavas Yitzchak located at 73 Forshay Road within the Village of Wesley Hills. The congregation has a house of worship at this location and is looking to do a phased improvement. In Phase 1, they are seeking to expand their parking lot, remove the existing canopy on the southside of the building, and install a new ramp to provide ADA access to the basement. The landscaping and drainage improvements required for all phases are proposed to be installed as part of Phase 1 as well. For Phase 2, they are seeking to construct an addition to the existing building along with some additional accessways to the building. A patio is proposed on the south side of the building as part of Phase 2 as well. The project was before the Zoning Board in July 2019 where the board granted variances. The project then received final approval from the planning board later that month. Unfortunately, due to Covid there were some delays. In 2021 the applicant returned to the Zoning Board to have the variances reinstated. In 2022 the application returned to the Planning Board to have the prior approvals reinstated. At this time, the applicant is seeking to have the prior SEQRA review reconfirmed and then they can return to the ZBA to have the variances reinstated again.

There was a previous site plan to approve the house of worship. This site plan is to amend the site. The use is already permitted.

According to the congregation's secretary, there are approximately 120 members. This number has remained fairly consistent over the last several years. Each year they lose and gain a few people depending on people moving in and out of the neighborhood.

The extended parking lot would provide 58 parking spaces to meet the needs of the congregation. The congregants previously parked on local streets, but due to new "No Parking" signs, they have had difficulty finding space to park. The additional parking will allow congregants to park safely onsite.

The existing sewer and water connections would remain in use. A new underground detention facility is proposed to provide zero net increase in runoff. The area to be disturbed is less than an acre so a SWPPP is not provided.

The plan requires the following variances:

1. Minimum Front Yard: 50 FT Required, 31.9 FT Provided (to DSL)
2. Maximum Impervious Surface Ratio: 0.25 Required, 0.575 Provided

May 9, 2024

Village of Wesley Hills
432 Route 305
Wesley Hills, New York 10952

Re: Cong. Ahavas Yitzchak
73 Forshay Road
Monsey, NY 10952
Tax Lot 41.18-1-12

Attached please find a plan revised based upon the comments received. Below please find an item by item response.

Comments from the Highway Department dated September 7, 2022

1. **The driveway radius/curbs at the entrance appear to be very wide. The applicant shall provide proper driveway curves to accommodate all vehicles turning in and out of the proposed driveway.** The entrance has 28' radii based on the International Fire Code.
2. **The existing crosswalk on Forshay Road shall be realigned to direct pedestrians to use the ramps safely. In addition, all the proper advanced warning signs shall be placed on Forshay Road to warn motorists about the crosswalk ahead.** There is no crosswalk towards our property. The existing crosswalk is on the opposite side of Forshay Road perpendicular to Parker Blvd. There is no walk across Forshay.
3. **A drainage report is required for the proposed changes in the property. The proposed drainage system shall demonstrate to produce no net increase in the peak rate of discharge from the stie at all design points.** The drainage report has been updated and is now provided.
4. **A road work permit shall be obtained from the RCHD prior to starting any construction work in the site.** Comment noted.

Comments from RCSD No. 1 dated March 23, 2024

1. **As this application modifies the existing non-residential use, Rockland County Sewer District No. 1's "Commercial/Non-residential Wastewater Questionnaire" and the County Planning Information Certification must be re-submitted to and approved by this office. The owner or rabbi must sign the wastewater questionnaire.** Application will be made again.
2. **Approval of this special permit application for an addition to an expansion of the existing neighborhood gathering use (house of worship) on a 53,537 square foot lot in the R-35 District does not require the applicant to pay an impact fee, in accordance with the Rockland County Sewer Use Law as last amended in 2010. However, if the use or occupancy of the property exceeds one (1) unit (e.g., if the social hall in the basement is used for catered events like weddings or bar mitzvahs, or with a mikvah, a school, a daycare center, a rabbi's residence,**

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apartments, visitor suites, or a congregation of 100 families), the District will require further review and the owner will have to pay an impact fee. Comment noted.

3. **Details for sanitary sewer construction as shown on the plans must comply with the District's construction standards.** Comment noted.
4. **Details for regrading the sanitary sewer manholes in the easement as shown on Drawing No. 3 (Grading Drainage & Utilities Plan Phase 1) and Drawing No. 6 (Grading, Drainage & Utilities Plan Phase 2) are subject to approval by the Town of Ramapo Department of Public Works.** Comment noted.

Comments from Rockland County Dept of Planning dated March 27, 2024

1. **Special permit uses are, by definition, subject to a higher standard of review than as of right uses. In addition to complying with the bulk requirements of the zone in which they are proposed, the modified neighborhood gathering use must meet the general standards for special permits outlined in Section 230-22, as well as the individual standards found in Section 230-26G. The Village must be satisfied that these requirements have been met.** Comment noted.
2. **The applicant must comply with the comments made by the Rockland County Highway Department in their letter dated March 12, 2024. A response can be found above.**
3. **A review of the September 22, 2023 site plan must be completed by the Rockland County Department of Health. In addition, as per their letter dated June 6, 2019, application is to be made to them for review to ensure compliance with the County Mosquito Code. Please see response below. Mosquito approval was granted in July 2019.**
4. **A review of the September 22, 2023 site plan must be completed by the Rockland County Sewer District No. 1, any concerns addressed, and any required permits obtained.** Comment noted.
5. **A review must be completed by the County of Rockland Office of Fire and Emergency Services, Village of Wesley Hills fire inspector, or the Monsey Fire Department to ensure that the site is designed in a safe manner and that there is easy access to the structure, in the event of an emergency.** Comment noted.
6. **The Town of Ramapo is one of the reasons this proposal was referred to this department for review. The municipal boundary is adjacent to the eastern property line of the parcel. New York State General Municipal Law states that the purposes of Sections 239-l, 239-m, and 239-n shall be to bring pertinent inter-community and countywide planning, zoning, site plan and subdivision considerations to the attention of neighboring municipalities and agencies having jurisdiction. Such review may include inter-community and county-wide considerations in respect to the compatibility of various land uses with one another; traffic generating characteristics of various land uses in relation to the effect of such traffic on other land uses and to the adequacy of existing and proposed thoroughfare facilities; and the protection of community character as regards predominant land uses, population density, and the relation between residential and nonresidential areas. In addition, Section 239-nn was enacted to**

encourage the coordination of land use development and regulation among adjacent municipalities, and as a result development occurs in a manner that is supportive of the goals and objectives of the general area. The Town of Ramapo must be given the opportunity to review the proposal and its impact on community character, traffic, water quantity and quality, drainage, stormwater runoff and sanitary sewer service. The areas of countywide concern noted above that directly impact the Town of Ramapo must be considered and satisfactorily addressed, as well as any additional concerns about the proposal. Comment noted.

7. **Prior to the start of construction or grading, all soil and erosion control measures must be in place for the site. These measures must meet the latest edition (November 2016) of the New York State Standards for Urban Erosion and Sediment Control. An erosion control plan is provided.**
8. **There shall be no net increase in the peak rate of discharge from the site at all design points. Drainage design was provided for review to the Village.**
9. **A stormwater pollution prevention plan (SWPPP) was not provided. The SWPPP, if required, shall conform to the current regulations, including the New York State Stormwater Management and Design Manual (January 2015) and local ordinances. A SWPPP was not required.**
10. **The proposed impervious surface ratio is listed as 0.56 on the bulk table. The calculation indicates it will be 0.54. The June 15, 2022 revision of the site plan that was submitted to our department with a previous application includes the same impervious surface ratio calculation as the September 22, 2023 map that was submitted with this application. However, the current drawing shows a slightly different configuration of the site, which has likely increased the amount of impervious surface. A new impervious surface ratio calculation must be provided. If it is greater than 0.56, a variance will be required. We request the opportunity to review any additional variances, as required by New York State General Municipal Law, Section 239-m (3)(a)(v). The plans have been updated.**
11. **To help reduce the impact of this development, a reduction of impervious surface should be considered. The amended Site Plan Phase 2 (Drawing 5 of 9) indicates that pervious pavers are proposed to be used for a patio at the southern side of the structure. It is recommended that porous pavers or porous concrete be considered to replace the use of conventional asphalt in additional areas of the site, as well. If installed correctly and properly maintained porous pavers have been shown to be effective in helping manage off-site runoff of stormwater. In addition to permeable pavers, other green infrastructure techniques should be considered such as bioswales, rain gardens, and rainwater capture. For long term effectiveness of permeable pavers and other green infrastructure techniques it is recommended that the Village and the applicant review Chapter 5 'Green Infrastructure Practices' of the 2015 NYSDEC Stormwater Design Manual. Based on the ground water, pervious pavers are no longer proposed.**
12. **The walkway to Judith Lane at the rear of the property must be continued around the parking area of have a dedicated crosswalk through the parking area in order to maintain safe access for pedestrians. We would request an override of**

this item as we would like to maintain the maximum parking possible to be consistent with prior approvals.

13. **This department recommends that the applicant use plants that are native to New York for the proposed landscaping to help preserve and promote biodiversity. Native plants are better adapted to the local climate and soils, making them easier to care for, and result in the need for less fertilizer, pesticides, and use of water. They also have deeper root systems that help prevent erosion and increased runoff into local waterbodies. A pdf titled “Native Plants for Gardening and Landscaping Fact Sheets” that lists native species and the environments in which they can grow can be found on the New York State Department of Environmental Conservation’s website. Native plants are proposed.**
14. **The lighting plan provided does not extend to the property lines. The lighting plan shall be amended to demonstrate that the intensity of the candle lumens is less than 0.1 at the property line. The lighting has been extended to the property lines.**
15. **The parking calculation indicates 3 accessible spaces will be provided. However, only two are depicted on the drawing. There appears to be a second access aisle to the south of the two accessible spaces that are shown, except this aisle is immediately adjacent to a stairway, and cannot be associated with an accessible space. The third accessible space, at its associated access aisle, must be provided as required by the Americans with Disabilities Act, and illustrated on the site plan. A third accessible space is now provided.**
16. **Pursuant to General Municipal Law (GML) Section 239-m and 239-n, if any of the conditions of this GML review are overridden by the board, then the local land use board must file a report with the County Commissioner, the local land use board must state the reasons for such action. Comment noted.**
17. **In addition, pursuant to Executive Order 01-2017 signed by County Executive Day on May 22, 2017, County departments are prohibited from issuing a County permit, license, or approval until the report is filed with the County Commissioner of Planning. The applicant must provide to any County agency which has jurisdiction of the project: 1) a copy of the Commissioner report approving the proposed action; or 2) a copy of the land use board statement overriding the recommendations to modify or disapprove, and the stated reasons for the land use board’s override. Comment noted.**

Comments from RCDOH dated March 26, 2024

1. **Application is to be made to the RCDOH for review of the storm water management system for compliance with the County Mosquito Code. Mosquito control approval was granted in July 2019. The stormwater system has not changed since that time.**

Comments from Brooker Engineering dated March 29, 2024

1. **Dedicated area does not allow for a consideration of 50% of the area to be included in the net lot area. 100% reduction shall be applied. Bulk ratios**

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- calculations and table to be updated accordingly.** This area has not changed since the original applications/approvals. The Village Engineer, Attorney and Building Inspector all accepted the area as shown. The net lot area has not changed.
2. **Location of all ADA signage shall be indicated/clarified. ADA Accessible path for the (2) central ADA spaces to be identified.** There is an existing ramp that will remain in addition to the new ramp to the basement. Additional signage is now shown.
 3. **Dumpster location to be shown on Site Plan.** The garbage enclosure is now shown.
 4. **Applicant to clarify if new front walkway is intended for Phase I. The existing walk way in this area is noted to be removed in Phase II.** The sidewalk has been updated.
 5. **Drop curbs to be labeled on Site Plan where applicable.** The curb is now labeled.
 6. **Applicant to clarify access if proposed stairs on the northwest fast of the building.** The walkway has been updated.
 7. **Applicant to clarify on plans if existing canopy is to be removed or remain during this phase. It appears to conflict with the proposed ramp.** It is now labeled to be removed.
 8. **Our office defers to the Building Inspector if the proposed ramp on the south side of the structure is permitted within the side yard.** Comment noted.
 9. **Line/layer cleanup appears necessary. Stripping is unclear.** The layers have been updated.
 10. **Grading detail (spot grades) for proposed stair/ramp on rear and side of building shall be provided to support design. Slope over 5% requires handrails. Max slope shall be 8.33% as noted.** Handrails will be provided. The max ramp slope is now labeled.
 11. **Additional grading detail to be provided at the eastern face of the proposed ramp to ensure positive conveyance of stormwater away from the building is provided.** Additional spot grades are provided. The existing grade already goes away from the building.
 12. **Proposed dumpster enclosure is proposed in area with proposed grading of approximately 33% slope. Applicant to review grading proposed in this area to confirm constructability of dumpster enclosure on a level pad.** A retaining wall is now shown to provide a level area.
 13. **Roof leader conveyance to be provided.** Leaders are all labeled.
 14. **Applicant to clarify how the existing 15" RCP pipe and proposed 15" HDPE (from outlet structure) will connect to the proposed DMH at the northwest corner of the property. Our office recommends reviewing the potential to shift the DMH southeast of the sewer easement to avoid additional pipe crossings.** The manhole cannot be shifted because they need the length to get far enough downstream. An oversized structure can be used if needed.
 15. **6" PVC in rear yard to be identified and redirected as necessary.** We will continue to research the use of this pipe.
 16. **Origin of 8" PVC to existing manhole to be investigated. Existing manhole acts as a by-pass to the detention system from this incoming pipe. 8" PVC shall be further investigated during construction and re-routed if necessary. Applicant to clarify the purpose of the new invert; the new invert appears to match invert**

- proposed at new DMH providing 0% slope between the two structures. The existing manhole will bypass the detention system. The invert has been updated. The origin of the 8" PVC was not available, but can be updated at construction if needed.
17. **Maximum of 0.6 foot-candles allowable at property lines as per Village Code. Proposed lighting range shall extend to the property line to confirm conformance.** The lighting has been extended.
 18. **Landscaping height & variety seem inefficient for screening purposes. Northerly boxwoods will be sufficient for headlight screening but not general screening of the parking lot.** There is an existing sewer easement and sewermain that runs behind the boxwoods. Larger trees were not proposed because we did not want to impact the sewer main. Some additional plants have been added to the rear and southern side.
 19. **Silt fence to be extended along northern and southern property line, parallel to proposed contours.** Additional silt fence is now provided.
 20. **Silt fence near northwest corner of property appears to conflict with existing trees to remain. Applicant to review erosion control, grading in this area.** The silt fence has been revised.
 21. **Clearing limit line to be clearly indicated. A Zoning Board conditional approval discusses maintaining the northerly and westerly forested areas. Proposed grading operations may impact these locations.** There are some trees to the northeast corner that will remain as well as an area to the northwest. Grading will change the ground by about 1' foot in the area of some of these trees.
 22. **Updated bulk table and supporting notes/calculations for phase 2 shall be provided, particularly for confirmation of impervious coverage calculations. Our office questions if Phase 2 is under the approved variance of 0.56 previously granted by the ZBA.** The plan has been updated.
 23. **Proposed pervious pavers (and impervious coverage) are subject to percolation/deep holes tests in that specific area. Previous approval included an override of a County Planning GML comment to avoid pervious pavers due to high groundwater in the rear of the property.** The pavers are now called to be impervious. The drainage has been updated accordingly.
 24. **Applicant to discuss the necessity of (2) ADA ramps.** The ramp on the south side is to provide ADA access to the basement. Otherwise there is no ADA access to that level.
 25. **Additional grading detail to be provided at the eastern face of the proposed addition between proposed stairs and existing structure to ensure positive conveyance of stormwater is provided.** Additional spot grades are now provided.
 26. **Conveyance for roof leaders for proposed addition to be indicated. Drainage report to be updated where necessary, to confirm the originally approved system has sufficient capacity. Latest report received is from 2019.** The drainage is now updated.
 27. **Line/layer cleanup appears necessary. Stripping is unclear.** Layers have been updated.
 28. **Grading detail (spot grades) for proposed stairs/ramps for access to building shall be provided to support design. Slope over 5% required handrails. Max slope shall be 8.33% as noted.** Additional spot grades are provided.

29. **Additional grading detail to be provided at the eastern face of the proposed ramp to ensure positive conveyance of stormwater away from the building is provided.** Additional spot grades are provided.
30. **Proposed dumpster enclosure is proposed in area with proposed grading of approximately 33% slope. Applicant to review grading proposed in this rea to confirm constructability of dumpster enclosure on a level pad.** A retaining wall has been added to create a level space.
31. **Applicant to clarify how the existing 15" RCP pipe and proposed 15" HDPE (from outlet structure) will connect to the proposed DMH at the northwest corner of the property. Our office recommends reviewing the potential to shift the DMH southeast of the sewer easement to avoid additional pipe crossings.** The manhole cannot be shifted because they need the length to get far enough downstream. An oversized structure can be used if needed.
32. **6" PVC in rear yard to be identified and redirected as necessary.** We will continue to research the use of this pipe.
33. **Origin of 8" PVC to existing manhole to be investigated. Existing manhole acts as a by-pass to the detention system from this incoming pipe. 8" PVC shall be further investigated during construction and re-routed if necessary. Applicant to clarify the purpose of the new invert; the new invert appears to match invert proposed at new DMH providing 0% slope between the two structures.** The existing manhole will bypass the detention system. The invert has been updated. The origin of the 8" PVC was not available, but can be updated at construction if needed.
34. **Maximum of 0.6 foot-candles allowable at property lines as per Village Code. Proposed lighting range shall extend to the property line to confirm conformance.** The lighting has been extended.
35. **Landscaping height & variety seem inefficient for screening purposes. Northerly boxwoods will be sufficient for headlight screening but not general screening of the parking lot.** There is an existing sewer easement and sewermain that runs behind the boxwoods. Larger trees were not proposed because we did not want to impact the sewer main. Some additional plants have been added to the rear and southern side.
36. **Silt fence to be extended along northern and southern property line, parallel to proposed contours.** Additional silt fence is now provided.
37. **Silt fence near northwest corner of property appears to conflict with existing trees to remain. Applicant to review erosion control, grading in this area.** The silt fence has been revised.
38. **Clearing limit line to be clearly indicated. A Zoning Board conditional approval discusses maintaining the northerly and westerly forested areas. Proposed grading operations may impact these locations.** There are some trees to the northeast corner that will remain as well as an area to the northwest. Grading will change the ground by about 1' foot in the area of some of these trees.
39. **Drainage Outlet Structure: Note 5 and provided dimensions appear to conflict regarding size of structure.** The dimension has been updated.
40. **Applicant to provide detail of interconnection of solid 36" HDPE system and access ports for future maintenance of the system.** An oversized 6' diameter manhole is now shown to provide more room for the connection.

41. **Village of Wesley Hills Standard Details** to be utilized where applicable. The details have been updated.
42. **Regrading, improvements, and structure modification within Town of Ramapo Sewer Easement** subject to review and approval by Town of Ramapo. Comment noted.
43. **Village of Wesley Hills Standard Details** to be utilized where applicable. The details have been updated.
44. **Applicant to confirm previously approved Drainage Report and Stormwater maintenance agreement do not require adjustment as a result of the proposed addition.** An updated stormwater summary is now provided.

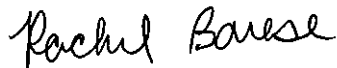
Comments from Nelson Pope Voorhis dated March 7, 2024

1. **It is unclear based on the submission the timeline regarding phasing of the project. Please clarify the timeline when the applicant intends to complete each phase, both on the plans and in an updated narrative letter.** The time line is still being determined, but additional information about what is included in each phase is now provided.
2. **It is unclear whether the proposed at-grade access walkway in front of the building will be constructed in Phase 1 or 2 as it is shown in both phases on Sheets 1 and 5. Please clarify exactly what items will be constructed in each phase.** The walkway is now only shown for phase 2.
3. **Please provide a floor plan, cross section, and elevations of the proposed building addition. Please label the uses in each room and include a room schedule with square footages. It appears that the north wing of the building will be increased from 900+ sf to 1500+ sf, after the proposed Phase 2 construction.** Details are not yet available.
4. **Page 5 of the plans notes that in Phase 2, the existing canopy will be removed, and a pervious paver patio is proposed. Please clarify the layout, location, and specification of the proposed pavers and the Village Engineer shall determine if this surface will adjust the impervious surface calculations. See figure on next page.** Additional information is now provided. The canopy will be removed in Phase 1 and the patio is proposed for phase 2.
5. **On page 1 of the plans, the applicant provides a table of dimensional requirements for the project for Phase 1. It appears that even though a variance was granted by the ZBA in 2019 to allow up to a 0.56 maximum impervious surface ration, the existing condition at the site is an impervious surface ratio of 0.34. Apparently, the current proposal with the parking lot, walkways, and expanded building footprint will bring the site up to the 0.56 maximum impervious surface limit established by the 2019 variance, and no additional variances would be needed for this application. However, this is not well explained. Please provide a copy of the July 17, 2019 ZBA variance resolution for the Planning Board's records, and clarify in the updated narrative why and how no new variances will be needed. See comment 7 below. The PB secretary was researching to look for a copy of the resolution. We have not received it yet.**

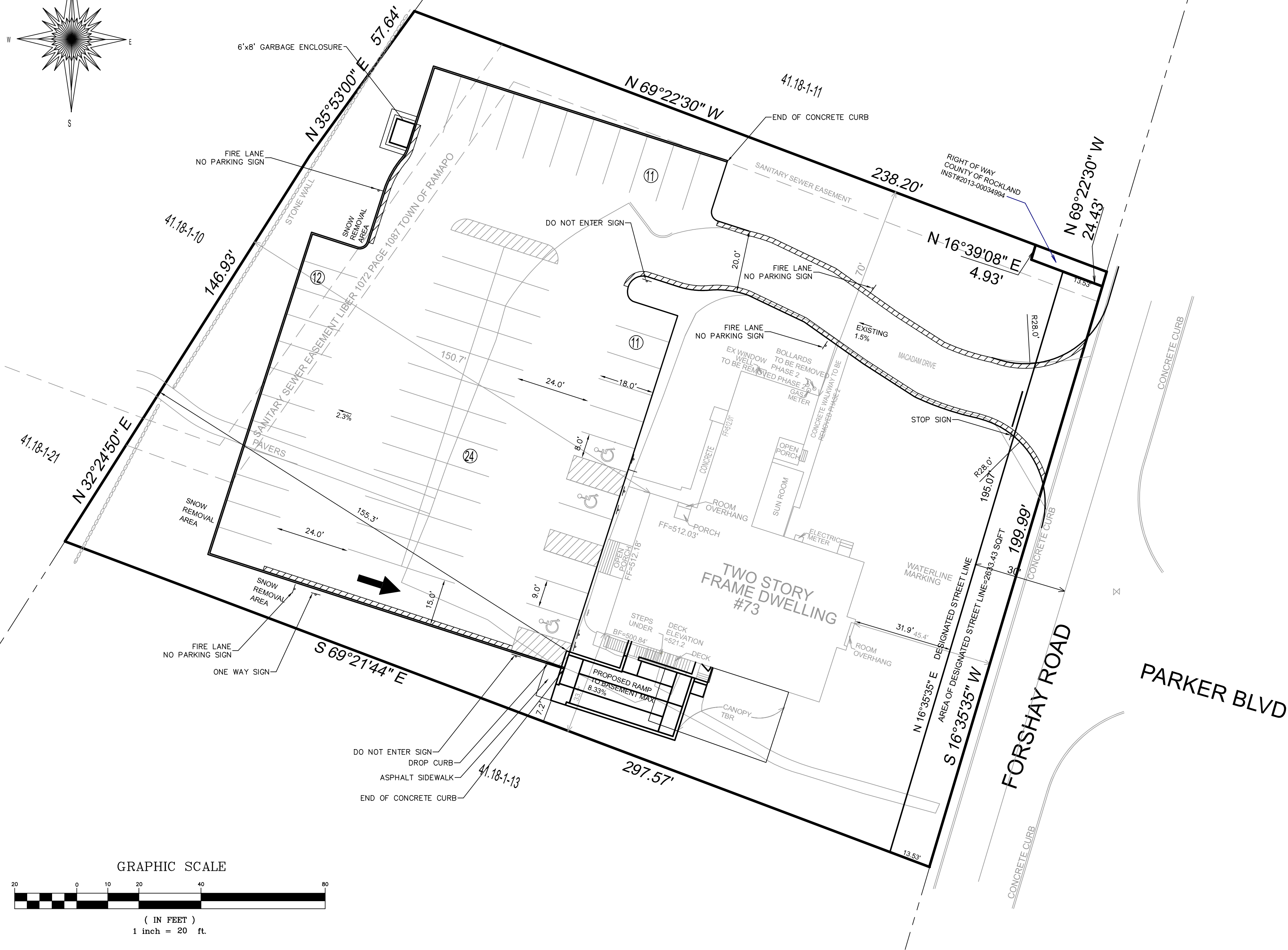
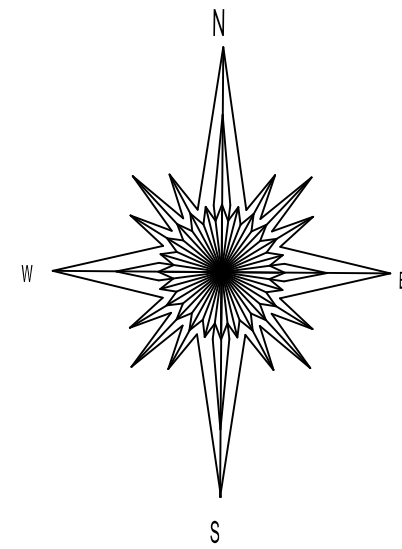
6. **Please provide a Table of Dimensional Requirements Table for both sheets 1 and 5. Each table should have different values, corresponding to the construction proposed in each phase. For instance, each table for each phase should show different values for the maximum impervious surface ratio, to reflect changes between phase 1 and phase 2 of the project, when the building footprint will be increased. Separate bulk tables are now provided for phase 1 and phase 2.**
7. **The south AD ramp proposed for Phase 1 is within the required side yard, and it is only 7.2 feet from the property line at its closest point. It is a large ramp with three landings, with an overall footprint of 42' by 22'. It does not appear that this structure would be exempted from side yard setback requirements in 230-14.J or O. See also 230-14.G. The required side yard in R-35 is 25 feet. The Planning Board attorney and building inspector should opine n whether a new variance will be required. The ramp is going down to the basement so it is a below grade structure. It is not raised. We defer to the building inspector's determination.**
8. **No landscaping is proposed along the south property line. Please add additional landscaping.** Additional landscaping has been added.
9. **We recommend that the Planning Board classify this action as a type II action, requiring no SEQRA review, since it involves the expansion of a non-residential facility involving less than 4,000 square feet.** Comment noted.
10. **This application is located on Forshay Road, County Route 81, and GML review will be required. A GML review letter was generated for a previous project proposed for this site on August 22, 2022, but would not be applicable to this new application.** Comment noted.

Please contact me at (845) 547-2241 or by email at rbarese@civil-tec.com with any questions or concerns you may have.

Sincerely,



Rachel Barese, P.E.
President



VICINITY MAP
1" = 300'

GENERAL NOTES

- RECORD OWNER AND APPLICANT:
CONG AHAVAS YITZCHOK
73 FORSHAY RD
MONSEY, NY 10952
- PROPERTY ADDRESS: 73 FORSHAY ROAD
MONSEY, NY 10952
- TAX PARCEL: 41.18-1-12
- OVERALL AREA: 53,557 SF
- BASEMAP BASED ON SURVEY COMPLETED BY ANTHONY CELENTANO, P.L.S. ON OCTOBER 18, 2018.
- ALL SOIL AND EROSION CONTROL MEASURES MUST BE IN PLACE FOR THE SITE PRIOR TO ANY CONSTRUCTION OR GRADING. MEASURES MUST MEET THE LATEST EDITION (NOVEMBER 2016) OF THE NEW YORK STATE GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL.
- ZONE: R-35
- FIRE DISTRICT: MONSEY
- SCHOOL DISTRICT: EAST RAMAPO
- WATER DISTRICT: RAMAPO CONSOLIDATED
- WATER SUPPLY BY: VEOLIA WATER
- SEWER DISTRICT: BENEFITTED AREA NO. 5
- ALL UTILITIES UNDERGROUND, ELECTRIC SERVICE SHALL BE IN CONDUIT OF NOT LESS THAN 2 INCH DIAMETER.
- ALL THE ZONING BOARD OF APPEALS ON JUNE 22, 1989 AS CASE NO XBA 289 IN THE APPLICATION OF CONGREGATION AHAVAS ISRAEL GRANTED A VARIANCE FOR LESS THAN THE REQUIRED LOT AREA AND LESS THAN THE REQUIRED PARKING. VARIANCES WERE AGAIN GRANTED ON OCTOBER 31, 1996.
- THE ZONING BOARD OF APPEALS ON NOVEMBER 19, 2003 IN THE APPLICATION OF CONGREGATION AHAVAS YITZCHOK OF WESLEY HILLS GRANTED VARIANCES FOR A FRONT YARD OF 34', A SIDE YARD OF 25', A REAR YARD OF 72', A MAXIMUM IMPERVIOUS SURFACE OF 0.48, AND PARKING OF 18-23 SPACES.
- ALL PLANTINGS AS SHOWN ON THE PLANTING PLAN SHALL BE CONTINUALLY MAINTAINED. PLANTS THAT DO NOT SURVIVE SHALL BE REPLACED IN LIKE KIND WITHIN A REASONABLE TIME.
- ALL SITE LIGHTING WILL BE TURNED OFF WHEN SYNAGOGUE ACTIVITIES ARE NOT TAKING PLACE ON THE SITE.
- A ROCKLAND COUNTY HIGHWAY PERMIT WILL BE REQUIRED PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.
- NO PROPOSED STRUCTURES MAY BE PLACED ON THE TOWN OF RAMAPO'S SEWER EASEMENT.
- THE UNDERSIGNED OWNER AND/OR APPLICANT, AS A CONDITION OF APPROVAL OF THIS SITE PLAN, HEREBY AGREES TO COMPLETE THE WITHIN SITE DEVELOPMENT PLAN AS DRAWN AND ALL IMPROVEMENTS SHOWN THEREON. AS A CONDITION OF THE ISSUANCE OF A BUILDING PERMIT, THE APPLICANT/OWNER IS AWARE THAT NO CHANGES IN THIS PLAN MAY BE MADE UNLESS APPROVED BY THE PLANNING BOARD.

OWNER _____ DATE _____

TABLE OF DIMENSIONAL REQUIREMENTS: R-35													
Use Group	Min. Lot Area	Min. Lot Frontage	Min. Lot Width	Min. Front Yard	Min. Side Yard	Min. Total Side Yard	Min. Rear Yard	Max. Impervious Surface Ratio	Max. Front Yard Impervious Surface Ratio	Maximum Building Coverage	Max. Building Height		Maximum Exposed Building Height
											Stories	Feet	
Required	35,000 SF	100 FT	125 FT	50 FT	25 FT	60 FT	50 FT	0.25	0.2	0.1	2 ½	25	40
Existing per Oct 31 1996 Variances	48,634 SF	200 FT	200 FT	34 FT	35 FT (25' permitted by variance)	97 FT (50' permitted by variance)	72 FT	0.32	0.16	0.09	2	<25	<40
Variances Granted Nov 19, 2003								0.48					
Existing Measured	53,557 SF	199 FT	199 FT	45 FT	33 FT	103 FT	150 FT	0.34	0.13	0.09	2	<25	<40
Existing per Jan 2020 approved site plan	Net 52,240 SF	199 FT	199 FT	31.9 FT	33 FT	103 FT	150 FT	0.56	0.19	0.09	2	<25	<40
Variances Granted July 17, 2019				31.9 FT				0.56					
Proposed Phase 1	Net 52,240 SF	199 FT	199 FT	31.9 FT	33 FT	103 FT	150 FT	0.55	0.19	0.09	2	<25	<40

NET LOT AREA:
53,557 SF GROSS AREA - 50% * (2,633.43 SF DEDICATION) = 52,240 SF NET LOT AREA

EXISTING MAX. IMPERVIOUS SURFACE RATIO:
17,870 SF IMPERVIOUS/52,240 SF LOT AREA = 0.342
DEC 2003 PLAN LISTS MAX IMPERVIOUS SURFACE VARIANCE FROM OCT 1996 OF 0.32, VARIANCE FROM NOV 2003 OF 0.48

PROPOSED MAX. IMPERVIOUS SURFACE RATIO PHASE 1:
28,687 SF/52,240 SF NET LOT AREA = 0.549

EXISTING MAX. FRONT YARD IMPERVIOUS SURFACE RATIO:
1,310 SF IMPERVIOUS/9,879 SF FRONT YARD AREA = 0.13

PROPOSED MAX. FRONT YARD IMPERVIOUS SURFACE RATIO PHASE 1:
1,856 SF IMPERVIOUS/9,946 SF FRONT YARD AREA = 0.19

PHASE 1 BUILDING COVERAGE CALCULATION:
4,680 SF BUILDING/52,240 SF NET LOT AREA = 0.090

PARKING REQUIRED:
NEIGHBORHOOD GATHERING REQUIRES 20 SPACES

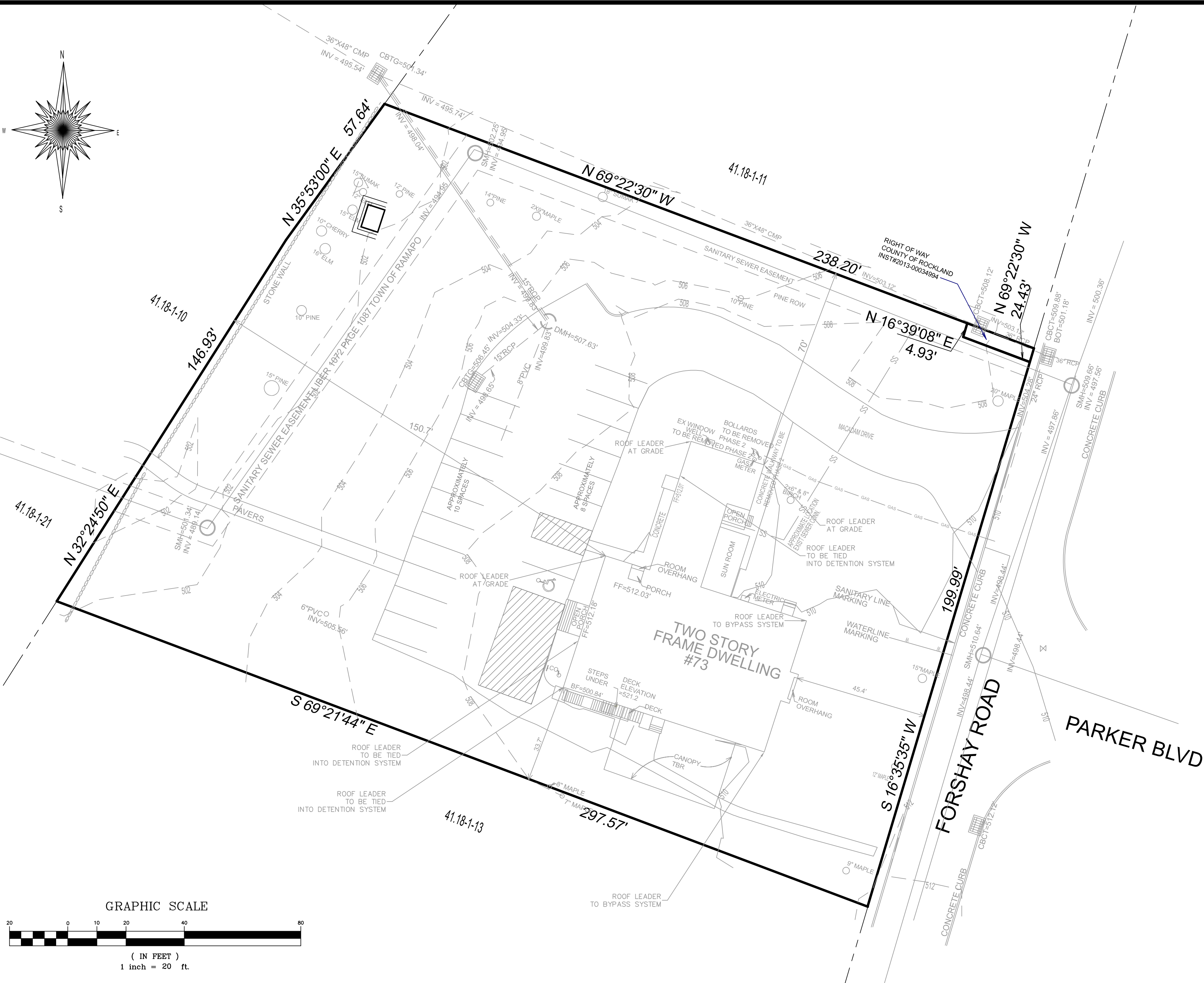
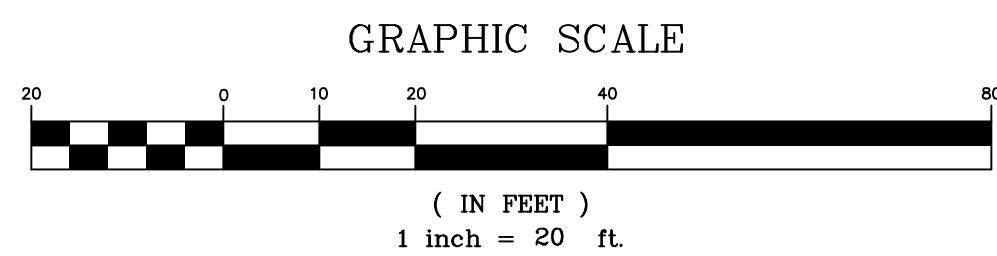
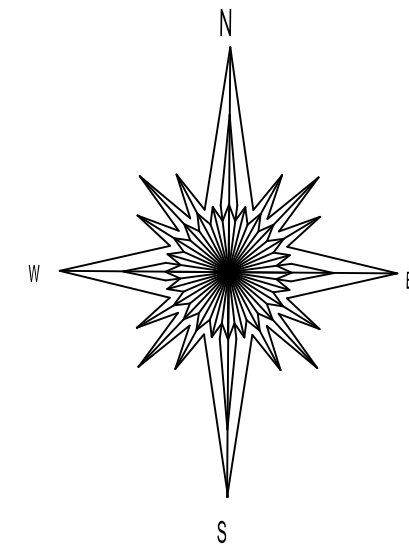
EXISTING PARKING: ESTIMATED 18 SPACED
PROPOSED PARKING: 58 SPACES, INCLUDING 3 ADA SPACES
TOTAL SPACES ADDED: 40 SPACES

MAY 6, 2024	REV 7	REV PER CDRC
SEPTEMBER 22, 2023	REV 6	REV PER CLIENT
AUGUST 23, 2023	REV 5	REV PER CLIENT
AUGUST 2, 2023	REV 4	REV PER CLIENT
JUNE 23, 2023	REV 3	REV PER PB
AUGUST 29, 2022	REV 2	REV PER PB
JUNE 15, 2022	REV 1	REV PER CDRC

DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 41.18-1-12			
AMENDED SITE PLAN PHASE 1			
FOR			
CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC		DATE:	3/9/22
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845 547 2241 - F 845 547 2243		DRAWN BY:	RB/LT
111 Main Street Chester, NY 10918 845 610 3621		CHKD BY:	RB/LT
		JOB No.	3688
		SCALE:	1"=20'
		DWG No.	10

Rachel B. Barese, P.E.
N.Y. Lic. No. 90143



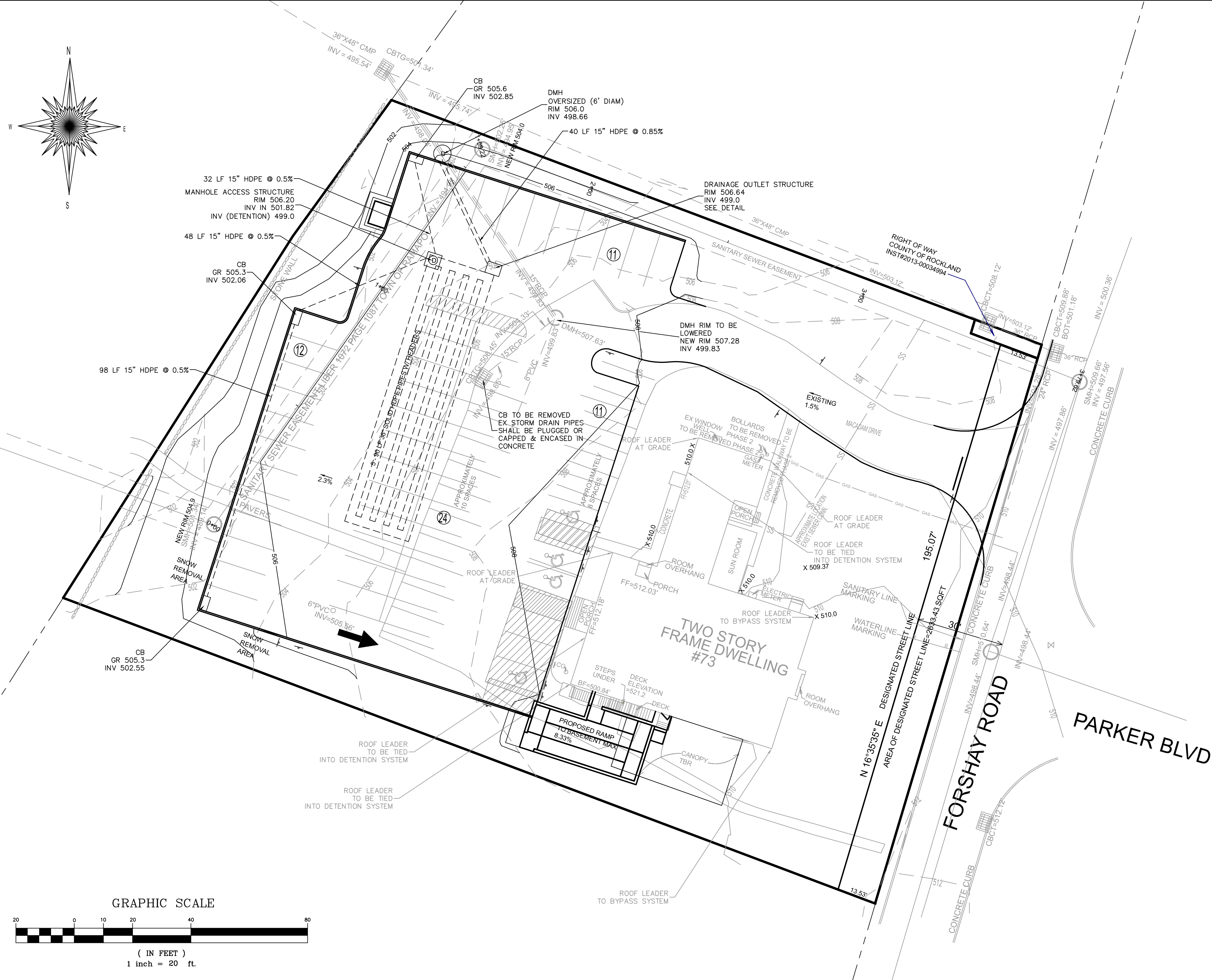
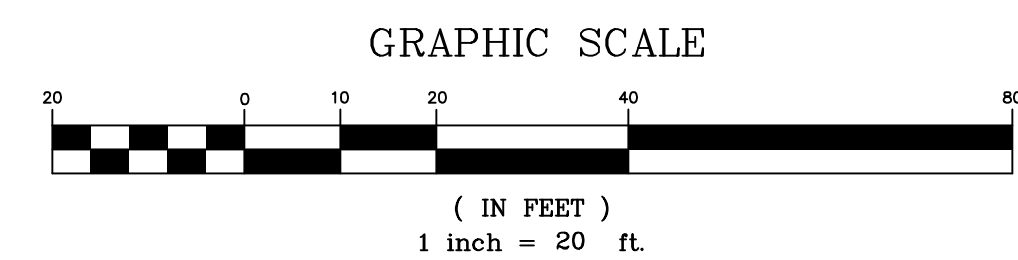
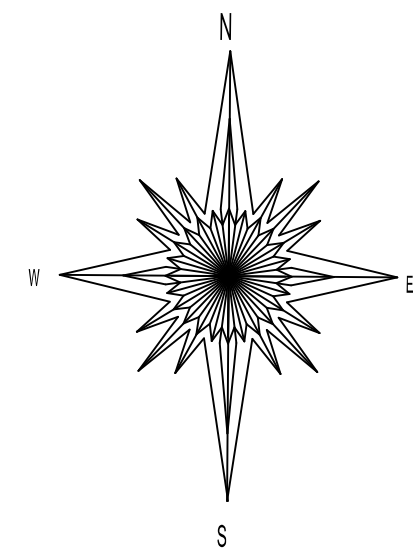


NOTE:
EXISTING CONDITIONS PLAN BASED ON SURVEY COMPLETED BY ANTHONY CELENTANO, P.L.S. ON OCTOBER 18, 2018.
REFERENCE DEED BOOK 411 PAGE 1011.
PARKING SPACES ARE NOT STRIPED. LINES ARE TO PROVIDE AN APPROXIMATE NUMBER OF SPACES FOR THE EXISTING CONDITION.

MAY 6, 2024	REV 7	REV PER CDRC
SEPTEMBER 22, 2023	REV 6	REV PER CLIENT
AUGUST 23, 2023	REV 5	REV PER CLIENT
AUGUST 2, 2023	REV 4	REV PER CLIENT
JUNE 23, 2023	REV 3	REV PER PB
AUGUST 29, 2022	REV 2	REV PER PB
JUNE 15, 2022	REV 1	REV PER CDRC

DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 41.18-1-12			
EXISTING CONDITIONS			
FOR			
CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC			DATE: 3/9/22
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DRAWN BY: RB/LT
111 Main Street Chester, NY 10918 845.610.3621			CHKD BY: RB/LT
			JOB No. 3688
			SCALE: 1"=20'
			DWG No. 2 OF 2

Rachel B. Barese, P.E.
N.Y. Lic. No. 90143



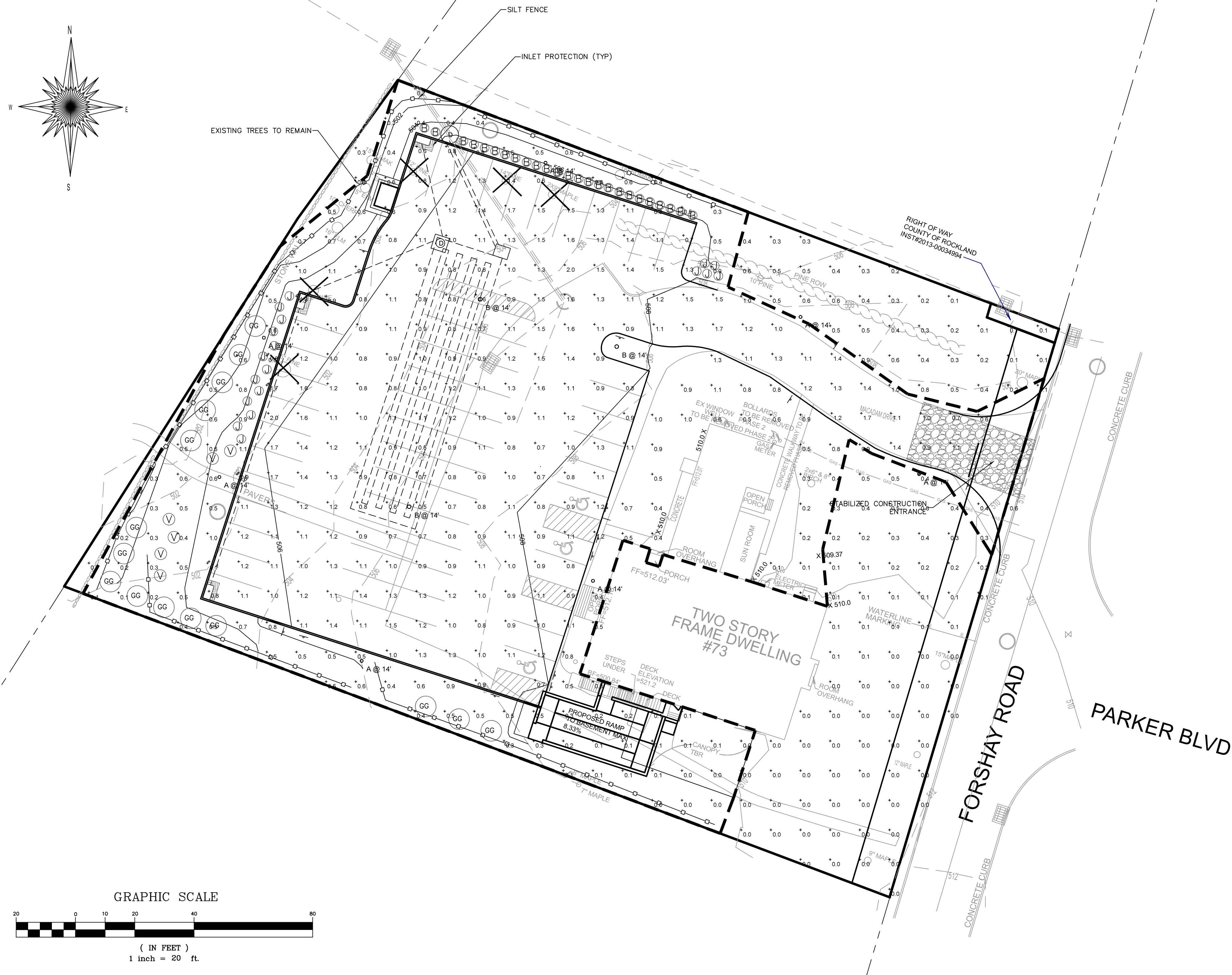
NOTE: EXISTING SEWER AND WATER CONNECTIONS TO REMAIN IN USE

MAY 6, 2024	REV 7	REV PER CDRC
SEPTEMBER 22, 2023	REV 6	REV PER CLIENT
AUGUST 23, 2023	REV 5	REV PER CLIENT
AUGUST 2, 2023	REV 4	REV PER CLIENT
JUNE 23, 2023	REV 3	REV PER PB
AUGUST 29, 2022	REV 2	REV PER PB
JUNE 15, 2022	REV 1	REV PER CDRC

DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 41.18-1-12			
GRADING, DRAINAGE & UTILITIES PLAN PHASE 1			
FOR			
CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC			DATE: 3/9/22
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DRAWN BY: RB/LT
111 Main Street Chester, NY 10918 845.610.3621			CHKD BY: RB/LT
			JOB No. 3688
			SCALE: 1"=20'
			DWG No. 3 OF 3

Rachel B. Barese, P.E.
N.Y. Lic. No. 90143





NOTES:

- ALL EXISTING SOIL FROM PLANTING PITS SHALL BE REMOVED AND PITS SHALL BE BACKFILLED WITH A MIXTURE OF ONE PART PEAR-HUMUS, ONE PART MANURE TO FOUR PARTS TOPSOIL.
- ALL PLANTS AND WORKMANSHIP SHALL BE GUARANTEED FOR ONE YEAR AFTER FINAL ACCEPTANCE AND COMPLETION OF WORK.
- ALL PLANT MATERIAL SHALL BE NURSERY GROWN AND CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN'S "AMERICAN STANDARD FOR NURSERY STOCK," CURRENT EDITION.
- ALL PLANT BEDS SHALL CONTAIN 3" MIN SHREDDED BARK MULCH ON LANDSCAPE FILTER FABRIC. HOLES FOR PLANTS SHALL BE 2X DIAM. OF ROOTBALL AND MIN 6" DEEPER THAN THE DEPTH OF THE BALL.
- THE TOWN SHALL BE NOTIFIED 48 HOURS PRIOR TO PLANTING FOR AN INSPECTION OF PLANT MATERIALS.
- ALL DISTURBED AREAS OUTSIDE MULCH BEDS AND SAUCERS SHALL BE SEEDED, UNLESS OTHERWISE NOTED.
- ANY EXISTING TREES SHOWN TO REMAIN WHICH ARE REMOVED DURING CONSTRUCTION SHALL BE REPLACED WITH A 3" CALIPER TREE AS DIRECTED BY THE TOWN.
- LAWN AREA PREPARATION PER 1,000 SF:
90 LBS HAY MULCH
15 LBS 5-10-10 FERTILIZER, 50% SLOW RELEASE
70 LBS GRANULATED LIMESTONE

SEED MIXTURE: 30% TALL FESCUE
30% RED FESCUE
20% BLUE GRASS
20% RYEGRASS
- ALL LIGHTING SHOWN ON THIS PLAN SHALL BE DIRECTED AND/OR SHIELDED SO AS TO PRECLUDE OBJECTIONABLE GLARE FROM BEING OBSERVABLE FROM ADJOINING STREETS AND PROPERTIES.
- ALL VEGETATION SHOWN ON THIS PLAN SHALL BE MAINTAINED IN A HEALTHY AND VIGOROUS GROWING CONDITION THROUGHOUT THE DURATION OF THE PROPOSED USE OF THE SITE. ALL VEGETATION NOT SO MAINTAINED SHALL BE REPLACED WITH NEW COMPARABLE VEGETATION AT THE BEGINNING OF THE NEXT GROWING SEASON.

EROSION CONTROL & SEDIMENT NOTES

- A TEMPORARY SEEDING SHALL BE APPLIED TO DISTURBED AREAS THAT ARE LEFT BARE FOR 15 DAYS UNLESS CONSTRUCTION WILL BEGIN WITHIN 30 DAYS. IF CONSTRUCTION IS SUSPENDED OR COMPLETED, AREAS SHALL BE SEEDED DOWN OR MULCHED IMMEDIATELY.
- 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 CLEANING AND REPAIR WHENEVER NECESSARY.
- DURING CONSTRUCTION, ALL STRUCTURES SHALL BE INSPECTED WEEKLY AND AFTER EVERY RAIN.
- AFTER CONSTRUCTION, INSPECTION SHALL BE MADE AT LEAST SEMI-ANNUALLY AND AFTER EVERY RAIN.
- THE STORM DRAIN INLET STRUCTURES SHALL BE PROTECTED WITH A FILTER BERM UNTIL THE AREA IS STABILIZED WITH VEGETATION OR THE BASE COURSE OF PAVEMENT IS INSTALLED.
- CONSIDER LIMITING LAND DISTURBANCE TO ONLY THAT AREA NECESSARY FOR DEVELOPMENT.
- THE MACADAM SURFACE SHALL BE SWEEPED "BROOM CLEAN" AT THE END OF EACH DAY DURING THE CONSTRUCTION PHASE OF THE SIDEWALKS AND CURB.
- A STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT ALL POINTS WHERE A DISTURBED AREA MEETS AN IMPERVIOUS SURFACE, THIS INCLUDES ALL NEW DRIVEWAY CONNECTIONS ALONG THE NEW ROADWAY.
- CONSTRUCTION EQUIPMENT SHALL BE LIMITED TO THOSE AREAS WITHIN THE SILT FENCE SEDIMENT PROTECTION. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, THE AREA COMPACTED BY MACHINERY SHALL BE DICED OR OTHERWISE LOOSENEED TO A DEPTH OF 12 INCHES PRIOR TO FINAL GRADING WITH TOPSOIL AND SEEDING.

PLANT LIST			
KEY	QUANTITY	COMMON NAME/BOTANICAL NAME	SIZE COMMENT
GG	15	GREEN GIANT ARBORVITAE/THUJA PLICATA 'GREEN GIANT'	4'-6' HT
B	25	WINTER GEM BOXWOOD/CORNUS KOUSA	24" HT 3 GAL
V	6	KOREAN SPICE VIBURNUM/VIBURNUM CARLES	36"-42" HT B&B
J	18	COMPACT PRITZER JUNIPER/JUNIPERUS CHINENSIS SARGENTI	5 GAL

Schedule

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
○	A	7	Holophane	GVD2 P30 30K AS 3 R AO WITH 12FT CHA POLE	Granville II LED, LED Package 30, 3000K, 120-277V, Type 3 distribution with Ribs & bands	LED COB	1	GVD2_P30_3 OK_AS_3_R1 es	6347	0.85	60
○	B	3	Holophane	GPD2 P30 30K AS 5 R AO WITH 12FT CHA POLE	Granville Premier II LED, LED Package 30, 60W, 3000K, 120-277V, Type 5 distribution, distribution with Ribs & bands	LED COB	1	GPD2_P30_3 OK_AS_5_N1 es	7016	0.85	60

Statistics

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Parking	+	1.1 ft	2.0 ft	0.5 ft	4.0 ft	2.2 ft

MAY 6, 2024	REV 7	REV PER CDCR
SEPTEMBER 22, 2023	REV 6	REV PER CLIENT
AUGUST 23, 2023	REV 5	REV PER CLIENT
AUGUST 2, 2023	REV 4	REV PER CLIENT
JUNE 23, 2023	REV 3	REV PER PB
AUGUST 29, 2022	REV 2	REV PER PB
JUNE 15, 2022	REV 1	REV PER CDCR

DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 41.18-1-12			
LANDSCAPING, LIGHTING, & EROSION CONTROL PLAN PHASE 1			
FOR			
CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC			DATE: 3/9/22
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DRAWN BY: RB/LT
111 Main Street Chester, NY 10918 845.610.3621			CHKD BY: RB/LT
JOB No. 3688			SCALE: 1"=20'
DWG No. 40			135

Rachel B. Barese, P.E.
N.Y. Lic. No. 90143



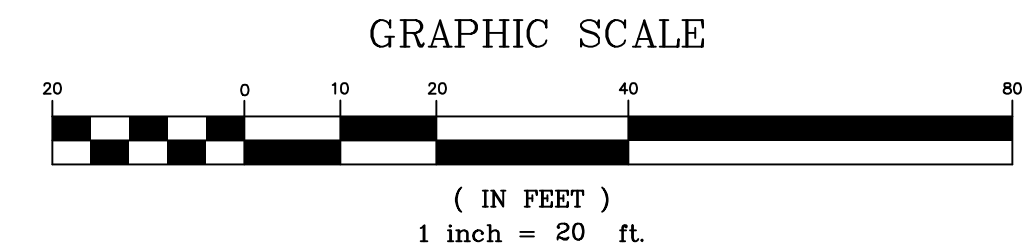
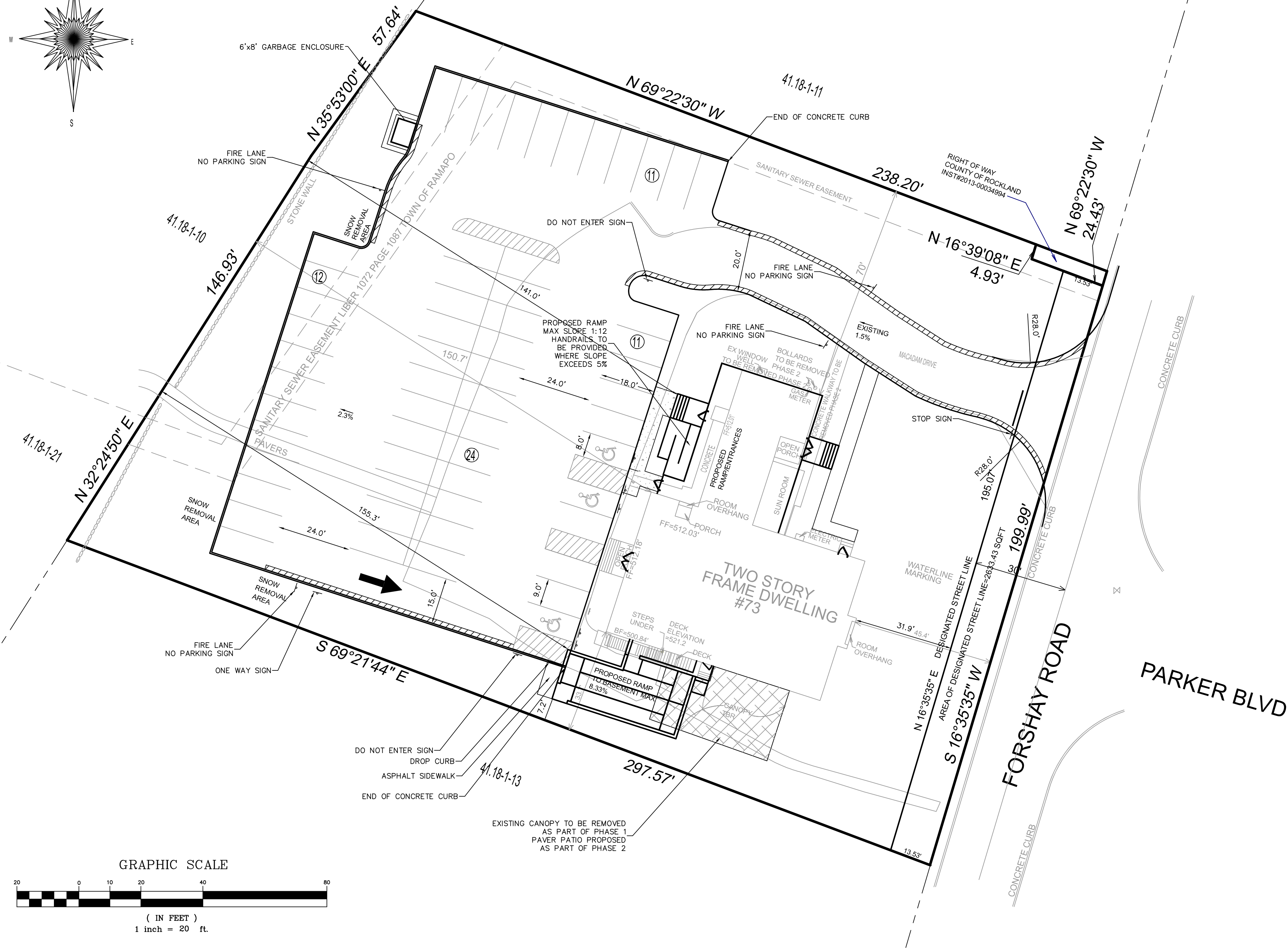
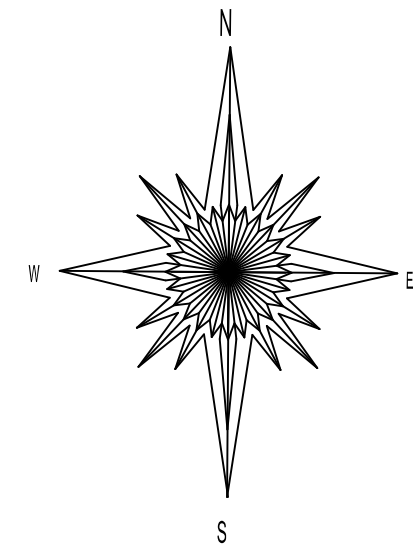


TABLE OF DIMENSIONAL REQUIREMENTS: R-35													
Use Group	Min. Lot Area	Min. Lot Frontage	Min. Lot Width	Min. Front Yard	Min. Side Yard	Min. Total Side Yard	Min. Rear Yard	Max. Impervious Surface Ratio	Max. Front Yard Impervious Surface Ratio	Maximum Building Coverage	Max. Building Height		Maximum Exposed Building Height
											Stories	Feet	
Required	35,000 SF	100 FT	125 FT	50 FT	25 FT	60 FT	50 FT	0.25	0.2	0.1	2½	25	40
Existing per Oct 31 1996	48,634 SF	200 FT	200 FT	34 FT	35 FT (25' permitted by variance)	97 FT (50' permitted by variance)	72 FT	0.32	0.16	0.09	2	<25	<40
Variances Granted Nov 19, 2003								0.48					
Existing Measured	53,557 SF	199 FT	199 FT	45 FT	33 FT	103 FT	150 FT	0.34	0.13	0.09	2	<25	<40
Existing per Jan 2020 approved site plan	Net 52,240 SF	199 FT	199 FT	31.9 FT	33 FT	103 FT	150 FT	0.56	0.19	0.09	2	<25	<40
Variances Granted July 17, 2019				31.9 FT				0.56					
Proposed Phase 2	Net 52,240 SF	199 FT	199 FT	31.9 FT	33 FT	103 FT	141 FT	0.575	0.19	0.097	2	<25	<40

NET LOT AREA:
53,557 SF GROSS AREA - 50% * (2,633.43 SF DEDICATION) = 52,240 SF NET LOT AREA

EXISTING MAX. IMPERVIOUS SURFACE RATIO:
17,870 SF IMPERVIOUS/52,240 SF LOT AREA = 0.342
DEC 2003 PLAN LISTS MAX IMPERVIOUS SURFACE VARIANCE FROM OCT 1996 OF 0.32, VARIANCE FROM NOV 2003 OF 0.48

PROPOSED MAX. IMPERVIOUS SURFACE RATIO PHASE 2:
30,020 SF/52,240 SF NET LOT AREA = 0.575

EXISTING MAX. FRONT YARD IMPERVIOUS SURFACE RATIO:
1,310 SF IMPERVIOUS/9,879 SF FRONT YARD AREA = 0.13

PROPOSED MAX. FRONT YARD IMPERVIOUS SURFACE RATIO:
1,856 SF IMPERVIOUS/9,946 SF FRONT YARD AREA = 0.19

BUILDING COVERAGE CALCULATION:
5,093 SF BUILDING/52,240 SF NET LOT AREA = 0.097

PARKING REQUIRED:
NEIGHBORHOOD GATHERING REQUIRES 20 SPACES

EXISTING PARKING: ESTIMATED 18 SPACES
PROPOSED PARKING: 58 SPACES, INCLUDING 3 ADA SPACES
TOTAL SPACES ADDED: 40 SPACES

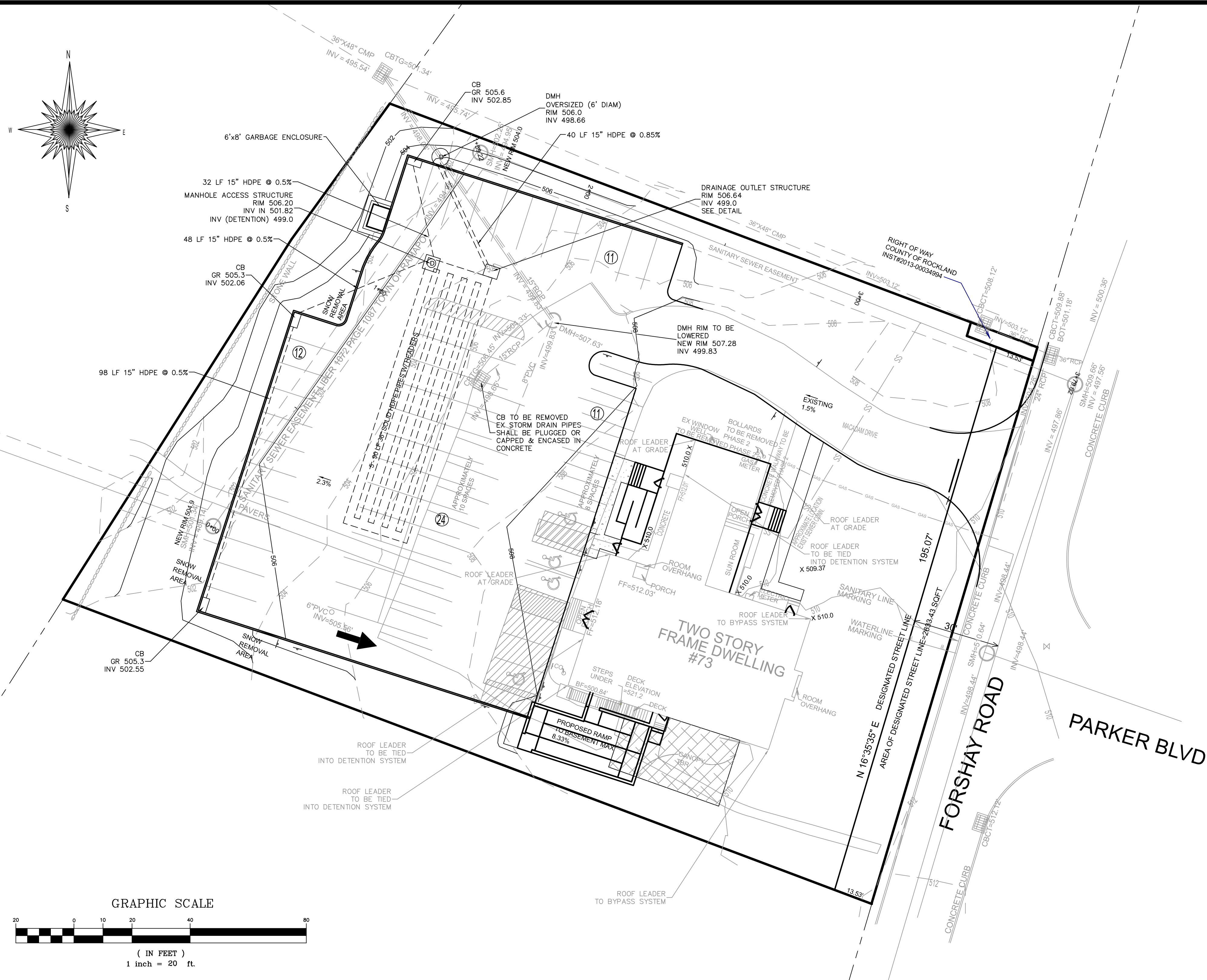
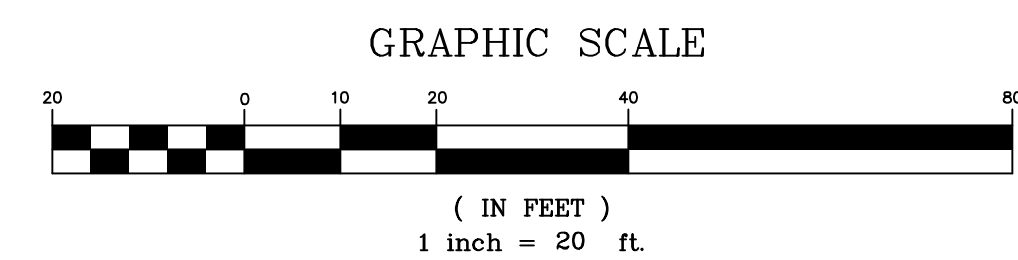
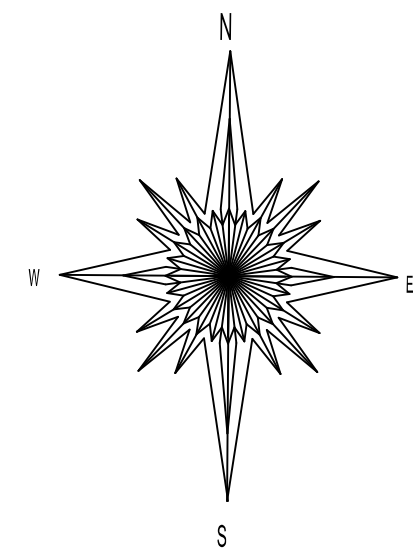
MAY 6, 2024
SEPTEMBER 22, 2023
AUGUST 23, 2023

REV 3
REV 2
REV 1

REV PER CDRC
REV PER CLIENT
REV PER CLIENT

DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 41.18-1-12			
AMENDED SITE PLAN PHASE 2			
FOR			
CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC			DATE: 8/2/23
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DRAWN BY: RB/LT
111 Main Street Chester, NY 10918 845.610.3621			CHKD BY: RB/LT
JOB No. 3688			SCALE: 1"=20'
DWG No. 50			136

Rachel B. Barese, P.E.
N.Y. Lic. No. 90143



NOTE: EXISTING SEWER AND WATER CONNECTIONS TO REMAIN IN USE

NEW ROOF LEADERS FOR THE ADDITION SHALL BE DIRECTED TO THE UNDERGROUND DETENTION SYSTEM.

MAY 6, 2024
SEPTEMBER 22, 2023
AUGUST 23, 2023

REV 3
REV 2
REV 1

REV PER CDRC
REV PER CLIENT
REV PER CLIENT

DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 41.18-1-12			
GRADING, DRAINAGE & UTILITIES PLAN PHASE 2			
FOR			
CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			

CIVIL TEC Engineering & Surveying PC		DATE:	8/2/23
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243		DRAWN BY:	RB/LT
111 Main Street Chester, NY 10918 845.610.3621		CHKD BY:	RB/LT
		JOB No.	3688
		SCALE:	1"=20'
		DWG No.	60

Rachel B. Barese, P.E.
N.Y. Lic. No. 90143

3. ALL EXISTING SOIL FROM PLANTING PITS SHALL BE REMOVED AND PITS SHALL BE BACKFILLED WITH A MIXTURE OF ONE PART PEAR-HUMUS, ONE PART MANURE TO FOUR PARTS TOPSOIL.
2. ALL PLANTS AND WORKMANSHIP SHALL BE GUARANTEED FOR ONE YEAR AFTER FINAL ACCEPTANCE AND COMPLETION OF WORK.
3. ALL PLANT MATERIAL SHALL BE NURSERY GROWN AND CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN'S "AMERICAN STANDARD FOR NURSERY STOCK," CURRENT EDITION.
4. ALL PLANT BEDS SHALL CONTAIN 3" MIN SHREDDED BARK MULCH ON LANDSCAPE FILTER FABRIC. HOLES FOR PLANTS SHALL BE 2X DIAM. OF ROOTBALL AND MIN 6" DEEPER THAN THE DEPTH OF THE BALL.
5. THE TOWN SHALL BE NOTIFIED 48 HOURS PRIOR TO PLANTING FOR AN INSPECTION OF PLANT MATERIALS.
6. ALL DISTURBED AREAS OUTSIDE MULCH BEDS AND SAUCERS SHALL BE SEEDED, UNLESS OTHERWISE NOTED.
7. ANY EXISTING TREES SHOWN TO REMAIN WHICH ARE REMOVED DURING CONSTRUCTION SHALL BE REPLACED WITH A 3" CALIPER TREE AS DIRECTED BY THE TOWN.
8. LAWN AREA PREPARATION PER 1,000 SF:
90 LBS HAY MULCH
15 LBS 5-10-10 FERTILIZER, 50% SLOW RELEASE
70 LBS GRANULATED LESTMONE

SEED MIXTURE: 30% TALL FESCUE
 30% RED FESCUE
 20% BLUE GRASS
 20% RYEGRASS
9. ALL LIGHTING SHOWN ON THIS PLAN SHALL BE DIRECTED AND/OR SHIELDED SO AS TO PRECLUDE OBJECTIONABLE GLARE FROM BEING OBSERVABLE FROM ADJOINING STREETS AND PROPERTIES.
10. ALL VEGETATION SHOWN ON THIS PLAN SHALL BE MAINTAINED IN A HEALTHY AND VIGOROUS GROWING CONDITION THROUGHOUT THE DURATION OF THE PROPOSED USE OF THE SITE. ALL VEGETATION NOT SO MAINTAINED SHALL BE REPLACED WITH NEW COMPARABLE VEGETATION AT THE BEGINNING OF THE NEXT GROWING SEASON.

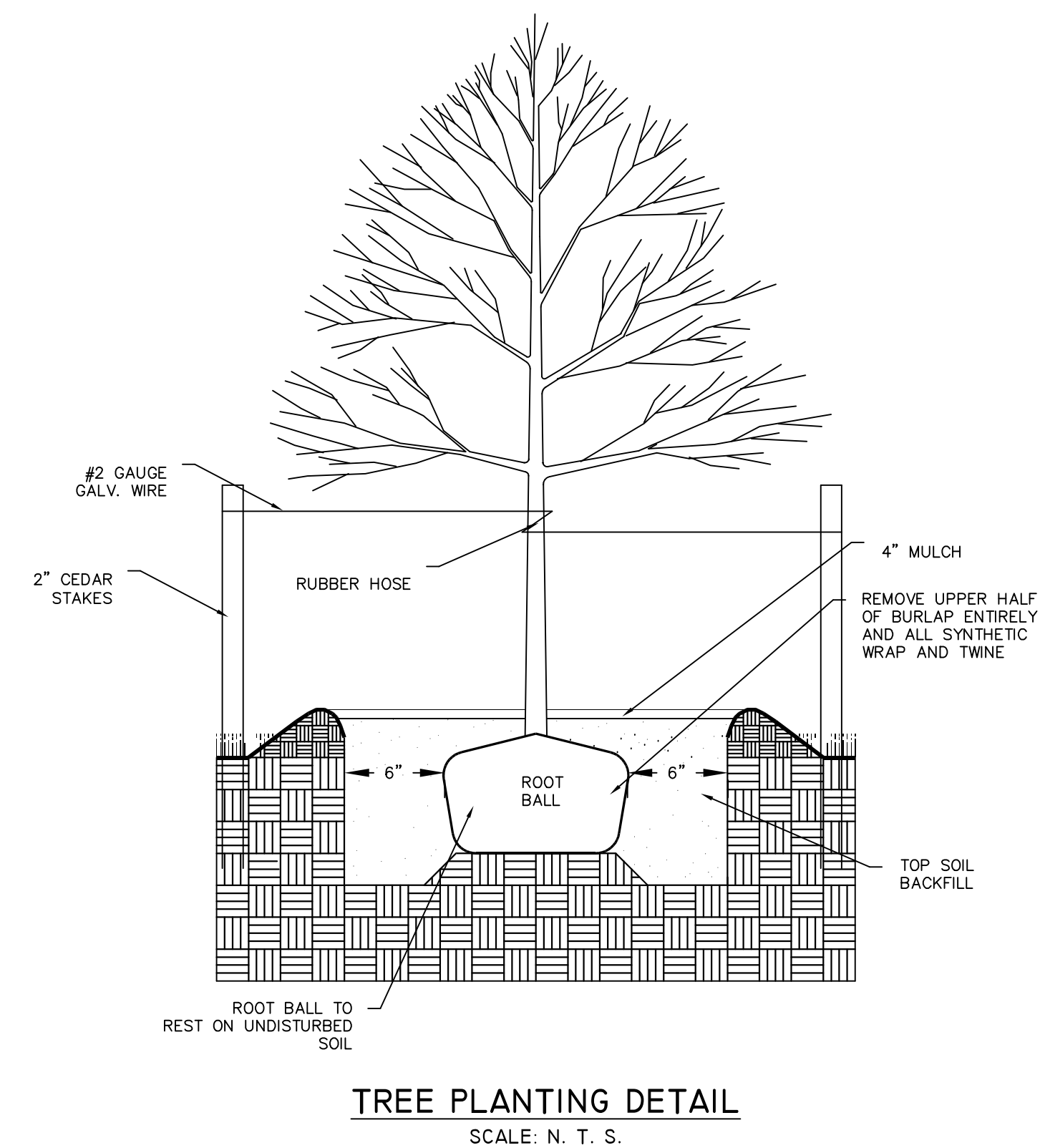
1. A TEMPORARY SEEDING SHALL BE APPLIED TO DISTURBED AREAS THAT ARE LEFT BARE FOR 15 DAYS UNLESS CONSTRUCTION WILL BEGIN WITHIN 30 DAYS. IF CONSTRUCTION IS SUSPENDED OR COMPLETED, AREAS SHALL BE SEEDDED DOWN OR MULCHED IMMEDIATELY.
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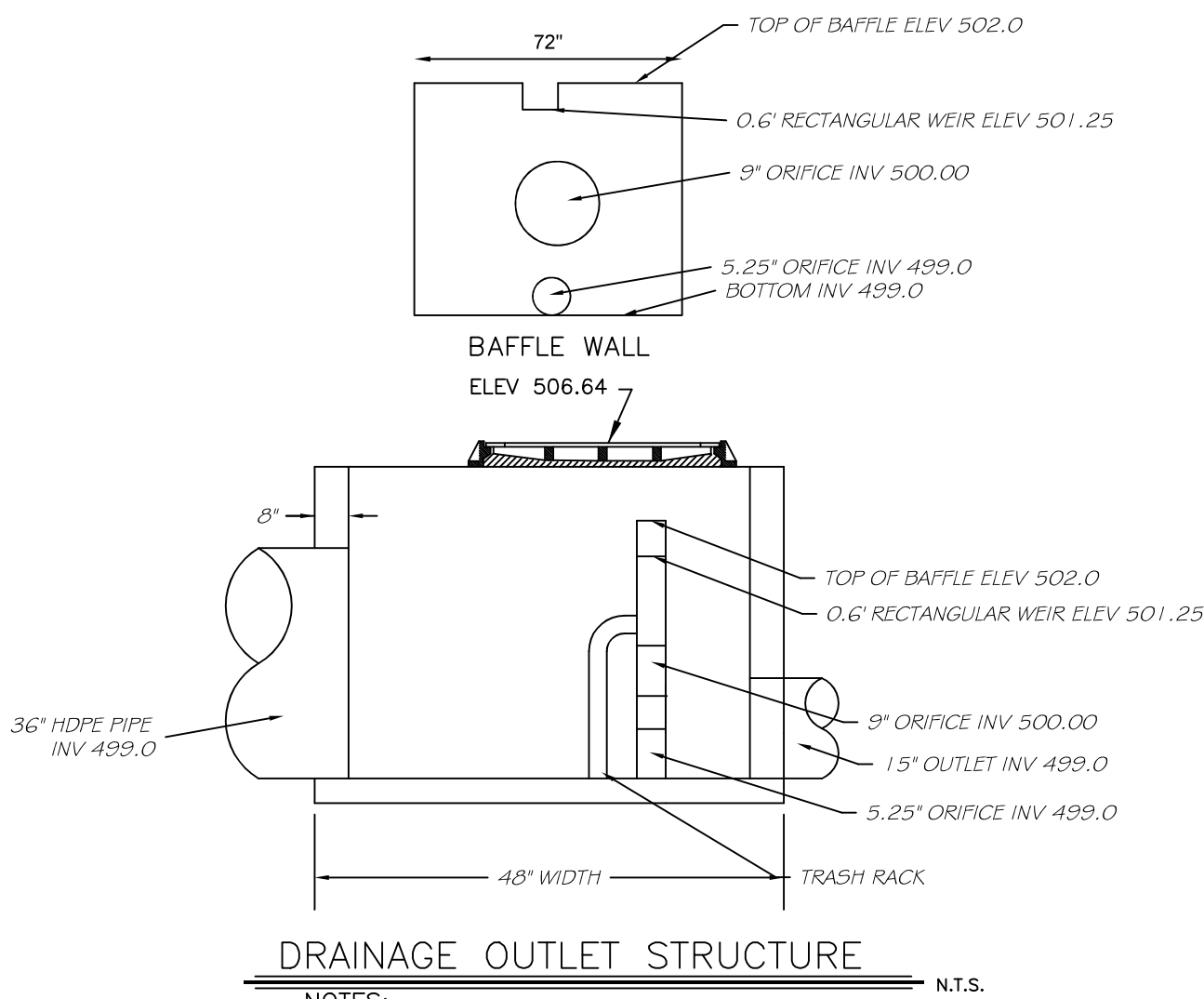
Schedule											
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	A	7	Holophane	GD2 P30 30K AS 5 R AO WITH 12FT CHA POLE	Granville II LED, LED Package 30, 3000K, 120-277V, Type 3 distribution with Ribs & bands	LED COB	1	GD2_P30_30K_AS_3_Ries	6347	0.85	60
	B	3	Holophane	GD2 P30 30K AS 5 R AO WITH 12FT CHA POLE	Granville Premier II LED, LED Package 30, 60W, 3000K, 120-277V, Type 5 distribution, distribution with Ribs & bands	LED COB	1	GD2_P30_30K_AS_5_Nies	7016	0.85	60

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Parking	+	1.1 fc	2.0 fc	0.5 fc	4.0:1	2.2:1

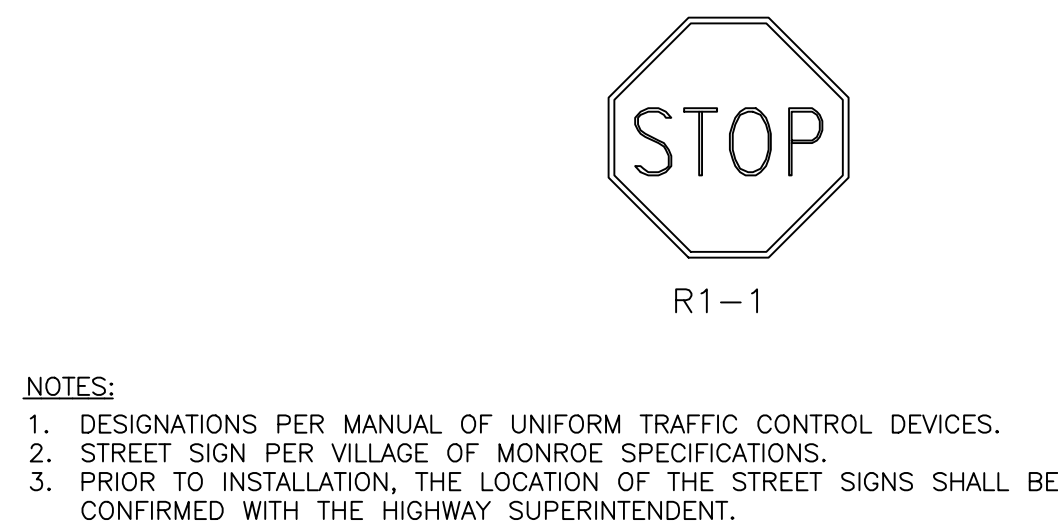
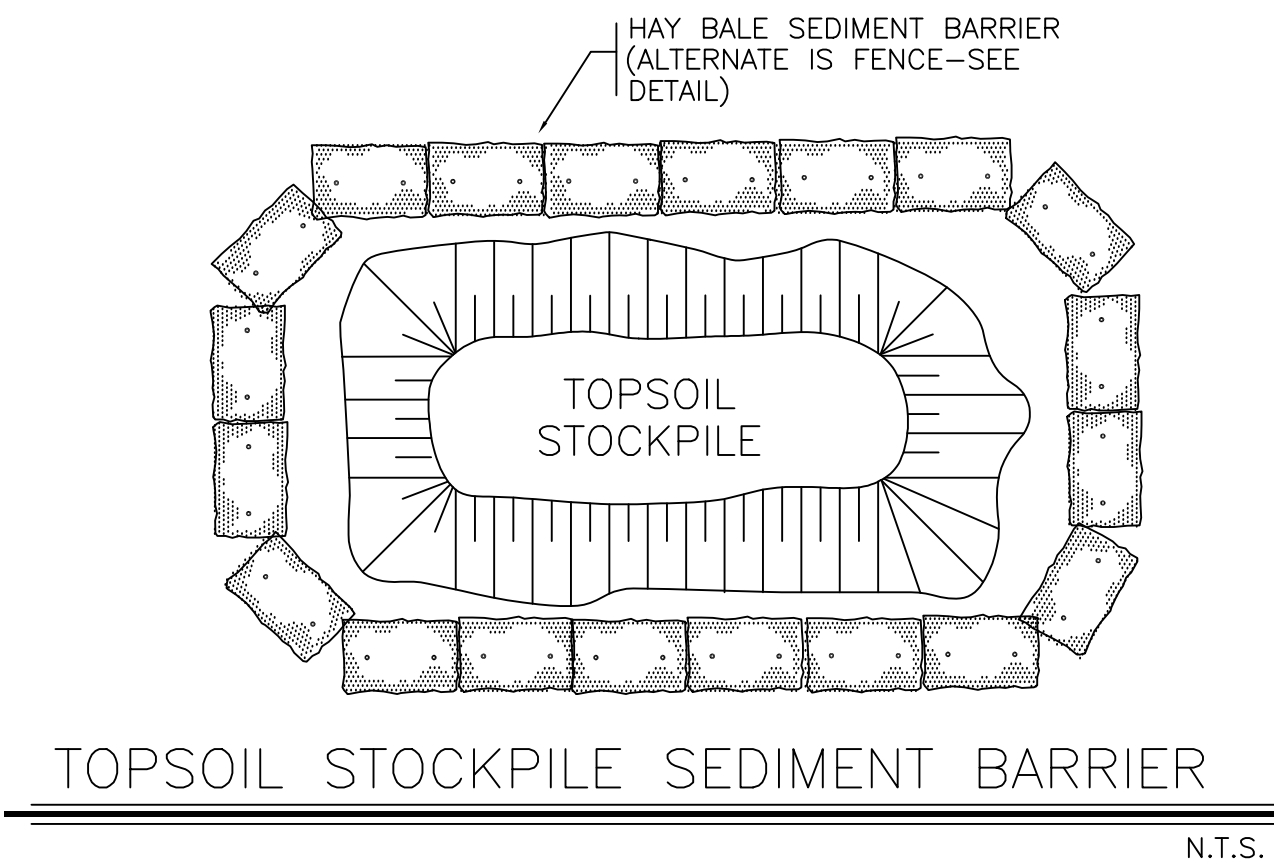
MAY 6, 2024	REV 3	REV PER ORDC
SEPTEMBER 22, 2023	REV 2	REV PER CLIENT
AUGUST 23, 2023	REV 1	REV PER CLIENT
DATE	ISSUE	DESCRIPTION
S.B.L. 41.18-1-12		
LANDSCAPING, LIGHTING, & EROSION CONTROL PLAN PHASE 2 FOR CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK		
CIVIL TEC Engineering & Surveying PC		DATE: 8/2/23
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243		111 Main Street Chester, NY 10918 845.610.3621
		DRAWN BY: RB/LT
		CHKD BY: RB/LT
		JOB No. 3688
		SCALE: 1"=20'
 Rachel B. Barese, P.E. N.Y. Lic. No. 90143		DWG No. 7 OF 138



- NOTES:
1. EXCAVATE A HOLE THAT IS 12" WIDER & 6" DEEPER THAN THE ROOTBALL.
 2. REMOVE ANY STRINGS TIED AROUND TRUNK OR STEM BUT LEAVE BURLAP IN TACT.
 3. TOPSOIL MIX FOR BACKFILL TO BE 2 PARTS TOPSOIL, 1 PART SAND & 1 PART HUMUS.
 4. BUILD DEPRESSION AROUND PLANT & FILL WITH MULCH.
 5. STAKE ALL TREES WITH 2" CEDAR STAKES.

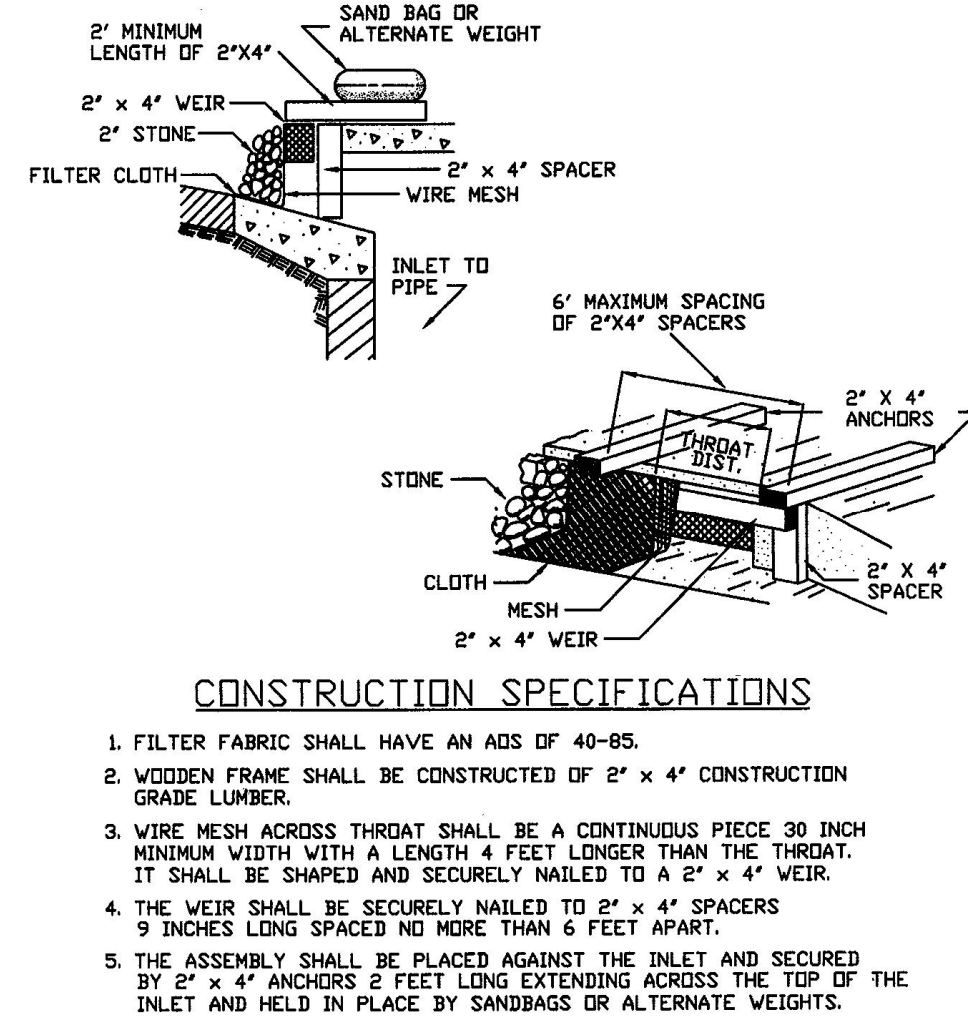


- NOTES:
1. SUITABLE FOR H-20 LOADING
 2. MATERIALS & CONSTRUCTION TO CONFORM TO LOCAL BUILDING DEPARTMENT.
 3. ALL CONCRETE TO BE 4000 P.S.I.
 4. FLAT GRATE CATCH BASIN FRAME & GRATE, CAMPBELL FOUNDRY PATTERN No. 3413 OR EQUAL AS APPROVED BY LOCAL BUILDING DEPARTMENT.
 5. PRECAST STRUCTURE 72"x48" TO BE WOODARD'S PRECAST OR APPROVED EQUAL.



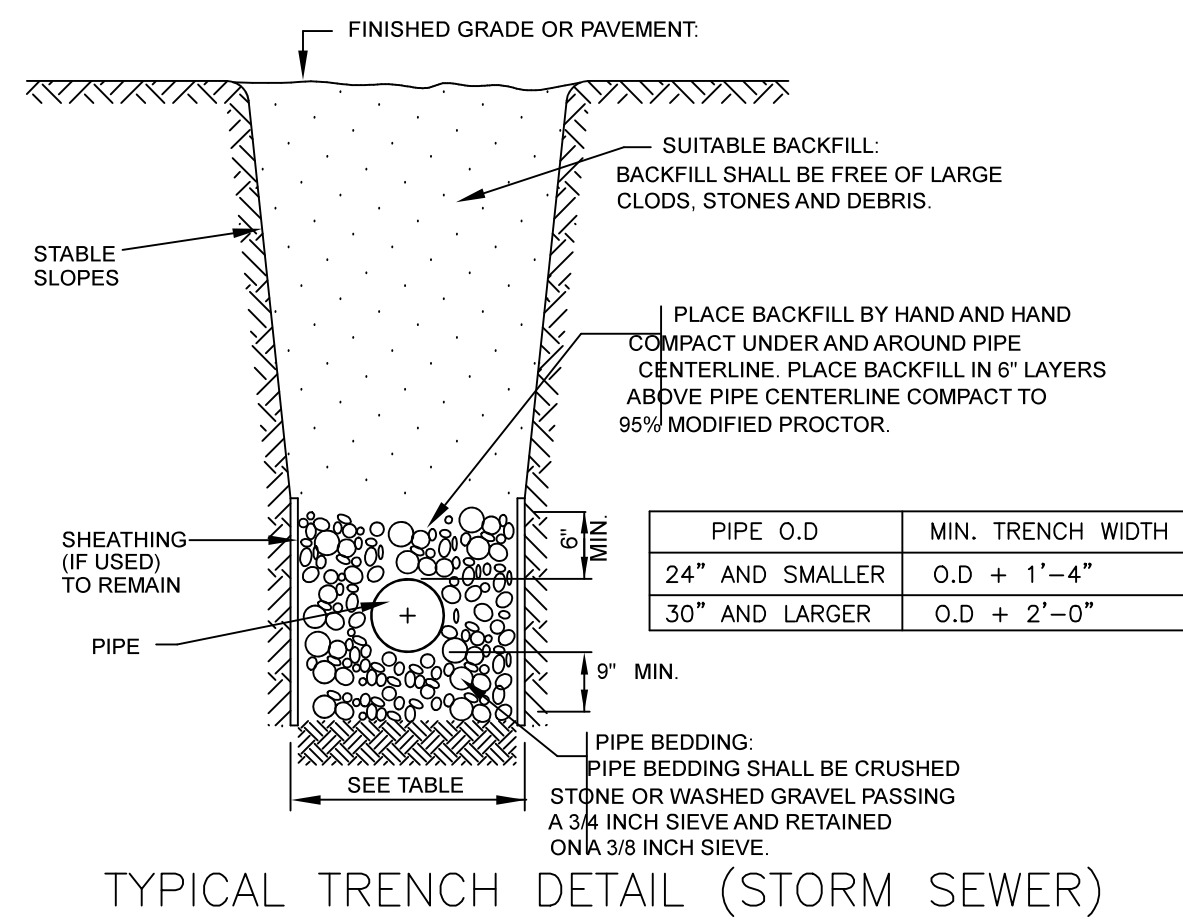
TYPICAL PERMANENT SIGN INSTALLATION

- NOTES:
1. SIGN TO BE MOUNTED AS REQUIRED BY FEDERAL MUTCD AND NYSDOT SUPPLEMENT STANDARDS.
 2. SIGN POSTS MUST BE 4LB GALVANIZED (HEAVYWEIGHT) STEEL WITH BREAKAWAY JOINTS.
 3. SIGNS ARE TO BE MOUNTED WITH BREAK AWAY FACING TRAFFIC.
 4. SIGNS TO BE MOUNTED 7 FT IN HEIGHT.
 5. STOP SIGNS MUST HAVE REFLECTORIZED STRIPS ON POSTS.

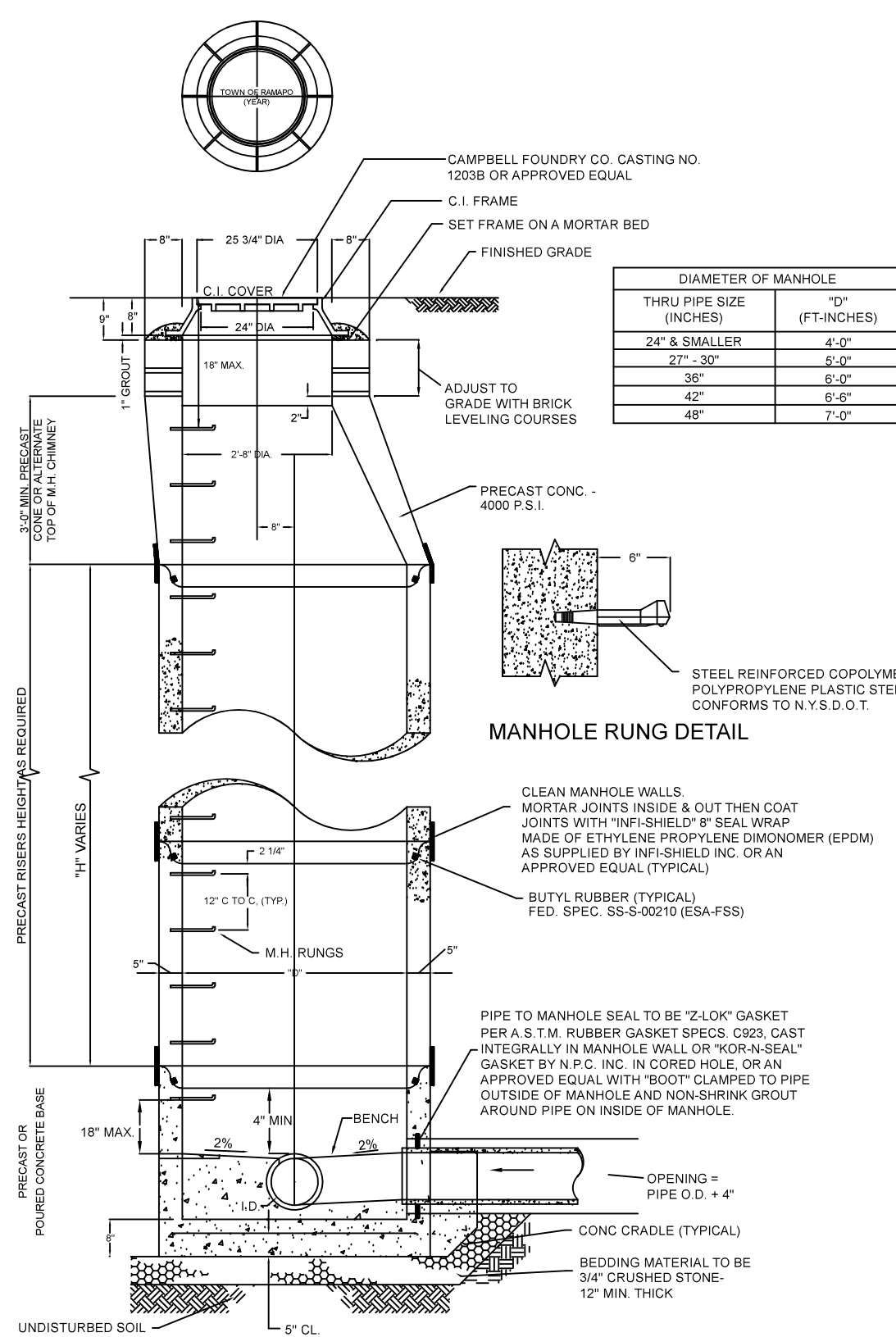


INLET PROTECTION DETAIL

SCALE: N. T. S.

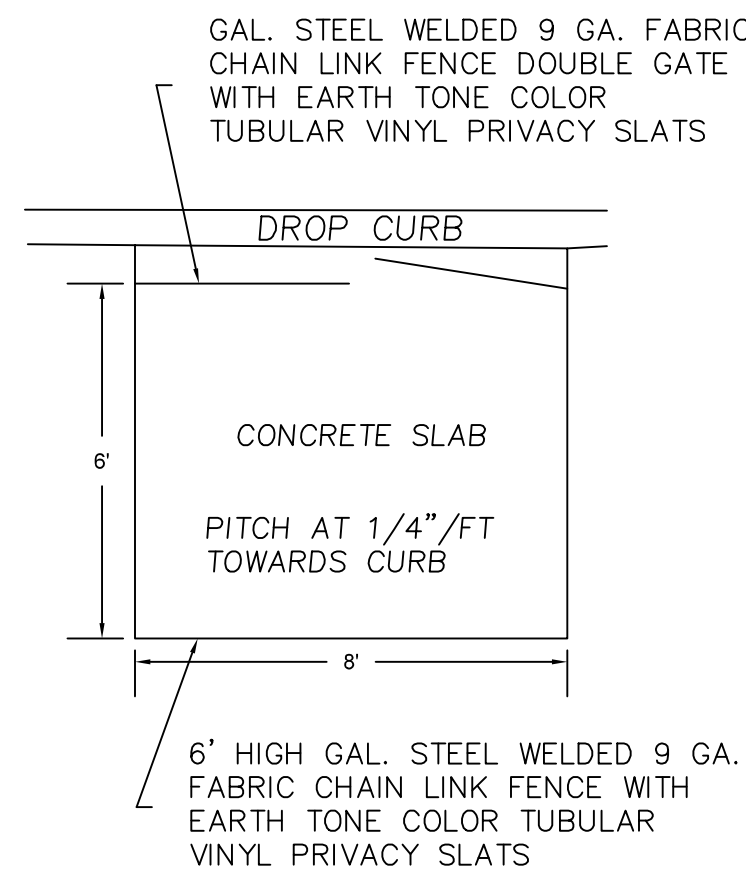


N.T.S.



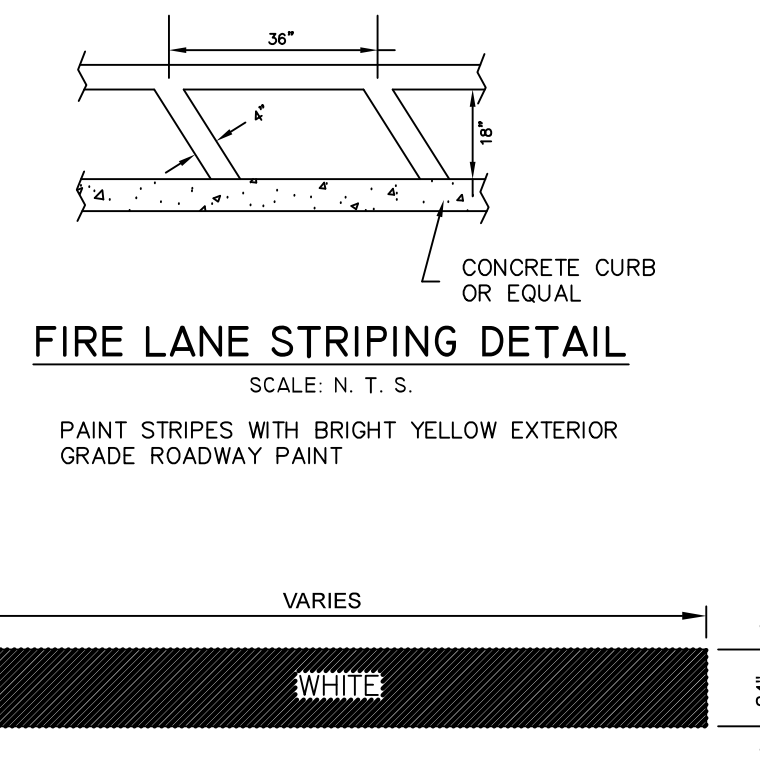
PRECAST STANDARD MANHOLE SECTION

NOTE:
ALL JOINTS TO HAVE BUTYL RUBBER SEALS WITH MORTAR IN AND OUT, AND THEN TO BE COATED WITH "INFI-SHIELD" EPDM RUBBER SEAL WRAP OR APPROVED EQUAL.



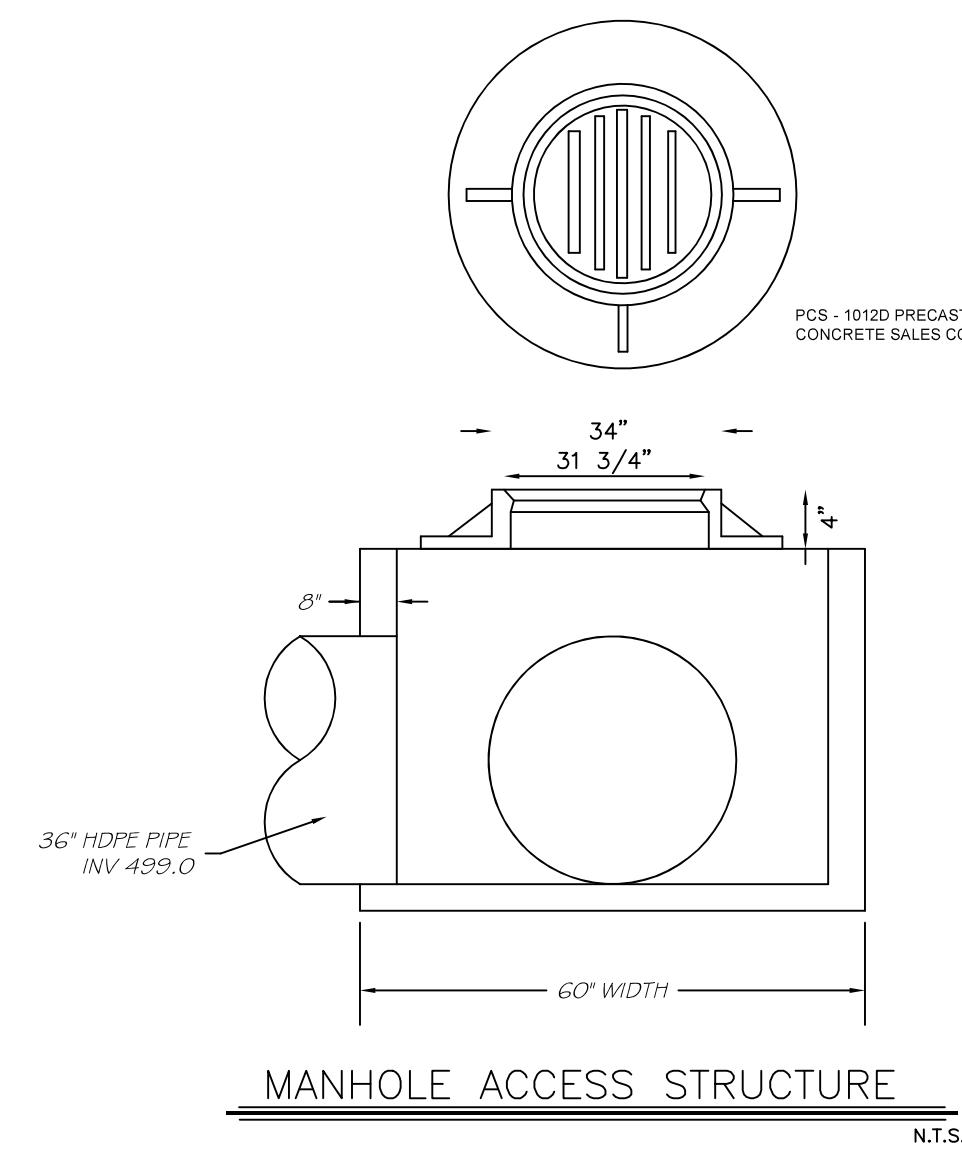
GARBAGE ENCLOSURE DETAIL

SCALE: N. T. S.



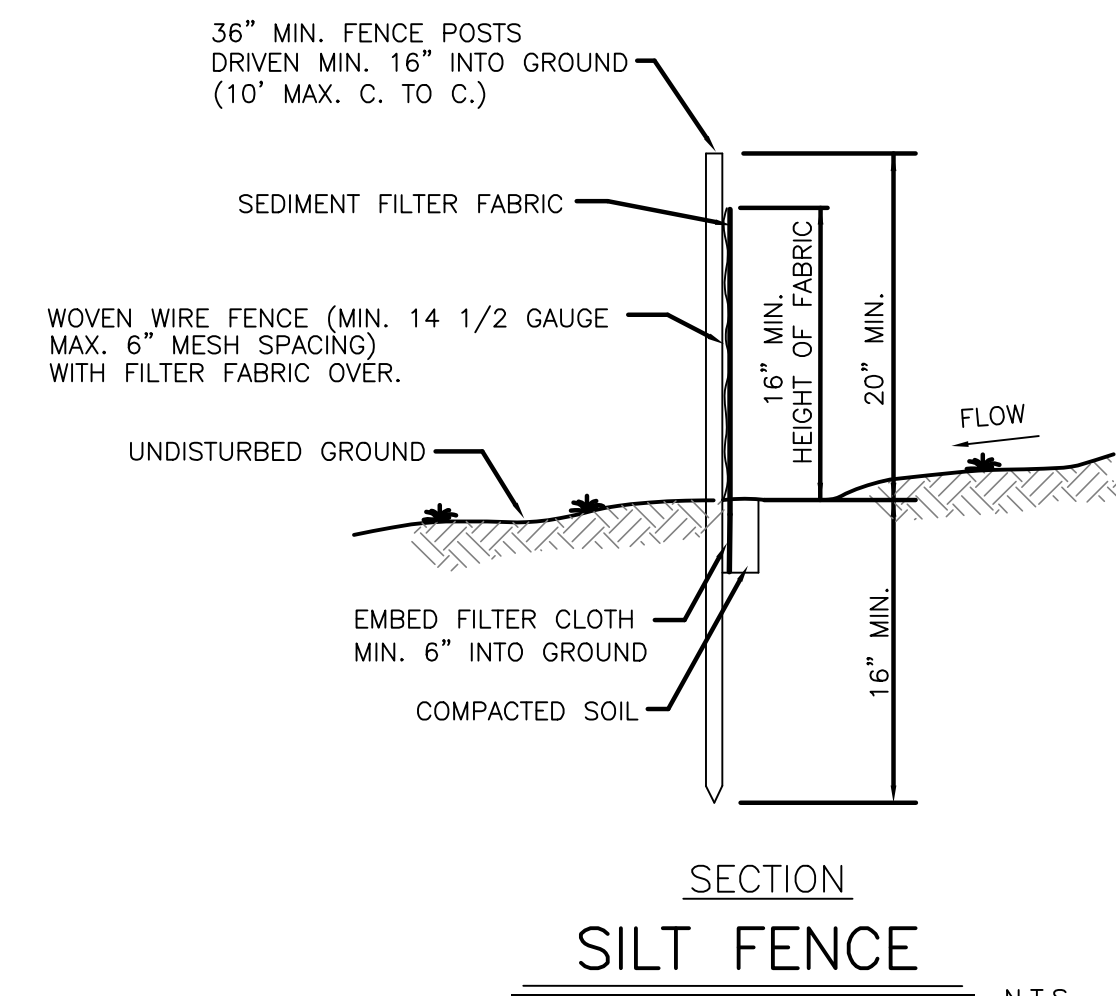
STOP BAR DETAIL

N.T.S.



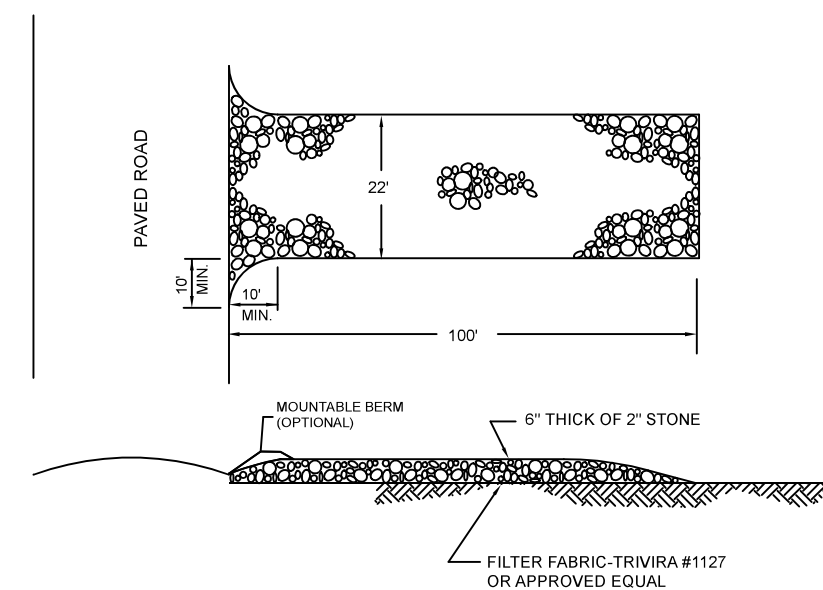
MANHOLE ACCESS STRUCTURE

N.T.S.



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN BULGES DEVELOP IN THE SILT FENCE.
5. POST TO BE STEEL EITHER "I" OR "U" TYPE OR 2" HARDWOOD.
6. FILTER CLOTH TO BE MIRAFI 100X STABILINKA T140N OR APPROVED EQUAL.
7. PREFABRICATED UNIT - GEOFAB. ENVIROFENCE OR APPROVED EQUAL.



STABILIZED CONSTRUCTION ENTRANCE

CONSTRUCTION SPECIFICATIONS: N.T.S.

1. STONE SIZE - USE 2 INCHES STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN 6 INCHES.
4. WIDTH - 12 FEET MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY FOUR FEET IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING 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 RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

MAY 6, 2024
SEPTEMBER 22, 2023
AUGUST 23, 2023
AUGUST 2, 2023
JUNE 23, 2023
AUGUST 29, 2022
JUNE 15, 2022

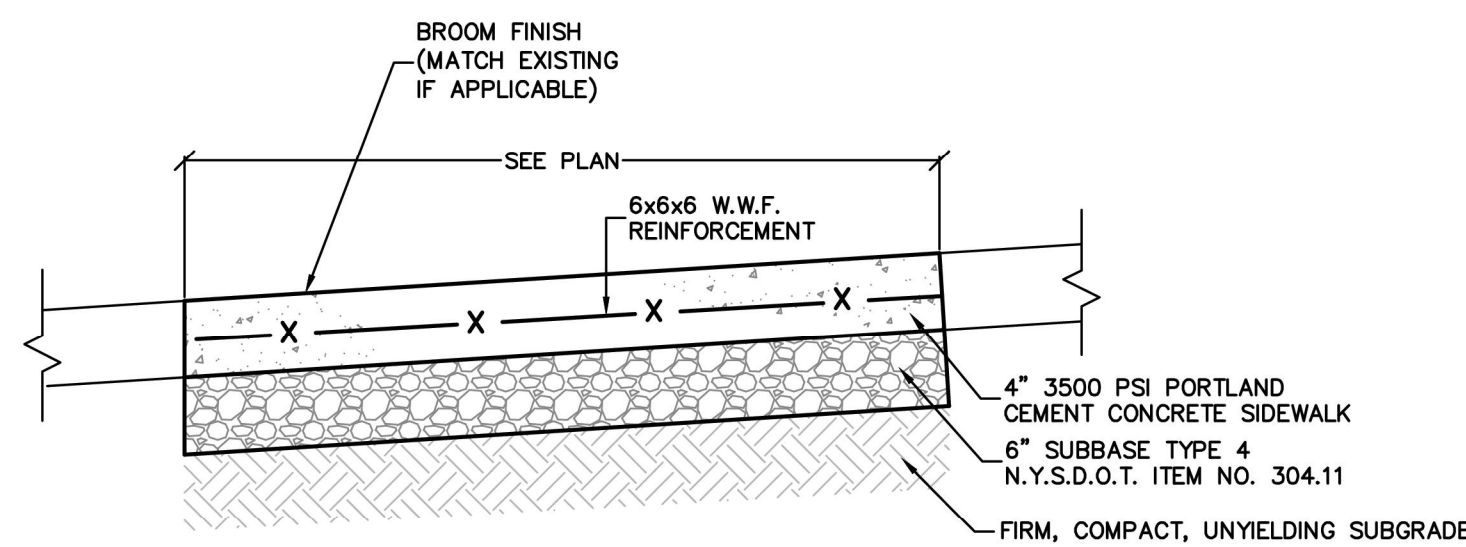
REV 7
REV 6
REV 5
REV 4
REV 3
REV 2
REV 1

REV PER CDRC
REV PER CLIENT
REV PER CLIENT
REV PER CLIENT
REV PER PB
REV PER PB
REV PER CDRC

DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 41.18-1-12			
DETAILS			
FOR			
CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC			DATE: 3/9/22
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DRAWN BY: RB/LT
111 Main Street Chester, NY 10918 845.610.3621			CHKD BY: RB/LT
JOB No. 3688			SCALE: 1"=20'
DWG No. 80			139



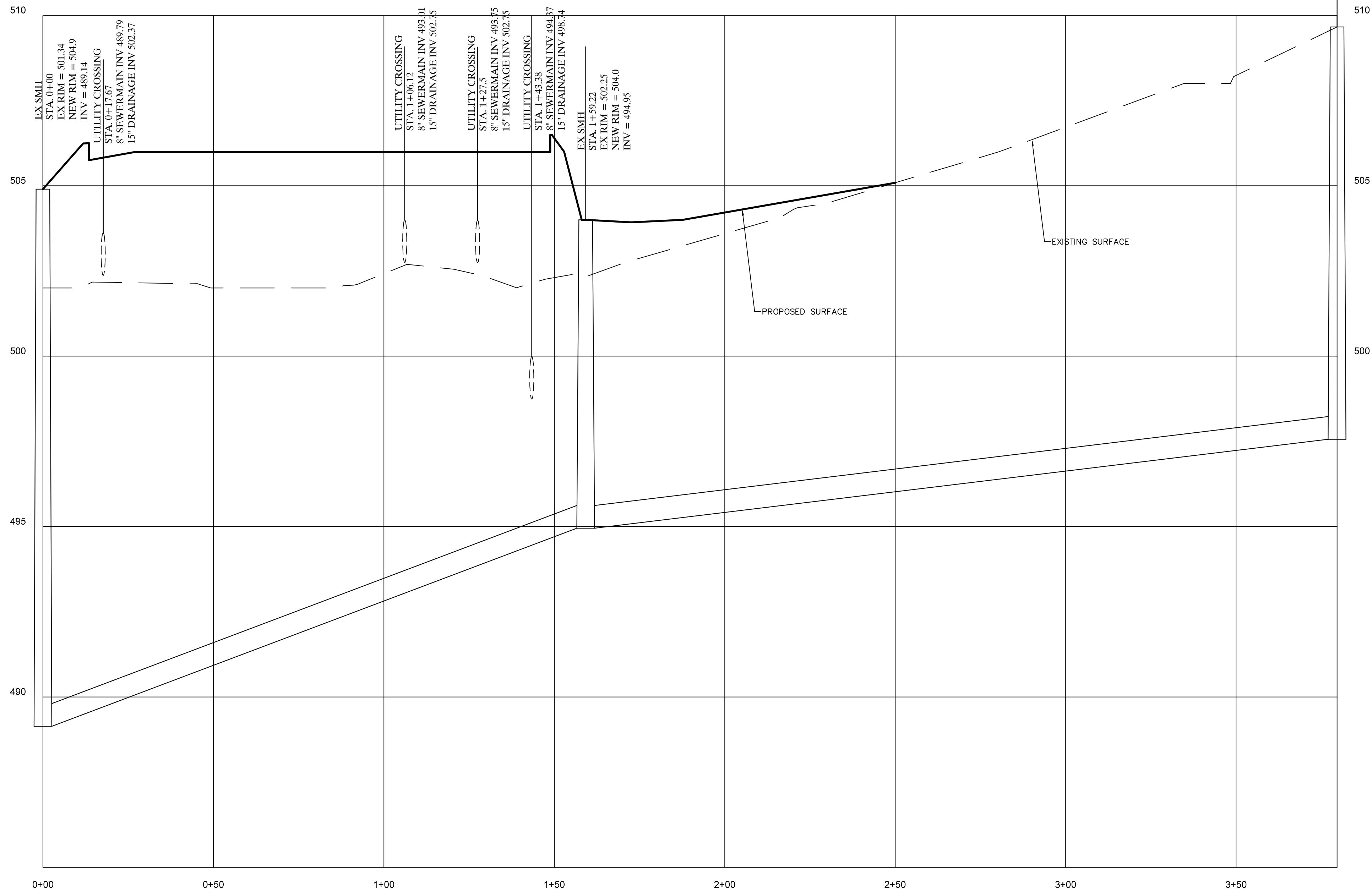
Rachel B. Barese, P.E.
N.Y. Lic. No. 90143

**CONCRETE SIDEWALK NOTES**

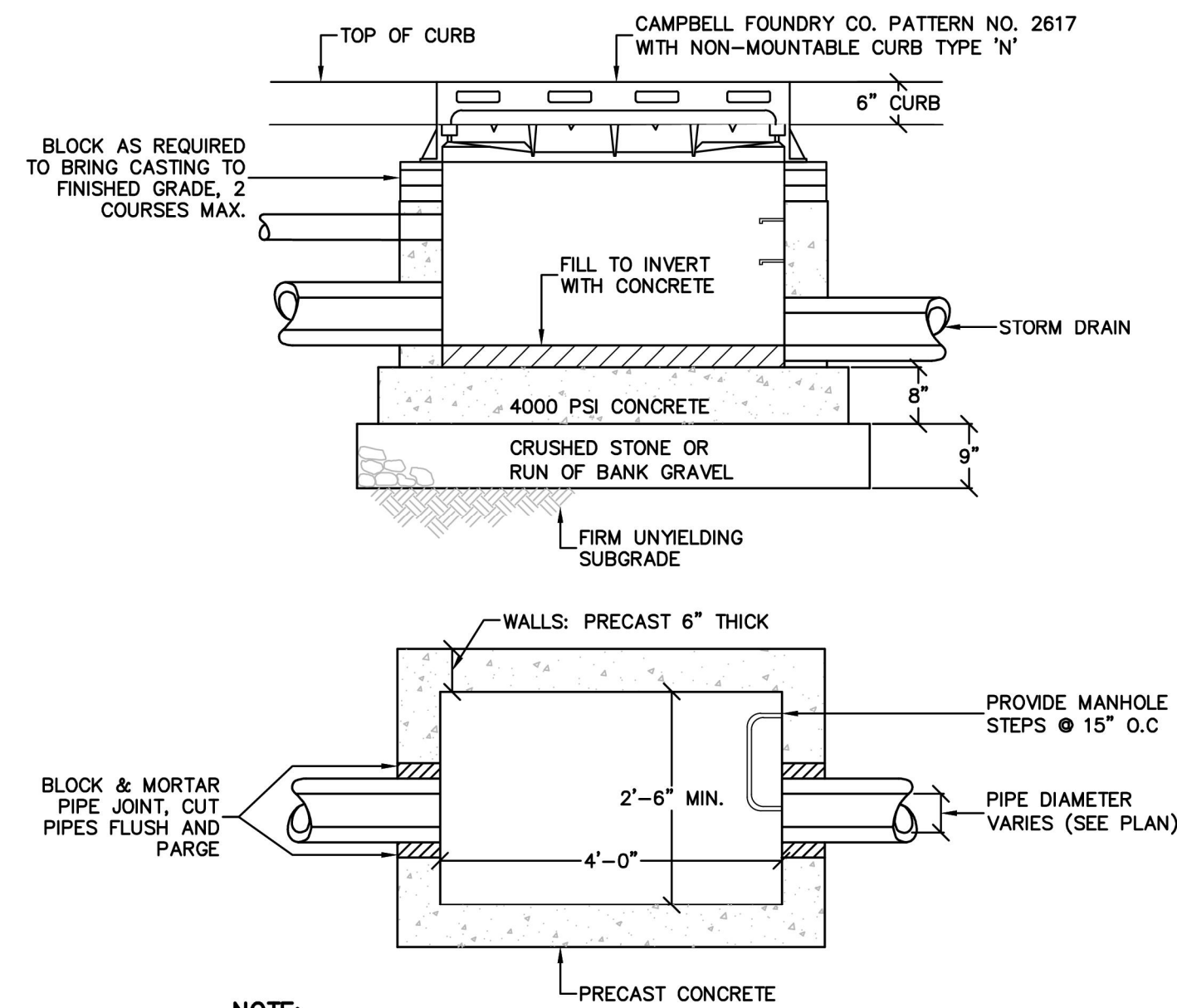
1. FULL DEPTH TRANSVERSE CONSTRUCTION JOINTS SHALL BE PLACED EVERY 18-20 FEET.
2. CONCRETE SURFACE SHALL BE SCORED AND TOOLED EVERY 5 FEET.
3. ALL EDGES SHALL BE FINISHED WITH AN EDGING TOOL WITH A RADIUS OF 1/4 INCH.
4. A 3/4 INCH BITUMINOUS JOINT FILLER SHALL BE PLACED AT ALL JOINTS BETWEEN SIDEWALK, CURB, PAVEMENT, BUILDING, ETC.
5. THE CONCRETE SHALL BE FINISHED TO PRODUCE A SMOOTH FINISH AND THEN LIGHTLY BROOMED TO A UNIFORM TEXTURE.
6. A CLEAR MEMBRANE CURING COMPOUND SHALL BE USED UPON COMPLETION OF FINISHING.
7. ALL SIDEWALKS SHALL ADHERE TO ADA GUIDELINES.

CONCRETE SIDEWALK DETAIL
N.T.S.

VILLAGE OF WESLEY HILLS
ROCKLAND COUNTY, N.Y.
CONCRETE SIDEWALK DETAIL

**SEWERMAIN PROFILE**

H: 1"=20'
V: 1"=2'



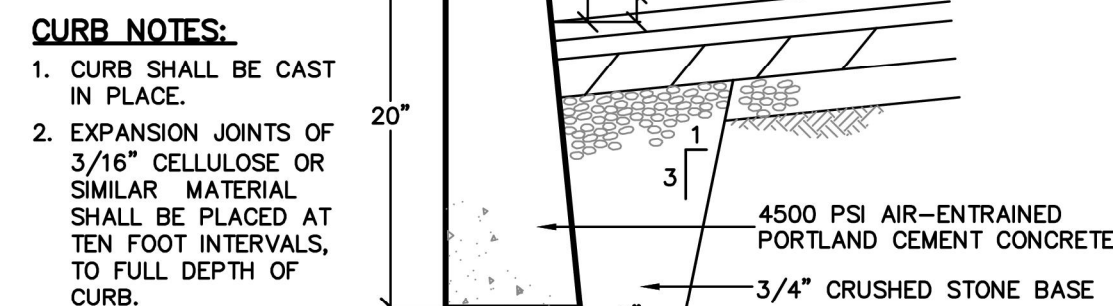
NOTE:
MINIMUM STRENGTH CONCRETE 4000 PSI WALL THICKNESS 6" WITH ADEQUATE STEEL REINFORCEMENT TO WITHSTAND H20 HIGHWAY LOAD AND SOIL LOADS.

CATCH BASIN DETAIL
N.T.S.

VILLAGE OF WESLEY HILLS
ROCKLAND COUNTY, N.Y.
CATCH BASIN DETAIL

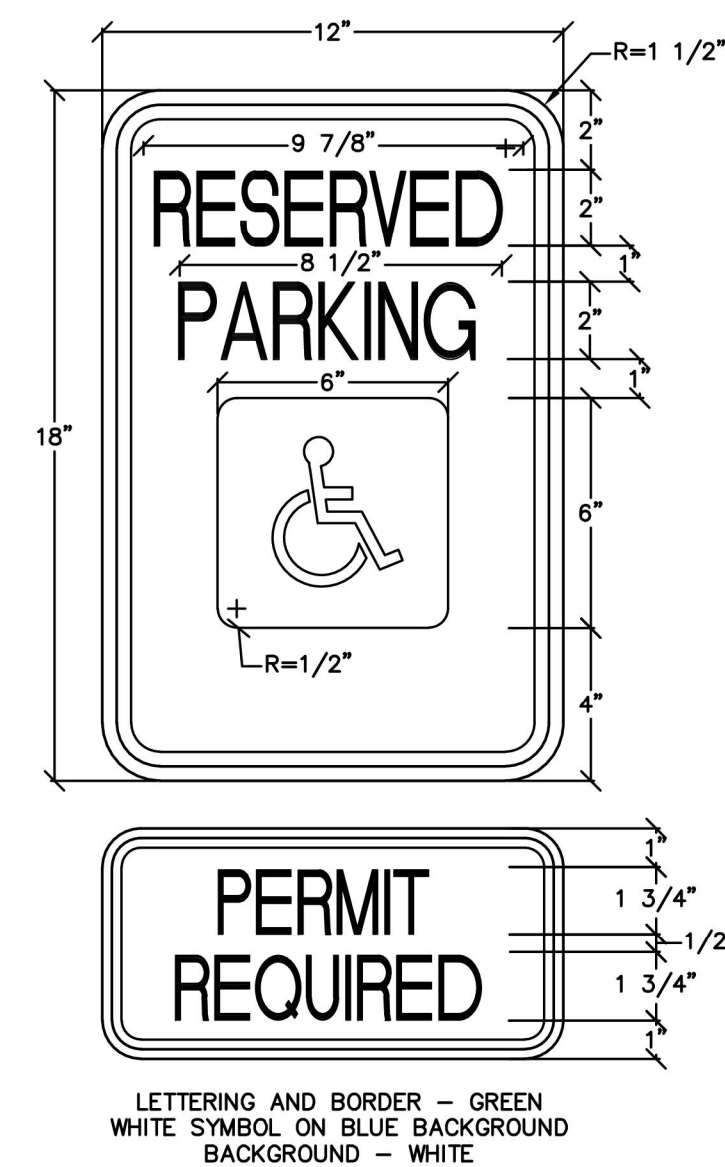
MAY 6, 2024	REV 7	REV PER CDRC
SEPTEMBER 22, 2023	REV 6	REV PER CLIENT
AUGUST 23, 2023	REV 5	REV PER CLIENT
AUGUST 2, 2023	REV 4	REV PER CLIENT
JUNE 23, 2023	REV 3	REV PER PB
AUGUST 29, 2022	REV 2	REV PER PB
JUNE 15, 2022	REV 1	REV PER CDRC

DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 41.18-1-12			
DETAILS			
FOR			
CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC			DATE: 3/9/22
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DRAWN BY: RB/LT
111 Main Street Chester, NY 10918 845.610.3621			CHKD BY: RB/LT
			JOB No. 3688
			SCALE: 1"=20'
Rachel B. Barese, P.E. N.Y. Lic. No. 90143			DWG No. 9 OF 140



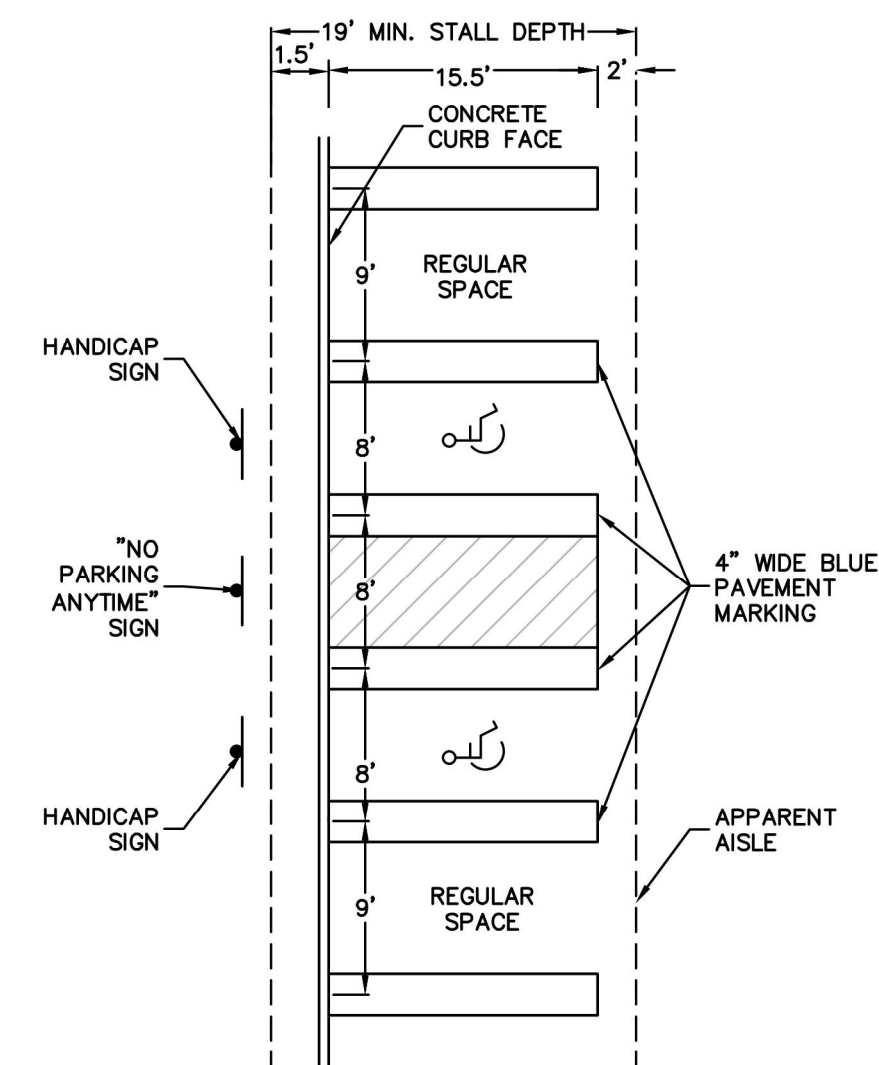
CONCRETE CURB DETAIL
N.T.S.

VILLAGE OF WESLEY HILLS
ROCKLAND COUNTY, N.Y.
CONCRETE CURB DETAIL



HANDICAP PARKING SIGN
N.T.S.

VILLAGE OF WESLEY HILLS
ROCKLAND COUNTY, N.Y.
HANDICAP PARKING SIGN



NOTES:

1. EACH ACCESSIBLE PARKING SPACE SHALL BE PROVIDED WITH SIGNAGE DISPLAYING THE INTERNATIONAL SYMBOL OF ACCESSIBILITY.
2. EACH ACCESS AISLE SHALL BE PROVIDED WITH SIGNAGE READING "NO PARKING ANYTIME".
3. SIGN SHALL BE PERMANENTLY INSTALLED AT A CLEAR HEIGHT OF BETWEEN 60 INCHES (1525 MM) AND 84 INCHES (2185 MM) ABOVE GRADE AND SHALL NOT INTERFERE WITH AN ACCESSIBLE ROUTE FROM AN ACCESS AISLE.

HANDICAP PARKING STRIPING DETAIL
N.T.S.

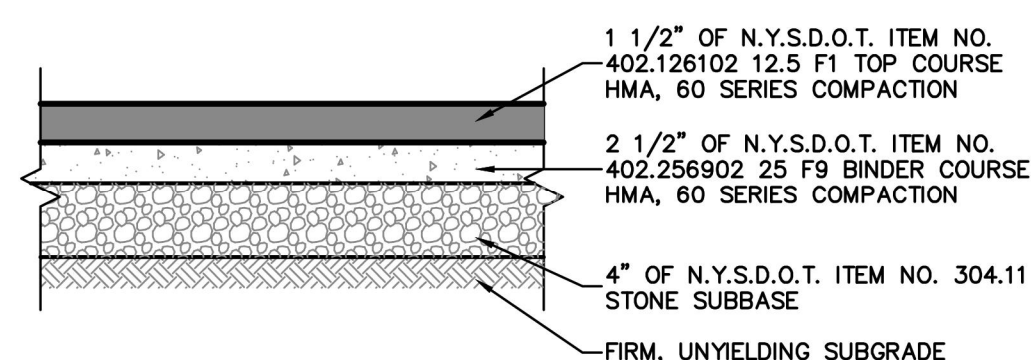
VILLAGE OF WESLEY HILLS ROCKLAND COUNTY, N.Y.
HANDICAP PARKING STRIPING DETAIL



LETTERING AND BORDER – RED
BACKGROUND – WHITE

NO PARKING / NO STANDING SIGN
N.T.S.

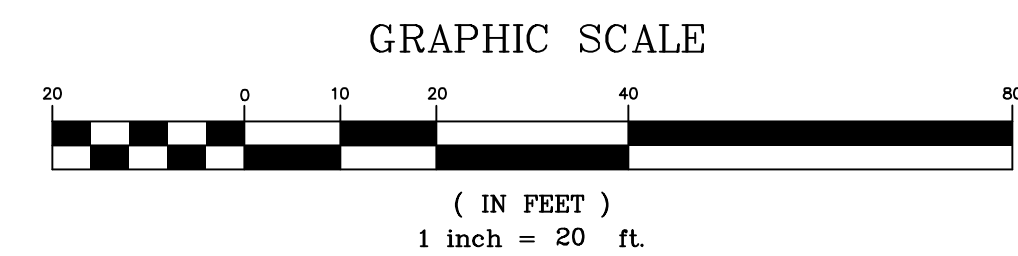
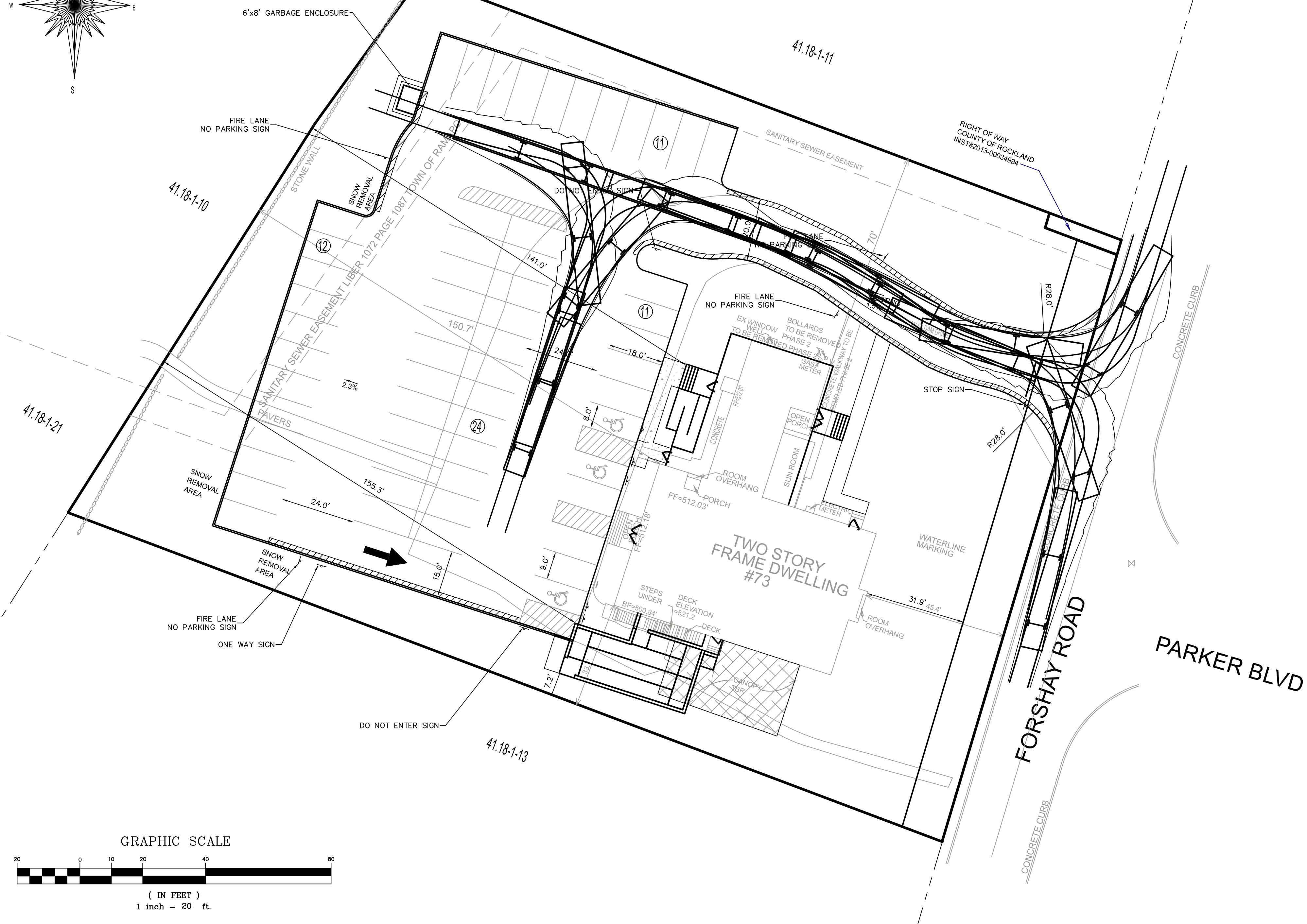
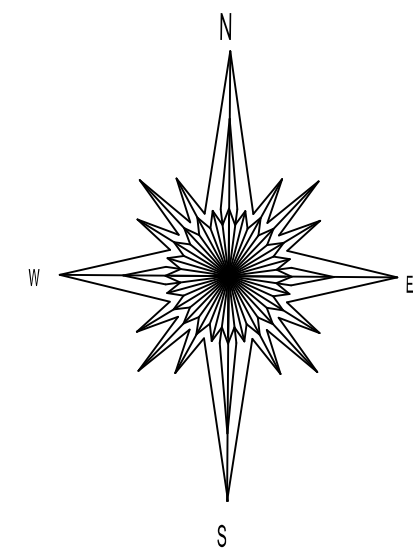
VILLAGE OF WESLEY HILLS
ROCKLAND COUNTY, N.Y.
NO PARKING / NO STANDING SIGN



PARKING LOT PAVEMENT SECTION
N.T.S.

VILLAGE OF WESLEY HILLS
ROCKLAND COUNTY, N.Y.
OFF STREET PARKING PAVEMENT SECTION

DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 41.18-1-12 DETAILS FOR CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC 139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243 111 Main Street Chester, NY 10918 845.610.3621			DATE: 5/6/24 DRAWN BY: RB/LT CHKD BY: RB/LT JOB No. 3688 SCALE: 1"=20' DWG No. 10
<i>Rachel B. Barese</i> Rachel B. Barese, P.E. N.Y. Lic. No. 90143			



FIRE TRUCK WHEELBASE BASED ON MONSEY 7 TOWER TRUCK.

MAY 6, 2024	REV 3	REV PER CDRC	
JUNE 23, 2023	REV 2	REV PER PB	
AUGUST 29, 2022	REV 1	REV PER PB	
DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 41.18-1-12			
FIRE TRUCK MANEUVERABILITY PLAN			
FOR			
CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC			DATE: 6/28/22
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243	111 Main Street Chester, NY 10918 845.610.3621		DRAWN BY: RB/LT
			CHKD BY: RB/LT
			JOB No. 3688
			SCALE: 1"=20'
			DWG No. 1 OF 1



MAR 27 2024

BUILDING,
PLANNING & ZONING

ROCKLAND COUNTY SEWER DISTRICT NO. 1

4 Route 340

Orangeburg, New York 10962

Phone: (845) 365-6111 Fax: (845) 365-6686

RCSD@co.rockland.ny.us

Michael Specht
Chairman

Michael R. Saber, P.E.
Executive Director

March 23, 2024

Ms. Alicia Schultz
Deputy Village Clerk
Village of Wesley Hills
432 Route 306
Monsey, NY 10952

Re: Congregation Ahavas Yitzchok
73 Forshay Road
Tax Lot 11/41.18-1-12 (formerly 9./76/A1)

Dear Ms. Schultz:

Our office has received and reviewed an amended site plan that was last revised on September 22, 2023, which Civil Tec Engineering & Surveying prepared for the above referenced project. We thank you for the opportunity to comment on this application. Our comments are as follows:

1. As this application modifies the existing non-residential use, Rockland County Sewer District No. 1's "Commercial/Non-residential Wastewater Questionnaire" and the County Planning Information Certification must be re-submitted to and approved by this office. **The owner or rabbi must sign the wastewater questionnaire.**
2. Approval of this special permit application for an addition to and expansion of the existing neighborhood gathering use (house of worship) on a 53,557 square foot lot in the R-35 District does not require the applicant to pay an impact fee, in accordance with the Rockland County *Sewer Use Law* as last amended in 2010. **However, if the use or occupancy of the property exceeds one (1) unit (e.g., if the social hall in the basement is used for catered events like weddings or bar mitzvahs, or with a mikvah, a school, a daycare center, dwelling units, guest suites, or a congregation of 100 families), the District will require further review and the owner will have to pay an impact fee.**
3. The details for sanitary sewer construction as shown on the plans must comply with the District's construction standards.
4. Details for regrading the sanitary sewer manholes in the easement as shown on Drawing No. 3 (Grading, Drainage & Utilities Plan Phase 1) and Drawing No. 6 (Grading, Drainage &

Ms. Alicia Schultz

Page 2

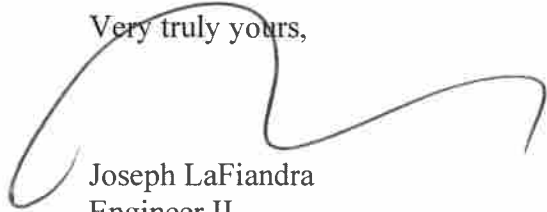
March 23, 2024

Item 2.

Utilities Plan Phase 2) are subject to approval by the Town of Ramapo Department of Public Works.

Please inform us of all developments in this project. If you have any questions, please contact this office at 845-365-6111.

Very truly yours,



Joseph LaFiandra
Engineer II

Attachments

cc: M. Saber M. Dolphin D. Gregory J. Roth
Michael Kezner – Rockland County Department of Planning
Michael Sadowski, P.E. – Town of Ramapo DPW
Rachel Barese, P.E. – Civil Tec Engineering & Surveying PC, 139 Lafayette Avenue, 2nd
Floor, Suffern, NY 10901-5614
Jeffrey Neeman – 10 Quince Lane, Montebello, NY 10901-3304
Raanan Dvir – Congregation Ahavas Israel of Wesley Hills, 1 Ash Street, Monsey, NY
10952-1620

File: TOR 41.18-1-12 – Congregation Ahavas Yitzchok
Reader



ROCKLAND COUNTY SEWER DISTRICT #1

4 Route 340
Orangeburg, New York 10962
Phone: (845) 365-6111 Fax: (845) 365-6686
RCSD@co.rockland.ny.us

Michael Specht
Chairman

Michael R. Saber, P.E.
Executive Director

WASTEWATER DISCHARGE QUESTIONNAIRE FOR RESTAURANTS/CATERERS/BAKERIES/FOOD
MANUFACTURERS/BARS/BANQUET HALLS/FOOD PACKAGERS/FOOD DISPENSERS FAST FOOD
TAKE OUTS/CAFETERIAS AND ANYONE DISPENSING OR PREPARING FOOD ON LOCATION

Dear Sewer System User:

Federal and State regulations impose restrictions on the quality of wastewater being discharged into the Hudson River by Rockland County Sewer District No. 1.

In order to protect the environment and ensure that the receiving waters are protected from pollutants passing through the treatment facilities, the District administers a Pretreatment Program. This program is intended to protect the District's wastewater treatment facilities from damage and interference with its proper operation.

The Rockland County Health Department, municipal building, planning and environmental control departments may require comments from this office prior to action on your application. In accordance with the Pretreatment Program, you must complete the attached questionnaire (Form-CWOI) and return it to the Sewer District at the above address, along with the following:

1. A site plan showing the existing and/or proposed sewer line(s) in the street. The plan should also show the existing sewer connection or details for the proposed connection to the line in the street. The sewer elevations should also be clearly shown.
2. County Planning Information Certification form
3. A plumbing layout of the proposed facility, if available.
4. Details of any existing or proposed grease traps.
5. The Wastewater Questionnaire must be signed by a principle of the Corporation.

In all written correspondence please refer to the Tax Map Block and Lot number of the property, and the name and address of the project.

Your concern for the environment is greatly appreciated.

Should you have any questions or need additional information please call this office.

Very truly yours,

Joan Roth
Compliance Administrator

ROCKLAND COUNTY SEWER DISTRICT NO. 1

(845) 365-6111
FAX (845) 365-6686

Item 2.

**QUESTIONNAIRE TO BE FILED BY DISCHARGERS PREPARING/DISPENSING FOOD ON
LOCATION (CW01)**

Name of Project: _____

Address of Project: _____ Tax/Lot/Block No.: _____

Applicants' Name: _____ Telephone No.: _____

Owner of Property: _____ Telephone No.: _____

Name of Engineer/Architect: _____ Telephone No.: _____

Is this Facility: ☐ An Addition ☐ New ☐ Existing ☐ Change of Ownership

1. Will food be prepared at this location? ☐ Yes ☐ No

2. Will food be served at this location? ☐ Yes ☐ No On reusable plates ☐ Yes ☐ No

3. Is this a restaurant/cafeteria? ☐ Yes ☐ No

4. Is this a place of worship? ☐ Yes ☐ No If Yes, number of families _____

5. Does or will the facility have a fryer? ☐ Yes ☐ No

6. Does or will the facility have a grill? ☐ Yes ☐ No

7. Is there an existing grease trap at this location? ☐ Yes ☐ No

8. If yes to No. 7, then give details: _____

9. Does the facility have a 3-compartment sink? ☐ Yes ☐ No

10. The location of the sewer this facility is or will be discharging to: _____

11. The total seating capacity (excluding the bar): _____ Number of employees: Part time: _____ Full Time: _____

12. Does the facility have a bar? ☐ Yes ☐ No If yes, it's seating capacity: _____

13. Does the facility have a separate water meter? ☐ Yes ☐ No Gallons Per Day, Used or Expected: _____

14. Does the facility provide takeout food? ☐ Yes ☐ No If yes, % takeout: _____

15. Does this facility cater or provide to catering services? ☐ Yes ☐ No If yes, average meals per day: _____

16. Hours of operation for the kitchen: _____

17. For Banquet Halls, seating capacity: _____

Remarks, if any: _____

I certify under penalty of Law that I have personally examined and familiar with the information submitted herein and based on inquiry of those individuals immediately responsible for obtaining information, I believe the information above is true, accurate and complete. I am aware of the Rockland County Sewer Use Law as last amended in 2010 and that there are significant penalties for submitting false information.

Name/Title: _____ Signature: _____

Date: _____ Email: _____

Mailing Address: _____ Tel: _____

COUNTY PLANNING INFORMATION CERTIFICATION

Pursuant to Rockland County Executive Order No. 1 of 2017 applicants for County approvals for property development reviewed by the County's Commissioner of Planning, must make certain information and documents available to the County before the County will give its approval.

In the case of the present application before the Rockland County Sewer District No. 1 (RCSD No. 1) for [RCSD No. 1 Approval sought]_____

Property Address_____

Tax Map/Block/Lot_____

Check A, B, C, D or E. If B, C, D or E is selected, please ensure the proper documentation accompanies the Certification.

- A. ☐ The matter was NOT the subject of review by the Rockland County Commissioner of Planning
- B. ☐ The Rockland County Commissioner of Planning 'APPROVED' the proposal a copy of the Commissioner's report is attached to this Certification
- C. ☐ The Rockland County Commissioner of Planning 'MODIFIED' or 'DISAPPROVED' the proposal and the Commissioner's report was NOT OVERRIDDEN by the local board
 - a. a copy of the Commissioner of Planning's report is attached to this Certification
 - b. a copy of the minutes of the local board adopting the Commissioner's report or failing to override the Commissioner's report are attached
- D. ☐ The Rockland County Commissioner of Planning 'MODIFIED' or 'DISAPPROVED' the proposal and the Commissioner's report was OVERRIDDEN by the local board
 - a. a copy of the Commissioner of Planning's report is attached to this Certification
 - b. a certified copy of the minutes of the local board overriding the report of the County Commissioner of Planning, in whole or in part, are attached
 - c. a certified written copy of the local board's reasons for the override, as required by GML § 239-m and/or 239-n are attached to this certification.
- E. ☐ I request that the requirement of this Certification be waived because:
 - a. The issues raised by the Commissioner of Planning are not relevant to the application sought. I have provided a copy of the Commissioner of Planning's review with this request; or
 - b. Since the criteria for disconnect is restricted to user's request, and there is no issue concerning additional capacity, safety, health or other burden on the system, no comment of the County Planning Commissioner is relevant; or
 - c. Other: _____

[Dept use only: _____ granted; _____ denied]

I, certify under the penalties for perjury, that I have reviewed this Certification, and that the information stated is true, correct and complete.

Name of Applicant: _____
(If applicant is a corporation please state the full corporate name)

Signature of Applicant: _____ Date: _____
(Please note title of signatory if Applicant is a corporation)

use E, b

For disconnections that have not completed County Planning process

RECEIVED
VILLAGE OF WESLEY HILLS

MAR 27 2024

BUILDING,
PLANNING & ZONING**DEPARTMENT OF PLANNING**Dr. Robert L. Yeager Health Center
50 Sanatorium Road, Building T
Pomona, New York 10970

Phone: (845) 364-3434 Fax: (845) 364-3435

Douglas J. Schuetz
*Acting Commissioner***Richard M. Schiafo**
Deputy Commissioner

March 27, 2024

Wesley Hills Planning Board
432 Route 306
Wesley Hills, NY 10952**Tax Data:** 41.18-1-12**Re: GENERAL MUNICIPAL LAW REVIEW:** Section 239 L and M**Map Date:** 09/22/2023**Date Review Received:** 03/01/2024**Item:** **CONGREGATION AHAVAS YITZCHOK (Whi-44K)**

Amended site plan and special permit for a building addition and the expansion of a parking lot at an existing house of worship located on 1.20 net acres (1.23 gross acres) in the R-35 zoning district. Phase one will include the expansion of the parking lot to 58 spaces and a new ramp. The building addition will be a part of phase two.

West side of Forshay Road, opposite Parker Boulevard

Reason for Referral:

Forshay Road (CR 81), Town of Ramapo

The County of Rockland Department of Planning has reviewed the above item. Acting under the terms of the above GML powers and those vested by the County of Rockland Charter, I, the Commissioner of Planning, hereby:

****Recommend the following modifications***

- 1 Special permit uses are, by definition, subject to a higher standard of review than as-of-right uses. In addition to complying with the bulk requirements of the zone in which they are proposed, the modified neighborhood gathering use must meet the general standards for special permits outlined in Section 230-22, as well as the individual standards found in Section 230-26G. The Village must be satisfied that these requirements have been met.
- 2 The applicant must comply with the comments made by the Rockland County Highway Department in their letter dated March 12, 2024.
- 3 A review of the September 22, 2023 site plan must be completed by the Rockland County Department of Health. In addition, as per their letter dated June 6, 2019, application is to be made to them for review to ensure compliance with the County Mosquito Code.
- 4 A review of the September 22, 2023 site plan must be completed by the Rockland County Sewer District No. 1, any concerns addressed, and any required permits obtained.

CONGREGATION AHAVAS YITZCHOK (Whi-44K)

5 A review must be completed by the County of Rockland Office of Fire and Emergency Services, Village of Wesley Hills fire inspector, or the Monsey Fire Department to ensure that the site is designed in a safe manner and that there is easy access to the structure, in the event of an emergency.

6 The Town of Ramapo is one of the reasons this proposal was referred to this department for review. The municipal boundary is adjacent to the eastern property line of the parcel. New York State General Municipal Law states that the purposes of Sections 239-l, 239-m and 239-n shall be to bring pertinent inter-community and countywide planning, zoning, site plan and subdivision considerations to the attention of neighboring municipalities and agencies having jurisdiction. Such review may include inter-community and county-wide considerations in respect to the compatibility of various land uses with one another; traffic generating characteristics of various land uses in relation to the effect of such traffic on other land uses and to the adequacy of existing and proposed thoroughfare facilities; and the protection of community character as regards predominant land uses, population density, and the relation between residential and nonresidential areas. In addition, Section 239-nn was enacted to encourage the coordination of land use development and regulation among adjacent municipalities, and as a result development occurs in a manner that is supportive of the goals and objectives of the general area.

The Town of Ramapo must be given the opportunity to review the proposal and its impact on community character, traffic, water quantity and quality, drainage, stormwater runoff and sanitary sewer service. The areas of countywide concern noted above that directly impact the Town of Ramapo must be considered and satisfactorily addressed, as well as any additional concerns about the proposal.

7 Prior to the start of construction or grading, all soil and erosion control measures must be in place for the site. These measures must meet the latest edition (November 2016) of the New York State Standards for Urban Erosion and Sediment Control.

8 There shall be no net increase in the peak rate of discharge from the site at all design points.

9 A stormwater pollution prevention plan (SWPPP) was not provided. The SWPPP, if required, shall conform to the current regulations, including the New York State Stormwater Management and Design Manual (January 2015) and local ordinances.

10 The proposed impervious surface ratio is listed as 0.56 on the bulk table. The calculation indicates it will be 0.54. The June 15, 2022 revision of the site plan that was submitted to our department with a previous application includes the same impervious surface ratio calculation as the September 22, 2023 map that was submitted with this application. However, the current drawing shows a slightly different configuration of the site, which has likely increased the amount of impervious surfaces. A new impervious surface ratio calculation must be provided. If it is greater than 0.56, a variance will be required. We request the opportunity to review any additional variances, as required by New York State General Municipal Law, Section 239-m (3)(a)(v).

11 To help reduce the impact of this development, reduction of impervious surface should be considered. The Amended Site Plan Phase 2 (Drawing 5 of 9) indicates that pervious pavers are proposed to be used for a patio at the southern side of the structure. It is recommended that porous pavers or porous concrete be considered to replace the use of conventional asphalt in additional areas of the site, as well. If installed correctly and properly maintained porous pavers have been shown to be effective in helping manage off-site runoff of stormwater. In addition to permeable pavers, other green infrastructure techniques should be considered such as bioswales, rain gardens, and rainwater capture. For long term effectiveness of permeable pavers and other green infrastructure techniques it is recommended that the Village and the applicant review Chapter 5 'Green Infrastructure Practices' of the 2015 NYSDEC Stormwater Design Manual.

12 The walkway to Judith Lane at the rear of the property must be continued around the parking area or have a dedicated crosswalk through the parking area in order to maintain safe access for pedestrians.

CONGREGATION AHAVAS YITZCHOK (Whi-44K)

13 This department recommends that the applicant use plants that are native to New York for the proposed landscaping to help preserve and promote biodiversity. Native plants are better adapted to the local climate and soils, making them easier to care for, and result in the need for less fertilizer, pesticides, and use of water. They also have deeper root systems that help prevent erosion and increased runoff into local waterbodies. A pdf titled "Native Plants for Gardening and Landscaping Fact Sheets" that lists native species and the environments in which they can grow can be found on the New York State Department of Environmental Conservation's website: <https://www.dec.ny.gov/get-involved/living-green/sustainable-landscaping>.

14 The lighting plan provided does not extend to the property lines. The lighting plan shall be amended to demonstrate that the intensity of the candle lumens is less than 0.1 at the property line.

15 Pursuant to General Municipal Law (GML) Section 239-m and 239-n, if any of the conditions of this GML review are overridden by the board, then the local land use board must file a report with the County Commissioner of Planning of the final action taken. If the final action is contrary to the recommendation of the Commissioner, the local land use board must state the reasons for such action.

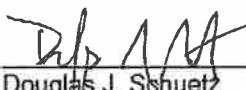
16 In addition, pursuant to Executive Order 01-2017 signed by County Executive Day on May 22, 2017, County departments are prohibited from issuing a County permit, license, or approval until the report is filed with the County Commissioner of Planning. The applicant must provide to any County agency which has jurisdiction of the project: 1) a copy of the Commissioner report approving the proposed action; or 2) a copy of the Commissioner of Planning recommendations to modify or disapprove the proposed action, and a certified copy of the land use board statement overriding the recommendations to modify or disapprove, and the stated reasons for the land use board's override.

17 The following additional comments are offered strictly as observations and are not part of our General Municipal Law (GML) review. The board may have already addressed these points or may disregard them without any formal vote under the GML process:

17.1 This application was officially received by the Rockland County Planning Department on March 1, 2024. The application materials indicate that the public hearing will be held on March 27, 2024. As a reminder, State General Municipal Law, Section 239 (m) 4.(b) states that "Such county planning agency or regional planning council, or an authorized agent of said agency or council, shall have thirty days after receipt of a full statement of such proposed action, or such longer period as may have been agreed upon by the county planning agency or regional planning council and the referring body, to report its recommendations to the referring body, accompanied by a statement of the reasons for such recommendations." Adequate time must be provided to the Rockland County Planning Department in order for us to do our review before the public hearing is scheduled and the matter heard before the board.

17.2 The Referral Form lists the parcel acreage as 1.185. This must be corrected to reflect the net lot area of 1.20 acres and a gross lot area of 1.23 acres.

17.3 The site must be centered on the vicinity map.


 Douglas J. Schuetz
 Acting Commissioner of Planning

cc: Mayor Marshall Katz, Wesley Hills
 Rockland County Department of Health
 Rockland County Highway Department
 Rockland County Office of Fire and Emergency Services
 Rockland County Sewer District No. 1
 Monsey Fire District

 Civil Tec Engineering & Surveying
 Town of Ramapo Planning Department

CONGREGATION AHAVAS YITZCHOK (Whi-44K)

Rockland County Planning Board Members

"NYS General Municipal Law Section 239 requires a vote of a 'majority plus one' of your agency to act contrary to the above findings. The review undertaken by the County of Rockland Department of Planning is pursuant to, and follows the mandates of Article 12-D of the New York General Municipal Law. Under Article 12-B the County of Rockland does not render opinions, nor does it make determinations, whether the item reviewed implicates the Religious Land Use and Institutionalized Persons Act. The County of Rockland Department of Planning defers to the municipality forwarding the item reviewed to render such opinions and make such determinations if appropriate under the circumstances.

In this respect, municipalities are advised that under the Religious Land Use and Institutionalized Persons Act, the preemptive force of any provision of the Act may be avoided (1) by changing a policy or practice that may result in a substantial burden on religious exercise, (2) by retaining a policy or practice and exempting the substantially burdened religious exercise, (3) by providing exemptions from a policy or practice for applications that substantially burden religious exercise, or (4) by any other means that eliminates the substantial burden.

Proponents of projects are advised to apply for variances, special permits or exceptions, hardship approval or other relief.

Pursuant to New York State General Municipal Law §209-m(6), the referring body shall file a report of final action it has taken with the County of Rockland Department of Planning within thirty (30) days after final action. A referring body which fails to submit a recommendation or modification or if applicable if a proposed action shall set forth the reasons for the contrary action in such report.



Town of Ramapo
 Department of Public Works
 18 Pioneer Avenue
 Tallman, New York 10982
 (845) 357-0591
 Fax: (845) 357-0895

RECEIVED

APR - 5 2024

VILLAGE OF WESLEY HILLS

MICHAEL B. SPECHT
Supervisor
 March 28, 2024

MICHAEL SADOWSKI, PE
Deputy Director of Public Works

Ms. Janice Golda
 Deputy Village Clerk
 Village of Wesley Hills
 432 Route 306
 Monsey, NY 10952

Re: Congregation Ahavas Yitzchok (73 Forshay Road)
 Section 41.18-1-12

Dear Ms. Golda,

Our office is in receipt of and has reviewed a plan prepared by Civil Tec for the above referenced project which was last revised September 22, 2023. We thank you for the opportunity to comment on this plan. Our comments are as follows:

- 1) No proposed structures can be placed on the Town's easement. A note stating such should be placed on the plans.
- 2) The existing sewer connection must be verified that it is 6 inches.
- 3) A detail for the raising of the manhole covers must be provided. It must be done with brick and not extension rings.
- 4) Provide copy of latest sewer study.
- 5) A wastewater questionnaire must be filled out and approved by the RCSD#1.
- 6) Confirm elevation of drainage doesn't effect sewer main.

Please keep us informed of all developments in this project. If you should have any questions or comments, do not hesitate to contact me at 357-0591.

Very truly yours,

Paul Gdanski, P.E.
 Engineer II

File: Congregation Ahavas Yitzchok (73 Forshay Road)

Cc: Hannah Ross

**Cong. Ahavas Yitzchak
73 Forshay Road
Village of Wesley Hills, Rockland County, New York
41.18-1-12
Project Number 3688
February 2019
Revised May 2024**

This site plan is for Cong. Ahavas Israel located at 73 Forshay Road in the Village of Wesley Hills, New York. It proposes a phased project including improving the parking lot for the existing house of worship and a ramp in phase 1. Phase 2 will include an addition to the existing building and a patio. The existing building will remain. The lot is approximately 1.23 acres, but the area of disturbance is under an acre. In accordance with NYSDEC regulations, we have reviewed the stormwater from the site and are proposing underground detention. The discharge from the detention will be directed in to an existing drainage pipe onsite which discharges into an existing drainage system to the rear of the property.

The site is comprised of soil which is labeled CuB and is considered a B soil. The type of soil was considered when examining the curve numbers (CNs) for both the existing and proposed site. All CN calculations are attached. The existing CN is based on a covering of impervious and good lawn with all discharge as runoff. The proposed CN is also based on a covering of impervious and good lawn.

Routing calculations were made using the HydroCAD 10.20-4b computer modeling program. This program uses standard SCS methods of overall hydrograph calculations (TR-20 and TR-55), and allows, for example, direct entry of sub-watershed characteristics to calculate Time of Concentration (TCs). The model description and calculation methodology is attached. Precipitation events have been utilized based on the Northeast Regional Climate Center Extreme Precipitation.

Storm Event	24 hour
1 Year	2.75 cfs
2 Year	3.36 cfs
5 Year	4.21 cfs
10 Year	4.99 cfs
25 Year	6.27 cfs
50 Year	7.45 cfs

100 Year	8.86 cfs
----------	----------

Summary of Model Results

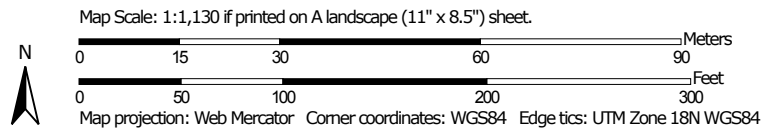
Basin (Hydr. #)	Peak Flow, CFS		
	1-YR	10-YR	100-YR
Existing	0.73	2.66	6.57
Proposed to treatment	0.59	1.89	3.96
Proposed to Bypass	0.16	0.79	2.23
Proposed Combined	0.73	2.66	6.13
Difference in Discharge	-0.0	-0.0	-0.44

An underground detention system is proposed. The outlet structure will have an overflow pipe with a 5.25" orifice, a 9" orifice, a 0.6' rectangular weir, and a 15" culvert that discharges to the existing drainage onsite.

In summary, the proposed stormwater facilities should be adequate for the proposed site improvements. There is either no difference in discharge, or a decrease in the discharge from the site.

Soil Map—Rockland County, New York

Item 2.



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

2/14/2019
Page 1 of 3

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rockland County, New York

Survey Area Data: Version 16, Sep 3, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 7, 2013—Feb 26, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CuB	Cheshire-Urban land complex, 2 to 8 percent slopes	6.3	100.0%
Totals for Area of Interest		6.3	100.0%

Rockland County, New York

CuB—Cheshire-Urban land complex, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9v48

Mean annual precipitation: 47 to 50 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 135 to 215 days

Farmland classification: Not prime farmland

Map Unit Composition

Cheshire and similar soils: 45 percent

Urban land: 30 percent

Minor components: 25 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cheshire

Setting

Landform: Hills, till plains

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy till derived mostly from reddish sandstone, shale, and conglomerate

Typical profile

H1 - 0 to 10 inches: gravelly fine sandy loam

H2 - 10 to 22 inches: gravelly fine sandy loam

H3 - 22 to 60 inches: gravelly sandy loam

Properties and qualities

Slope: 2 to 8 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat):

Moderately high to high (0.57 to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Moderate (about 8.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B

Hydric soil rating: No

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: Unranked

Minor Components

Udorthents

Percent of map unit: 5 percent

Hydric soil rating: No

Watchaug

Percent of map unit: 5 percent

Hydric soil rating: No

Wethersfield

Percent of map unit: 5 percent

Hydric soil rating: No

Yalesville

Percent of map unit: 5 percent

Hydric soil rating: No

Cheshire, very stony

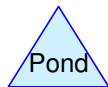
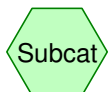
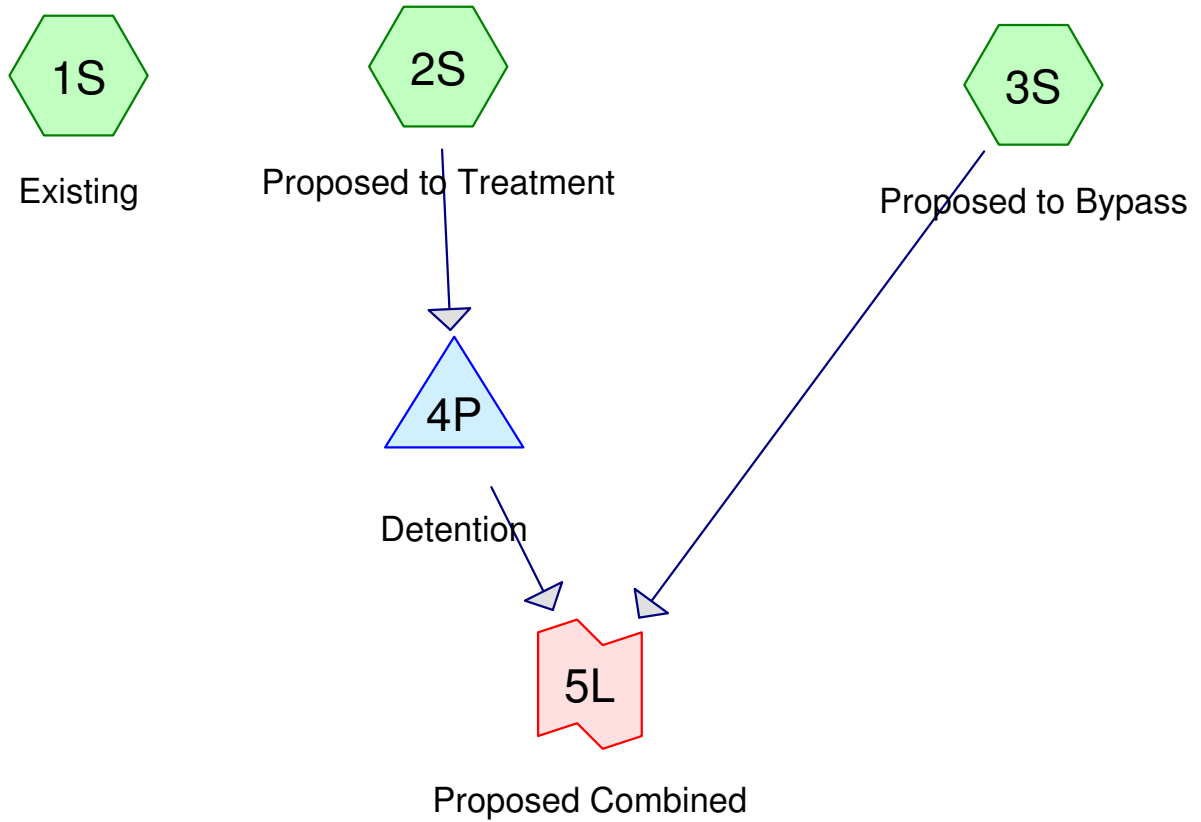
Percent of map unit: 5 percent

Hydric soil rating: No

Data Source Information

Soil Survey Area: Rockland County, New York

Survey Area Data: Version 16, Sep 3, 2018



Routing Diagram for 73 Forshay 5-3-24
 Prepared by Civil Tec Engineering & Surveyin, Printed 5/6/2024
 HydroCAD® 10.20-4b s/n 11210 © 2023 HydroCAD Software Solutions LLC

73 Forshay 5-3-24

Prepared by Civil Tec Engineering & Surveyin

Printed 5/6/2024

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Project Notes

Defined 9 rainfall events from 73 FORshay IDF

Defined 9 rainfall events from 73 FORshay IDF

73 Forshay 5-3-24

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-yr	Type III 24-hr		Default	24.00	1	2.75	2
2	10-yr	Type III 24-hr		Default	24.00	1	4.99	2
3	100-yr	Type III 24-hr		Default	24.00	1	8.86	2

73 Forshay 5-3-24

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.430	61	>75% Grass cover, Good, HSG B (1S, 2S, 3S)
1.090	98	Impervious (1S, 2S, 3S)
2.520	77	TOTAL AREA

73 Forshay 5-3-24

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
1.430	HSG B	1S, 2S, 3S
0.000	HSG C	
0.000	HSG D	
1.090	Other	1S, 2S, 3S
2.520		TOTAL AREA

73 Forshay 5-3-24

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	1.430	0.000	0.000	0.000	1.430	>75% Grass cover, Good	1S, 2S, 3S
0.000	0.000	0.000	0.000	1.090	1.090	Impervious	1S, 2S, 3S
0.000	1.430	0.000	0.000	1.090	2.520	TOTAL AREA	

73 Forshay 5-3-24

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Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	4P	499.00	498.66	40.0	0.0085	0.013	0.0	15.0	0.0	

73 Forshay 5-3-24*Type III 24-hr 1-yr Rainfall=2.75"*

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Existing

Runoff Area=1.230 ac 32.52% Impervious Runoff Depth=0.71"
 Flow Length=285' Tc=11.9 min CN=73 Runoff=0.73 cfs 0.073 af

Subcatchment 2S: Proposed to Treatment

Runoff Area=0.810 ac 75.31% Impervious Runoff Depth=1.68"
 Tc=6.0 min CN=89 Runoff=1.56 cfs 0.113 af

Subcatchment 3S: Proposed to Bypass

Runoff Area=0.480 ac 16.67% Impervious Runoff Depth=0.47"
 Flow Length=285' Tc=11.9 min CN=67 Runoff=0.16 cfs 0.019 af

Pond 4P: Detention

Peak Elev=499.92' Storage=0.037 af Inflow=1.56 cfs 0.113 af
 Outflow=0.59 cfs 0.102 af

Link 5L: Proposed Combined

Inflow=0.73 cfs 0.120 af
 Primary=0.73 cfs 0.120 af

Total Runoff Area = 2.520 ac Runoff Volume = 0.204 af Average Runoff Depth = 0.97"
56.75% Pervious = 1.430 ac 43.25% Impervious = 1.090 ac

73 Forshay 5-3-24

Type III 24-hr 1-yr Rainfall=2.75"

Prepared by Civil Tec Engineering & Surveyin

Printed 5/6/2024

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Summary for Subcatchment 1S: Existing

Runoff = 0.73 cfs @ 12.19 hrs, Volume= 0.073 af, Depth= 0.71"

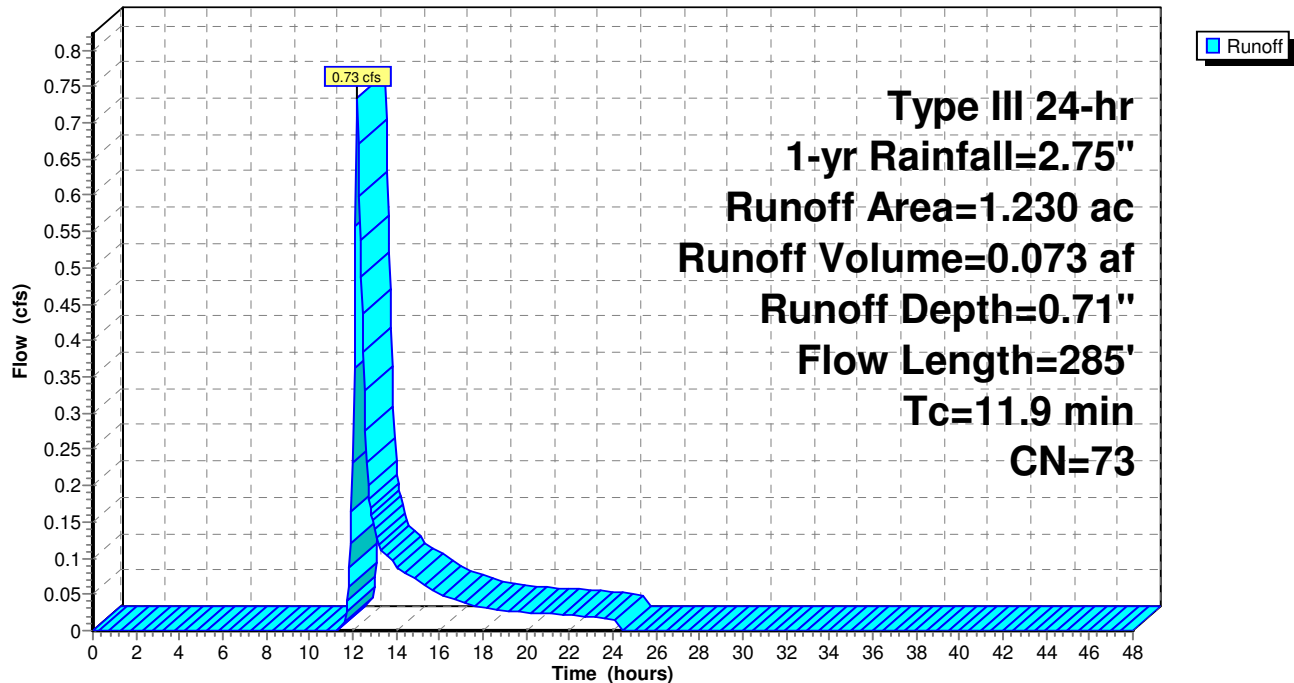
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-yr Rainfall=2.75"

Area (ac)	CN	Description
* 0.400	98	Impervious
0.830	61	>75% Grass cover, Good, HSG B
1.230	73	Weighted Average
0.830		67.48% Pervious Area
0.400		32.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0350	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
1.0	185	0.0400	3.22		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
11.9	285	Total			

Subcatchment 1S: Existing

Hydrograph



73 Forshay 5-3-24

Type III 24-hr 1-yr Rainfall=2.75"

Prepared by Civil Tec Engineering & Surveyin

Printed 5/6/2024

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Hydrograph for Subcatchment 1S: Existing

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	2.75	0.71	0.00
0.50	0.01	0.00	0.00	26.50	2.75	0.71	0.00
1.00	0.03	0.00	0.00	27.00	2.75	0.71	0.00
1.50	0.04	0.00	0.00	27.50	2.75	0.71	0.00
2.00	0.06	0.00	0.00	28.00	2.75	0.71	0.00
2.50	0.07	0.00	0.00	28.50	2.75	0.71	0.00
3.00	0.08	0.00	0.00	29.00	2.75	0.71	0.00
3.50	0.10	0.00	0.00	29.50	2.75	0.71	0.00
4.00	0.12	0.00	0.00	30.00	2.75	0.71	0.00
4.50	0.14	0.00	0.00	30.50	2.75	0.71	0.00
5.00	0.16	0.00	0.00	31.00	2.75	0.71	0.00
5.50	0.18	0.00	0.00	31.50	2.75	0.71	0.00
6.00	0.20	0.00	0.00	32.00	2.75	0.71	0.00
6.50	0.22	0.00	0.00	32.50	2.75	0.71	0.00
7.00	0.25	0.00	0.00	33.00	2.75	0.71	0.00
7.50	0.28	0.00	0.00	33.50	2.75	0.71	0.00
8.00	0.31	0.00	0.00	34.00	2.75	0.71	0.00
8.50	0.35	0.00	0.00	34.50	2.75	0.71	0.00
9.00	0.40	0.00	0.00	35.00	2.75	0.71	0.00
9.50	0.46	0.00	0.00	35.50	2.75	0.71	0.00
10.00	0.52	0.00	0.00	36.00	2.75	0.71	0.00
10.50	0.60	0.00	0.00	36.50	2.75	0.71	0.00
11.00	0.69	0.00	0.00	37.00	2.75	0.71	0.00
11.50	0.82	0.00	0.01	37.50	2.75	0.71	0.00
12.00	1.37	0.09	0.23	38.00	2.75	0.71	0.00
12.50	1.93	0.29	0.38	38.50	2.75	0.71	0.00
13.00	2.06	0.35	0.14	39.00	2.75	0.71	0.00
13.50	2.15	0.39	0.10	39.50	2.75	0.71	0.00
14.00	2.23	0.43	0.09	40.00	2.75	0.71	0.00
14.50	2.29	0.46	0.08	40.50	2.75	0.71	0.00
15.00	2.35	0.49	0.07	41.00	2.75	0.71	0.00
15.50	2.40	0.51	0.06	41.50	2.75	0.71	0.00
16.00	2.44	0.53	0.05	42.00	2.75	0.71	0.00
16.50	2.47	0.55	0.04	42.50	2.75	0.71	0.00
17.00	2.50	0.57	0.04	43.00	2.75	0.71	0.00
17.50	2.53	0.58	0.04	43.50	2.75	0.71	0.00
18.00	2.55	0.60	0.03	44.00	2.75	0.71	0.00
18.50	2.57	0.61	0.03	44.50	2.75	0.71	0.00
19.00	2.59	0.62	0.03	45.00	2.75	0.71	0.00
19.50	2.61	0.63	0.03	45.50	2.75	0.71	0.00
20.00	2.63	0.64	0.03	46.00	2.75	0.71	0.00
20.50	2.65	0.65	0.02	46.50	2.75	0.71	0.00
21.00	2.67	0.66	0.02	47.00	2.75	0.71	0.00
21.50	2.68	0.67	0.02	47.50	2.75	0.71	0.00
22.00	2.70	0.68	0.02	48.00	2.75	0.71	0.00
22.50	2.71	0.69	0.02				
23.00	2.73	0.69	0.02				
23.50	2.74	0.70	0.02				
24.00	2.75	0.71	0.02				
24.50	2.75	0.71	0.00				
25.00	2.75	0.71	0.00				
25.50	2.75	0.71	0.00				

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Type III 24-hr 1-yr Rainfall=2.75"

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Summary for Subcatchment 2S: Proposed to Treatment

Runoff = 1.56 cfs @ 12.09 hrs, Volume= 0.113 af, Depth= 1.68"
 Routed to Pond 4P : Detention

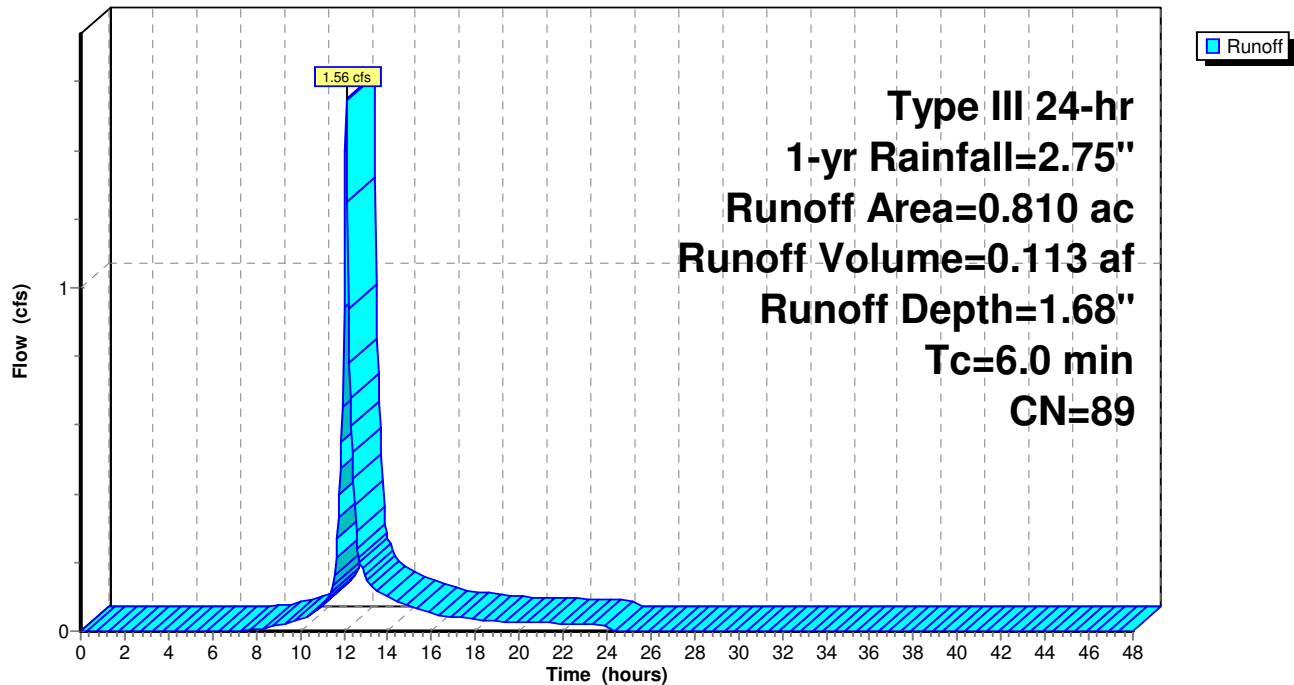
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1-yr Rainfall=2.75"

Area (ac)	CN	Description
* 0.610	98	Impervious
0.200	61	>75% Grass cover, Good, HSG B
0.810	89	Weighted Average
0.200		24.69% Pervious Area
0.610		75.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment 2S: Proposed to Treatment

Hydrograph



73 Forshay 5-3-24

Type III 24-hr 1-yr Rainfall=2.75"

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Hydrograph for Subcatchment 2S: Proposed to Treatment

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	2.75	1.68	0.00
0.50	0.01	0.00	0.00	26.50	2.75	1.68	0.00
1.00	0.03	0.00	0.00	27.00	2.75	1.68	0.00
1.50	0.04	0.00	0.00	27.50	2.75	1.68	0.00
2.00	0.06	0.00	0.00	28.00	2.75	1.68	0.00
2.50	0.07	0.00	0.00	28.50	2.75	1.68	0.00
3.00	0.08	0.00	0.00	29.00	2.75	1.68	0.00
3.50	0.10	0.00	0.00	29.50	2.75	1.68	0.00
4.00	0.12	0.00	0.00	30.00	2.75	1.68	0.00
4.50	0.14	0.00	0.00	30.50	2.75	1.68	0.00
5.00	0.16	0.00	0.00	31.00	2.75	1.68	0.00
5.50	0.18	0.00	0.00	31.50	2.75	1.68	0.00
6.00	0.20	0.00	0.00	32.00	2.75	1.68	0.00
6.50	0.22	0.00	0.00	32.50	2.75	1.68	0.00
7.00	0.25	0.00	0.00	33.00	2.75	1.68	0.00
7.50	0.28	0.00	0.00	33.50	2.75	1.68	0.00
8.00	0.31	0.00	0.01	34.00	2.75	1.68	0.00
8.50	0.35	0.01	0.01	34.50	2.75	1.68	0.00
9.00	0.40	0.02	0.02	35.00	2.75	1.68	0.00
9.50	0.46	0.03	0.02	35.50	2.75	1.68	0.00
10.00	0.52	0.05	0.03	36.00	2.75	1.68	0.00
10.50	0.60	0.08	0.05	36.50	2.75	1.68	0.00
11.00	0.69	0.12	0.07	37.00	2.75	1.68	0.00
11.50	0.82	0.18	0.13	37.50	2.75	1.68	0.00
12.00	1.37	0.54	0.94	38.00	2.75	1.68	0.00
12.50	1.93	0.97	0.37	38.50	2.75	1.68	0.00
13.00	2.06	1.08	0.15	39.00	2.75	1.68	0.00
13.50	2.15	1.16	0.12	39.50	2.75	1.68	0.00
14.00	2.23	1.22	0.10	40.00	2.75	1.68	0.00
14.50	2.29	1.28	0.09	40.50	2.75	1.68	0.00
15.00	2.35	1.32	0.07	41.00	2.75	1.68	0.00
15.50	2.40	1.36	0.06	41.50	2.75	1.68	0.00
16.00	2.44	1.40	0.05	42.00	2.75	1.68	0.00
16.50	2.47	1.43	0.05	42.50	2.75	1.68	0.00
17.00	2.50	1.46	0.04	43.00	2.75	1.68	0.00
17.50	2.53	1.48	0.04	43.50	2.75	1.68	0.00
18.00	2.55	1.50	0.03	44.00	2.75	1.68	0.00
18.50	2.57	1.52	0.03	44.50	2.75	1.68	0.00
19.00	2.59	1.54	0.03	45.00	2.75	1.68	0.00
19.50	2.61	1.55	0.03	45.50	2.75	1.68	0.00
20.00	2.63	1.57	0.03	46.00	2.75	1.68	0.00
20.50	2.65	1.59	0.02	46.50	2.75	1.68	0.00
21.00	2.67	1.60	0.02	47.00	2.75	1.68	0.00
21.50	2.68	1.61	0.02	47.50	2.75	1.68	0.00
22.00	2.70	1.63	0.02	48.00	2.75	1.68	0.00
22.50	2.71	1.64	0.02				
23.00	2.73	1.65	0.02				
23.50	2.74	1.66	0.02				
24.00	2.75	1.68	0.02				
24.50	2.75	1.68	0.00				
25.00	2.75	1.68	0.00				
25.50	2.75	1.68	0.00				

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Type III 24-hr 1-yr Rainfall=2.75"

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Summary for Subcatchment 3S: Proposed to Bypass

Runoff = 0.16 cfs @ 12.21 hrs, Volume= 0.019 af, Depth= 0.47"

Routed to Link 5L : Proposed Combined

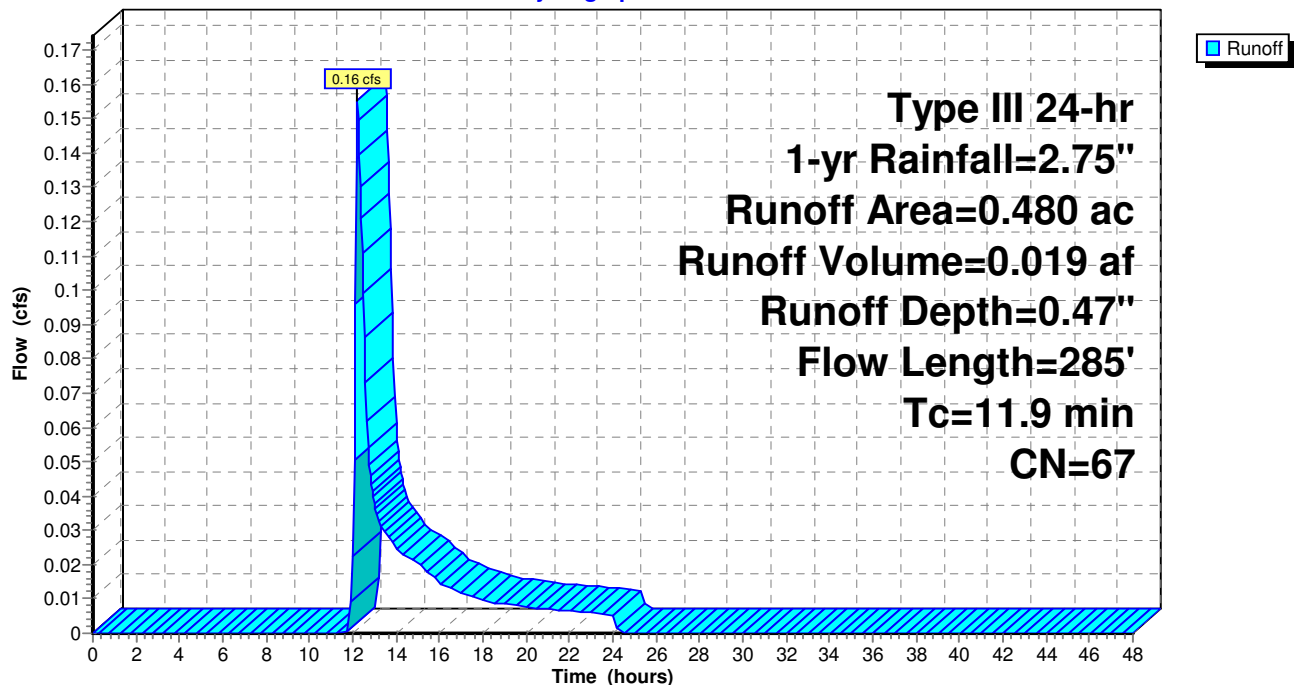
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-yr Rainfall=2.75"

Area (ac)	CN	Description
* 0.080	98	Impervious
0.400	61	>75% Grass cover, Good, HSG B
0.480	67	Weighted Average
0.400		83.33% Pervious Area
0.080		16.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0350	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
1.0	185	0.0400	3.22		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
11.9	285	Total			

Subcatchment 3S: Proposed to Bypass

Hydrograph



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Type III 24-hr 1-yr Rainfall=2.75"

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Hydrograph for Subcatchment 3S: Proposed to Bypass

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	2.75	0.47	0.00
0.50	0.01	0.00	0.00	26.50	2.75	0.47	0.00
1.00	0.03	0.00	0.00	27.00	2.75	0.47	0.00
1.50	0.04	0.00	0.00	27.50	2.75	0.47	0.00
2.00	0.06	0.00	0.00	28.00	2.75	0.47	0.00
2.50	0.07	0.00	0.00	28.50	2.75	0.47	0.00
3.00	0.08	0.00	0.00	29.00	2.75	0.47	0.00
3.50	0.10	0.00	0.00	29.50	2.75	0.47	0.00
4.00	0.12	0.00	0.00	30.00	2.75	0.47	0.00
4.50	0.14	0.00	0.00	30.50	2.75	0.47	0.00
5.00	0.16	0.00	0.00	31.00	2.75	0.47	0.00
5.50	0.18	0.00	0.00	31.50	2.75	0.47	0.00
6.00	0.20	0.00	0.00	32.00	2.75	0.47	0.00
6.50	0.22	0.00	0.00	32.50	2.75	0.47	0.00
7.00	0.25	0.00	0.00	33.00	2.75	0.47	0.00
7.50	0.28	0.00	0.00	33.50	2.75	0.47	0.00
8.00	0.31	0.00	0.00	34.00	2.75	0.47	0.00
8.50	0.35	0.00	0.00	34.50	2.75	0.47	0.00
9.00	0.40	0.00	0.00	35.00	2.75	0.47	0.00
9.50	0.46	0.00	0.00	35.50	2.75	0.47	0.00
10.00	0.52	0.00	0.00	36.00	2.75	0.47	0.00
10.50	0.60	0.00	0.00	36.50	2.75	0.47	0.00
11.00	0.69	0.00	0.00	37.00	2.75	0.47	0.00
11.50	0.82	0.00	0.00	37.50	2.75	0.47	0.00
12.00	1.37	0.03	0.02	38.00	2.75	0.47	0.00
12.50	1.93	0.15	0.10	38.50	2.75	0.47	0.00
13.00	2.06	0.19	0.04	39.00	2.75	0.47	0.00
13.50	2.15	0.22	0.03	39.50	2.75	0.47	0.00
14.00	2.23	0.25	0.03	40.00	2.75	0.47	0.00
14.50	2.29	0.27	0.02	40.50	2.75	0.47	0.00
15.00	2.35	0.30	0.02	41.00	2.75	0.47	0.00
15.50	2.40	0.31	0.02	41.50	2.75	0.47	0.00
16.00	2.44	0.33	0.01	42.00	2.75	0.47	0.00
16.50	2.47	0.34	0.01	42.50	2.75	0.47	0.00
17.00	2.50	0.36	0.01	43.00	2.75	0.47	0.00
17.50	2.53	0.37	0.01	43.50	2.75	0.47	0.00
18.00	2.55	0.38	0.01	44.00	2.75	0.47	0.00
18.50	2.57	0.39	0.01	44.50	2.75	0.47	0.00
19.00	2.59	0.40	0.01	45.00	2.75	0.47	0.00
19.50	2.61	0.40	0.01	45.50	2.75	0.47	0.00
20.00	2.63	0.41	0.01	46.00	2.75	0.47	0.00
20.50	2.65	0.42	0.01	46.50	2.75	0.47	0.00
21.00	2.67	0.43	0.01	47.00	2.75	0.47	0.00
21.50	2.68	0.43	0.01	47.50	2.75	0.47	0.00
22.00	2.70	0.44	0.01	48.00	2.75	0.47	0.00
22.50	2.71	0.45	0.01				
23.00	2.73	0.45	0.01				
23.50	2.74	0.46	0.01				
24.00	2.75	0.47	0.01				
24.50	2.75	0.47	0.00				
25.00	2.75	0.47	0.00				
25.50	2.75	0.47	0.00				

73 Forshay 5-3-24

Type III 24-hr 1-yr Rainfall=2.75"

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Summary for Pond 4P: Detention

Inflow Area = 0.810 ac, 75.31% Impervious, Inflow Depth = 1.68" for 1-yr event
 Inflow = 1.56 cfs @ 12.09 hrs, Volume= 0.113 af
 Outflow = 0.59 cfs @ 12.35 hrs, Volume= 0.102 af, Atten= 62%, Lag= 15.8 min
 Primary = 0.59 cfs @ 12.35 hrs, Volume= 0.102 af
 Routed to Link 5L : Proposed Combined

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Peak Elev= 499.92' @ 12.35 hrs Surf.Area= 0.057 ac Storage= 0.037 af

Plug-Flow detention time= 101.2 min calculated for 0.102 af (90% of inflow)
 Center-of-Mass det. time= 53.4 min (870.6 - 817.3)

Volume	Invert	Avail.Storage	Storage Description
#1A	498.50'	0.066 af	27.50'W x 90.00'L x 4.50'H Field A 0.256 af Overall - 0.091 af Embedded = 0.164 af x 40.0% Voids
#2A	499.00'	0.073 af	ADS N-12 36" x 20 Inside #1 Inside= 36.1"W x 36.1"H => 7.10 sf x 20.00'L = 142.0 cf Outside= 42.0"W x 42.0"H => 8.86 sf x 20.00'L = 177.2 cf 20 Chambers in 5 Rows 24.50' Header x 7.10 sf x 2 = 347.9 cf Inside
		0.139 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	499.00'	15.0" Round Culvert L= 40.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 499.00' / 498.66' S= 0.0085 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Device 1	499.00'	5.2" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	500.00'	9.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Device 1	501.25'	0.6' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#5	Device 1	502.00'	6.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=0.59 cfs @ 12.35 hrs HW=499.92' (Free Discharge)

- 1=Culvert (Passes 0.59 cfs of 2.72 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.59 cfs @ 4.03 fps)
 3=Orifice/Grate (Controls 0.00 cfs)
 4=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 5=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

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Type III 24-hr 1-yr Rainfall=2.75"

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Pond 4P: Detention - Chamber Wizard Field A**Chamber Model = ADS N-12 36" (ADS N-12® Pipe)**

Inside= 36.1"W x 36.1"H => 7.10 sf x 20.00'L = 142.0 cf

Outside= 42.0"W x 42.0"H => 8.86 sf x 20.00'L = 177.2 cf

42.0" Wide + 21.0" Spacing = 63.0" C-C Row Spacing

4 Chambers/Row x 20.00' Long +3.50' Header x 2 = 87.00' Row Length +18.0" End Stone x 2 = 90.00'
Base Length

5 Rows x 42.0" Wide + 21.0" Spacing x 4 + 18.0" Side Stone x 2 = 27.50' Base Width

6.0" Stone Base + 42.0" Chamber Height + 6.0" Stone Cover = 4.50' Field Height

20 Chambers x 142.0 cf + 24.50' Header x 7.10 sf x 2 = 3,187.9 cf Chamber Storage

20 Chambers x 177.2 cf + 24.50' Header x 8.86 sf x 2 = 3,978.6 cf Displacement

11,137.5 cf Field - 3,978.6 cf Chambers = 7,158.9 cf Stone x 40.0% Voids = 2,863.5 cf Stone Storage

Chamber Storage + Stone Storage = 6,051.4 cf = 0.139 af

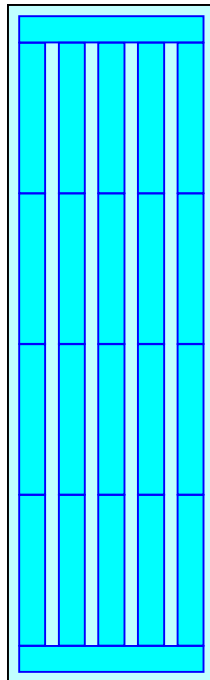
Overall Storage Efficiency = 54.3%

Overall System Size = 90.00' x 27.50' x 4.50'

20 Chambers

412.5 cy Field

265.1 cy Stone



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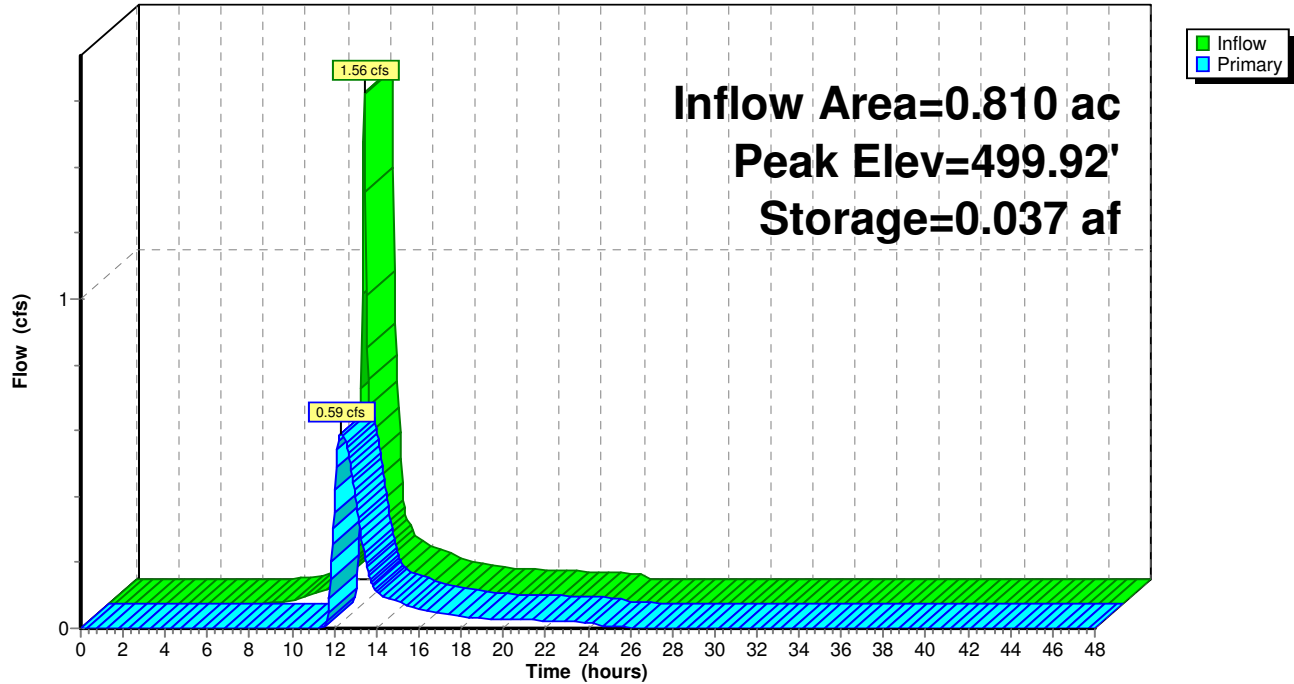
Type III 24-hr 1-yr Rainfall=2.75"

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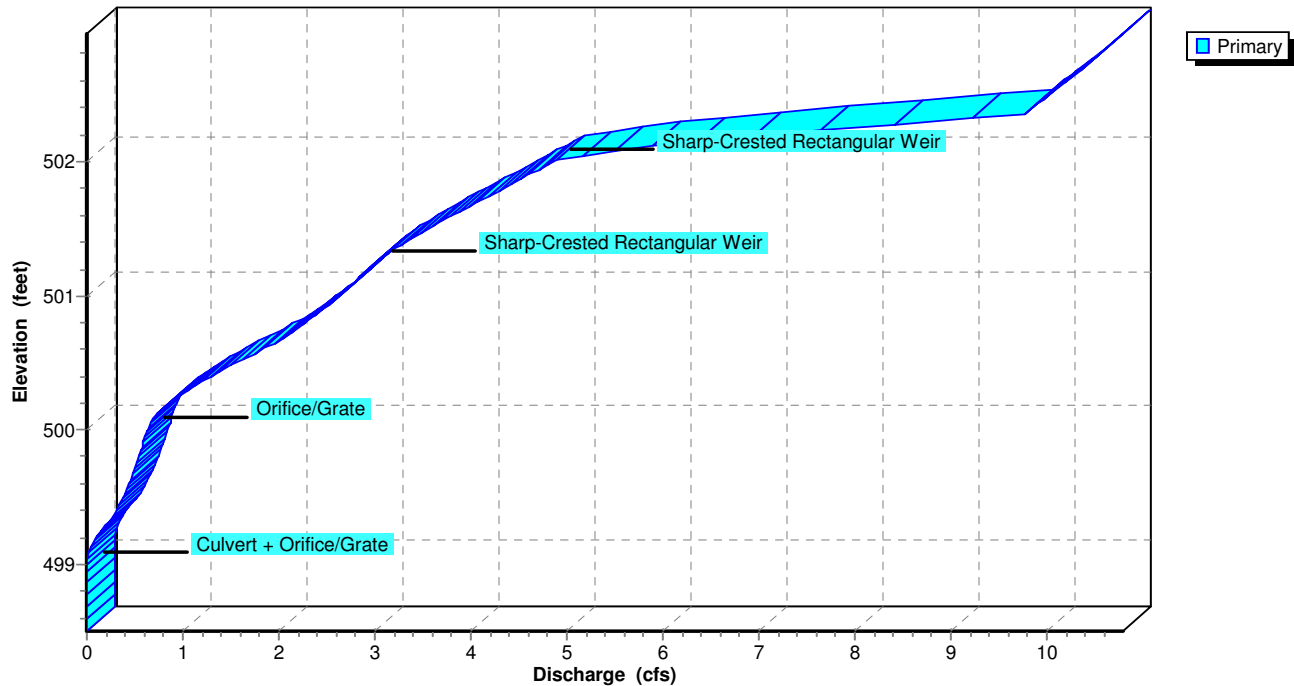
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Pond 4P: Detention

Hydrograph

**Pond 4P: Detention**

Stage-Discharge



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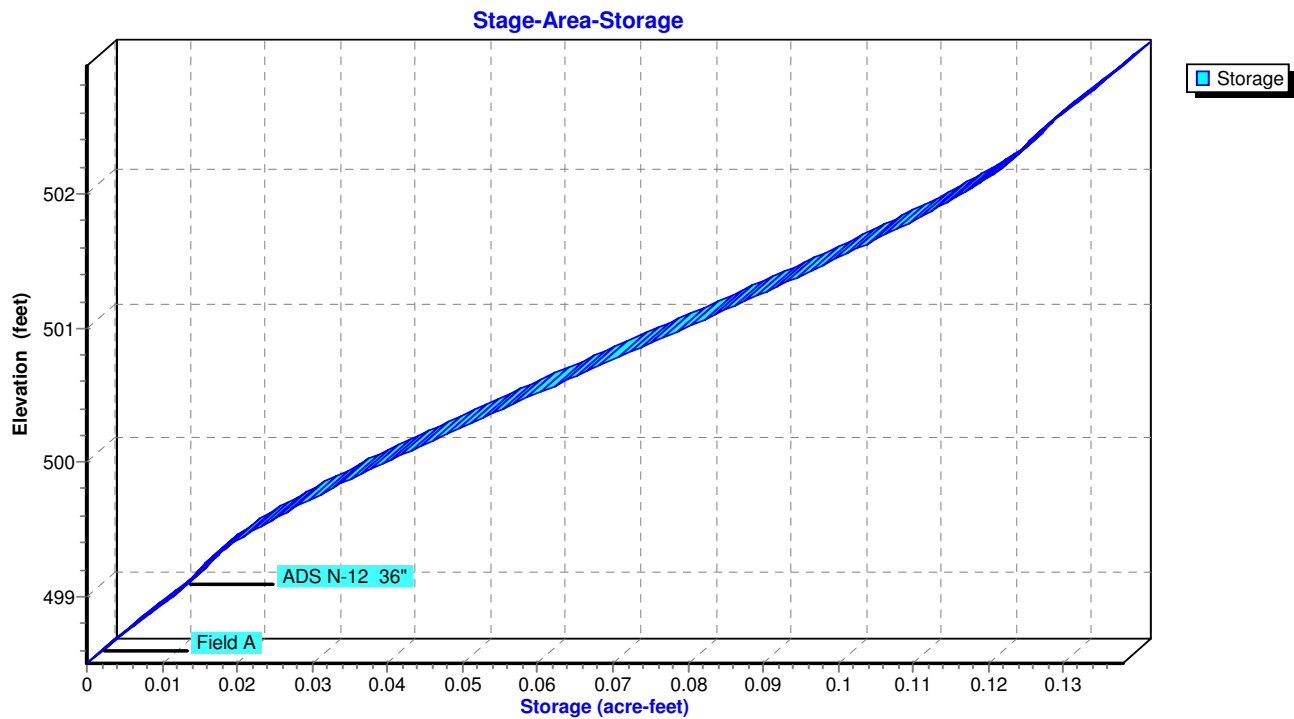
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Type III 24-hr 1-yr Rainfall=2.75"

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Pond 4P: Detention

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Type III 24-hr 1-yr Rainfall=2.75"

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Hydrograph for Pond 4P: Detention

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.000	498.50	0.00
1.00	0.00	0.000	498.50	0.00
2.00	0.00	0.000	498.50	0.00
3.00	0.00	0.000	498.50	0.00
4.00	0.00	0.000	498.50	0.00
5.00	0.00	0.000	498.50	0.00
6.00	0.00	0.000	498.50	0.00
7.00	0.00	0.000	498.50	0.00
8.00	0.01	0.000	498.51	0.00
9.00	0.02	0.001	498.54	0.00
10.00	0.03	0.003	498.63	0.00
11.00	0.07	0.007	498.82	0.00
12.00	0.94	0.021	499.46	0.35
13.00	0.15	0.024	499.54	0.40
14.00	0.10	0.015	499.21	0.11
15.00	0.07	0.015	499.18	0.08
16.00	0.05	0.014	499.15	0.06
17.00	0.04	0.014	499.13	0.05
18.00	0.03	0.014	499.11	0.04
19.00	0.03	0.013	499.10	0.03
20.00	0.03	0.013	499.10	0.03
21.00	0.02	0.013	499.09	0.02
22.00	0.02	0.013	499.09	0.02
23.00	0.02	0.013	499.09	0.02
24.00	0.02	0.013	499.08	0.02
25.00	0.00	0.012	499.04	0.01
26.00	0.00	0.012	499.03	0.00
27.00	0.00	0.012	499.02	0.00
28.00	0.00	0.012	499.01	0.00
29.00	0.00	0.012	499.01	0.00
30.00	0.00	0.011	499.01	0.00
31.00	0.00	0.011	499.00	0.00
32.00	0.00	0.011	499.00	0.00
33.00	0.00	0.011	499.00	0.00
34.00	0.00	0.011	499.00	0.00
35.00	0.00	0.011	499.00	0.00
36.00	0.00	0.011	499.00	0.00
37.00	0.00	0.011	499.00	0.00
38.00	0.00	0.011	499.00	0.00
39.00	0.00	0.011	499.00	0.00
40.00	0.00	0.011	499.00	0.00
41.00	0.00	0.011	499.00	0.00
42.00	0.00	0.011	499.00	0.00
43.00	0.00	0.011	499.00	0.00
44.00	0.00	0.011	499.00	0.00
45.00	0.00	0.011	499.00	0.00
46.00	0.00	0.011	499.00	0.00
47.00	0.00	0.011	499.00	0.00
48.00	0.00	0.011	499.00	0.00

73 Forshay 5-3-24

Type III 24-hr 1-yr Rainfall=2.75"

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Stage-Discharge for Pond 4P: Detention

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
498.50	0.00	501.10	2.79
498.55	0.00	501.15	2.86
498.60	0.00	501.20	2.93
498.65	0.00	501.25	3.00
498.70	0.00	501.30	3.09
498.75	0.00	501.35	3.20
498.80	0.00	501.40	3.31
498.85	0.00	501.45	3.43
498.90	0.00	501.50	3.55
498.95	0.00	501.55	3.68
499.00	0.00	501.60	3.81
499.05	0.01	501.65	3.94
499.10	0.03	501.70	4.07
499.15	0.06	501.75	4.20
499.20	0.10	501.80	4.33
499.25	0.15	501.85	4.47
499.30	0.20	501.90	4.60
499.35	0.26	501.95	4.72
499.40	0.31	502.00	4.85
499.45	0.34	502.05	5.20
499.50	0.38	502.10	5.72
499.55	0.41	502.15	6.36
499.60	0.44	502.20	7.08
499.65	0.47	502.25	7.89
499.70	0.49	502.30	8.76
499.75	0.52	502.35	9.70
499.80	0.54	502.40	9.84
499.85	0.57	502.45	9.93
499.90	0.59	502.50	10.02
499.95	0.61	502.55	10.11
500.00	0.63	502.60	10.19
500.05	0.66	502.65	10.28
500.10	0.71	502.70	10.36
500.15	0.77	502.75	10.45
500.20	0.85	502.80	10.53
500.25	0.94	502.85	10.61
500.30	1.05	502.90	10.69
500.35	1.16	502.95	10.77
500.40	1.29	503.00	10.86
500.45	1.42		
500.50	1.56		
500.55	1.70		
500.60	1.83		
500.65	1.97		
500.70	2.09		
500.75	2.18		
500.80	2.28		
500.85	2.37		
500.90	2.46		
500.95	2.55		
501.00	2.63		
501.05	2.71		

73 Forshay 5-3-24

Type III 24-hr 1-yr Rainfall=2.75"

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Stage-Area-Storage for Pond 4P: Detention

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
498.50	0.000	501.10	0.084
498.55	0.001	501.15	0.086
498.60	0.002	501.20	0.088
498.65	0.003	501.25	0.089
498.70	0.005	501.30	0.091
498.75	0.006	501.35	0.093
498.80	0.007	501.40	0.095
498.85	0.008	501.45	0.097
498.90	0.009	501.50	0.099
498.95	0.010	501.55	0.101
499.00	0.011	501.60	0.103
499.05	0.012	501.65	0.105
499.10	0.013	501.70	0.106
499.15	0.014	501.75	0.108
499.20	0.015	501.80	0.110
499.25	0.016	501.85	0.112
499.30	0.017	501.90	0.113
499.35	0.018	501.95	0.115
499.40	0.020	502.00	0.116
499.45	0.021	502.05	0.118
499.50	0.022	502.10	0.119
499.55	0.024	502.15	0.121
499.60	0.026	502.20	0.122
499.65	0.027	502.25	0.123
499.70	0.029	502.30	0.124
499.75	0.031	502.35	0.125
499.80	0.033	502.40	0.126
499.85	0.034	502.45	0.127
499.90	0.036	502.50	0.128
499.95	0.038	502.55	0.129
500.00	0.040	502.60	0.130
500.05	0.042	502.65	0.131
500.10	0.044	502.70	0.132
500.15	0.046	502.75	0.133
500.20	0.047	502.80	0.134
500.25	0.049	502.85	0.136
500.30	0.051	502.90	0.137
500.35	0.053	502.95	0.138
500.40	0.055	503.00	0.139
500.45	0.057		
500.50	0.059		
500.55	0.061		
500.60	0.063		
500.65	0.065		
500.70	0.067		
500.75	0.069		
500.80	0.071		
500.85	0.074		
500.90	0.076		
500.95	0.078		
501.00	0.080		
501.05	0.082		

73 Forshay 5-3-24

Type III 24-hr 1-yr Rainfall=2.75"

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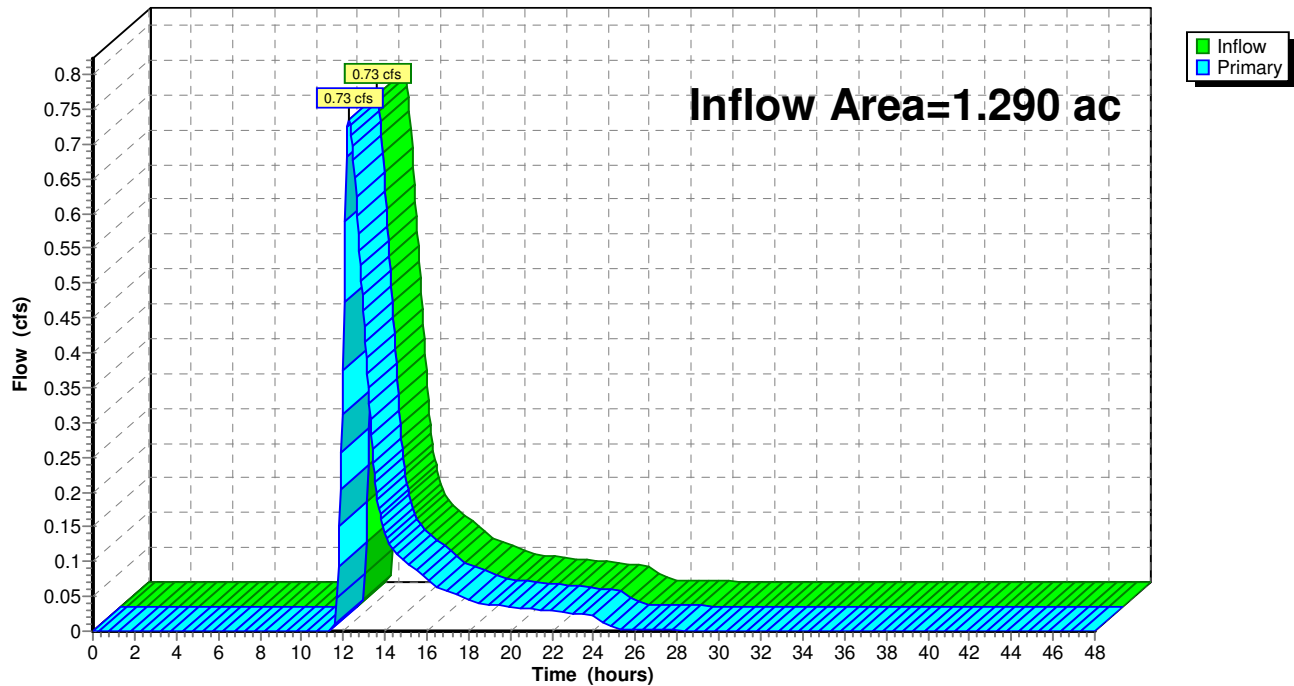
Summary for Link 5L: Proposed Combined

Inflow Area = 1.290 ac, 53.49% Impervious, Inflow Depth = 1.12" for 1-yr event
 Inflow = 0.73 cfs @ 12.26 hrs, Volume= 0.120 af
 Primary = 0.73 cfs @ 12.26 hrs, Volume= 0.120 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link 5L: Proposed Combined

Hydrograph



73 Forshay 5-3-24

Type III 24-hr 1-yr Rainfall=2.75"

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Hydrograph for Link 5L: Proposed Combined

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.00	0.00	0.00	36.00	0.00	0.00	0.00
10.50	0.00	0.00	0.00	36.50	0.00	0.00	0.00
11.00	0.00	0.00	0.00	37.00	0.00	0.00	0.00
11.50	0.00	0.00	0.00	37.50	0.00	0.00	0.00
12.00	0.38	0.00	0.38	38.00	0.00	0.00	0.00
12.50	0.68	0.00	0.68	38.50	0.00	0.00	0.00
13.00	0.44	0.00	0.44	39.00	0.00	0.00	0.00
13.50	0.23	0.00	0.23	39.50	0.00	0.00	0.00
14.00	0.14	0.00	0.14	40.00	0.00	0.00	0.00
14.50	0.11	0.00	0.11	40.50	0.00	0.00	0.00
15.00	0.10	0.00	0.10	41.00	0.00	0.00	0.00
15.50	0.09	0.00	0.09	41.50	0.00	0.00	0.00
16.00	0.07	0.00	0.07	42.00	0.00	0.00	0.00
16.50	0.06	0.00	0.06	42.50	0.00	0.00	0.00
17.00	0.06	0.00	0.06	43.00	0.00	0.00	0.00
17.50	0.05	0.00	0.05	43.50	0.00	0.00	0.00
18.00	0.05	0.00	0.05	44.00	0.00	0.00	0.00
18.50	0.04	0.00	0.04	44.50	0.00	0.00	0.00
19.00	0.04	0.00	0.04	45.00	0.00	0.00	0.00
19.50	0.04	0.00	0.04	45.50	0.00	0.00	0.00
20.00	0.04	0.00	0.04	46.00	0.00	0.00	0.00
20.50	0.03	0.00	0.03	46.50	0.00	0.00	0.00
21.00	0.03	0.00	0.03	47.00	0.00	0.00	0.00
21.50	0.03	0.00	0.03	47.50	0.00	0.00	0.00
22.00	0.03	0.00	0.03	48.00	0.00	0.00	0.00
22.50	0.03	0.00	0.03				
23.00	0.03	0.00	0.03				
23.50	0.03	0.00	0.03				
24.00	0.02	0.00	0.02				
24.50	0.01	0.00	0.01				
25.00	0.01	0.00	0.01				
25.50	0.00	0.00	0.00				

73 Forshay 5-3-24*Type III 24-hr 10-yr Rainfall=4.99"*

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Existing

Runoff Area=1.230 ac 32.52% Impervious Runoff Depth=2.27"
 Flow Length=285' Tc=11.9 min CN=73 Runoff=2.66 cfs 0.233 af

Subcatchment 2S: Proposed to Treatment

Runoff Area=0.810 ac 75.31% Impervious Runoff Depth=3.76"
 Tc=6.0 min CN=89 Runoff=3.39 cfs 0.254 af

Subcatchment 3S: Proposed to Bypass

Runoff Area=0.480 ac 16.67% Impervious Runoff Depth=1.80"
 Flow Length=285' Tc=11.9 min CN=67 Runoff=0.79 cfs 0.072 af

Pond 4P: Detention

Peak Elev=500.62' Storage=0.064 af Inflow=3.39 cfs 0.254 af
 Outflow=1.89 cfs 0.243 af

Link 5L: Proposed Combined

Inflow=2.66 cfs 0.314 af
 Primary=2.66 cfs 0.314 af

Total Runoff Area = 2.520 ac Runoff Volume = 0.559 af Average Runoff Depth = 2.66"
56.75% Pervious = 1.430 ac 43.25% Impervious = 1.090 ac

73 Forshay 5-3-24

Type III 24-hr 10-yr Rainfall=4.99"

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Summary for Subcatchment 1S: Existing

Runoff = 2.66 cfs @ 12.17 hrs, Volume= 0.233 af, Depth= 2.27"

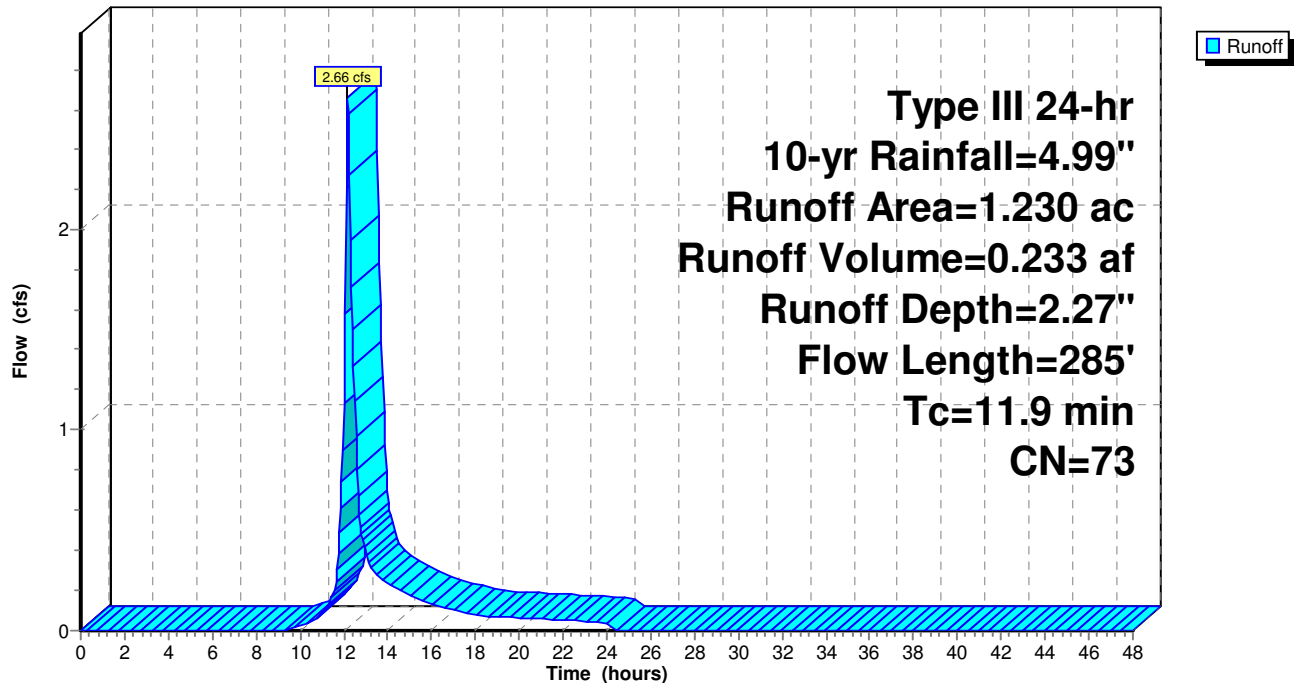
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.99"

Area (ac)	CN	Description
* 0.400	98	Impervious
0.830	61	>75% Grass cover, Good, HSG B
1.230	73	Weighted Average
0.830		67.48% Pervious Area
0.400		32.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0350	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
1.0	185	0.0400	3.22		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
11.9	285	Total			

Subcatchment 1S: Existing

Hydrograph



73 Forshay 5-3-24

Type III 24-hr 10-yr Rainfall=4.99"

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Hydrograph for Subcatchment 1S: Existing

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	4.99	2.27	0.00
0.50	0.02	0.00	0.00	26.50	4.99	2.27	0.00
1.00	0.05	0.00	0.00	27.00	4.99	2.27	0.00
1.50	0.07	0.00	0.00	27.50	4.99	2.27	0.00
2.00	0.10	0.00	0.00	28.00	4.99	2.27	0.00
2.50	0.13	0.00	0.00	28.50	4.99	2.27	0.00
3.00	0.15	0.00	0.00	29.00	4.99	2.27	0.00
3.50	0.18	0.00	0.00	29.50	4.99	2.27	0.00
4.00	0.21	0.00	0.00	30.00	4.99	2.27	0.00
4.50	0.25	0.00	0.00	30.50	4.99	2.27	0.00
5.00	0.28	0.00	0.00	31.00	4.99	2.27	0.00
5.50	0.32	0.00	0.00	31.50	4.99	2.27	0.00
6.00	0.36	0.00	0.00	32.00	4.99	2.27	0.00
6.50	0.40	0.00	0.00	32.50	4.99	2.27	0.00
7.00	0.45	0.00	0.00	33.00	4.99	2.27	0.00
7.50	0.51	0.00	0.00	33.50	4.99	2.27	0.00
8.00	0.57	0.00	0.00	34.00	4.99	2.27	0.00
8.50	0.64	0.00	0.00	34.50	4.99	2.27	0.00
9.00	0.73	0.00	0.00	35.00	4.99	2.27	0.00
9.50	0.83	0.00	0.01	35.50	4.99	2.27	0.00
10.00	0.94	0.01	0.02	36.00	4.99	2.27	0.00
10.50	1.08	0.03	0.05	36.50	4.99	2.27	0.00
11.00	1.25	0.06	0.09	37.00	4.99	2.27	0.00
11.50	1.49	0.13	0.17	37.50	4.99	2.27	0.00
12.00	2.49	0.56	1.13	38.00	4.99	2.27	0.00
12.50	3.50	1.18	1.14	38.50	4.99	2.27	0.00
13.00	3.74	1.35	0.38	39.00	4.99	2.27	0.00
13.50	3.91	1.46	0.29	39.50	4.99	2.27	0.00
14.00	4.05	1.56	0.24	40.00	4.99	2.27	0.00
14.50	4.16	1.64	0.20	40.50	4.99	2.27	0.00
15.00	4.26	1.72	0.18	41.00	4.99	2.27	0.00
15.50	4.35	1.78	0.16	41.50	4.99	2.27	0.00
16.00	4.42	1.84	0.13	42.00	4.99	2.27	0.00
16.50	4.48	1.88	0.11	42.50	4.99	2.27	0.00
17.00	4.54	1.92	0.10	43.00	4.99	2.27	0.00
17.50	4.59	1.96	0.09	43.50	4.99	2.27	0.00
18.00	4.63	1.99	0.08	44.00	4.99	2.27	0.00
18.50	4.67	2.02	0.07	44.50	4.99	2.27	0.00
19.00	4.71	2.05	0.07	45.00	4.99	2.27	0.00
19.50	4.74	2.08	0.07	45.50	4.99	2.27	0.00
20.00	4.78	2.11	0.06	46.00	4.99	2.27	0.00
20.50	4.81	2.13	0.06	46.50	4.99	2.27	0.00
21.00	4.84	2.15	0.06	47.00	4.99	2.27	0.00
21.50	4.87	2.18	0.06	47.50	4.99	2.27	0.00
22.00	4.89	2.20	0.05	48.00	4.99	2.27	0.00
22.50	4.92	2.22	0.05				
23.00	4.94	2.24	0.05				
23.50	4.97	2.26	0.04				
24.00	4.99	2.27	0.04				
24.50	4.99	2.27	0.00				
25.00	4.99	2.27	0.00				
25.50	4.99	2.27	0.00				

73 Forshay 5-3-24

Type III 24-hr 10-yr Rainfall=4.99"

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Summary for Subcatchment 2S: Proposed to Treatment

Runoff = 3.39 cfs @ 12.09 hrs, Volume= 0.254 af, Depth= 3.76"
 Routed to Pond 4P : Detention

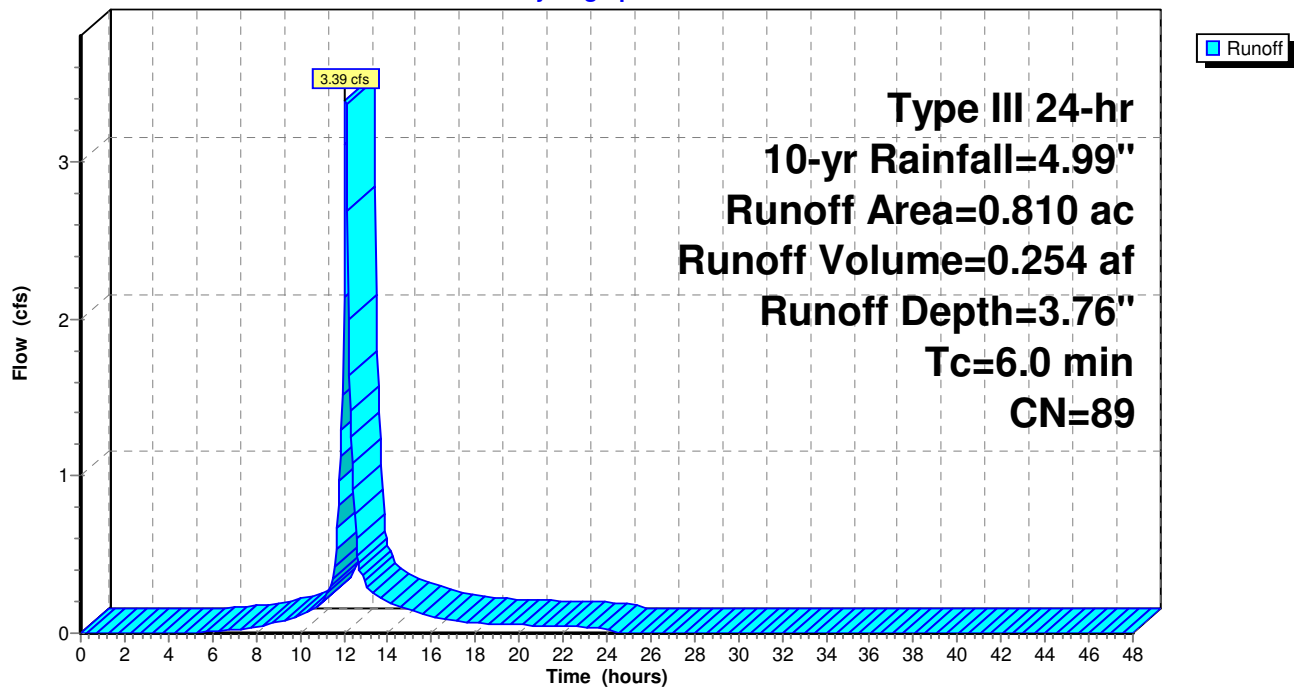
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-yr Rainfall=4.99"

Area (ac)	CN	Description
* 0.610	98	Impervious
0.200	61	>75% Grass cover, Good, HSG B
0.810	89	Weighted Average
0.200		24.69% Pervious Area
0.610		75.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment 2S: Proposed to Treatment

Hydrograph



73 Forshay 5-3-24

Type III 24-hr 10-yr Rainfall=4.99"

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Hydrograph for Subcatchment 2S: Proposed to Treatment

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	4.99	3.76	0.00
0.50	0.02	0.00	0.00	26.50	4.99	3.76	0.00
1.00	0.05	0.00	0.00	27.00	4.99	3.76	0.00
1.50	0.07	0.00	0.00	27.50	4.99	3.76	0.00
2.00	0.10	0.00	0.00	28.00	4.99	3.76	0.00
2.50	0.13	0.00	0.00	28.50	4.99	3.76	0.00
3.00	0.15	0.00	0.00	29.00	4.99	3.76	0.00
3.50	0.18	0.00	0.00	29.50	4.99	3.76	0.00
4.00	0.21	0.00	0.00	30.00	4.99	3.76	0.00
4.50	0.25	0.00	0.00	30.50	4.99	3.76	0.00
5.00	0.28	0.00	0.00	31.00	4.99	3.76	0.00
5.50	0.32	0.00	0.01	31.50	4.99	3.76	0.00
6.00	0.36	0.01	0.01	32.00	4.99	3.76	0.00
6.50	0.40	0.02	0.01	32.50	4.99	3.76	0.00
7.00	0.45	0.03	0.02	33.00	4.99	3.76	0.00
7.50	0.51	0.05	0.03	33.50	4.99	3.76	0.00
8.00	0.57	0.07	0.04	34.00	4.99	3.76	0.00
8.50	0.64	0.10	0.05	34.50	4.99	3.76	0.00
9.00	0.73	0.13	0.07	35.00	4.99	3.76	0.00
9.50	0.83	0.19	0.09	35.50	4.99	3.76	0.00
10.00	0.94	0.25	0.11	36.00	4.99	3.76	0.00
10.50	1.08	0.34	0.15	36.50	4.99	3.76	0.00
11.00	1.25	0.45	0.20	37.00	4.99	3.76	0.00
11.50	1.49	0.62	0.33	37.50	4.99	3.76	0.00
12.00	2.49	1.45	2.14	38.00	4.99	3.76	0.00
12.50	3.50	2.36	0.75	38.50	4.99	3.76	0.00
13.00	3.74	2.58	0.31	39.00	4.99	3.76	0.00
13.50	3.91	2.74	0.24	39.50	4.99	3.76	0.00
14.00	4.05	2.87	0.20	40.00	4.99	3.76	0.00
14.50	4.16	2.98	0.17	40.50	4.99	3.76	0.00
15.00	4.26	3.07	0.15	41.00	4.99	3.76	0.00
15.50	4.35	3.15	0.13	41.50	4.99	3.76	0.00
16.00	4.42	3.22	0.10	42.00	4.99	3.76	0.00
16.50	4.48	3.28	0.09	42.50	4.99	3.76	0.00
17.00	4.54	3.33	0.08	43.00	4.99	3.76	0.00
17.50	4.59	3.38	0.07	43.50	4.99	3.76	0.00
18.00	4.63	3.42	0.06	44.00	4.99	3.76	0.00
18.50	4.67	3.46	0.06	44.50	4.99	3.76	0.00
19.00	4.71	3.49	0.06	45.00	4.99	3.76	0.00
19.50	4.74	3.53	0.05	45.50	4.99	3.76	0.00
20.00	4.78	3.56	0.05	46.00	4.99	3.76	0.00
20.50	4.81	3.59	0.05	46.50	4.99	3.76	0.00
21.00	4.84	3.62	0.05	47.00	4.99	3.76	0.00
21.50	4.87	3.64	0.04	47.50	4.99	3.76	0.00
22.00	4.89	3.67	0.04	48.00	4.99	3.76	0.00
22.50	4.92	3.70	0.04				
23.00	4.94	3.72	0.04				
23.50	4.97	3.74	0.04				
24.00	4.99	3.76	0.03				
24.50	4.99	3.76	0.00				
25.00	4.99	3.76	0.00				
25.50	4.99	3.76	0.00				

73 Forshay 5-3-24

Type III 24-hr 10-yr Rainfall=4.99"

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Summary for Subcatchment 3S: Proposed to Bypass

Runoff = 0.79 cfs @ 12.18 hrs, Volume= 0.072 af, Depth= 1.80"
 Routed to Link 5L : Proposed Combined

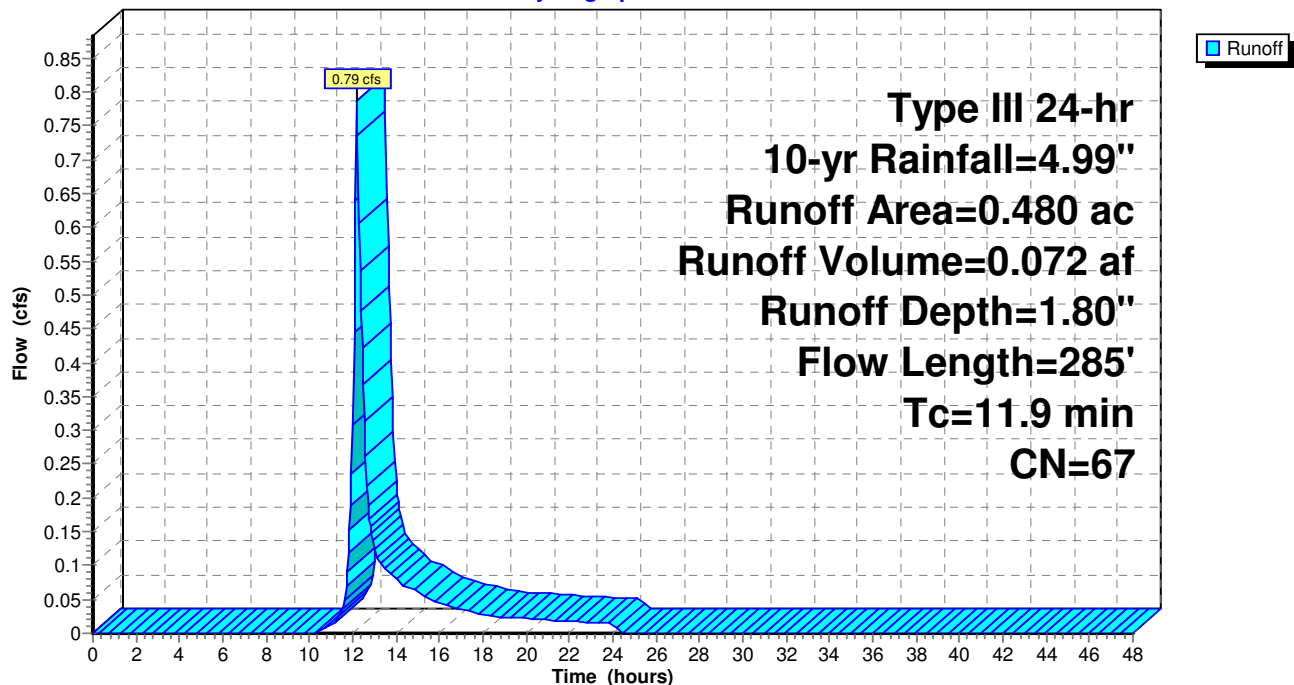
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-yr Rainfall=4.99"

Area (ac)	CN	Description
* 0.080	98	Impervious
0.400	61	>75% Grass cover, Good, HSG B
0.480	67	Weighted Average
0.400		83.33% Pervious Area
0.080		16.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0350	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
1.0	185	0.0400	3.22		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
11.9	285	Total			

Subcatchment 3S: Proposed to Bypass

Hydrograph



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Type III 24-hr 10-yr Rainfall=4.99"

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Hydrograph for Subcatchment 3S: Proposed to Bypass

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	4.99	1.80	0.00
0.50	0.02	0.00	0.00	26.50	4.99	1.80	0.00
1.00	0.05	0.00	0.00	27.00	4.99	1.80	0.00
1.50	0.07	0.00	0.00	27.50	4.99	1.80	0.00
2.00	0.10	0.00	0.00	28.00	4.99	1.80	0.00
2.50	0.13	0.00	0.00	28.50	4.99	1.80	0.00
3.00	0.15	0.00	0.00	29.00	4.99	1.80	0.00
3.50	0.18	0.00	0.00	29.50	4.99	1.80	0.00
4.00	0.21	0.00	0.00	30.00	4.99	1.80	0.00
4.50	0.25	0.00	0.00	30.50	4.99	1.80	0.00
5.00	0.28	0.00	0.00	31.00	4.99	1.80	0.00
5.50	0.32	0.00	0.00	31.50	4.99	1.80	0.00
6.00	0.36	0.00	0.00	32.00	4.99	1.80	0.00
6.50	0.40	0.00	0.00	32.50	4.99	1.80	0.00
7.00	0.45	0.00	0.00	33.00	4.99	1.80	0.00
7.50	0.51	0.00	0.00	33.50	4.99	1.80	0.00
8.00	0.57	0.00	0.00	34.00	4.99	1.80	0.00
8.50	0.64	0.00	0.00	34.50	4.99	1.80	0.00
9.00	0.73	0.00	0.00	35.00	4.99	1.80	0.00
9.50	0.83	0.00	0.00	35.50	4.99	1.80	0.00
10.00	0.94	0.00	0.00	36.00	4.99	1.80	0.00
10.50	1.08	0.00	0.00	36.50	4.99	1.80	0.00
11.00	1.25	0.01	0.01	37.00	4.99	1.80	0.00
11.50	1.49	0.05	0.04	37.50	4.99	1.80	0.00
12.00	2.49	0.35	0.31	38.00	4.99	1.80	0.00
12.50	3.50	0.85	0.37	38.50	4.99	1.80	0.00
13.00	3.74	0.99	0.13	39.00	4.99	1.80	0.00
13.50	3.91	1.09	0.09	39.50	4.99	1.80	0.00
14.00	4.05	1.17	0.08	40.00	4.99	1.80	0.00
14.50	4.16	1.25	0.07	40.50	4.99	1.80	0.00
15.00	4.26	1.31	0.06	41.00	4.99	1.80	0.00
15.50	4.35	1.37	0.05	41.50	4.99	1.80	0.00
16.00	4.42	1.41	0.04	42.00	4.99	1.80	0.00
16.50	4.48	1.45	0.04	42.50	4.99	1.80	0.00
17.00	4.54	1.49	0.03	43.00	4.99	1.80	0.00
17.50	4.59	1.52	0.03	43.50	4.99	1.80	0.00
18.00	4.63	1.55	0.03	44.00	4.99	1.80	0.00
18.50	4.67	1.58	0.03	44.50	4.99	1.80	0.00
19.00	4.71	1.60	0.02	45.00	4.99	1.80	0.00
19.50	4.74	1.63	0.02	45.50	4.99	1.80	0.00
20.00	4.78	1.65	0.02	46.00	4.99	1.80	0.00
20.50	4.81	1.67	0.02	46.50	4.99	1.80	0.00
21.00	4.84	1.69	0.02	47.00	4.99	1.80	0.00
21.50	4.87	1.71	0.02	47.50	4.99	1.80	0.00
22.00	4.89	1.73	0.02	48.00	4.99	1.80	0.00
22.50	4.92	1.75	0.02				
23.00	4.94	1.76	0.02				
23.50	4.97	1.78	0.02				
24.00	4.99	1.80	0.01				
24.50	4.99	1.80	0.00				
25.00	4.99	1.80	0.00				
25.50	4.99	1.80	0.00				

73 Forshay 5-3-24

Type III 24-hr 10-yr Rainfall=4.99"

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Summary for Pond 4P: Detention

Inflow Area = 0.810 ac, 75.31% Impervious, Inflow Depth = 3.76" for 10-yr event
 Inflow = 3.39 cfs @ 12.09 hrs, Volume= 0.254 af
 Outflow = 1.89 cfs @ 12.22 hrs, Volume= 0.243 af, Atten= 44%, Lag= 7.9 min
 Primary = 1.89 cfs @ 12.22 hrs, Volume= 0.243 af
 Routed to Link 5L : Proposed Combined

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Peak Elev= 500.62' @ 12.22 hrs Surf.Area= 0.057 ac Storage= 0.064 af

Plug-Flow detention time= 66.9 min calculated for 0.243 af (96% of inflow)
 Center-of-Mass det. time= 41.2 min (835.6 - 794.5)

Volume	Invert	Avail.Storage	Storage Description
#1A	498.50'	0.066 af	27.50'W x 90.00'L x 4.50'H Field A 0.256 af Overall - 0.091 af Embedded = 0.164 af x 40.0% Voids
#2A	499.00'	0.073 af	ADS N-12 36" x 20 Inside #1 Inside= 36.1"W x 36.1"H => 7.10 sf x 20.00'L = 142.0 cf Outside= 42.0"W x 42.0"H => 8.86 sf x 20.00'L = 177.2 cf 20 Chambers in 5 Rows 24.50' Header x 7.10 sf x 2 = 347.9 cf Inside
		0.139 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	499.00'	15.0" Round Culvert L= 40.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 499.00' / 498.66' S= 0.0085 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Device 1	499.00'	5.2" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	500.00'	9.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Device 1	501.25'	0.6' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#5	Device 1	502.00'	6.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=1.87 cfs @ 12.22 hrs HW=500.61' (Free Discharge)

- 1=Culvert (Passes 1.87 cfs of 5.54 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 0.84 cfs @ 5.69 fps)
 3=Orifice/Grate (Orifice Controls 1.03 cfs @ 2.67 fps)
 4=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)
 5=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

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Pond 4P: Detention - Chamber Wizard Field A**Chamber Model = ADS N-12 36" (ADS N-12® Pipe)**

Inside= 36.1"W x 36.1"H => 7.10 sf x 20.00'L = 142.0 cf

Outside= 42.0"W x 42.0"H => 8.86 sf x 20.00'L = 177.2 cf

42.0" Wide + 21.0" Spacing = 63.0" C-C Row Spacing

4 Chambers/Row x 20.00' Long +3.50' Header x 2 = 87.00' Row Length +18.0" End Stone x 2 = 90.00'
Base Length

5 Rows x 42.0" Wide + 21.0" Spacing x 4 + 18.0" Side Stone x 2 = 27.50' Base Width

6.0" Stone Base + 42.0" Chamber Height + 6.0" Stone Cover = 4.50' Field Height

20 Chambers x 142.0 cf + 24.50' Header x 7.10 sf x 2 = 3,187.9 cf Chamber Storage

20 Chambers x 177.2 cf + 24.50' Header x 8.86 sf x 2 = 3,978.6 cf Displacement

11,137.5 cf Field - 3,978.6 cf Chambers = 7,158.9 cf Stone x 40.0% Voids = 2,863.5 cf Stone Storage

Chamber Storage + Stone Storage = 6,051.4 cf = 0.139 af

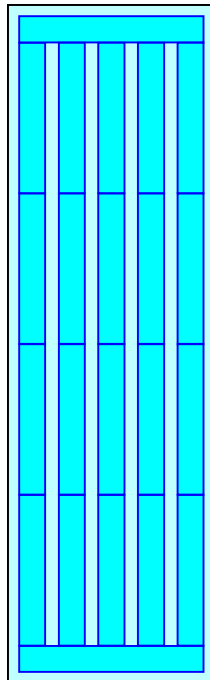
Overall Storage Efficiency = 54.3%

Overall System Size = 90.00' x 27.50' x 4.50'

20 Chambers

412.5 cy Field

265.1 cy Stone



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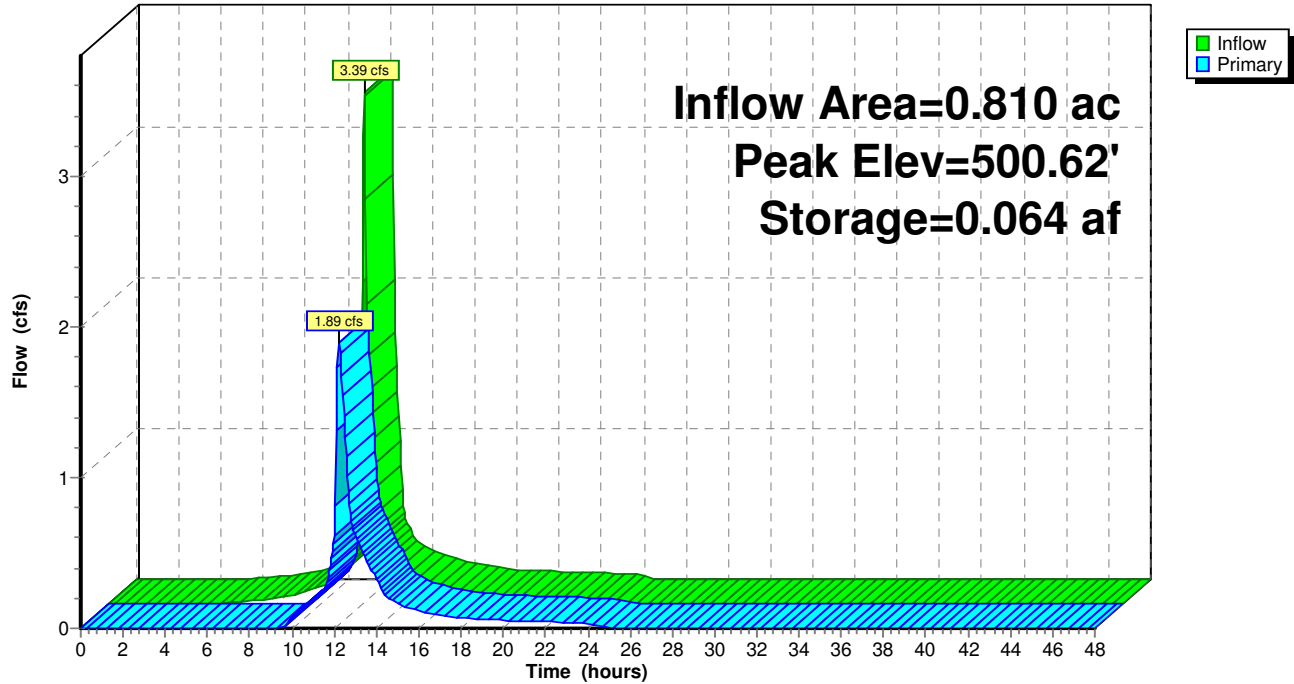
Type III 24-hr 10-yr Rainfall=4.99"

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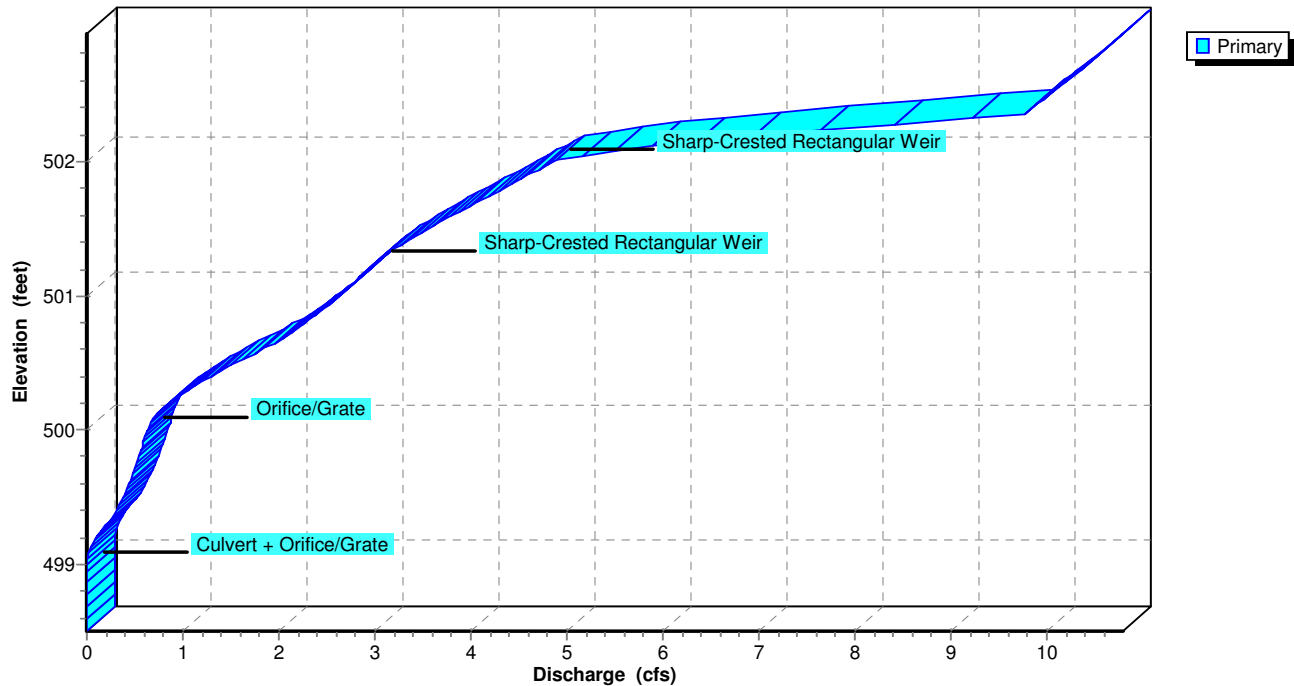
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Pond 4P: Detention

Hydrograph

**Pond 4P: Detention**

Stage-Discharge



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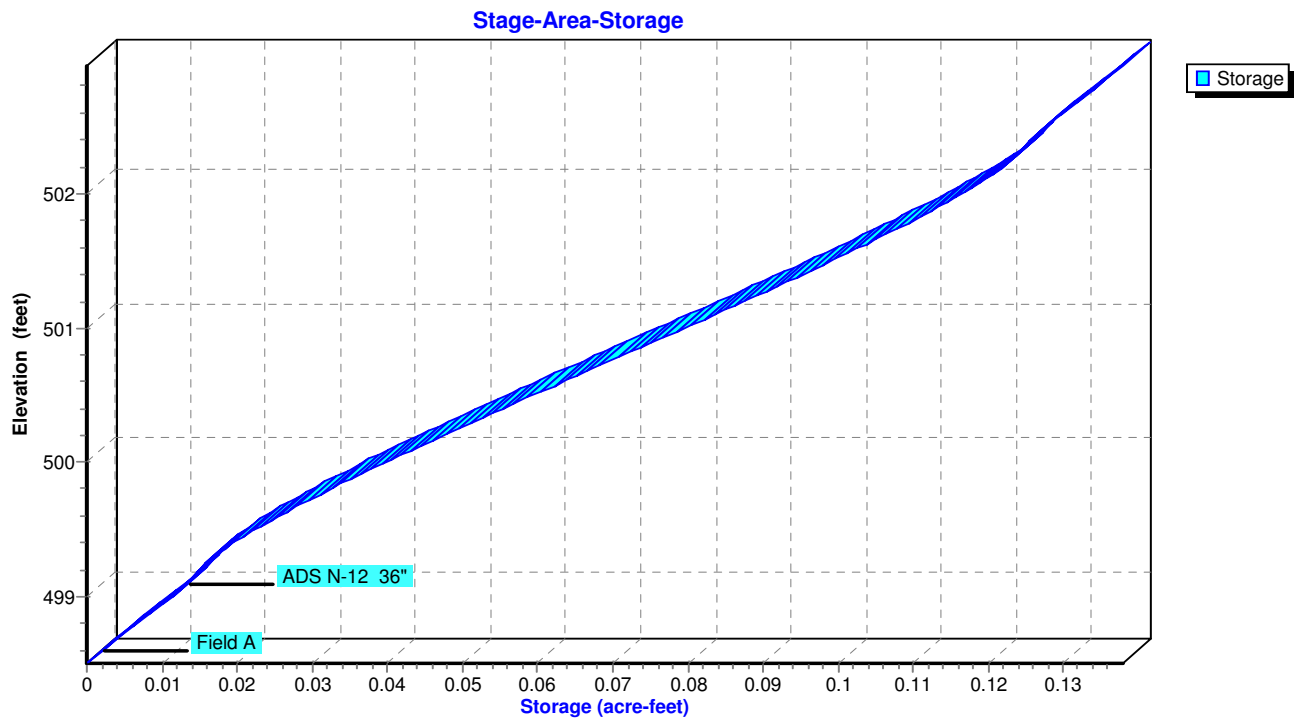
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Pond 4P: Detention

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Hydrograph for Pond 4P: Detention

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.000	498.50	0.00
1.00	0.00	0.000	498.50	0.00
2.00	0.00	0.000	498.50	0.00
3.00	0.00	0.000	498.50	0.00
4.00	0.00	0.000	498.50	0.00
5.00	0.00	0.000	498.50	0.00
6.00	0.01	0.001	498.52	0.00
7.00	0.02	0.002	498.58	0.00
8.00	0.04	0.004	498.68	0.00
9.00	0.07	0.009	498.87	0.00
10.00	0.11	0.015	499.17	0.08
11.00	0.20	0.016	499.28	0.18
12.00	2.14	0.039	499.97	0.62
13.00	0.31	0.039	499.97	0.62
14.00	0.20	0.020	499.42	0.32
15.00	0.15	0.016	499.26	0.16
16.00	0.10	0.015	499.21	0.11
17.00	0.08	0.015	499.18	0.09
18.00	0.06	0.014	499.16	0.07
19.00	0.06	0.014	499.15	0.06
20.00	0.05	0.014	499.14	0.05
21.00	0.05	0.014	499.13	0.05
22.00	0.04	0.014	499.13	0.04
23.00	0.04	0.014	499.12	0.04
24.00	0.03	0.014	499.11	0.04
25.00	0.00	0.012	499.05	0.01
26.00	0.00	0.012	499.03	0.00
27.00	0.00	0.012	499.02	0.00
28.00	0.00	0.012	499.01	0.00
29.00	0.00	0.012	499.01	0.00
30.00	0.00	0.011	499.01	0.00
31.00	0.00	0.011	499.00	0.00
32.00	0.00	0.011	499.00	0.00
33.00	0.00	0.011	499.00	0.00
34.00	0.00	0.011	499.00	0.00
35.00	0.00	0.011	499.00	0.00
36.00	0.00	0.011	499.00	0.00
37.00	0.00	0.011	499.00	0.00
38.00	0.00	0.011	499.00	0.00
39.00	0.00	0.011	499.00	0.00
40.00	0.00	0.011	499.00	0.00
41.00	0.00	0.011	499.00	0.00
42.00	0.00	0.011	499.00	0.00
43.00	0.00	0.011	499.00	0.00
44.00	0.00	0.011	499.00	0.00
45.00	0.00	0.011	499.00	0.00
46.00	0.00	0.011	499.00	0.00
47.00	0.00	0.011	499.00	0.00
48.00	0.00	0.011	499.00	0.00

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Stage-Discharge for Pond 4P: Detention

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
498.50	0.00	501.10	2.79
498.55	0.00	501.15	2.86
498.60	0.00	501.20	2.93
498.65	0.00	501.25	3.00
498.70	0.00	501.30	3.09
498.75	0.00	501.35	3.20
498.80	0.00	501.40	3.31
498.85	0.00	501.45	3.43
498.90	0.00	501.50	3.55
498.95	0.00	501.55	3.68
499.00	0.00	501.60	3.81
499.05	0.01	501.65	3.94
499.10	0.03	501.70	4.07
499.15	0.06	501.75	4.20
499.20	0.10	501.80	4.33
499.25	0.15	501.85	4.47
499.30	0.20	501.90	4.60
499.35	0.26	501.95	4.72
499.40	0.31	502.00	4.85
499.45	0.34	502.05	5.20
499.50	0.38	502.10	5.72
499.55	0.41	502.15	6.36
499.60	0.44	502.20	7.08
499.65	0.47	502.25	7.89
499.70	0.49	502.30	8.76
499.75	0.52	502.35	9.70
499.80	0.54	502.40	9.84
499.85	0.57	502.45	9.93
499.90	0.59	502.50	10.02
499.95	0.61	502.55	10.11
500.00	0.63	502.60	10.19
500.05	0.66	502.65	10.28
500.10	0.71	502.70	10.36
500.15	0.77	502.75	10.45
500.20	0.85	502.80	10.53
500.25	0.94	502.85	10.61
500.30	1.05	502.90	10.69
500.35	1.16	502.95	10.77
500.40	1.29	503.00	10.86
500.45	1.42		
500.50	1.56		
500.55	1.70		
500.60	1.83		
500.65	1.97		
500.70	2.09		
500.75	2.18		
500.80	2.28		
500.85	2.37		
500.90	2.46		
500.95	2.55		
501.00	2.63		
501.05	2.71		

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Stage-Area-Storage for Pond 4P: Detention

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
498.50	0.000	501.10	0.084
498.55	0.001	501.15	0.086
498.60	0.002	501.20	0.088
498.65	0.003	501.25	0.089
498.70	0.005	501.30	0.091
498.75	0.006	501.35	0.093
498.80	0.007	501.40	0.095
498.85	0.008	501.45	0.097
498.90	0.009	501.50	0.099
498.95	0.010	501.55	0.101
499.00	0.011	501.60	0.103
499.05	0.012	501.65	0.105
499.10	0.013	501.70	0.106
499.15	0.014	501.75	0.108
499.20	0.015	501.80	0.110
499.25	0.016	501.85	0.112
499.30	0.017	501.90	0.113
499.35	0.018	501.95	0.115
499.40	0.020	502.00	0.116
499.45	0.021	502.05	0.118
499.50	0.022	502.10	0.119
499.55	0.024	502.15	0.121
499.60	0.026	502.20	0.122
499.65	0.027	502.25	0.123
499.70	0.029	502.30	0.124
499.75	0.031	502.35	0.125
499.80	0.033	502.40	0.126
499.85	0.034	502.45	0.127
499.90	0.036	502.50	0.128
499.95	0.038	502.55	0.129
500.00	0.040	502.60	0.130
500.05	0.042	502.65	0.131
500.10	0.044	502.70	0.132
500.15	0.046	502.75	0.133
500.20	0.047	502.80	0.134
500.25	0.049	502.85	0.136
500.30	0.051	502.90	0.137
500.35	0.053	502.95	0.138
500.40	0.055	503.00	0.139
500.45	0.057		
500.50	0.059		
500.55	0.061		
500.60	0.063		
500.65	0.065		
500.70	0.067		
500.75	0.069		
500.80	0.071		
500.85	0.074		
500.90	0.076		
500.95	0.078		
501.00	0.080		
501.05	0.082		

73 Forshay 5-3-24

Type III 24-hr 10-yr Rainfall=4.99"

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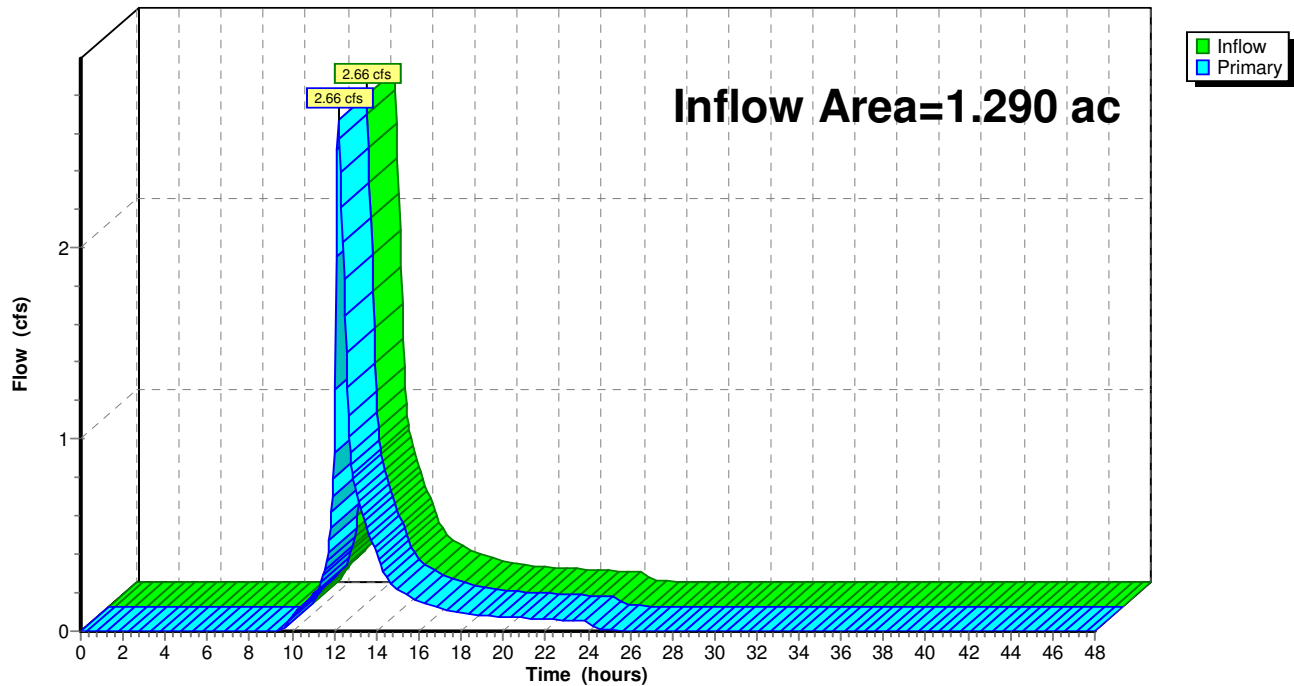
Summary for Link 5L: Proposed Combined

Inflow Area = 1.290 ac, 53.49% Impervious, Inflow Depth = 2.93" for 10-yr event
 Inflow = 2.66 cfs @ 12.20 hrs, Volume= 0.314 af
 Primary = 2.66 cfs @ 12.20 hrs, Volume= 0.314 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link 5L: Proposed Combined

Hydrograph



73 Forshay 5-3-24

Type III 24-hr 10-yr Rainfall=4.99"

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Hydrograph for Link 5L: Proposed Combined

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.00	0.00	0.00	34.00	0.00	0.00	0.00
8.50	0.00	0.00	0.00	34.50	0.00	0.00	0.00
9.00	0.00	0.00	0.00	35.00	0.00	0.00	0.00
9.50	0.00	0.00	0.00	35.50	0.00	0.00	0.00
10.00	0.08	0.00	0.08	36.00	0.00	0.00	0.00
10.50	0.14	0.00	0.14	36.50	0.00	0.00	0.00
11.00	0.19	0.00	0.19	37.00	0.00	0.00	0.00
11.50	0.30	0.00	0.30	37.50	0.00	0.00	0.00
12.00	0.92	0.00	0.92	38.00	0.00	0.00	0.00
12.50	1.64	0.00	1.64	38.50	0.00	0.00	0.00
13.00	0.74	0.00	0.74	39.00	0.00	0.00	0.00
13.50	0.56	0.00	0.56	39.50	0.00	0.00	0.00
14.00	0.40	0.00	0.40	40.00	0.00	0.00	0.00
14.50	0.27	0.00	0.27	40.50	0.00	0.00	0.00
15.00	0.22	0.00	0.22	41.00	0.00	0.00	0.00
15.50	0.19	0.00	0.19	41.50	0.00	0.00	0.00
16.00	0.16	0.00	0.16	42.00	0.00	0.00	0.00
16.50	0.14	0.00	0.14	42.50	0.00	0.00	0.00
17.00	0.12	0.00	0.12	43.00	0.00	0.00	0.00
17.50	0.11	0.00	0.11	43.50	0.00	0.00	0.00
18.00	0.10	0.00	0.10	44.00	0.00	0.00	0.00
18.50	0.09	0.00	0.09	44.50	0.00	0.00	0.00
19.00	0.08	0.00	0.08	45.00	0.00	0.00	0.00
19.50	0.08	0.00	0.08	45.50	0.00	0.00	0.00
20.00	0.07	0.00	0.07	46.00	0.00	0.00	0.00
20.50	0.07	0.00	0.07	46.50	0.00	0.00	0.00
21.00	0.07	0.00	0.07	47.00	0.00	0.00	0.00
21.50	0.06	0.00	0.06	47.50	0.00	0.00	0.00
22.00	0.06	0.00	0.06	48.00	0.00	0.00	0.00
22.50	0.06	0.00	0.06				
23.00	0.06	0.00	0.06				
23.50	0.05	0.00	0.05				
24.00	0.05	0.00	0.05				
24.50	0.01	0.00	0.01				
25.00	0.01	0.00	0.01				
25.50	0.00	0.00	0.00				

73 Forshay 5-3-24

Type III 24-hr 100-yr Rainfall=8.86"

Prepared by Civil Tec Engineering & Surveyin

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Existing

Runoff Area=1.230 ac 32.52% Impervious Runoff Depth=5.58"
 Flow Length=285' Tc=11.9 min CN=73 Runoff=6.57 cfs 0.572 af

Subcatchment 2S: Proposed to Treatment

Runoff Area=0.810 ac 75.31% Impervious Runoff Depth=7.53"
 Tc=6.0 min CN=89 Runoff=6.53 cfs 0.508 af

Subcatchment 3S: Proposed to Bypass

Runoff Area=0.480 ac 16.67% Impervious Runoff Depth=4.84"
 Flow Length=285' Tc=11.9 min CN=67 Runoff=2.23 cfs 0.194 af

Pond 4P: Detention

Peak Elev=501.66' Storage=0.105 af Inflow=6.53 cfs 0.508 af
 Outflow=3.96 cfs 0.497 af

Link 5L: Proposed Combined

Inflow=6.13 cfs 0.691 af
 Primary=6.13 cfs 0.691 af

Total Runoff Area = 2.520 ac Runoff Volume = 1.274 af Average Runoff Depth = 6.07"
56.75% Pervious = 1.430 ac 43.25% Impervious = 1.090 ac

73 Forshay 5-3-24

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Type III 24-hr 100-yr Rainfall=8.86"

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Summary for Subcatchment 1S: Existing

Runoff = 6.57 cfs @ 12.16 hrs, Volume= 0.572 af, Depth= 5.58"

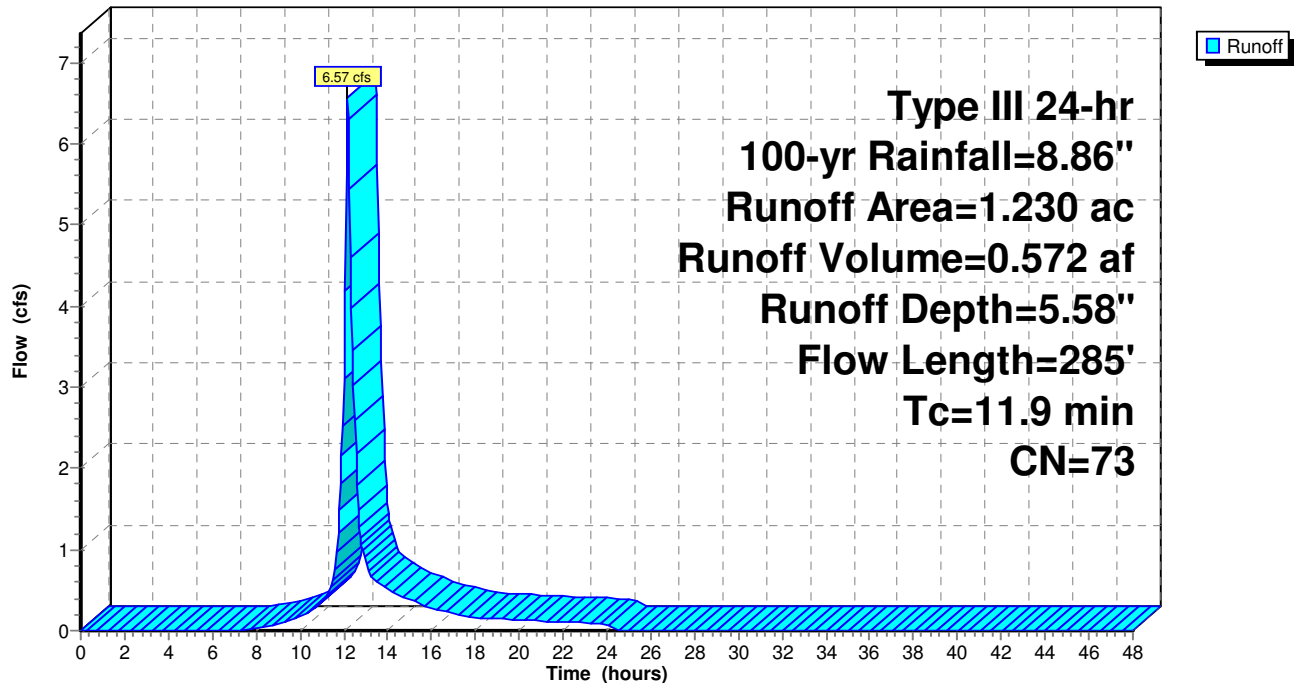
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.86"

Area (ac)	CN	Description
* 0.400	98	Impervious
0.830	61	>75% Grass cover, Good, HSG B
1.230	73	Weighted Average
0.830		67.48% Pervious Area
0.400		32.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0350	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
1.0	185	0.0400	3.22		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
11.9	285	Total			

Subcatchment 1S: Existing

Hydrograph



73 Forshay 5-3-24

Type III 24-hr 100-yr Rainfall=8.86"

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Hydrograph for Subcatchment 1S: Existing

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	8.86	5.58	0.00
0.50	0.04	0.00	0.00	26.50	8.86	5.58	0.00
1.00	0.09	0.00	0.00	27.00	8.86	5.58	0.00
1.50	0.13	0.00	0.00	27.50	8.86	5.58	0.00
2.00	0.18	0.00	0.00	28.00	8.86	5.58	0.00
2.50	0.22	0.00	0.00	28.50	8.86	5.58	0.00
3.00	0.27	0.00	0.00	29.00	8.86	5.58	0.00
3.50	0.33	0.00	0.00	29.50	8.86	5.58	0.00
4.00	0.38	0.00	0.00	30.00	8.86	5.58	0.00
4.50	0.44	0.00	0.00	30.50	8.86	5.58	0.00
5.00	0.50	0.00	0.00	31.00	8.86	5.58	0.00
5.50	0.57	0.00	0.00	31.50	8.86	5.58	0.00
6.00	0.64	0.00	0.00	32.00	8.86	5.58	0.00
6.50	0.71	0.00	0.00	32.50	8.86	5.58	0.00
7.00	0.80	0.00	0.00	33.00	8.86	5.58	0.00
7.50	0.90	0.01	0.02	33.50	8.86	5.58	0.00
8.00	1.01	0.02	0.03	34.00	8.86	5.58	0.00
8.50	1.14	0.04	0.05	34.50	8.86	5.58	0.00
9.00	1.29	0.07	0.09	35.00	8.86	5.58	0.00
9.50	1.47	0.12	0.13	35.50	8.86	5.58	0.00
10.00	1.67	0.19	0.18	36.00	8.86	5.58	0.00
10.50	1.92	0.28	0.25	36.50	8.86	5.58	0.00
11.00	2.22	0.42	0.35	37.00	8.86	5.58	0.00
11.50	2.64	0.65	0.60	37.50	8.86	5.58	0.00
12.00	4.43	1.84	3.10	38.00	8.86	5.58	0.00
12.50	6.22	3.27	2.59	38.50	8.86	5.58	0.00
13.00	6.64	3.63	0.84	39.00	8.86	5.58	0.00
13.50	6.94	3.89	0.62	39.50	8.86	5.58	0.00
14.00	7.19	4.10	0.51	40.00	8.86	5.58	0.00
14.50	7.39	4.27	0.43	40.50	8.86	5.58	0.00
15.00	7.57	4.43	0.38	41.00	8.86	5.58	0.00
15.50	7.72	4.56	0.33	41.50	8.86	5.58	0.00
16.00	7.85	4.68	0.27	42.00	8.86	5.58	0.00
16.50	7.96	4.77	0.24	42.50	8.86	5.58	0.00
17.00	8.06	4.86	0.21	43.00	8.86	5.58	0.00
17.50	8.15	4.94	0.19	43.50	8.86	5.58	0.00
18.00	8.22	5.01	0.17	44.00	8.86	5.58	0.00
18.50	8.29	5.07	0.15	44.50	8.86	5.58	0.00
19.00	8.36	5.13	0.14	45.00	8.86	5.58	0.00
19.50	8.42	5.18	0.14	45.50	8.86	5.58	0.00
20.00	8.48	5.24	0.13	46.00	8.86	5.58	0.00
20.50	8.54	5.29	0.12	46.50	8.86	5.58	0.00
21.00	8.59	5.34	0.12	47.00	8.86	5.58	0.00
21.50	8.64	5.38	0.11	47.50	8.86	5.58	0.00
22.00	8.69	5.43	0.11	48.00	8.86	5.58	0.00
22.50	8.74	5.47	0.10				
23.00	8.78	5.51	0.10				
23.50	8.82	5.54	0.09				
24.00	8.86	5.58	0.09				
24.50	8.86	5.58	0.00				
25.00	8.86	5.58	0.00				
25.50	8.86	5.58	0.00				

73 Forshay 5-3-24

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Type III 24-hr 100-yr Rainfall=8.86"

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Summary for Subcatchment 2S: Proposed to Treatment

Runoff = 6.53 cfs @ 12.09 hrs, Volume= 0.508 af, Depth= 7.53"
 Routed to Pond 4P : Detention

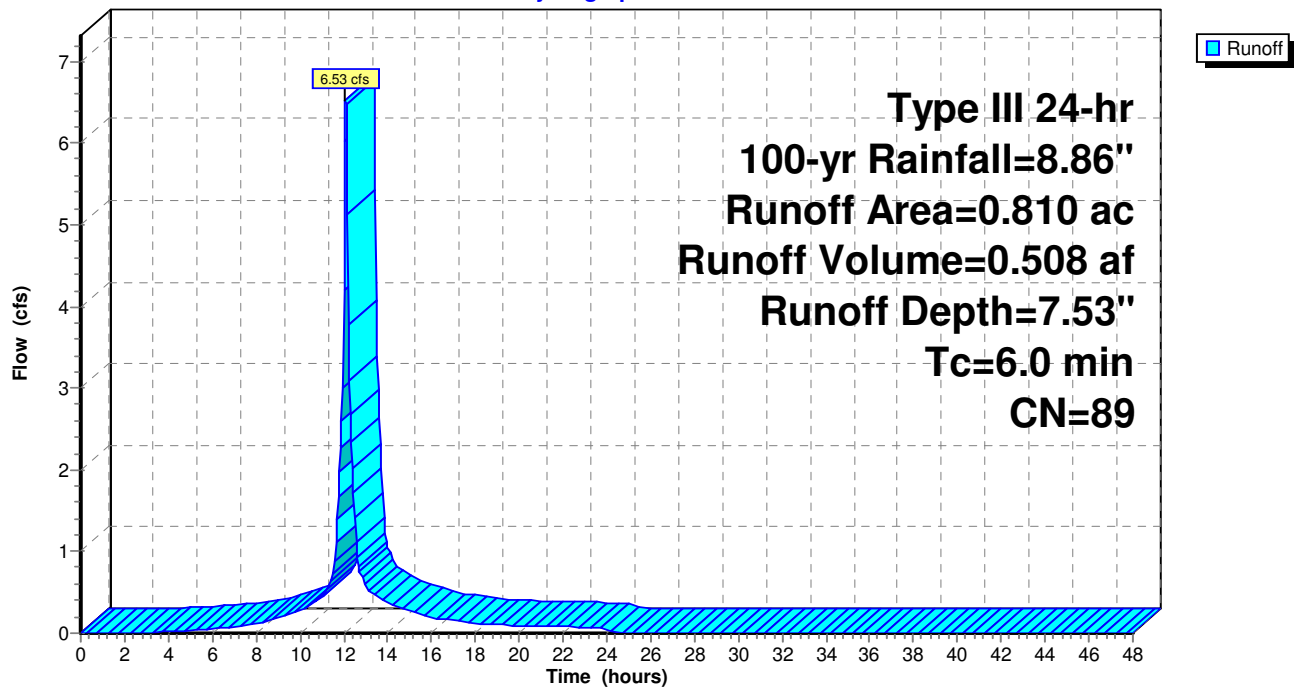
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100-yr Rainfall=8.86"

Area (ac)	CN	Description
* 0.610	98	Impervious
0.200	61	>75% Grass cover, Good, HSG B
0.810	89	Weighted Average
0.200		24.69% Pervious Area
0.610		75.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment 2S: Proposed to Treatment

Hydrograph



73 Forshay 5-3-24

Type III 24-hr 100-yr Rainfall=8.86"

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Hydrograph for Subcatchment 2S: Proposed to Treatment

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	8.86	7.53	0.00
0.50	0.04	0.00	0.00	26.50	8.86	7.53	0.00
1.00	0.09	0.00	0.00	27.00	8.86	7.53	0.00
1.50	0.13	0.00	0.00	27.50	8.86	7.53	0.00
2.00	0.18	0.00	0.00	28.00	8.86	7.53	0.00
2.50	0.22	0.00	0.00	28.50	8.86	7.53	0.00
3.00	0.27	0.00	0.00	29.00	8.86	7.53	0.00
3.50	0.33	0.00	0.01	29.50	8.86	7.53	0.00
4.00	0.38	0.01	0.02	30.00	8.86	7.53	0.00
4.50	0.44	0.03	0.02	30.50	8.86	7.53	0.00
5.00	0.50	0.04	0.03	31.00	8.86	7.53	0.00
5.50	0.57	0.07	0.04	31.50	8.86	7.53	0.00
6.00	0.64	0.09	0.05	32.00	8.86	7.53	0.00
6.50	0.71	0.13	0.06	32.50	8.86	7.53	0.00
7.00	0.80	0.17	0.08	33.00	8.86	7.53	0.00
7.50	0.90	0.23	0.09	33.50	8.86	7.53	0.00
8.00	1.01	0.29	0.11	34.00	8.86	7.53	0.00
8.50	1.14	0.37	0.15	34.50	8.86	7.53	0.00
9.00	1.29	0.48	0.18	35.00	8.86	7.53	0.00
9.50	1.47	0.61	0.23	35.50	8.86	7.53	0.00
10.00	1.67	0.76	0.27	36.00	8.86	7.53	0.00
10.50	1.92	0.96	0.35	36.50	8.86	7.53	0.00
11.00	2.22	1.21	0.43	37.00	8.86	7.53	0.00
11.50	2.64	1.58	0.70	37.50	8.86	7.53	0.00
12.00	4.43	3.23	4.20	38.00	8.86	7.53	0.00
12.50	6.22	4.95	1.41	38.50	8.86	7.53	0.00
13.00	6.64	5.36	0.57	39.00	8.86	7.53	0.00
13.50	6.94	5.65	0.45	39.50	8.86	7.53	0.00
14.00	7.19	5.89	0.36	40.00	8.86	7.53	0.00
14.50	7.39	6.09	0.31	40.50	8.86	7.53	0.00
15.00	7.57	6.26	0.27	41.00	8.86	7.53	0.00
15.50	7.72	6.41	0.23	41.50	8.86	7.53	0.00
16.00	7.85	6.54	0.19	42.00	8.86	7.53	0.00
16.50	7.96	6.65	0.17	42.50	8.86	7.53	0.00
17.00	8.06	6.74	0.15	43.00	8.86	7.53	0.00
17.50	8.15	6.83	0.13	43.50	8.86	7.53	0.00
18.00	8.22	6.90	0.12	44.00	8.86	7.53	0.00
18.50	8.29	6.97	0.11	44.50	8.86	7.53	0.00
19.00	8.36	7.04	0.10	45.00	8.86	7.53	0.00
19.50	8.42	7.10	0.10	45.50	8.86	7.53	0.00
20.00	8.48	7.16	0.09	46.00	8.86	7.53	0.00
20.50	8.54	7.21	0.09	46.50	8.86	7.53	0.00
21.00	8.59	7.27	0.09	47.00	8.86	7.53	0.00
21.50	8.64	7.32	0.08	47.50	8.86	7.53	0.00
22.00	8.69	7.36	0.08	48.00	8.86	7.53	0.00
22.50	8.74	7.41	0.07				
23.00	8.78	7.45	0.07				
23.50	8.82	7.49	0.07				
24.00	8.86	7.53	0.06				
24.50	8.86	7.53	0.00				
25.00	8.86	7.53	0.00				
25.50	8.86	7.53	0.00				

73 Forshay 5-3-24

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Type III 24-hr 100-yr Rainfall=8.86"

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Summary for Subcatchment 3S: Proposed to Bypass

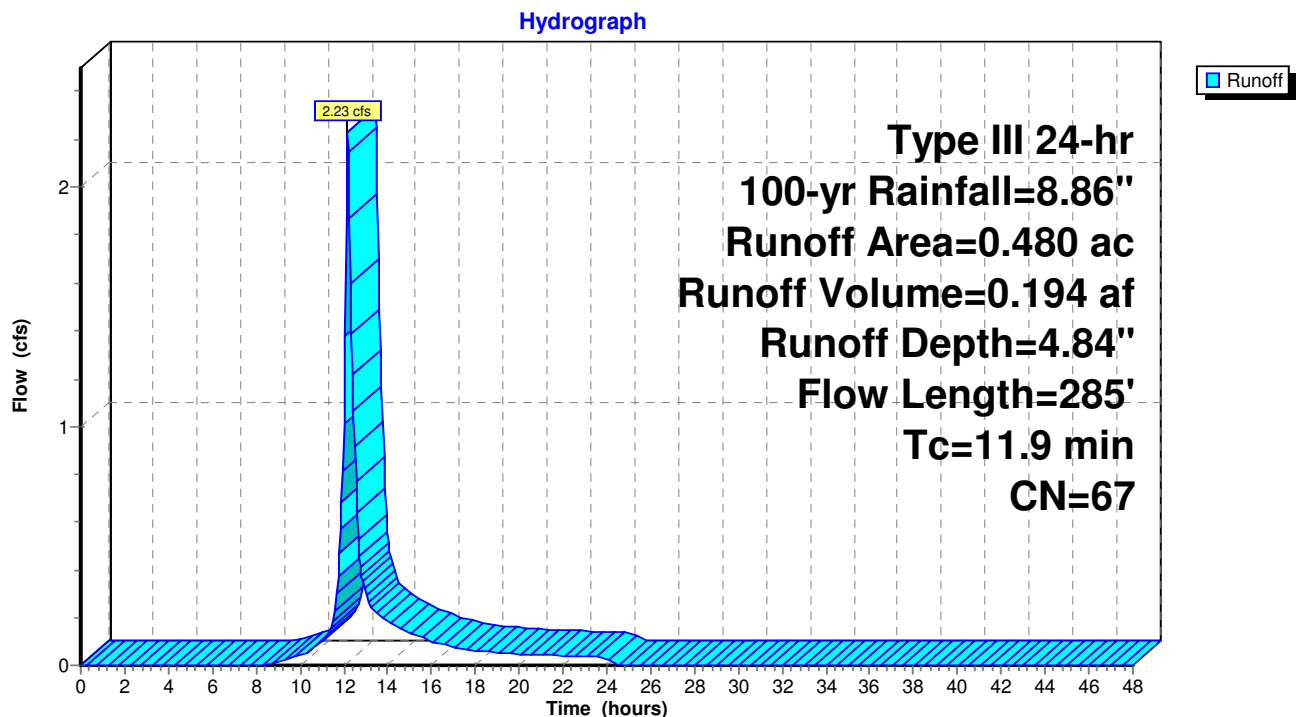
Runoff = 2.23 cfs @ 12.17 hrs, Volume= 0.194 af, Depth= 4.84"

Routed to Link 5L : Proposed Combined

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.86"

Area (ac)	CN	Description
* 0.080	98	Impervious
0.400	61	>75% Grass cover, Good, HSG B
0.480	67	Weighted Average
0.400		83.33% Pervious Area
0.080		16.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0350	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
1.0	185	0.0400	3.22		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
11.9	285	Total			

Subcatchment 3S: Proposed to Bypass

73 Forshay 5-3-24

Type III 24-hr 100-yr Rainfall=8.86"

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Hydrograph for Subcatchment 3S: Proposed to Bypass

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	8.86	4.84	0.00
0.50	0.04	0.00	0.00	26.50	8.86	4.84	0.00
1.00	0.09	0.00	0.00	27.00	8.86	4.84	0.00
1.50	0.13	0.00	0.00	27.50	8.86	4.84	0.00
2.00	0.18	0.00	0.00	28.00	8.86	4.84	0.00
2.50	0.22	0.00	0.00	28.50	8.86	4.84	0.00
3.00	0.27	0.00	0.00	29.00	8.86	4.84	0.00
3.50	0.33	0.00	0.00	29.50	8.86	4.84	0.00
4.00	0.38	0.00	0.00	30.00	8.86	4.84	0.00
4.50	0.44	0.00	0.00	30.50	8.86	4.84	0.00
5.00	0.50	0.00	0.00	31.00	8.86	4.84	0.00
5.50	0.57	0.00	0.00	31.50	8.86	4.84	0.00
6.00	0.64	0.00	0.00	32.00	8.86	4.84	0.00
6.50	0.71	0.00	0.00	32.50	8.86	4.84	0.00
7.00	0.80	0.00	0.00	33.00	8.86	4.84	0.00
7.50	0.90	0.00	0.00	33.50	8.86	4.84	0.00
8.00	1.01	0.00	0.00	34.00	8.86	4.84	0.00
8.50	1.14	0.00	0.01	34.50	8.86	4.84	0.00
9.00	1.29	0.02	0.01	35.00	8.86	4.84	0.00
9.50	1.47	0.04	0.03	35.50	8.86	4.84	0.00
10.00	1.67	0.08	0.04	36.00	8.86	4.84	0.00
10.50	1.92	0.15	0.07	36.50	8.86	4.84	0.00
11.00	2.22	0.25	0.10	37.00	8.86	4.84	0.00
11.50	2.64	0.42	0.18	37.50	8.86	4.84	0.00
12.00	4.43	1.42	1.01	38.00	8.86	4.84	0.00
12.50	6.22	2.70	0.91	38.50	8.86	4.84	0.00
13.00	6.64	3.03	0.30	39.00	8.86	4.84	0.00
13.50	6.94	3.26	0.22	39.50	8.86	4.84	0.00
14.00	7.19	3.46	0.18	40.00	8.86	4.84	0.00
14.50	7.39	3.62	0.16	40.50	8.86	4.84	0.00
15.00	7.57	3.77	0.14	41.00	8.86	4.84	0.00
15.50	7.72	3.89	0.12	41.50	8.86	4.84	0.00
16.00	7.85	4.00	0.10	42.00	8.86	4.84	0.00
16.50	7.96	4.09	0.09	42.50	8.86	4.84	0.00
17.00	8.06	4.17	0.08	43.00	8.86	4.84	0.00
17.50	8.15	4.24	0.07	43.50	8.86	4.84	0.00
18.00	8.22	4.31	0.06	44.00	8.86	4.84	0.00
18.50	8.29	4.36	0.06	44.50	8.86	4.84	0.00
19.00	8.36	4.42	0.05	45.00	8.86	4.84	0.00
19.50	8.42	4.47	0.05	45.50	8.86	4.84	0.00
20.00	8.48	4.52	0.05	46.00	8.86	4.84	0.00
20.50	8.54	4.57	0.05	46.50	8.86	4.84	0.00
21.00	8.59	4.61	0.04	47.00	8.86	4.84	0.00
21.50	8.64	4.66	0.04	47.50	8.86	4.84	0.00
22.00	8.69	4.70	0.04	48.00	8.86	4.84	0.00
22.50	8.74	4.74	0.04				
23.00	8.78	4.78	0.04				
23.50	8.82	4.81	0.03				
24.00	8.86	4.84	0.03				
24.50	8.86	4.84	0.00				
25.00	8.86	4.84	0.00				
25.50	8.86	4.84	0.00				

73 Forshay 5-3-24

Type III 24-hr 100-yr Rainfall=8.86"

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Summary for Pond 4P: Detention

Inflow Area = 0.810 ac, 75.31% Impervious, Inflow Depth = 7.53" for 100-yr event
 Inflow = 6.53 cfs @ 12.09 hrs, Volume= 0.508 af
 Outflow = 3.96 cfs @ 12.20 hrs, Volume= 0.497 af, Atten= 39%, Lag= 6.9 min
 Primary = 3.96 cfs @ 12.20 hrs, Volume= 0.497 af
 Routed to Link 5L : Proposed Combined

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Peak Elev= 501.66' @ 12.20 hrs Surf.Area= 0.057 ac Storage= 0.105 af

Plug-Flow detention time= 47.4 min calculated for 0.497 af (98% of inflow)
 Center-of-Mass det. time= 33.1 min (809.1 - 776.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	498.50'	0.066 af	27.50'W x 90.00'L x 4.50'H Field A 0.256 af Overall - 0.091 af Embedded = 0.164 af x 40.0% Voids
#2A	499.00'	0.073 af	ADS N-12 36" x 20 Inside #1 Inside= 36.1"W x 36.1"H => 7.10 sf x 20.00'L = 142.0 cf Outside= 42.0"W x 42.0"H => 8.86 sf x 20.00'L = 177.2 cf 20 Chambers in 5 Rows 24.50' Header x 7.10 sf x 2 = 347.9 cf Inside
		0.139 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	499.00'	15.0" Round Culvert L= 40.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 499.00' / 498.66' S= 0.0085 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Device 1	499.00'	5.2" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	500.00'	9.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Device 1	501.25'	0.6' long Sharp-Crested Rectangular Weir 2 End Contraction(s)
#5	Device 1	502.00'	6.0' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=3.95 cfs @ 12.20 hrs HW=501.65' (Free Discharge)

- 1=Culvert (Passes 3.95 cfs of 8.33 cfs potential flow)
 2=Orifice/Grate (Orifice Controls 1.11 cfs @ 7.51 fps)
 3=Orifice/Grate (Orifice Controls 2.40 cfs @ 5.44 fps)
 4=Sharp-Crested Rectangular Weir (Weir Controls 0.43 cfs @ 2.07 fps)
 5=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)

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Pond 4P: Detention - Chamber Wizard Field A**Chamber Model = ADS N-12 36" (ADS N-12® Pipe)**

Inside= 36.1"W x 36.1"H => 7.10 sf x 20.00'L = 142.0 cf

Outside= 42.0"W x 42.0"H => 8.86 sf x 20.00'L = 177.2 cf

42.0" Wide + 21.0" Spacing = 63.0" C-C Row Spacing

4 Chambers/Row x 20.00' Long +3.50' Header x 2 = 87.00' Row Length +18.0" End Stone x 2 = 90.00'
Base Length

5 Rows x 42.0" Wide + 21.0" Spacing x 4 + 18.0" Side Stone x 2 = 27.50' Base Width

6.0" Stone Base + 42.0" Chamber Height + 6.0" Stone Cover = 4.50' Field Height

20 Chambers x 142.0 cf + 24.50' Header x 7.10 sf x 2 = 3,187.9 cf Chamber Storage

20 Chambers x 177.2 cf + 24.50' Header x 8.86 sf x 2 = 3,978.6 cf Displacement

11,137.5 cf Field - 3,978.6 cf Chambers = 7,158.9 cf Stone x 40.0% Voids = 2,863.5 cf Stone Storage

Chamber Storage + Stone Storage = 6,051.4 cf = 0.139 af

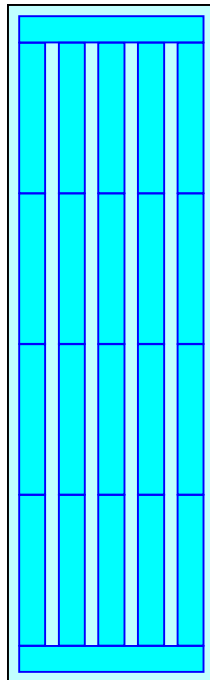
Overall Storage Efficiency = 54.3%

Overall System Size = 90.00' x 27.50' x 4.50'

20 Chambers

412.5 cy Field

265.1 cy Stone



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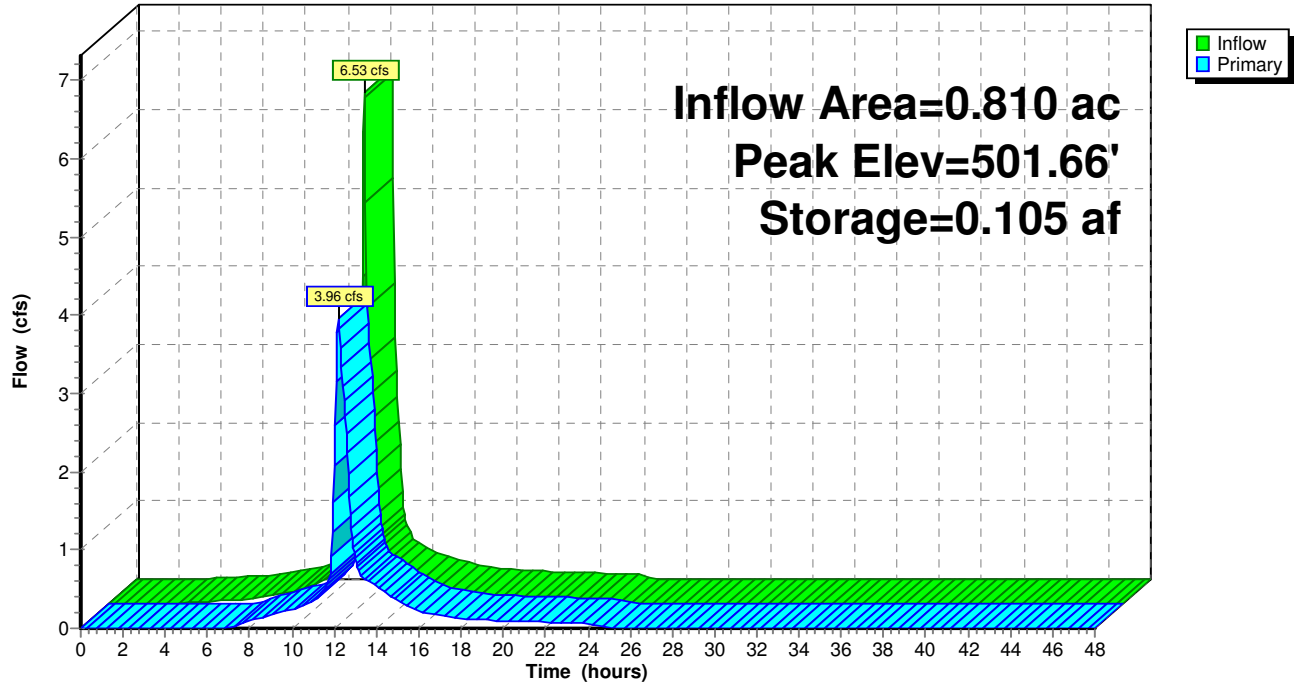
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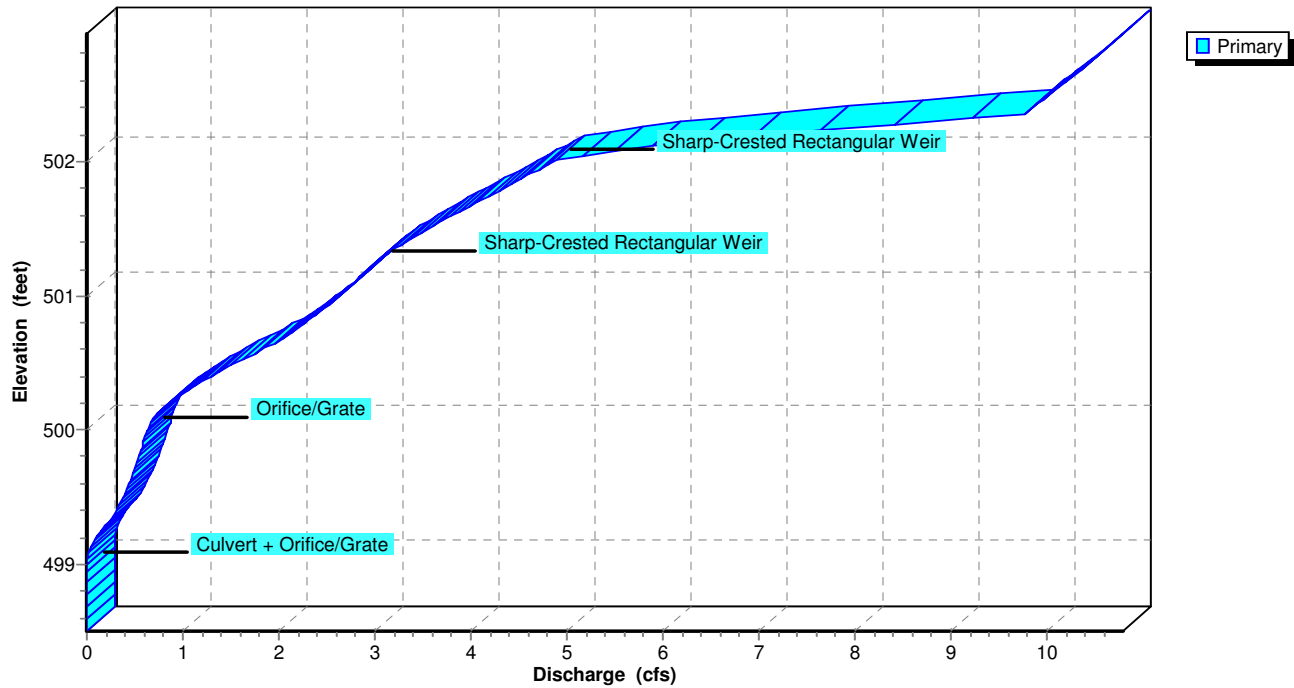
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Pond 4P: Detention

Hydrograph

**Pond 4P: Detention**

Stage-Discharge



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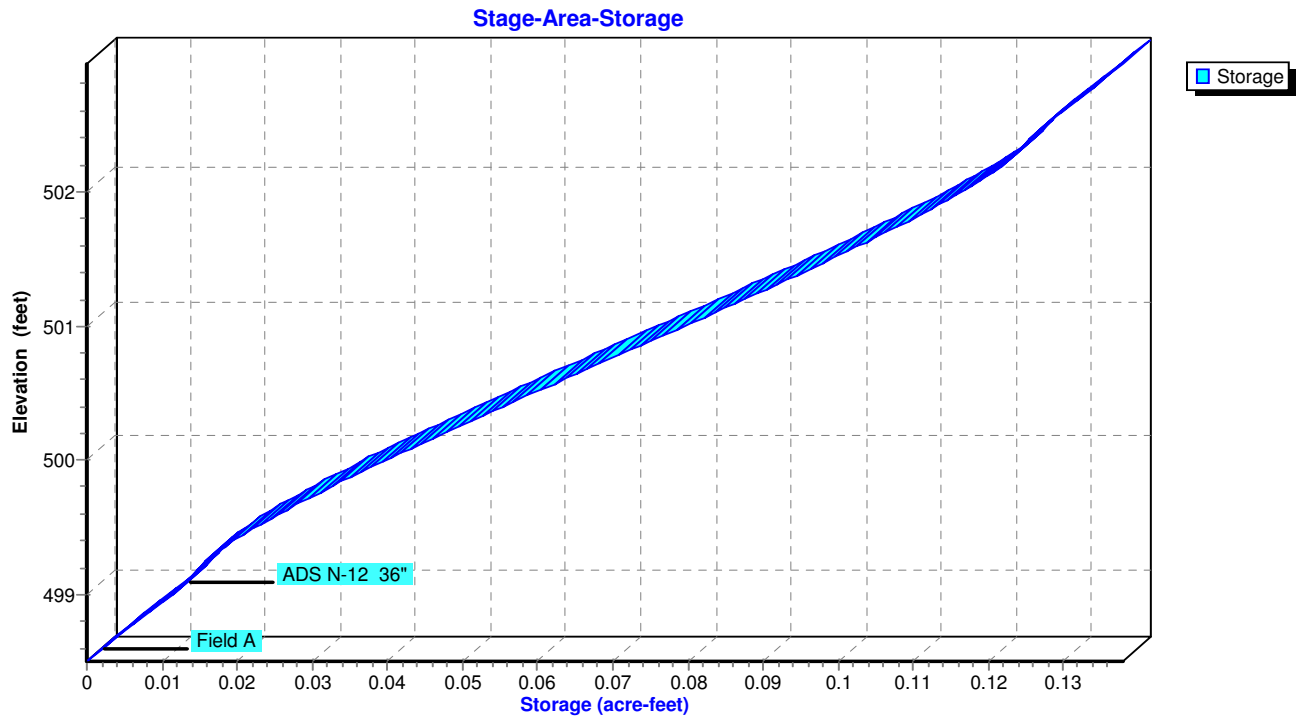
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Pond 4P: Detention

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Hydrograph for Pond 4P: Detention

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.000	498.50	0.00
1.00	0.00	0.000	498.50	0.00
2.00	0.00	0.000	498.50	0.00
3.00	0.00	0.000	498.50	0.00
4.00	0.02	0.001	498.53	0.00
5.00	0.03	0.003	498.62	0.00
6.00	0.05	0.006	498.76	0.00
7.00	0.08	0.011	498.98	0.00
8.00	0.11	0.015	499.20	0.10
9.00	0.18	0.016	499.27	0.17
10.00	0.27	0.018	499.34	0.25
11.00	0.43	0.022	499.48	0.36
12.00	4.20	0.067	500.70	2.09
13.00	0.57	0.048	500.22	0.89
14.00	0.36	0.032	499.79	0.54
15.00	0.27	0.021	499.47	0.35
16.00	0.19	0.017	499.32	0.22
17.00	0.15	0.016	499.26	0.16
18.00	0.12	0.015	499.22	0.12
19.00	0.10	0.015	499.21	0.11
20.00	0.09	0.015	499.19	0.10
21.00	0.09	0.015	499.18	0.09
22.00	0.08	0.015	499.17	0.08
23.00	0.07	0.014	499.16	0.07
24.00	0.06	0.014	499.15	0.06
25.00	0.00	0.013	499.06	0.01
26.00	0.00	0.012	499.03	0.00
27.00	0.00	0.012	499.02	0.00
28.00	0.00	0.012	499.01	0.00
29.00	0.00	0.012	499.01	0.00
30.00	0.00	0.012	499.01	0.00
31.00	0.00	0.011	499.00	0.00
32.00	0.00	0.011	499.00	0.00
33.00	0.00	0.011	499.00	0.00
34.00	0.00	0.011	499.00	0.00
35.00	0.00	0.011	499.00	0.00
36.00	0.00	0.011	499.00	0.00
37.00	0.00	0.011	499.00	0.00
38.00	0.00	0.011	499.00	0.00
39.00	0.00	0.011	499.00	0.00
40.00	0.00	0.011	499.00	0.00
41.00	0.00	0.011	499.00	0.00
42.00	0.00	0.011	499.00	0.00
43.00	0.00	0.011	499.00	0.00
44.00	0.00	0.011	499.00	0.00
45.00	0.00	0.011	499.00	0.00
46.00	0.00	0.011	499.00	0.00
47.00	0.00	0.011	499.00	0.00
48.00	0.00	0.011	499.00	0.00

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Stage-Discharge for Pond 4P: Detention

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
498.50	0.00	501.10	2.79
498.55	0.00	501.15	2.86
498.60	0.00	501.20	2.93
498.65	0.00	501.25	3.00
498.70	0.00	501.30	3.09
498.75	0.00	501.35	3.20
498.80	0.00	501.40	3.31
498.85	0.00	501.45	3.43
498.90	0.00	501.50	3.55
498.95	0.00	501.55	3.68
499.00	0.00	501.60	3.81
499.05	0.01	501.65	3.94
499.10	0.03	501.70	4.07
499.15	0.06	501.75	4.20
499.20	0.10	501.80	4.33
499.25	0.15	501.85	4.47
499.30	0.20	501.90	4.60
499.35	0.26	501.95	4.72
499.40	0.31	502.00	4.85
499.45	0.34	502.05	5.20
499.50	0.38	502.10	5.72
499.55	0.41	502.15	6.36
499.60	0.44	502.20	7.08
499.65	0.47	502.25	7.89
499.70	0.49	502.30	8.76
499.75	0.52	502.35	9.70
499.80	0.54	502.40	9.84
499.85	0.57	502.45	9.93
499.90	0.59	502.50	10.02
499.95	0.61	502.55	10.11
500.00	0.63	502.60	10.19
500.05	0.66	502.65	10.28
500.10	0.71	502.70	10.36
500.15	0.77	502.75	10.45
500.20	0.85	502.80	10.53
500.25	0.94	502.85	10.61
500.30	1.05	502.90	10.69
500.35	1.16	502.95	10.77
500.40	1.29	503.00	10.86
500.45	1.42		
500.50	1.56		
500.55	1.70		
500.60	1.83		
500.65	1.97		
500.70	2.09		
500.75	2.18		
500.80	2.28		
500.85	2.37		
500.90	2.46		
500.95	2.55		
501.00	2.63		
501.05	2.71		

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Type III 24-hr 100-yr Rainfall=8.86"

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Stage-Area-Storage for Pond 4P: Detention

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
498.50	0.000	501.10	0.084
498.55	0.001	501.15	0.086
498.60	0.002	501.20	0.088
498.65	0.003	501.25	0.089
498.70	0.005	501.30	0.091
498.75	0.006	501.35	0.093
498.80	0.007	501.40	0.095
498.85	0.008	501.45	0.097
498.90	0.009	501.50	0.099
498.95	0.010	501.55	0.101
499.00	0.011	501.60	0.103
499.05	0.012	501.65	0.105
499.10	0.013	501.70	0.106
499.15	0.014	501.75	0.108
499.20	0.015	501.80	0.110
499.25	0.016	501.85	0.112
499.30	0.017	501.90	0.113
499.35	0.018	501.95	0.115
499.40	0.020	502.00	0.116
499.45	0.021	502.05	0.118
499.50	0.022	502.10	0.119
499.55	0.024	502.15	0.121
499.60	0.026	502.20	0.122
499.65	0.027	502.25	0.123
499.70	0.029	502.30	0.124
499.75	0.031	502.35	0.125
499.80	0.033	502.40	0.126
499.85	0.034	502.45	0.127
499.90	0.036	502.50	0.128
499.95	0.038	502.55	0.129
500.00	0.040	502.60	0.130
500.05	0.042	502.65	0.131
500.10	0.044	502.70	0.132
500.15	0.046	502.75	0.133
500.20	0.047	502.80	0.134
500.25	0.049	502.85	0.136
500.30	0.051	502.90	0.137
500.35	0.053	502.95	0.138
500.40	0.055	503.00	0.139
500.45	0.057		
500.50	0.059		
500.55	0.061		
500.60	0.063		
500.65	0.065		
500.70	0.067		
500.75	0.069		
500.80	0.071		
500.85	0.074		
500.90	0.076		
500.95	0.078		
501.00	0.080		
501.05	0.082		

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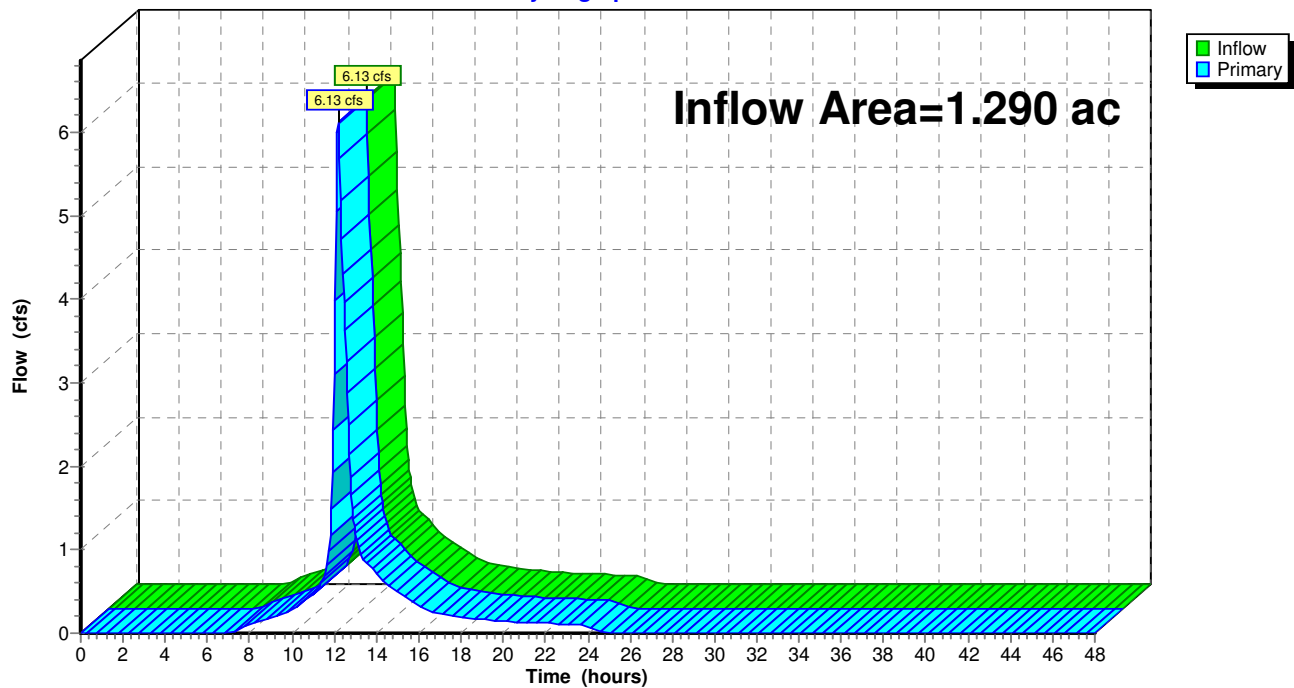
Summary for Link 5L: Proposed Combined

Inflow Area = 1.290 ac, 53.49% Impervious, Inflow Depth = 6.43" for 100-yr event
 Inflow = 6.13 cfs @ 12.19 hrs, Volume= 0.691 af
 Primary = 6.13 cfs @ 12.19 hrs, Volume= 0.691 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link 5L: Proposed Combined

Hydrograph



73 Forshay 5-3-24

Type III 24-hr 100-yr Rainfall=8.86"

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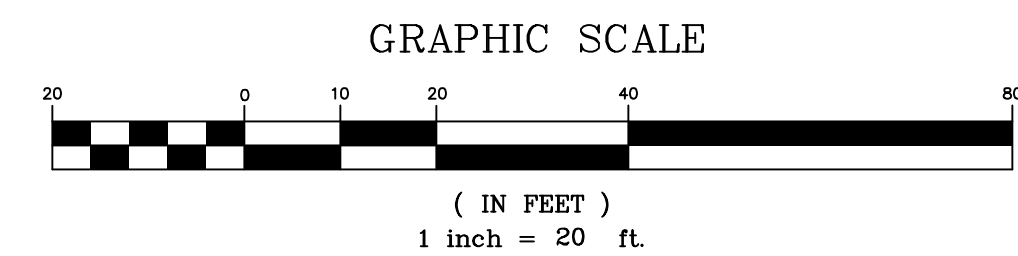
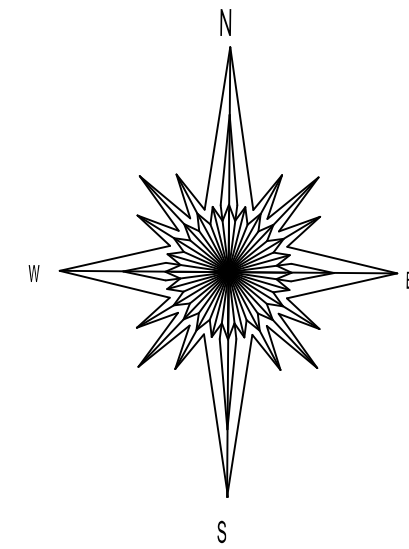
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Hydrograph for Link 5L: Proposed Combined

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.05	0.00	0.05	33.50	0.00	0.00	0.00
8.00	0.10	0.00	0.10	34.00	0.00	0.00	0.00
8.50	0.14	0.00	0.14	34.50	0.00	0.00	0.00
9.00	0.18	0.00	0.18	35.00	0.00	0.00	0.00
9.50	0.23	0.00	0.23	35.50	0.00	0.00	0.00
10.00	0.29	0.00	0.29	36.00	0.00	0.00	0.00
10.50	0.37	0.00	0.37	36.50	0.00	0.00	0.00
11.00	0.46	0.00	0.46	37.00	0.00	0.00	0.00
11.50	0.65	0.00	0.65	37.50	0.00	0.00	0.00
12.00	3.10	0.00	3.10	38.00	0.00	0.00	0.00
12.50	3.62	0.00	3.62	38.50	0.00	0.00	0.00
13.00	1.19	0.00	1.19	39.00	0.00	0.00	0.00
13.50	0.84	0.00	0.84	39.50	0.00	0.00	0.00
14.00	0.72	0.00	0.72	40.00	0.00	0.00	0.00
14.50	0.60	0.00	0.60	40.50	0.00	0.00	0.00
15.00	0.49	0.00	0.49	41.00	0.00	0.00	0.00
15.50	0.40	0.00	0.40	41.50	0.00	0.00	0.00
16.00	0.32	0.00	0.32	42.00	0.00	0.00	0.00
16.50	0.27	0.00	0.27	42.50	0.00	0.00	0.00
17.00	0.24	0.00	0.24	43.00	0.00	0.00	0.00
17.50	0.21	0.00	0.21	43.50	0.00	0.00	0.00
18.00	0.18	0.00	0.18	44.00	0.00	0.00	0.00
18.50	0.17	0.00	0.17	44.50	0.00	0.00	0.00
19.00	0.16	0.00	0.16	45.00	0.00	0.00	0.00
19.50	0.15	0.00	0.15	45.50	0.00	0.00	0.00
20.00	0.14	0.00	0.14	46.00	0.00	0.00	0.00
20.50	0.14	0.00	0.14	46.50	0.00	0.00	0.00
21.00	0.13	0.00	0.13	47.00	0.00	0.00	0.00
21.50	0.12	0.00	0.12	47.50	0.00	0.00	0.00
22.00	0.12	0.00	0.12	48.00	0.00	0.00	0.00
22.50	0.11	0.00	0.11				
23.00	0.11	0.00	0.11				
23.50	0.10	0.00	0.10				
24.00	0.10	0.00	0.10				
24.50	0.02	0.00	0.02				
25.00	0.01	0.00	0.01				
25.50	0.00	0.00	0.00				



EXISTING DRAINAGE AREA

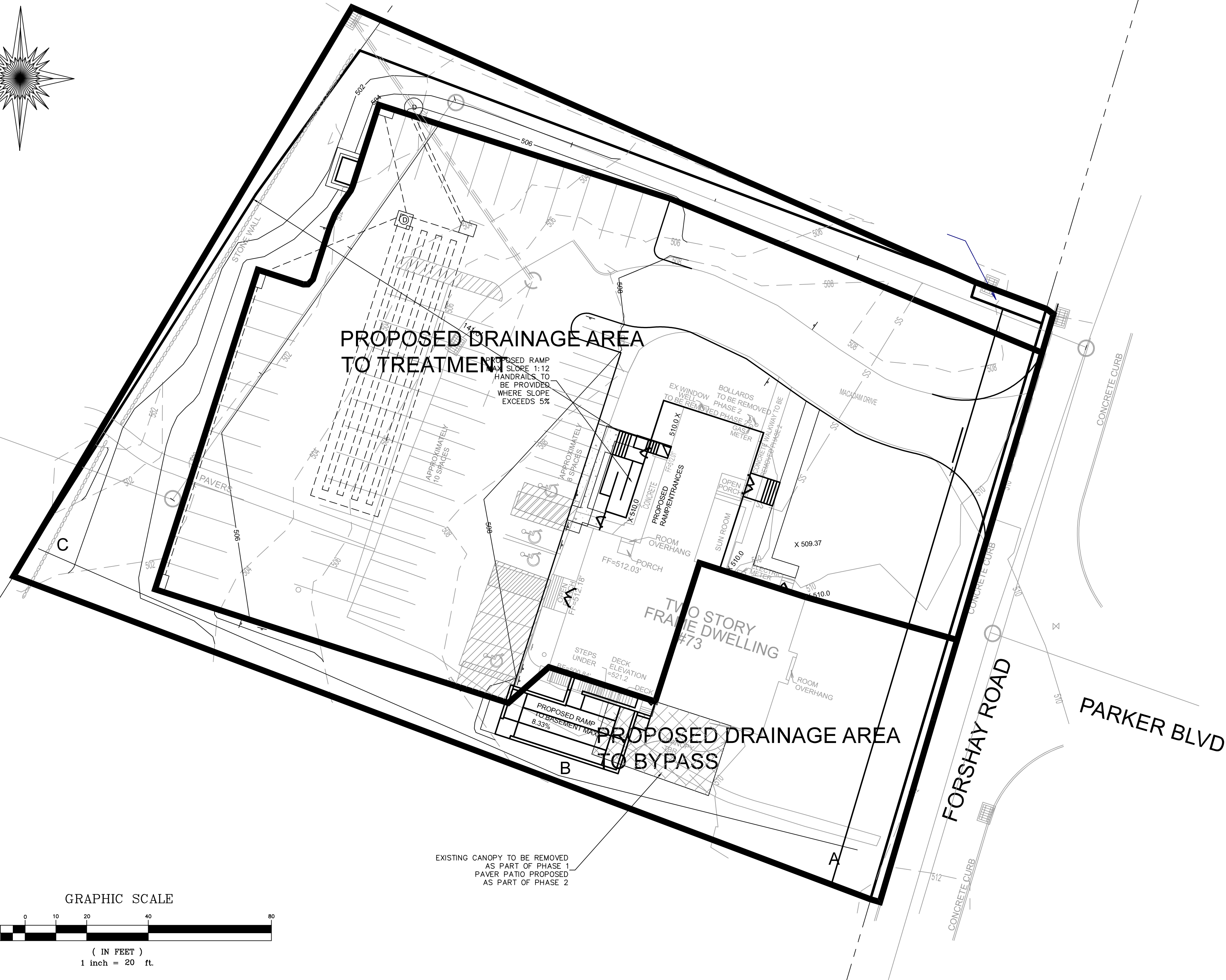
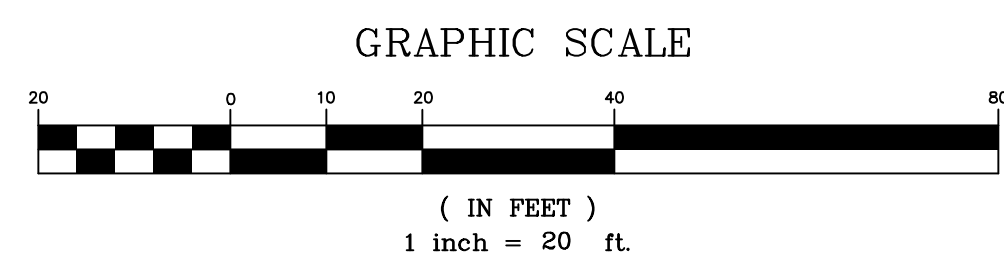
TWO STORY
FRAME DWELLING
#73

FORSHAY ROAD

PARKER BLVD

DATE	ISSUE	DESCRIPTION	REVISIONS
MAY 6, 2024	REV 1	REV PER CDRC	
S.B.L. 41.18-1-12			
EXISTING DRAINAGE AREA MAP			
FOR			
CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC			DATE: 6/14/19
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DRAWN BY: RB/LT
111 Main Street Chester, NY 10918 845.610.3621			CHKD BY: RB/LT
Engineering - Land Surveying - Land Planning - Subdivision Design - Civil Engineering & Land Surveying Services that Build Communities www.Civil-Tec.com			JOB No. 3688
Rachel B. Barese, P.E. N.Y. Lic. No. 90143			SCALE: 1"=20'
			DWG No. 3 OF 3





MAY 6, 2024	REV 1	REV PER CDR		
DATE	ISSUE	DESCRIPTION	REVISIONS	
S.B.L. 41.18-1-12 PROPOSED DRAINAGE AREA MAP FOR CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK				
CIVIL TEC Engineering & Surveying PC 139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243 111 Main Street Chester, NY 10918 845.610.3621 Engineering - Land Surveying - Land Planning - Design - Grading Civil Engineering & Land Surveying Services that Build Confidence www.Civil-Tec.com			DATE:	6/14/19
			DRAWN BY:	RB/LT
			CHKD BY:	RB/LT
			JOB No.	3688
			SCALE:	1"=20'
			DWG No.	3 OF 216

June 19, 2024

Village of Wesley Hills
432 Route 305
Wesley Hills, New York 10952

Re: Cong. Ahavas Yitzchak
73 Forshay Road
Monsey, NY 10952
Tax Lot 41.18-1-12

Attached please find a plan revised based upon the comments received. Below please find an item by item response.

Comments from the Highway Department dated September 7, 2022

1. **The driveway radius/curbs at the entrance appear to be very wide. The applicant shall provide proper driveway curves to accommodate all vehicles turning in and out of the proposed driveway.** The entrance has 28' radii based on the International Fire Code.
2. **The existing crosswalk on Forshay Road shall be realigned to direct pedestrians to use the ramps safely. In addition, all the proper advanced warning signs shall be placed on Forshay Road to warn motorists about the crosswalk ahead.** There is no crosswalk towards our property. The existing crosswalk is on the opposite side of Forshay Road perpendicular to Parker Blvd. There is no walk across Forshay.
3. **A drainage report is required for the proposed changes in the property. The proposed drainage system shall demonstrate to produce no net increase in the peak rate of discharge from the stie at all design points.** The drainage report has been updated and is now provided.
4. **A road work permit shall be obtained from the RCHD prior to starting any construction work in the site.** Comment noted.

Comments from RCSD No. 1 dated March 23, 2024

1. **As this application modifies the existing non-residential use, Rockland County Sewer District No. 1's "Commercial/Non-residential Wastewater Questionnaire" and the County Planning Information Certification must be re-submitted to and approved by this office. The owner or rabbi must sign the wastewater questionnaire.** Application will be made again.
2. **Approval of this special permit application for an addition to an expansion of the existing neighborhood gathering use (house of worship) on a 53,537 square foot lot in the R-35 District does not require the applicant to pay an impact fee, in accordance with the Rockland County Sewer Use Law as last amended in 2010. However, if the use or occupancy of the property exceeds one (1) unit (e.g., if the social hall in the basement is used for catered events like weddings or bar mitzvahs, or with a mikvah, a school, a daycare center, a rabbi's residence,**

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apartments, visitor suites, or a congregation of 100 families), the District will require further review and the owner will have to pay an impact fee. Comment noted.

3. **Details for sanitary sewer construction as shown on the plans must comply with the District's construction standards.** Comment noted.
4. **Details for regrading the sanitary sewer manholes in the easement as shown on Drawing No. 3 (Grading Drainage & Utilities Plan Phase 1) and Drawing No. 6 (Grading, Drainage & Utilities Plan Phase 2) are subject to approval by the Town of Ramapo Department of Public Works.** Comment noted.

Comments from Rockland County Dept of Planning dated March 27, 2024

1. **Special permit uses are, by definition, subject to a higher standard of review than as of right uses. In addition to complying with the bulk requirements of the zone in which they are proposed, the modified neighborhood gathering use must meet the general standards for special permits outlined in Section 230-22, as well as the individual standards found in Section 230-26G. The Village must be satisfied that these requirements have been met.** Comment noted.
2. **The applicant must comply with the comments made by the Rockland County Highway Department in their letter dated March 12, 2024. A response can be found above.**
3. **A review of the September 22, 2023 site plan must be completed by the Rockland County Department of Health. In addition, as per their letter dated June 6, 2019, application is to be made to them for review to ensure compliance with the County Mosquito Code. Please see response below. Mosquito approval was granted in July 2019.**
4. **A review of the September 22, 2023 site plan must be completed by the Rockland County Sewer District No. 1, any concerns addressed, and any required permits obtained.** Comment noted.
5. **A review must be completed by the County of Rockland Office of Fire and Emergency Services, Village of Wesley Hills fire inspector, or the Monsey Fire Department to ensure that the site is designed in a safe manner and that there is easy access to the structure, in the event of an emergency.** Comment noted.
6. **The Town of Ramapo is one of the reasons this proposal was referred to this department for review. The municipal boundary is adjacent to the eastern property line of the parcel. New York State General Municipal Law states that the purposes of Sections 239-l, 239-m, and 239-n shall be to bring pertinent inter-community and countywide planning, zoning, site plan and subdivision considerations to the attention of neighboring municipalities and agencies having jurisdiction. Such review may include inter-community and county-wide considerations in respect to the compatibility of various land uses with one another; traffic generating characteristics of various land uses in relation to the effect of such traffic on other land uses and to the adequacy of existing and proposed thoroughfare facilities; and the protection of community character as regards predominant land uses, population density, and the relation between residential and nonresidential areas. In addition, Section 239-nn was enacted to**

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encourage the coordination of land use development and regulation among adjacent municipalities, and as a result development occurs in a manner that is supportive of the goals and objectives of the general area. The Town of Ramapo must be given the opportunity to review the proposal and its impact on community character, traffic, water quantity and quality, drainage, stormwater runoff and sanitary sewer service. The areas of countywide concern noted above that directly impact the Town of Ramapo must be considered and satisfactorily addressed, as well as any additional concerns about the proposal. Comment noted.

7. **Prior to the start of construction or grading, all soil and erosion control measures must be in place for the site. These measures must meet the latest edition (November 2016) of the New York State Standards for Urban Erosion and Sediment Control. An erosion control plan is provided.**
8. **There shall be no net increase in the peak rate of discharge from the site at all design points. Drainage design was provided for review to the Village.**
9. **A stormwater pollution prevention plan (SWPPP) was not provided. The SWPPP, if required, shall conform to the current regulations, including the New York State Stormwater Management and Design Manual (January 2015) and local ordinances. A SWPPP was not required.**
10. **The proposed impervious surface ratio is listed as 0.56 on the bulk table. The calculation indicates it will be 0.54. The June 15, 2022 revision of the site plan that was submitted to our department with a previous application includes the same impervious surface ratio calculation as the September 22, 2023 map that was submitted with this application. However, the current drawing shows a slightly different configuration of the site, which has likely increased the amount of impervious surface. A new impervious surface ratio calculation must be provided. If it is greater than 0.56, a variance will be required. We request the opportunity to review any additional variances, as required by New York State General Municipal Law, Section 239-m (3)(a)(v). The plans have been updated.**
11. **To help reduce the impact of this development, a reduction of impervious surface should be considered. The amended Site Plan Phase 2 (Drawing 5 of 9) indicates that pervious pavers are proposed to be used for a patio at the southern side of the structure. It is recommended that porous pavers or porous concrete be considered to replace the use of conventional asphalt in additional areas of the site, as well. If installed correctly and properly maintained porous pavers have been shown to be effective in helping manage off-site runoff of stormwater. In addition to permeable pavers, other green infrastructure techniques should be considered such as bioswales, rain gardens, and rainwater capture. For long term effectiveness of permeable pavers and other green infrastructure techniques it is recommended that the Village and the applicant review Chapter 5 'Green Infrastructure Practices' of the 2015 NYSDEC Stormwater Design Manual. Based on the ground water, pervious pavers are no longer proposed.**
12. **The walkway to Judith Lane at the rear of the property must be continued around the parking area of have a dedicated crosswalk through the parking area in order to maintain safe access for pedestrians. We would request an override of**

this item as we would like to maintain the maximum parking possible to be consistent with prior approvals.

13. **This department recommends that the applicant use plants that are native to New York for the proposed landscaping to help preserve and promote biodiversity. Native plants are better adapted to the local climate and soils, making them easier to care for, and result in the need for less fertilizer, pesticides, and use of water. They also have deeper root systems that help prevent erosion and increased runoff into local waterbodies. A pdf titled “Native Plants for Gardening and Landscaping Fact Sheets” that lists native species and the environments in which they can grow can be found on the New York State Department of Environmental Conservation’s website. Native plants are proposed.**
14. **The lighting plan provided does not extend to the property lines. The lighting plan shall be amended to demonstrate that the intensity of the candle lumens is less than 0.1 at the property line. The lighting has been extended to the property lines.**
15. **The parking calculation indicates 3 accessible spaces will be provided. However, only two are depicted on the drawing. There appears to be a second access aisle to the south of the two accessible spaces that are shown, except this aisle is immediately adjacent to a stairway, and cannot be associated with an accessible space. The third accessible space, at its associated access aisle, must be provided as required by the Americans with Disabilities Act, and illustrated on the site plan. A third accessible space is now provided.**
16. **Pursuant to General Municipal Law (GML) Section 239-m and 239-n, if any of the conditions of this GML review are overridden by the board, then the local land use board must file a report with the County Commissioner, the local land use board must state the reasons for such action. Comment noted.**
17. **In addition, pursuant to Executive Order 01-2017 signed by County Executive Day on May 22, 2017, County departments are prohibited from issuing a County permit, license, or approval until the report is filed with the County Commissioner of Planning. The applicant must provide to any County agency which has jurisdiction of the project: 1) a copy of the Commissioner report approving the proposed action; or 2) a copy of the land use board statement overriding the recommendations to modify or disapprove, and the stated reasons for the land use board’s override. Comment noted.**

Comments from RCDOH dated March 26, 2024

1. **Application is to be made to the RCDOH for review of the storm water management system for compliance with the County Mosquito Code. Mosquito control approval was granted in July 2019. The number of structures has not changed since then.**

Comments from Brooker Engineering dated May 24, 2024

1. **Site Plan has been revised to indicate that the proposed ramp is to provide an ADA accessible route to the basement. Applicant to confirm if the existing stairs**

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leading the second-floor deck (Elev. 521.2) are to remain and if so, how it will be supported above the proposed ramp to the basement. The design from the architect is now provided to show how it will work.

2. **Our office defers to the Building Inspector if the proposed ramp on the south side of the structure is permitted within the side yard. Fall protection may be required at the discretion of the Building Inspector.** Comment noted.
3. **Proposed dumpster location and retaining wall layer to be frozen.** They have been removed.
4. **Applicant to clarify if the 36"x48" CMP drainage system is situated within an existing easement.** The system is not within the sewer easement.
5. **Our office requests that the existing conditions 'striping' layer to be frozen on this sheet for additional clarify.** The existing striping is now frozen.
6. **Grading detail (spot grades) for proposed ramp/stairs on south side of building shall be provided to support design. Slope over 5.0% on the ramp requires handrails. Max slope shall be 8.33% as noted.** The architectural drawings are now provided to show the slope and landings for the ramp.
7. **Additional grading detail to be provided at the eastern face of the proposed ramp to ensure positive conveyance of stormwater away from the building is provided.** Additional spot grades are provided. The existing grade already goes away from the building.
8. **Roof leader pipe conveyance for roof leaders to be tied into detention system to be provided. It is unclear where and how the roof leaders will tie into the detention system.** Additional information is now shown.
9. **Top and bottom elevations of the proposed retaining wall associated with the dumpster enclosure to be provided.** Grades are now provided.
10. **Detail (section and plan view with pipe connections) of 6' diameter, oversized DMH to be provided.** An oversized manhole detail is now provided.
11. **6" PVC in rear yard to be identified and redirected as necessary. Applicant has indicated that this will continue to be investigated.** We will continue to research the use of this pipe.
12. **Origin of 8" PVC to existing manhole to be investigated. Existing manhole acts as a by-pass to the detention system from this incoming pipe. Applicant has indicated that the 8" PVC shall be further investigated during construction and re-routed if necessary.**
13. **Applicant to review location of 'B' designated pole mounted light near the middle of proposed parking lot as it appears to be located within a proposed parking space. Applicant to provide additional information regarding protection of the proposed light pole.** The pole has been slightly adjusted to be at the intersection of 4 spaces.
14. **An "A" designated pole mounted light is proposed on the existing walking path at the western property line. Applicant to review location of this pole if walking path is to remain.** The pole has been slightly relocated.
15. **Trees designated to remain shall be protected during construction. In the event that the designated trees are removed, the trees shall be replaced to provide sufficient screening as needed.** A note has been added to indicate the tree will be replaced if removed.

16. **Clearing limit line has been provided. Clearing limit line to be delineated with orange construction fencing during construction.** A note has been added to indicate that orange construction fencing shall be provided.
17. **A Bulk Table is now provided for Phase 2 and the impervious surface ratio is indicated as 0.575, exceeding the ratio of 0.56 of which was granted by the Zoning Board of Appeals on July 17, 2019. This non-conformance requires a new variance and is referred to the Zoning Board of Appeals for further consideration.** Comment noted.
18. **An ADA accessible route is to be provided to the Proposed Phase 2 ramp at the western face of the building. The adjacent concrete sidewalk does not appear to extend to the ramp entrance.** The sidewalk has been adjusted.
19. **Grading detail (spot grades) for proposed ramp/stairs on west side of building shall be provided to support design. Slope over 5.0% on the ramp requires handrails. Max slope shall be 8.33% as noted.** The architectural plans for the ramp are now provided.
20. **Applicant to provide detail of interconnection (headers) of solid 36" HDPE detention system and access ports for future maintenance of the system.** A detail of the manhole access structures is provided.
21. **Detail for retaining wall associated with dumpster enclosure to be provided.** A small
22. **Details for proposed ADA ramps to be provided.** Details for the ramps will be provided by the architect at time of building permit.
23. **Regrading, improvements, and structure modification within Town of Ramapo Sewer Easement subject to review and approval by Town of Ramapo.** Comment noted.
24. **The Drainage Report has been updated to address the Phase 2 proposed conditions as requested. Applicant to clarify if the stone envelope is being utilized as storage for the system in the HydroCAD model. Our office takes objection to the inclusion of the stone envelope as available storage as this proposed system utilizes 36" solid HDPE pipe; therefore, stormwater storage should be limited to the available storage within the 36" pipe and headers. The stone is no longer counted. The drainage has been updated accordingly.**

Comments from Nelson Pope Voorhis dated June 4, 2024

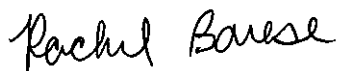
1. **Regarding comment 1 of our previous memorandum dated March 7, 2024, the work in each phase has been clearly defined in the newest site plan set. As the project progresses, please provide an estimated timeline for each phase.** Comment noted. A timeframe will be provided when available.
2. **Comment 2 of our previous memorandum has been resolved.** Comment noted.
3. **Regarding comment 3 of our previous memorandum, the floor plan, cross section, and elevations of the proposed building addition have not yet been submitted. When available, please include conceptual architectural plans. Please label the uses in each room and include a room schedule with square footages. It appears that the north wing of the building will increase from 900+ sf to 1500+**

square feet, after the proposed Phase 2 construction. Architecturals will be provided when available.

4. **Regarding comment 4 of our previous memorandum, we understand that the patio proposed in phase 2 will be constructed with traditional impervious materials and is now included in the proposed impervious surface calculations.**
Comment noted.
5. **Regarding comment 5 of our previous memorandum, the proposed impervious surface ratio in phase 2 will be 0.575, which is higher than the value of 0.56 that was approved by the ZBA in variances granted July 17, 2019. In the table of dimensional requirements, it should be noted that a new variance will be required for Maximum Impervious Surface Ratio.** It is now noted that the variance is larger than previously granted.
6. **Regarding comment 6 of our previous memorandum, the south ADA ramp proposed for Phase 1 is within the required side yard, and it is only 7.2 feet from the property line at its closest point, although it is below grade. The required side yard in R-35 is 25 feet. The Planning Board Attorney and Building Inspector should determine whether an additional, new side yard variance will be required (even if this large structure is below grade.)** We defer to the Village's determination.
7. **Comment 7 of our previous memorandum has been resolved.** Comment noted.
8. **We recommend that the Planning Board classify this action as a type II action, requiring no SEQRA review, since it involves the expansion of a non-residential facility involving less than 4,000 square feet, if it has not done so already.**
Comment noted.
9. **A GML review letter was received, dated March 27, 2024. The applicant has requested an override of comment 12, which requires that "the walkway to Judith Lane at the rear of the property must be continued to have a dedicated crosswalk through the parking area in order to maintain safe access for pedestrians." The Planning Board should discuss whether it would be willing to override this County Planning GML comment requiring this crosswalk.**
Comment noted.

Please contact me at (845) 547-2241 or by email at rbarese@civil-tec.com with any questions or concerns you may have.

Sincerely,



Rachel Barese, P.E.
President



NEW EXTERIOR RAMPS AND STAIR EXTENSION PLAN

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

PROJECT TITLE:

CONGREGATION AHAVAS YITZCHOK
73 FORSHAY RD
WESLEY HILLS, NY

DWG TITLE:
HANDICAP RAMPS AND STAIR EXTENSION

Mayerfeld
A R C H I T E C T U R E

15 Lyncrest Drive, Monsey, N.Y. 10952
(845) 354-0001, Fax (845) 362-3272

SEAL:

DWG No:

A-1

SHEET No:

1 OF 2

SCALE:	AS NOTED
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DATE:	01/08/18
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BIN No:	A
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JOB No:

**Cong. Ahavas Yitzchak
73 Forshay Road
Village of Wesley Hills, Rockland County, New York
41.18-1-12
Project Number 3688
February 2019
Revised June 2024**

This site plan is for Cong. Ahavas Israel located at 73 Forshay Road in the Village of Wesley Hills, New York. It proposes a phased project including improving the parking lot for the existing house of worship and a ramp in phase 1. Phase 2 will include an addition to the existing building and a patio. The existing building will remain. The lot is approximately 1.23 acres, but the area of disturbance is under an acre. In accordance with NYSDEC regulations, we have reviewed the stormwater from the site and are proposing underground detention. The discharge from the detention will be directed in to an existing drainage pipe onsite which discharges into an existing drainage system to the rear of the property.

The site is comprised of soil which is labeled CuB and is considered a B soil. The type of soil was considered when examining the curve numbers (CNs) for both the existing and proposed site. All CN calculations are attached. The existing CN is based on a covering of impervious and good lawn with all discharge as runoff. The proposed CN is also based on a covering of impervious and good lawn.

Routing calculations were made using the HydroCAD 10.20-5a computer modeling program. This program uses standard SCS methods of overall hydrograph calculations (TR-20 and TR-55), and allows, for example, direct entry of sub-watershed characteristics to calculate Time of Concentration (TCs). The model description and calculation methodology is attached. Precipitation events have been utilized based on the Northeast Regional Climate Center Extreme Precipitation.

Storm Event	24 hour
1 Year	2.75 cfs
2 Year	3.36 cfs
5 Year	4.21 cfs
10 Year	4.99 cfs
25 Year	6.27 cfs
50 Year	7.45 cfs

100 Year	8.86 cfs
----------	----------

Summary of Model Results

Basin (Hydr. #)	Peak Flow, CFS		
	1-YR	10-YR	100-YR
Existing	0.73	2.66	6.57
Proposed to treatment	0.56	1.89	4.36
Proposed to Bypass	0.16	0.79	2.23
Proposed Combined	0.70	2.65	6.56
Difference in Discharge	-0.03	-0.01	-0.01

An underground detention system is proposed. The outlet structure will have an overflow pipe with a 4.75" orifice, a 10" orifice, a 0.5' rectangular weir, and a 15" culvert that discharges to the existing drainage onsite.

In summary, the proposed stormwater facilities should be adequate for the proposed site improvements. There is either no difference in discharge, or a decrease in the discharge from the site.

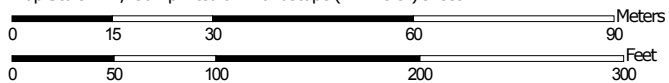
Soil Map—Rockland County, New York

Item 2.



Soil Map may not be valid at this scale.

Map Scale: 1:1,130 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

2/14/2019
Page 1 of 3

227

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rockland County, New York

Survey Area Data: Version 16, Sep 3, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Oct 7, 2013—Feb 26, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
CuB	Cheshire-Urban land complex, 2 to 8 percent slopes	6.3	100.0%
Totals for Area of Interest		6.3	100.0%

Rockland County, New York

CuB—Cheshire-Urban land complex, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9v48

Mean annual precipitation: 47 to 50 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 135 to 215 days

Farmland classification: Not prime farmland

Map Unit Composition

Cheshire and similar soils: 45 percent

Urban land: 30 percent

Minor components: 25 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Cheshire

Setting

Landform: Hills, till plains

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy till derived mostly from reddish sandstone, shale, and conglomerate

Typical profile

H1 - 0 to 10 inches: gravelly fine sandy loam

H2 - 10 to 22 inches: gravelly fine sandy loam

H3 - 22 to 60 inches: gravelly sandy loam

Properties and qualities

Slope: 2 to 8 percent

Depth to restrictive feature: More than 80 inches

Natural drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat):

Moderately high to high (0.57 to 5.95 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Available water storage in profile: Moderate (about 8.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: B

Hydric soil rating: No

Description of Urban Land

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: Unranked

Minor Components

Udorthents

Percent of map unit: 5 percent

Hydric soil rating: No

Watchaug

Percent of map unit: 5 percent

Hydric soil rating: No

Wethersfield

Percent of map unit: 5 percent

Hydric soil rating: No

Yalesville

Percent of map unit: 5 percent

Hydric soil rating: No

Cheshire, very stony

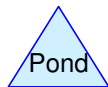
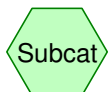
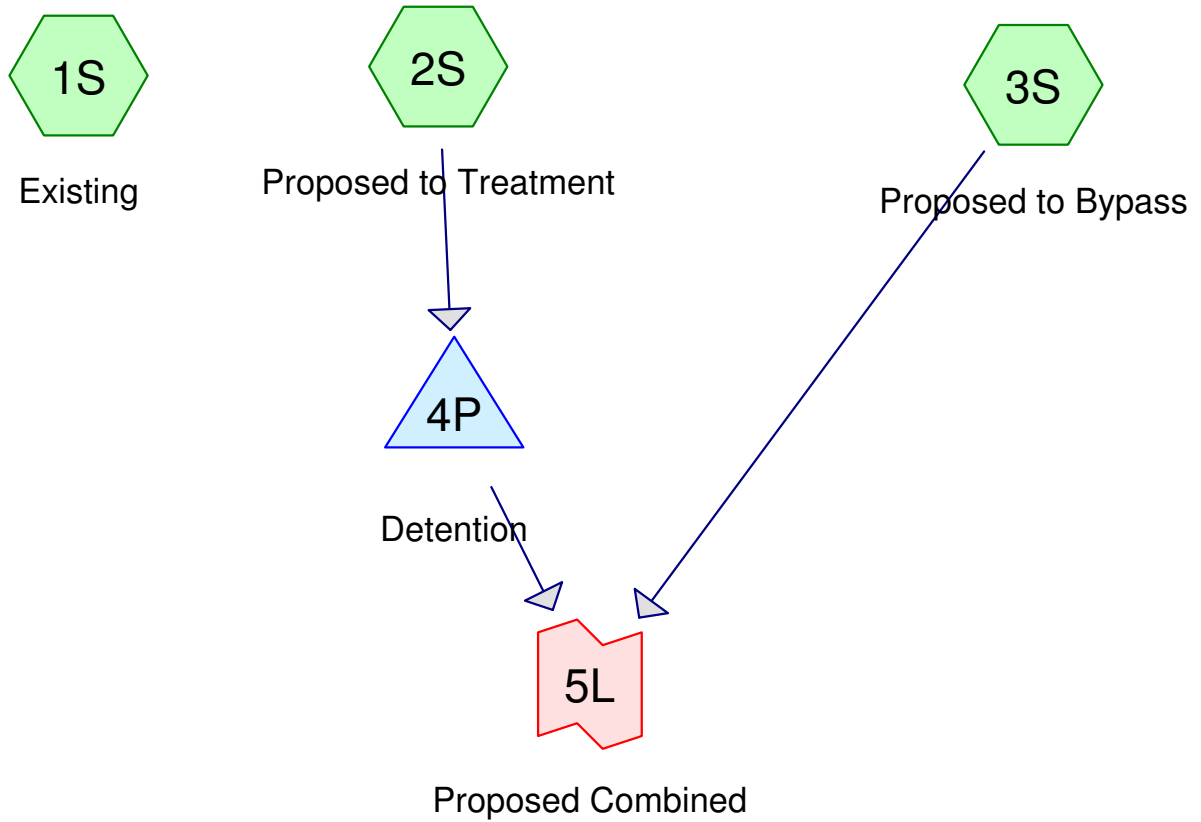
Percent of map unit: 5 percent

Hydric soil rating: No

Data Source Information

Soil Survey Area: Rockland County, New York

Survey Area Data: Version 16, Sep 3, 2018



Routing Diagram for 73 Forshay 6-7-24
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Project Notes

Defined 9 rainfall events from 73 FORshay IDF

Defined 9 rainfall events from 73 FORshay IDF

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Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	1-yr	Type III 24-hr		Default	24.00	1	2.75	2
2	10-yr	Type III 24-hr		Default	24.00	1	4.99	2
3	100-yr	Type III 24-hr		Default	24.00	1	8.86	2

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Area Listing (all nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.430	61	>75% Grass cover, Good, HSG B (1S, 2S, 3S)
1.090	98	Impervious (1S, 2S, 3S)
2.520	77	TOTAL AREA

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Soil Listing (all nodes)

Area (acres)	Soil Group	Subcatchment Numbers
0.000	HSG A	
1.430	HSG B	1S, 2S, 3S
0.000	HSG C	
0.000	HSG D	
1.090	Other	1S, 2S, 3S
2.520		TOTAL AREA

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Ground Covers (all nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.000	1.430	0.000	0.000	0.000	1.430	>75% Grass cover, Good	1S, 2S, 3S
0.000	0.000	0.000	0.000	1.090	1.090	Impervious	1S, 2S, 3S
0.000	1.430	0.000	0.000	1.090	2.520	TOTAL AREA	

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Pipe Listing (all nodes)

Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Width (inches)	Diam/Height (inches)	Inside-Fill (inches)	Node Name
1	4P	499.00	498.66	42.0	0.0081	0.013	0.0	15.0	0.0	

73 Forshay 6-7-24*Type III 24-hr 1-yr Rainfall=2.75"*

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Existing

Runoff Area=1.230 ac 32.52% Impervious Runoff Depth=0.71"
 Flow Length=285' Tc=11.9 min CN=73 Runoff=0.73 cfs 0.073 af

Subcatchment 2S: Proposed to Treatment

Runoff Area=0.810 ac 75.31% Impervious Runoff Depth=1.68"
 Tc=6.0 min CN=89 Runoff=1.56 cfs 0.113 af

Subcatchment 3S: Proposed to Bypass

Runoff Area=0.480 ac 16.67% Impervious Runoff Depth=0.47"
 Flow Length=285' Tc=11.9 min CN=67 Runoff=0.16 cfs 0.019 af

Pond 4P: Detention

Peak Elev=500.14' Storage=0.022 af Inflow=1.56 cfs 0.113 af
 Outflow=0.56 cfs 0.113 af

Link 5L: Proposed Combined

Inflow=0.70 cfs 0.132 af
 Primary=0.70 cfs 0.132 af

Total Runoff Area = 2.520 ac Runoff Volume = 0.204 af Average Runoff Depth = 0.97"
56.75% Pervious = 1.430 ac 43.25% Impervious = 1.090 ac

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Type III 24-hr 1-yr Rainfall=2.75"

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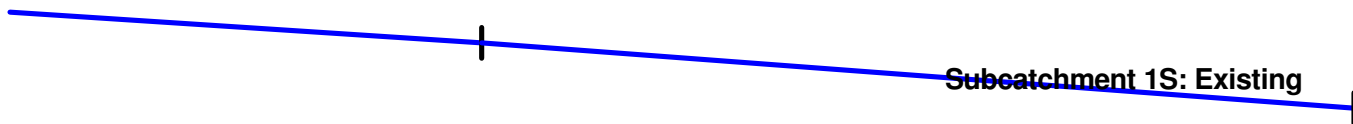
Summary for Subcatchment 1S: Existing

Runoff = 0.73 cfs @ 12.19 hrs, Volume= 0.073 af, Depth= 0.71"

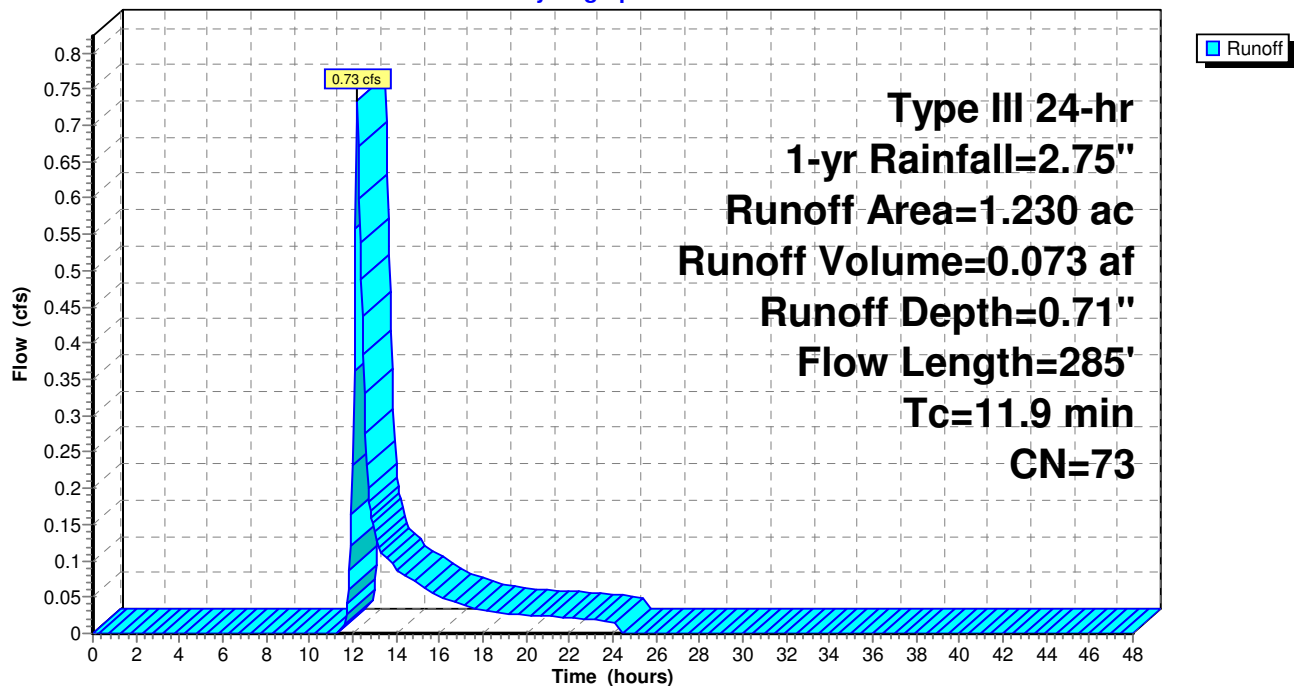
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-yr Rainfall=2.75"

Area (ac)	CN	Description
* 0.400	98	Impervious
0.830	61	>75% Grass cover, Good, HSG B
1.230	73	Weighted Average
0.830		67.48% Pervious Area
0.400		32.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0350	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
1.0	185	0.0400	3.22		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
11.9	285	Total			

**Subcatchment 1S: Existing**

Hydrograph



73 Forshay 6-7-24

Type III 24-hr 1-yr Rainfall=2.75"

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Hydrograph for Subcatchment 1S: Existing

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	2.75	0.71	0.00
0.50	0.01	0.00	0.00	26.50	2.75	0.71	0.00
1.00	0.03	0.00	0.00	27.00	2.75	0.71	0.00
1.50	0.04	0.00	0.00	27.50	2.75	0.71	0.00
2.00	0.06	0.00	0.00	28.00	2.75	0.71	0.00
2.50	0.07	0.00	0.00	28.50	2.75	0.71	0.00
3.00	0.08	0.00	0.00	29.00	2.75	0.71	0.00
3.50	0.10	0.00	0.00	29.50	2.75	0.71	0.00
4.00	0.12	0.00	0.00	30.00	2.75	0.71	0.00
4.50	0.14	0.00	0.00	30.50	2.75	0.71	0.00
5.00	0.16	0.00	0.00	31.00	2.75	0.71	0.00
5.50	0.18	0.00	0.00	31.50	2.75	0.71	0.00
6.00	0.20	0.00	0.00	32.00	2.75	0.71	0.00
6.50	0.22	0.00	0.00	32.50	2.75	0.71	0.00
7.00	0.25	0.00	0.00	33.00	2.75	0.71	0.00
7.50	0.28	0.00	0.00	33.50	2.75	0.71	0.00
8.00	0.31	0.00	0.00	34.00	2.75	0.71	0.00
8.50	0.35	0.00	0.00	34.50	2.75	0.71	0.00
9.00	0.40	0.00	0.00	35.00	2.75	0.71	0.00
9.50	0.46	0.00	0.00	35.50	2.75	0.71	0.00
10.00	0.52	0.00	0.00	36.00	2.75	0.71	0.00
10.50	0.60	0.00	0.00	36.50	2.75	0.71	0.00
11.00	0.69	0.00	0.00	37.00	2.75	0.71	0.00
11.50	0.82	0.00	0.01	37.50	2.75	0.71	0.00
12.00	1.37	0.09	0.23	38.00	2.75	0.71	0.00
12.50	1.93	0.29	0.38	38.50	2.75	0.71	0.00
13.00	2.06	0.35	0.14	39.00	2.75	0.71	0.00
13.50	2.15	0.39	0.10	39.50	2.75	0.71	0.00
14.00	2.23	0.43	0.09	40.00	2.75	0.71	0.00
14.50	2.29	0.46	0.08	40.50	2.75	0.71	0.00
15.00	2.35	0.49	0.07	41.00	2.75	0.71	0.00
15.50	2.40	0.51	0.06	41.50	2.75	0.71	0.00
16.00	2.44	0.53	0.05	42.00	2.75	0.71	0.00
16.50	2.47	0.55	0.04	42.50	2.75	0.71	0.00
17.00	2.50	0.57	0.04	43.00	2.75	0.71	0.00
17.50	2.53	0.58	0.04	43.50	2.75	0.71	0.00
18.00	2.55	0.60	0.03	44.00	2.75	0.71	0.00
18.50	2.57	0.61	0.03	44.50	2.75	0.71	0.00
19.00	2.59	0.62	0.03	45.00	2.75	0.71	0.00
19.50	2.61	0.63	0.03	45.50	2.75	0.71	0.00
20.00	2.63	0.64	0.03	46.00	2.75	0.71	0.00
20.50	2.65	0.65	0.02	46.50	2.75	0.71	0.00
21.00	2.67	0.66	0.02	47.00	2.75	0.71	0.00
21.50	2.68	0.67	0.02	47.50	2.75	0.71	0.00
22.00	2.70	0.68	0.02	48.00	2.75	0.71	0.00
22.50	2.71	0.69	0.02				
23.00	2.73	0.69	0.02				
23.50	2.74	0.70	0.02				
24.00	2.75	0.71	0.02				
24.50	2.75	0.71	0.00				
25.00	2.75	0.71	0.00				
25.50	2.75	0.71	0.00				

73 Forshay 6-7-24

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Type III 24-hr 1-yr Rainfall=2.75"

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Summary for Subcatchment 2S: Proposed to Treatment

Runoff = 1.56 cfs @ 12.09 hrs, Volume= 0.113 af, Depth= 1.68"
 Routed to Pond 4P : Detention

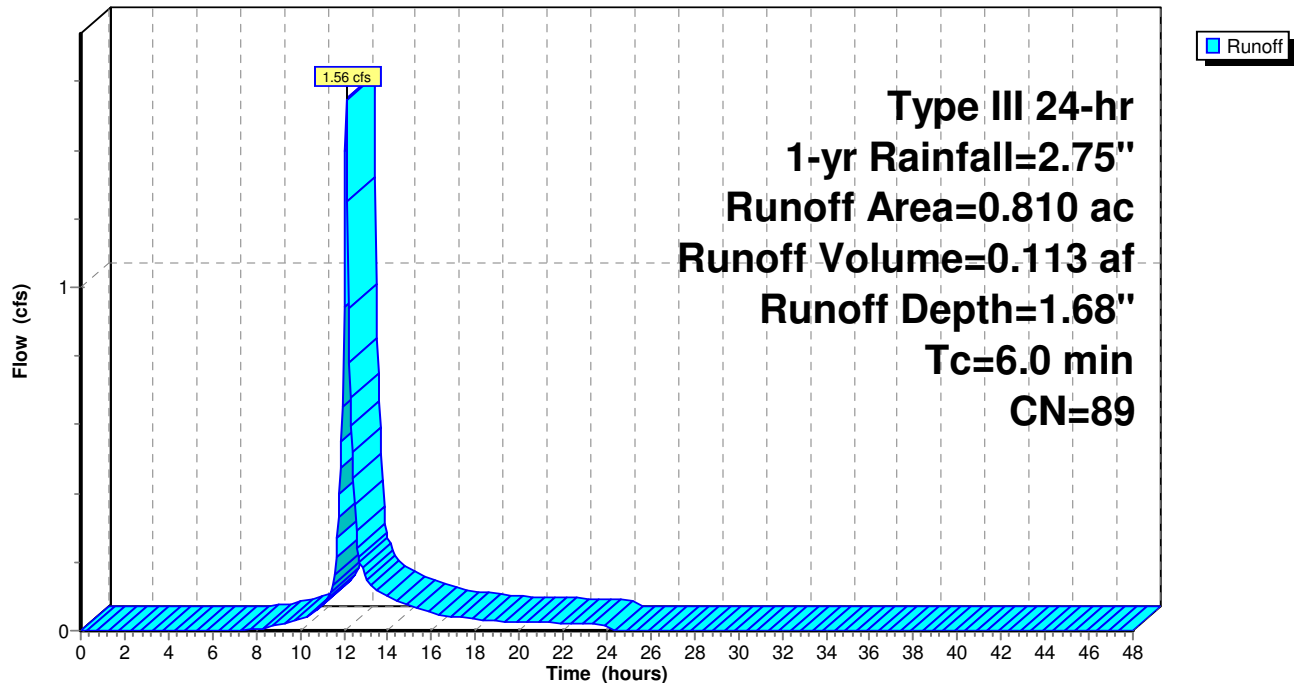
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Type III 24-hr 1-yr Rainfall=2.75"

Area (ac)	CN	Description
* 0.610	98	Impervious
0.200	61	>75% Grass cover, Good, HSG B
0.810	89	Weighted Average
0.200		24.69% Pervious Area
0.610		75.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment 2S: Proposed to Treatment

Hydrograph



73 Forshay 6-7-24

Type III 24-hr 1-yr Rainfall=2.75"

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Hydrograph for Subcatchment 2S: Proposed to Treatment

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	2.75	1.68	0.00
0.50	0.01	0.00	0.00	26.50	2.75	1.68	0.00
1.00	0.03	0.00	0.00	27.00	2.75	1.68	0.00
1.50	0.04	0.00	0.00	27.50	2.75	1.68	0.00
2.00	0.06	0.00	0.00	28.00	2.75	1.68	0.00
2.50	0.07	0.00	0.00	28.50	2.75	1.68	0.00
3.00	0.08	0.00	0.00	29.00	2.75	1.68	0.00
3.50	0.10	0.00	0.00	29.50	2.75	1.68	0.00
4.00	0.12	0.00	0.00	30.00	2.75	1.68	0.00
4.50	0.14	0.00	0.00	30.50	2.75	1.68	0.00
5.00	0.16	0.00	0.00	31.00	2.75	1.68	0.00
5.50	0.18	0.00	0.00	31.50	2.75	1.68	0.00
6.00	0.20	0.00	0.00	32.00	2.75	1.68	0.00
6.50	0.22	0.00	0.00	32.50	2.75	1.68	0.00
7.00	0.25	0.00	0.00	33.00	2.75	1.68	0.00
7.50	0.28	0.00	0.00	33.50	2.75	1.68	0.00
8.00	0.31	0.00	0.01	34.00	2.75	1.68	0.00
8.50	0.35	0.01	0.01	34.50	2.75	1.68	0.00
9.00	0.40	0.02	0.02	35.00	2.75	1.68	0.00
9.50	0.46	0.03	0.02	35.50	2.75	1.68	0.00
10.00	0.52	0.05	0.03	36.00	2.75	1.68	0.00
10.50	0.60	0.08	0.05	36.50	2.75	1.68	0.00
11.00	0.69	0.12	0.07	37.00	2.75	1.68	0.00
11.50	0.82	0.18	0.13	37.50	2.75	1.68	0.00
12.00	1.37	0.54	0.94	38.00	2.75	1.68	0.00
12.50	1.93	0.97	0.37	38.50	2.75	1.68	0.00
13.00	2.06	1.08	0.15	39.00	2.75	1.68	0.00
13.50	2.15	1.16	0.12	39.50	2.75	1.68	0.00
14.00	2.23	1.22	0.10	40.00	2.75	1.68	0.00
14.50	2.29	1.28	0.09	40.50	2.75	1.68	0.00
15.00	2.35	1.32	0.07	41.00	2.75	1.68	0.00
15.50	2.40	1.36	0.06	41.50	2.75	1.68	0.00
16.00	2.44	1.40	0.05	42.00	2.75	1.68	0.00
16.50	2.47	1.43	0.05	42.50	2.75	1.68	0.00
17.00	2.50	1.46	0.04	43.00	2.75	1.68	0.00
17.50	2.53	1.48	0.04	43.50	2.75	1.68	0.00
18.00	2.55	1.50	0.03	44.00	2.75	1.68	0.00
18.50	2.57	1.52	0.03	44.50	2.75	1.68	0.00
19.00	2.59	1.54	0.03	45.00	2.75	1.68	0.00
19.50	2.61	1.55	0.03	45.50	2.75	1.68	0.00
20.00	2.63	1.57	0.03	46.00	2.75	1.68	0.00
20.50	2.65	1.59	0.02	46.50	2.75	1.68	0.00
21.00	2.67	1.60	0.02	47.00	2.75	1.68	0.00
21.50	2.68	1.61	0.02	47.50	2.75	1.68	0.00
22.00	2.70	1.63	0.02	48.00	2.75	1.68	0.00
22.50	2.71	1.64	0.02				
23.00	2.73	1.65	0.02				
23.50	2.74	1.66	0.02				
24.00	2.75	1.68	0.02				
24.50	2.75	1.68	0.00				
25.00	2.75	1.68	0.00				
25.50	2.75	1.68	0.00				

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Type III 24-hr 1-yr Rainfall=2.75"

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Summary for Subcatchment 3S: Proposed to Bypass

Runoff = 0.16 cfs @ 12.21 hrs, Volume= 0.019 af, Depth= 0.47"

Routed to Link 5L : Proposed Combined

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 1-yr Rainfall=2.75"

Area (ac)	CN	Description
* 0.080	98	Impervious
0.400	61	>75% Grass cover, Good, HSG B
0.480	67	Weighted Average
0.400		83.33% Pervious Area
0.080		16.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0350	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
1.0	185	0.0400	3.22		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
11.9	285	Total			

Subcatchment 3S: Proposed to Bypass

73 Forshay 6-7-24

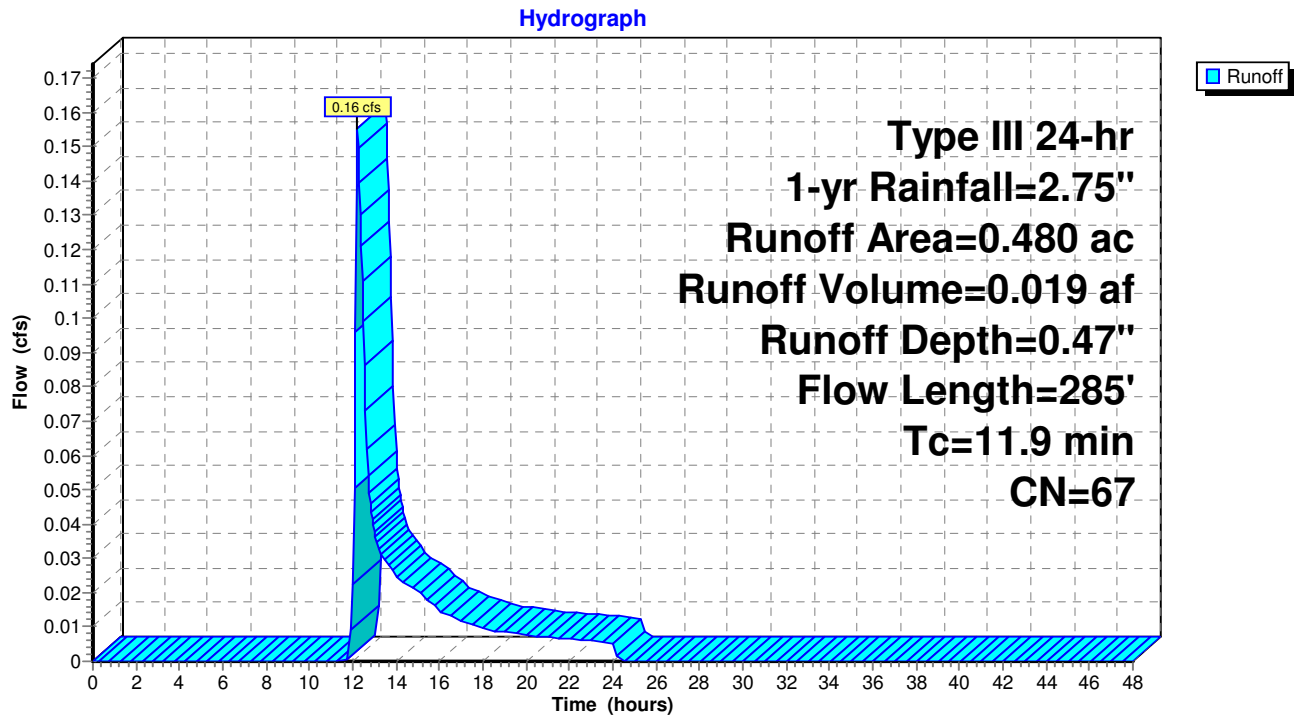
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Type III 24-hr 1-yr Rainfall=2.75"

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Subcatchment 3S: Proposed to Bypass

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Type III 24-hr 1-yr Rainfall=2.75"

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Hydrograph for Subcatchment 3S: Proposed to Bypass

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	2.75	0.47	0.00
0.50	0.01	0.00	0.00	26.50	2.75	0.47	0.00
1.00	0.03	0.00	0.00	27.00	2.75	0.47	0.00
1.50	0.04	0.00	0.00	27.50	2.75	0.47	0.00
2.00	0.06	0.00	0.00	28.00	2.75	0.47	0.00
2.50	0.07	0.00	0.00	28.50	2.75	0.47	0.00
3.00	0.08	0.00	0.00	29.00	2.75	0.47	0.00
3.50	0.10	0.00	0.00	29.50	2.75	0.47	0.00
4.00	0.12	0.00	0.00	30.00	2.75	0.47	0.00
4.50	0.14	0.00	0.00	30.50	2.75	0.47	0.00
5.00	0.16	0.00	0.00	31.00	2.75	0.47	0.00
5.50	0.18	0.00	0.00	31.50	2.75	0.47	0.00
6.00	0.20	0.00	0.00	32.00	2.75	0.47	0.00
6.50	0.22	0.00	0.00	32.50	2.75	0.47	0.00
7.00	0.25	0.00	0.00	33.00	2.75	0.47	0.00
7.50	0.28	0.00	0.00	33.50	2.75	0.47	0.00
8.00	0.31	0.00	0.00	34.00	2.75	0.47	0.00
8.50	0.35	0.00	0.00	34.50	2.75	0.47	0.00
9.00	0.40	0.00	0.00	35.00	2.75	0.47	0.00
9.50	0.46	0.00	0.00	35.50	2.75	0.47	0.00
10.00	0.52	0.00	0.00	36.00	2.75	0.47	0.00
10.50	0.60	0.00	0.00	36.50	2.75	0.47	0.00
11.00	0.69	0.00	0.00	37.00	2.75	0.47	0.00
11.50	0.82	0.00	0.00	37.50	2.75	0.47	0.00
12.00	1.37	0.03	0.02	38.00	2.75	0.47	0.00
12.50	1.93	0.15	0.10	38.50	2.75	0.47	0.00
13.00	2.06	0.19	0.04	39.00	2.75	0.47	0.00
13.50	2.15	0.22	0.03	39.50	2.75	0.47	0.00
14.00	2.23	0.25	0.03	40.00	2.75	0.47	0.00
14.50	2.29	0.27	0.02	40.50	2.75	0.47	0.00
15.00	2.35	0.30	0.02	41.00	2.75	0.47	0.00
15.50	2.40	0.31	0.02	41.50	2.75	0.47	0.00
16.00	2.44	0.33	0.01	42.00	2.75	0.47	0.00
16.50	2.47	0.34	0.01	42.50	2.75	0.47	0.00
17.00	2.50	0.36	0.01	43.00	2.75	0.47	0.00
17.50	2.53	0.37	0.01	43.50	2.75	0.47	0.00
18.00	2.55	0.38	0.01	44.00	2.75	0.47	0.00
18.50	2.57	0.39	0.01	44.50	2.75	0.47	0.00
19.00	2.59	0.40	0.01	45.00	2.75	0.47	0.00
19.50	2.61	0.40	0.01	45.50	2.75	0.47	0.00
20.00	2.63	0.41	0.01	46.00	2.75	0.47	0.00
20.50	2.65	0.42	0.01	46.50	2.75	0.47	0.00
21.00	2.67	0.43	0.01	47.00	2.75	0.47	0.00
21.50	2.68	0.43	0.01	47.50	2.75	0.47	0.00
22.00	2.70	0.44	0.01	48.00	2.75	0.47	0.00
22.50	2.71	0.45	0.01				
23.00	2.73	0.45	0.01				
23.50	2.74	0.46	0.01				
24.00	2.75	0.47	0.01				
24.50	2.75	0.47	0.00				
25.00	2.75	0.47	0.00				
25.50	2.75	0.47	0.00				

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Type III 24-hr 1-yr Rainfall=2.75"

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Summary for Pond 4P: Detention

[85] Warning: Oscillations may require smaller dt or Finer Routing (severity=103)

Inflow Area = 0.810 ac, 75.31% Impervious, Inflow Depth = 1.68" for 1-yr event
 Inflow = 1.56 cfs @ 12.09 hrs, Volume= 0.113 af
 Outflow = 0.56 cfs @ 12.37 hrs, Volume= 0.113 af, Atten= 64%, Lag= 16.9 min
 Primary = 0.56 cfs @ 12.37 hrs, Volume= 0.113 af
 Routed to Link 5L : Proposed Combined

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Peak Elev= 500.14' @ 12.37 hrs Surf.Area= 0.068 ac Storage= 0.022 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 10.6 min (827.8 - 817.3)

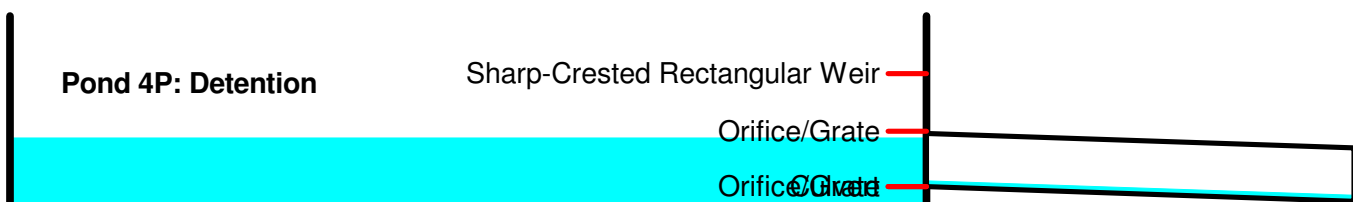
Volume	Invert	Avail.Storage	Storage Description
#1A	498.50'	0.000 af	32.75'W x 90.00'L x 4.50'H Field A 0.304 af Overall - 0.110 af Embedded = 0.195 af x 0.0% Voids
#2A	499.00'	0.088 af	ADS N-12 36" x 24 Inside #1 Inside= 36.1"W x 36.1"H => 7.10 sf x 20.00'L = 142.0 cf Outside= 42.0"W x 42.0"H => 8.86 sf x 20.00'L = 177.2 cf 24 Chambers in 6 Rows 29.75' Header x 7.10 sf x 2 = 422.4 cf Inside
		0.088 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	499.00'	15.0" Round Culvert L= 42.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 499.00' / 498.66' S= 0.0081 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Device 1	499.00'	4.7" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	500.30'	10.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Device 1	501.65'	0.5' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=0.56 cfs @ 12.37 hrs HW=500.14' (Free Discharge)

- 1=Culvert (Passes 0.56 cfs of 3.74 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.56 cfs @ 4.67 fps)
- 3=Orifice/Grate (Controls 0.00 cfs)
- 4=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)



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Type III 24-hr 1-yr Rainfall=2.75"

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Pond 4P: Detention - Chamber Wizard Field A**Chamber Model = ADS N-12 36" (ADS N-12® Pipe)**

Inside= 36.1"W x 36.1"H => 7.10 sf x 20.00'L = 142.0 cf

Outside= 42.0"W x 42.0"H => 8.86 sf x 20.00'L = 177.2 cf

42.0" Wide + 21.0" Spacing = 63.0" C-C Row Spacing

4 Chambers/Row x 20.00' Long +3.50' Header x 2 = 87.00' Row Length +18.0" End Stone x 2 = 90.00'
Base Length

6 Rows x 42.0" Wide + 21.0" Spacing x 5 + 18.0" Side Stone x 2 = 32.75' Base Width

6.0" Stone Base + 42.0" Chamber Height + 6.0" Stone Cover = 4.50' Field Height

24 Chambers x 142.0 cf + 29.75' Header x 7.10 sf x 2 = 3,830.4 cf Chamber Storage

24 Chambers x 177.2 cf + 29.75' Header x 8.86 sf x 2 = 4,780.5 cf Displacement

13,263.7 cf Field - 4,780.5 cf Chambers = 8,483.2 cf Stone x 0.0% Voids = 0.0 cf Stone Storage

Chamber Storage = 3,830.4 cf = 0.088 af

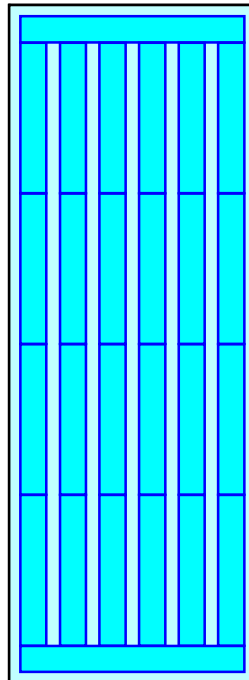
Overall Storage Efficiency = 28.9%

Overall System Size = 90.00' x 32.75' x 4.50'

24 Chambers

491.2 cy Field

314.2 cy Stone



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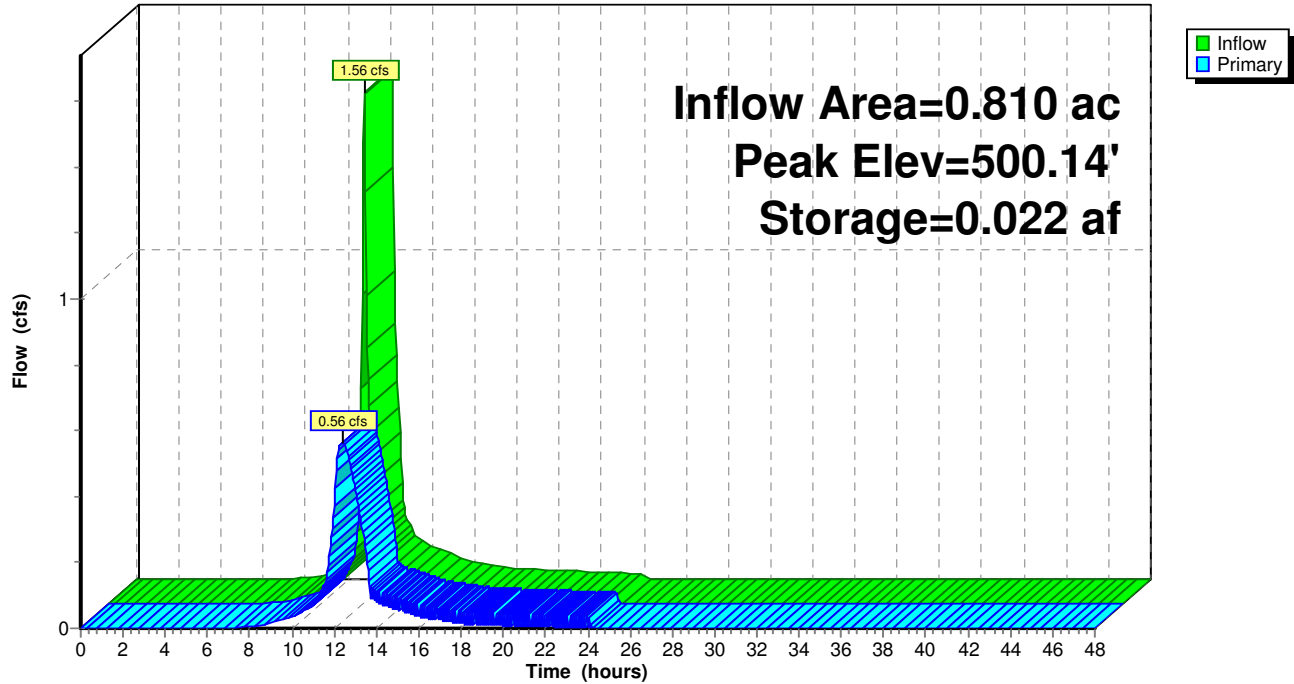
Type III 24-hr 1-yr Rainfall=2.75"

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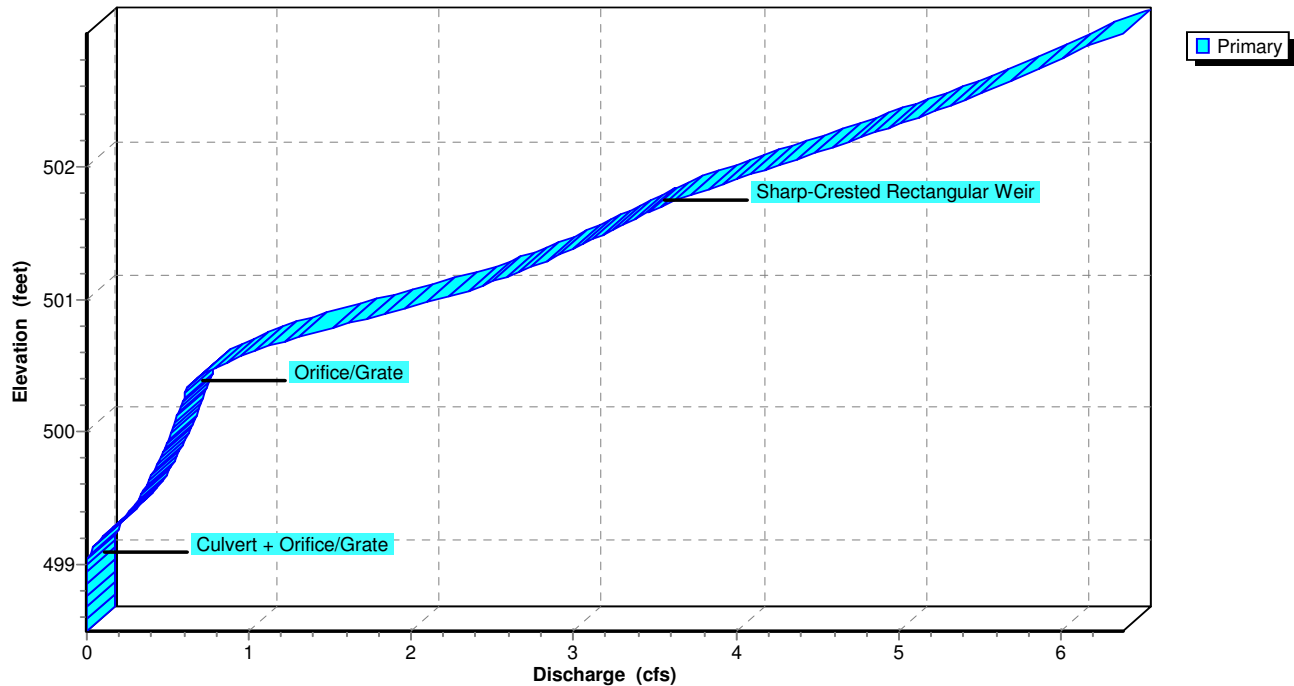
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Pond 4P: Detention

Hydrograph

**Pond 4P: Detention**

Stage-Discharge



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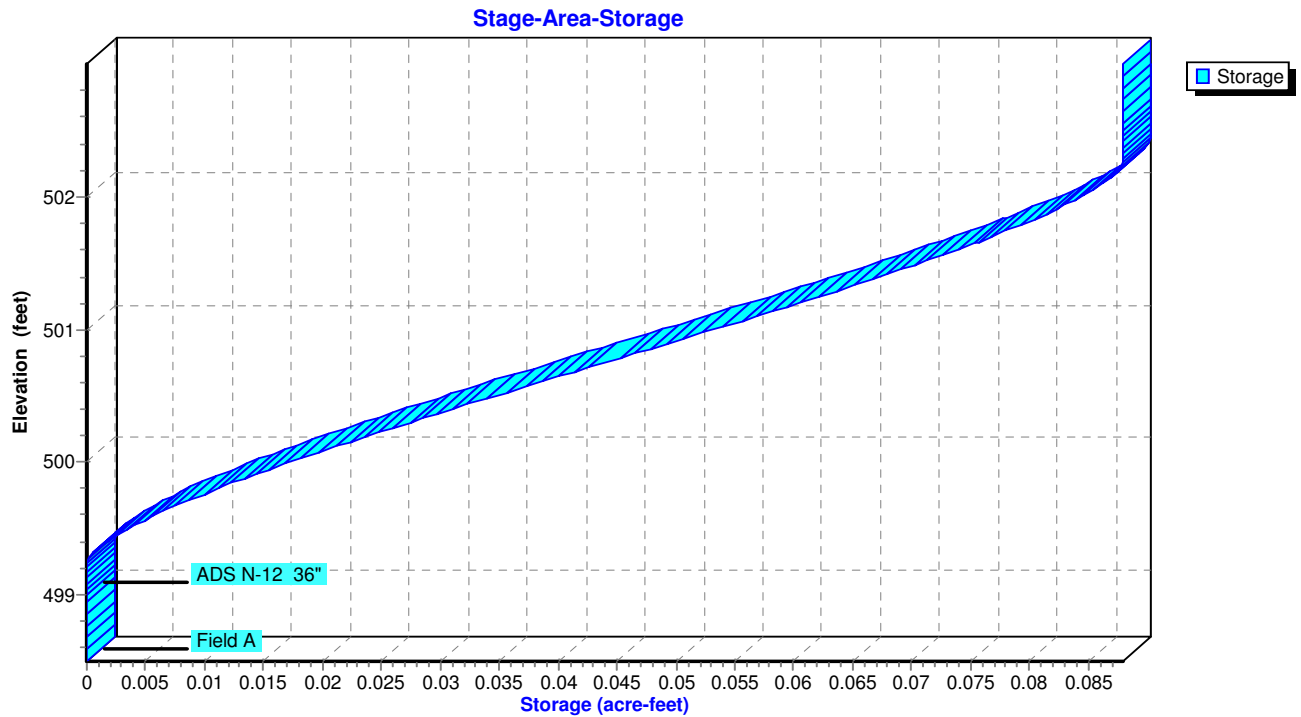
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Type III 24-hr 1-yr Rainfall=2.75"

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Pond 4P: Detention

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Type III 24-hr 1-yr Rainfall=2.75"

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Hydrograph for Pond 4P: Detention

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.000	498.50	0.00
1.00	0.00	0.000	498.50	0.00
2.00	0.00	0.000	498.50	0.00
3.00	0.00	0.000	498.50	0.00
4.00	0.00	0.000	498.50	0.00
5.00	0.00	0.000	498.50	0.00
6.00	0.00	0.000	498.50	0.00
7.00	0.00	0.000	499.00	0.00
8.00	0.01	0.000	499.04	0.01
9.00	0.02	0.000	499.08	0.02
10.00	0.03	0.000	499.11	0.03
11.00	0.07	0.000	499.17	0.07
12.00	0.94	0.006	499.61	0.37
13.00	0.15	0.009	499.73	0.42
14.00	0.10	0.000	499.18	0.08
15.00	0.07	0.000	499.15	0.06
16.00	0.05	0.000	499.12	0.03
17.00	0.04	0.000	499.10	0.02
18.00	0.03	0.000	499.07	0.01
19.00	0.03	0.000	499.06	0.01
20.00	0.03	0.000	499.05	0.01
21.00	0.02	0.000	499.04	0.01
22.00	0.02	0.000	499.04	0.00
23.00	0.02	0.000	499.01	0.00
24.00	0.02	0.000	499.00	0.00
25.00	0.00	0.000	499.00	0.00
26.00	0.00	0.000	499.00	0.00
27.00	0.00	0.000	499.00	0.00
28.00	0.00	0.000	499.00	0.00
29.00	0.00	0.000	499.00	0.00
30.00	0.00	0.000	499.00	0.00
31.00	0.00	0.000	499.00	0.00
32.00	0.00	0.000	499.00	0.00
33.00	0.00	0.000	499.00	0.00
34.00	0.00	0.000	499.00	0.00
35.00	0.00	0.000	499.00	0.00
36.00	0.00	0.000	499.00	0.00
37.00	0.00	0.000	499.00	0.00
38.00	0.00	0.000	499.00	0.00
39.00	0.00	0.000	499.00	0.00
40.00	0.00	0.000	499.00	0.00
41.00	0.00	0.000	499.00	0.00
42.00	0.00	0.000	499.00	0.00
43.00	0.00	0.000	499.00	0.00
44.00	0.00	0.000	499.00	0.00
45.00	0.00	0.000	499.00	0.00
46.00	0.00	0.000	499.00	0.00
47.00	0.00	0.000	499.00	0.00
48.00	0.00	0.000	499.00	0.00

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Stage-Discharge for Pond 4P: Detention

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
498.50	0.00	501.10	2.44
498.55	0.00	501.15	2.54
498.60	0.00	501.20	2.65
498.65	0.00	501.25	2.75
498.70	0.00	501.30	2.85
498.75	0.00	501.35	2.94
498.80	0.00	501.40	3.03
498.85	0.00	501.45	3.12
498.90	0.00	501.50	3.20
498.95	0.00	501.55	3.29
499.00	0.00	501.60	3.37
499.05	0.01	501.65	3.45
499.10	0.03	501.70	3.54
499.15	0.06	501.75	3.65
499.20	0.09	501.80	3.76
499.25	0.14	501.85	3.88
499.30	0.18	501.90	3.99
499.35	0.23	501.95	4.12
499.40	0.26	502.00	4.24
499.45	0.29	502.05	4.36
499.50	0.32	502.10	4.48
499.55	0.35	502.15	4.60
499.60	0.37	502.20	4.72
499.65	0.39	502.25	4.84
499.70	0.41	502.30	4.96
499.75	0.43	502.35	5.08
499.80	0.45	502.40	5.19
499.85	0.47	502.45	5.30
499.90	0.49	502.50	5.41
499.95	0.50	502.55	5.51
500.00	0.52	502.60	5.61
500.05	0.54	502.65	5.71
500.10	0.55	502.70	5.80
500.15	0.57	502.75	5.89
500.20	0.58	502.80	5.98
500.25	0.60	502.85	6.06
500.30	0.61	502.90	6.14
500.35	0.63	502.95	6.26
500.40	0.68	503.00	6.38
500.45	0.74		
500.50	0.82		
500.55	0.91		
500.60	1.02		
500.65	1.14		
500.70	1.27		
500.75	1.41		
500.80	1.56		
500.85	1.71		
500.90	1.87		
500.95	2.02		
501.00	2.17		
501.05	2.31		

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Type III 24-hr 1-yr Rainfall=2.75"

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Stage-Area-Storage for Pond 4P: Detention

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
498.50	0.000	501.10	0.057
498.55	0.000	501.15	0.059
498.60	0.000	501.20	0.060
498.65	0.000	501.25	0.062
498.70	0.000	501.30	0.064
498.75	0.000	501.35	0.066
498.80	0.000	501.40	0.067
498.85	0.000	501.45	0.069
498.90	0.000	501.50	0.071
498.95	0.000	501.55	0.072
499.00	0.000	501.60	0.074
499.05	0.000	501.65	0.075
499.10	0.000	501.70	0.077
499.15	0.000	501.75	0.078
499.20	0.000	501.80	0.080
499.25	0.000	501.85	0.081
499.30	0.000	501.90	0.082
499.35	0.001	501.95	0.083
499.40	0.002	502.00	0.084
499.45	0.003	502.05	0.085
499.50	0.004	502.10	0.086
499.55	0.005	502.15	0.087
499.60	0.006	502.20	0.088
499.65	0.007	502.25	0.088
499.70	0.008	502.30	0.088
499.75	0.010	502.35	0.088
499.80	0.011	502.40	0.088
499.85	0.013	502.45	0.088
499.90	0.014	502.50	0.088
499.95	0.016	502.55	0.088
500.00	0.017	502.60	0.088
500.05	0.019	502.65	0.088
500.10	0.021	502.70	0.088
500.15	0.022	502.75	0.088
500.20	0.024	502.80	0.088
500.25	0.026	502.85	0.088
500.30	0.027	502.90	0.088
500.35	0.029	502.95	0.088
500.40	0.031	503.00	0.088
500.45	0.033		
500.50	0.035		
500.55	0.037		
500.60	0.038		
500.65	0.040		
500.70	0.042		
500.75	0.044		
500.80	0.046		
500.85	0.048		
500.90	0.050		
500.95	0.051		
501.00	0.053		
501.05	0.055		

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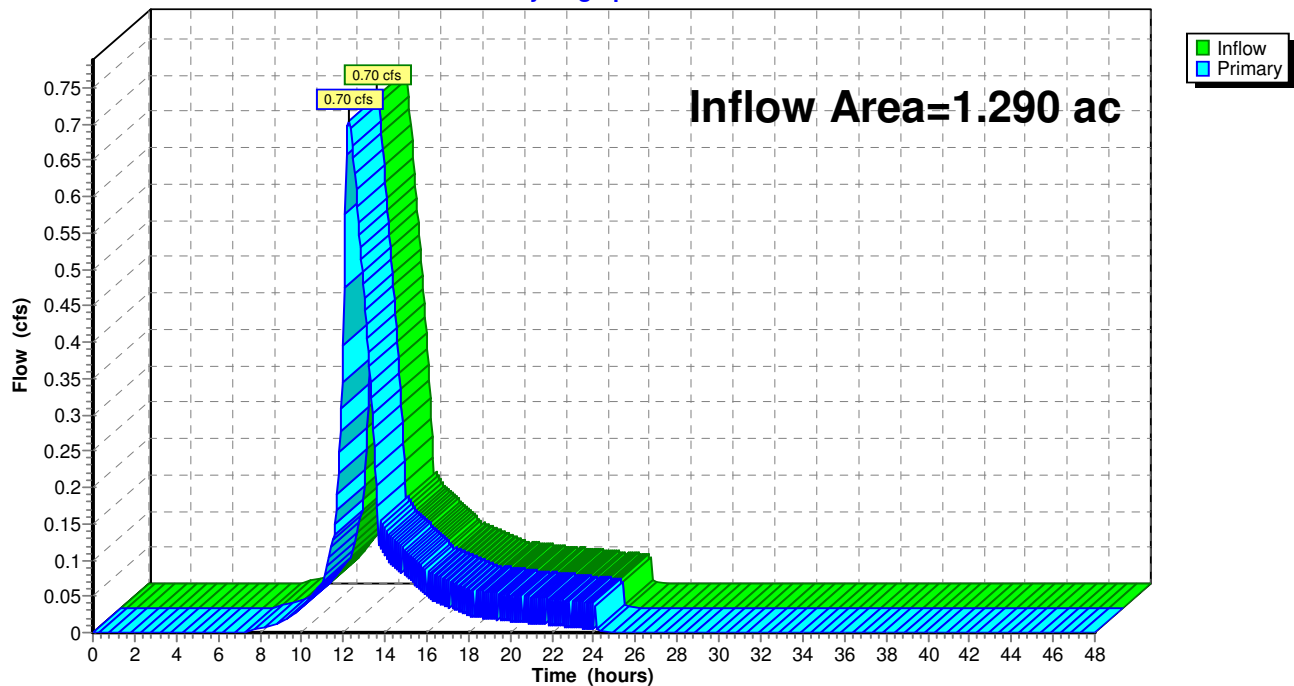
Summary for Link 5L: Proposed Combined

Inflow Area = 1.290 ac, 53.49% Impervious, Inflow Depth = 1.23" for 1-yr event
 Inflow = 0.70 cfs @ 12.26 hrs, Volume= 0.132 af
 Primary = 0.70 cfs @ 12.26 hrs, Volume= 0.132 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link 5L: Proposed Combined

Hydrograph



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Type III 24-hr 1-yr Rainfall=2.75"

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Hydrograph for Link 5L: Proposed Combined

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.00	0.00	0.00	31.50	0.00	0.00	0.00
6.00	0.00	0.00	0.00	32.00	0.00	0.00	0.00
6.50	0.00	0.00	0.00	32.50	0.00	0.00	0.00
7.00	0.00	0.00	0.00	33.00	0.00	0.00	0.00
7.50	0.00	0.00	0.00	33.50	0.00	0.00	0.00
8.00	0.01	0.00	0.01	34.00	0.00	0.00	0.00
8.50	0.01	0.00	0.01	34.50	0.00	0.00	0.00
9.00	0.02	0.00	0.02	35.00	0.00	0.00	0.00
9.50	0.02	0.00	0.02	35.50	0.00	0.00	0.00
10.00	0.03	0.00	0.03	36.00	0.00	0.00	0.00
10.50	0.05	0.00	0.05	36.50	0.00	0.00	0.00
11.00	0.07	0.00	0.07	37.00	0.00	0.00	0.00
11.50	0.13	0.00	0.13	37.50	0.00	0.00	0.00
12.00	0.39	0.00	0.39	38.00	0.00	0.00	0.00
12.50	0.65	0.00	0.65	38.50	0.00	0.00	0.00
13.00	0.46	0.00	0.46	39.00	0.00	0.00	0.00
13.50	0.25	0.00	0.25	39.50	0.00	0.00	0.00
14.00	0.11	0.00	0.11	40.00	0.00	0.00	0.00
14.50	0.09	0.00	0.09	40.50	0.00	0.00	0.00
15.00	0.08	0.00	0.08	41.00	0.00	0.00	0.00
15.50	0.06	0.00	0.06	41.50	0.00	0.00	0.00
16.00	0.05	0.00	0.05	42.00	0.00	0.00	0.00
16.50	0.04	0.00	0.04	42.50	0.00	0.00	0.00
17.00	0.04	0.00	0.04	43.00	0.00	0.00	0.00
17.50	0.03	0.00	0.03	43.50	0.00	0.00	0.00
18.00	0.02	0.00	0.02	44.00	0.00	0.00	0.00
18.50	0.02	0.00	0.02	44.50	0.00	0.00	0.00
19.00	0.02	0.00	0.02	45.00	0.00	0.00	0.00
19.50	0.02	0.00	0.02	45.50	0.00	0.00	0.00
20.00	0.02	0.00	0.02	46.00	0.00	0.00	0.00
20.50	0.01	0.00	0.01	46.50	0.00	0.00	0.00
21.00	0.01	0.00	0.01	47.00	0.00	0.00	0.00
21.50	0.01	0.00	0.01	47.50	0.00	0.00	0.00
22.00	0.01	0.00	0.01	48.00	0.00	0.00	0.00
22.50	0.01	0.00	0.01				
23.00	0.01	0.00	0.01				
23.50	0.01	0.00	0.01				
24.00	0.01	0.00	0.01				
24.50	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

73 Forshay 6-7-24*Type III 24-hr 10-yr Rainfall=4.99"*

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Existing

Runoff Area=1.230 ac 32.52% Impervious Runoff Depth=2.27"
 Flow Length=285' Tc=11.9 min CN=73 Runoff=2.66 cfs 0.233 af

Subcatchment 2S: Proposed to Treatment

Runoff Area=0.810 ac 75.31% Impervious Runoff Depth=3.76"
 Tc=6.0 min CN=89 Runoff=3.39 cfs 0.254 af

Subcatchment 3S: Proposed to Bypass

Runoff Area=0.480 ac 16.67% Impervious Runoff Depth=1.80"
 Flow Length=285' Tc=11.9 min CN=67 Runoff=0.79 cfs 0.072 af

Pond 4P: Detention

Peak Elev=500.91' Storage=0.050 af Inflow=3.39 cfs 0.254 af
 Outflow=1.89 cfs 0.254 af

Link 5L: Proposed Combined

Inflow=2.65 cfs 0.326 af
 Primary=2.65 cfs 0.326 af

Total Runoff Area = 2.520 ac Runoff Volume = 0.559 af Average Runoff Depth = 2.66"
56.75% Pervious = 1.430 ac 43.25% Impervious = 1.090 ac

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Type III 24-hr 10-yr Rainfall=4.99"

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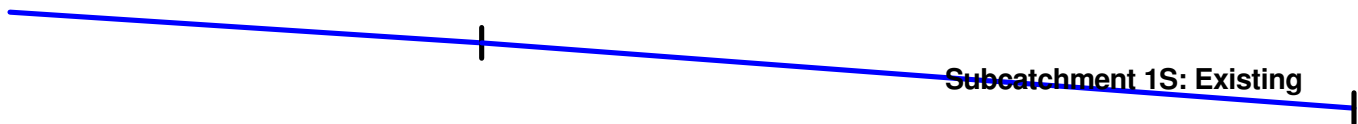
Summary for Subcatchment 1S: Existing

Runoff = 2.66 cfs @ 12.17 hrs, Volume= 0.233 af, Depth= 2.27"

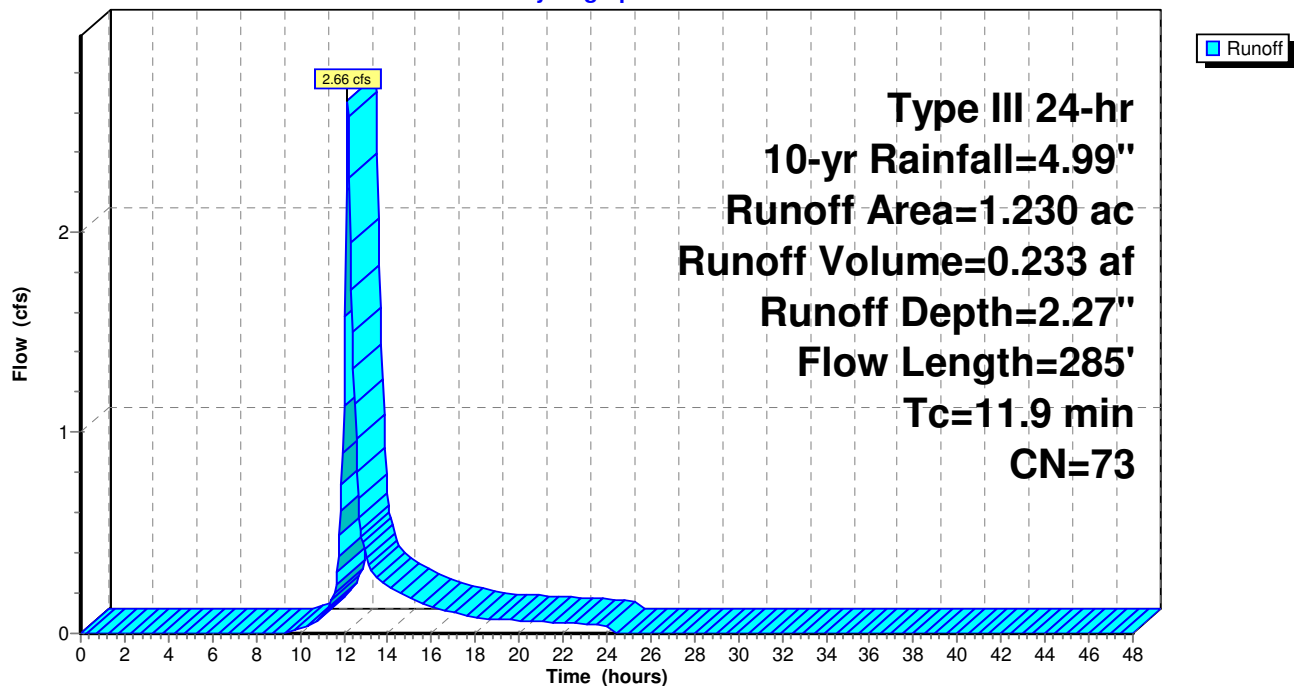
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.99"

Area (ac)	CN	Description
* 0.400	98	Impervious
0.830	61	>75% Grass cover, Good, HSG B
1.230	73	Weighted Average
0.830		67.48% Pervious Area
0.400		32.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0350	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
1.0	185	0.0400	3.22		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
11.9	285	Total			

**Subcatchment 1S: Existing**

Hydrograph



73 Forshay 6-7-24

Type III 24-hr 10-yr Rainfall=4.99"

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Hydrograph for Subcatchment 1S: Existing

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	4.99	2.27	0.00
0.50	0.02	0.00	0.00	26.50	4.99	2.27	0.00
1.00	0.05	0.00	0.00	27.00	4.99	2.27	0.00
1.50	0.07	0.00	0.00	27.50	4.99	2.27	0.00
2.00	0.10	0.00	0.00	28.00	4.99	2.27	0.00
2.50	0.13	0.00	0.00	28.50	4.99	2.27	0.00
3.00	0.15	0.00	0.00	29.00	4.99	2.27	0.00
3.50	0.18	0.00	0.00	29.50	4.99	2.27	0.00
4.00	0.21	0.00	0.00	30.00	4.99	2.27	0.00
4.50	0.25	0.00	0.00	30.50	4.99	2.27	0.00
5.00	0.28	0.00	0.00	31.00	4.99	2.27	0.00
5.50	0.32	0.00	0.00	31.50	4.99	2.27	0.00
6.00	0.36	0.00	0.00	32.00	4.99	2.27	0.00
6.50	0.40	0.00	0.00	32.50	4.99	2.27	0.00
7.00	0.45	0.00	0.00	33.00	4.99	2.27	0.00
7.50	0.51	0.00	0.00	33.50	4.99	2.27	0.00
8.00	0.57	0.00	0.00	34.00	4.99	2.27	0.00
8.50	0.64	0.00	0.00	34.50	4.99	2.27	0.00
9.00	0.73	0.00	0.00	35.00	4.99	2.27	0.00
9.50	0.83	0.00	0.01	35.50	4.99	2.27	0.00
10.00	0.94	0.01	0.02	36.00	4.99	2.27	0.00
10.50	1.08	0.03	0.05	36.50	4.99	2.27	0.00
11.00	1.25	0.06	0.09	37.00	4.99	2.27	0.00
11.50	1.49	0.13	0.17	37.50	4.99	2.27	0.00
12.00	2.49	0.56	1.13	38.00	4.99	2.27	0.00
12.50	3.50	1.18	1.14	38.50	4.99	2.27	0.00
13.00	3.74	1.35	0.38	39.00	4.99	2.27	0.00
13.50	3.91	1.46	0.29	39.50	4.99	2.27	0.00
14.00	4.05	1.56	0.24	40.00	4.99	2.27	0.00
14.50	4.16	1.64	0.20	40.50	4.99	2.27	0.00
15.00	4.26	1.72	0.18	41.00	4.99	2.27	0.00
15.50	4.35	1.78	0.16	41.50	4.99	2.27	0.00
16.00	4.42	1.84	0.13	42.00	4.99	2.27	0.00
16.50	4.48	1.88	0.11	42.50	4.99	2.27	0.00
17.00	4.54	1.92	0.10	43.00	4.99	2.27	0.00
17.50	4.59	1.96	0.09	43.50	4.99	2.27	0.00
18.00	4.63	1.99	0.08	44.00	4.99	2.27	0.00
18.50	4.67	2.02	0.07	44.50	4.99	2.27	0.00
19.00	4.71	2.05	0.07	45.00	4.99	2.27	0.00
19.50	4.74	2.08	0.07	45.50	4.99	2.27	0.00
20.00	4.78	2.11	0.06	46.00	4.99	2.27	0.00
20.50	4.81	2.13	0.06	46.50	4.99	2.27	0.00
21.00	4.84	2.15	0.06	47.00	4.99	2.27	0.00
21.50	4.87	2.18	0.06	47.50	4.99	2.27	0.00
22.00	4.89	2.20	0.05	48.00	4.99	2.27	0.00
22.50	4.92	2.22	0.05				
23.00	4.94	2.24	0.05				
23.50	4.97	2.26	0.04				
24.00	4.99	2.27	0.04				
24.50	4.99	2.27	0.00				
25.00	4.99	2.27	0.00				
25.50	4.99	2.27	0.00				

73 Forshay 6-7-24

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Type III 24-hr 10-yr Rainfall=4.99"

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Summary for Subcatchment 2S: Proposed to Treatment

Runoff = 3.39 cfs @ 12.09 hrs, Volume= 0.254 af, Depth= 3.76"
 Routed to Pond 4P : Detention

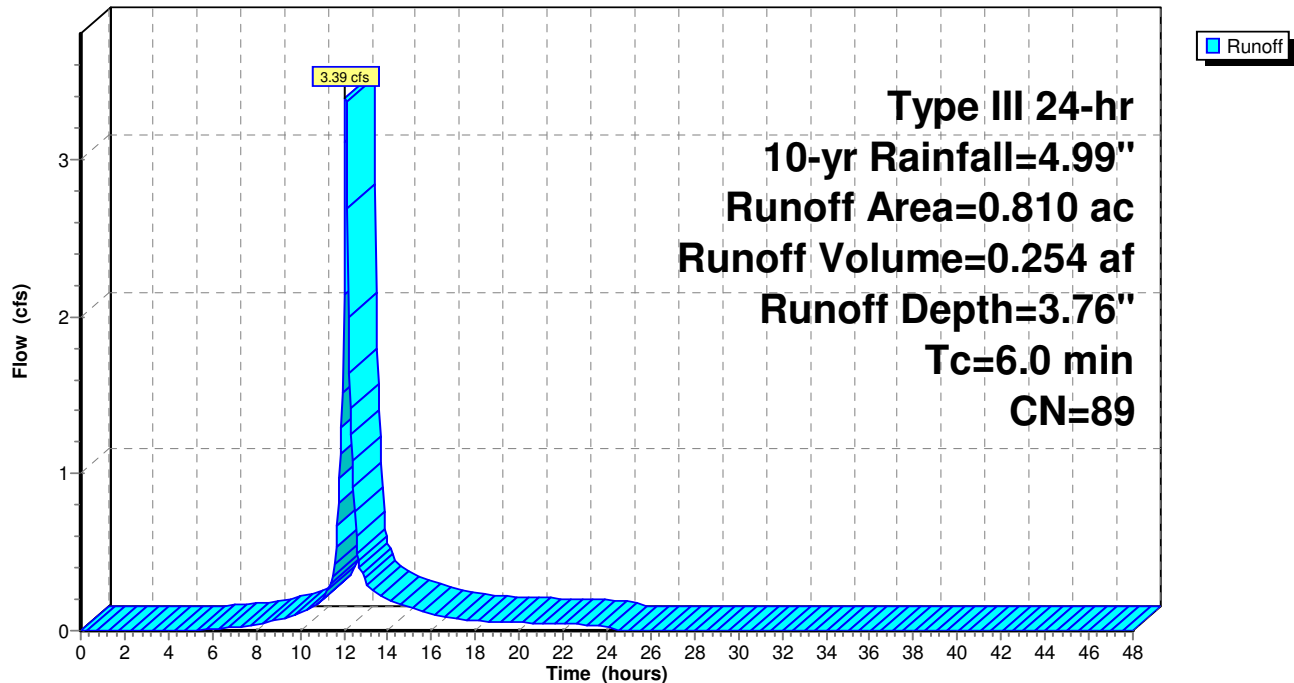
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Type III 24-hr 10-yr Rainfall=4.99"

Area (ac)	CN	Description
* 0.610	98	Impervious
0.200	61	>75% Grass cover, Good, HSG B
0.810	89	Weighted Average
0.200		24.69% Pervious Area
0.610		75.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment 2S: Proposed to Treatment

Hydrograph



73 Forshay 6-7-24

Type III 24-hr 10-yr Rainfall=4.99"

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Hydrograph for Subcatchment 2S: Proposed to Treatment

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	4.99	3.76	0.00
0.50	0.02	0.00	0.00	26.50	4.99	3.76	0.00
1.00	0.05	0.00	0.00	27.00	4.99	3.76	0.00
1.50	0.07	0.00	0.00	27.50	4.99	3.76	0.00
2.00	0.10	0.00	0.00	28.00	4.99	3.76	0.00
2.50	0.13	0.00	0.00	28.50	4.99	3.76	0.00
3.00	0.15	0.00	0.00	29.00	4.99	3.76	0.00
3.50	0.18	0.00	0.00	29.50	4.99	3.76	0.00
4.00	0.21	0.00	0.00	30.00	4.99	3.76	0.00
4.50	0.25	0.00	0.00	30.50	4.99	3.76	0.00
5.00	0.28	0.00	0.00	31.00	4.99	3.76	0.00
5.50	0.32	0.00	0.01	31.50	4.99	3.76	0.00
6.00	0.36	0.01	0.01	32.00	4.99	3.76	0.00
6.50	0.40	0.02	0.01	32.50	4.99	3.76	0.00
7.00	0.45	0.03	0.02	33.00	4.99	3.76	0.00
7.50	0.51	0.05	0.03	33.50	4.99	3.76	0.00
8.00	0.57	0.07	0.04	34.00	4.99	3.76	0.00
8.50	0.64	0.10	0.05	34.50	4.99	3.76	0.00
9.00	0.73	0.13	0.07	35.00	4.99	3.76	0.00
9.50	0.83	0.19	0.09	35.50	4.99	3.76	0.00
10.00	0.94	0.25	0.11	36.00	4.99	3.76	0.00
10.50	1.08	0.34	0.15	36.50	4.99	3.76	0.00
11.00	1.25	0.45	0.20	37.00	4.99	3.76	0.00
11.50	1.49	0.62	0.33	37.50	4.99	3.76	0.00
12.00	2.49	1.45	2.14	38.00	4.99	3.76	0.00
12.50	3.50	2.36	0.75	38.50	4.99	3.76	0.00
13.00	3.74	2.58	0.31	39.00	4.99	3.76	0.00
13.50	3.91	2.74	0.24	39.50	4.99	3.76	0.00
14.00	4.05	2.87	0.20	40.00	4.99	3.76	0.00
14.50	4.16	2.98	0.17	40.50	4.99	3.76	0.00
15.00	4.26	3.07	0.15	41.00	4.99	3.76	0.00
15.50	4.35	3.15	0.13	41.50	4.99	3.76	0.00
16.00	4.42	3.22	0.10	42.00	4.99	3.76	0.00
16.50	4.48	3.28	0.09	42.50	4.99	3.76	0.00
17.00	4.54	3.33	0.08	43.00	4.99	3.76	0.00
17.50	4.59	3.38	0.07	43.50	4.99	3.76	0.00
18.00	4.63	3.42	0.06	44.00	4.99	3.76	0.00
18.50	4.67	3.46	0.06	44.50	4.99	3.76	0.00
19.00	4.71	3.49	0.06	45.00	4.99	3.76	0.00
19.50	4.74	3.53	0.05	45.50	4.99	3.76	0.00
20.00	4.78	3.56	0.05	46.00	4.99	3.76	0.00
20.50	4.81	3.59	0.05	46.50	4.99	3.76	0.00
21.00	4.84	3.62	0.05	47.00	4.99	3.76	0.00
21.50	4.87	3.64	0.04	47.50	4.99	3.76	0.00
22.00	4.89	3.67	0.04	48.00	4.99	3.76	0.00
22.50	4.92	3.70	0.04				
23.00	4.94	3.72	0.04				
23.50	4.97	3.74	0.04				
24.00	4.99	3.76	0.03				
24.50	4.99	3.76	0.00				
25.00	4.99	3.76	0.00				
25.50	4.99	3.76	0.00				

73 Forshay 6-7-24

Type III 24-hr 10-yr Rainfall=4.99"

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Summary for Subcatchment 3S: Proposed to Bypass

Runoff = 0.79 cfs @ 12.18 hrs, Volume= 0.072 af, Depth= 1.80"

Routed to Link 5L : Proposed Combined

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 10-yr Rainfall=4.99"

Area (ac)	CN	Description
* 0.080	98	Impervious
0.400	61	>75% Grass cover, Good, HSG B
0.480	67	Weighted Average
0.400		83.33% Pervious Area
0.080		16.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0350	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
1.0	185	0.0400	3.22		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
11.9	285	Total			

Subcatchment 3S: Proposed to Bypass

73 Forshay 6-7-24

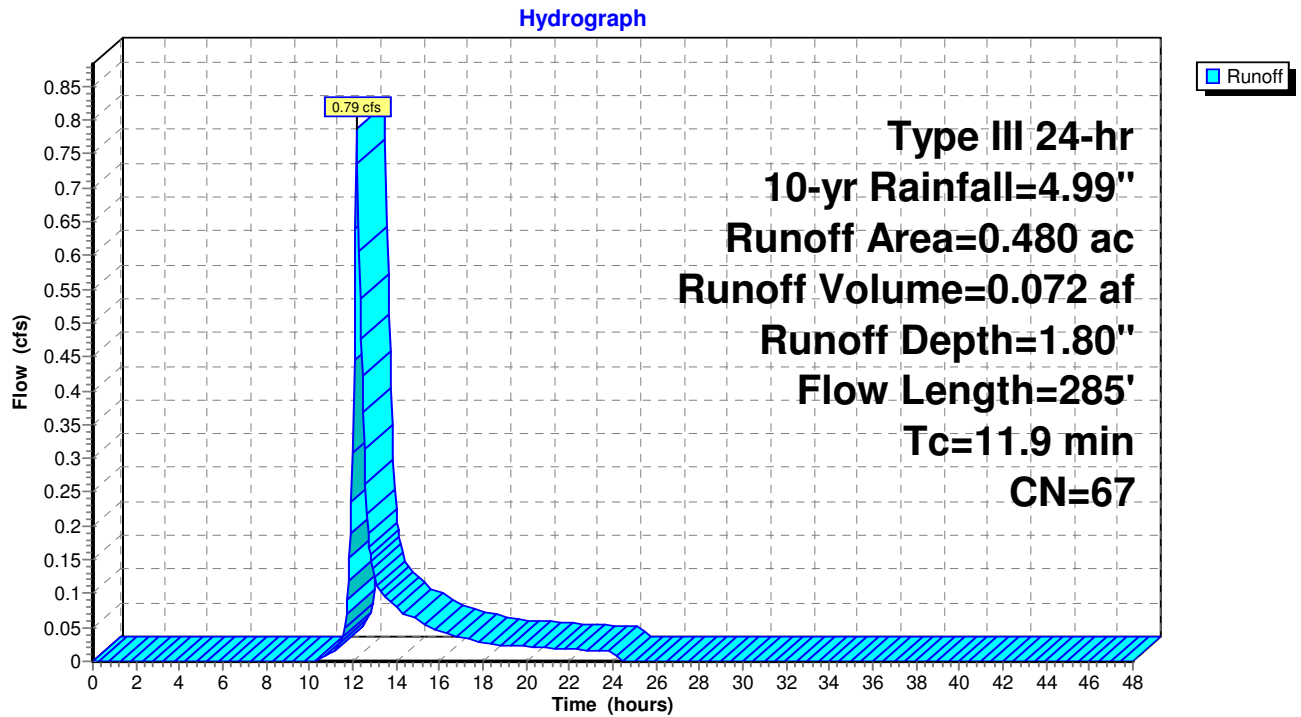
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Subcatchment 3S: Proposed to Bypass

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Hydrograph for Subcatchment 3S: Proposed to Bypass

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	4.99	1.80	0.00
0.50	0.02	0.00	0.00	26.50	4.99	1.80	0.00
1.00	0.05	0.00	0.00	27.00	4.99	1.80	0.00
1.50	0.07	0.00	0.00	27.50	4.99	1.80	0.00
2.00	0.10	0.00	0.00	28.00	4.99	1.80	0.00
2.50	0.13	0.00	0.00	28.50	4.99	1.80	0.00
3.00	0.15	0.00	0.00	29.00	4.99	1.80	0.00
3.50	0.18	0.00	0.00	29.50	4.99	1.80	0.00
4.00	0.21	0.00	0.00	30.00	4.99	1.80	0.00
4.50	0.25	0.00	0.00	30.50	4.99	1.80	0.00
5.00	0.28	0.00	0.00	31.00	4.99	1.80	0.00
5.50	0.32	0.00	0.00	31.50	4.99	1.80	0.00
6.00	0.36	0.00	0.00	32.00	4.99	1.80	0.00
6.50	0.40	0.00	0.00	32.50	4.99	1.80	0.00
7.00	0.45	0.00	0.00	33.00	4.99	1.80	0.00
7.50	0.51	0.00	0.00	33.50	4.99	1.80	0.00
8.00	0.57	0.00	0.00	34.00	4.99	1.80	0.00
8.50	0.64	0.00	0.00	34.50	4.99	1.80	0.00
9.00	0.73	0.00	0.00	35.00	4.99	1.80	0.00
9.50	0.83	0.00	0.00	35.50	4.99	1.80	0.00
10.00	0.94	0.00	0.00	36.00	4.99	1.80	0.00
10.50	1.08	0.00	0.00	36.50	4.99	1.80	0.00
11.00	1.25	0.01	0.01	37.00	4.99	1.80	0.00
11.50	1.49	0.05	0.04	37.50	4.99	1.80	0.00
12.00	2.49	0.35	0.31	38.00	4.99	1.80	0.00
12.50	3.50	0.85	0.37	38.50	4.99	1.80	0.00
13.00	3.74	0.99	0.13	39.00	4.99	1.80	0.00
13.50	3.91	1.09	0.09	39.50	4.99	1.80	0.00
14.00	4.05	1.17	0.08	40.00	4.99	1.80	0.00
14.50	4.16	1.25	0.07	40.50	4.99	1.80	0.00
15.00	4.26	1.31	0.06	41.00	4.99	1.80	0.00
15.50	4.35	1.37	0.05	41.50	4.99	1.80	0.00
16.00	4.42	1.41	0.04	42.00	4.99	1.80	0.00
16.50	4.48	1.45	0.04	42.50	4.99	1.80	0.00
17.00	4.54	1.49	0.03	43.00	4.99	1.80	0.00
17.50	4.59	1.52	0.03	43.50	4.99	1.80	0.00
18.00	4.63	1.55	0.03	44.00	4.99	1.80	0.00
18.50	4.67	1.58	0.03	44.50	4.99	1.80	0.00
19.00	4.71	1.60	0.02	45.00	4.99	1.80	0.00
19.50	4.74	1.63	0.02	45.50	4.99	1.80	0.00
20.00	4.78	1.65	0.02	46.00	4.99	1.80	0.00
20.50	4.81	1.67	0.02	46.50	4.99	1.80	0.00
21.00	4.84	1.69	0.02	47.00	4.99	1.80	0.00
21.50	4.87	1.71	0.02	47.50	4.99	1.80	0.00
22.00	4.89	1.73	0.02	48.00	4.99	1.80	0.00
22.50	4.92	1.75	0.02				
23.00	4.94	1.76	0.02				
23.50	4.97	1.78	0.02				
24.00	4.99	1.80	0.01				
24.50	4.99	1.80	0.00				
25.00	4.99	1.80	0.00				
25.50	4.99	1.80	0.00				

73 Forshay 6-7-24

Type III 24-hr 10-yr Rainfall=4.99"

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Summary for Pond 4P: Detention

Inflow Area = 0.810 ac, 75.31% Impervious, Inflow Depth = 3.76" for 10-yr event
 Inflow = 3.39 cfs @ 12.09 hrs, Volume= 0.254 af
 Outflow = 1.89 cfs @ 12.22 hrs, Volume= 0.254 af, Atten= 44%, Lag= 7.9 min
 Primary = 1.89 cfs @ 12.22 hrs, Volume= 0.254 af
 Routed to Link 5L : Proposed Combined

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Peak Elev= 500.91' @ 12.22 hrs Surf.Area= 0.068 ac Storage= 0.050 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 14.1 min (808.6 - 794.5)

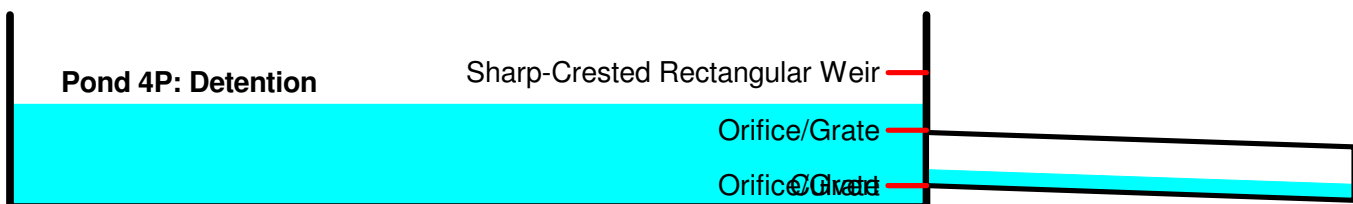
Volume	Invert	Avail.Storage	Storage Description
#1A	498.50'	0.000 af	32.75'W x 90.00'L x 4.50'H Field A 0.304 af Overall - 0.110 af Embedded = 0.195 af x 0.0% Voids
#2A	499.00'	0.088 af	ADS N-12 36" x 24 Inside #1 Inside= 36.1"W x 36.1"H => 7.10 sf x 20.00'L = 142.0 cf Outside= 42.0"W x 42.0"H => 8.86 sf x 20.00'L = 177.2 cf 24 Chambers in 6 Rows 29.75' Header x 7.10 sf x 2 = 422.4 cf Inside
		0.088 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	499.00'	15.0" Round Culvert L= 42.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 499.00' / 498.66' S= 0.0081 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Device 1	499.00'	4.7" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	500.30'	10.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Device 1	501.65'	0.5' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=1.86 cfs @ 12.22 hrs HW=500.90' (Free Discharge)

- 1=Culvert (Passes 1.86 cfs of 6.22 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.76 cfs @ 6.28 fps)
- 3=Orifice/Grate (Orifice Controls 1.11 cfs @ 2.64 fps)
- 4=Sharp-Crested Rectangular Weir (Controls 0.00 cfs)



73 Forshay 6-7-24

Type III 24-hr 10-yr Rainfall=4.99"

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Pond 4P: Detention - Chamber Wizard Field A**Chamber Model = ADS N-12 36" (ADS N-12® Pipe)**

Inside= 36.1"W x 36.1"H => 7.10 sf x 20.00'L = 142.0 cf

Outside= 42.0"W x 42.0"H => 8.86 sf x 20.00'L = 177.2 cf

42.0" Wide + 21.0" Spacing = 63.0" C-C Row Spacing

4 Chambers/Row x 20.00' Long +3.50' Header x 2 = 87.00' Row Length +18.0" End Stone x 2 = 90.00'
Base Length

6 Rows x 42.0" Wide + 21.0" Spacing x 5 + 18.0" Side Stone x 2 = 32.75' Base Width

6.0" Stone Base + 42.0" Chamber Height + 6.0" Stone Cover = 4.50' Field Height

24 Chambers x 142.0 cf + 29.75' Header x 7.10 sf x 2 = 3,830.4 cf Chamber Storage

24 Chambers x 177.2 cf + 29.75' Header x 8.86 sf x 2 = 4,780.5 cf Displacement

13,263.7 cf Field - 4,780.5 cf Chambers = 8,483.2 cf Stone x 0.0% Voids = 0.0 cf Stone Storage

Chamber Storage = 3,830.4 cf = 0.088 af

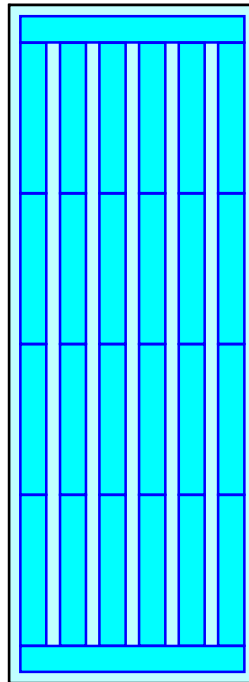
Overall Storage Efficiency = 28.9%

Overall System Size = 90.00' x 32.75' x 4.50'

24 Chambers

491.2 cy Field

314.2 cy Stone



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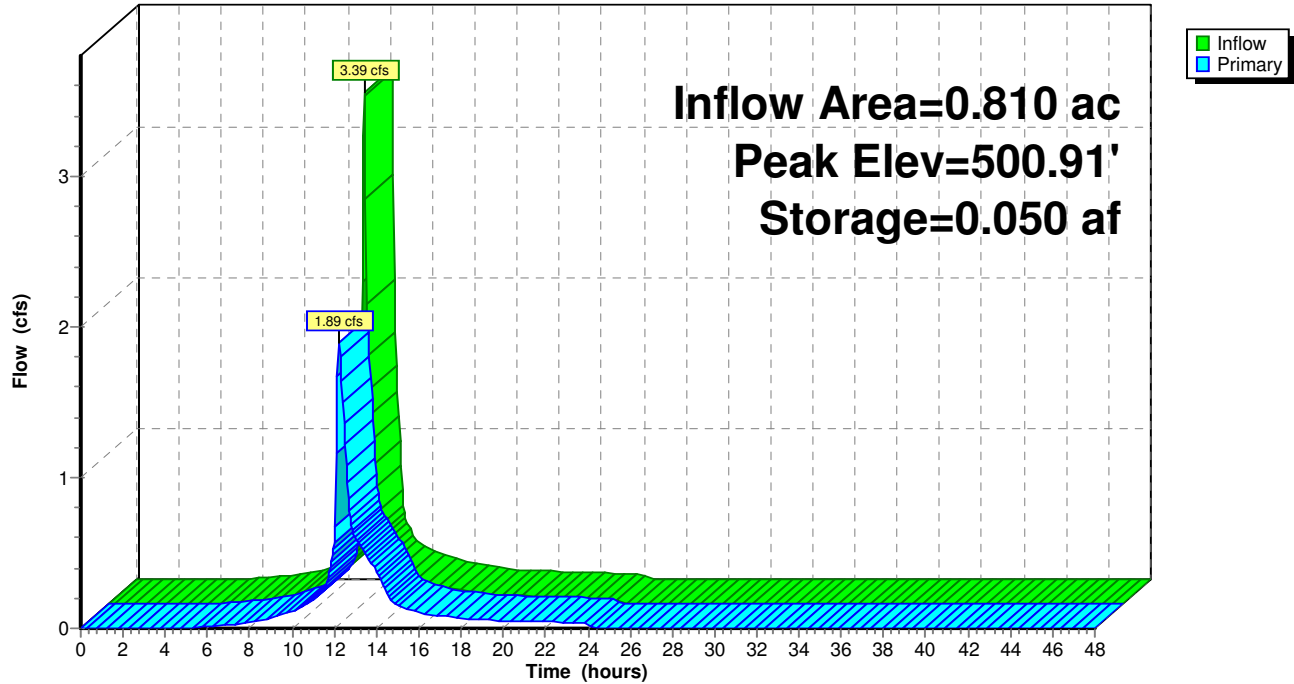
Type III 24-hr 10-yr Rainfall=4.99"

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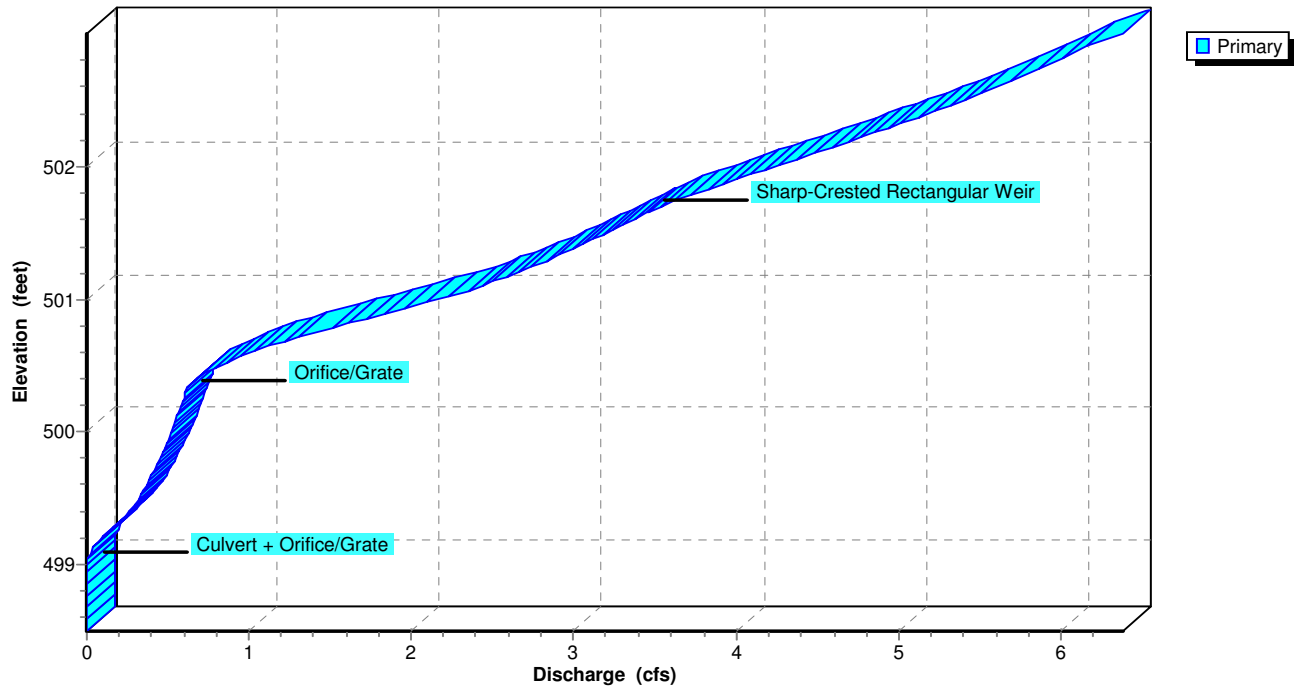
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Pond 4P: Detention

Hydrograph

**Pond 4P: Detention**

Stage-Discharge



73 Forshay 6-7-24

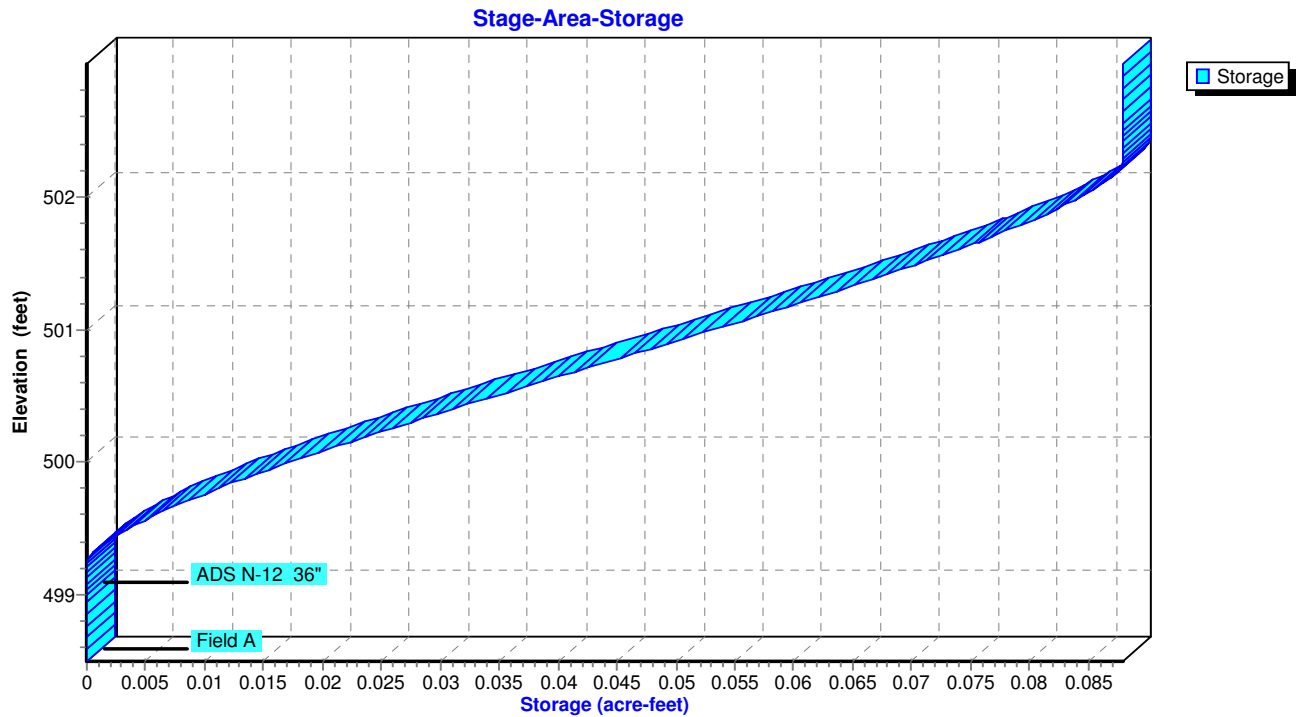
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Type III 24-hr 10-yr Rainfall=4.99"

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Pond 4P: Detention

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Type III 24-hr 10-yr Rainfall=4.99"

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Hydrograph for Pond 4P: Detention

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.000	498.50	0.00
1.00	0.00	0.000	498.50	0.00
2.00	0.00	0.000	498.50	0.00
3.00	0.00	0.000	498.50	0.00
4.00	0.00	0.000	498.50	0.00
5.00	0.00	0.000	499.03	0.00
6.00	0.01	0.000	499.06	0.01
7.00	0.02	0.000	499.09	0.02
8.00	0.04	0.000	499.12	0.04
9.00	0.07	0.000	499.17	0.07
10.00	0.11	0.000	499.22	0.11
11.00	0.20	0.000	499.30	0.19
12.00	2.14	0.023	500.17	0.57
13.00	0.31	0.026	500.27	0.60
14.00	0.20	0.006	499.60	0.37
15.00	0.15	0.000	499.27	0.15
16.00	0.10	0.000	499.21	0.10
17.00	0.08	0.000	499.19	0.08
18.00	0.06	0.000	499.16	0.06
19.00	0.06	0.000	499.15	0.06
20.00	0.05	0.000	499.14	0.05
21.00	0.05	0.000	499.14	0.05
22.00	0.04	0.000	499.13	0.04
23.00	0.04	0.000	499.12	0.04
24.00	0.03	0.000	499.11	0.03
25.00	0.00	0.000	499.00	0.00
26.00	0.00	0.000	499.00	0.00
27.00	0.00	0.000	499.00	0.00
28.00	0.00	0.000	499.00	0.00
29.00	0.00	0.000	499.00	0.00
30.00	0.00	0.000	499.00	0.00
31.00	0.00	0.000	499.00	0.00
32.00	0.00	0.000	499.00	0.00
33.00	0.00	0.000	499.00	0.00
34.00	0.00	0.000	499.00	0.00
35.00	0.00	0.000	499.00	0.00
36.00	0.00	0.000	499.00	0.00
37.00	0.00	0.000	499.00	0.00
38.00	0.00	0.000	499.00	0.00
39.00	0.00	0.000	499.00	0.00
40.00	0.00	0.000	499.00	0.00
41.00	0.00	0.000	499.00	0.00
42.00	0.00	0.000	499.00	0.00
43.00	0.00	0.000	499.00	0.00
44.00	0.00	0.000	499.00	0.00
45.00	0.00	0.000	499.00	0.00
46.00	0.00	0.000	499.00	0.00
47.00	0.00	0.000	499.00	0.00
48.00	0.00	0.000	499.00	0.00

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Stage-Discharge for Pond 4P: Detention

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
498.50	0.00	501.10	2.44
498.55	0.00	501.15	2.54
498.60	0.00	501.20	2.65
498.65	0.00	501.25	2.75
498.70	0.00	501.30	2.85
498.75	0.00	501.35	2.94
498.80	0.00	501.40	3.03
498.85	0.00	501.45	3.12
498.90	0.00	501.50	3.20
498.95	0.00	501.55	3.29
499.00	0.00	501.60	3.37
499.05	0.01	501.65	3.45
499.10	0.03	501.70	3.54
499.15	0.06	501.75	3.65
499.20	0.09	501.80	3.76
499.25	0.14	501.85	3.88
499.30	0.18	501.90	3.99
499.35	0.23	501.95	4.12
499.40	0.26	502.00	4.24
499.45	0.29	502.05	4.36
499.50	0.32	502.10	4.48
499.55	0.35	502.15	4.60
499.60	0.37	502.20	4.72
499.65	0.39	502.25	4.84
499.70	0.41	502.30	4.96
499.75	0.43	502.35	5.08
499.80	0.45	502.40	5.19
499.85	0.47	502.45	5.30
499.90	0.49	502.50	5.41
499.95	0.50	502.55	5.51
500.00	0.52	502.60	5.61
500.05	0.54	502.65	5.71
500.10	0.55	502.70	5.80
500.15	0.57	502.75	5.89
500.20	0.58	502.80	5.98
500.25	0.60	502.85	6.06
500.30	0.61	502.90	6.14
500.35	0.63	502.95	6.26
500.40	0.68	503.00	6.38
500.45	0.74		
500.50	0.82		
500.55	0.91		
500.60	1.02		
500.65	1.14		
500.70	1.27		
500.75	1.41		
500.80	1.56		
500.85	1.71		
500.90	1.87		
500.95	2.02		
501.00	2.17		
501.05	2.31		

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Stage-Area-Storage for Pond 4P: Detention

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
498.50	0.000	501.10	0.057
498.55	0.000	501.15	0.059
498.60	0.000	501.20	0.060
498.65	0.000	501.25	0.062
498.70	0.000	501.30	0.064
498.75	0.000	501.35	0.066
498.80	0.000	501.40	0.067
498.85	0.000	501.45	0.069
498.90	0.000	501.50	0.071
498.95	0.000	501.55	0.072
499.00	0.000	501.60	0.074
499.05	0.000	501.65	0.075
499.10	0.000	501.70	0.077
499.15	0.000	501.75	0.078
499.20	0.000	501.80	0.080
499.25	0.000	501.85	0.081
499.30	0.000	501.90	0.082
499.35	0.001	501.95	0.083
499.40	0.002	502.00	0.084
499.45	0.003	502.05	0.085
499.50	0.004	502.10	0.086
499.55	0.005	502.15	0.087
499.60	0.006	502.20	0.088
499.65	0.007	502.25	0.088
499.70	0.008	502.30	0.088
499.75	0.010	502.35	0.088
499.80	0.011	502.40	0.088
499.85	0.013	502.45	0.088
499.90	0.014	502.50	0.088
499.95	0.016	502.55	0.088
500.00	0.017	502.60	0.088
500.05	0.019	502.65	0.088
500.10	0.021	502.70	0.088
500.15	0.022	502.75	0.088
500.20	0.024	502.80	0.088
500.25	0.026	502.85	0.088
500.30	0.027	502.90	0.088
500.35	0.029	502.95	0.088
500.40	0.031	503.00	0.088
500.45	0.033		
500.50	0.035		
500.55	0.037		
500.60	0.038		
500.65	0.040		
500.70	0.042		
500.75	0.044		
500.80	0.046		
500.85	0.048		
500.90	0.050		
500.95	0.051		
501.00	0.053		
501.05	0.055		

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Type III 24-hr 10-yr Rainfall=4.99"

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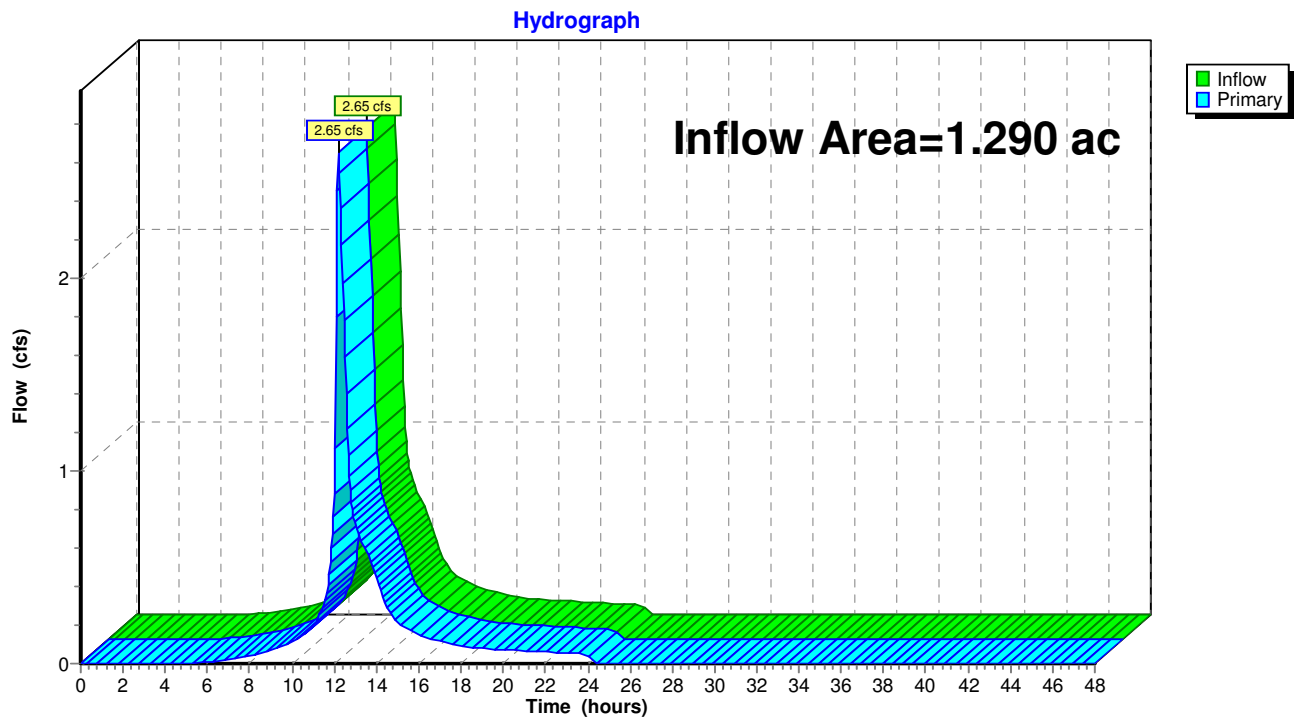
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Summary for Link 5L: Proposed Combined

Inflow Area = 1.290 ac, 53.49% Impervious, Inflow Depth = 3.03" for 10-yr event
 Inflow = 2.65 cfs @ 12.21 hrs, Volume= 0.326 af
 Primary = 2.65 cfs @ 12.21 hrs, Volume= 0.326 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link 5L: Proposed Combined

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Type III 24-hr 10-yr Rainfall=4.99"

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Hydrograph for Link 5L: Proposed Combined

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.00	0.00	0.00	29.50	0.00	0.00	0.00
4.00	0.00	0.00	0.00	30.00	0.00	0.00	0.00
4.50	0.00	0.00	0.00	30.50	0.00	0.00	0.00
5.00	0.00	0.00	0.00	31.00	0.00	0.00	0.00
5.50	0.01	0.00	0.01	31.50	0.00	0.00	0.00
6.00	0.01	0.00	0.01	32.00	0.00	0.00	0.00
6.50	0.01	0.00	0.01	32.50	0.00	0.00	0.00
7.00	0.02	0.00	0.02	33.00	0.00	0.00	0.00
7.50	0.03	0.00	0.03	33.50	0.00	0.00	0.00
8.00	0.04	0.00	0.04	34.00	0.00	0.00	0.00
8.50	0.05	0.00	0.05	34.50	0.00	0.00	0.00
9.00	0.07	0.00	0.07	35.00	0.00	0.00	0.00
9.50	0.09	0.00	0.09	35.50	0.00	0.00	0.00
10.00	0.11	0.00	0.11	36.00	0.00	0.00	0.00
10.50	0.15	0.00	0.15	36.50	0.00	0.00	0.00
11.00	0.20	0.00	0.20	37.00	0.00	0.00	0.00
11.50	0.30	0.00	0.30	37.50	0.00	0.00	0.00
12.00	0.88	0.00	0.88	38.00	0.00	0.00	0.00
12.50	1.59	0.00	1.59	38.50	0.00	0.00	0.00
13.00	0.73	0.00	0.73	39.00	0.00	0.00	0.00
13.50	0.59	0.00	0.59	39.50	0.00	0.00	0.00
14.00	0.45	0.00	0.45	40.00	0.00	0.00	0.00
14.50	0.30	0.00	0.30	40.50	0.00	0.00	0.00
15.00	0.21	0.00	0.21	41.00	0.00	0.00	0.00
15.50	0.18	0.00	0.18	41.50	0.00	0.00	0.00
16.00	0.15	0.00	0.15	42.00	0.00	0.00	0.00
16.50	0.13	0.00	0.13	42.50	0.00	0.00	0.00
17.00	0.12	0.00	0.12	43.00	0.00	0.00	0.00
17.50	0.10	0.00	0.10	43.50	0.00	0.00	0.00
18.00	0.09	0.00	0.09	44.00	0.00	0.00	0.00
18.50	0.08	0.00	0.08	44.50	0.00	0.00	0.00
19.00	0.08	0.00	0.08	45.00	0.00	0.00	0.00
19.50	0.08	0.00	0.08	45.50	0.00	0.00	0.00
20.00	0.07	0.00	0.07	46.00	0.00	0.00	0.00
20.50	0.07	0.00	0.07	46.50	0.00	0.00	0.00
21.00	0.07	0.00	0.07	47.00	0.00	0.00	0.00
21.50	0.06	0.00	0.06	47.50	0.00	0.00	0.00
22.00	0.06	0.00	0.06	48.00	0.00	0.00	0.00
22.50	0.06	0.00	0.06				
23.00	0.05	0.00	0.05				
23.50	0.05	0.00	0.05				
24.00	0.05	0.00	0.05				
24.50	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				

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Type III 24-hr 100-yr Rainfall=8.86"

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
 Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
 Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 1S: Existing

Runoff Area=1.230 ac 32.52% Impervious Runoff Depth=5.58"
 Flow Length=285' Tc=11.9 min CN=73 Runoff=6.57 cfs 0.572 af

Subcatchment 2S: Proposed to Treatment

Runoff Area=0.810 ac 75.31% Impervious Runoff Depth=7.53"
 Tc=6.0 min CN=89 Runoff=6.53 cfs 0.508 af

Subcatchment 3S: Proposed to Bypass

Runoff Area=0.480 ac 16.67% Impervious Runoff Depth=4.84"
 Flow Length=285' Tc=11.9 min CN=67 Runoff=2.23 cfs 0.194 af

Pond 4P: Detention

Peak Elev=502.05' Storage=0.085 af Inflow=6.53 cfs 0.508 af
 Outflow=4.36 cfs 0.508 af

Link 5L: Proposed Combined

Inflow=6.56 cfs 0.702 af
 Primary=6.56 cfs 0.702 af

Total Runoff Area = 2.520 ac Runoff Volume = 1.274 af Average Runoff Depth = 6.07"
56.75% Pervious = 1.430 ac 43.25% Impervious = 1.090 ac

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Type III 24-hr 100-yr Rainfall=8.86"

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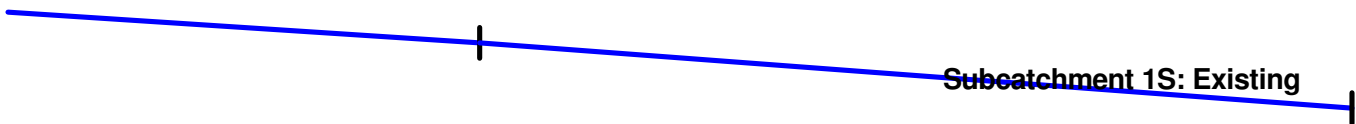
Summary for Subcatchment 1S: Existing

Runoff = 6.57 cfs @ 12.16 hrs, Volume= 0.572 af, Depth= 5.58"

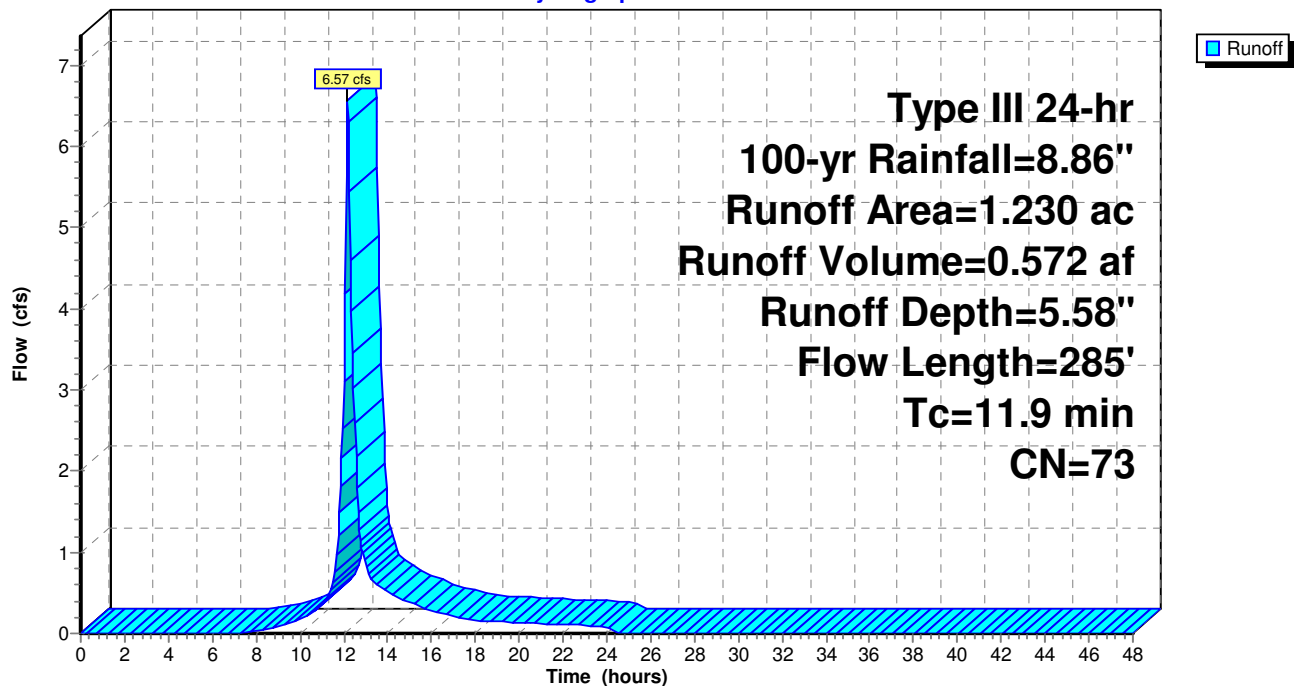
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.86"

Area (ac)	CN	Description
* 0.400	98	Impervious
0.830	61	>75% Grass cover, Good, HSG B
1.230	73	Weighted Average
0.830		67.48% Pervious Area
0.400		32.52% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0350	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
1.0	185	0.0400	3.22		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
11.9	285	Total			

**Subcatchment 1S: Existing**

Hydrograph



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Type III 24-hr 100-yr Rainfall=8.86"

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Hydrograph for Subcatchment 1S: Existing

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	8.86	5.58	0.00
0.50	0.04	0.00	0.00	26.50	8.86	5.58	0.00
1.00	0.09	0.00	0.00	27.00	8.86	5.58	0.00
1.50	0.13	0.00	0.00	27.50	8.86	5.58	0.00
2.00	0.18	0.00	0.00	28.00	8.86	5.58	0.00
2.50	0.22	0.00	0.00	28.50	8.86	5.58	0.00
3.00	0.27	0.00	0.00	29.00	8.86	5.58	0.00
3.50	0.33	0.00	0.00	29.50	8.86	5.58	0.00
4.00	0.38	0.00	0.00	30.00	8.86	5.58	0.00
4.50	0.44	0.00	0.00	30.50	8.86	5.58	0.00
5.00	0.50	0.00	0.00	31.00	8.86	5.58	0.00
5.50	0.57	0.00	0.00	31.50	8.86	5.58	0.00
6.00	0.64	0.00	0.00	32.00	8.86	5.58	0.00
6.50	0.71	0.00	0.00	32.50	8.86	5.58	0.00
7.00	0.80	0.00	0.00	33.00	8.86	5.58	0.00
7.50	0.90	0.01	0.02	33.50	8.86	5.58	0.00
8.00	1.01	0.02	0.03	34.00	8.86	5.58	0.00
8.50	1.14	0.04	0.05	34.50	8.86	5.58	0.00
9.00	1.29	0.07	0.09	35.00	8.86	5.58	0.00
9.50	1.47	0.12	0.13	35.50	8.86	5.58	0.00
10.00	1.67	0.19	0.18	36.00	8.86	5.58	0.00
10.50	1.92	0.28	0.25	36.50	8.86	5.58	0.00
11.00	2.22	0.42	0.35	37.00	8.86	5.58	0.00
11.50	2.64	0.65	0.60	37.50	8.86	5.58	0.00
12.00	4.43	1.84	3.10	38.00	8.86	5.58	0.00
12.50	6.22	3.27	2.59	38.50	8.86	5.58	0.00
13.00	6.64	3.63	0.84	39.00	8.86	5.58	0.00
13.50	6.94	3.89	0.62	39.50	8.86	5.58	0.00
14.00	7.19	4.10	0.51	40.00	8.86	5.58	0.00
14.50	7.39	4.27	0.43	40.50	8.86	5.58	0.00
15.00	7.57	4.43	0.38	41.00	8.86	5.58	0.00
15.50	7.72	4.56	0.33	41.50	8.86	5.58	0.00
16.00	7.85	4.68	0.27	42.00	8.86	5.58	0.00
16.50	7.96	4.77	0.24	42.50	8.86	5.58	0.00
17.00	8.06	4.86	0.21	43.00	8.86	5.58	0.00
17.50	8.15	4.94	0.19	43.50	8.86	5.58	0.00
18.00	8.22	5.01	0.17	44.00	8.86	5.58	0.00
18.50	8.29	5.07	0.15	44.50	8.86	5.58	0.00
19.00	8.36	5.13	0.14	45.00	8.86	5.58	0.00
19.50	8.42	5.18	0.14	45.50	8.86	5.58	0.00
20.00	8.48	5.24	0.13	46.00	8.86	5.58	0.00
20.50	8.54	5.29	0.12	46.50	8.86	5.58	0.00
21.00	8.59	5.34	0.12	47.00	8.86	5.58	0.00
21.50	8.64	5.38	0.11	47.50	8.86	5.58	0.00
22.00	8.69	5.43	0.11	48.00	8.86	5.58	0.00
22.50	8.74	5.47	0.10				
23.00	8.78	5.51	0.10				
23.50	8.82	5.54	0.09				
24.00	8.86	5.58	0.09				
24.50	8.86	5.58	0.00				
25.00	8.86	5.58	0.00				
25.50	8.86	5.58	0.00				

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Type III 24-hr 100-yr Rainfall=8.86"

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Summary for Subcatchment 2S: Proposed to Treatment

Runoff = 6.53 cfs @ 12.09 hrs, Volume= 0.508 af, Depth= 7.53"
 Routed to Pond 4P : Detention

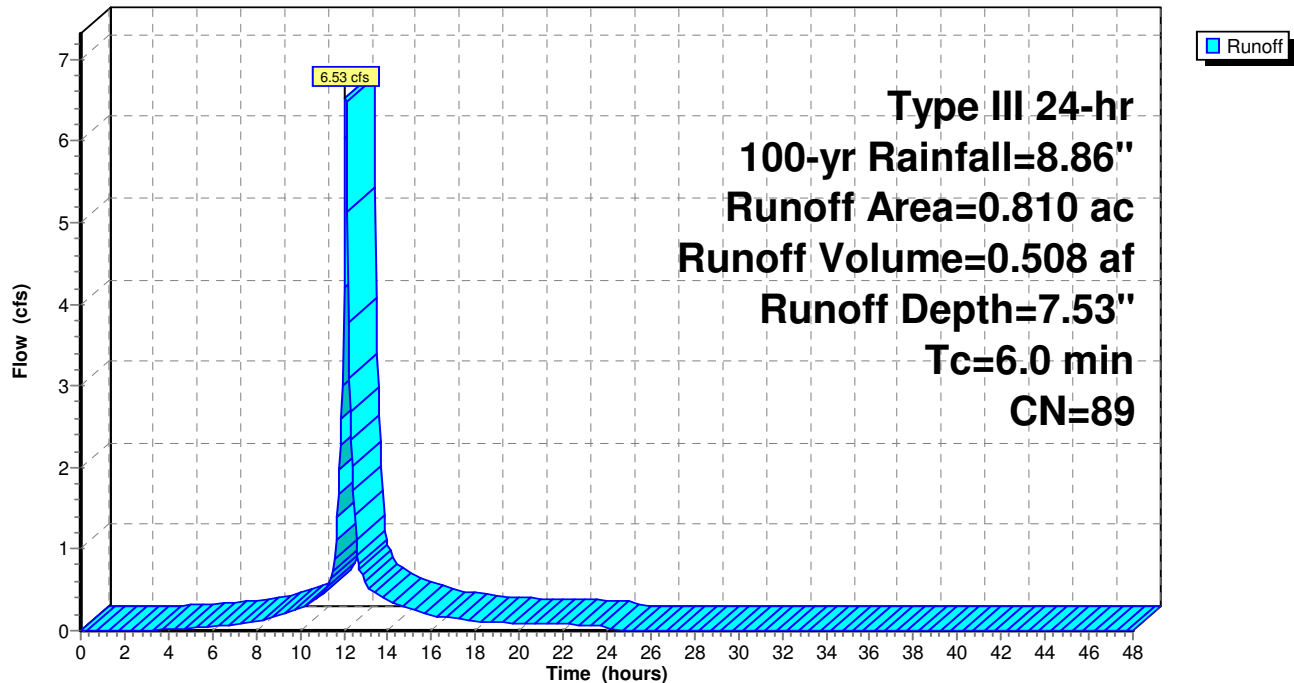
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Type III 24-hr 100-yr Rainfall=8.86"

Area (ac)	CN	Description
* 0.610	98	Impervious
0.200	61	>75% Grass cover, Good, HSG B
0.810	89	Weighted Average
0.200		24.69% Pervious Area
0.610		75.31% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					Direct Entry,

Subcatchment 2S: Proposed to Treatment

Hydrograph



73 Forshay 6-7-24

Type III 24-hr 100-yr Rainfall=8.86"

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Hydrograph for Subcatchment 2S: Proposed to Treatment

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	8.86	7.53	0.00
0.50	0.04	0.00	0.00	26.50	8.86	7.53	0.00
1.00	0.09	0.00	0.00	27.00	8.86	7.53	0.00
1.50	0.13	0.00	0.00	27.50	8.86	7.53	0.00
2.00	0.18	0.00	0.00	28.00	8.86	7.53	0.00
2.50	0.22	0.00	0.00	28.50	8.86	7.53	0.00
3.00	0.27	0.00	0.00	29.00	8.86	7.53	0.00
3.50	0.33	0.00	0.01	29.50	8.86	7.53	0.00
4.00	0.38	0.01	0.02	30.00	8.86	7.53	0.00
4.50	0.44	0.03	0.02	30.50	8.86	7.53	0.00
5.00	0.50	0.04	0.03	31.00	8.86	7.53	0.00
5.50	0.57	0.07	0.04	31.50	8.86	7.53	0.00
6.00	0.64	0.09	0.05	32.00	8.86	7.53	0.00
6.50	0.71	0.13	0.06	32.50	8.86	7.53	0.00
7.00	0.80	0.17	0.08	33.00	8.86	7.53	0.00
7.50	0.90	0.23	0.09	33.50	8.86	7.53	0.00
8.00	1.01	0.29	0.11	34.00	8.86	7.53	0.00
8.50	1.14	0.37	0.15	34.50	8.86	7.53	0.00
9.00	1.29	0.48	0.18	35.00	8.86	7.53	0.00
9.50	1.47	0.61	0.23	35.50	8.86	7.53	0.00
10.00	1.67	0.76	0.27	36.00	8.86	7.53	0.00
10.50	1.92	0.96	0.35	36.50	8.86	7.53	0.00
11.00	2.22	1.21	0.43	37.00	8.86	7.53	0.00
11.50	2.64	1.58	0.70	37.50	8.86	7.53	0.00
12.00	4.43	3.23	4.20	38.00	8.86	7.53	0.00
12.50	6.22	4.95	1.41	38.50	8.86	7.53	0.00
13.00	6.64	5.36	0.57	39.00	8.86	7.53	0.00
13.50	6.94	5.65	0.45	39.50	8.86	7.53	0.00
14.00	7.19	5.89	0.36	40.00	8.86	7.53	0.00
14.50	7.39	6.09	0.31	40.50	8.86	7.53	0.00
15.00	7.57	6.26	0.27	41.00	8.86	7.53	0.00
15.50	7.72	6.41	0.23	41.50	8.86	7.53	0.00
16.00	7.85	6.54	0.19	42.00	8.86	7.53	0.00
16.50	7.96	6.65	0.17	42.50	8.86	7.53	0.00
17.00	8.06	6.74	0.15	43.00	8.86	7.53	0.00
17.50	8.15	6.83	0.13	43.50	8.86	7.53	0.00
18.00	8.22	6.90	0.12	44.00	8.86	7.53	0.00
18.50	8.29	6.97	0.11	44.50	8.86	7.53	0.00
19.00	8.36	7.04	0.10	45.00	8.86	7.53	0.00
19.50	8.42	7.10	0.10	45.50	8.86	7.53	0.00
20.00	8.48	7.16	0.09	46.00	8.86	7.53	0.00
20.50	8.54	7.21	0.09	46.50	8.86	7.53	0.00
21.00	8.59	7.27	0.09	47.00	8.86	7.53	0.00
21.50	8.64	7.32	0.08	47.50	8.86	7.53	0.00
22.00	8.69	7.36	0.08	48.00	8.86	7.53	0.00
22.50	8.74	7.41	0.07				
23.00	8.78	7.45	0.07				
23.50	8.82	7.49	0.07				
24.00	8.86	7.53	0.06				
24.50	8.86	7.53	0.00				
25.00	8.86	7.53	0.00				
25.50	8.86	7.53	0.00				

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Type III 24-hr 100-yr Rainfall=8.86"

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Summary for Subcatchment 3S: Proposed to Bypass

Runoff = 2.23 cfs @ 12.17 hrs, Volume= 0.194 af, Depth= 4.84"

Routed to Link 5L : Proposed Combined

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
Type III 24-hr 100-yr Rainfall=8.86"

Area (ac)	CN	Description
* 0.080	98	Impervious
0.400	61	>75% Grass cover, Good, HSG B
0.480	67	Weighted Average
0.400		83.33% Pervious Area
0.080		16.67% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
10.9	100	0.0350	0.15		Sheet Flow, Grass: Dense n= 0.240 P2= 3.50"
1.0	185	0.0400	3.22		Shallow Concentrated Flow, Unpaved Kv= 16.1 fps
11.9	285	Total			

Subcatchment 3S: Proposed to Bypass

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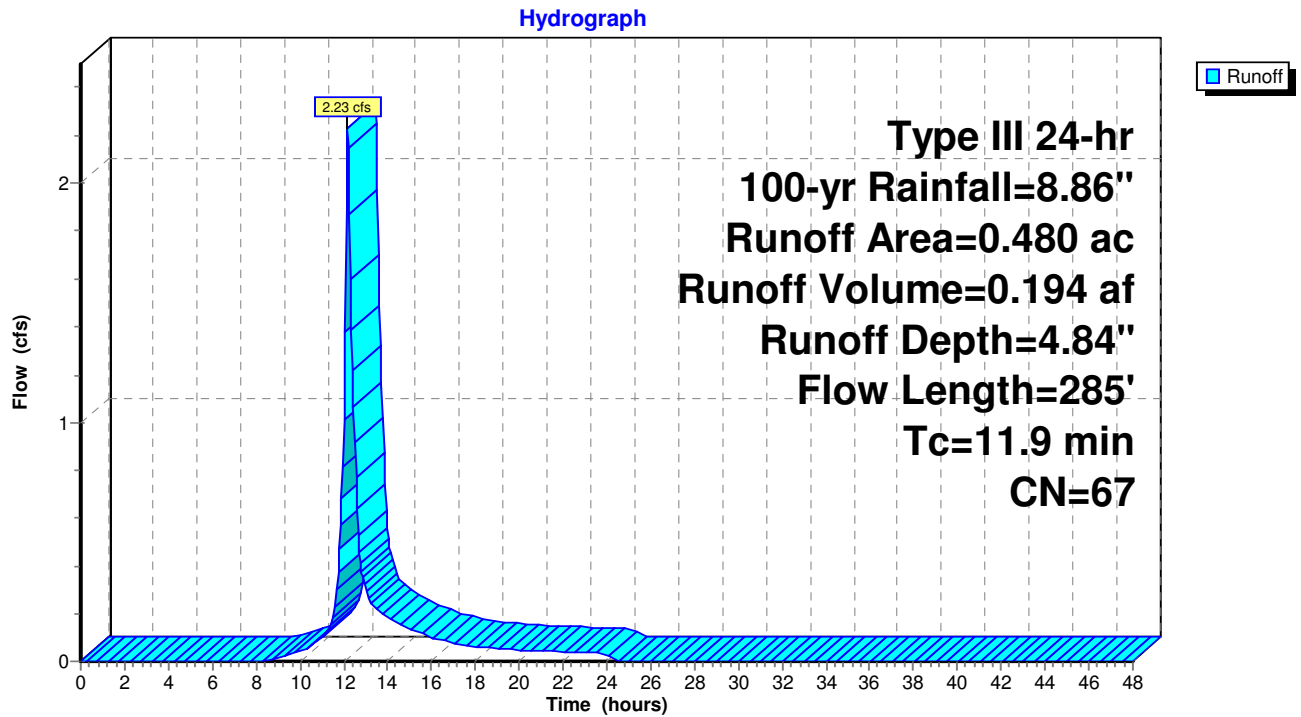
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Type III 24-hr 100-yr Rainfall=8.86"

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Subcatchment 3S: Proposed to Bypass

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Type III 24-hr 100-yr Rainfall=8.86"

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Hydrograph for Subcatchment 3S: Proposed to Bypass

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)	Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
0.00	0.00	0.00	0.00	26.00	8.86	4.84	0.00
0.50	0.04	0.00	0.00	26.50	8.86	4.84	0.00
1.00	0.09	0.00	0.00	27.00	8.86	4.84	0.00
1.50	0.13	0.00	0.00	27.50	8.86	4.84	0.00
2.00	0.18	0.00	0.00	28.00	8.86	4.84	0.00
2.50	0.22	0.00	0.00	28.50	8.86	4.84	0.00
3.00	0.27	0.00	0.00	29.00	8.86	4.84	0.00
3.50	0.33	0.00	0.00	29.50	8.86	4.84	0.00
4.00	0.38	0.00	0.00	30.00	8.86	4.84	0.00
4.50	0.44	0.00	0.00	30.50	8.86	4.84	0.00
5.00	0.50	0.00	0.00	31.00	8.86	4.84	0.00
5.50	0.57	0.00	0.00	31.50	8.86	4.84	0.00
6.00	0.64	0.00	0.00	32.00	8.86	4.84	0.00
6.50	0.71	0.00	0.00	32.50	8.86	4.84	0.00
7.00	0.80	0.00	0.00	33.00	8.86	4.84	0.00
7.50	0.90	0.00	0.00	33.50	8.86	4.84	0.00
8.00	1.01	0.00	0.00	34.00	8.86	4.84	0.00
8.50	1.14	0.00	0.01	34.50	8.86	4.84	0.00
9.00	1.29	0.02	0.01	35.00	8.86	4.84	0.00
9.50	1.47	0.04	0.03	35.50	8.86	4.84	0.00
10.00	1.67	0.08	0.04	36.00	8.86	4.84	0.00
10.50	1.92	0.15	0.07	36.50	8.86	4.84	0.00
11.00	2.22	0.25	0.10	37.00	8.86	4.84	0.00
11.50	2.64	0.42	0.18	37.50	8.86	4.84	0.00
12.00	4.43	1.42	1.01	38.00	8.86	4.84	0.00
12.50	6.22	2.70	0.91	38.50	8.86	4.84	0.00
13.00	6.64	3.03	0.30	39.00	8.86	4.84	0.00
13.50	6.94	3.26	0.22	39.50	8.86	4.84	0.00
14.00	7.19	3.46	0.18	40.00	8.86	4.84	0.00
14.50	7.39	3.62	0.16	40.50	8.86	4.84	0.00
15.00	7.57	3.77	0.14	41.00	8.86	4.84	0.00
15.50	7.72	3.89	0.12	41.50	8.86	4.84	0.00
16.00	7.85	4.00	0.10	42.00	8.86	4.84	0.00
16.50	7.96	4.09	0.09	42.50	8.86	4.84	0.00
17.00	8.06	4.17	0.08	43.00	8.86	4.84	0.00
17.50	8.15	4.24	0.07	43.50	8.86	4.84	0.00
18.00	8.22	4.31	0.06	44.00	8.86	4.84	0.00
18.50	8.29	4.36	0.06	44.50	8.86	4.84	0.00
19.00	8.36	4.42	0.05	45.00	8.86	4.84	0.00
19.50	8.42	4.47	0.05	45.50	8.86	4.84	0.00
20.00	8.48	4.52	0.05	46.00	8.86	4.84	0.00
20.50	8.54	4.57	0.05	46.50	8.86	4.84	0.00
21.00	8.59	4.61	0.04	47.00	8.86	4.84	0.00
21.50	8.64	4.66	0.04	47.50	8.86	4.84	0.00
22.00	8.69	4.70	0.04	48.00	8.86	4.84	0.00
22.50	8.74	4.74	0.04				
23.00	8.78	4.78	0.04				
23.50	8.82	4.81	0.03				
24.00	8.86	4.84	0.03				
24.50	8.86	4.84	0.00				
25.00	8.86	4.84	0.00				
25.50	8.86	4.84	0.00				

73 Forshay 6-7-24

Type III 24-hr 100-yr Rainfall=8.86"

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Summary for Pond 4P: Detention

Inflow Area = 0.810 ac, 75.31% Impervious, Inflow Depth = 7.53" for 100-yr event
 Inflow = 6.53 cfs @ 12.09 hrs, Volume= 0.508 af
 Outflow = 4.36 cfs @ 12.18 hrs, Volume= 0.508 af, Atten= 33%, Lag= 5.8 min
 Primary = 4.36 cfs @ 12.18 hrs, Volume= 0.508 af
 Routed to Link 5L : Proposed Combined

Routing by Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs
 Peak Elev= 502.05' @ 12.18 hrs Surf.Area= 0.068 ac Storage= 0.085 af

Plug-Flow detention time= (not calculated: outflow precedes inflow)
 Center-of-Mass det. time= 14.5 min (790.6 - 776.0)

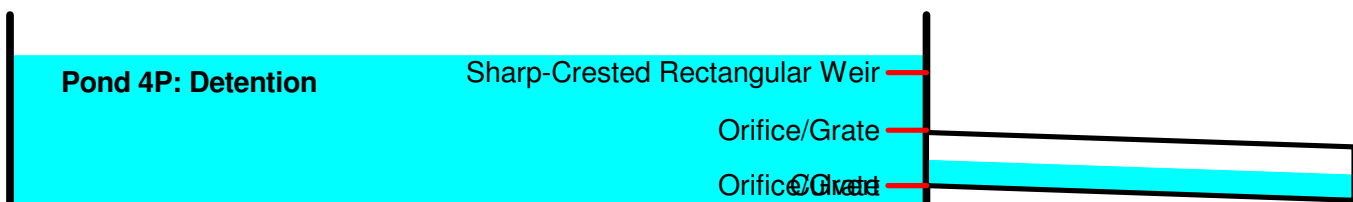
Volume	Invert	Avail.Storage	Storage Description
#1A	498.50'	0.000 af	32.75'W x 90.00'L x 4.50'H Field A 0.304 af Overall - 0.110 af Embedded = 0.195 af x 0.0% Voids
#2A	499.00'	0.088 af	ADS N-12 36" x 24 Inside #1 Inside= 36.1"W x 36.1"H => 7.10 sf x 20.00'L = 142.0 cf Outside= 42.0"W x 42.0"H => 8.86 sf x 20.00'L = 177.2 cf 24 Chambers in 6 Rows 29.75' Header x 7.10 sf x 2 = 422.4 cf Inside
		0.088 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	499.00'	15.0" Round Culvert L= 42.0' RCP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 499.00' / 498.66' S= 0.0081 '/' Cc= 0.900 n= 0.013 Corrugated PE, smooth interior, Flow Area= 1.23 sf
#2	Device 1	499.00'	4.7" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#3	Device 1	500.30'	10.0" Vert. Orifice/Grate C= 0.600 Limited to weir flow at low heads
#4	Device 1	501.65'	0.5' long Sharp-Crested Rectangular Weir 2 End Contraction(s)

Primary OutFlow Max=4.31 cfs @ 12.18 hrs HW=502.03' (Free Discharge)

- 1=Culvert (Passes 4.31 cfs of 9.11 cfs potential flow)
- 2=Orifice/Grate (Orifice Controls 0.98 cfs @ 8.11 fps)
- 3=Orifice/Grate (Orifice Controls 3.01 cfs @ 5.52 fps)
- 4=Sharp-Crested Rectangular Weir (Weir Controls 0.33 cfs @ 2.02 fps)



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Pond 4P: Detention - Chamber Wizard Field A**Chamber Model = ADS N-12 36" (ADS N-12® Pipe)**

Inside= 36.1"W x 36.1"H => 7.10 sf x 20.00'L = 142.0 cf

Outside= 42.0"W x 42.0"H => 8.86 sf x 20.00'L = 177.2 cf

42.0" Wide + 21.0" Spacing = 63.0" C-C Row Spacing

4 Chambers/Row x 20.00' Long +3.50' Header x 2 = 87.00' Row Length +18.0" End Stone x 2 = 90.00'
Base Length

6 Rows x 42.0" Wide + 21.0" Spacing x 5 + 18.0" Side Stone x 2 = 32.75' Base Width

6.0" Stone Base + 42.0" Chamber Height + 6.0" Stone Cover = 4.50' Field Height

24 Chambers x 142.0 cf + 29.75' Header x 7.10 sf x 2 = 3,830.4 cf Chamber Storage

24 Chambers x 177.2 cf + 29.75' Header x 8.86 sf x 2 = 4,780.5 cf Displacement

13,263.7 cf Field - 4,780.5 cf Chambers = 8,483.2 cf Stone x 0.0% Voids = 0.0 cf Stone Storage

Chamber Storage = 3,830.4 cf = 0.088 af

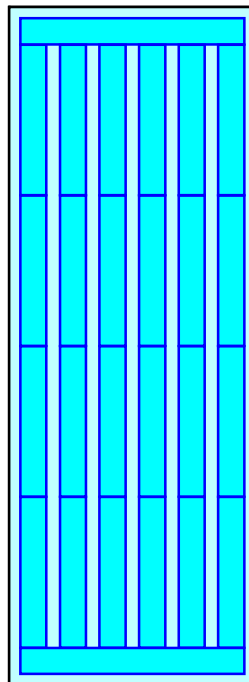
Overall Storage Efficiency = 28.9%

Overall System Size = 90.00' x 32.75' x 4.50'

24 Chambers

491.2 cy Field

314.2 cy Stone



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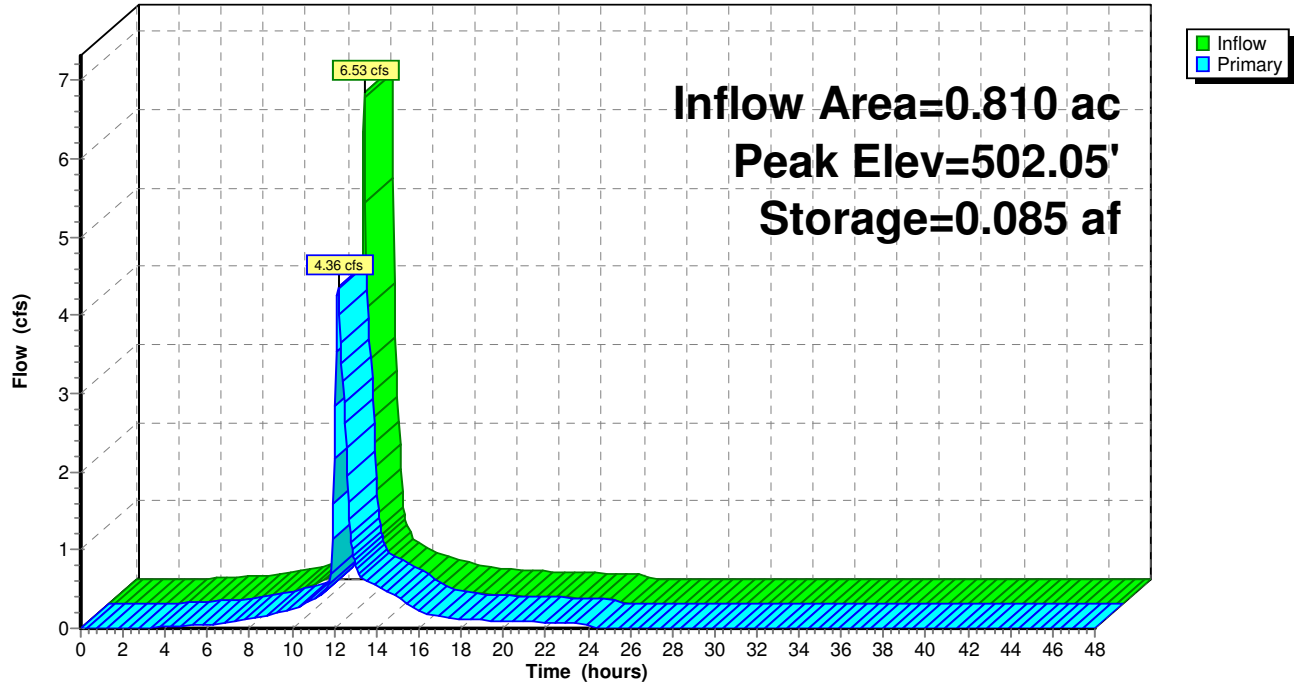
Type III 24-hr 100-yr Rainfall=8.86"

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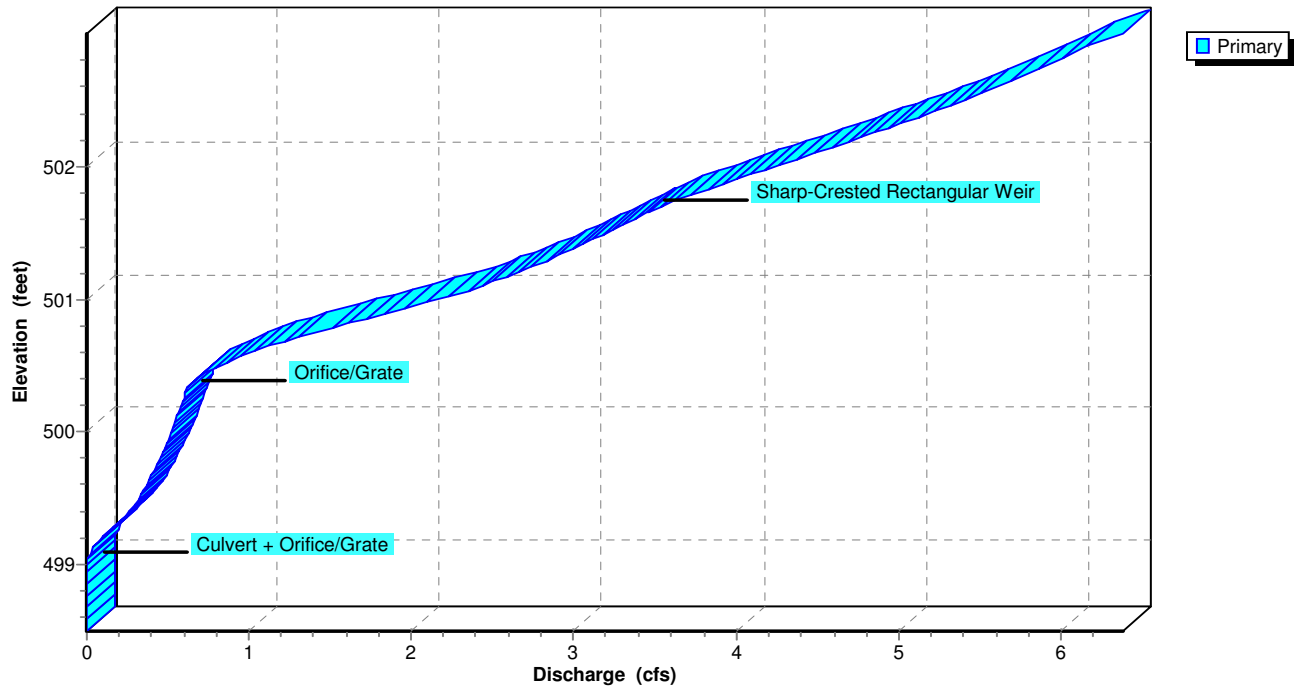
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Pond 4P: Detention

Hydrograph

**Pond 4P: Detention**

Stage-Discharge



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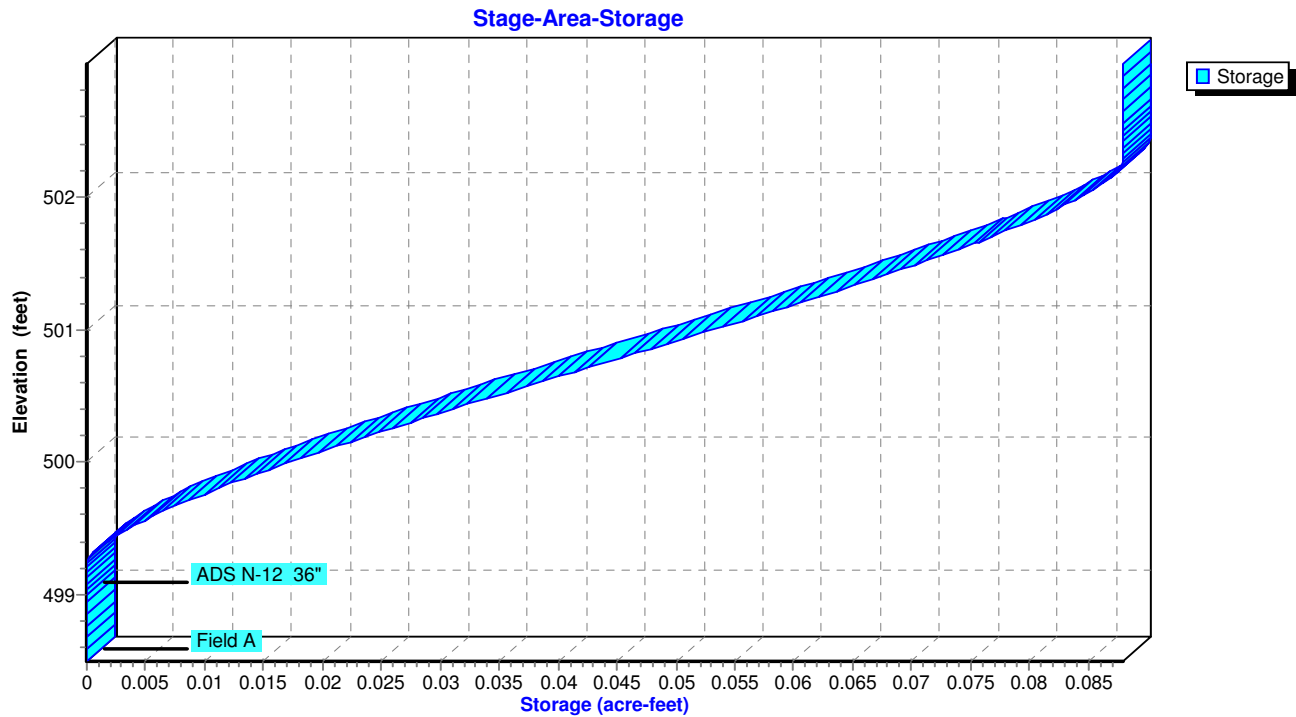
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Type III 24-hr 100-yr Rainfall=8.86"

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Pond 4P: Detention

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Hydrograph for Pond 4P: Detention

Time (hours)	Inflow (cfs)	Storage (acre-feet)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.000	498.50	0.00
1.00	0.00	0.000	498.50	0.00
2.00	0.00	0.000	498.50	0.00
3.00	0.00	0.000	499.02	0.00
4.00	0.02	0.000	499.08	0.02
5.00	0.03	0.000	499.11	0.03
6.00	0.05	0.000	499.14	0.05
7.00	0.08	0.000	499.18	0.08
8.00	0.11	0.000	499.22	0.11
9.00	0.18	0.000	499.29	0.17
10.00	0.27	0.001	499.38	0.25
11.00	0.43	0.005	499.58	0.36
12.00	4.20	0.053	501.00	2.17
13.00	0.57	0.035	500.50	0.82
14.00	0.36	0.020	500.08	0.55
15.00	0.27	0.007	499.65	0.39
16.00	0.19	0.001	499.34	0.22
17.00	0.15	0.000	499.27	0.16
18.00	0.12	0.000	499.23	0.12
19.00	0.10	0.000	499.21	0.10
20.00	0.09	0.000	499.20	0.09
21.00	0.09	0.000	499.19	0.08
22.00	0.08	0.000	499.18	0.08
23.00	0.07	0.000	499.17	0.07
24.00	0.06	0.000	499.16	0.06
25.00	0.00	0.000	499.00	0.00
26.00	0.00	0.000	499.00	0.00
27.00	0.00	0.000	499.00	0.00
28.00	0.00	0.000	499.00	0.00
29.00	0.00	0.000	499.00	0.00
30.00	0.00	0.000	499.00	0.00
31.00	0.00	0.000	499.00	0.00
32.00	0.00	0.000	499.00	0.00
33.00	0.00	0.000	499.00	0.00
34.00	0.00	0.000	499.00	0.00
35.00	0.00	0.000	499.00	0.00
36.00	0.00	0.000	499.00	0.00
37.00	0.00	0.000	499.00	0.00
38.00	0.00	0.000	499.00	0.00
39.00	0.00	0.000	499.00	0.00
40.00	0.00	0.000	499.00	0.00
41.00	0.00	0.000	499.00	0.00
42.00	0.00	0.000	499.00	0.00
43.00	0.00	0.000	499.00	0.00
44.00	0.00	0.000	499.00	0.00
45.00	0.00	0.000	499.00	0.00
46.00	0.00	0.000	499.00	0.00
47.00	0.00	0.000	499.00	0.00
48.00	0.00	0.000	499.00	0.00

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Type III 24-hr 100-yr Rainfall=8.86"

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Stage-Discharge for Pond 4P: Detention

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
498.50	0.00	501.10	2.44
498.55	0.00	501.15	2.54
498.60	0.00	501.20	2.65
498.65	0.00	501.25	2.75
498.70	0.00	501.30	2.85
498.75	0.00	501.35	2.94
498.80	0.00	501.40	3.03
498.85	0.00	501.45	3.12
498.90	0.00	501.50	3.20
498.95	0.00	501.55	3.29
499.00	0.00	501.60	3.37
499.05	0.01	501.65	3.45
499.10	0.03	501.70	3.54
499.15	0.06	501.75	3.65
499.20	0.09	501.80	3.76
499.25	0.14	501.85	3.88
499.30	0.18	501.90	3.99
499.35	0.23	501.95	4.12
499.40	0.26	502.00	4.24
499.45	0.29	502.05	4.36
499.50	0.32	502.10	4.48
499.55	0.35	502.15	4.60
499.60	0.37	502.20	4.72
499.65	0.39	502.25	4.84
499.70	0.41	502.30	4.96
499.75	0.43	502.35	5.08
499.80	0.45	502.40	5.19
499.85	0.47	502.45	5.30
499.90	0.49	502.50	5.41
499.95	0.50	502.55	5.51
500.00	0.52	502.60	5.61
500.05	0.54	502.65	5.71
500.10	0.55	502.70	5.80
500.15	0.57	502.75	5.89
500.20	0.58	502.80	5.98
500.25	0.60	502.85	6.06
500.30	0.61	502.90	6.14
500.35	0.63	502.95	6.26
500.40	0.68	503.00	6.38
500.45	0.74		
500.50	0.82		
500.55	0.91		
500.60	1.02		
500.65	1.14		
500.70	1.27		
500.75	1.41		
500.80	1.56		
500.85	1.71		
500.90	1.87		
500.95	2.02		
501.00	2.17		
501.05	2.31		

73 Forshay 6-7-24

Type III 24-hr 100-yr Rainfall=8.86"

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Stage-Area-Storage for Pond 4P: Detention

Elevation (feet)	Storage (acre-feet)	Elevation (feet)	Storage (acre-feet)
498.50	0.000	501.10	0.057
498.55	0.000	501.15	0.059
498.60	0.000	501.20	0.060
498.65	0.000	501.25	0.062
498.70	0.000	501.30	0.064
498.75	0.000	501.35	0.066
498.80	0.000	501.40	0.067
498.85	0.000	501.45	0.069
498.90	0.000	501.50	0.071
498.95	0.000	501.55	0.072
499.00	0.000	501.60	0.074
499.05	0.000	501.65	0.075
499.10	0.000	501.70	0.077
499.15	0.000	501.75	0.078
499.20	0.000	501.80	0.080
499.25	0.000	501.85	0.081
499.30	0.000	501.90	0.082
499.35	0.001	501.95	0.083
499.40	0.002	502.00	0.084
499.45	0.003	502.05	0.085
499.50	0.004	502.10	0.086
499.55	0.005	502.15	0.087
499.60	0.006	502.20	0.088
499.65	0.007	502.25	0.088
499.70	0.008	502.30	0.088
499.75	0.010	502.35	0.088
499.80	0.011	502.40	0.088
499.85	0.013	502.45	0.088
499.90	0.014	502.50	0.088
499.95	0.016	502.55	0.088
500.00	0.017	502.60	0.088
500.05	0.019	502.65	0.088
500.10	0.021	502.70	0.088
500.15	0.022	502.75	0.088
500.20	0.024	502.80	0.088
500.25	0.026	502.85	0.088
500.30	0.027	502.90	0.088
500.35	0.029	502.95	0.088
500.40	0.031	503.00	0.088
500.45	0.033		
500.50	0.035		
500.55	0.037		
500.60	0.038		
500.65	0.040		
500.70	0.042		
500.75	0.044		
500.80	0.046		
500.85	0.048		
500.90	0.050		
500.95	0.051		
501.00	0.053		
501.05	0.055		

73 Forshay 6-7-24

Prepared by Civil Tec Engineering & Surveyin

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Type III 24-hr 100-yr Rainfall=8.86"

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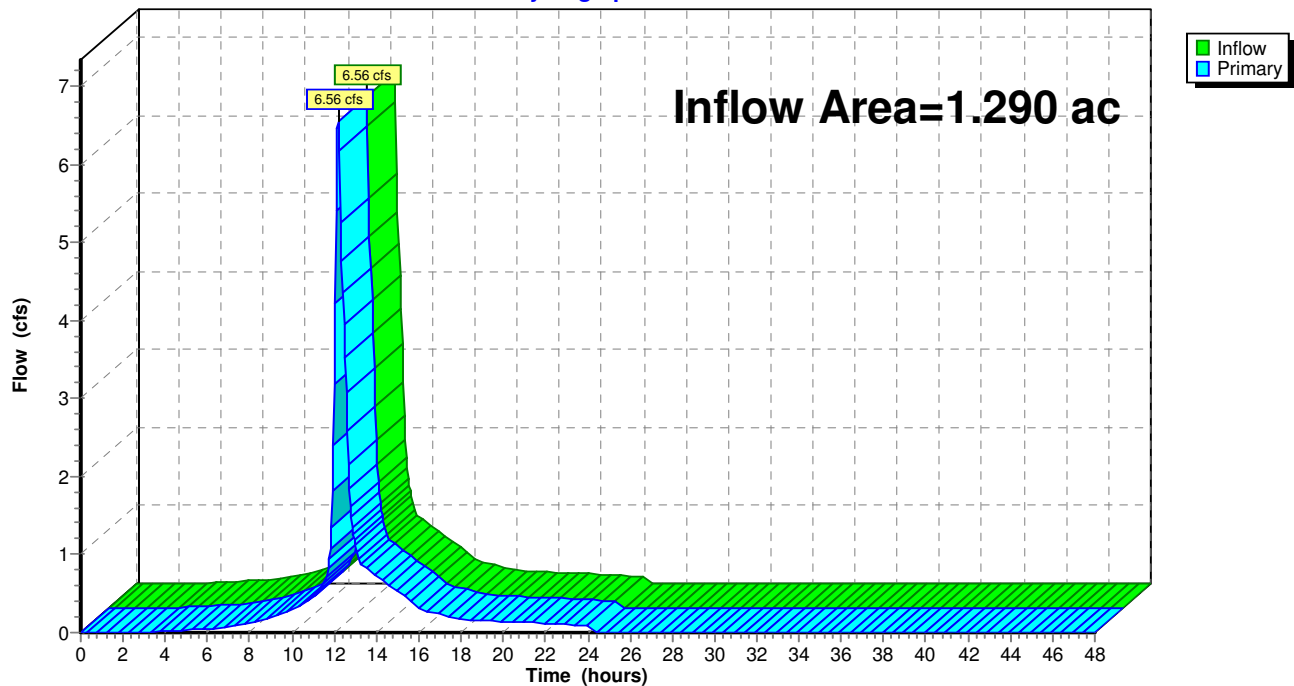
Summary for Link 5L: Proposed Combined

Inflow Area = 1.290 ac, 53.49% Impervious, Inflow Depth = 6.53" for 100-yr event
 Inflow = 6.56 cfs @ 12.18 hrs, Volume= 0.702 af
 Primary = 6.56 cfs @ 12.18 hrs, Volume= 0.702 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs

Link 5L: Proposed Combined

Hydrograph



73 Forshay 6-7-24

Type III 24-hr 100-yr Rainfall=8.86"

Prepared by Civil Tec Engineering & Surveyin

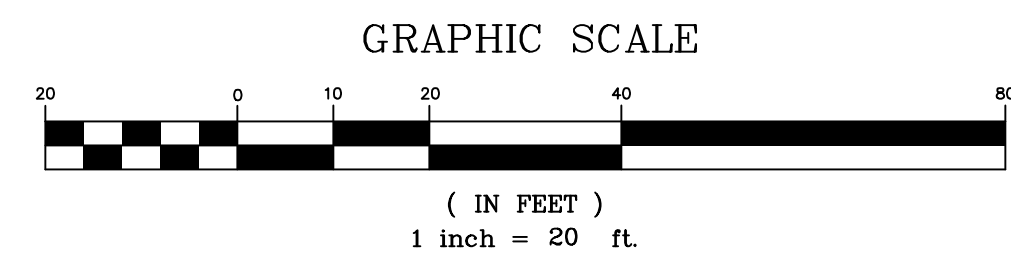
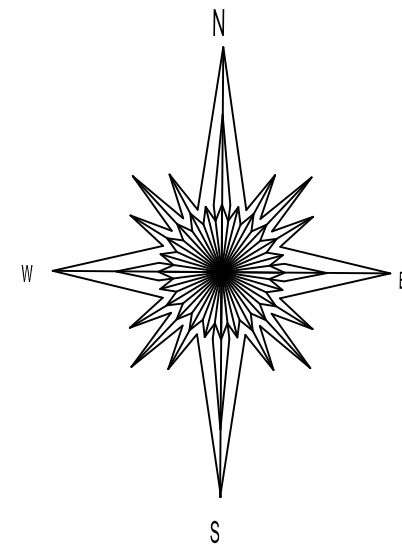
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Hydrograph for Link 5L: Proposed Combined

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)	Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
0.00	0.00	0.00	0.00	26.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	26.50	0.00	0.00	0.00
1.00	0.00	0.00	0.00	27.00	0.00	0.00	0.00
1.50	0.00	0.00	0.00	27.50	0.00	0.00	0.00
2.00	0.00	0.00	0.00	28.00	0.00	0.00	0.00
2.50	0.00	0.00	0.00	28.50	0.00	0.00	0.00
3.00	0.00	0.00	0.00	29.00	0.00	0.00	0.00
3.50	0.01	0.00	0.01	29.50	0.00	0.00	0.00
4.00	0.02	0.00	0.02	30.00	0.00	0.00	0.00
4.50	0.02	0.00	0.02	30.50	0.00	0.00	0.00
5.00	0.03	0.00	0.03	31.00	0.00	0.00	0.00
5.50	0.04	0.00	0.04	31.50	0.00	0.00	0.00
6.00	0.05	0.00	0.05	32.00	0.00	0.00	0.00
6.50	0.06	0.00	0.06	32.50	0.00	0.00	0.00
7.00	0.08	0.00	0.08	33.00	0.00	0.00	0.00
7.50	0.09	0.00	0.09	33.50	0.00	0.00	0.00
8.00	0.11	0.00	0.11	34.00	0.00	0.00	0.00
8.50	0.15	0.00	0.15	34.50	0.00	0.00	0.00
9.00	0.19	0.00	0.19	35.00	0.00	0.00	0.00
9.50	0.24	0.00	0.24	35.50	0.00	0.00	0.00
10.00	0.29	0.00	0.29	36.00	0.00	0.00	0.00
10.50	0.36	0.00	0.36	36.50	0.00	0.00	0.00
11.00	0.46	0.00	0.46	37.00	0.00	0.00	0.00
11.50	0.63	0.00	0.63	37.50	0.00	0.00	0.00
12.00	3.18	0.00	3.18	38.00	0.00	0.00	0.00
12.50	3.53	0.00	3.53	38.50	0.00	0.00	0.00
13.00	1.12	0.00	1.12	39.00	0.00	0.00	0.00
13.50	0.83	0.00	0.83	39.50	0.00	0.00	0.00
14.00	0.73	0.00	0.73	40.00	0.00	0.00	0.00
14.50	0.63	0.00	0.63	40.50	0.00	0.00	0.00
15.00	0.53	0.00	0.53	41.00	0.00	0.00	0.00
15.50	0.43	0.00	0.43	41.50	0.00	0.00	0.00
16.00	0.32	0.00	0.32	42.00	0.00	0.00	0.00
16.50	0.26	0.00	0.26	42.50	0.00	0.00	0.00
17.00	0.23	0.00	0.23	43.00	0.00	0.00	0.00
17.50	0.21	0.00	0.21	43.50	0.00	0.00	0.00
18.00	0.18	0.00	0.18	44.00	0.00	0.00	0.00
18.50	0.16	0.00	0.16	44.50	0.00	0.00	0.00
19.00	0.16	0.00	0.16	45.00	0.00	0.00	0.00
19.50	0.15	0.00	0.15	45.50	0.00	0.00	0.00
20.00	0.14	0.00	0.14	46.00	0.00	0.00	0.00
20.50	0.13	0.00	0.13	46.50	0.00	0.00	0.00
21.00	0.13	0.00	0.13	47.00	0.00	0.00	0.00
21.50	0.12	0.00	0.12	47.50	0.00	0.00	0.00
22.00	0.12	0.00	0.12	48.00	0.00	0.00	0.00
22.50	0.11	0.00	0.11				
23.00	0.10	0.00	0.10				
23.50	0.10	0.00	0.10				
24.00	0.09	0.00	0.09				
24.50	0.00	0.00	0.00				
25.00	0.00	0.00	0.00				
25.50	0.00	0.00	0.00				



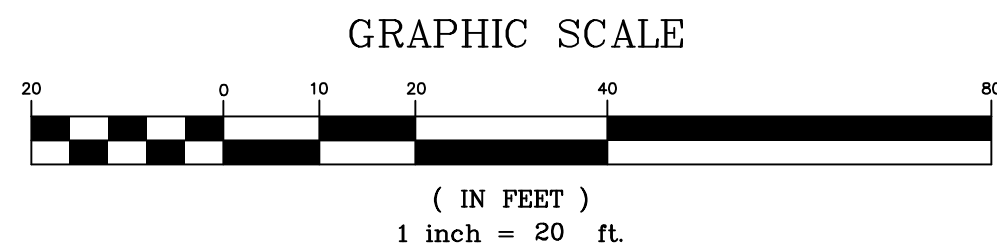
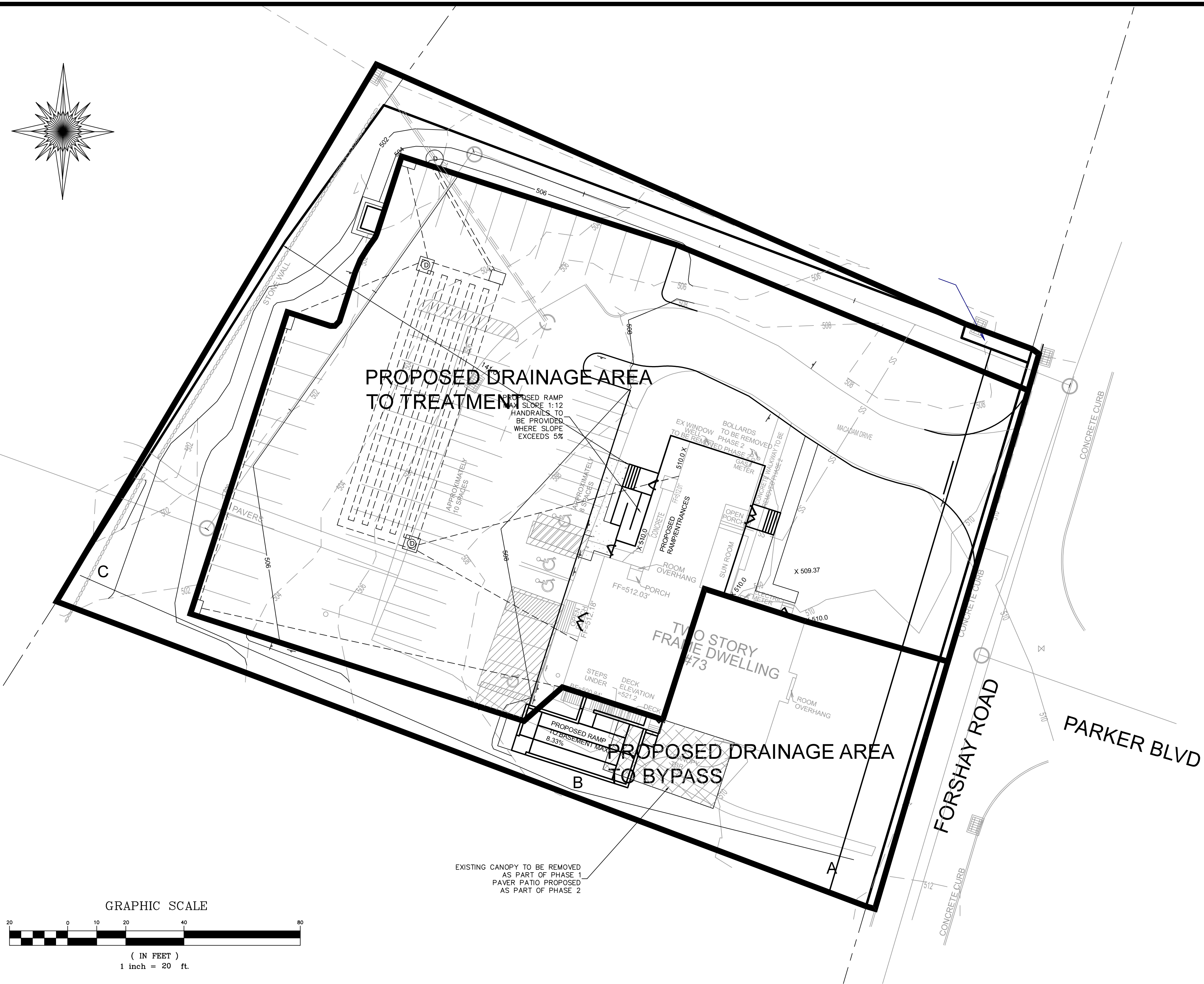
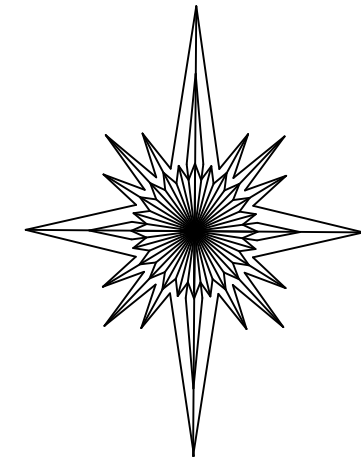
EXISTING DRAINAGE AREA

TWO STORY
FRAME DWELLING
#73

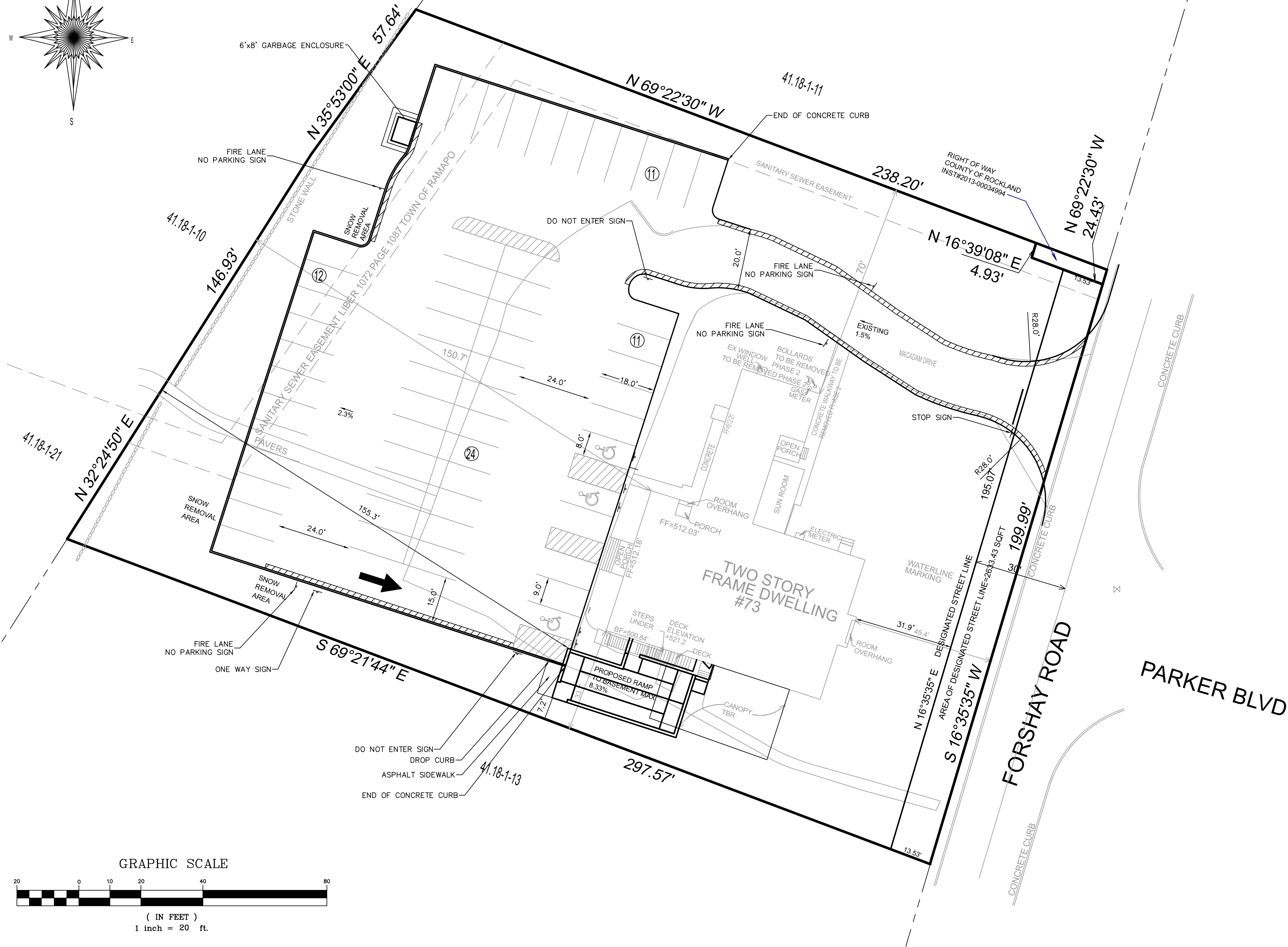
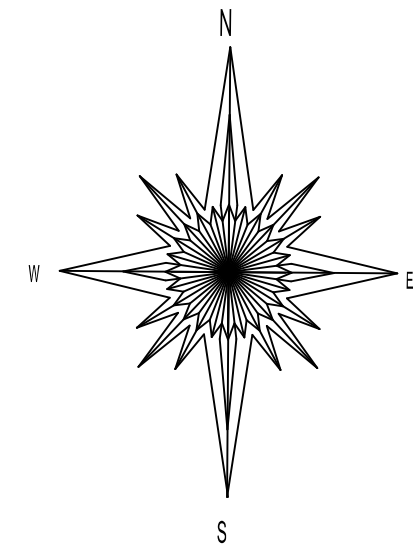
FORSHAY ROAD

PARKER BLVD

JUNE 19, 2024 MAY 6, 2024	REV 2 REV 1	REV PER COMMENTS REV PER CDRC		
DATE	ISSUE	DESCRIPTION	REVISIONS	
S.B.L. 41.18-1-12 EXISTING DRAINAGE AREA MAP FOR CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK				
CIVIL TEC Engineering & Surveying PC			DATE:	6/14/19
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DRAWN BY:	RB/LT
111 Main Street Chester, NY 10918 845.610.3621 Engineering - Land Surveying - Land Planning - Subdivision Design - Global Positioning Civil Engineering & Land Surveying Services that Build Communities www.Civil-Tec.com			CHKD BY:	RB/LT
			JOB No.	3688
			SCALE:	1"=20'
			DWG No.	3 OF 3
Rachel B. Barese, P.E. N.Y. Lic. No. 90143				



JUNE 19, 2024	REV 2	REV PER COMMENTS	REVISIONS
MAY 6, 2024	REV 1	REV PER CDRC	
DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 41.18-1-12			
PROPOSED DRAINAGE AREA MAP			
FOR			
CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC			DATE: 6/14/19
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DRAWN BY: RB/LT
111 Main Street Chester, NY 10918 845.610.3621			CHKD BY: RB/LT
Engineering - Land Surveying - Land Planning - Subdivision Design - Global Positioning Civil Engineering & Land Surveying Services that Build Communities www.Civil-Tec.com			JOB No. 3688
Rachel B. Barese, P.E. N.Y. Lic. No. 90143			SCALE: 1"=20'
			DWG No. 3 OF 3



VICINITY MAP
1" = 300'

GENERAL NOTES

- RECORD OWNER AND APPLICANT:
CONG AHAVAS YITZCHOK
73 FORSHAY RD
MONSEY, NY 10952
- PROPERTY ADDRESS: 73 FORSHAY ROAD
MONSEY, NY 10952
- TAX PARCEL: 41.18-1-12
- OVERALL AREA: 53,557 SF
- BASEMAP BASED ON SURVEY COMPLETED BY ANTHONY CELENTANO, P.L.S. ON OCTOBER 18, 2018.
- ALL SOIL AND EROSION CONTROL MEASURES MUST BE IN PLACE FOR THE SITE PRIOR TO ANY CONSTRUCTION OR GRADING. MEASURES MUST MEET THE LATEST EDITION (NOVEMBER 2016) OF THE NEW YORK STATE GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL.
- ZONE: R-35
- FIRE DISTRICT: MONSEY
- SCHOOL DISTRICT: EAST RAMAPO
- WATER DISTRICT: RAMAPO CONSOLIDATED
- WATER SUPPLY BY: VEOLIA WATER
- SEWER DISTRICT: BENEFITTED AREA NO. 5
- ALL UTILITIES UNDERGROUND, ELECTRIC SERVICE SHALL BE IN CONDUIT OF NOT LESS THAN 2 INCH DIAMETER.
- ALL THE ZONING BOARD OF APPEALS ON JUNE 22, 1989 AS CASE NO XBA 289 IN THE APPLICATION OF CONGREGATION AHAVAS ISRAEL GRANTED A VARIANCE FOR LESS THAN THE REQUIRED LOT AREA AND LESS THAN THE REQUIRED PARKING. VARIANCES WERE AGAIN GRANTED ON OCTOBER 31, 1996.
- THE ZONING BOARD OF APPEALS ON NOVEMBER 19, 2003 IN THE APPLICATION OF CONGREGATION AHAVAS YITZCHOK OF WESLEY HILLS GRANTED VARIANCES FOR A FRONT YARD OF 34', A SIDE YARD OF 25', A REAR YARD OF 72', A MAXIMUM IMPERVIOUS SURFACE OF 0.48, AND PARKING OF 18-23 SPACES.
- ALL PLANTINGS AS SHOWN ON THE PLANTING PLAN SHALL BE CONTINUALLY MAINTAINED. PLANTS THAT DO NOT SURVIVE SHALL BE REPLACED IN LIKE KIND WITHIN A REASONABLE TIME.
- ALL SITE LIGHTING WILL BE TURNED OFF WHEN SYNAGOGUE ACTIVITIES ARE NOT TAKING PLACE ON THE SITE.
- A ROCKLAND COUNTY HIGHWAY PERMIT WILL BE REQUIRED PRIOR TO THE ISSUANCE OF A BUILDING PERMIT.
- NO PROPOSED STRUCTURES MAY BE PLACED ON THE TOWN OF RAMAPO'S SEWER EASEMENT.
- THE UNDERSIGNED OWNER AND/OR APPLICANT, AS A CONDITION OF APPROVAL OF THIS SITE PLAN, HEREBY AGREES TO COMPLETE THE WITHIN SITE DEVELOPMENT PLAN AS DRAWN AND ALL IMPROVEMENTS SHOWN THEREON. AS A CONDITION OF THE ISSUANCE OF A BUILDING PERMIT, THE APPLICANT/OWNER IS AWARE THAT NO CHANGES IN THIS PLAN MAY BE MADE UNLESS APPROVED BY THE PLANNING BOARD.

OWNER _____ DATE _____

TABLE OF DIMENSIONAL REQUIREMENTS: R-35													
Use Group	Min. Lot Area	Min. Lot Frontage	Min. Lot Width	Min. Front Yard	Min. Side Yard	Min. Total Side Yard	Min. Rear Yard	Max. Impervious Surface Ratio	Max. Front Yard Impervious Surface Ratio	Maximum Building Coverage	Max. Building Height		Maximum Exposed Building Height
											Stories	Feet	
Required	35,000 SF	100 FT	125 FT	50 FT	25 FT	60 FT	50 FT	0.25	0.2	0.1	2 ½	25	40
Existing per Oct 31 1996 Variances	48,634 SF	200 FT	200 FT	34 FT	35 FT (25' permitted by variance)	97 FT (50' permitted by variance)	72 FT	0.32	0.16	0.09	2	<25	<40
Variances Granted Nov 19, 2003								0.48					
Existing Measured	53,557 SF	199 FT	199 FT	45 FT	33 FT	103 FT	150 FT	0.34	0.13	0.09	2	<25	<40
Existing per Jan 2020 approved site plan	Net 52,240 SF	199 FT	199 FT	31.9 FT	33 FT	103 FT	150 FT	0.56	0.19	0.09	2	<25	<40
Variances Granted July 17, 2019				31.9 FT				0.56					
Proposed Phase 1	Net 52,240 SF	199 FT	199 FT	31.9 FT	33 FT	103 FT	150 FT	0.55	0.19	0.09	2	<25	<40

NET LOT AREA:
53,557 SF GROSS AREA - 50% * (2,633.43 SF DEDICATION) = 52,240 SF NET LOT AREA

EXISTING MAX. IMPERVIOUS SURFACE RATIO:
17,870 SF IMPERVIOUS/52,240 SF LOT AREA = 0.342
DEC 2003 PLAN LISTS MAX IMPERVIOUS SURFACE VARIANCE FROM OCT 1996 OF 0.32, VARIANCE FROM NOV 2003 OF 0.48

PROPOSED MAX. IMPERVIOUS SURFACE RATIO PHASE 1:
28,687 SF/52,240 SF NET LOT AREA = 0.549

EXISTING MAX. FRONT YARD IMPERVIOUS SURFACE RATIO:
1,310 SF IMPERVIOUS/9,879 SF FRONT YARD AREA = 0.13

PROPOSED MAX. FRONT YARD IMPERVIOUS SURFACE RATIO PHASE 1:
1,856 SF IMPERVIOUS/9,946 SF FRONT YARD AREA = 0.19

PHASE 1 BUILDING COVERAGE CALCULATION:
4,680 SF BUILDING/52,240 SF NET LOT AREA = 0.090

PARKING REQUIRED:
NEIGHBORHOOD GATHERING REQUIRES 20 SPACES

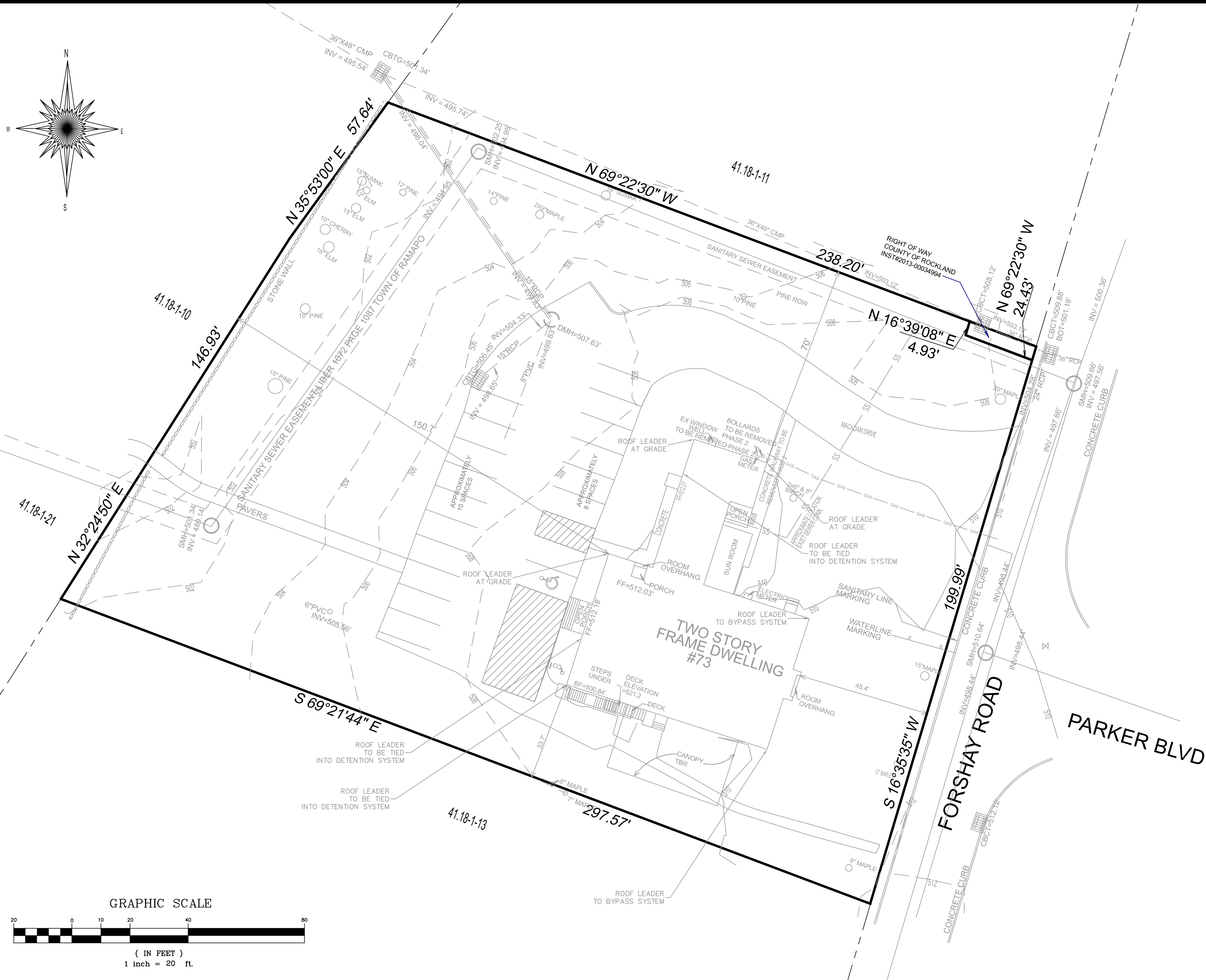
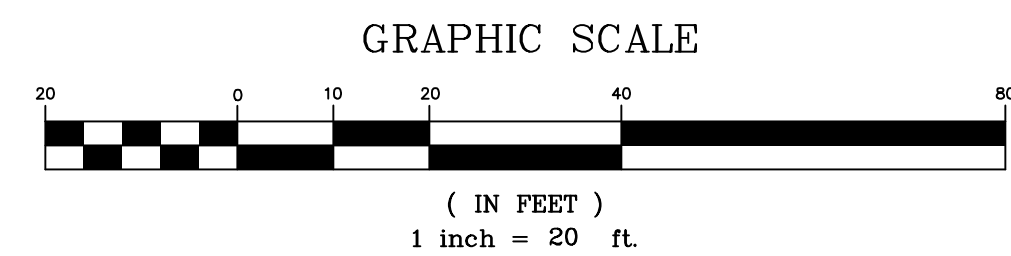
EXISTING PARKING: ESTIMATED 18 SPACED
PROPOSED PARKING: 58 SPACES, INCLUDING 3 ADA SPACES
TOTAL SPACES ADDED: 40 SPACES

JUNE 19, 2024	REV 8	REV PER COMMENTS
MAY 6, 2024	REV 7	REV PER CDCR
SEPTEMBER 22, 2023	REV 6	REV PER CLIENT
AUGUST 23, 2023	REV 5	REV PER CLIENT
AUGUST 2, 2023	REV 4	REV PER CLIENT
JUNE 23, 2023	REV 3	REV PER PB
AUGUST 29, 2022	REV 2	REV PER PB
JUNE 15, 2022	REV 1	REV PER CDCR

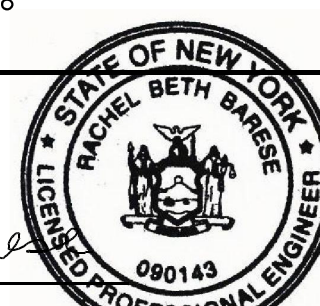
DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 41.18-1-12			
AMENDED SITE PLAN PHASE 1			
FOR			
CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC			DATE: 3/9/22
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DRAWN BY: RB/LT
111 Main Street Chester, NY 10918 845.610.3621			CHKD BY: RB/LT
JOB No. 3688			SCALE: 1"=20'
DWG No. 10			292

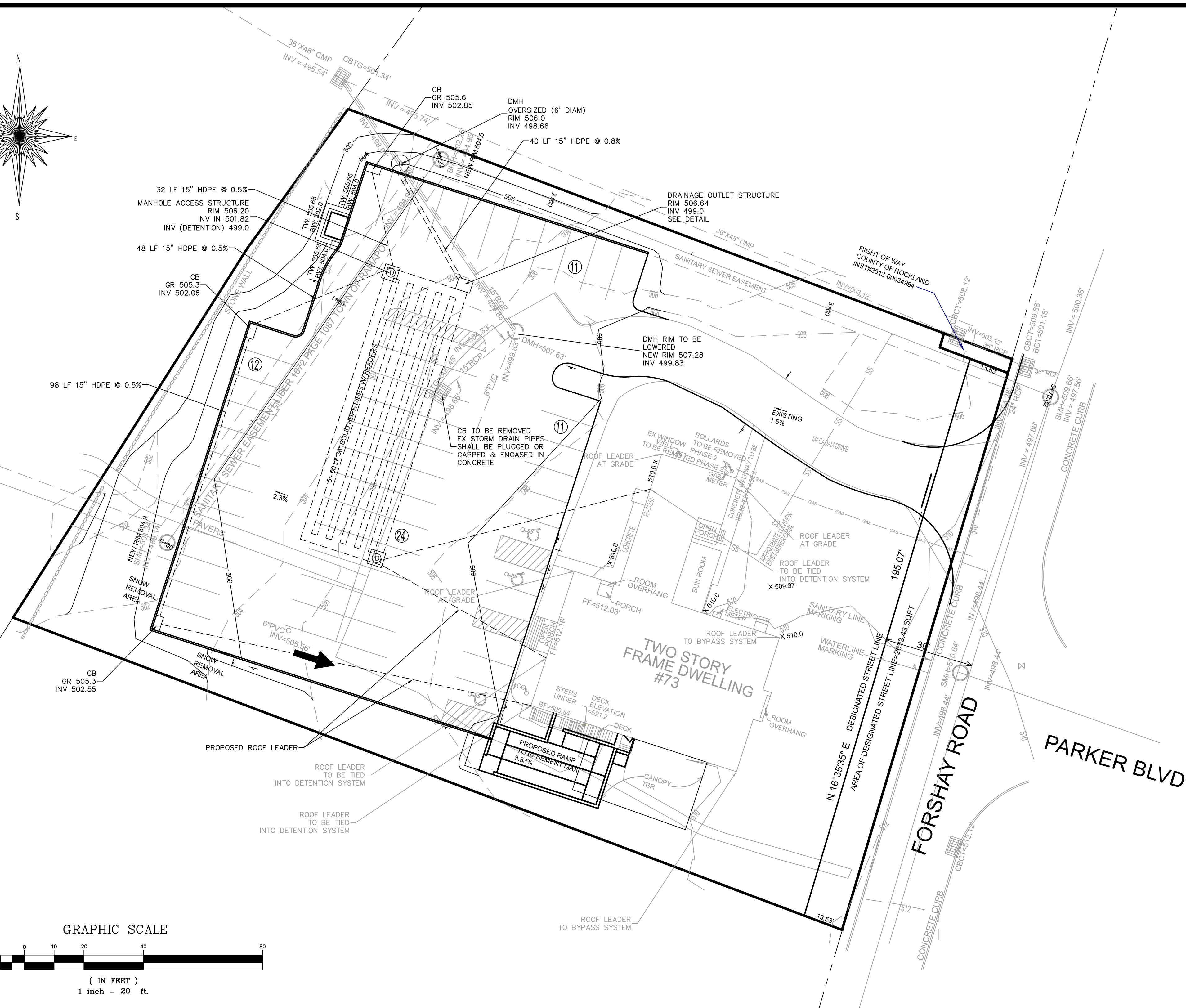
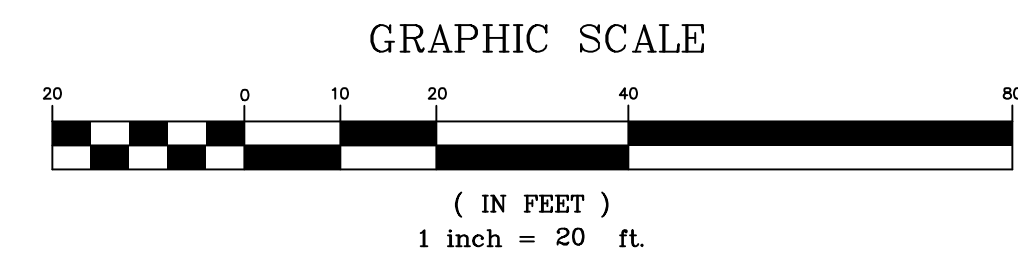
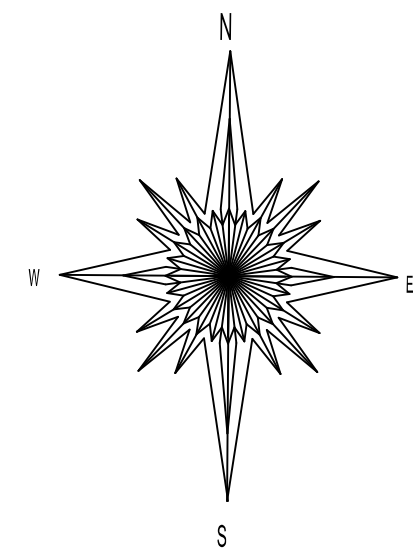
Rachel B. Barese, P.E.
N.Y. Lic. No. 90143





JUNE 19, 2024	REV 8	REV PER COMMENTS
MAY 6, 2024	REV 7	REV PER CDCR
SEPTEMBER 22, 2023	REV 6	REV PER CLIENT
AUGUST 23, 2023	REV 5	REV PER CLIENT
AUGUST 2, 2023	REV 4	REV PER CLIENT
JUNE 23, 2023	REV 3	REV PER PB
AUGUST 29, 2022	REV 2	REV PER PB
JUNE 15, 2022	REV 1	REV PER CDCR

DATE	ISSUE	DESCRIPTION	REVISIONS	
S.B.L. 41.18-1-12				
EXISTING CONDITIONS FOR CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK				
CIVIL TEC Engineering & Surveying PC 139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243 111 Main Street Chester, NY 10918 845.610.3621			DATE:	3/9/22
			DRAWN BY:	RB/LT
			CHKD BY:	RB/LT
			JOB No.	3688
			SCALE:	1"=20'
 <i>Rachel Barese</i> Rachel B. Barese, P.E. N.Y. Lic. No. 90143			DWG No.	2 of 2

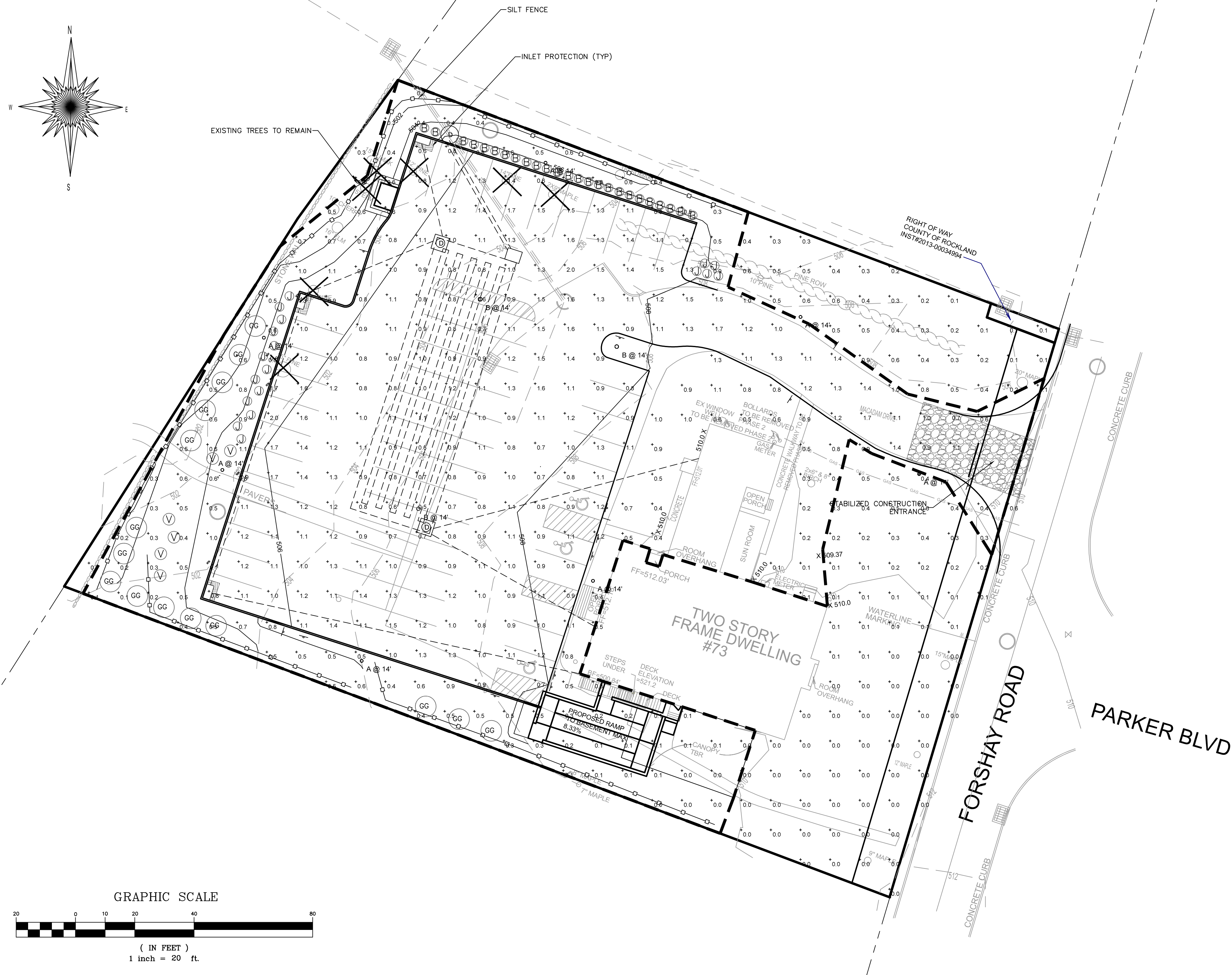


NOTE: EXISTING SEWER AND WATER CONNECTIONS TO REMAIN IN USE

JUNE 19, 2024	REV 8	REV PER COMMENTS
MAY 6, 2024	REV 7	REV PER CDRC
SEPTEMBER 22, 2023	REV 6	REV PER CLIENT
AUGUST 23, 2023	REV 5	REV PER CLIENT
AUGUST 2, 2023	REV 4	REV PER CLIENT
JUNE 23, 2023	REV 3	REV PER PB
AUGUST 29, 2022	REV 2	REV PER PB
JUNE 15, 2022	REV 1	REV PER CDRC

DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 41.18-1-12			
GRADING, DRAINAGE & UTILITIES PLAN PHASE 1			
FOR			
CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC			DATE: 3/9/22
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DRAWN BY: RB/LT
111 Main Street Chester, NY 10918 845.610.3621			CHKD BY: RB/LT
			JOB No. 3688
			SCALE: 1"=20'
			DWG No. 3 OF 294

Rachel B. Barese, P.E.
N.Y. Lic. No. 90143



PLANT LIST			
KEY	QUANTITY	COMMON NAME/BOTANICAL NAME	SIZE COMMENT
GG	15	GREEN GIANT ARBORVITAE/THUJA PLICATA 'GREEN GIANT'	4'-6' HT
B	25	WINTER GEM BOXWOOD/CORNUS KOUSA	24" HT 3 GAL
V	6	KOREAN SPICE VIBURNUM/VIBURNUM CARLES	36"-42" HT B&B
J	18	COMPACT PRITZER JUNIPER/JUNIPERUS CHINENSIS SARGENTI	5 GAL

Schedule											
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	A	7	Holophane	GVD2 P30 30K AS 3 R AO WITH 12FT CHA POLE	Granville II LED, LED Package 30, 3000K, 120-277V, Type 3 distribution with Ribs & bands	LED COB	1	GVD2_P30_3 OK_AS_3_R1 es	6347	0.85	60
	B	3	Holophane	GP02 P30 30K AS 5 R AO WITH 12FT CHA POLE	Granville Premier II LED, LED Package 30, 60W, 3000K, 120-277V, Type 5 distribution with Ribs & bands	LED COB	1	GP02_P30_3 OK_AS_5_R1 es	7016	0.85	60

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Parking	+	1.1 ft	2.0 ft	0.5 ft	4.0 ft	2.2 ft

NOTES:

- ALL EXISTING SOIL FROM PLANTING PITS SHALL BE REMOVED AND PITS SHALL BE BACKFILLED WITH A MIXTURE OF ONE PART PEAR-HUMUS, ONE PART MANURE TO FOUR PARTS TOPSOIL.
- ALL PLANTS AND WORKMANSHIP SHALL BE GUARANTEED FOR ONE YEAR AFTER FINAL ACCEPTANCE AND COMPLETION OF WORK.
- ALL PLANT MATERIAL SHALL BE NURSERY GROWN AND CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN'S "AMERICAN STANDARD FOR NURSERY STOCK," CURRENT EDITION.
- ALL PLANT BEDS SHALL CONTAIN 3" MIN SHREDDED BARK MULCH ON LANDSCAPE FILTER FABRIC. HOLES FOR PLANTS SHALL BE 2X DIAM. OF ROOTBALL AND MIN 6" DEEPER THAN THE DEPTH OF THE BALL.
- THE TOWN SHALL BE NOTIFIED 48 HOURS PRIOR TO PLANTING FOR AN INSPECTION OF PLANT MATERIALS.
- ALL DISTURBED AREAS OUTSIDE MULCH BEDS AND SAUCERS SHALL BE SEEDED, UNLESS OTHERWISE NOTED.
- ANY EXISTING TREES SHOWN TO REMAIN WHICH ARE REMOVED DURING CONSTRUCTION SHALL BE REPLACED WITH A 3" CALIPER TREE AS DIRECTED BY THE TOWN.
- LAWN AREA PREPARATION PER 1,000 SF:
90 LBS HAY MULCH
15 LBS 5-10-10 FERTILIZER, 50% SLOW RELEASE
70 LBS GRANULATED LIMESTONE

SEED MIXTURE: 30% TALL FESCUE
30% RED FESCUE
20% BLUE GRASS
20% RYEGRASS
- ALL LIGHTING SHOWN ON THIS PLAN SHALL BE DIRECTED AND/OR SHIELDED SO AS TO PRECLUDE OBJECTIONABLE GLARE FROM BEING OBSERVABLE FROM ADJOINING STREETS AND PROPERTIES.
- ALL VEGETATION SHOWN ON THIS PLAN SHALL BE MAINTAINED IN A HEALTHY AND VIGOROUS GROWING CONDITION THROUGHOUT THE DURATION OF THE PROPOSED USE OF THE SITE. ALL VEGETATION NOT SO MAINTAINED SHALL BE REPLACED WITH NEW COMPARABLE VEGETATION AT THE BEGINNING OF THE NEXT GROWING SEASON.
- IF A TREE THAT IS TO BE PROTECTED IS REMOVED DURING CONSTRUCTION, ANOTHER TREE SHALL BE PLANTED TO PROVIDE SCREENING.
- ORANGE CONSTRUCTION FENCING SHALL BE PROVIDED AT LIMITS OF DISTURBANCE.

EROSION CONTROL & SEDIMENT NOTES

- A TEMPORARY SEEDING SHALL BE APPLIED TO DISTURBED AREAS THAT ARE LEFT BARE FOR 15 DAYS UNLESS CONSTRUCTION WILL BEGIN WITHIN 30 DAYS. IF CONSTRUCTION IS SUSPENDED OR COMPLETED, AREAS SHALL BE SEEDED DOWN OR MULCHED IMMEDIATELY.
- 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 CLEANING AND REPAIR WHENEVER NECESSARY.
- DURING CONSTRUCTION, ALL STRUCTURES SHALL BE INSPECTED WEEKLY AND AFTER EVERY RAIN.
- AFTER CONSTRUCTION, INSPECTION SHALL BE MADE AT LEAST SEMI-ANNUALLY AND AFTER EVERY RAIN.
- THE STORM DRAIN INLET STRUCTURES SHALL BE PROTECTED WITH A FILTER BERM UNTIL THE AREA IS STABILIZED WITH VEGETATION OR THE BASE COURSE OF PAVEMENT IS INSTALLED.
- CONSIDER LIMITING LAND DISTURBANCE TO ONLY THAT AREA NECESSARY FOR DEVELOPMENT.
- THE MACADAM SURFACE SHALL BE SWEEPED "BROOM CLEAN" AT THE END OF EACH DAY DURING THE CONSTRUCTION PHASE OF THE SIDEWALKS AND CURB.
- A STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED AT ALL POINTS WHERE A DISTURBED AREA MEETS AN IMPERVIOUS SURFACE, THIS INCLUDES ALL NEW DRIVEWAY CONNECTIONS ALONG THE NEW ROADWAY.
- CONSTRUCTION EQUIPMENT SHALL BE LIMITED TO THOSE AREAS WITHIN THE SILT FENCE SEDIMENT PROTECTION. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, THE AREA COMPACTED BY MACHINERY SHALL BE DICED OR OTHERWISE LOOSENEED TO A DEPTH OF 12 INCHES PRIOR TO FINAL GRADING WITH TOPSOIL AND SEEDING.

JUNE 19, 2024	REV 8	REV PER COMMENTS
MAY 6, 2024	REV 7	REV PER CDRC
SEPTEMBER 22, 2023	REV 6	REV PER CLIENT
AUGUST 23, 2023	REV 5	REV PER CLIENT
AUGUST 2, 2023	REV 4	REV PER CLIENT
JUNE 23, 2023	REV 3	REV PER PB
AUGUST 29, 2022	REV 2	REV PER PB
JUNE 15, 2022	REV 1	REV PER CDRC

DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 41.18-1-12			
LANDSCAPING, LIGHTING, & EROSION CONTROL PLAN PHASE 1			
FOR			
CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC			DATE: 3/9/22
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DRAWN BY: RB/LT
111 Main Street Chester, NY 10918 845.610.3621			CHKD BY: RB/LT
JOB No. 3688			SCALE: 1"=20'
DWG No. 40			295

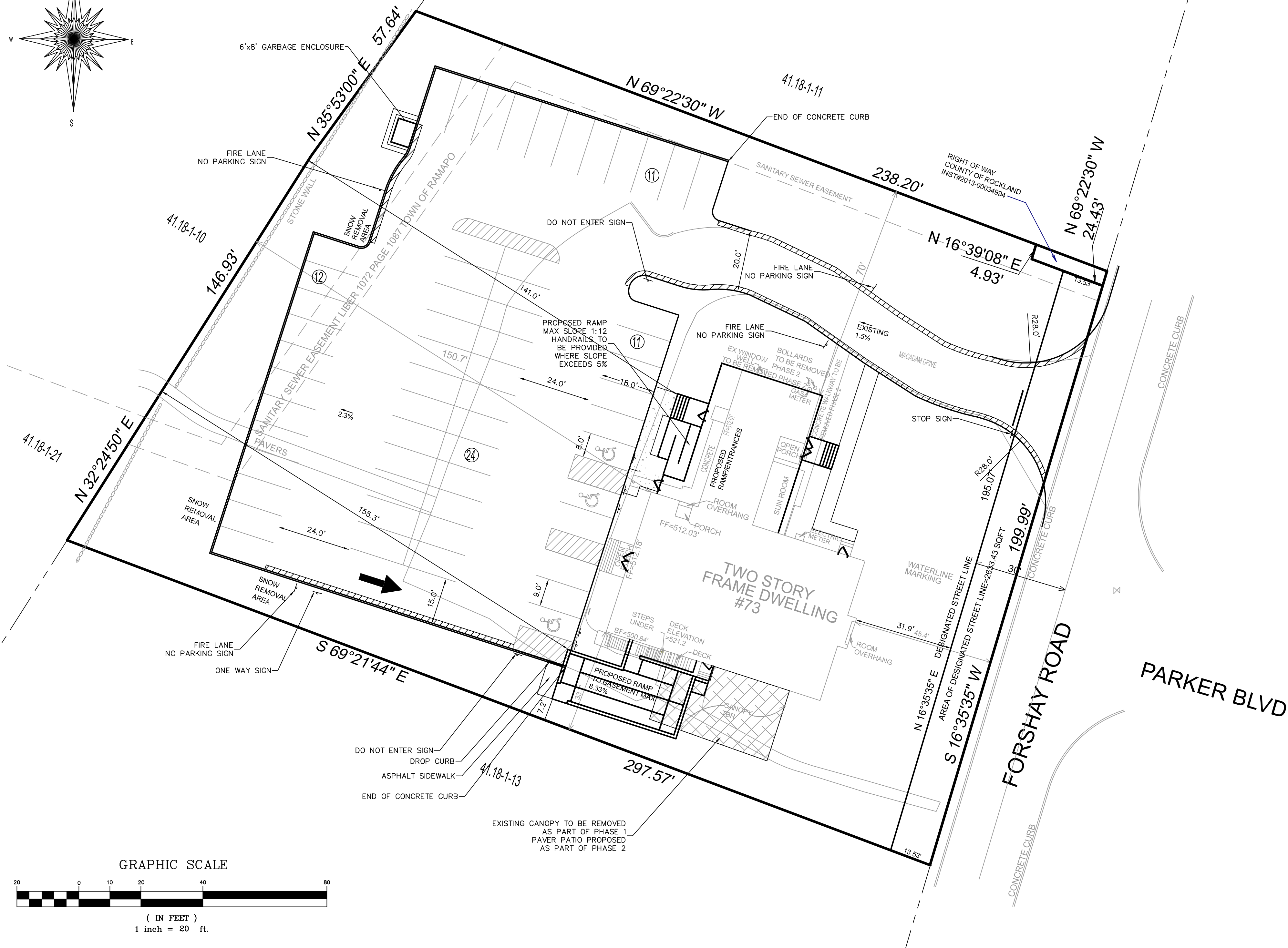
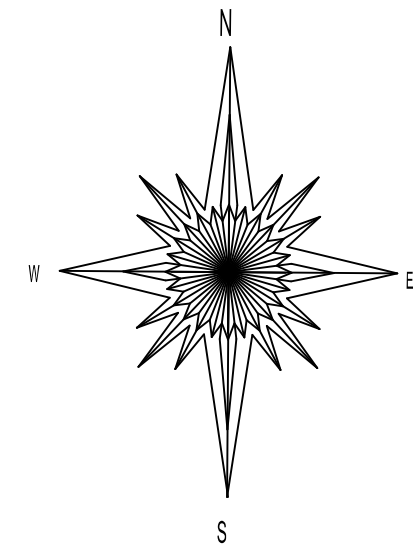


TABLE OF DIMENSIONAL REQUIREMENTS: R-35													
Use Group	Min. Lot Area	Min. Lot Frontage	Min. Lot Width	Min. Front Yard	Min. Side Yard	Min. Total Side Yard	Min. Rear Yard	Max. Impervious Surface Ratio	Max. Front Yard Impervious Surface Ratio	Maximum Building Coverage	Max. Building Height		Maximum Exposed Building Height
											Stories	Feet	
Required	35,000 SF	100 FT	125 FT	50 FT	25 FT	60 FT	50 FT	0.25	0.2	0.1	2½	25	40
Existing per Oct 31 1996 Variances	48,634 SF	200 FT	200 FT	34 FT	35 FT (25' permitted by variance)	97 FT (50' permitted by variance)	72 FT	0.32	0.16	0.09	2	<25	<40
Variances Granted Nov 19, 2003								0.48					
Existing Measured	53,557 SF	199 FT	199 FT	45 FT	33 FT	103 FT	150 FT	0.34	0.13	0.09	2	<25	<40
Existing per Jan 2020 approved site plan	Net 52,240 SF	199 FT	199 FT	31.9 FT	33 FT	103 FT	150 FT	0.56	0.19	0.09	2	<25	<40
Variances Granted July 17, 2019				31.9 FT				0.56					
Proposed Phase 2	Net 52,240 SF	199 FT	199 FT	31.9 FT	33 FT	103 FT	141 FT	0.575 (larger than original)	0.19	0.097	2	<25	<40

NET LOT AREA:
53,557 SF GROSS AREA - 50% * (2,633.43 SF DEDICATION) = 52,240 SF NET LOT AREA

EXISTING MAX. IMPERVIOUS SURFACE RATIO:
17,870 SF IMPERVIOUS/52,240 SF LOT AREA = 0.342
DEC 2003 PLAN LISTS MAX IMPERVIOUS SURFACE VARIANCE FROM OCT 1996 OF 0.32, VARIANCE FROM NOV 2003 OF 0.48

PROPOSED MAX. IMPERVIOUS SURFACE RATIO PHASE 2:
30,050 SF/52,240 SF NET LOT AREA = 0.575

EXISTING MAX. FRONT YARD IMPERVIOUS SURFACE RATIO:
1,310 SF IMPERVIOUS/9,879 SF FRONT YARD AREA = 0.13

PROPOSED MAX. FRONT YARD IMPERVIOUS SURFACE RATIO:
1,856 SF IMPERVIOUS/9,946 SF FRONT YARD AREA = 0.19

BUILDING COVERAGE CALCULATION:
5,093 SF BUILDING/52,240 SF NET LOT AREA = 0.097

PARKING REQUIRED:
NEIGHBORHOOD GATHERING REQUIRES 20 SPACES

EXISTING PARKING: ESTIMATED 18 SPACES
PROPOSED PARKING: 58 SPACES, INCLUDING 3 ADA SPACES
TOTAL SPACES ADDED: 40 SPACES

JUNE 19, 2024
MAY 6, 2024
SEPTEMBER 22, 2023
AUGUST 23, 2023

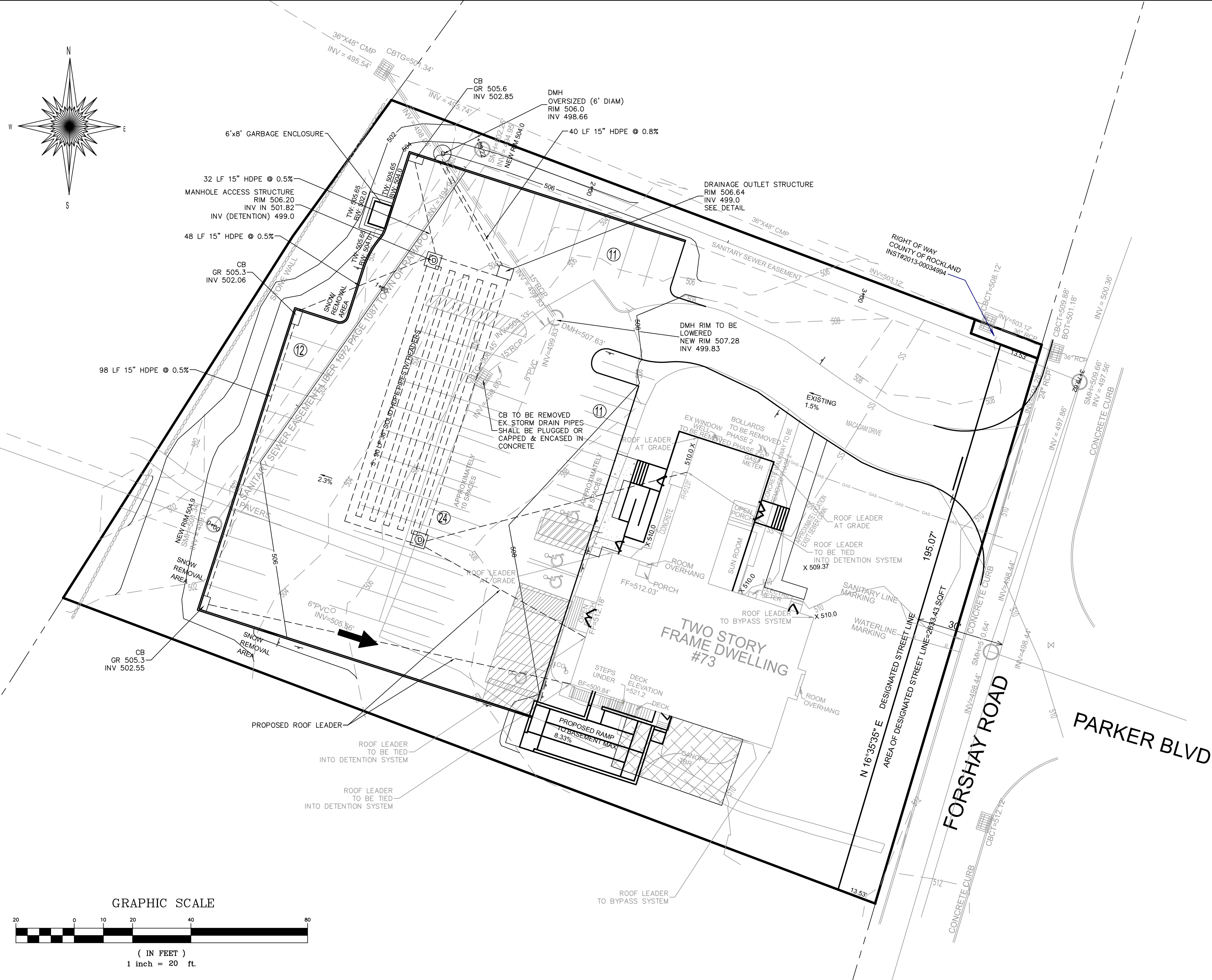
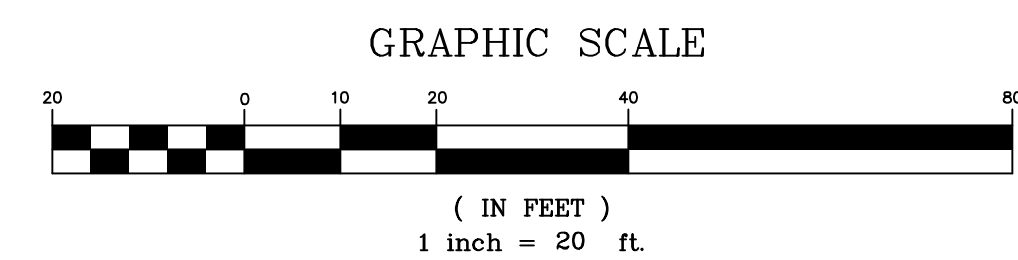
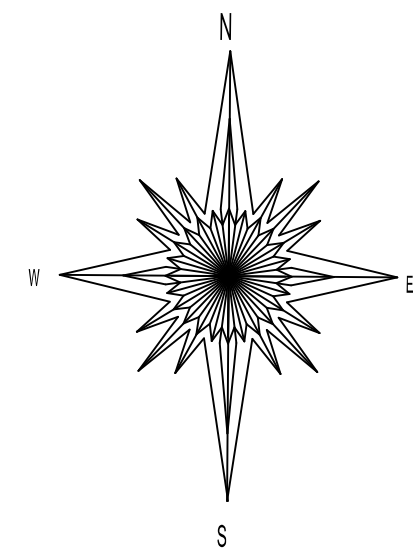
REV 4
REV 3
REV 2
REV 1

REV PER COMMENTS
REV PER CDRC
REV PER CLIENT
REV PER CLIENT

DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 41.18-1-12 AMENDED SITE PLAN PHASE 2 FOR CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC		DATE:	8/2/23
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243		DRAWN BY:	RB/LT
111 Main Street Chester, NY 10918 845.610.3621		CHKD BY:	RB/LT
JOB No.		3688	
SCALE:		1"=20'	
DWG No.		50	

Rachel B. Barese
Rachel B. Barese, P.E.
N.Y. Lic. No. 90143

STATE OF NEW YORK
RACHEL BETH BARESE
080143
LICENSED PROFESSIONAL ENGINEER



NOTE: EXISTING SEWER AND WATER CONNECTIONS TO REMAIN IN USE

NEW ROOF LEADERS FOR THE ADDITION SHALL BE DIRECTED TO THE UNDERGROUND DETENTION SYSTEM.

JUNE 19, 2024
MAY 6, 2024
SEPTEMBER 22, 2023
AUGUST 23, 2023

REV 4
REV 3
REV 2
REV 1

REV PER COMMENTS
REV PER CDRC
REV PER CLIENT
REV PER CLIENT

DATE	ISSUE	DESCRIPTION	REVISIONS
		S.B.L. 41.18-1-12	
		GRADING, DRAINAGE & UTILITIES PLAN PHASE 2	
		FOR	
		CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD	
		VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK	

CIVIL TEC Engineering & Surveying PC

139 Lafayette Avenue, 2nd Fl.
Suffern, NY 10901
P 845.547.2241 - F 845.547.2243

111 Main Street
Chester, NY 10918
845.610.3621

DATE: 8/2/23

DRAWN BY: RB/LT

CHKD BY: RB/LT

JOB No. 3688

SCALE: 1"=20'

DWG No. 6 OF 6

Rachel B. Barese, P.E.
N.Y. Lic. No. 90143



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3. ALL PLANT MATERIAL SHALL BE NURSERY GROWN AND CONFORM TO THE AMERICAN ASSOCIATION OF SURVEYORS' "AMERICAN STANDARD FOR NURSERY STOCK," CURRENT EDITION.
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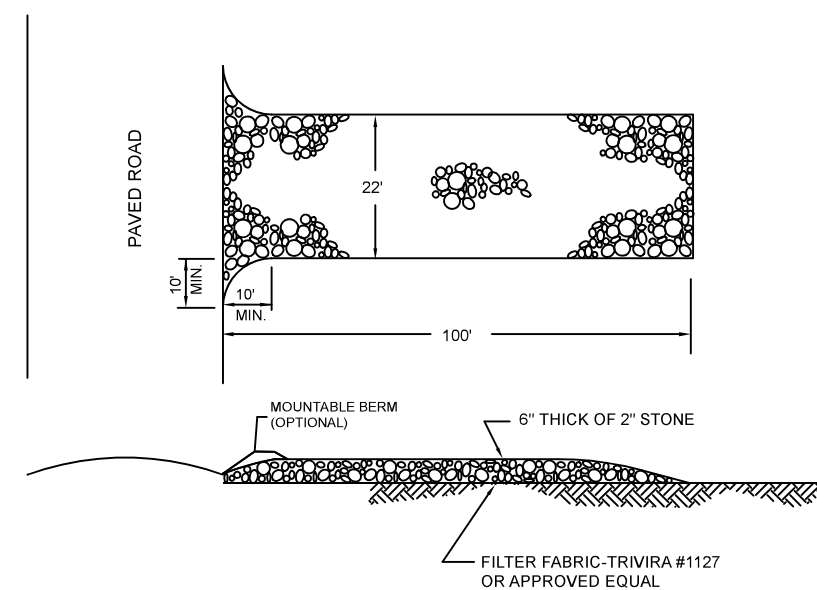
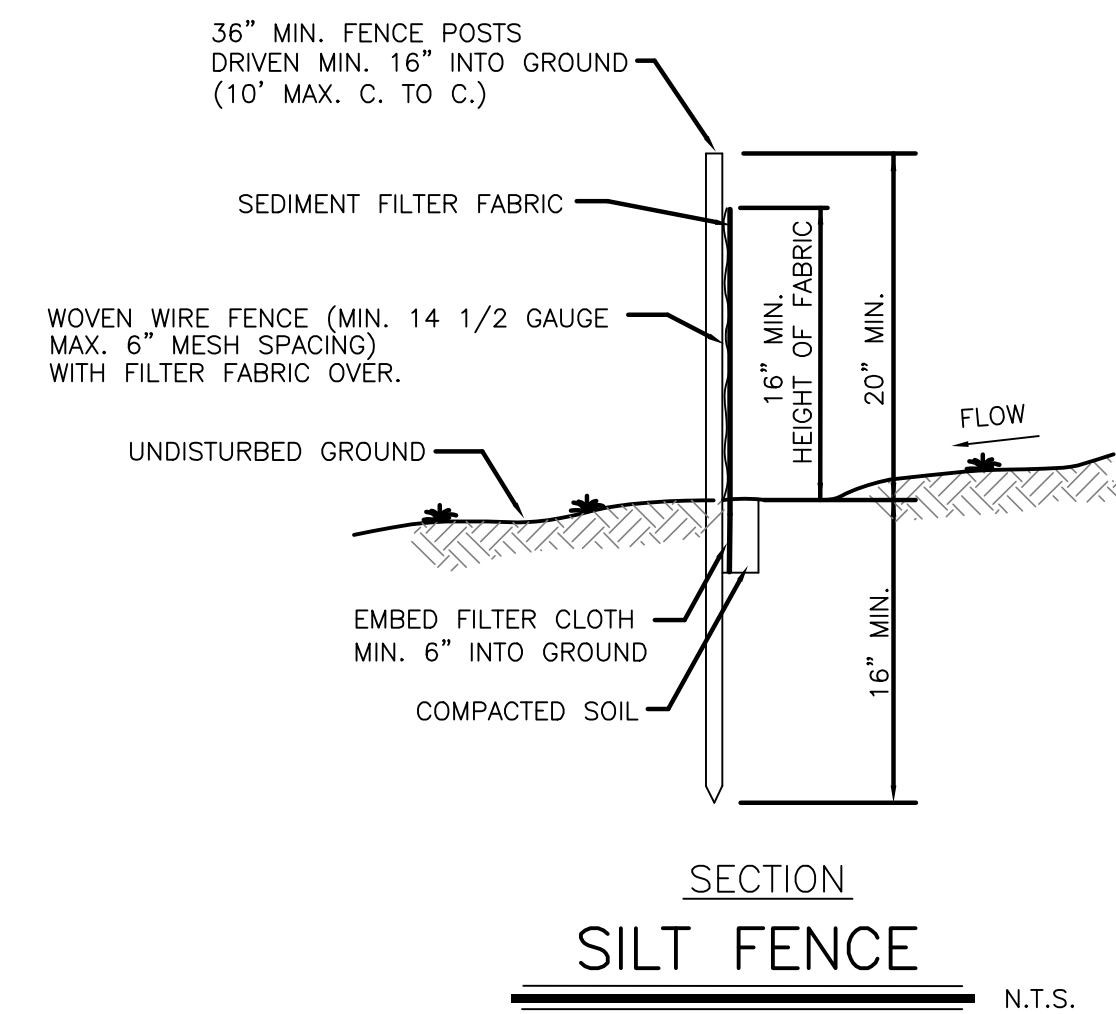
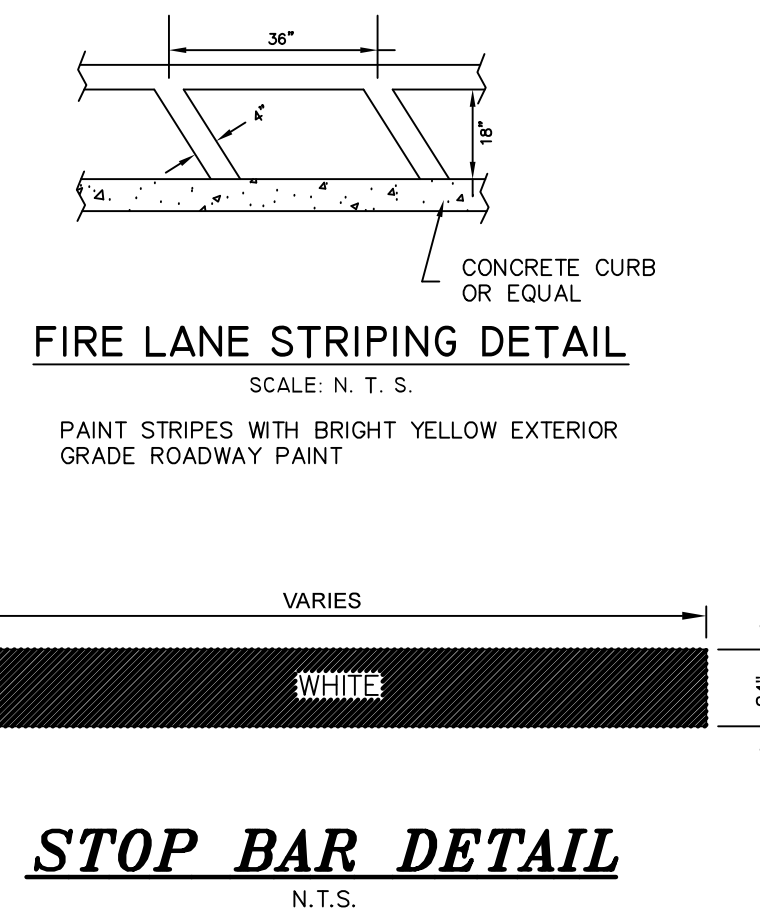
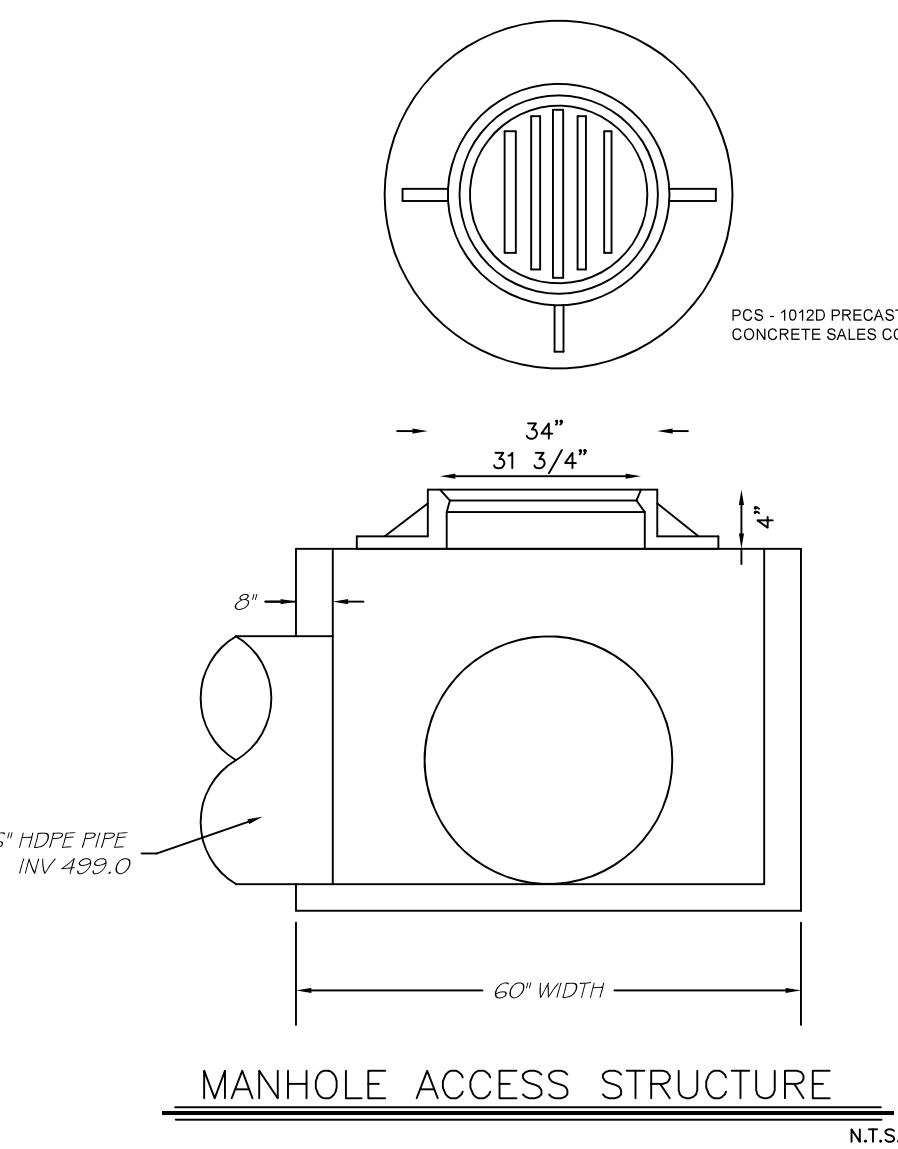
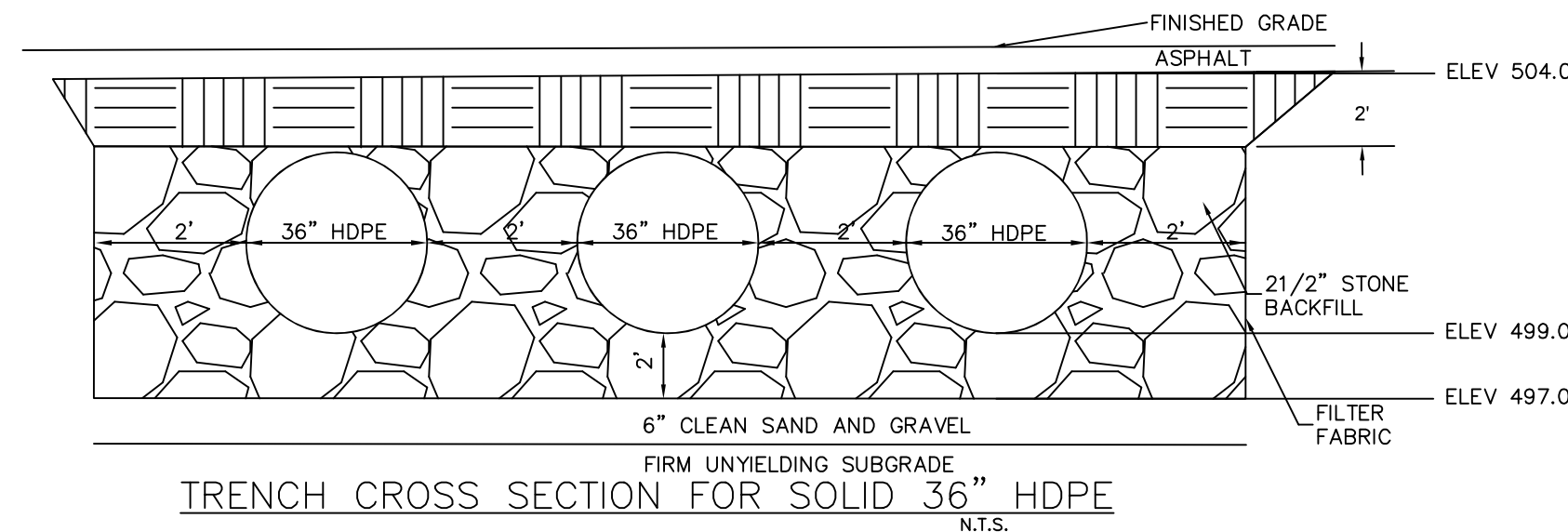
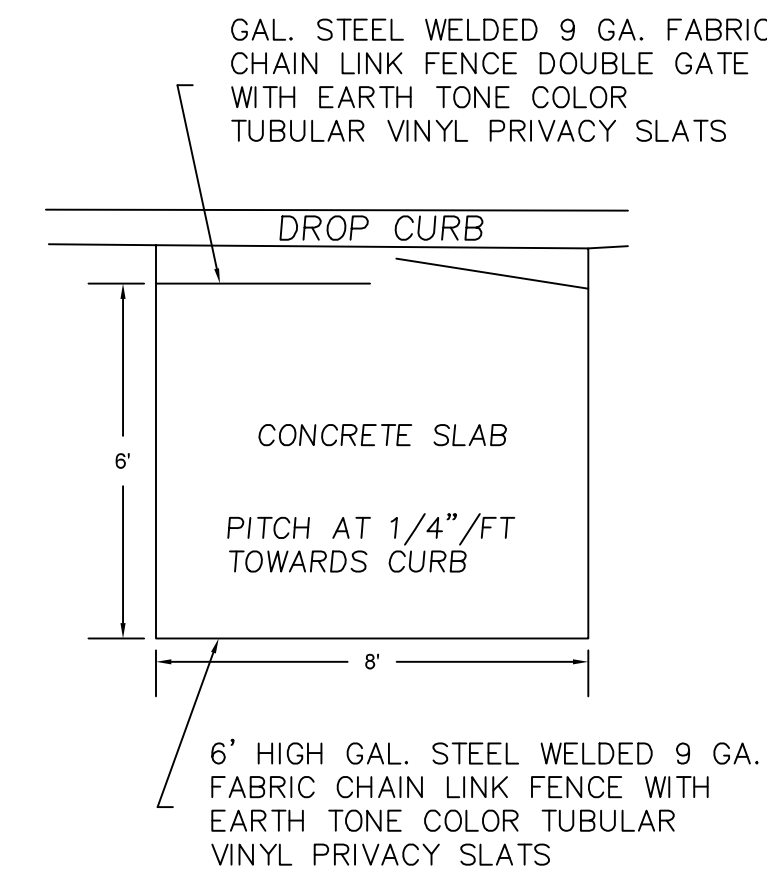
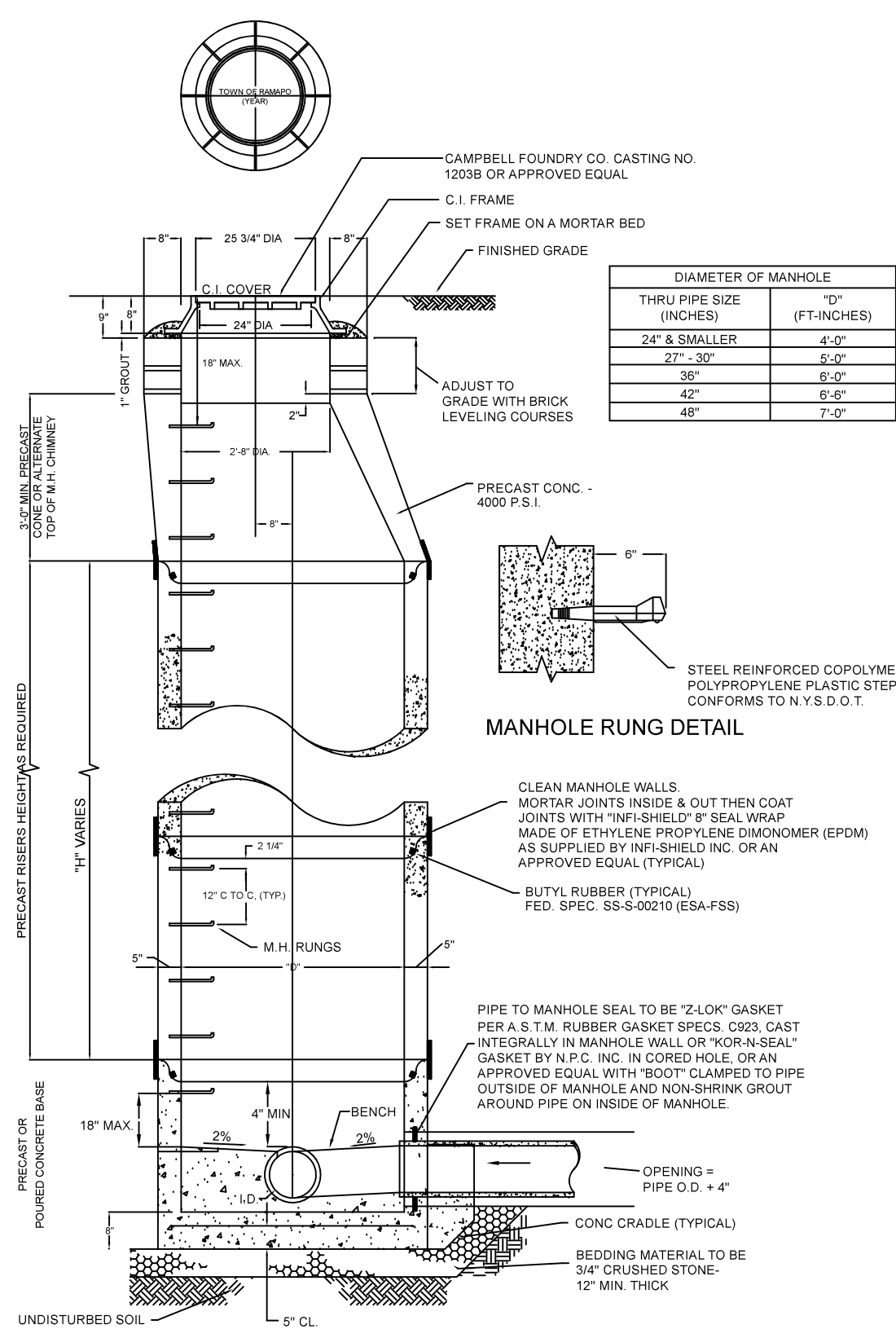
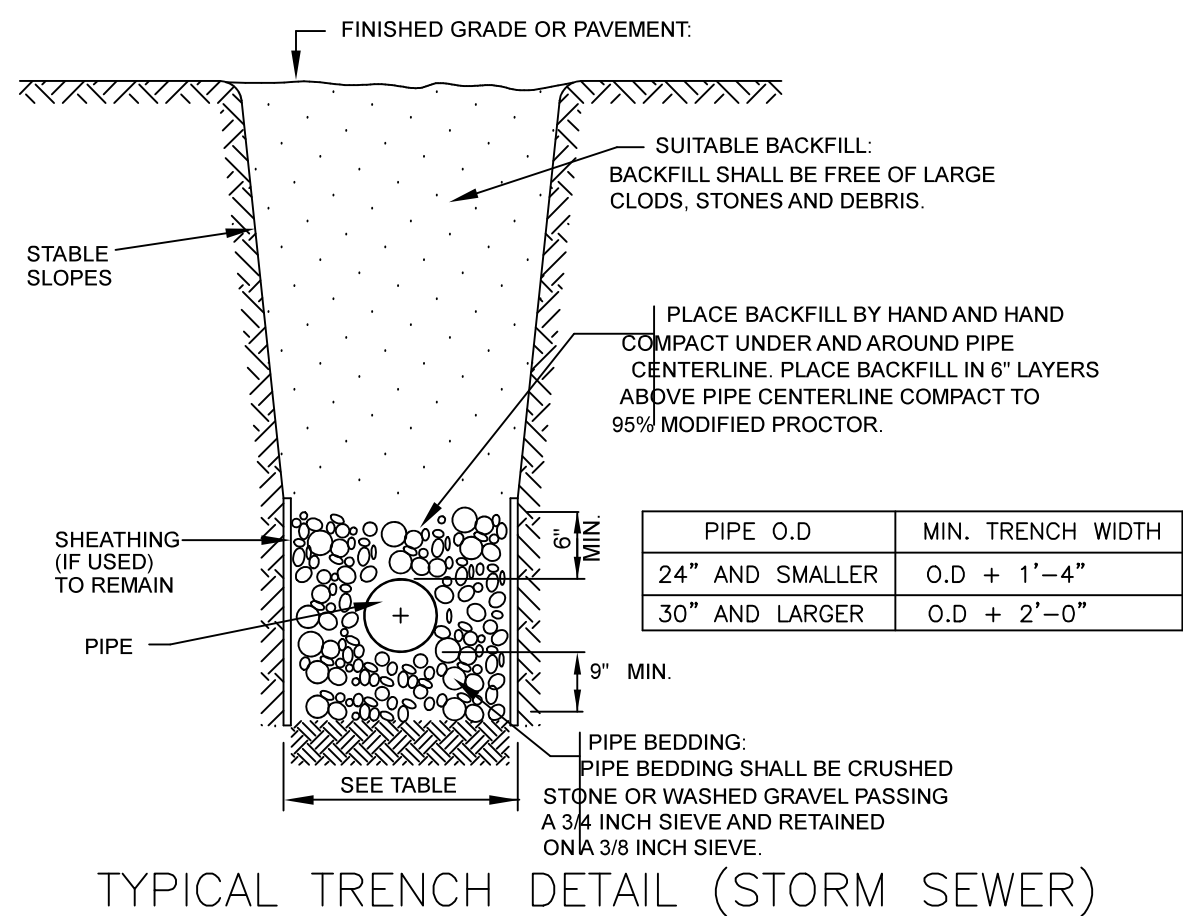
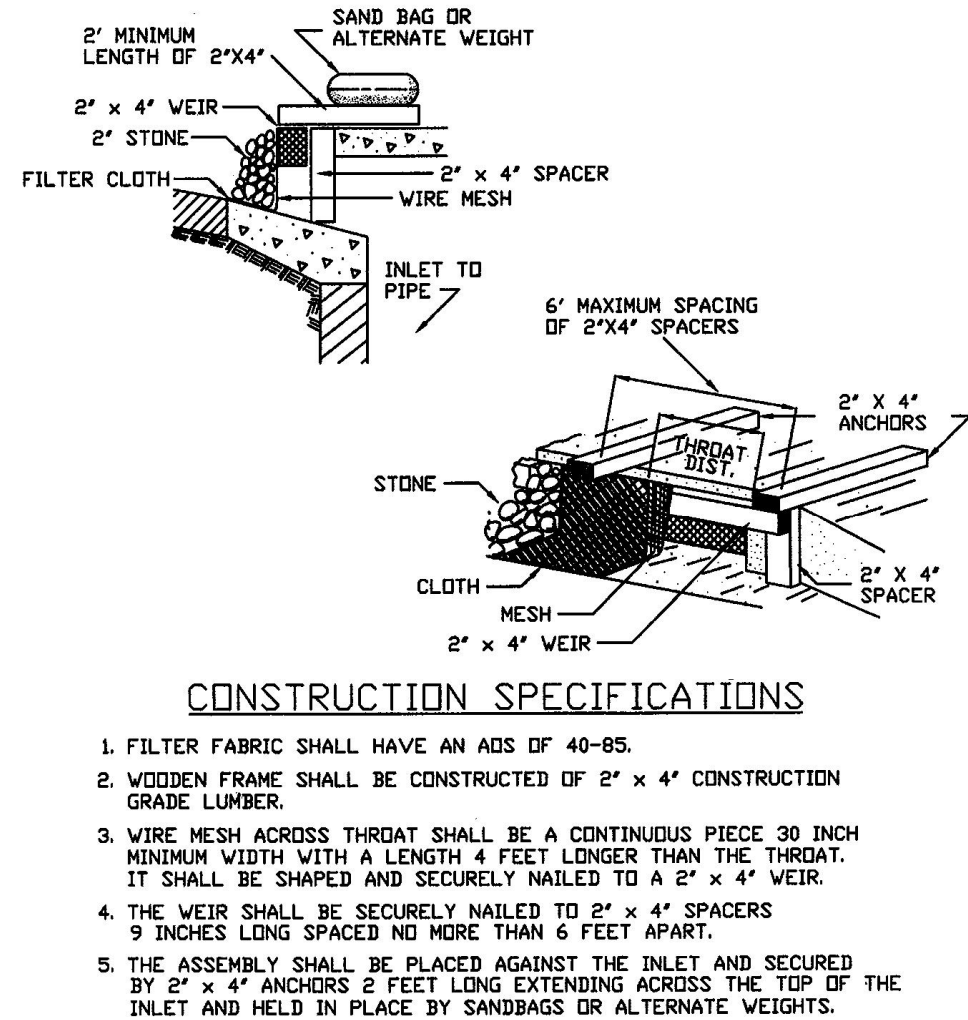
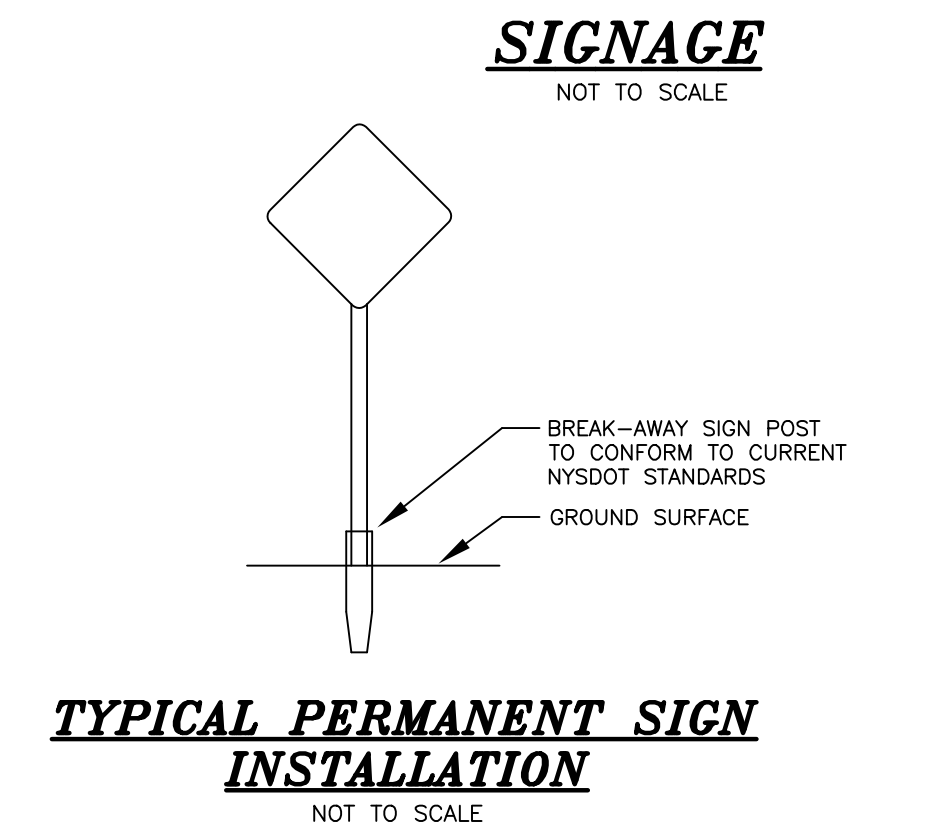
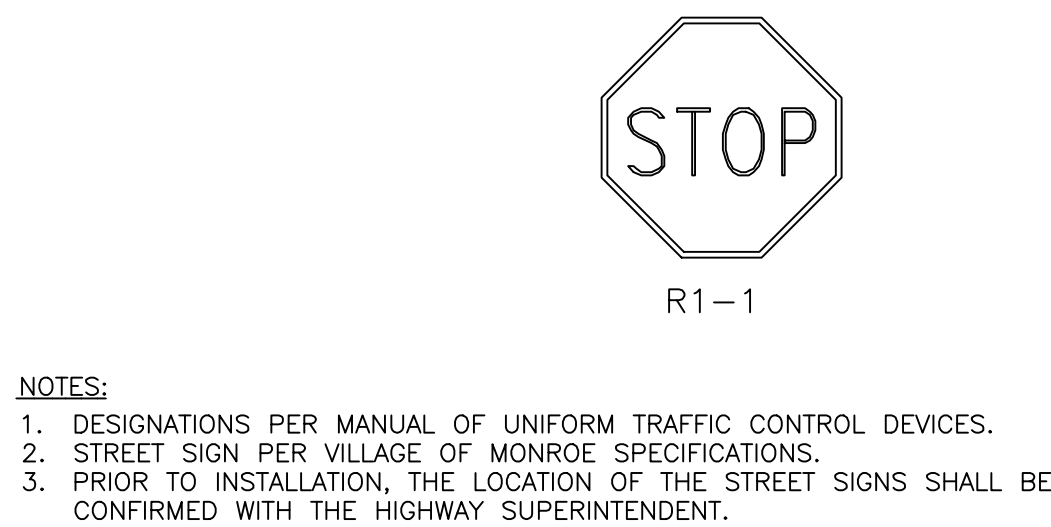
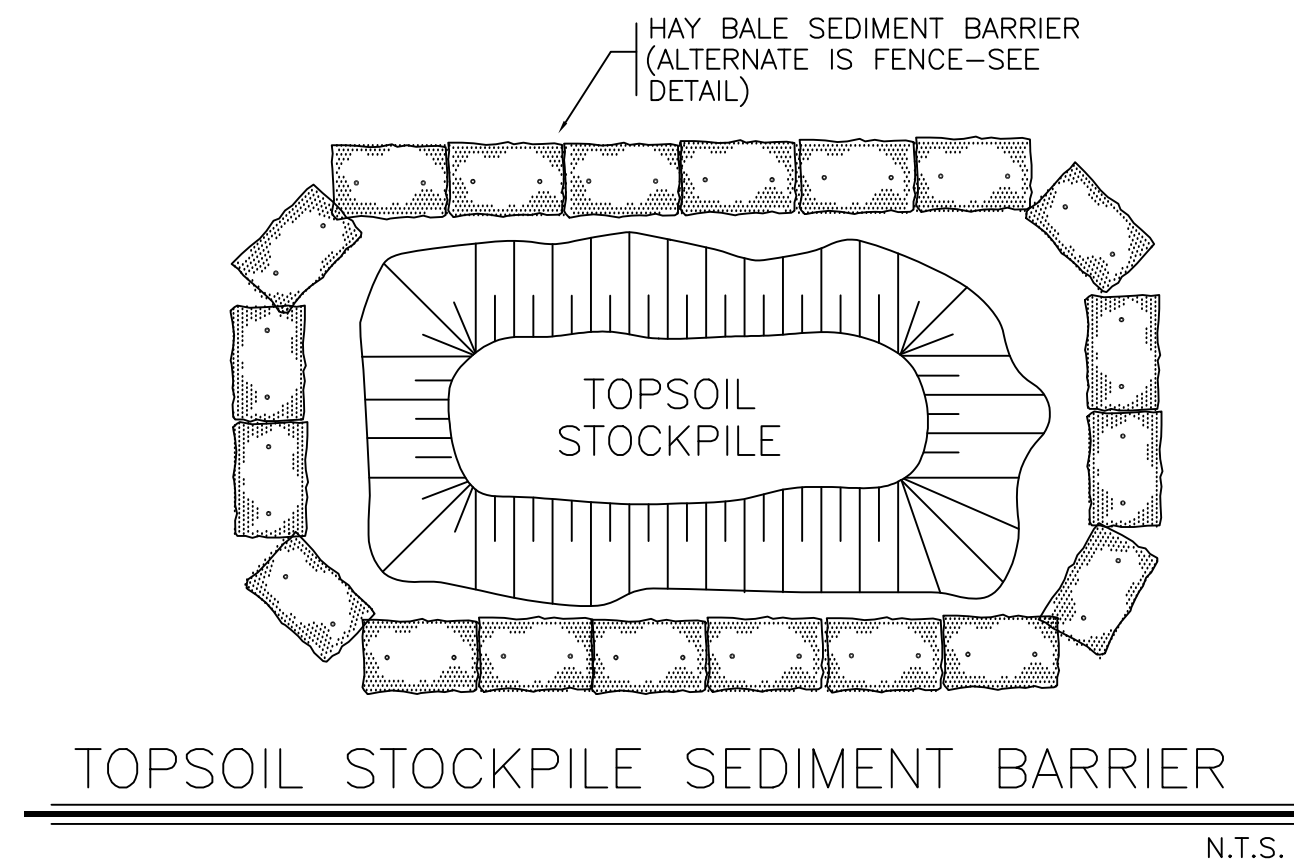
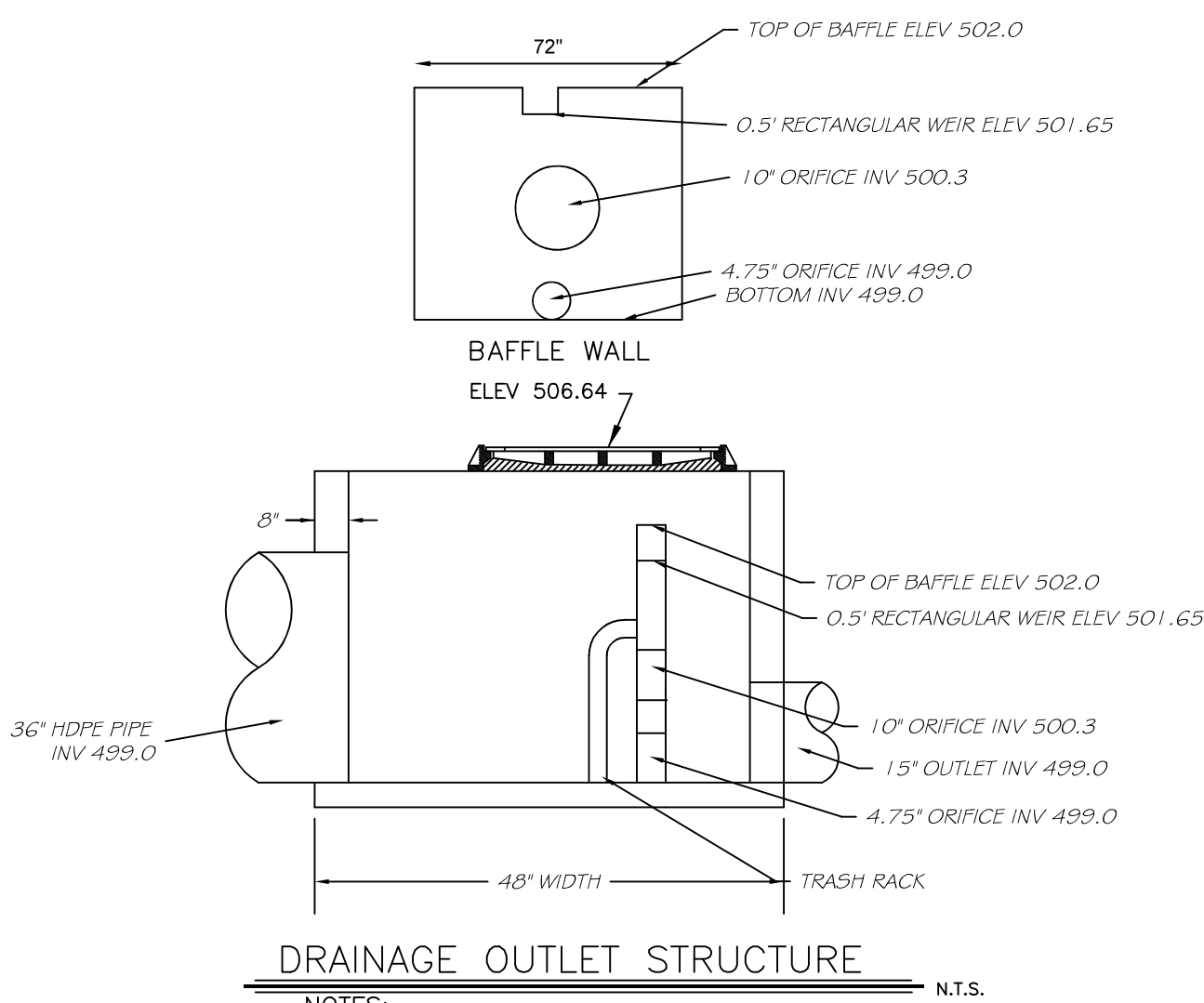
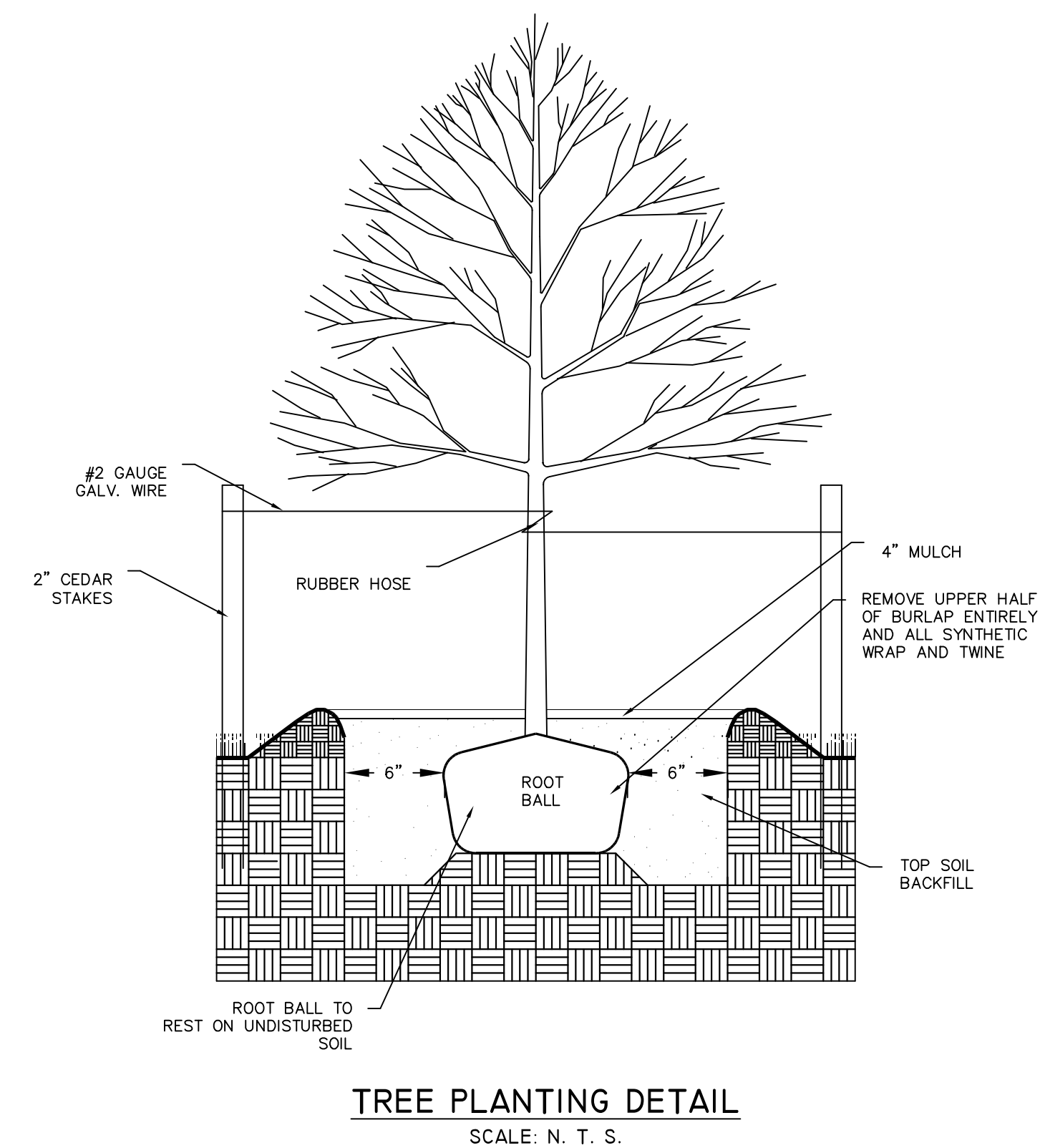
Schedule											
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	A	7	Holophane	GDV2 P30 30K AS 3 RAO WITH 12FT CHA POLE	GranVille II LED, LED Package 30, 3000K, 120-277V, Type 3 distribution with Ribs & bands	LED COB	1	GDV2_P30_30K_AS_3_Ri es	6347	0.85	60
	B	3	Holophane	GPD2 P30 30K AS 5 RAO WITH 12FT CHA POLE	GranVille Premier II LED, LED Package 30, 60W, 3000K, 120-277V, Type 5 distribution, distribution with Ribs & bands	LED COB	1	GPD2_P30_30K_AS_5_Ni es	7016	0.85	60

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Parking	+	1.1 fc	2.0 fc	0.5 fc	4.0:1	2.2:1

JUNE 29, 2024	REV 4	REV PER COMMENTS
MAY 6, 2024	REV 3	REV PER CDCR
SEPTEMBER 22, 2023	REV 2	REV PER CLIENT
AUGUST 23, 2023	REV 1	REV PER CLIENT

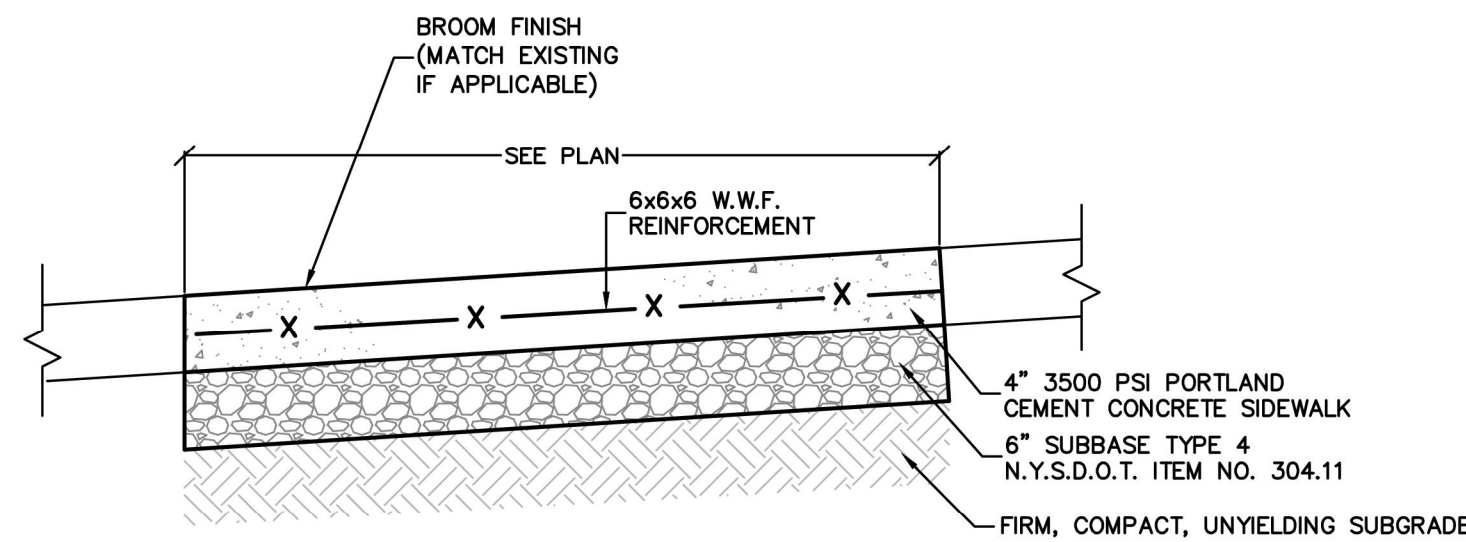
DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 41.18-1-12			
LANDSCAPING, LIGHTING, & EROSION CONTROL PLAN PHASE 2 FOR CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC 139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DATE: 8/2/23 DRAWN BY: RB/LT CHKD BY: RB/LT JOB No. 3688 SCALE: 1"=20' DWG No. 7 of 10


Rachel Barese
 Rachel B. Barese, P.E.
 N.Y. Lic. No. 90143



JUNE 19, 2024	REV 8	REV PER COMMENTS	DATE	ISSUE	DESCRIPTION	REVISIONS
MAY 6, 2024	REV 7	REV PER CDRC				
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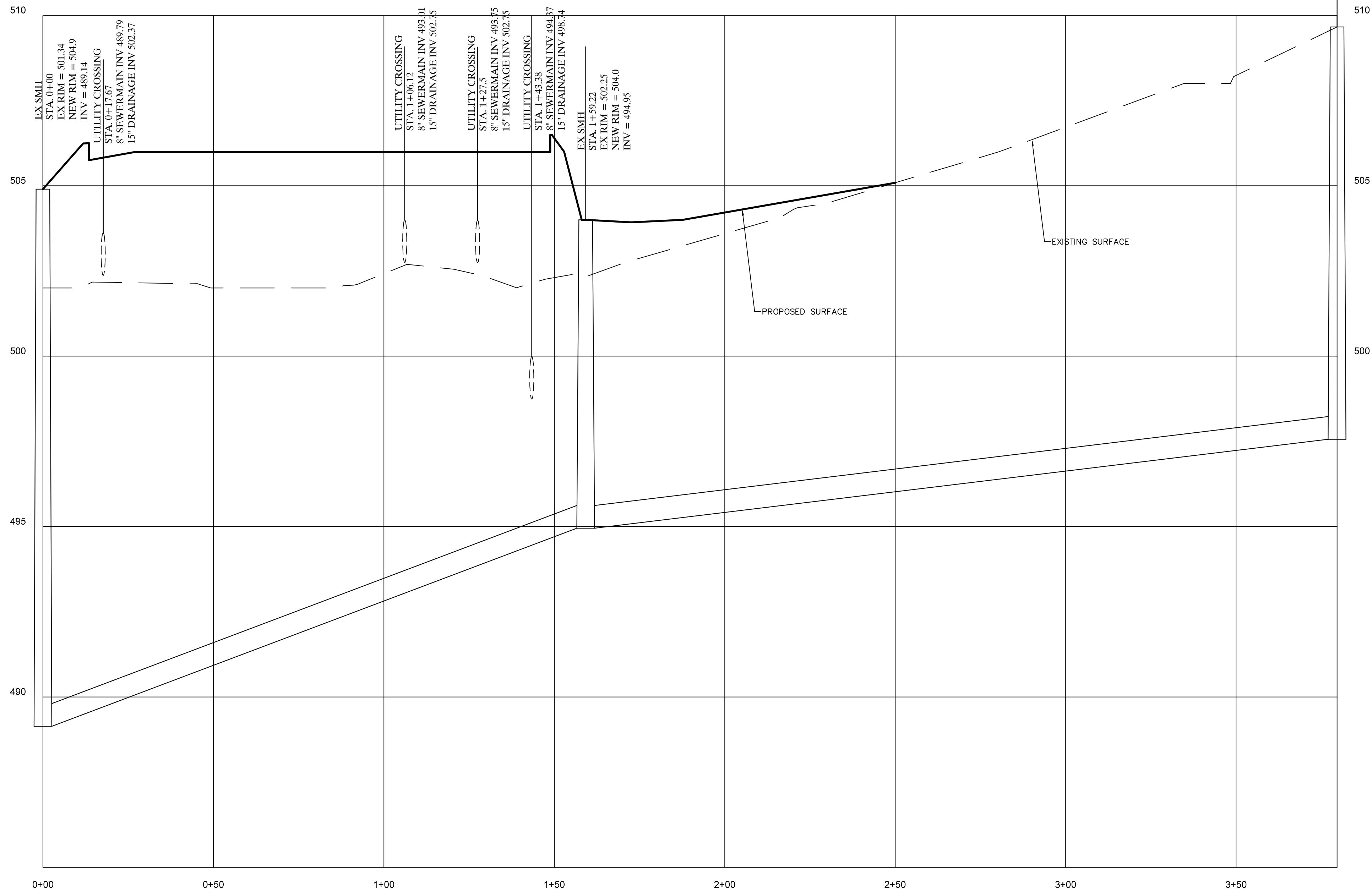
S.B.L. 41-18-1-12	DATE	3/9/22
DETAILS FOR	DRAWN BY:	RB/LT
CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD	CHKD BY:	RB/LT
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK	JOB No.	3688
CIVIL TEC Engineering & Surveying PC	SCALE:	1"=20'
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243	DWG No.	80
111 Main Street Chester, NY 10918 845.610.3621		299

**CONCRETE SIDEWALK NOTES**

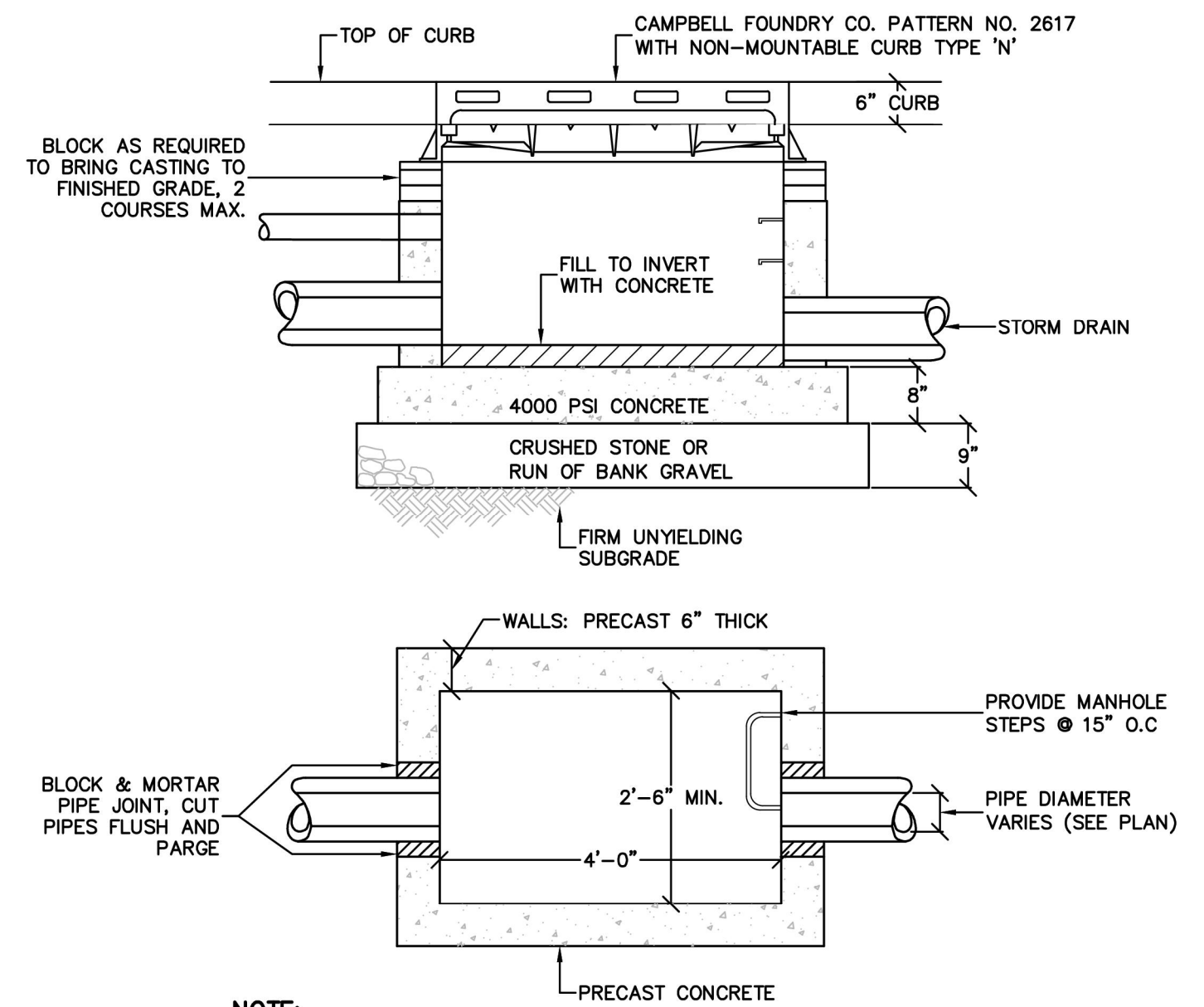
1. FULL DEPTH TRANSVERSE CONSTRUCTION JOINTS SHALL BE PLACED EVERY 18-20 FEET.
2. CONCRETE SURFACE SHALL BE SCORED AND TOOLED EVERY 5 FEET.
3. ALL EDGES SHALL BE FINISHED WITH AN EDGING TOOL WITH A RADIUS OF 1/4 INCH.
4. A 3/4 INCH BITUMINOUS JOINT FILLER SHALL BE PLACED AT ALL JOINTS BETWEEN SIDEWALK, CURB, PAVEMENT, BUILDING, ETC.
5. THE CONCRETE SHALL BE FINISHED TO PRODUCE A SMOOTH FINISH AND THEN LIGHTLY BROOMED TO A UNIFORM TEXTURE.
6. A CLEAR MEMBRANE CURING COMPOUND SHALL BE USED UPON COMPLETION OF FINISHING.
7. ALL SIDEWALKS SHALL ADHERE TO ADA GUIDELINES.

CONCRETE SIDEWALK DETAIL
N.T.S.

VILLAGE OF WESLEY HILLS
ROCKLAND COUNTY, N.Y.
CONCRETE SIDEWALK DETAIL

**SEWERMAIN PROFILE**

H: 1"=20'
V: 1"=2'



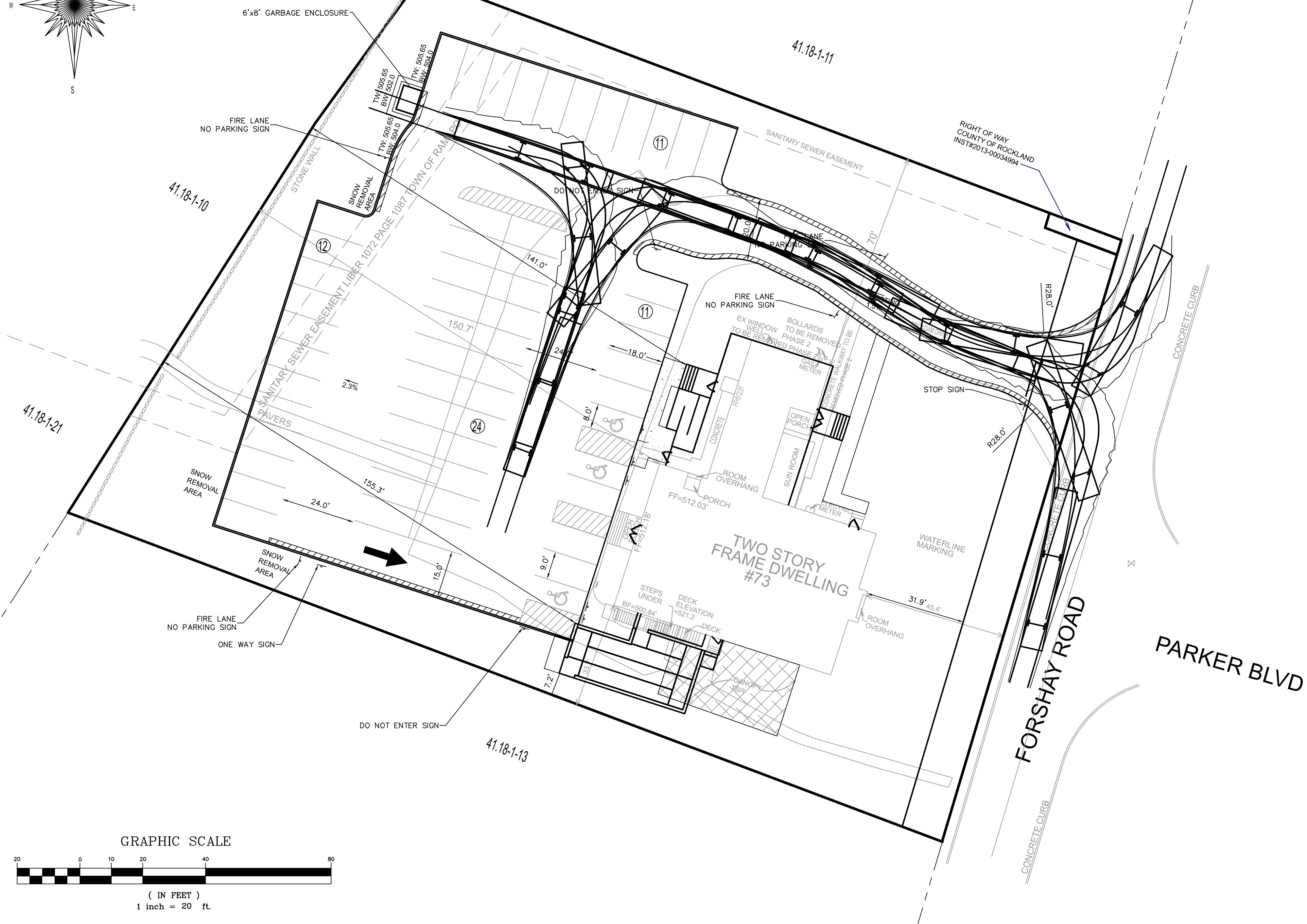
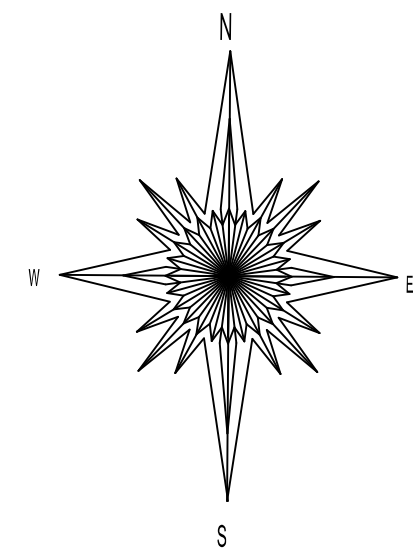
NOTE:
MINIMUM STRENGTH CONCRETE 4000 PSI WALL THICKNESS 6" WITH ADEQUATE STEEL REINFORCEMENT TO WITHSTAND H20 HIGHWAY LOAD AND SOIL LOADS.

CATCH BASIN DETAIL
N.T.S.

VILLAGE OF WESLEY HILLS
ROCKLAND COUNTY, N.Y.
CATCH BASIN DETAIL

JUNE 19, 2024	REV 8	REV PER COMMENTS
MAY 6, 2024	REV 7	REV PER CDRC
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DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 41.18-1-12			
DETAILS			
FOR			
CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC			DATE: 3/9/22
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DRAWN BY: RB/LT
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			SCALE: 1"=20'
Rachel B. Barese, P.E. N.Y. Lic. No. 90143			DWG No. 90143



FIRE TRUCK WHEELBASE BASED ON MONSEY 7 TOWER TRUCK.

JUNE 19, 2024 REV 4 REV PER COMMENTS
MAY 6, 2024 REV 3 REV PER CDRC
JUNE 23, 2023 REV 2 REV PER PB
AUGUST 29, 2022 REV 1 REV PER PB

DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 41.18-1-12			
FIRE TRUCK MANEUVERABILITY PLAN			
FOR			
CONG. AHAVAS YITZCHAK - 73 FORSHAY ROAD			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC			DATE: 6/28/22
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DRAWN BY: RB/LT
111 Main Street Chester, NY 10918 845.610.3621			CHKD BY: RB/LT
Rachel B. Barese, P.E. N.Y. Lic. No. 90143			JOB No. 3688
			SCALE: 1"=20'
			DWG No. 1 OF 1



January 11, 2024

Village of Wesley Hills
432 Route 306
Wesley Hills, New York 10952

Re: 33 Astor Place
Monsey, NY, 10952
Tax Lots: 41.06-1-78

The attached plot plan has been revised based on comments received. Below please find a comment by comment response.

Comments from Nelson Pope Voorhis dated November 27, 2023

1. The applicant and structural engineer have provided information about the wall.
2. The landscaping plan has been revised.
3. Comment noted.
4. Comment noted.
5. Comment noted.

Comments from Brooker Engineering PLLC dated November 28, 2023

1. The contractor provided a certified letter regarding the wood chippings.
2. The contractor will provide soil test results.
3. A structural engineer provided the wall design.
4. The structural engineer has now provided specific wall details. The fence has been moved 1' behind the wall.
5. The area with pavers will all be on fill so there will be no separation issues with groundwater or bedrock. The fill will be anywhere from 4' to 14' above existing grade. A note has been added that the fill under the pervious pavers must be at least 1" per hour to meet the design specifications. A percolation test done in the front yard in 2022 found bedrock at 5' with no signs of bedrock and a second location had no signs of bedrock or groundwater to a depth of 9'. I have attached the test results from 2022 now for reference.
6. The calculation has been revised to assume no infiltration through the side walls. The number of drywells remains the same.
7. Comment noted.
8. Comment noted.
9. Comment noted.
10. Comment noted.

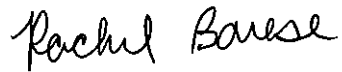
In addition, we have added photographs of the type of wall that will be constructed. The fence was moved off of the wall and will be behind the wall. It will be a chainlink fence. The

landscape architect's plan shows landscaping to go with the fence for screening. The fence is now called to be 4' high.

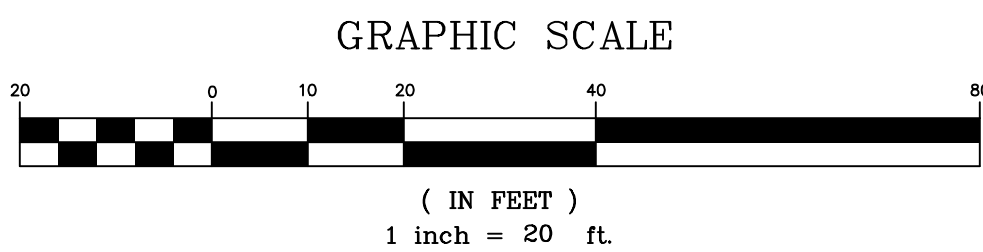
Please contact this office with any additional questions or concerns. I can be reached by email at rbarese@civil-tec.com or at (845) 547-2241.

Thank you.

Sincerely,



Rachel Barese, P.E.
President



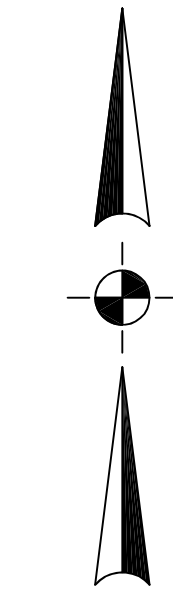
Bulk Requirements: R-35 Single Family Detached Residence												
	Min Lot Area	Min Lot Frontage	Min Lot Width	Min Front Yard	Min Side Yard	Min Total Side Yards	Min Rear Yard	Max Impervious Surface Ratio	Max Front Yard Impervious Surface Ratio	Max Building Coverage	Max Height	Max Exposed Building Height
Required	35,000 SF	100 FT	125 FT	50 FT	25 FT	60 FT	50 FT	0.25	0.20	0.10	25 FT	40 FT
Proposed	35,028 SF	158.5 FT	158.5 FT	50 FT	39.7 FT	85.5 FT	58.3 FT	0.221	0.152	0.085	23 FT	39.5 FT

REFERENCES

- BEING SECTION 41.06, BLOCK 1, LOT 78 OF THE VILLAGE OF WELSEY HILLS AND TOWN OF RAMAPO TAX MAPPING.
- LOT DESCRIBED BY DEED IN INSTRUMENT NO. 2010 AT PAGE 22659 AT THE ROCKLAND COUNTY CLERKS OFFICE.
- BEING LOT 10 IN BLOCK E ON A MAP ENTITLED "SECTION TWO OVERLOOK ESTATES IN WESLEY CHAPEL, TOWN OF RAMAPO, ROCKLAND COUNTY, NEW YORK", FILED IN THE ROCKLAND COUNTY CLERK'S OFFICE ON JULY 25, 1966 IN BOOK 72 ON PAGE 1 AS MAP NUMBER 3480.
- TOTAL AREA = 35,028 SQUARE FEET OR 0.804 ACRES.

JANUARY 3, 2024	REV 14	REV PER VILLAGE'S COMMENTS
SEPTEMBER 20, 2023	REV 13	REV PER VILLAGE'S COMMENTS
AUGUST 3, 2023	REV 12	REV PER CLIENT
JULY 26, 2023	REV 11	REV PER VILLAGE'S COMMENTS
JUNE 9, 2023	REV 10	REV PER VILLAGE'S COMMENTS
MARCH 20, 2023	REV 9	REV PER VILLAGE'S COMMENTS
FEBRUARY 24, 2023	REV 8	REV PER LANDSCAPE ARCHITECT
OCTOBER 17, 2022	REV 7	REV PER ARCHITECT
SEPTEMBER 21, 2022	REV 6	REV PER ARCHITECT
JUNE 21, 2022	REV 5	REV PER ARCHITECT
MARCH 25, 2022	REV 4	REV PER VILLAGE ENGINEER'S COMMENTS
MARCH 25, 2022	REV 3	REV PER VILLAGE ENGINEER'S COMMENTS
JANUARY 20, 2022	REV 2	ADD UTILITIES, DRAINAGE, & SOIL EROSION CONTROLS
JULY 26, 2021	REV 1	REV PER NEW BUILDING FOOTPRINT

DATE	ISSUE	DESCRIPTION	REVISIONS
S.B.L. 41.06-1-78			
PLOT PLAN			
FOR			
33 ASTOR PLACE			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC			DATE: 6/29/21
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DRAWN BY: DC
111 Main Street Chester, NY 10918 845.610.3621			CHKD BY: RB/LT
Civil Engineering & Land Surveying Services that Build Confidence www.Civil-Tec.com			
JOB No. 3955			SCALE: 1"=20'
DWG No. 10			305



VICINITY MAP
1" = 300'

NOTE: VILLAGE ENGINEER TO BE NOTIFIED 48 HOURS PRIOR TO DRAINAGE INSTALLATION AND WITNESS/APPROVED.

IMPERVIOUS IN FRONT YARD:
1,207 SF (DRIVEWAY)
TOTAL: 1,207 SF

AREA OF FRONT YARD: 7,928 SF

FRONT YARD IMPERVIOUS RATIO:
1,207 SF IMPERVIOUS/7,928 SF = 0.152

BUILDING COVERAGE CALCULATION
2,313 SF + 603 SF DECK + 70 SF MASTER DECK = 2,986 SF
BUILDING COVERAGE
2,986 SF / 35,028 SF = 0.085

0.085 < 0.10 SO OK

AVERAGE GRADE BASED ON THE ROAD IS
(536 + 534) / 2 = 535.0

LOT COVERAGE:

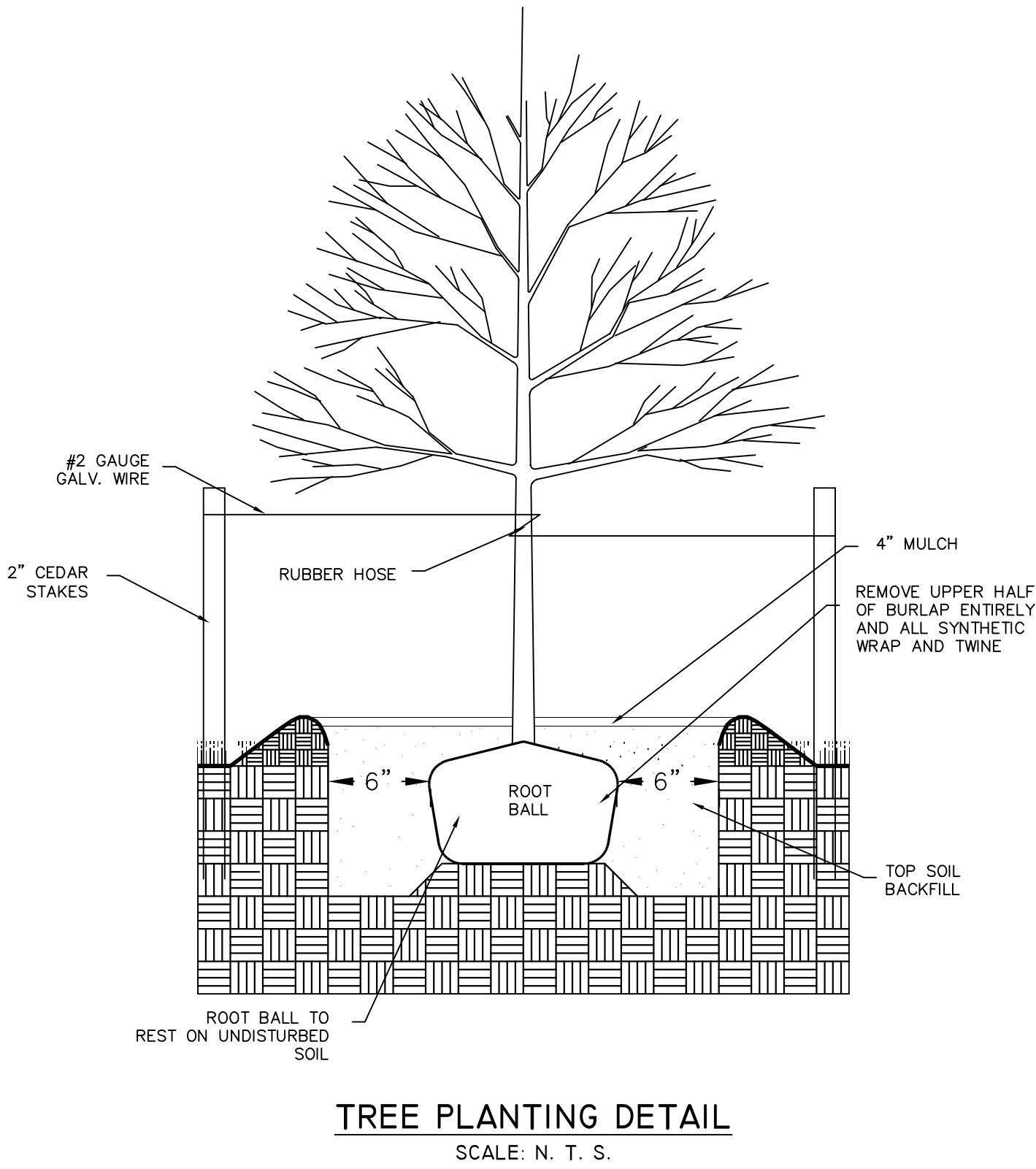
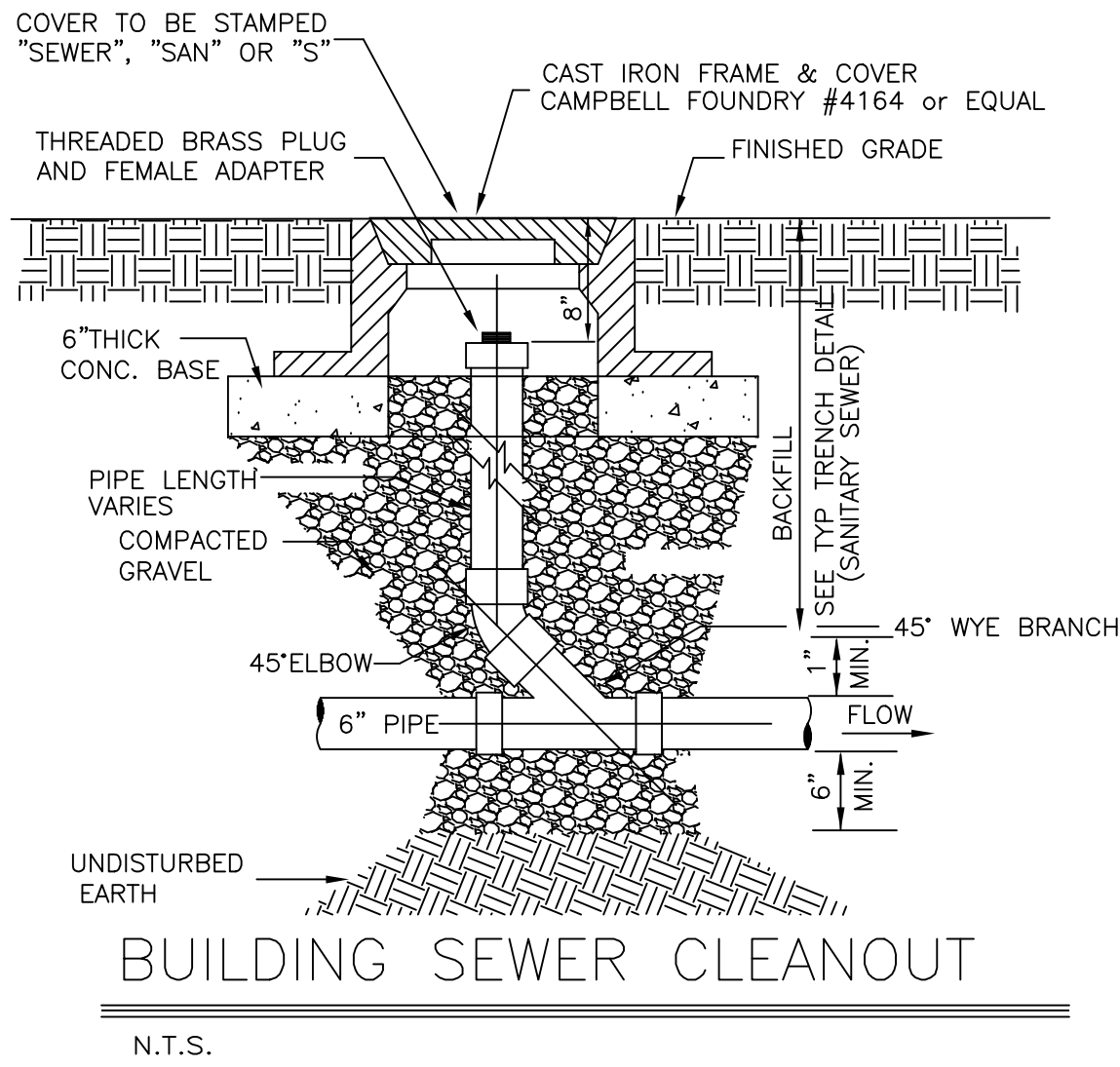
DRIVEWAY	2,824 SF
DWELLING	2,313 SF
DECKS/WALKWAY/STEPS/WALLS	1,819 SF
POOL	975 SF

TOTAL 7,731 SF

TOTAL IMPERVIOUS COVERAGE:
7,731 SF/35,028 SF = 0.221



5 - 1,000 GAL DRYWELLS
5'-0" X 6'-7" BY
PRECAST CONCRETE SALES CO
OR APPROVED EQUAL
RIM 536.0
INV IN 534.5
BASE 529.42
18" STONE SURROUND



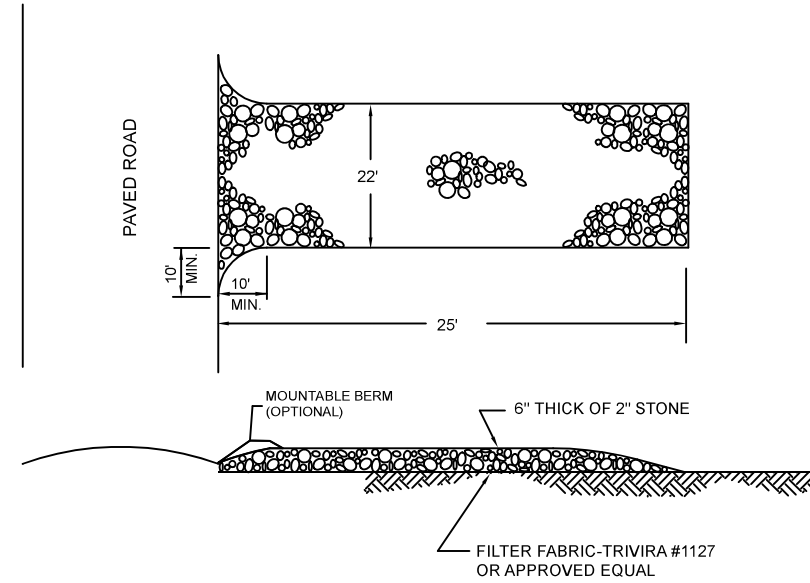
- NOTES:
- EXCAVATE A HOLE THAT IS 12" WIDER & 6" DEEPER THAN THE ROOTBALL.
 - REMOVE ANY STRINGS TIED AROUND TRUNK OR STEM BUT LEAVE BURLAP IN TACT.
 - TOPSOIL MIX FOR BACKFILL TO BE 2 PARTS TOPSOIL, 1 PART SAND & 1 PART HUMUS.
 - BUILD DEPRESSION AROUND PLANT & FILL WITH MULCH.
 - STAKE ALL TREES WITH 2" CEDAR STAKES.

NOTES:

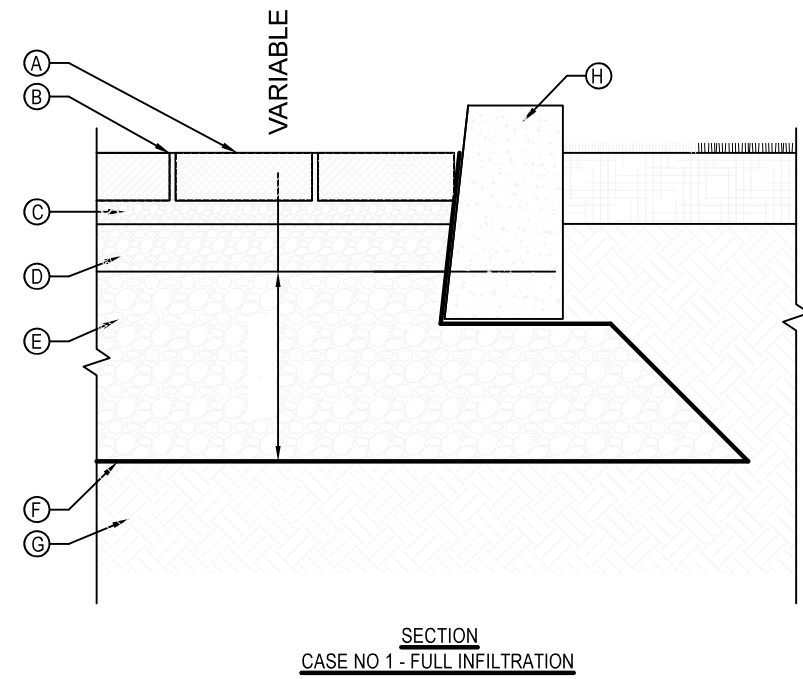
- ALL EXISTING SOIL FROM PLANTING PITS SHALL BE REMOVED AND PITS SHALL BE BACKFILLED WITH A MIXTURE OF ONE PART PEAR-HUMUS, ONE PART MANURE TO FOUR PARTS TOPSOIL.
- ALL PLANTS AND WORKMANSHIP SHALL BE GUARANTEED FOR ONE YEAR AFTER FINAL ACCEPTANCE AND COMPLETION OF WORK.
- ALL PLANT MATERIAL SHALL BE NURSERY GROWN AND CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN'S "AMERICAN STANDARD FOR NURSERY STOCK," CURRENT EDITION.
- ALL PLANT BEDS SHALL CONTAIN 3" MIN SHREDDED BARK MULCH ON LANDSCAPE FILTER FABRIC. HOLES FOR PLANTS SHALL BE 2X DIAM. OF ROOTBALL AND MIN 6" DEEPER THAN THE DEPTH OF THE BALL.
- THE TOWN SHALL BE NOTIFIED 48 HOURS PRIOR TO PLANTING FOR AN INSPECTION OF PLANT MATERIALS.
- ALL DISTURBED AREAS OUTSIDE MULCH BEDS AND SAUCERS SHALL BE SEEDED, UNLESS OTHERWISE NOTED.
- ANY EXISTING TREES SHOWN TO REMAIN WHICH ARE REMOVED DURING CONSTRUCTION SHALL BE REPLACED WITH A 3" CALIPER TREE AS DIRECTED BY THE TOWN.
- LAWN AREA PREPARATION PER 1,000 SF:
90 LBS HAY MULCH
15 LBS 5-10-10 FERTILIZER, 50% SLOW RELEASE
70 LBS GRANULATED LIMESTONE

SEED MIXTURE:

- 30% TALL FESCUE
- 30% RED FESCUE
- 20% BLUE GRASS
- 20% RYEGRASS



- CONSTRUCTION SPECIFICATIONS**
- STONE SIZE - USE 2 INCHES STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
 - LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 25 FOOT MINIMUM LENGTH WOULD APPLY).
 - THICKNESS - NOT LESS THAN 6 INCHES.
 - WIDTH - 12 FEET MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY FOUR FEET IF SINGLE ENTRANCE TO SITE.
 - FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
 - 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.
 - MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
 - WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING.
 - PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

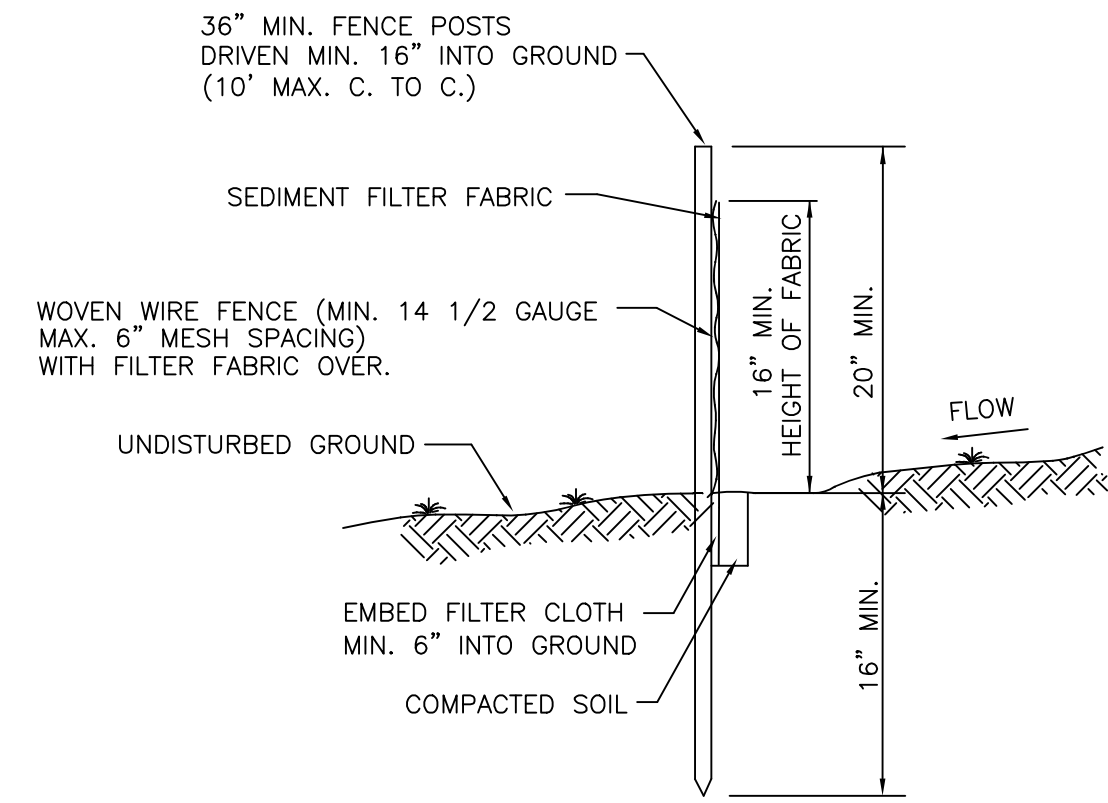


LEGEND:

- PERMEABLE PAVER FROM TECO-BLOC, BLU 60 MM
- JOINT FILLING MATERIAL, NO. 8 CONFORMING TO ASTM D 448
- BEDDING COURSE, 2" (50 MM) THICK NO. 1 STONE CONFORMING TO ASTM D 448
- BASE COURSE, 4" (100 MM) THICK NO. 57 STONE CONFORMING TO ASTM D 448
- SUBBASE COURSE, THICKNESS AS PER DESIGN NO. 2 STONE CONFORMING TO ASTM D 448
- GEOTEXTILE
- SUBGRADE
- EDGE RESTRAINT

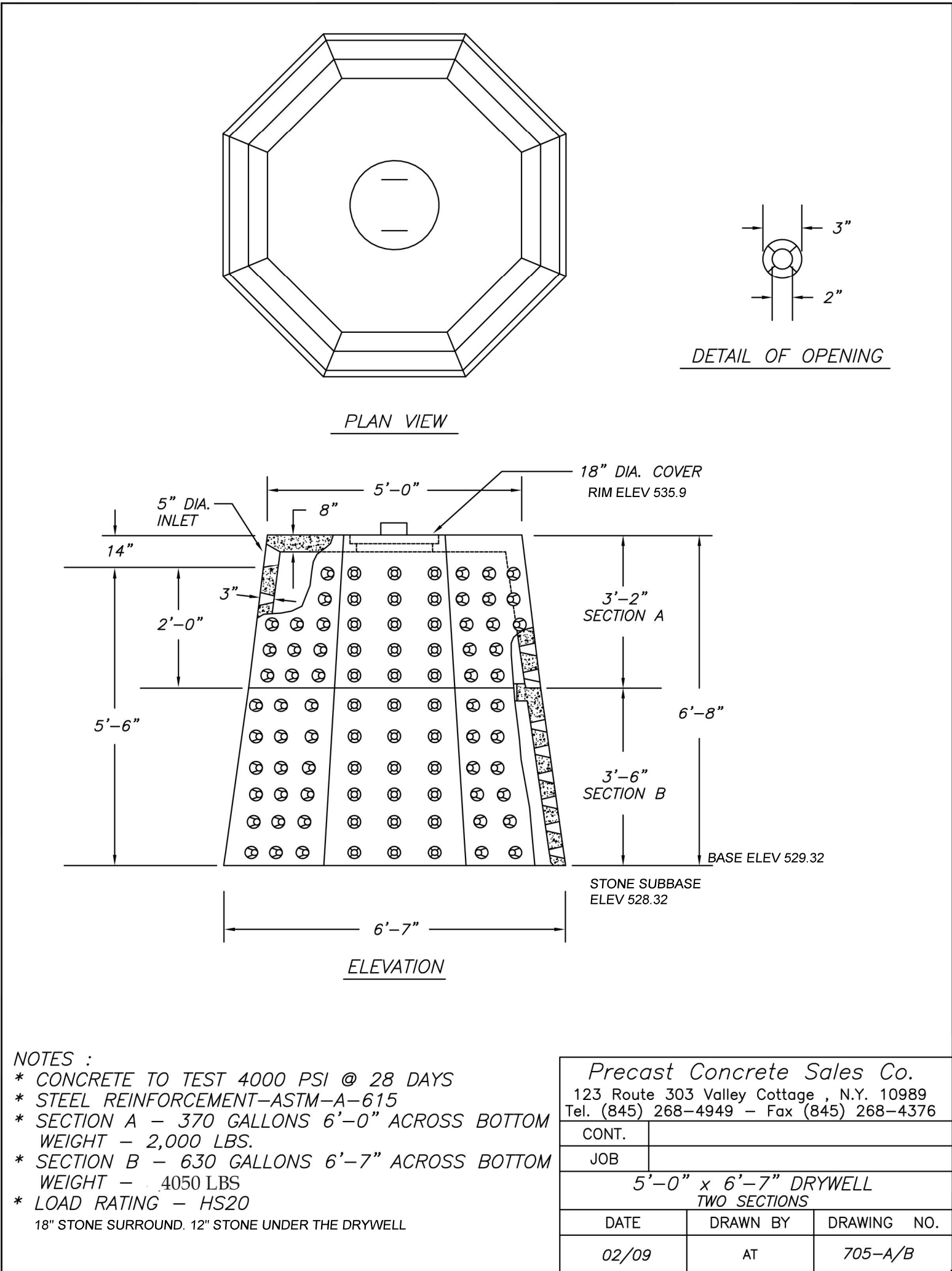
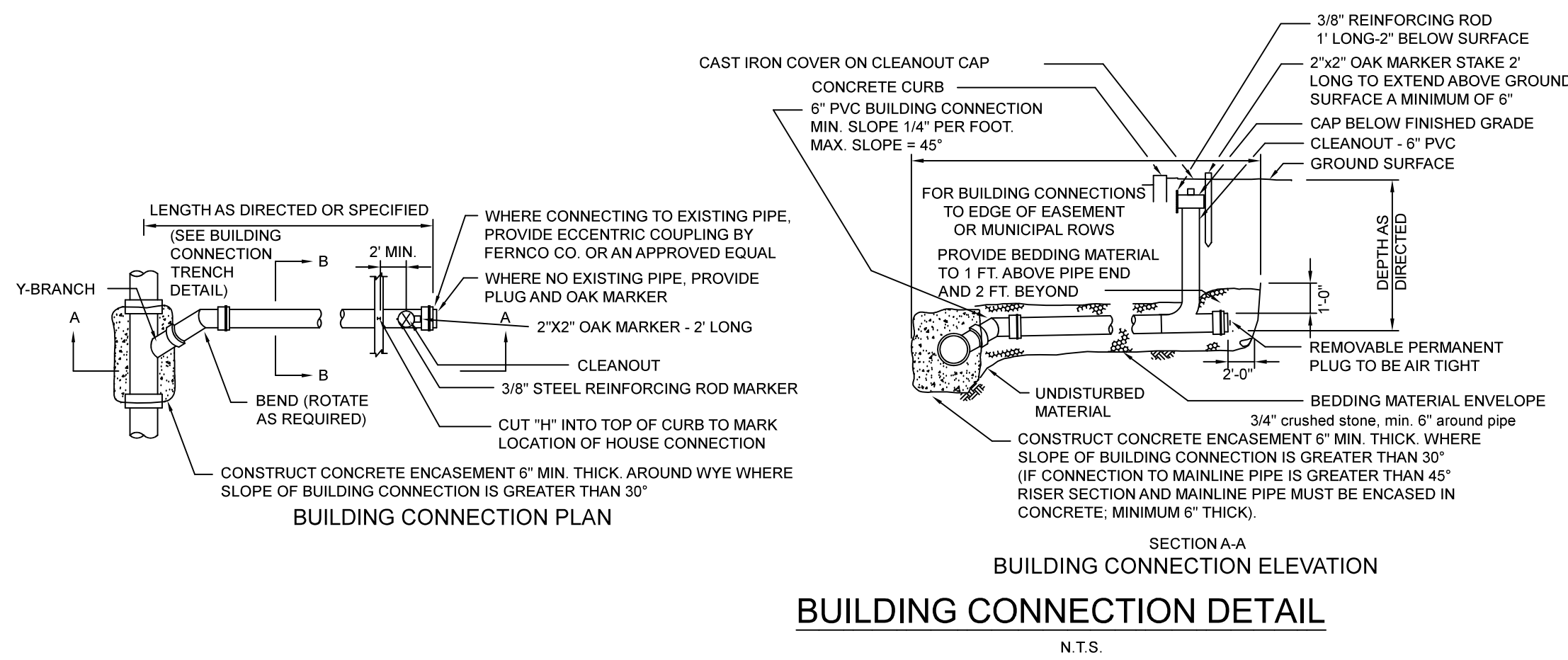
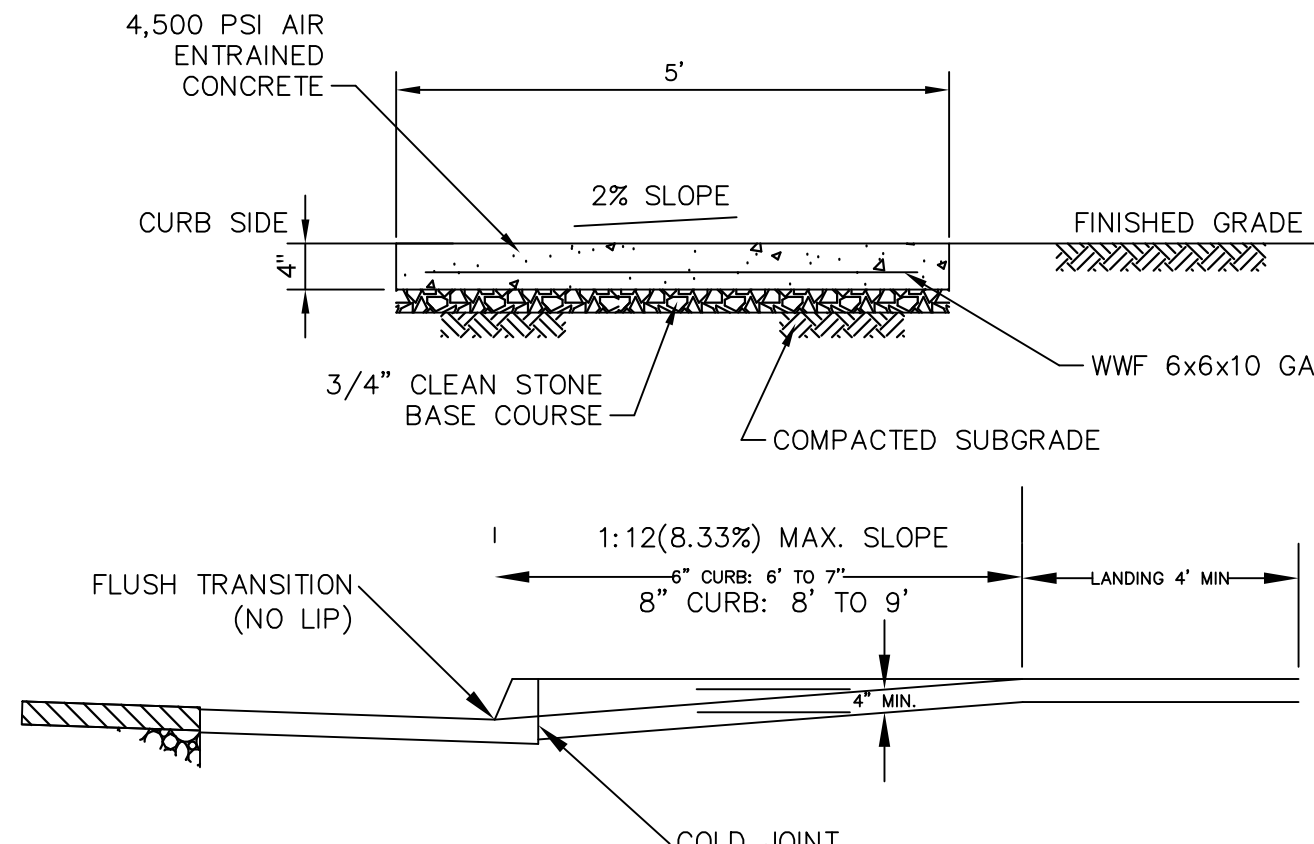
NOTES:

- INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
- DO NOT SCALE DRAWING.
- THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
- ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
- CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 058-007.
- FILL UNDER THE PERMEABLE PAVERS MUST HAVE AN INFILTRATION RATE OF AT LEAST 1" PER HOUR.



CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
- FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
- WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED.
- MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN BULGES DEVELOP IN THE SILT FENCE.
- POST TO BE STEEL EITHER "T" OR "U" TYPE OR 2" HARDWOOD.
- FILTER CLOTH TO BE MIRAFI 100X STABILINKA T140N OR APPROVED EQUAL.
- PREFABRICATED UNIT - GEOFAB, ENVIROFENCE OR APPROVED EQUAL.



EROSION CONTROL & SEDIMENT NOTES

- A TEMPORARY SEEDING SHALL BE APPLIED TO DISTURBED AREAS THAT ARE LEFT BARE FOR 15 DAYS UNLESS CONSTRUCTION WILL BEGIN WITHIN 30 DAYS. IF CONSTRUCTION IS SUSPENDED OR COMPLETED, AREAS SHALL BE SEEDED DOWN OR MULCHED IMMEDIATELY.
<



Memorandum

To: Village of Wesley Hills Planning Board

From: Jonathan T. Lockman, AICP

Re: Nancy Rubin, 33 Astor Place – Clearing, Filling or Excavation Permit
 SBL# 41.06-1-78

Date: November 27, 2023

cc: Eve Mancuso, P.E., Village Engineer
 Frank Brown, Esq., Planning Board Attorney
 Alicia Schultz, Deputy Village Clerk
 John Layne, Building Inspector
 Rachel Barese, P.E., CivilTec, for the Applicant

Received and reviewed for this memorandum:

- Wall Plan for 33 Astor Place, stamped by Paul Gdanski, P.E., dated 11/5/23.
- Landscape Plan for Nussen Residence, unstamped, by Blythe M. Yost, ASLA, Yost Design Landscape Architecture, dated April 23, 2022.

Project Summary

The subject application is for a Clearing, Filling and Excavation Permit, under Chapter 95 of the Village Code. The subject lot is in the R-35 District on the west side of Astor Place, north of the intersection with Ardley Place. The applicant proposes to tear down and replace a two-story residence and add fill behind retaining walls, to create relatively flat yards and pool and patio areas.

Planning Comments

1. No details have been provided on the texture and color of the retaining wall materials so the Board may consider how the walls will appear to be abutting properties, as requested in our prior memorandum dated September 26, 2023. Please provide photographs of the specified Cambridge Sigma 8 Wall Modular Concrete Units.
2. We note that fencing is being proposed at the tops of the retaining walls, and landscaping is only proposed at the bottom of the walls. Please consider a more aesthetic choice for fencing other than 2" wire chain link that is specified in the Gdanski plan. Also, please consider adding some plantings at the top of each wall to soften the look of the fencing, as viewed from neighboring properties.
3. We approve of the Thuya Green Giant trees specified at the bottom of the walls, as well as the Hedera Helix shrubs and Picea trees. The proposed ivy will help mitigate the views of the wall materials. We will defer to the Village Engineer regarding the wall construction specifications.

SEQRA/GML Comments

4. The project is for the replacement of a house on an approved lot, which typically is considered a type II action, requiring no SEQRA review. The Planning Board should categorize the type of action if it has not done so already.
5. This action is located more than 500 feet from Lime Kiln and Wilder Roads, the nearest County facilities. The adjacent wooded land is owned by the Town of Ramapo and not by the State or County. Therefore, we believe this application is not required to be sent to Rockland County Planning Department for GML review.

Items Reviewed for our previous memorandum dated September 26, 2023:

- Cut and Fill Calculations, by CivilTec, dated August 10, 2023.
- Cut and Fill Calculations, by CivilTec, dated February 28, 2023.
- Response to NPV and Brooker comments, from Rachel Barese, P.E., Civil Tec, to Village of Wesley Hills, re: 33 Astor Place, dated September 20, 2023.
- Drywell Calculations, prepared by CivilTec Engineering and Surveying, dated January 2022, revised September 2023.
- Site Plan Set, 2 Sheets, for 33 Astor Place, stamped by Rachel Barese, P.E., CivilTec Engineering & Surveying PC, dated June 29, 2021, with latest revision date of September 20, 2023, as follows.
 - o 1 – Plot Plan
 - o 2 – Details

Items Reviewed for our previous memorandum dated September 5, 2023:

- Response to NPV and Brooker comments, from Rachel Barese, P.E., Civil Tec, to Village of Wesley Hills, re: 33 Astor Place, dated August 11, 2023.
- Drywell Calculations, prepared by CivilTec Engineering and Surveying, dated January 2022, revised August 2023.
- Site Plan Set, 2 Sheets, for 33 Astor Place, stamped by Rachel Barese, P.E., CivilTec Engineering & Surveying PC, dated June 29, 2021, with latest revision date of August 3, 2023, as follows.
 - o 1 – Plot Plan
 - o 2 – Details

Items Reviewed for our previous memorandum dated March 31, 2023:

- Response to Planner Comments letter, from Rachel Barese, P.E., Civil Tec, to Village of Wesley Hills, re: 33 Astor Place, dated March 20, 2023.
- Site Plan Set, 2 Sheets, for 33 Astor Place, stamped by Rachel Barese, P.E., CivilTec Engineering & Surveying PC, with latest revision date of March 20, 2023, as follows.
 - o 1 – Plot Plan
 - o 2 – Details

Items reviewed for our previous memorandum, dated March 8, 2023:

- Application for Clearing, Filling or Excavation of Land, signed March 1, 2023.
- Drainage Calculations, by CivilTec Engineering, dated February 2023.
- Site Plan Set, 2 Sheets, stamped by Rachel Barese, P.E., CivilTec Engineering & Surveying PC, last revised February 24, 2023, as follows.
 - o 1 – Plot Plan
 - o 2 – Details



BROOKER ENGINEERING

a division of Weston & Sampson

74 Lafayette Avenue, Suite 501, Suffern, NY 10901
Tel: 845.357.4411

November 28, 2023

Village of Wesley Hills
Planning Board
432 Route 306
Wesley Hills, New York 10952

Attn: Alicia Schultz, Deputy Village Clerk
Re: 33 Astor Place
Clearing/Filling/Excavation Application Review

Dear Planning Board Members,

Our office has reviewed the submission of documents in support of the above captioned project consisting of:

1. Plan entitled "Wall Plan for 33 Astor Place", prepared by Paul Gdanski, PE, dated 11/5/23, 1 sheet.
2. Plan entitled "Nussen Residence Screen Planting Plan", prepared by Yost Design, dated April 23, 2022, sheet L-701. Our office offers the following comments:

General

1. During prior site visits, our office observed large stockpiles of wood chippings which appeared to be subsequently backfilled. Permanent backfilling of wood chippings will result in prolonged settlement of the earth. Our office recommended exposure and relocation to prevent risk of shear failure of slopes. Our office requests a certification letter from the contractor stating that the wood chippings were not used as backfill and removed from the site, as suggested in the applicant's response letter.
2. Due to the large import of soil from varying sources outside of the Village, we recommend the soil be tested in accordance with 375 Soil Test Parameters for Residential Use. The chain of command in collecting samples shall be adhered to and the results submitted.
3. Structural design and calculations, and specifications shall be submitted for the proposed retaining walls and reviewed by our office prior to the start of retaining wall construction. Certification of completed retaining walls to be provided prior to the issuance of a C.O.

Plot Plan

4. A standard detail for a Cambridge Sigma 8 wall has been provided. The detail does not indicate the proposed fence on top of the retaining wall as shown on the Civil Tec Plan. The discrepancy shall be resolved.
5. Pervious pavers are proposed in the rear yard; however, the previous response letter discussed high bedrock in the rear yard. Infiltration in fill is permitted, subject to minimum separation and testing requirements. Consideration as pervious area is not recommended if minimum requirements are not met. Applicant has responded that 'the pavers will all be fill so there will be

no separation issues with groundwater' This does not address insitu bedrock separation or insitu soil testing. We request the following criteria be provided as per NYS DEC guidance to be considered pervious:

- a. Insitu/natural soil layer below infiltration system has an infiltration rate greater than or equal to the 0.5 in/hr
- b. Ground water and bedrock levels in insitu/natural soil should be two to three feet below grade
- c. Fill material is an engineered fill that is tested after placement (by geotechnical firm) and demonstrated to be equivalent to a soil material acceptable for the installation of an infiltration system (i.e. infiltration rate greater than or equal to 0.5 inches /hr, etc.). Infiltration rate of fill material should be similar infiltration rate as insitu/existing soil.
- d. If there is a difference in the infiltration rates between the fill and insitu/native soil, the designer should use the more conservative (i.e. slower infiltration rate) when determining whether the infiltration system will dewater (exfiltrate) within the required 48 hours (see Section 6.3.2 "Conveyance" of the Design Manual).
- e. Required vertical separation distances to groundwater/bedrock are maintained
- f. Required horizontal separation distances to surface waters, wells, etc. are maintained
- g. There is adequate fill along the edges of the infiltration system to prevent seeps/breakouts
- h. As per guidance from the new draft NYS DEC Stormwater Management Design Manual, infiltration facilities proposed on naturally steep slopes require additional analysis. A slope stability / global stability analysis of the retaining wall shall be provided from a structural or geotechnical engineer.

This remains to be addressed – soil test results to be submitted

Drainage Calculations –

6. As per comment 8 of our previous memo dated September 14, 2023, our office takes partial exception to the drainage design methodology. Drywell storage is sized to accommodate increase in runoff for the entire property, however, only the roof runoff is currently proposed to be conveyed to the system. Drainage areas should be delineated to differentiate between detained and bypass runoff. Our office suggests SCS method modeling to compare the pre clearing conditions to the future proposed conditions for accurate sizing of storage facilities and to verify a zero-net increase in peak runoff. Applicant has responded that 'other impervious area is offset by the prior development onsite so there is no net increase overall.' This shall be demonstrated in the drainage calculations/report.

Applicant has responded that 'the site will also be aided by leveling the property which will slow down the water as it runs across the property. In the past, the yard was very sloped where in the future it will have level tiers.

While we don't disagree with this statement, the response given does not address the original comment. Please provide updated drainage calculations/report to demonstrate that area bypassing the drywell system is offset by the prior development onsite.

This remains to be addressed

Recommended fees and dates are as follows:

7. Clearing/filling application fee: \$1,000 based on additional disturbance area of approximately 19,000 square feet.
8. Performance bond: \$118,000
9. Installed and proposed erosion control devices shall be maintained throughout construction.
10. We recommend final stabilization, including topsoil and seed, be completed no later than twelve months after commencement of retaining wall construction.

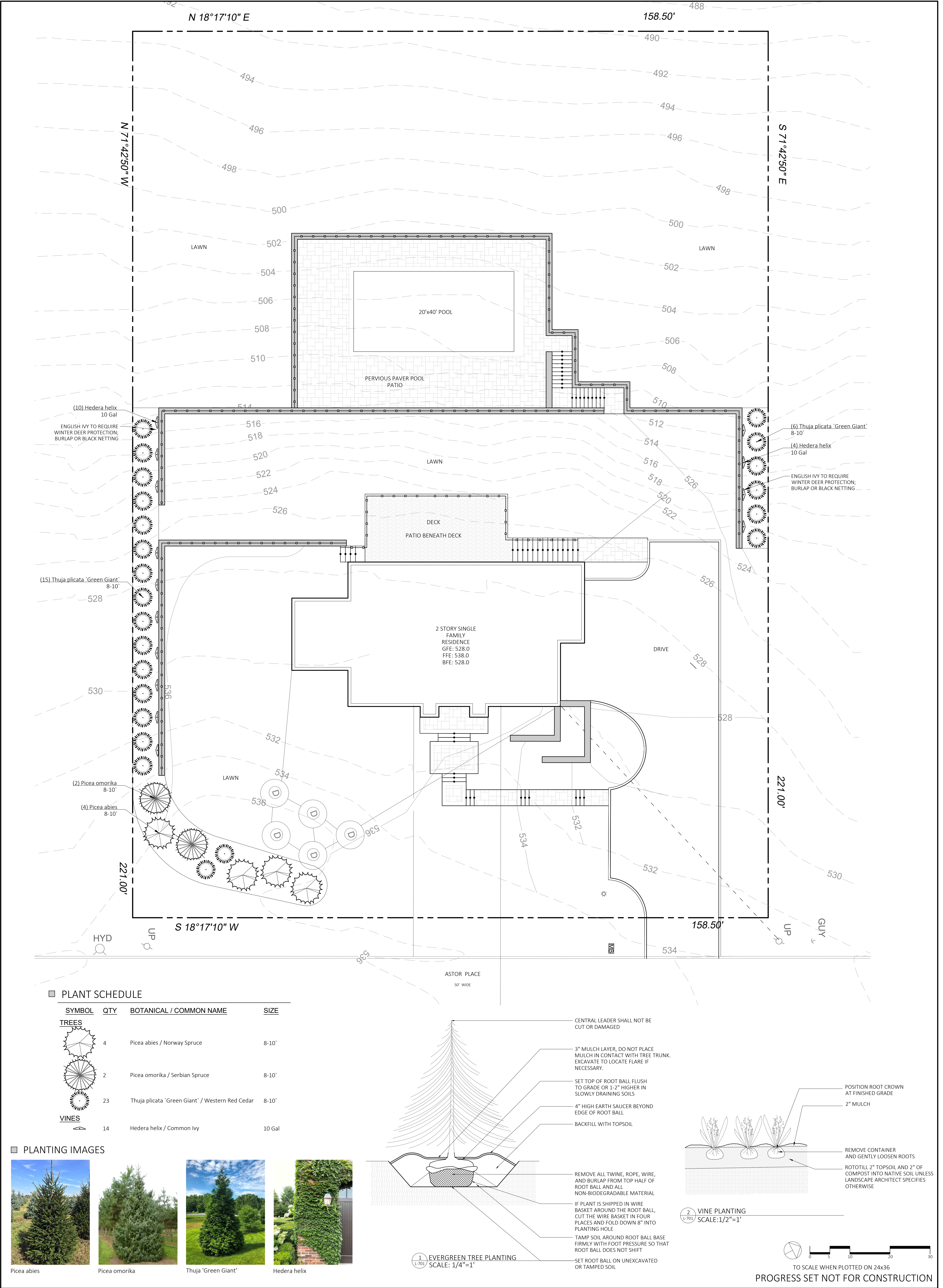
Sincerely,



WESTON & SAMPSON, PE, LS, LA, Architects, PC
Eve Marie Mancuso, P.E.
Principal Engineer

CC: CC. Jonathan Lockman, AICP – Village Planner
Frank Brown, Esq.- Planning Board Attorney
Camille Guido-Downey – Village Clerk
John Layne – Building Inspector
Paul Gdanski, PE – applicants Engineer

Y:\VILLAGES\WH Wesley Hills\WH0191 - 2022 Plot Plans\33 Astor Place\2023-11-28 Clearing Filling Application.docx



**33 Astor Place
Village of Wesley Hills
Percolation/Deep Tests
March 22, 2022**

Test performed by Devin Crichlow, signed off by Rachel Barese, P.E.

Location 1

Deep Test:

0'-1.5' topsoil

1.5'-5' Brown/red silt/clay with stones 1" – 6"

Bedrock reached at 5'

No signs of groundwater

Location 2

Deep Test:

0'-1.5' topsoil

1.5'-9' Brown/red silt/clay with stones 1" – 6"

No signs of bedrock or groundwater

24" perc test at 5'

Run 1 – 55 minutes

Run 2 – 55 minutes

Run 3 – 55 minutes



Civil Tec Engineering & Surveying P.C.

139 Lafayette Avenue, 2nd Floor, Suffern, NY 10901 Tel 845.547.2241 Fax 845.547.2243
55 Brookside Avenue, Chester, NY 10918 Tel 845.610.3621

Civil-Tec.com



Memorandum

To: Village of Wesley Hills Planning Board

From: Jonathan T. Lockman, AICP
 Aaron M. Kardon, AICP

Re: Nancy Rubin, 33 Astor Place – Clearing, Filling or Excavation Permit
 SBL# 41.06-1-78

Date: February 2, 2024

cc: Eve Mancuso, P.E., Village Engineer
 Frank Brown, Esq., Planning Board Attorney
 Alicia Schultz, Deputy Village Clerk
 John Layne, Building Inspector
 Rachel Barese, P.E., CivilTec, for the Applicant

Received and reviewed for this memorandum:

- Letter from Rachel Barese, P.E., Civil Tec, to Village of Wesley Hills, re: 33 Astor Place, with responses to NPV and Brooker comments, dated January 11, 2024.
- Site Plan Set, 2 Sheets, for 33 Astor Place, stamped by Rachel Barese, P.E., CivilTec Engineering & Surveying PC, dated June 29, 2021, with latest revision date of January 3, 2024, as follows.
 - o 1 – Plot Plan
 - o 2 – Details
- Drywell Calculations and Soils Tests for 33 Astor Place, by CivilTec Engineering, dated January 2022, revised September 2023.
- Construction Plan, 1 sheet, Proposed Walls for 33 Astor Place, unstamped by Thomas W. Skrabble P.E., dated November 17, 2023
- Landscape Plan for Nussen Residence, Sheet L-701, stamped by Blythe M. Yost, ASLA, Yost Design Landscape Architecture, dated April 23, 2022, and revised through December 6, 2023.

Project Summary

The subject application is for a Clearing, Filling and Excavation Permit, under Chapter 95 of the Village Code. The subject lot is in the R-35 District on the west side of Astor Place, north of the intersection with Ardley Place. The applicant proposes to tear down and replace a two-story residence and add fill behind retaining walls, to create relatively flat yards and pool and patio areas.

Planning Comments

1. Regarding comment #1 of our previous memorandum dated November 27, 2023, the applicant has provided the following photographs of the Cambridge Sigma 8 Wall Modular Concrete Units

on the revised plans on page 1. The proposed wall coloring will be an off white/grey color with a rough course texture.



2. In response to comment #2 of our prior memorandum, in the new wall construction plan set by Skrable, the applicant has removed the wire fence detail. (A wire fence had been specified and shown on the previously submitted wall construction plan by Gdanski.) The newest landscape plan by Yost shows fencing and has added plantings at the top and bottom of each wall to soften the look of the fencing.

The specified plantings on the Yost Landscaping Plan comply with our previous memorandum comment although it is unclear what type of fence the applicant is going to install instead of the 2' mesh wire fabric fence specified in November. **Please provide the specifications of the fencing which is shown on the landscaping plan.** We will defer to the Village Engineer regarding the wall construction specifications.

SEQRA/GML Comments

3. The project is for the replacement of a house on an approved lot, which is considered a type II action, requiring no SEQRA review. The Planning Board should categorize the type of action if it has not done so already.
4. This action is located more than 500 feet from Lime Kiln and Wilder Roads, the nearest County facilities. The adjacent wooded land is owned by the Town of Ramapo and not by the State or County. Therefore, we believe this application is not required to be sent to Rockland County Planning Department for GML review.

Items Reviewed for our previous memorandum dated November 27, 2023:

- Wall Plan for 33 Astor Place, stamped by Paul Gdanski, P.E., dated 11/5/23.
- Landscape Plan for Nussen Residence, unstamped, by Blythe M. Yost, ASLA, Yost Design Landscape Architecture, dated April 23, 2022.

Items Reviewed for our previous memorandum dated September 26, 2023:

- Cut and Fill Calculations, by CivilTec, dated August 10, 2023.
- Cut and Fill Calculations, by CivilTec, dated February 28, 2023.
- Response to NPV and Brooker comments, from Rachel Barese, P.E., Civil Tec, to Village of Wesley Hills, re: 33 Astor Place, dated September 20, 2023.
- Drywell Calculations, prepared by CivilTec Engineering and Surveying, dated January 2022, revised September 2023.
- Site Plan Set, 2 Sheets, for 33 Astor Place, stamped by Rachel Barese, P.E., CivilTec Engineering & Surveying PC, dated June 29, 2021, with latest revision date of September 20, 2023, as follows.
 - 1 – Plot Plan
 - 2 – Details

Items Reviewed for our previous memorandum dated September 5, 2023:

- Response to NPV and Brooker comments, from Rachel Barese, P.E., Civil Tec, to Village of Wesley Hills, re: 33 Astor Place, dated August 11, 2023.
- Drywell Calculations, prepared by CivilTec Engineering and Surveying, dated January 2022, revised August 2023.
- Site Plan Set, 2 Sheets, for 33 Astor Place, stamped by Rachel Barese, P.E., CivilTec Engineering & Surveying PC, dated June 29, 2021, with latest revision date of August 3, 2023, as follows.
 - 1 – Plot Plan
 - 2 – Details

Items Reviewed for our previous memorandum dated March 31, 2023:

- Response to Planner Comments letter, from Rachel Barese, P.E., Civil Tec, to Village of Wesley Hills, re: 33 Astor Place, dated March 20, 2023.
- Site Plan Set, 2 Sheets, for 33 Astor Place, stamped by Rachel Barese, P.E., CivilTec Engineering & Surveying PC, with latest revision date of March 20, 2023, as follows.
 - 1 – Plot Plan
 - 2 – Details

Items reviewed for our previous memorandum, dated March 8, 2023:

- Application for Clearing, Filling or Excavation of Land, signed March 1, 2023.
- Drainage Calculations, by CivilTec Engineering, dated February 2023.
- Site Plan Set, 2 Sheets, stamped by Rachel Barese, P.E., CivilTec Engineering & Surveying PC, last revised February 24, 2023, as follows.
 - 1 – Plot Plan
 - 2 – Details

Client:	M&T Excavation	Project:	25 Highview
Item:	Import Fill	Project Number:	221291
Source:	2 Perrins Peak Road	Lab Number:	22-1223B
Date Sampled:	9/23/2022	Sampled By:	Client
Date Tested:	9/24/2022	Tested By:	Mark D'Apice

GRADATION (SIEVE ANALYSIS) OF SOIL OR AGGREGATE

Test Method(s): ASTM D422, C136, C117; AASHTO T88, T27, T11

Lab Number	Sample Type	Sampling Location	Specification
22-1223B	Import Fill	Stockpile	No Specification

Sieve Size		% Retained	% Passing	Spec. % Pass
mm	Inches			
50.0 mm	2"	0.0	100	
37.5 mm	1 1/2"	0.0	100	
25.0 mm	1"	3.6	96	
19.0 mm	3/4"	3.1	93	
12.5 mm	1/2"	3.6	90	
9.5 mm	3/8"	2.1	88	
6.3 mm	1/4"	4.2	83	
4.75 mm	#4	2.4	81	
2.36 mm	#8	6.1	75	
1.18 mm	#16	7.7	67	
0.600 mm	#30	11.3	56	
0.300 mm	#50	13.6	42	
0.150 mm	#100	12.1	30	
0.075 mm	#200	8.4	22	
Pan		21.8		

Comments:

Minus #200 by wash-sieve method.

Emily J. Rodriguez

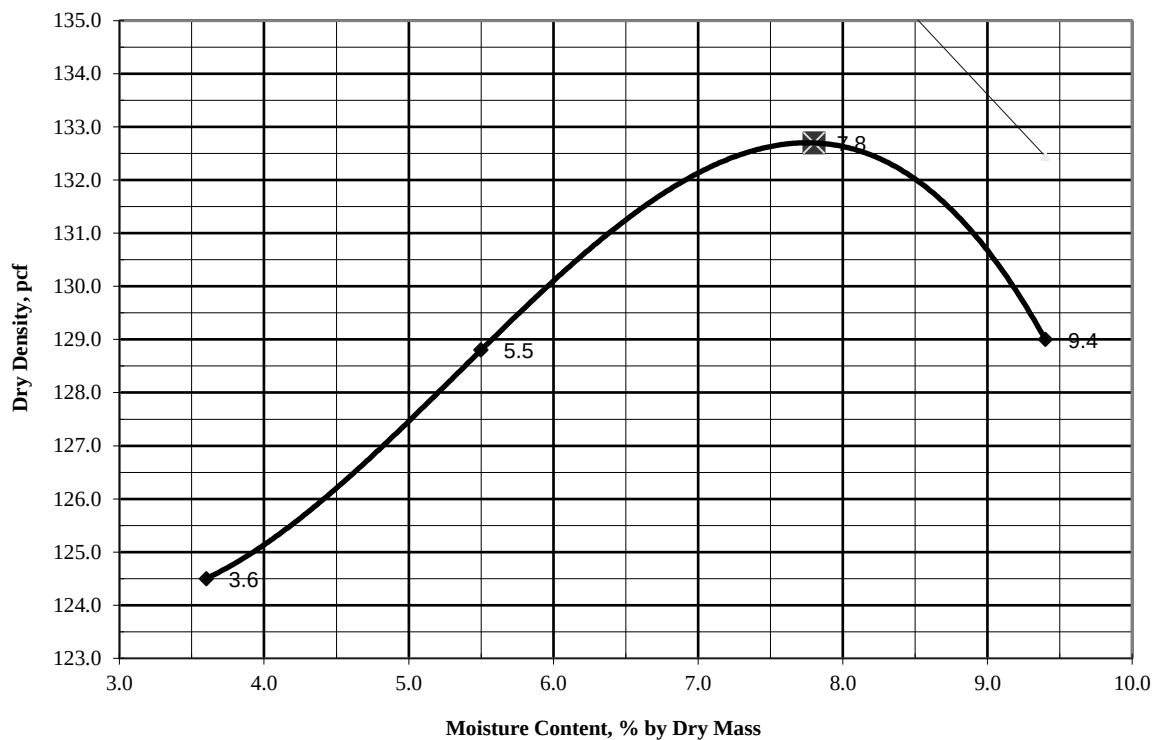
Report Reviewed By:

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The results in this report relate only to the items inspected or tested.

PDF

CLIENT:	M&T Excavation	PROJECT NO.:	221291
PROJECT:	25 Highview	LAB NUMBER:	22-1223B
TEST METHOD:	ASTM D 1557 'Modified Proctor'	Method:	B
SOIL ID NUMBER:	2		
ITEM:	Import Fill		
SOURCE:	2 Perrins Peak Road		
SOIL DESCRIPTION:	Brown Silty Sand w/ Gravel; 49% Sand; 29% Gravel; 22% Silt		
DATE SAMPLED:	9/23/2022	SAMPLED BY:	Client
DATE TESTED:	9/24/2022	TESTED BY:	Mark D'Apice

REPORT OF MOISTURE DENSITY RELATIONSHIP



Individual Test Points	
Percent Moisture	Dry Density
3.6	124.5
5.5	128.8
7.8	132.7
9.4	129.0

Uncorrected Maximum Dry Density:	132.7	lb/cu. ft.
Uncorrected Optimum Moisture Content:	7.8	%
Specific Gravity of Soils *:	2.65	
Percent Oversize Particles:	12.4	%
Specific Gravity of Oversize*:	2.67	

Corrected* Maximum Dry Density:	136.1	lb/cu. ft.
Corrected* Opt. Moisture Content:	7.0	%

**Corrected for oversize, when oversize particles exceed 5% of sample.

Emily J. Rodriguez

Report Reviewed By:

*Specific Gravity of Soils Estimated and Specific Gravity of Oversize Estimated.

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BROOKER ENGINEERING
a division of Weston & SampsonSM

74 Lafayette Avenue, Suite 501, Suffern, NY 10901
Tel: 845.357.4411

March 27, 2024

Village of Wesley Hills
Planning Board
432 Route 306
Wesley Hills, New York 10952

Attn: Alicia Schultz, Deputy Village Clerk
Re: 33 Astor Place
Clearing/Filling/Excavation Application Review

Dear Planning Board Members,

Our office has reviewed the submission of documents in support of the above captioned project consisting of:

1. Plan entitled "Construction Plan, Proposed Walls", prepared by Thomas W. Skrable, PE., dated 11/17/23, 1 sheet.
2. Plan entitled "Plot Plan for 33 Astor Place", prepared by Civil Tec Engineering and Surveying, last dated January 3, 2024, 2 sheets.
3. Plan entitled "Nussen Residence Screen Planting Plan", last dated December 6, 2023, Sheet L-701.
4. Retaining Wall Calculations, prepared by Thomas W. Skrable, PE, dated 11/17/23
5. Contractor Certification Letter, signed by Levy Steinfeld of LY Contractor Consulting, dated March 4, 2024
6. Sieve/Moisture Density Relationship Analysis for 25 Highview Road, Monsey, NY, prepared by Advanced Testing, dated September 24, 2022

Our office offers the following comments:

General

1. We are not in receipt of soil test results from the imported soil in accordance with 375 Soil Test Parameters for Residential Use. The chain of command in collecting samples shall be adhered to and the results submitted. **This remains to be addressed.**
2. Structural Calculations for retaining walls are now provided. The Construction Plan provided indicates a grid length of 12.4 feet is needed to stabilize the approximate 14 feet in height section of wall, yet the proposed pool is located within approximately 8 feet of the proposed wall, thus there is a conflict. Our office requests that a cross-section of the wall/geogrid in relation to the pool be provided. Specific attention shall be taken for the loads associated with the proposed pool, as well as saturated soils from the proposed pervious pavers. The structural calculations shall address both conditions. This shall include confirmation of the proper compaction to stabilize the grid system, and structurally support the proposed pool. Certification from a professional engineer as to the proper compaction, and construction of the retaining walls in accordance with the signed, sealed structural calculations and details is to be provided prior to the issuance of a C.O.

Plot Plan

3. Pervious pavers are proposed in the rear yard and will be constructed over fill material. We are in receipt of a Sieve/Moisture Density Relationship Analysis for 25 Highview Road, Monsey, NY, prepared by Advanced Testing, dated September 24, 2022. Our office requests the Applicant provide a percolation rate for the design fill placement based on the testing to confirm it is consistent with the assumed design infiltration rate noted on the Plot Plan. It is noted that the soil is generally described as gravelly sand.

4. Certification for proper installation of pervious pavers over fill material will be required prior to issuance of Certificate of Occupancy.
5. Village Engineer to be notified 48 hours prior to additional drainage mitigation installation and witnessed/approved.
6. The plan has been amended to include a 4 feet high chain link fence on the top of the retaining walls.
7. Soil test results have been submitted for percolation tests performed in the front yard. The seepage pit system is proposed in the front yard.

Sincerely,

Devon Palmieri

WESTON & SAMPSON, PE, LS, LA, Architects, PC
Devon Palmieri, EIT
Engineer III

CC: CC. Jonathan Lockman, AICP – Village Planner
Frank Brown, Esq.- Planning Board Attorney
Camille Guido-Downey – Village Clerk
John Layne – Building Inspector
Rachel Barese, PE – Applicant's Engineer

Y:\VILLAGES\WH Wesley Hills\WH0191 - 2022 Plot Plans\33 Astor Place\2024-03-27 Clearing Filling Application.docx

Phoenix Environmental Laboratories, Inc.

587 East Middle Turnpike
P.O. Box 370
Manchester, CT 06040
(860) 645-1102

Lab Sample Id
Collection Date
Client Id
Matrix

CQ44465
4/4/2024
IMPORT SOILS
Soil

Project Id : 33 ASTOR PLACE WESLEY HILLS, NY

	CAS	Units	NY-GWP	NY-Res.	Result	RL
Miscellaneous/Inorganics						
Percent Solid	PHNX - PCTSOLID	%			88	
Chromium, Hex. (SW3060A digestion)	18540-29-9	mg/Kg	19	22	< 0.43	0.43
Methylacetate	79-20-9	ug/Kg			< 4.0	4.0
pH at 25C - Soil	PHNX - PH	pH Units			7.75	1.00
Redox Potential	PHNX - REDOX	mV			159	
Total Cyanide (SW9010C Distill.)	57-12-5	mg/Kg	40	27	< 0.57	0.57
Metals, Total						
Arsenic	7440-38-2	mg/Kg	16	16	3.18	0.67
Barium	7440-39-3	mg/Kg	820	350	48.5	0.33
Beryllium	7440-41-7	mg/Kg	47	14	0.44	0.27
Cadmium	7440-43-9	mg/Kg	7.5	2.5	0.41	0.33
Chromium	7440-47-3	mg/Kg			13.7	0.33
Copper	7440-50-8	mg/kg	1,720	270	15.8	0.7
Lead	7439-92-1	mg/Kg	450	400	12	0.33
Manganese	7439-96-5	mg/Kg	2,000	2,000	396	0.33
Mercury	7439-97-6	mg/Kg	0.73	0.81	< 0.03	0.03
Nickel	7440-02-0	mg/Kg	130	140	13.9	0.33
Selenium	7782-49-2	mg/Kg	4	36	< 1.3	1.3
Silver	7440-22-4	mg/Kg	8.3	36	< 0.33	0.33
Trivalent Chromium	16065-83-1	mg/kg		36	13.7	0.33
Zinc	7440-66-6	mg/Kg	2,480	2,200	41.4	0.7
PCBs By SW8082A						
PCB-1016	12674-11-2	ug/Kg		1,000	< 370	370
PCB-1221	11104-28-2	ug/Kg		1,000	< 370	370
PCB-1232	11141-16-5	ug/Kg		1,000	< 370	370
PCB-1242	53469-21-9	ug/Kg		1,000	< 370	370
PCB-1248	12672-29-6	ug/Kg		1,000	< 370	370
PCB-1254	11097-69-1	ug/Kg		1,000	< 370	370
PCB-1260	11096-82-5	ug/Kg		1,000	< 370	370
PCB-1262	37324-23-5	ug/Kg			< 370	370
PCB-1268	11100-14-4	ug/Kg			< 370	370
Volatiles By SW8260D						
1,1,1,2-Tetrachloroethane	630-20-6	ug/Kg			< 16	16
1,1,1-Trichloroethane	71-55-6	ug/Kg	680	100,000	< 4.0	4.0
1,1,2,2-Tetrachloroethane	79-34-5	ug/Kg			< 4.0	4.0
1,1,2-Trichloroethane	79-00-5	ug/Kg			< 4.0	4.0
1,1-Dichloroethane	75-34-3	ug/Kg	270	19,000	< 4.0	4.0
1,1-Dichloroethene	75-35-4	ug/Kg	330	100,000	< 4.0	4.0
1,1-Dichloropropene	563-58-6	ug/Kg			< 4.0	4.0
1,2,3-Trichlorobenzene	87-61-6	ug/Kg			< 4.0	4.0
1,2,3-Trichloropropane	96-18-4	ug/Kg			< 4.0	4.0
1,2,4-Trichlorobenzene	120-82-1	ug/Kg			< 4.0	4.0
1,2,4-Trimethylbenzene	95-63-6	ug/Kg	3,600	47,000	< 4.0	4.0
1,2-Dibromo-3-chloropropane	96-12-8	ug/Kg			< 4.0	4.0
1,2-Dibromoethane	106-93-4	ug/Kg			< 4.0	4.0
1,2-Dichlorobenzene	95-50-1	ug/Kg	1,100	100,000	< 4.0	4.0
1,2-Dichloroethane	107-06-2	ug/Kg	20	2,300	< 4.0	4.0
1,2-Dichloropropane	78-87-5	ug/Kg			< 4.0	4.0
1,3,5-Trimethylbenzene	108-67-8	ug/Kg	8,400	47,000	< 4.0	4.0
1,3-Dichlorobenzene	541-73-1	ug/Kg	2,400	17,000	< 4.0	4.0
1,3-Dichloropropane	142-28-9	ug/Kg			< 4.0	4.0
1,4-Dichlorobenzene	106-46-7	ug/Kg	1,800	9,800	< 4.0	4.0
2,2-Dichloropropane	594-20-7	ug/Kg			< 4.0	4.0

2-Chlorotoluene	95-49-8	ug/Kg			< 4.0	4.0
2-Hexanone	591-78-6	ug/Kg			< 20	20
2-Isopropyltoluene	527-84-4	ug/Kg			< 4.0	4.0
4-Chlorotoluene	106-43-4	ug/Kg			< 4.0	4.0
4-Methyl-2-pentanone	108-10-1	ug/Kg			< 20	20
Acetone	67-64-1	ug/Kg	50	100,000	< 20	20
Acrylonitrile	107-13-1	ug/Kg			< 16	16
Benzene	71-43-2	ug/Kg	60	2,900	< 4.0	4.0
Bromobenzene	108-86-1	ug/Kg			< 4.0	4.0
Bromochloromethane	74-97-5	ug/Kg			< 4.0	4.0
Bromodichloromethane	75-27-4	ug/Kg			< 4.0	4.0
Bromoform	75-25-2	ug/Kg			< 4.0	4.0
Bromomethane	74-83-9	ug/Kg			< 4.0	4.0
Carbon Disulfide	75-15-0	ug/Kg			< 4.0	4.0
Carbon tetrachloride	56-23-5	ug/Kg	760	1,400	< 4.0	4.0
Chlorobenzene	108-90-7	ug/Kg	1,100	100,000	< 4.0	4.0
Chloroethane	75-00-3	ug/Kg			< 4.0	4.0
Chloroform	67-66-3	ug/Kg	370	10,000	< 4.0	4.0
Chloromethane	74-87-3	ug/Kg			< 4.0	4.0
cis-1,2-Dichloroethene	156-59-2	ug/Kg	250	59,000	< 4.0	4.0
cis-1,3-Dichloropropene	10061-01-5	ug/Kg			< 4.0	4.0
Dibromochloromethane	124-48-1	ug/Kg			< 4.0	4.0
Dibromomethane	74-95-3	ug/Kg			< 4.0	4.0
Dichlorodifluoromethane	75-71-8	ug/Kg			< 4.0	4.0
Ethylbenzene	100-41-4	ug/Kg	1,000	30,000	< 4.0	4.0
Hexachlorobutadiene	87-68-3	ug/Kg			< 4.0	4.0
Isopropylbenzene	98-82-8	ug/Kg			< 4.0	4.0
m&p-Xylene	179601-23-1	ug/Kg			< 4.0	4.0
Methyl Ethyl Ketone	78-93-3	ug/Kg	120	100,000	< 20	20
Methyl t-butyl ether (MTBE)	1634-04-4	ug/Kg	930	62,000	< 8.0	8.0
Methylene chloride	75-09-2	ug/Kg	50	51,000	< 8.0	8.0
Naphthalene	91-20-3	ug/Kg	12,000	100,000	< 4.0	4.0
n-Butylbenzene	104-51-8	ug/Kg	12,000	100,000	< 4.0	4.0
n-Propylbenzene	103-65-1	ug/Kg	3,900	100,000	< 4.0	4.0
o-Xylene	95-47-6	ug/Kg			< 4.0	4.0
p-Isopropyltoluene	99-87-6	ug/Kg			21	4.0
sec-Butylbenzene	135-98-8	ug/Kg	11,000	100,000	< 4.0	4.0
Styrene	100-42-5	ug/Kg			< 4.0	4.0
tert-Butylbenzene	98-06-6	ug/Kg	5,900	100,000	< 4.0	4.0
Tetrachloroethene	127-18-4	ug/Kg	1,300	5,500	< 4.0	4.0
Tetrahydrofuran (THF)	109-99-9	ug/Kg			< 8.0	8.0
Toluene	108-88-3	ug/Kg	700	100,000	< 4.0	4.0
Total Xylenes	1330-20-7	ug/Kg	1,600		< 4.0	4.0
trans-1,2-Dichloroethene	156-60-5	ug/Kg	190	100,000	< 4.0	4.0
trans-1,3-Dichloropropene	10061-02-6	ug/Kg			< 4.0	4.0
trans-1,4-dichloro-2-butene	110-57-6	ug/Kg			< 8.0	8.0
Trichloroethene	79-01-6	ug/Kg	470	10,000	< 4.0	4.0
Trichlorofluoromethane	75-69-4	ug/Kg			< 4.0	4.0
Trichlorotrifluoroethane	76-13-1	ug/Kg			< 4.0	4.0
Vinyl chloride	75-01-4	ug/Kg	20	210	< 4.0	4.0
Acrolein	107-02-8	ug/Kg			< 4.0	4.0
Tert-butyl alcohol	75-65-0	ug/Kg			< 80	80
Semivolatiles By SW8270E						
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/Kg			< 260	260
1,2,4-Trichlorobenzene	120-82-1	ug/Kg			< 260	260
1,2-Dichlorobenzene	95-50-1	ug/Kg	1,100	100,000	< 260	260
1,2-Diphenylhydrazine	122-66-7	ug/Kg			< 370	370
1,3-Dichlorobenzene	541-73-1	ug/Kg	2,400	17,000	< 260	260
1,4-Dichlorobenzene	106-46-7	ug/Kg	1,800	9,800	< 260	260
2,2'-Oxybis(1-Chloropropane)	108-60-1	ug/Kg			< 260	260
2,4,5-Trichlorophenol	95-95-4	ug/Kg			< 260	260
2,4,6-Trichlorophenol	88-06-2	ug/Kg			< 260	260
2,4-Dichlorophenol	120-83-2	ug/Kg			< 260	260
2,4-Dimethylphenol	105-67-9	ug/Kg			< 260	260
2,4-Dinitrophenol	51-28-5	ug/Kg			< 370	370
2,4-Dinitrotoluene	121-14-2	ug/Kg			< 260	260

2,6-Dinitrotoluene	606-20-2	ug/Kg			< 260	260
2-Chloronaphthalene	91-58-7	ug/Kg			< 260	260
2-Chlorophenol	95-57-8	ug/Kg			< 260	260
2-Methylnaphthalene	91-57-6	ug/Kg			< 260	260
2-Methylphenol (o-cresol)	95-48-7	ug/Kg	330	100,000	< 260	260
2-Nitroaniline	88-74-4	ug/Kg			< 370	370
2-Nitrophenol	88-75-5	ug/Kg			< 260	260
3&4-Methylphenol (m&p-cresol)	PHNX - M&P CRESOL	ug/Kg			< 370	370
3,3'-Dichlorobenzidine	91-94-1	ug/Kg			< 260	260
3-Nitroaniline	99-09-2	ug/Kg			< 370	370
4,6-Dinitro-2-methylphenol	534-52-1	ug/Kg			< 370	370
4-Bromophenyl phenyl ether	101-55-3	ug/Kg			< 370	370
4-Chloro-3-methylphenol	59-50-7	ug/Kg			< 260	260
4-Chloroaniline	106-47-8	ug/Kg			< 260	260
4-Chlorophenyl phenyl ether	7005-72-3	ug/Kg			< 260	260
4-Nitroaniline	100-01-6	ug/Kg			< 600	600
4-Nitrophenol	100-02-7	ug/Kg			< 260	260
Acenaphthene	83-32-9	ug/Kg	98,000	100,000	< 260	260
Acenaphthylene	208-96-8	ug/Kg	107,000	100,000	< 260	260
Acetophenone	98-86-2	ug/Kg			< 260	260
Aniline	62-53-3	ug/Kg			< 370	370
Anthracene	120-12-7	ug/Kg	1,000,000	100,000	< 260	260
Benz(a)anthracene	56-55-3	ug/Kg	1,000	1,000	< 260	260
Benzidine	92-87-5	ug/Kg			< 260	260
Benzo(a)pyrene	50-32-8	ug/Kg	22,000	1,000	< 260	260
Benzo(b)fluoranthene	205-99-2	ug/Kg	1,700	1,000	< 260	260
Benzo(ghi)perylene	191-24-2	ug/Kg	1,000,000	100,000	< 260	260
Benzo(k)fluoranthene	207-08-9	ug/Kg	1,700	1,000	< 260	260
Benzoic acid	65-85-0	ug/Kg			< 750	750
Benzyl butyl phthalate	85-68-7	ug/Kg			< 260	260
Bis(2-chloroethoxy)methane	111-91-1	ug/Kg			< 260	260
Bis(2-chloroethyl)ether	111-44-4	ug/Kg			< 370	370
Bis(2-ethylhexyl)phthalate	117-81-7	ug/Kg			< 370	370
Carbazole	86-74-8	ug/Kg			< 370	370
Chrysene	218-01-9	ug/Kg	1,000	1,000	< 260	260
Dibenz(a,h)anthracene	53-70-3	ug/Kg	1,000,000	330	< 260	260
Dibenzofuran	132-64-9	ug/Kg	210,000	14,000	< 260	260
Diethyl phthalate	84-66-2	ug/Kg			< 260	260
Dimethylphthalate	131-11-3	ug/Kg			< 260	260
Di-n-butylphthalate	84-74-2	ug/Kg			< 370	370
Di-n-octylphthalate	117-84-0	ug/Kg			< 260	260
Fluoranthene	206-44-0	ug/Kg	1,000,000	100,000	< 260	260
Fluorene	86-73-7	ug/Kg	386,000	100,000	< 260	260
Hexachlorobenzene	118-74-1	ug/Kg	3,200	330	< 260	260
Hexachlorobutadiene	87-68-3	ug/Kg			< 260	260
Hexachlorocyclopentadiene	77-47-4	ug/Kg			< 260	260
Hexachloroethane	67-72-1	ug/Kg			< 260	260
Indeno(1,2,3-cd)pyrene	193-39-5	ug/Kg	8,200	500	< 260	260
Isophorone	78-59-1	ug/Kg			< 260	260
Naphthalene	91-20-3	ug/Kg	12,000	100,000	< 260	260
Nitrobenzene	98-95-3	ug/Kg			< 260	260
N-Nitrosodimethylamine	62-75-9	ug/Kg			< 370	370
N-Nitrosodi-n-propylamine	621-64-7	ug/Kg			< 260	260
N-Nitrosodiphenylamine	86-30-6	ug/Kg			< 370	370
Pentachloronitrobenzene	82-68-8	ug/Kg			< 370	370
Pentachlorophenol	87-86-5	ug/Kg	800	2,400	< 370	370
Phenanthrene	85-01-8	ug/Kg	1,000,000	100,000	< 260	260
Phenol	108-95-2	ug/Kg	330	100,000	< 260	260
Pyrene	129-00-0	ug/Kg	1,000,000	100,000	< 260	260
Pyridine	110-86-1	ug/Kg			< 370	370
Pesticides - Soil By SW8081B						
4,4' -DDD	72-54-8	ug/Kg	14,000	2,600	< 2.2	2.2
4,4' -DDE	72-55-9	ug/Kg	17,000	1,800	2.6	2.2
4,4' -DDT	50-29-3	ug/Kg	136,000	1,700	< 2.2	2.2
a-BHC	319-84-6	ug/Kg	20	97	< 7.3	7.3
a-Chlordane	5103-71-9	ug/Kg	2,900	910	< 3.7	3.7

Aldrin	309-00-2	ug/Kg	190	19	< 3.7	3.7
b-BHC	319-85-7	ug/Kg	90	72	< 7.3	7.3
Chlordane	57-74-9	ug/Kg			< 37	37
d-BHC	319-86-8	ug/Kg	250	100,000	< 7.3	7.3
Dieldrin	60-57-1	ug/Kg	100	39	< 3.7	3.7
Endosulfan I	959-98-8	ug/Kg	102,000	4,800	< 7.3	7.3
Endosulfan II	33213-65-9	ug/Kg	102,000	4,800	< 7.3	7.3
Endosulfan sulfate	1031-07-8	ug/Kg	1,000,000	4,800	< 7.3	7.3
Endrin	72-20-8	ug/Kg	60	2,200	< 7.3	7.3
Endrin aldehyde	7421-93-4	ug/Kg			< 7.3	7.3
Endrin ketone	53494-70-5	ug/Kg			< 7.3	7.3
g-BHC	58-89-9	ug/Kg	100	280	< 1.5	1.5
g-Chlordane	5103-74-2	ug/Kg			< 3.7	3.7
Heptachlor	76-44-8	ug/Kg	380	420	< 7.3	7.3
Heptachlor epoxide	1024-57-3	ug/Kg			< 7.3	7.3
Methoxychlor	72-43-5	ug/Kg			< 37	37
Toxaphene	8001-35-2	ug/Kg			< 150	150
Chlorinated Herbicides By SW8151A						
2,4,5-T	93-76-5	ug/Kg			< 140	140
2,4,5-TP (Silvex)	93-72-1	ug/Kg	3,800	58,000	< 140	140
2,4-D	94-75-7	ug/Kg			< 280	280
2,4-DB	94-82-6	ug/Kg			< 2800	2,800
Dalapon	75-99-0	ug/Kg			< 140	140
Dicamba	1918-00-9	ug/Kg			< 140	140
Dichloroprop	120-36-5	ug/Kg			< 280	280
Dinoseb	88-85-7	ug/Kg			< 280	280
Additional Semi-Volatile Compounds By SW8270E						
1,1-Biphenyl	92-52-4	ug/Kg			< 260	260
1,2,4,5-Tetrachlorobenzene	95-94-3	ug/Kg			< 260	260
Atrazine	1912-24-9	ug/Kg			< 150	150
Benzaldehyde	100-52-7	ug/Kg			< 260	260
Benzo(a)pyrene	50-32-8	ug/Kg	22,000	1,000	< 260	260
Caprolactam	105-60-2	ug/Kg			< 150	150
1,4-dioxane By SW8260D						
1,4-dioxane	123-91-1	ug/kg	100	9,800	< 60	60

Result Detected

RL Exceeds Criteria

Result Exceeds Criteria

Phoenix Environmental Laboratories, Inc.
587 East Middle Turnpike
P.O. Box 370
Manchester, CT 06040
(860) 645-1102

Lab Sample Id
CQ44465

Sample Comments

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Volatile Comment:

To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:

This sample is in a reducing state.



Wednesday, April 17, 2024

Attn: Mr. Scott Taylor
Taylord Environment, Inc.
PO BOX 613
Wingdale, NY 12594

Project ID: 33 ASTOR PLACE WESLEY HILLS, NY
SDG ID: GCQ44465
Sample ID#s: CQ44465

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.

Sincerely yours,

A handwritten signature in black ink that reads "Phyllis Shiller".

Phyllis Shiller

Laboratory Director

NELAC - #NY11301
CT Lab Registration #PH-0618
MA Lab Registration #M-CT007
ME Lab Registration #CT-007
NH Lab Registration #213693-A,B

NJ Lab Registration #CT-003
NY Lab Registration #11301
PA Lab Registration #68-03530
RI Lab Registration #63
VT Lab Registration #VT11301



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



SDG Comments

April 17, 2024

SDG I.D.: GCQ44465

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Sample Id Cross Reference

April 17, 2024

SDG I.D.: GCQ44465

Project ID: 33 ASTOR PLACE WESLEY HILLS, NY

Client Id	Lab Id	Matrix
IMPORT SOILS	CQ44465	SOIL



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Report

April 17, 2024

FOR: Attn: Mr. Scott Taylor
Taylord Environment, Inc.
PO BOX 613
Wingdale, NY 12594

Sample Information

Matrix: SOIL
Location Code: TAYLORD
Rush Request: Standard
P.O.#:

Custody Information

Collected by:
Received by: SR1
Analyzed by: see "By" below

Date

04/04/24

Time

16:47

Laboratory Data

SDG ID: GCQ44465
Phoenix ID: CQ44465

Project ID: 33 ASTOR PLACE WESLEY HILLS, NY
Client ID: IMPORT SOILS

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Silver	< 0.33	0.33		mg/Kg	1	04/09/24	TH	SW6010D
Arsenic	3.18	0.67		mg/Kg	1	04/09/24	TH	SW6010D
Barium	48.5	0.33		mg/Kg	1	04/09/24	TH	SW6010D
Beryllium	0.44	0.27		mg/Kg	1	04/09/24	TH	SW6010D
Cadmium	0.41	0.33		mg/Kg	1	04/09/24	TH	SW6010D
Chromium	13.7	0.33		mg/Kg	1	04/09/24	TH	SW6010D
Copper	15.8	0.7		mg/kg	1	04/09/24	TH	SW6010D
Mercury	< 0.03	0.03		mg/Kg	2	04/09/24	GW	SW7471B
Manganese	396	0.33		mg/Kg	1	04/09/24	TH	SW6010D
Nickel	13.9	0.33		mg/Kg	1	04/09/24	TH	SW6010D
Lead	12.0	0.33		mg/Kg	1	04/09/24	TH	SW6010D
Selenium	< 1.3	1.3		mg/Kg	1	04/09/24	TH	SW6010D
Trivalent Chromium	13.7	0.33		mg/kg	1	04/10/24		CALC 6010-7196
Zinc	41.4	0.7		mg/Kg	1	04/09/24	TH	SW6010D
Percent Solid	88			%		04/05/24	AC1	SW846-%Solid
Chromium, Hex. (SW3060A digestion)	< 0.43	0.43		mg/Kg	1	04/10/24	NP	SW7196A
pH at 25C - Soil	7.75	1.00		pH Units	1	04/05/24 20:47	PK	SW846 9045D 1
Redox Potential	159			mV	1	04/05/24	PK	SM2580B-09 1
Total Cyanide (SW9010C Distill.)	< 0.57	0.57		mg/Kg	1	04/11/24	EG	SW9012B
Field Extraction	Completed					04/04/24		SW5035A 1
Mercury Digestion	Completed					04/09/24	AL/AL	SW7471B
Soil Extraction for Herbicide	Completed					04/13/24	P/D	SW3546
Soil Extraction for PCB	Completed					04/11/24	R/H/A	SW3546
Soil Extraction for Pesticide	Completed					04/11/24	R/H/A	SW3546
Soil Extraction for SVOA	Completed					04/10/24	C/A	SW3546
Total Metals Digest	Completed					04/08/24	J/AG	SW3050B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
<u>Chlorinated Herbicides</u>								
2,4,5-T	ND	140		ug/Kg	10	04/16/24	JRB	SW8151A
2,4,5-TP (Silvex)	ND	140		ug/Kg	10	04/16/24	JRB	SW8151A
2,4-D	ND	280		ug/Kg	10	04/16/24	JRB	SW8151A
2,4-DB	ND	2800		ug/Kg	10	04/16/24	JRB	SW8151A
Dalapon	ND	140		ug/Kg	10	04/16/24	JRB	SW8151A
Dicamba	ND	140		ug/Kg	10	04/16/24	JRB	SW8151A
Dichloroprop	ND	280		ug/Kg	10	04/16/24	JRB	SW8151A
Dinoseb	ND	280		ug/Kg	10	04/16/24	JRB	SW8151A
<u>QA/QC Surrogates</u>								
% DCAA	72			%	10	04/16/24	JRB	30 - 150 %
% DCAA (Confirmation)	67			%	10	04/16/24	JRB	30 - 150 %
<u>Polychlorinated Biphenyls</u>								
PCB-1016	ND	370		ug/Kg	10	04/12/24	SC	SW8082A
PCB-1221	ND	370		ug/Kg	10	04/12/24	SC	SW8082A
PCB-1232	ND	370		ug/Kg	10	04/12/24	SC	SW8082A
PCB-1242	ND	370		ug/Kg	10	04/12/24	SC	SW8082A
PCB-1248	ND	370		ug/Kg	10	04/12/24	SC	SW8082A
PCB-1254	ND	370		ug/Kg	10	04/12/24	SC	SW8082A
PCB-1260	ND	370		ug/Kg	10	04/12/24	SC	SW8082A
PCB-1262	ND	370		ug/Kg	10	04/12/24	SC	SW8082A
PCB-1268	ND	370		ug/Kg	10	04/12/24	SC	SW8082A
<u>QA/QC Surrogates</u>								
% DCBP	77			%	10	04/12/24	SC	30 - 150 %
% DCBP (Confirmation)	70			%	10	04/12/24	SC	30 - 150 %
% TCMX	82			%	10	04/12/24	SC	30 - 150 %
% TCMX (Confirmation)	83			%	10	04/12/24	SC	30 - 150 %
<u>Pesticides - Soil</u>								
4,4' -DDD	ND	2.2		ug/Kg	2	04/12/24	AW	SW8081B
4,4' -DDE	2.6	2.2		ug/Kg	2	04/12/24	AW	SW8081B
4,4' -DDT	ND	2.2		ug/Kg	2	04/12/24	AW	SW8081B
a-BHC	ND	7.3		ug/Kg	2	04/12/24	AW	SW8081B
a-Chlordane	ND	3.7		ug/Kg	2	04/12/24	AW	SW8081B
Aldrin	ND	3.7		ug/Kg	2	04/12/24	AW	SW8081B
b-BHC	ND	7.3		ug/Kg	2	04/12/24	AW	SW8081B
Chlordane	ND	37		ug/Kg	2	04/12/24	AW	SW8081B
d-BHC	ND	7.3		ug/Kg	2	04/12/24	AW	SW8081B
Dieldrin	ND	3.7		ug/Kg	2	04/12/24	AW	SW8081B
Endosulfan I	ND	7.3		ug/Kg	2	04/12/24	AW	SW8081B
Endosulfan II	ND	7.3		ug/Kg	2	04/12/24	AW	SW8081B
Endosulfan sulfate	ND	7.3		ug/Kg	2	04/12/24	AW	SW8081B
Endrin	ND	7.3		ug/Kg	2	04/12/24	AW	SW8081B
Endrin aldehyde	ND	7.3		ug/Kg	2	04/12/24	AW	SW8081B
Endrin ketone	ND	7.3		ug/Kg	2	04/12/24	AW	SW8081B
g-BHC	ND	1.5		ug/Kg	2	04/12/24	AW	SW8081B
g-Chlordane	ND	3.7		ug/Kg	2	04/12/24	AW	SW8081B
Heptachlor	ND	7.3		ug/Kg	2	04/12/24	AW	SW8081B

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Heptachlor epoxide	ND	7.3		ug/Kg	2	04/12/24	AW	SW8081B
Methoxychlor	ND	37		ug/Kg	2	04/12/24	AW	SW8081B
Toxaphene	ND	150		ug/Kg	2	04/12/24	AW	SW8081B
<u>QA/QC Surrogates</u>								
% DCBP	64			%	2	04/12/24	AW	30 - 150 %
% DCBP (Confirmation)	58			%	2	04/12/24	AW	30 - 150 %
% TCMX	53			%	2	04/12/24	AW	30 - 150 %
% TCMX (Confirmation)	53			%	2	04/12/24	AW	30 - 150 %
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
1,1,1-Trichloroethane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
1,1,2,2-Tetrachloroethane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
1,1,2-Trichloroethane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
1,1-Dichloroethane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
1,1-Dichloroethene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
1,1-Dichloropropene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
1,2,3-Trichlorobenzene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
1,2,3-Trichloropropane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
1,2,4-Trichlorobenzene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
1,2,4-Trimethylbenzene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
1,2-Dibromo-3-chloropropane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
1,2-Dibromoethane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
1,2-Dichlorobenzene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
1,2-Dichloroethane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
1,2-Dichloropropane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
1,3,5-Trimethylbenzene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
1,3-Dichlorobenzene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
1,3-Dichloropropane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
1,4-Dichlorobenzene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
2,2-Dichloropropane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
2-Chlorotoluene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
2-Hexanone	ND	20		ug/Kg	1	04/06/24	JLI	SW8260D
2-Isopropyltoluene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
4-Chlorotoluene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
4-Methyl-2-pentanone	ND	20		ug/Kg	1	04/06/24	JLI	SW8260D
Acetone	ND	20		ug/Kg	1	04/06/24	JLI	SW8260D
Acrylonitrile	ND	8.0		ug/Kg	1	04/06/24	JLI	SW8260D
Benzene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Bromobenzene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Bromochloromethane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Bromodichloromethane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Bromoform	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Bromomethane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Carbon Disulfide	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Carbon tetrachloride	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Chlorobenzene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Chloroethane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Chloroform	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Chloromethane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
cis-1,2-Dichloroethene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
cis-1,3-Dichloropropene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Dibromochloromethane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Dibromomethane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Dichlorodifluoromethane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Ethylbenzene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Hexachlorobutadiene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Isopropylbenzene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
m&p-Xylene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Methyl Ethyl Ketone	ND	20		ug/Kg	1	04/06/24	JLI	SW8260D
Methyl t-butyl ether (MTBE)	ND	8.0		ug/Kg	1	04/06/24	JLI	SW8260D
Methylene chloride	ND	8.0		ug/Kg	1	04/06/24	JLI	SW8260D
Naphthalene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
n-Butylbenzene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
n-Propylbenzene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
o-Xylene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
p-Isopropyltoluene	21	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
sec-Butylbenzene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Styrene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
tert-Butylbenzene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Tetrachloroethene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Tetrahydrofuran (THF)	ND	8.0		ug/Kg	1	04/06/24	JLI	SW8260D
Toluene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Total Xylenes	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
trans-1,2-Dichloroethene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
trans-1,3-Dichloropropene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
trans-1,4-dichloro-2-butene	ND	8.0		ug/Kg	1	04/06/24	JLI	SW8260D
Trichloroethene	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Trichlorofluoromethane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Trichlorotrifluoroethane	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Vinyl chloride	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
<u>QA/QC Surrogates</u>								
% 1,2-dichlorobenzene-d4	97			%	1	04/06/24	JLI	70 - 130 %
% Bromofluorobenzene	91			%	1	04/06/24	JLI	70 - 130 %
% Dibromofluoromethane	95			%	1	04/06/24	JLI	70 - 130 %
% Toluene-d8	96			%	1	04/06/24	JLI	70 - 130 %
<u>1,4-dioxane</u>								
1,4-dioxane	ND	60		ug/kg	1	04/06/24	JLI	SW8260D
<u>Volatiles</u>								
1,1,1,2-Tetrachloroethane	ND	16		ug/Kg	1	04/06/24	JLI	SW8260D
Acrolein	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
Acrylonitrile	ND	16		ug/Kg	1	04/06/24	JLI	SW8260D
Tert-butyl alcohol	ND	80		ug/Kg	1	04/06/24	JLI	SW8260D
Methylacetate	ND	4.0		ug/Kg	1	04/06/24	JLI	SW8260D
<u>Semivolatiles</u>								
1,2,4,5-Tetrachlorobenzene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
1,2,4-Trichlorobenzene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
1,2-Dichlorobenzene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
1,2-Diphenylhydrazine	ND	370		ug/Kg	1	04/11/24	MR	SW8270E
1,3-Dichlorobenzene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
1,4-Dichlorobenzene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
2,2'-Oxybis(1-Chloropropane)	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
2,4,5-Trichlorophenol	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
2,4,6-Trichlorophenol	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
2,4-Dichlorophenol	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
2,4-Dimethylphenol	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
2,4-Dinitrophenol	ND	370		ug/Kg	1	04/11/24	MR	SW8270E
2,4-Dinitrotoluene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
2,6-Dinitrotoluene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
2-Chloronaphthalene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
2-Chlorophenol	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
2-Methylnaphthalene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
2-Methylphenol (o-cresol)	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
2-Nitroaniline	ND	370		ug/Kg	1	04/11/24	MR	SW8270E
2-Nitrophenol	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
3&4-Methylphenol (m&p-cresol)	ND	370		ug/Kg	1	04/11/24	MR	SW8270E
3,3'-Dichlorobenzidine	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
3-Nitroaniline	ND	370		ug/Kg	1	04/11/24	MR	SW8270E
4,6-Dinitro-2-methylphenol	ND	370		ug/Kg	1	04/11/24	MR	SW8270E
4-Bromophenyl phenyl ether	ND	370		ug/Kg	1	04/11/24	MR	SW8270E
4-Chloro-3-methylphenol	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
4-Chloroaniline	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
4-Chlorophenyl phenyl ether	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
4-Nitroaniline	ND	600		ug/Kg	1	04/11/24	MR	SW8270E
4-Nitrophenol	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Acenaphthene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Acenaphthylene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Acetophenone	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Aniline	ND	370		ug/Kg	1	04/11/24	MR	SW8270E
Anthracene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Benz(a)anthracene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Benzidine	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Benzo(a)pyrene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Benzo(b)fluoranthene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Benzo(ghi)perylene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Benzo(k)fluoranthene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Benzoic acid	ND	750		ug/Kg	1	04/11/24	MR	SW8270E
Benzyl butyl phthalate	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Bis(2-chloroethoxy)methane	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Bis(2-chloroethyl)ether	ND	370		ug/Kg	1	04/11/24	MR	SW8270E
Bis(2-ethylhexyl)phthalate	ND	370		ug/Kg	1	04/11/24	MR	SW8270E
Carbazole	ND	370		ug/Kg	1	04/11/24	MR	SW8270E
Chrysene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Dibenz(a,h)anthracene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Dibenzofuran	ND	260		ug/Kg	1	04/11/24	MR	SW8270E

1

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
Diethyl phthalate	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Dimethylphthalate	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Di-n-butylphthalate	ND	370		ug/Kg	1	04/11/24	MR	SW8270E
Di-n-octylphthalate	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Fluoranthene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Fluorene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Hexachlorobenzene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Hexachlorobutadiene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Hexachlorocyclopentadiene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Hexachloroethane	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Indeno(1,2,3-cd)pyrene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Isophorone	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Naphthalene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Nitrobenzene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
N-Nitrosodimethylamine	ND	370		ug/Kg	1	04/11/24	MR	SW8270E
N-Nitrosodi-n-propylamine	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
N-Nitrosodiphenylamine	ND	370		ug/Kg	1	04/11/24	MR	SW8270E
Pentachloronitrobenzene	ND	370		ug/Kg	1	04/11/24	MR	SW8270E
Pentachlorophenol	ND	370		ug/Kg	1	04/11/24	MR	SW8270E
Phenanthrene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Phenol	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Pyrene	ND	260		ug/Kg	1	04/11/24	MR	SW8270E
Pyridine	ND	370		ug/Kg	1	04/11/24	MR	SW8270E
<u>QA/QC Surrogates</u>								
% 2,4,6-Tribromophenol	67			%	1	04/11/24	MR	30 - 130 %
% 2-Fluorobiphenyl	59			%	1	04/11/24	MR	30 - 130 %
% 2-Fluorophenol	60			%	1	04/11/24	MR	30 - 130 %
% Nitrobenzene-d5	61			%	1	04/11/24	MR	30 - 130 %
% Phenol-d5	63			%	1	04/11/24	MR	30 - 130 %
% Terphenyl-d14	59			%	1	04/11/24	MR	30 - 130 %

Additional Semi-Volatile Compounds

1,1-Biphenyl	ND	260	110	ug/Kg	1	04/11/24	MR	SW8270E
1,2,4,5-Tetrachlorobenzene	ND	260	130	ug/Kg	1	04/11/24	MR	SW8270E
Atrazine	ND	150	75	ug/Kg	1	04/11/24	MR	SW8270E
Benzaldehyde	ND	260	110	ug/Kg	1	04/11/24	MR	SW8270E
Benzo(a)pyrene	ND	260	120	ug/Kg	1	04/11/24	MR	SW8270E
Caprolactam	ND	150	150	ug/Kg	1	04/11/24	MR	SW8270E

QA/QC Surrogates

% 2,4,6-Tribromophenol	67			%	1	04/11/24	MR	30 - 130 %
% 2-Fluorobiphenyl	59			%	1	04/11/24	MR	30 - 130 %
% 2-Fluorophenol	60			%	1	04/11/24	MR	30 - 130 %
% Nitrobenzene-d5	61			%	1	04/11/24	MR	30 - 130 %
% Phenol-d5	63			%	1	04/11/24	MR	30 - 130 %
% Terphenyl-d14	59			%	1	04/11/24	MR	30 - 130 %

Parameter	Result	RL/ PQL	LOD/ MDL	Units	Dilution	Date/Time	By	Reference
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1 = This parameter is not certified by the primary accrediting authority (NY NELAC) for this matrix. NY NELAC does not offer certification for all parameters at this time.

RL/PQL=Reporting/Practical Quantitation Level (Equivalent to NELAC LOQ, Limit of Quantitation) ND=Not Detected at RL/PQL
BRL=Below Reporting Level L=Biased Low LOD=Limit of Detection MDL=Method Detection Limit1

QA/QC Surrogates: Surrogates are compounds (preceded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

Comments:

Per 1.4.6 of EPA method 8270D, 1,2-Diphenylhydrazine is unstable and readily converts to Azobenzene. Azobenzene is used for the calibration of 1,2-Diphenylhydrazine.

Please be advised that the NY 375 soil criteria for chromium are based on hexavalent chromium and trivalent chromium.

The regulatory hold time for pH is immediately. This pH was performed in the laboratory and may be considered outside of hold-time.

Volatile Comment:

To achieve client's objectives, where the lowest calibration standard or LOD justifies lowering the RL/PQL, the RL/PQL of some compounds have been lowered to meet criteria.

Hexavalent Chromium:

This sample is in a reducing state.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If you are the client above and have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext.200. The contents of this report cannot be discussed with anyone other than the client listed above without their written consent.



Phyllis Shiller, Laboratory Director

April 17, 2024

Reviewed and Released by: Anil Makol, Project Manager



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102



QA/QC Report

April 17, 2024

QA/QC Data

SDG I.D.: GCQ44465

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
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QA/QC Batch 726183 (mg/kg), QC Sample No: CQ44218 40X (CQ44465)

Chromium, Hexavalent - Soil

Chromium, Hexavalent	BRL	0.40	<0.39	<0.38	NC	91.6						85 - 115	30
Chromium, Hexavalent (Ins)						95.3			89.7			85 - 115	30
Chromium, Hexavalent (Sol)						89.7			85.7			85 - 115	30

QA/QC Batch 725964 (mg/kg), QC Sample No: CQ44486 2X (CQ44465)

Mercury - Soil	BRL	0.03	<0.03	<0.03	NC	110	113	2.7	102	92.2	10.1	70 - 130	30
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Comment:

Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

QA/QC Batch 725887 (mg/kg), QC Sample No: CQ44210 (CQ44465)

ICP Metals - Soil

Arsenic	BRL	0.67	4.51	3.91	14.3	79.6	89.9	12.2	89.6			75 - 125	35
Barium	BRL	0.33	52.3	81.4	43.5	83.7	94.8	12.4	101			75 - 125	35 r
Beryllium	BRL	0.27	0.49	0.43	NC	88.2	97.4	9.9	94.1			75 - 125	35
Cadmium	BRL	0.33	0.49	0.70	NC	81.8	91.5	11.2	92.1			75 - 125	35
Chromium	BRL	0.33	17.9	17.5	2.30	85.2	94.8	10.7	93.2			75 - 125	35
Copper	BRL	0.67	21.2	44.4	70.7	80.3	90.6	12.1	103			75 - 125	35 r
Lead	BRL	0.33	84.2	144	52.4	79.3	88.9	11.4	82.7			75 - 125	35 r
Manganese	BRL	0.33	257	248	3.60	83.4	91.3	9.0	>130			75 - 125	35 m
Nickel	BRL	0.33	20.1	23.3	14.7	85.6	93.0	8.3	92.4			75 - 125	35
Selenium	BRL	1.3	<1.6	<1.5	NC	78.0	89.1	13.3	81.2			75 - 125	35
Silver	BRL	0.33	<0.39	<0.37	NC	81.9	92.9	12.6	92.1			75 - 125	35
Zinc	BRL	0.67	90.9	246	92.1	81.2	88.5	8.6	>130			75 - 125	35 m,r

Comment:

Additional Criteria: LCS acceptance range is 80-120% MS acceptance range 75-125%.

m = This parameter is outside laboratory MS/MSD specified recovery limits.

r = This parameter is outside laboratory RPD specified recovery limits.



Environmental Laboratories, Inc.
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QA/QC Report

April 17, 2024

QA/QC Data

SDG I.D.: GCQ44465

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
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QA/QC Batch 726103 (mg/Kg), QC Sample No: CQ44208 50X (CQ44465)

Total Cyanide (SW9010C Distill.)	BRL	0.50	<0.56	1.24	NC	112			107			80 - 120	30
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Comment:

Additional: LCS acceptance range is 80-120% for soils MS acceptance range 75-125% for soils

QA/QC Batch 725748 (PH), QC Sample No: CQ44198 (CQ44465)

pH			8.77	8.78	0.10	101						85 - 115	20
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QA/QC Batch 725749 (mV), QC Sample No: CQ44198 (CQ44465)

Redox Potential			52.0	60.8	NC							75 - 125	30
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Comment:

Additional criteria matrix spike acceptance range is 75-125%.



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QA/QC Report

April 17, 2024

QA/QC Data

SDG I.D.: GCQ44465

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 726776 (ug/Kg), QC Sample No: CQ44626 10X (CQ44465)										
Chlorinated Herbicides - Soil										
2,4,5-T	ND	130	75	79	5.2	59	74	22.6	40 - 140	30
2,4,5-TP (Silvex)	ND	130	78	82	5.0	67	80	17.7	40 - 140	30
2,4-D	ND	250	67	70	4.4	55	75	30.8	40 - 140	30
2,4-DB	ND	2500	59	57	3.4	47	66	33.6	40 - 140	30
Dalapon	ND	130	73	63	14.7	55	54	1.8	40 - 140	30
Dicamba	ND	130	90	92	2.2	71	81	13.2	40 - 140	30
Dichloroprop	ND	130	92	97	5.3	70	86	20.5	40 - 140	30
Dinoseb	ND	130	91	82	10.4	86	82	4.8	40 - 140	30
% DCAA (Surrogate Rec)	113	%	96	107	10.8	78	104	28.6	30 - 150	30
% DCAA (Surrogate Rec) (Confirm)	87	%	84	91	8.0	68	87	24.5	30 - 150	30

Comment:

Additional criteria: LCS acceptance range is 40-140% MS acceptance range 30-150%.

QA/QC Batch 726504 (ug/Kg), QC Sample No: CQ44626 2X (CQ44465)

Polychlorinated Biphenyls - Soil

PCB-1016	ND	33	90	78	14.3	77	70	9.5	40 - 140	30
PCB-1221	ND	33							40 - 140	30
PCB-1232	ND	33							40 - 140	30
PCB-1242	ND	33							40 - 140	30
PCB-1248	ND	33							40 - 140	30
PCB-1254	ND	33							40 - 140	30
PCB-1260	ND	33	99	85	15.2	82	72	13.0	40 - 140	30
PCB-1262	ND	33							40 - 140	30
PCB-1268	ND	33							40 - 140	30
% DCBP (Surrogate Rec)	91	%	100	87	13.9	81	77	5.1	30 - 150	30
% DCBP (Surrogate Rec) (Confirm)	93	%	104	91	13.3	83	78	6.2	30 - 150	30
% TCMX (Surrogate Rec)	83	%	92	79	15.2	78	72	8.0	30 - 150	30
% TCMX (Surrogate Rec) (Confirm)	82	%	93	81	13.8	80	73	9.2	30 - 150	30

QA/QC Batch 726505 (ug/Kg), QC Sample No: CQ44626 2X (CQ44465)

Pesticides - Soil

4,4' -DDD	ND	1.7	78			68	76	11.1	40 - 140	30
4,4' -DDE	ND	1.7	77			70	78	10.8	40 - 140	30
4,4' -DDT	ND	1.7	83			67	66	1.5	40 - 140	30
a-BHC	ND	1.0	73			41	32	24.7	40 - 140	30
a-Chlordane	ND	3.3	79			65	70	7.4	40 - 140	30
Aldrin	ND	1.0	73			53	57	7.3	40 - 140	30
b-BHC	ND	1.0	70			54	61	12.2	40 - 140	30
Chlordane	ND	33	78			59	70	17.1	40 - 140	30
d-BHC	ND	3.3	71			23	26	12.2	40 - 140	30
Dieldrin	ND	1.0	80			65	69	6.0	40 - 140	30
Endosulfan I	ND	3.3	77			42	39	7.4	40 - 140	30

QA/QC Data

SDG I.D.: GCQ44465

Item 3.

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Endosulfan II	ND	3.3	79			53	60	12.4	40 - 140	30
Endosulfan sulfate	ND	3.3	76			60	56	6.9	40 - 140	30
Endrin	ND	3.3	79			60	67	11.0	40 - 140	30
Endrin aldehyde	ND	3.3	73			44	36	20.0	40 - 140	30
Endrin ketone	ND	3.3	85			72	69	4.3	40 - 140	30
g-BHC	ND	1.0	79			49	40	20.2	40 - 140	30
g-Chlordane	ND	3.3	78			59	70	17.1	40 - 140	30
Heptachlor	ND	3.3	71			56	59	5.2	40 - 140	30
Heptachlor epoxide	ND	3.3	72			61	66	7.9	40 - 140	30
Methoxychlor	ND	3.3	81			67	68	1.5	40 - 140	30
Toxaphene	ND	130	NA			NA	NA	NC	40 - 140	30
% DCBP	82	%	84			70	69	1.4	30 - 150	30
% DCBP (Confirmation)	75	%	74			51	59	14.5	30 - 150	30
% TCMX	77	%	75			61	65	6.3	30 - 150	30
% TCMX (Confirmation)	76	%	74			51	62	19.5	30 - 150	30

Comment:

This batch consists of a Blank, LCS, MS and MSD.

QA/QC Batch 726262 (ug/kg), QC Sample No: CQ44626 (CQ44465)

Semivolatiles - Soil

1,1-Biphenyl	ND	230	60	63	4.9	63	64	1.6	40 - 140	30
1,2,4,5-Tetrachlorobenzene	ND	230	57	64	11.6	65	59	9.7	40 - 140	30
1,2,4-Trichlorobenzene	ND	230	53	63	17.2	64	58	9.8	40 - 140	30
1,2-Dichlorobenzene	ND	180	46	56	19.6	58	58	0.0	40 - 140	30
1,2-Diphenylhydrazine	ND	230	65	66	1.5	65	68	4.5	40 - 140	30
1,3-Dichlorobenzene	ND	230	45	54	18.2	55	56	1.8	40 - 140	30
1,4-Dichlorobenzene	ND	230	44	53	18.6	55	55	0.0	40 - 140	30
2,2'-Oxybis(1-Chloropropane)	ND	230	47	57	19.2	59	63	6.6	40 - 140	30
2,4,5-Trichlorophenol	ND	230	79	79	0.0	71	72	1.4	40 - 140	30
2,4,6-Trichlorophenol	ND	130	79	80	1.3	71	71	0.0	30 - 130	30
2,4-Dichlorophenol	ND	130	72	77	6.7	75	69	8.3	30 - 130	30
2,4-Dimethylphenol	ND	230	72	78	8.0	79	73	7.9	30 - 130	30
2,4-Dinitrophenol	ND	230	94	98	4.2	67	52	25.2	30 - 130	30
2,4-Dinitrotoluene	ND	130	77	77	0.0	74	76	2.7	30 - 130	30
2,6-Dinitrotoluene	ND	130	76	77	1.3	74	74	0.0	40 - 140	30
2-Chloronaphthalene	ND	230	64	68	6.1	68	69	1.5	40 - 140	30
2-Chlorophenol	ND	230	59	70	17.1	69	70	1.4	30 - 130	30
2-Methylnaphthalene	ND	230	63	71	11.9	73	67	8.6	40 - 140	30
2-Methylphenol (o-cresol)	ND	230	63	70	10.5	74	78	5.3	40 - 140	30
2-Nitroaniline	ND	330	101	102	1.0	96	100	4.1	40 - 140	30
2-Nitrophenol	ND	230	61	73	17.9	68	65	4.5	40 - 140	30
3&4-Methylphenol (m&p-cresol)	ND	230	67	72	7.2	79	79	0.0	30 - 130	30
3,3'-Dichlorobenzidine	ND	130	112	117	4.4	109	112	2.7	40 - 140	30
3-Nitroaniline	ND	330	87	87	0.0	83	86	3.6	40 - 140	30
4,6-Dinitro-2-methylphenol	ND	230	95	97	2.1	67	57	16.1	30 - 130	30
4-Bromophenyl phenyl ether	ND	230	74	76	2.7	73	71	2.8	40 - 140	30
4-Chloro-3-methylphenol	ND	230	79	82	3.7	82	77	6.3	30 - 130	30
4-Chloroaniline	ND	230	66	71	7.3	67	66	1.5	40 - 140	30
4-Chlorophenyl phenyl ether	ND	230	69	70	1.4	69	69	0.0	40 - 140	30
4-Nitroaniline	ND	230	71	72	1.4	71	75	5.5	40 - 140	30
4-Nitrophenol	ND	230	68	68	0.0	60	65	8.0	30 - 130	30
Acenaphthene	ND	230	64	67	4.6	70	68	2.9	30 - 130	30
Acenaphthylene	ND	130	60	62	3.3	62	63	1.6	40 - 140	30

QA/QC Data

SDG I.D.: GCQ44465

Item 3.

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
Acetophenone	ND	230	50	58	14.8	60	62	3.3	40 - 140	30
Aniline	ND	330	51	59	14.5	57	57	0.0	40 - 140	30
Anthracene	ND	230	71	72	1.4	82	72	13.0	40 - 140	30
Atrazine	ND	130	68	69	1.5	62	63	1.6	40 - 140	30
Benz(a)anthracene	ND	230	73	73	0.0	87	67	26.0	40 - 140	30
Benzaldehyde	ND	230	39	70	56.9	80	94	16.1	40 - 140	30
Benzidine	ND	330	73	81	10.4	49	51	4.0	40 - 140	30
Benzo(a)pyrene	ND	130	82	83	1.2	94	75	22.5	40 - 140	30
Benzo(b)fluoranthene	ND	160	74	74	0.0	91	69	27.5	40 - 140	30
Benzo(ghi)perylene	ND	230	76	77	1.3	78	66	16.7	40 - 140	30
Benzo(k)fluoranthene	ND	230	74	75	1.3	73	68	7.1	40 - 140	30
Benzoic Acid	ND	670	99	111	11.4	62	53	15.7	30 - 130	30
Benzyl butyl phthalate	ND	230	75	74	1.3	71	71	0.0	40 - 140	30
Bis(2-chloroethoxy)methane	ND	230	62	71	13.5	70	66	5.9	40 - 140	30
Bis(2-chloroethyl)ether	ND	130	52	64	20.7	66	68	3.0	40 - 140	30
Bis(2-ethylhexyl)phthalate	ND	230	75	74	1.3	71	73	2.8	40 - 140	30
Caprolactam	ND	230	81	85	4.8	85	80	6.1	40 - 140	30
Carbazole	ND	230	73	74	1.4	76	74	2.7	40 - 140	30
Chrysene	ND	230	73	73	0.0	82	66	21.6	40 - 140	30
Dibenz(a,h)anthracene	ND	130	76	77	1.3	70	70	0.0	40 - 140	30
Dibenzofuran	ND	230	66	67	1.5	69	68	1.5	40 - 140	30
Diethyl phthalate	ND	230	71	71	0.0	68	70	2.9	40 - 140	30
Dimethylphthalate	ND	230	71	73	2.8	70	70	0.0	40 - 140	30
Di-n-butylphthalate	ND	670	76	78	2.6	73	75	2.7	40 - 140	30
Di-n-octylphthalate	ND	230	79	79	0.0	79	79	0.0	40 - 140	30
Fluoranthene	ND	230	73	74	1.4	111	66	50.8	40 - 140	30
Fluorene	ND	230	69	71	2.9	74	72	2.7	40 - 140	30
Hexachlorobenzene	ND	130	66	67	1.5	64	64	0.0	40 - 140	30
Hexachlorobutadiene	ND	230	50	60	18.2	61	55	10.3	40 - 140	30
Hexachlorocyclopentadiene	ND	230	45	51	12.5	<10	<10	NC	40 - 140	30
Hexachloroethane	ND	130	45	55	20.0	54	52	3.8	40 - 140	30
Indeno(1,2,3-cd)pyrene	ND	230	76	77	1.3	77	65	16.9	40 - 140	30
Isophorone	ND	130	57	64	11.6	64	61	4.8	40 - 140	30
Naphthalene	ND	230	54	64	16.9	66	62	6.3	40 - 140	30
Nitrobenzene	ND	130	56	65	14.9	68	71	4.3	40 - 140	30
N-Nitrosodimethylamine	ND	230	52	65	22.2	63	66	4.7	40 - 140	30
N-Nitrosodi-n-propylamine	ND	130	58	67	14.4	69	73	5.6	40 - 140	30
N-Nitrosodiphenylamine	ND	130	73	73	0.0	73	74	1.4	40 - 140	30
Pentachloronitrobenzene	ND	230	62	64	3.2	58	59	1.7	40 - 140	30
Pentachlorophenol	ND	230	77	81	5.1	74	74	0.0	30 - 130	30
Phenanthrene	ND	130	68	70	2.9	103	62	49.7	40 - 140	30
Phenol	ND	230	69	79	13.5	85	88	3.5	30 - 130	30
Pyrene	ND	230	71	73	2.8	102	67	41.4	30 - 130	30
Pyridine	ND	230	42	52	21.3	51	53	3.8	40 - 140	30
% 2,4,6-Tribromophenol	74	%	72	73	1.4	68	70	2.9	30 - 130	30
% 2-Fluorobiphenyl	60	%	59	62	5.0	63	63	0.0	30 - 130	30
% 2-Fluorophenol	63	%	54	65	18.5	63	63	0.0	30 - 130	30
% Nitrobenzene-d5	64	%	52	62	17.5	65	68	4.5	30 - 130	30
% Phenol-d5	63	%	58	67	14.4	69	70	1.4	30 - 130	30
% Terphenyl-d14	64	%	62	64	3.2	62	64	3.2	30 - 130	30

Comment:

Additional 8270 criteria: 20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

QA/QC Data

SDG I.D.: GCQ44465

Item 3.

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 725882 (ug/kg), QC Sample No: CQ44465 (CQ44465)										
<u>Volatiles - Soil (Low Level)</u>										
1,1,1,2-Tetrachloroethane	ND	5.0	116	118	1.7	91	90	1.1	70 - 130	30
1,1,1-Trichloroethane	ND	5.0	114	115	0.9	88	92	4.4	70 - 130	30
1,1,2,2-Tetrachloroethane	ND	3.0	113	117	3.5	99	99	0.0	70 - 130	30
1,1,2-Trichloroethane	ND	5.0	109	112	2.7	85	86	1.2	70 - 130	30
1,1-Dichloroethane	ND	5.0	112	114	1.8	88	93	5.5	70 - 130	30
1,1-Dichloroethene	ND	5.0	115	116	0.9	90	96	6.5	70 - 130	30
1,1-Dichloropropene	ND	5.0	112	110	1.8	89	91	2.2	70 - 130	30
1,2,3-Trichlorobenzene	ND	5.0	112	113	0.9	63	58	8.3	70 - 130	30
1,2,3-Trichloropropane	ND	5.0	110	113	2.7	97	100	3.0	70 - 130	30
1,2,4-Trichlorobenzene	ND	5.0	112	110	1.8	68	63	7.6	70 - 130	30
1,2,4-Trimethylbenzene	ND	1.0	118	116	1.7	97	96	1.0	70 - 130	30
1,2-Dibromo-3-chloropropane	ND	5.0	124	126	1.6	96	96	0.0	70 - 130	30
1,2-Dibromoethane	ND	5.0	116	119	2.6	92	91	1.1	70 - 130	30
1,2-Dichlorobenzene	ND	5.0	111	111	0.0	87	85	2.3	70 - 130	30
1,2-Dichloroethane	ND	5.0	108	108	0.0	84	82	2.4	70 - 130	30
1,2-Dichloropropane	ND	5.0	111	113	1.8	87	90	3.4	70 - 130	30
1,3,5-Trimethylbenzene	ND	1.0	119	118	0.8	100	99	1.0	70 - 130	30
1,3-Dichlorobenzene	ND	5.0	113	112	0.9	90	88	2.2	70 - 130	30
1,3-Dichloropropane	ND	5.0	115	118	2.6	93	93	0.0	70 - 130	30
1,4-Dichlorobenzene	ND	5.0	111	111	0.0	89	87	2.3	70 - 130	30
1,4-dioxane	ND	100	113	115	1.8	86	92	6.7	70 - 130	30
2,2-Dichloropropane	ND	5.0	112	113	0.9	85	90	5.7	70 - 130	30
2-Chlorotoluene	ND	5.0	115	115	0.0	99	99	0.0	70 - 130	30
2-Hexanone	ND	25	115	115	0.0	76	73	4.0	70 - 130	30
2-Isopropyltoluene	ND	5.0	122	121	0.8	101	97	4.0	70 - 130	30
4-Chlorotoluene	ND	5.0	115	115	0.0	98	97	1.0	70 - 130	30
4-Methyl-2-pentanone	ND	25	112	114	1.8	82	81	1.2	70 - 130	30
Acetone	ND	10	102	105	2.9	70	73	4.2	70 - 130	30
Acrolein	ND	25	110	111	0.9	15	10	40.0	70 - 130	30
Acrylonitrile	ND	5.0	114	114	0.0	80	80	0.0	70 - 130	30
Benzene	ND	1.0	108	109	0.9	92	88	4.4	70 - 130	30
Bromobenzene	ND	5.0	114	114	0.0	97	97	0.0	70 - 130	30
Bromochloromethane	ND	5.0	112	116	3.5	85	90	5.7	70 - 130	30
Bromodichloromethane	ND	5.0	110	112	1.8	85	84	1.2	70 - 130	30
Bromoform	ND	5.0	113	116	2.6	80	82	2.5	70 - 130	30
Bromomethane	ND	5.0	127	120	5.7	96	95	1.0	70 - 130	30
Carbon Disulfide	ND	5.0	119	120	0.8	84	87	3.5	70 - 130	30
Carbon tetrachloride	ND	5.0	109	115	5.4	84	91	8.0	70 - 130	30
Chlorobenzene	ND	5.0	113	115	1.8	90	91	1.1	70 - 130	30
Chloroethane	ND	5.0	122	123	0.8	95	101	6.1	70 - 130	30
Chloroform	ND	5.0	112	114	1.8	87	91	4.5	70 - 130	30
Chloromethane	ND	5.0	130	131	0.8	99	104	4.9	70 - 130	30
cis-1,2-Dichloroethene	ND	5.0	113	115	1.8	87	92	5.6	70 - 130	30
cis-1,3-Dichloropropene	ND	5.0	114	116	1.7	84	84	0.0	70 - 130	30
Dibromochloromethane	ND	3.0	114	117	2.6	87	87	0.0	70 - 130	30
Dibromomethane	ND	5.0	110	113	2.7	84	86	2.4	70 - 130	30
Dichlorodifluoromethane	ND	5.0	123	122	0.8	93	101	8.2	70 - 130	30
Ethylbenzene	ND	1.0	116	116	0.0	93	95	2.1	70 - 130	30
Hexachlorobutadiene	ND	5.0	123	122	0.8	78	65	18.2	70 - 130	30
Isopropylbenzene	ND	1.0	120	121	0.8	108	108	0.0	70 - 130	30

QA/QC Data

SDG I.D.: GCQ44465

Item 3.

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits	
m&p-Xylene	ND	2.0	117	117	0.0	94	94	0.0	70 - 130	30	
Methyl ethyl ketone	ND	5.0	98	98	0.0	64	66	3.1	70 - 130	30	m
Methyl t-butyl ether (MTBE)	ND	1.0	109	113	3.6	84	87	3.5	70 - 130	30	
Methylacetate	ND	5.0	112	110	1.8	91	88	3.4	70 - 130	30	
Methylene chloride	ND	5.0	103	107	3.8	82	85	3.6	70 - 130	30	
Naphthalene	ND	5.0	122	123	0.8	76	73	4.0	70 - 130	30	
n-Butylbenzene	ND	1.0	122	120	1.7	95	89	6.5	70 - 130	30	
n-Propylbenzene	ND	1.0	119	119	0.0	103	103	0.0	70 - 130	30	
o-Xylene	ND	2.0	118	118	0.0	93	94	1.1	70 - 130	30	
p-Isopropyltoluene	ND	1.0	122	121	0.8	100	135	29.8	70 - 130	30	m
sec-Butylbenzene	ND	1.0	122	121	0.8	101	98	3.0	70 - 130	30	
Styrene	ND	5.0	119	119	0.0	90	89	1.1	70 - 130	30	
tert-butyl alcohol	ND	100	112	115	2.6	85	89	4.6	70 - 130	30	
tert-Butylbenzene	ND	1.0	123	121	1.6	104	101	2.9	70 - 130	30	
Tetrachloroethene	ND	5.0	115	113	1.8	88	90	2.2	70 - 130	30	
Tetrahydrofuran (THF)	ND	5.0	108	111	2.7	83	87	4.7	70 - 130	30	
Toluene	ND	1.0	112	113	0.9	89	90	1.1	70 - 130	30	
trans-1,2-Dichloroethene	ND	5.0	115	116	0.9	89	94	5.5	70 - 130	30	
trans-1,3-Dichloropropene	ND	5.0	113	116	2.6	82	82	0.0	70 - 130	30	
trans-1,4-dichloro-2-butene	ND	5.0	120	122	1.7	93	90	3.3	70 - 130	30	
Trichloroethene	ND	5.0	114	114	0.0	89	92	3.3	70 - 130	30	
Trichlorofluoromethane	ND	5.0	118	117	0.9	91	96	5.3	70 - 130	30	
Trichlorotrifluoroethane	ND	5.0	118	118	0.0	93	98	5.2	70 - 130	30	
Vinyl chloride	ND	5.0	130	130	0.0	99	106	6.8	70 - 130	30	
% 1,2-dichlorobenzene-d4	100	%	99	100	1.0	99	98	1.0	70 - 130	30	
% Bromofluorobenzene	95	%	101	100	1.0	95	94	1.1	70 - 130	30	
% Dibromofluoromethane	98	%	99	101	2.0	97	99	2.0	70 - 130	30	
% Toluene-d8	98	%	99	99	0.0	98	98	0.0	70 - 130	30	

Comment:

Additional 8260 criteria: 10% of LCS/LCSD compounds can be outside of acceptance criteria as long as recovery is 40-160%, 25-160% for Chloroethane-HL and Trichlorofluoromethane-HL.

l = This parameter is outside laboratory LCS/LCSD specified recovery limits.

m = This parameter is outside laboratory MS/MSD specified recovery limits.

r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference



Phyllis Shiller, Laboratory Director

April 17, 2024

Wednesday, April 17, 2024

Criteria: NY: 375GWP, 375RS
State: NY

Sample Criteria Exceedances Report

GCQ44465 - TAYLORD

Item 3.

SampNo	Acode	Phoenix Analyte	Criteria	Result	RL	Criteria	RL Criteria	Analysis Units
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*** No Data to Display ***

Phoenix Laboratories does not assume responsibility for the data contained in this exceedance report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.



Environmental Laboratories, Inc.
 587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
 Tel. (860) 645-1102 Fax (860) 645-0823



Analysis Comments

April 17, 2024

SDG I.D.: GCQ44465

The following analysis comments are made regarding exceptions to criteria not already noted in the Analysis Report or QA/QC Report:

PCB Narration

AU-ECD29 04/12/24-1: CQ44465

The following Continuing Calibration compounds did not meet % deviation criteria:

Samples: CQ44465

Preceding CC 412B019 - None.

Succeeding CC 412B032 - DCBP SURR 16%L (15%)

PEST Narration

AU-ECD35 04/12/24-1: CQ44465

The following Continuing Calibration compounds did not meet % deviation criteria:

Samples: CQ44465

Preceding CC 412B011 - Methoxychlor 22%L (20%)

Succeeding CC 412B024 - Methoxychlor 25%L (20%)

A low "1A" standard was run after the samples to demonstrate capability to detect any compounds outside of the CC acceptance criteria. All reported samples were ND for the affected compounds.

SVOA Narration

CHEM28 04/10/24-2: CQ44465

For 8270 full list, the DDT breakdown and pentachlorophenol & benzidine peak tailing were evaluated in the DFTPP tune and were found to be in control.

For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

The following Initial Calibration compounds did not meet recommended response factors: Hexachlorobenzene 0.087 (0.1)

The following Initial Calibration compounds did not meet minimum response factors: None.

The following Continuing Calibration compounds did not meet recommended response factors: Hexachlorobenzene 0.082 (0.1)

The following Continuing Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.

VOA Narration

CHEM03 04/05/24-3: CQ44465

The following Initial Calibration compounds did not meet RSD% criteria: Acetone 21% (20%)

The following Initial Calibration compounds did not meet maximum RSD% criteria: None.

The following Initial Calibration compounds did not meet recommended response factors: 1,1,2-Trichloroethane 0.195 (0.2),

Bromodichloromethane 0.279 (0.3), Ethylbenzene 0.388 (0.4)

The following Initial Calibration compounds did not meet minimum response factors: None.

Up to eight compounds can be outside of ICAL %RSD criteria and up to sixteen compounds can be outside of CCAL %Dev criteria if less than 40%.



Environmental Laboratories, Inc.
587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045
Tel. (860) 645-1102 Fax (860) 645-0823



NY Temperature Narration

April 17, 2024

SDG I.D.: GCQ44465

The samples in this delivery group were received at 2.7°C.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)



03/04/2024

To Whom This May Concern,

This is to ascertain that LY Contractor will not be using any of the wood chips on the 33 Astor site as fill.
Should you require any further information, please do not hesitate to contact us.

Levy Steinfeld

LY Contractor

A handwritten signature in black ink, appearing to be 'Levy Steinfeld', is written over the printed name. The signature is fluid and cursive, with a large, sweeping 'L' and 'S'.

September 14, 2023

Village of Wesley Hills
432 Route 306
Wesley Hills, New York 10952



BROOKER ENGINEERING
a division of Weston & SampsonSM

74 Lafayette Avenue, Suite 501, Suffern, NY 10901
Tel: 845.357.4411

Attn: Alicia Schultz, Deputy Village Clerk

Re: 33 Astor Place
Clearing/Filling/Excavation Application Review

Dear Ms. Schultz,

Our office has reviewed the Planning Board submission package and previous materials for the above-referenced project which includes the following documents:

- Application for Clearing, Filling, Excavation of Land, dated March 1, 2023, prepared by LY Contractors.
- Plot Plan set entitled "Plot Plan for 33 Astor" last revised August 3, prepared by Civil Tec Engineering & Surveying PC.
- Drywell Calculations last revised August 2023, prepared by Civil Tec Engineering & Surveying PC.
- Response Letter, dated August 11, 2023, prepared by Civil Tec Engineering & Surveying PC.

A new single-family dwelling is under construction at the subject property. Applicant completed clearing operations of the parcel and commenced fill import outside of the scope of the original approval. Applicant is now seeking to import fill and create a rear yard that is leveled and tiered with retaining walls. Latest plans reflect a significant reduction in the amount of fill proposed to be delivered to the site. Our office offers the following comments:

General

1. During prior site visits, our office observed large stockpiles of wood chippings which appeared to be subsequently backfilled. Permanent backfilling of wood chippings will result in prolonged settlement of the earth. Our office recommended exposure and relocation to prevent risk of shear failure of slopes. Our office requests a certification letter from the contractor stating that the wood chippings were not used as backfill and removed from the site, as suggested in the applicant's response letter.
2. Structural design and calculations shall be submitted for the proposed retaining walls and reviewed by our office prior to the start of retaining wall construction. Certification of completed retaining walls to be provided prior to the issuance of a C.O.
3. The amount of fill and construction limits have been significantly reduced as compared to the prior plan. We defer to the Planning Board for further consideration of the scope of the project as it relates to the character of the surrounding neighborhood. We concur with comment #5 in the Village Planner's September 5, 2023 memo that there is room for improvement for tiered configuration of retaining walls, especially along walls facing the residential neighbors to the north and south of the site.

Plot Plan

4. Retaining wall details and specifications to be provided.
5. Pervious paver detail/cross section shall be provided.
6. Pervious pavers are proposed in the rear yard; however, the response letter discusses high bedrock in the rear yard. Infiltration in fill is permitted, subject to minimum separation and testing requirements. Consideration as pervious area is not recommended if minimum requirements are not met
7. Design for retaining walls shall take into consideration of the proposed pervious paver system adding hydrostatic pressure behind the proposed retaining wall.

Drainage Calculations

8. Our office takes partial exception to the drainage design methodology. Drywell storage is sized to accommodate increase in runoff for the entire property, however, only the roof runoff is currently proposed to be conveyed to the system. Drainage areas should be delineated to differentiate between detained and bypass runoff. Our office suggests SCS method modeling to compare the pre clearing conditions to the future proposed conditions for accurate sizing of storage facilities and to verify a zero-net increase in peak runoff. Applicant has responded that 'other impervious area is offset by the prior development onsite so there is no net increase overall.' This shall be demonstrated in the drainage calculations/report.
9. Drywell side wall area is considered for percolation surface area while bottom area is omitted. We respectfully request that the opposite be considered in the sizing calculations.

Recommended fees and dates are as follows:

10. Clearing/filling application fee: \$1,000 based on additional disturbance area of approximately 19,000 square feet.
11. Performance bond: \$118,000
12. Installed and proposed erosion control devices shall be maintained throughout construction.
13. We recommend final stabilization, including topsoil and seed, be completed no later than twelve months after commencement of retaining wall construction.

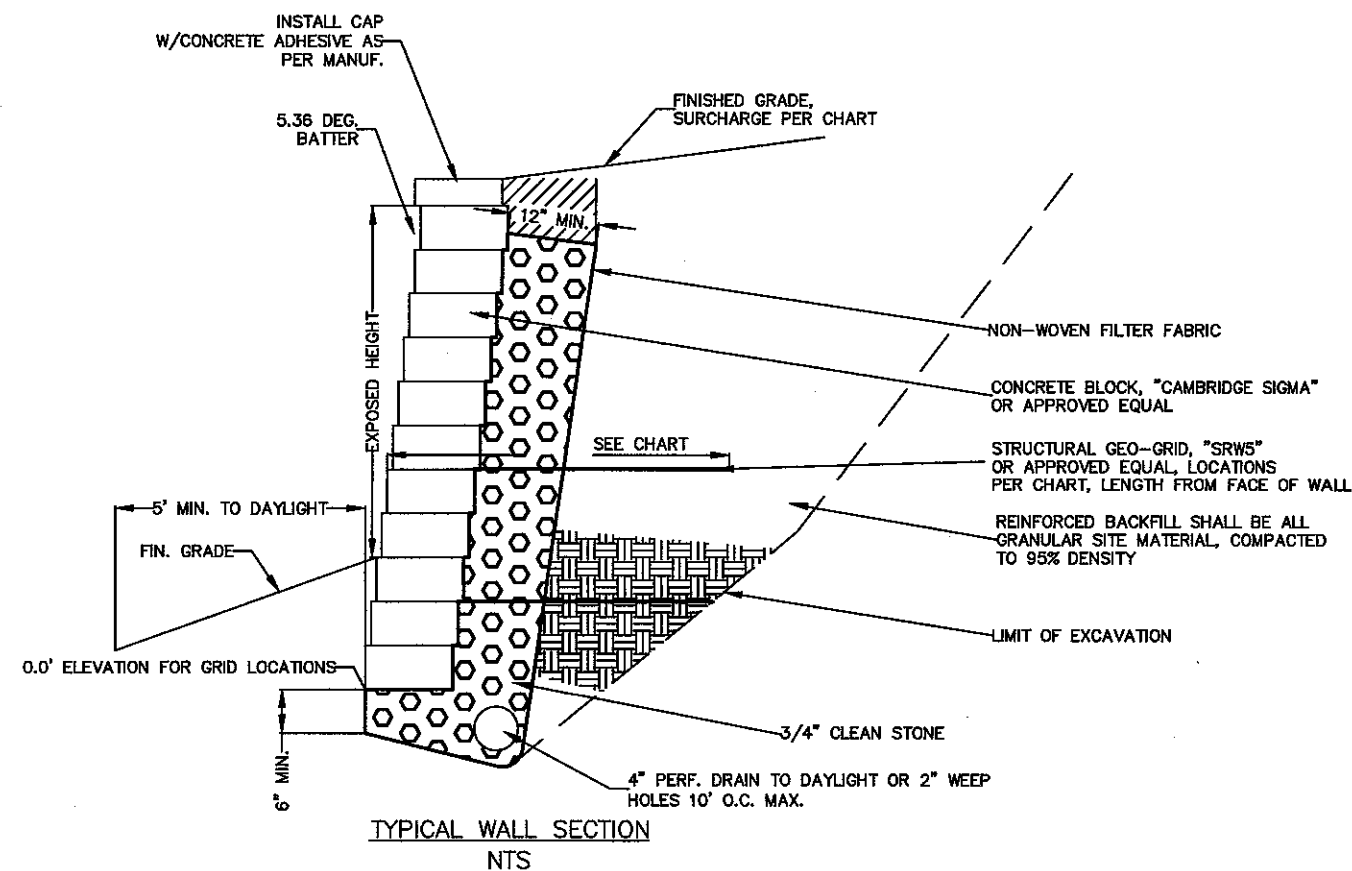
Sincerely,



WESTON & SAMPSON, PE, LS, LA, Architects, PC

Matthew Trainor, P.E.
Senior Project Engineer

Y:\VILLAGES\WH Wesley Hills\WH0191 - 2022 Plot Plans\33 Astor Place\2023-09-14 Clearing Filling Application.docx



- DESIGN NOTES:
1. SURCHARGE LOADS PER CHART
 2. ASSUMED SOIL CONDITIONS ARE AS FOLLOWS:
REINFORCED SOIL, FRICTION ANGLE 30, UNIT WEIGHT 120 PCF, SILTY LOAM
RETAINED SOIL, FRICTION ANGLE 30, UNIT WEIGHT 120 PCF, SILTY LOAM
LEVELLING PAD, FRICTION ANGLE 40, UNIT WEIGHT 125 PCF, CRUSHED STONE
FOUNDATION SOIL, FRICTION ANGLE 30, UNIT WEIGHT 120 PCF, SILTY LOAM
 3. IF SITE CONDITIONS DIFFER FROM ABOVE, THE CONTRACTOR MUST CONTACT THE ENGINEER IN WRITING TO ADJUST DESIGN AS NECESSARY.
 4. WALL MUST BE SET ON VIRGIN MATERIAL.
 5. THE CONTRACTOR MUST SUPPLY PHOTOS AND/OR VIDEO OF ALL INSTALLATIONS AFTER INITIAL EXCAVATION AND PRIOR TO LEVELLING PAD, THEN AFTER EACH SUBSEQUENT COURSE OF BLOCK IS INSTALLED TO KEEP A PERMANENT RECORD OF BLOCK AND GRID INSTALLATIONS. SAID PHOTOS/VIDEO MUST BE PROVIDED TO ENGINEER ON A DAILY BASIS FOR REVIEW AND APPROVAL.
 6. ALL WORK SHALL BE IN ACCORDANCE WITH THE ABOVE DESIGN AS WELL AS MANUFACTURER'S STANDARD DETAILS AND SPECIFICATIONS. ANY CONFLICTS BETWEEN THE DESIGN/DETAILS MUST BE PROVIDED TO THE ENGINEER IN WRITING SO MODIFICATIONS CAN BE MADE AS REQUIRED.
 7. WALL COLOR PER OWNER.
 8. NO CONSTRUCTION LOADS ASSUMED. CONTRACTOR AND OWNER ARE AWARE THAT CONSTRUCTION VEHICLES SHOULD NOT ENCROACH UPON WALL LIMIT OF EXCAVATION, BEFORE AND AFTER INITIAL WALL CONSTRUCTION.
 9. CONTRACTOR AND OWNER ARE RESPONSIBLE FOR ANY AGREEMENTS WITH NEIGHBORS TO ALLOW ACCESS AND/OR CONSTRUCTION OF WALLS SHOWN.

EXPOSED HEIGHT	SURCHARGE	EMBEDMENT	GRID ELEVATION	GRID LENGTH
48"	NONE	24"	24"	4.7'
			48"	4.7'
96"	NONE	24"	24"	7.2'
			48"	7.2'
			72"	7.2'
			96"	7.2'
144"	NONE	24"	8"	9.8'
			24"	9.8'
			48"	9.8'
			72"	9.8'
			96"	9.8'
			120"	9.8'
			144"	9.8'
192"	NONE	24"	8"	12.3'
			24"	12.3'
			48"	12.3'
			72"	12.3'
			96"	12.3'
			120"	12.3'
			144"	12.3'
			168"	12.3'
			192"	12.3'
72"	100 PSF	24"	8"	6.9'
			32"	6.9'
			56"	6.9'
			80"	6.9'
120"	100 PSF	24"	8"	9.4'
			32"	9.4'
			56"	9.4'
			80"	9.4'
			104"	9.4'
			128"	9.4'
176"	100 PSF	24"	16"	12.4'
			24"	12.4'
			40"	12.4'
			64"	12.4'
			88"	12.4'
			112"	12.4'
			136"	12.4'
			160"	12.4'
			184"	12.4'

EMBED ADDITIONAL COURSES AS NECESSARY TO PROVIDE 5' TO DAYLIGHT PER DETAIL
POOL WALL SHALL BE A MINIMUM OF 15' FROM BACK OF WALL BLOCK OR ADDITIONAL REINFORCEMENT IS NECESSARY

THOMAS SKRABLE, P.E.



PROFESSIONAL ENGINEER
NEW YORK, NY 75377
5204

CONSTRUCTION PLAN
PROPOSED WALLS
FOR "GDANSKI CONSULTANTS"
#33 ASTOR PLACE
VILLAGE OF WESLEY HILLS
ROCKLAND COUNTY
NEW YORK

SRWall (Version 4) Report**Project Identification**

Project ID : 23177
 Project Name : 4.0' WALL NO SURCHARGE LOAD
 Owner : 33 ASTOR PLACE WESLEY HILLS
 Client : 33 ASTOR PLACE WESLEY HILLS
 Prepared By : TWS
 Company : Skrable Engineering
 Address : 65 Ramapo Valley Road, Mahwah NJ
 Telephone : 201-529-5010
 Section : 4.0' EXPOSED NO SURCHARGE LOAD
 Project File : 23177SIGMA48INCHEXPOSEDNOSURCHARGE.prj
 Vendor Data File :
 Date and Time : 11/17/2023 13:30:57

Type of Structure : Reinforced Wall

Wall Geometry

Design Wall Height(ft) : 6.00
 Embedment Wall Height(ft) : 2.00
 Exposed Wall Design Height(ft) : 4.00
 Number of Segmental Wall Units : 9
 Wall Inclination(degrees) : 5.36

Grades

Top Slope(degrees) : 0.00

Uniform Distributed Surcharge

Live Load Surcharge(Psf) : 0.00
 Dead Load Surcharge(Psf) : 0.00

Soil Data

Soil Zone	Description	Cohesion (c) (psf)	Friction Angle(Φ) (degrees)	Unit Weight (γ)(pcf)
Reinforced Soil	SILTY LOAM	N/A	30.00	120.00
Retained Soil	SILTY LOAM	N/A	30.00	120.00
Leveling Pad Soil	CRUSHED STONE	N/A	40.00	125.00
Foundation Soil	SILTY LOAM	0.00	30.00	120.00

Segmental Unit Data

Segmental Unit Name : Sigma 8
 Cap Height (Inches) : 3.00
 Unit Height (Hu)(Inches) : 8.00
 Unit Width (Wu)(Inches) : 12.00
 Unit Length (Inches) : 18.00
 Setback (Inches) : 0.75
 Weight (Infilled)(lb) : 109.00
 Unit Weight (Infilled)(pcf) : 109.00
 Center of Gravity(Inches) : 6.00

Geosynthetic Reinforcement Type and Number

Supplier	Product Name	Number
	SRW Universal	0
	SRW3	0
	SRW5	2
	SRW7	0

Geosynthetic Properties

Geosynthetic Product	Tult (lb/ft)	RFcr	RFd	RFid	LTDS (lb/ft)	Ci	Cds
SRW Universal	1200.00	1.56	1.10	1.10	635.73	0.72	0.75
SRW3	2000.00	1.54	1.10	1.08	1093.18	0.72	0.75
SRW5	3600.00	1.55	1.10	1.10	1919.49	0.72	0.75
SRW7	5000.00	1.58	1.10	1.05	2739.88	0.72	0.75

Unit-Unit Interface Properties

Minimum Shear Capacity(lb/ft)	Shear Friction Angle	Maximum Shear Capacity (lb/ft)
410.00	37.00	2670.00

Geosynthetic-SRW Unit Connection Strength properties

Geosynthetic Product	Minimum Conn. Capacity (lb/ft)	1st Inflection Point (lb/ft)		2nd Inflection Point (lb/ft)	
		Normal Load (lb/ft)	Connection Capacity (lb/ft)	Normal Load (lb/ft)	Max Connection Capacity(lb/ft)
SRW Universal	442.00	937.00	585.00	2079.00	736.00
SRW3	800.00	1440.00	1456.00	1800.00	1579.00
SRW5	930.00	1920.00	1785.00	2400.00	1944.00
SRW7	875.00	600.00	1233.00	3000.00	2743.00

Geosynthetic-SRW Unit Shear Strength properties

Geosynthetic Product	Minimum Shear Capacity(lb/ft)	Shear Friction Angle	Maximum Shear Capacity (lb/ft)
SRW Universal	410.00	37.00	2670.00
SRW3	410.00	37.00	2670.00
SRW5	410.00	37.00	2670.00
SRW7	410.00	37.00	2670.00

Vertical Components

Vertical Components of Earth Pressures Used : No

Coefficients of Earth Pressure and Failure Plane Orientation

Result of External Stability Static Analysis

	Calculated	Design Criteria
FOS Sliding	3.81	> 1.50
FOS Overturning	8.48	> 2.00
FOS Bearing Capacity	14.26	> 2.00
Base Reinforcement Length (L)(ft)	4.64	
Base Reinforcement Ratio (L/H)	0.77	> 0.60

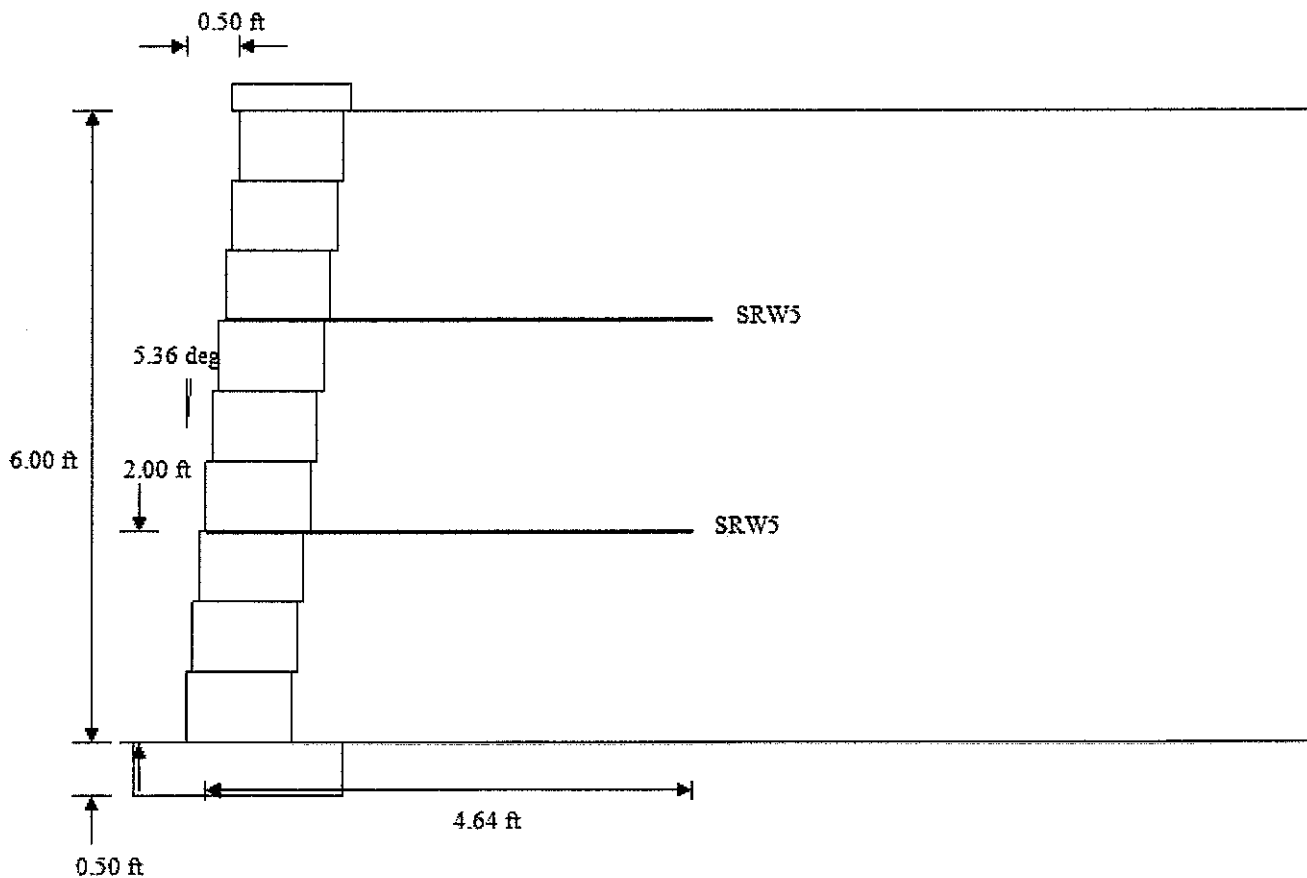
Results of Internal Stability Static Analysis

SRW Unit #	Geosynthetic Product	Elevation (ft)	Length (ft)	Anchor Length (ft)	FOS Overstress ≥ 1.50	FOS Pullout ≥ 1.50	FOS Slide ≥ 1.50	Layer Spacing (ft) ≥ 2.0
7	SRW5	4.00	4.64	1.10	14.10	1.62	16.93	OK
4	SRW5	2.00	4.64	2.37	4.70	2.32	6.64	OK

Results of Facing Stability Static Analysis

SRW Unit #	Heel Elev (ft)	Geosynthetic Product	FOS Crest Toppling ≥ 1.50	FOS Connection ≥ 1.50
7	4.00	SRW5	3.04	7.54
4	2.00	SRW5		2.75

Wall Reinforcement Layout



Project Identification

Project ID	: 23177
Project Name	: 4.0' WALL NO SURCHARGE LOAD
Owner	: 33 ASTOR PLACE WESLEY HILLS
Client	: 33 ASTOR PLACE WESLEY HILLS
Prepared By	: TWS
Company	: Skrable Engineering
Address	: 65 Ramapo Valley Road, Mahwah NJ
Telephone	: 201-529-5010
Section	: 4.0' EXPOSED NO SURCHARGE LOAD
Vendor Data File	:
Project File	: 23177SIGMA48INCHEXPOSEDNOSURCHARGE.prj
Date and Time	: 11/17/2023 13:30:57

SRWall (Version 4) Report**Project Identification**

Project ID : 23177
 Project Name : 6.0' WALL PATIO SURCHARGE LOAD
 Owner : 33 ASTOR PLACE WESLEY HILLS
 Client : 33 ASTOR PLACE WESLEY HILLS
 Prepared By : TWS
 Company : Skrable Engineering
 Address : 65 Ramapo Valley Road, Mahwah NJ
 Telephone : 201-529-5010
 Section : 6.0' EXPOSED PATIO SURCHARGE LOAD
 Project File : 23177SIGMA72INCHEXPOSEDPATIOSURCHARGE.prj
 Vendor Data File :
 Date and Time : 11/17/2023 13:30:57

Type of Structure : Reinforced Wall

Wall Geometry

Design Wall Height(ft) : 8.00
 Embedment Wall Height(ft) : 2.00
 Exposed Wall Design Height(ft) : 6.00
 Number of Segmental Wall Units : 12
 Wall Inclination(degrees) : 5.36

Grades

Top Slope(degrees) : 0.00

Uniform Distributed Surcharge

Live Load Surcharge(Psf) : 100.00
 Dead Load Surcharge(Psf) : 0.00

Soil Data

Soil Zone	Description	Cohesion (c) (psf)	Friction Angle(Φ) (degrees)	Unit Weight (γ)(pcf)
Reinforced Soil	SILTY LOAM	N/A	30.00	120.00
Retained Soil	SILTY LOAM	N/A	30.00	120.00
Leveling Pad Soil	CRUSHED STONE	N/A	40.00	125.00
Foundation Soil	SILTY LOAM	0.00	30.00	120.00

Segmental Unit Data

Segmental Unit Name : Sigma 8
 Cap Height (Inches) : 3.00
 Unit Height (Hu)(Inches) : 8.00
 Unit Width (Wu)(Inches) : 12.00
 Unit Length (Inches) : 18.00
 Setback (Inches) : 0.75
 Weight (Infilled)(lb) : 109.00
 Unit Weight (Infilled)(pcf) : 109.00
 Center of Gravity(Inches) : 6.00

Geosynthetic Reinforcement Type and Number

Supplier	Product Name	Number
	SRW Universal	0
	SRW3	0
	SRW5	4
	SRW7	0

Geosynthetic Properties

Geosynthetic Product	Tult (lb/ft)	RFcr	RFd	RFid	LTDS (lb/ft)	Ci	Cds
SRW Universal	1200.00	1.56	1.10	1.10	635.73	0.72	0.75
SRW3	2000.00	1.54	1.10	1.08	1093.18	0.72	0.75
SRW5	3600.00	1.55	1.10	1.10	1919.49	0.72	0.75
SRW7	5000.00	1.58	1.10	1.05	2739.88	0.72	0.75

Unit-Unit Interface Properties

Minimum Shear Capacity(lb/ft)	Shear Friction Angle	Maximum Shear Capacity (lb/ft)
410.00	37.00	2670.00

Geosynthetic-SRW Unit Connection Strength properties

Geosynthetic Product	Minimum Conn. Capacity (lb/ft)	1st Inflection Point (lb/ft)		2nd Inflection Point (lb/ft)	
		Normal Load (lb/ft)	Connection Capacity (lb/ft)	Normal Load (lb/ft)	Max Connection Capacity(lb/ft)
SRW Universal	442.00	937.00	585.00	2079.00	736.00
SRW3	800.00	1440.00	1456.00	1800.00	1579.00
SRW5	930.00	1920.00	1785.00	2400.00	1944.00
SRW7	875.00	600.00	1233.00	3000.00	2743.00

Geosynthetic-SRW Unit Shear Strength properties

Geosynthetic Product	Minimum Shear Capacity(lb/ft)	Shear Friction Angle	Maximum Shear Capacity (lb/ft)
SRW Universal	410.00	37.00	2670.00
SRW3	410.00	37.00	2670.00
SRW5	410.00	37.00	2670.00
SRW7	410.00	37.00	2670.00

Vertical Components

Vertical Components of Earth Pressures Used : No

Coefficients of Earth Pressure and Failure Plane Orientation

Reinforcement Soil(Static)(Ka)	: 0.261
Reinforcement Soil(Static)(Kah Horizontal Component)	: 0.252
Internal Modified Back Slope(Bint)	: 0.000
Orientation of failure plane from horizontal(degrees) for Internal Stability	: 53.956
Retained Soil(Static)(Ka)	: 0.258
Retained Soil(Static)(Kah Horizontal Component)	: 0.235
External Modified Back Slope(Bext)	: 0.000
Orientation of failure plane from horizontal(degrees) for External Stability	: 52.632

Result of External Stability Static Analysis

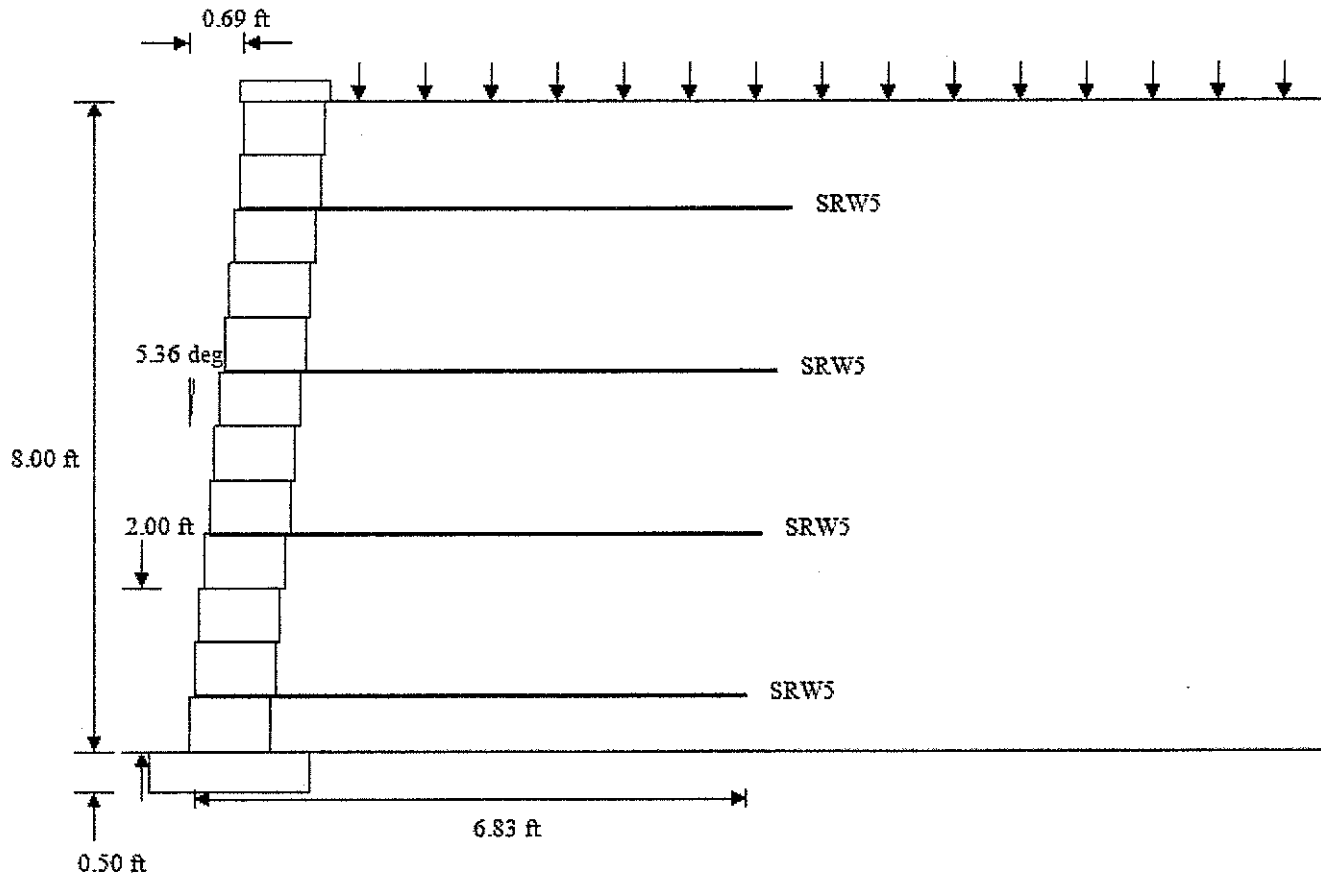
	Calculated	Design Criteria
FOS Sliding	3.48	> 1.50
FOS Overturning	7.82	> 2.00
FOS Bearing Capacity	12.15	> 2.00
Base Reinforcement Length (L)(ft)	6.83	
Base Reinforcement Ratio (L/H)	0.85	> 0.60

Results of Internal Stability Static Analysis

SRW Unit #	Geosynthetic Product	Elevation (ft)	Length (ft)	Anchor Length (ft)	FOS Overstress ≥1.50	FOS Pullout ≥1.50	FOS Slide ≥1.50	Layer Spacing (ft) ≥2.0
11	SRW5	6.67	6.83	1.60	13.62	1.51	16.45	OK
8	SRW5	4.67	6.83	2.87	7.62	3.78	7.23	OK
5	SRW5	2.67	6.83	4.14	5.15	5.90	4.69	OK
2	SRW5	0.67	6.83	5.41	4.75	9.78	3.48	OK

Results of Facing Stability Static Analysis

SRW Unit #	Heel Elev (ft)	Geosynthetic Product	FOS Crest Toppling ≥1.50	FOS Connection ≥1.50
11	6.67	SRW5	2.25	7.06
8	4.67	SRW5		4.33
5	2.67	SRW5		3.19
2	0.67	SRW5		3.18

Wall Reinforcement Layout**Project Identification**

Project ID	: 23177
Project Name	: 6.0' WALL PATIO SURCHARGE LOAD
Owner	: 33 ASTOR PLACE WESLEY HILLS
Client	: 33 ASTOR PLACE WESLEY HILLS
Prepared By	: TWS
Company	: Skrable Engineering
Address	: 65 Ramapo Valley Road, Mahwah NJ
Telephone	: 201-529-5010
Section	: 6.0' EXPOSED PATIO SURCHARGE LOAD
Vendor Data File	:
Project File	: 23177SIGMA72INCHEXPOSEDPATIOSURCHARGE.prj
Date and Time	: 11/17/2023 13:30:57

SRWall (Version 4) Report**Project Identification**

Project ID : 23177
 Project Name : 8.0' WALL NO SURCHARGE LOAD
 Owner : 33 ASTOR PLACE WESLEY HILLS
 Client : 33 ASTOR PLACE WESLEY HILLS
 Prepared By : TWS
 Company : Skrable Engineering
 Address : 65 Ramapo Valley Road, Mahwah NJ
 Telephone : 201-529-5010
 Section : 8.0' EXPOSED NO SURCHARGE LOAD
 Project File : 23177SIGMA96INCHEXPOSEDNOSURCHARGE.prj
 Vendor Data File :
 Date and Time : 11/17/2023 13:30:57

Type of Structure : Reinforced Wall

Wall Geometry

Design Wall Height(ft) : 10.00
 Embedment Wall Height(ft) : 2.00
 Exposed Wall Design Height(ft) : 8.00
 Number of Segmental Wall Units : 15
 Wall Inclination(degrees) : 5.36

Grades

Top Slope(degrees) : 0.00

Uniform Distributed Surcharge

Live Load Surcharge(Psf) : 0.00
 Dead Load Surcharge(Psf) : 0.00

Soil Data

Soil Zone	Description	Cohesion (c) (psf)	Friction Angle(Φ) (degrees)	Unit Weight (γ)(pcf)
Reinforced Soil	SILTY LOAM	N/A	30.00	120.00
Retained Soil	SILTY LOAM	N/A	30.00	120.00
Leveling Pad Soil	CRUSHED STONE	N/A	40.00	125.00
Foundation Soil	SILTY LOAM	0.00	30.00	120.00

Segmental Unit Data

Segmental Unit Name : Sigma 8
 Cap Height (Inches) : 3.00
 Unit Height (Hu)(Inches) : 8.00
 Unit Width (Wu)(Inches) : 12.00
 Unit Length (Inches) : 18.00
 Setback (Inches) : 0.75
 Weight (Infilled)(lb) : 109.00
 Unit Weight (Infilled)(pcf) : 109.00
 Center of Gravity(Inches) : 6.00

Geosynthetic Reinforcement Type and Number

Supplier	Product Name	Number
	SRW Universal	0
	SRW3	0
	SRW5	4
	SRW7	0

Geosynthetic Properties

Geosynthetic Product	Tult (lb/ft)	RFcr	RFd	RFid	LTDS (lb/ft)	Cl	Cds
SRW Universal	1200.00	1.56	1.10	1.10	635.73	0.72	0.75
SRW3	2000.00	1.54	1.10	1.08	1093.18	0.72	0.75
SRW5	3600.00	1.55	1.10	1.10	1919.49	0.72	0.75
SRW7	5000.00	1.58	1.10	1.05	2739.88	0.72	0.75

Unit-Unit Interface Properties

Minimum Shear Capacity(lb/ft)	Shear Friction Angle	Maximum Shear Capacity (lb/ft)
410.00	37.00	2670.00

Geosynthetic-SRW Unit Connection Strength properties

Geosynthetic Product	Minimum Conn. Capacity (lb/ft)	1st Inflection Point (lb/ft)		2nd Inflection Point (lb/ft)	
		Normal Load (lb/ft)	Connection Capacity (lb/ft)	Normal Load (lb/ft)	Max Connection Capacity(lb/ft)
SRW Universal	442.00	937.00	585.00	2079.00	736.00
SRW3	800.00	1440.00	1456.00	1800.00	1579.00
SRW5	930.00	1920.00	1785.00	2400.00	1944.00
SRW7	875.00	600.00	1233.00	3000.00	2743.00

Geosynthetic-SRW Unit Shear Strength properties

Geosynthetic Product	Minimum Shear Capacity(lb/ft)	Shear Friction Angle	Maximum Shear Capacity (lb/ft)
SRW Universal	410.00	37.00	2670.00
SRW3	410.00	37.00	2670.00
SRW5	410.00	37.00	2670.00
SRW7	410.00	37.00	2670.00

Vertical Components

Vertical Components of Earth Pressures Used : No

Coefficients of Earth Pressure and Failure Plane Orientation

Reinforcement Soil(Static)(Ka)	: 0.261
Reinforcement Soil(Static)(Kah Horizontal Component)	: 0.252
Internal Modified Back Slope(Bint)	: 0.000
Orientation of failure plane from horizontal(degrees) for Internal Stability	: 53.956
Retained Soil(Static)(Ka)	: 0.258
Retained Soil(Static)(Kah Horizontal Component)	: 0.235
External Modified Back Slope(Bext)	: 0.000
Orientation of failure plane from horizontal(degrees) for External Stability	: 52.632

Result of External Stability Static Analysis

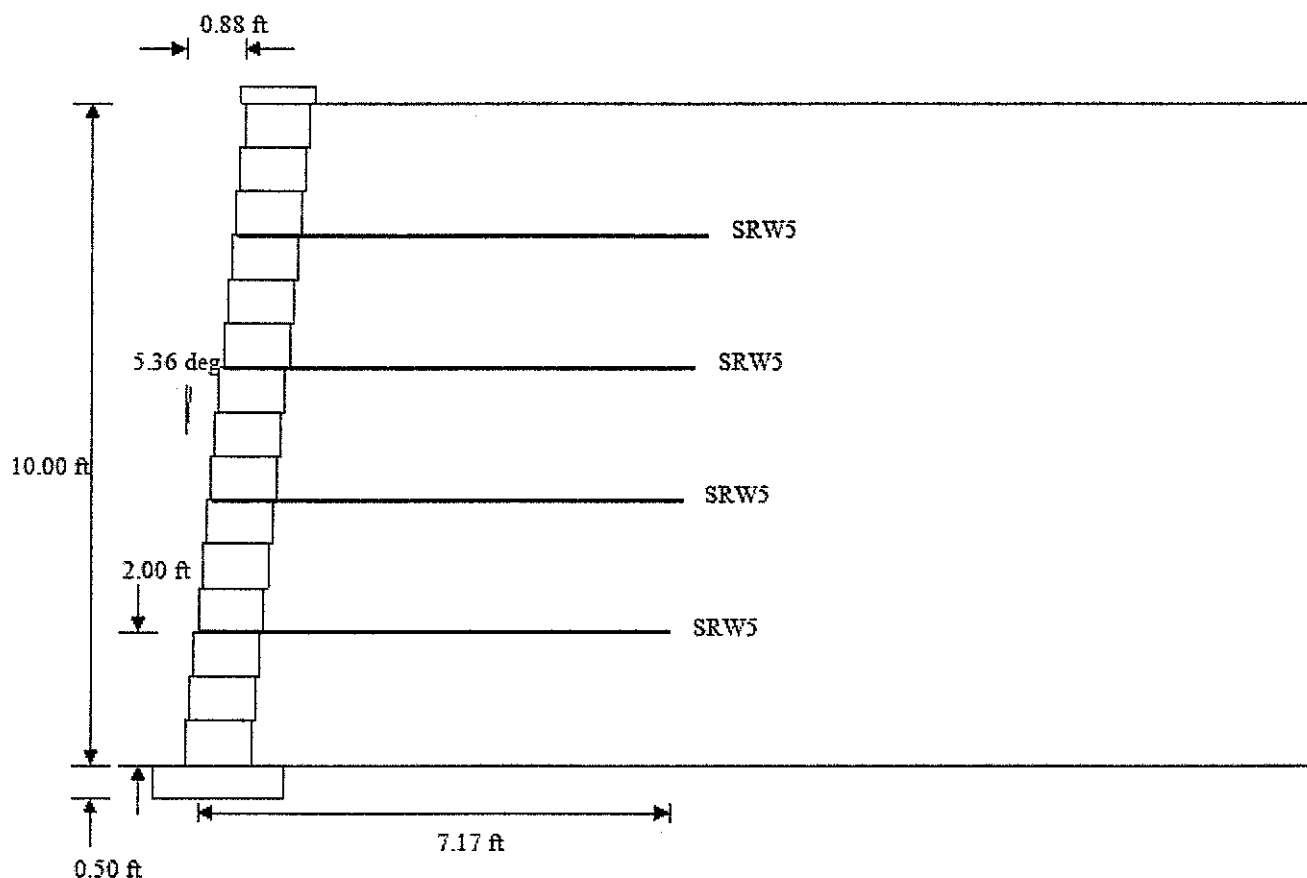
	Calculated	Design Criteria
FOS Sliding	3.53	> 1.50
FOS Overturning	7.38	> 2.00
FOS Bearing Capacity	11.13	> 2.00
Base Reinforcement Length (L)(ft)	7.17	
Base Reinforcement Ratio (L/H)	0.72	> 0.60

Results of Internal Stability Static Analysis

SRW Unit #	Geosynthetic Product	Elevation (ft)	Length (ft)	Anchor Length (ft)	FOS Overstress ≥1.50	FOS Pullout ≥1.50	FOS Slide ≥1.50	Layer Spacing (ft) ≥2.0
13	SRW5	8.00	7.17	1.10	14.10	1.61	21.60	OK
10	SRW5	6.00	7.17	2.37	7.93	3.90	8.98	OK
7	SRW5	4.00	7.17	3.63	5.29	5.99	5.58	OK
4	SRW5	2.00	7.17	4.90	2.49	5.07	4.03	OK

Results of Facing Stability Static Analysis

SRW Unit #	Heel Elev (ft)	Geosynthetic Product	FOS Crest Toppling ≥1.50	FOS Connection ≥1.50
13	8.00	SRW5	3.04	7.54
10	6.00	SRW5		4.64
7	4.00	SRW5		3.36
4	2.00	SRW5		1.71

Wall Reinforcement Layout**Project Identification**

Project ID	: 23177
Project Name	: 8.0' WALL NO SURCHARGE LOAD
Owner	: 33 ASTOR PLACE WESLEY HILLS
Client	: 33 ASTOR PLACE WESLEY HILLS
Prepared By	: TWS
Company	: Skrable Engineering
Address	: 65 Ramapo Valley Road, Mahwah NJ
Telephone	: 201-529-5010
Section	: 8.0' EXPOSED NO SURCHARGE LOAD
Vendor Data File	:
Project File	: 23177SIGMA96INCHEXPOSEDNOSURCHARGE.prj
Date and Time	: 11/17/2023 13:30:57

SRWall (Version 4) Report**Project Identification**

Project ID : 23177
 Project Name : 10.0' WALL PATIO SURCHARGE LOAD
 Owner : 33 ASTOR PLACE WESLEY HILLS
 Client : 33 ASTOR PLACE WESLEY HILLS
 Prepared By : TWS
 Company : Skrable Engineering
 Address : 65 Ramapo Valley Road, Mahwah NJ
 Telephone : 201-529-5010
 Section : 10.0' EXPOSED PATIO SURCHARGE LOAD
 Project File : 23177SIGMA120INCHEXPOSEDPATIOSURCHARGE.prj
 Vendor Data File :
 Date and Time : 11/17/2023 13:30:57

Type of Structure : Reinforced Wall

Wall Geometry

Design Wall Height(ft) : 12.00
 Embedment Wall Height(ft) : 2.00
 Exposed Wall Design Height(ft) : 10.00
 Number of Segmental Wall Units : 18
 Wall Inclination(degrees) : 5.36

Grades

Top Slope(degrees) : 0.00

Uniform Distributed Surcharge

Live Load Surcharge(Psf) : 100.00
 Dead Load Surcharge(Psf) : 0.00

Soil Data

Soil Zone	Description	Cohesion (c) (psf)	Friction Angle(Φ) (degrees)	Unit Weight (γ)(pcf)
Reinforced Soil	SILTY LOAM	N/A	30.00	120.00
Retained Soil	SILTY LOAM	N/A	30.00	120.00
Leveling Pad Soil	CRUSHED STONE	N/A	40.00	125.00
Foundation Soil	SILTY LOAM	0.00	30.00	120.00

Segmental Unit Data

Segmental Unit Name : **Sigma 8**
 Cap Height (Inches) : **3.00**
 Unit Height (Hu)(Inches) : **8.00**
 Unit Width (Wu)(Inches) : **12.00**
 Unit Length (Inches) : **18.00**
 Setback (Inches) : **0.75**
 Weight (Infilled)(lb) : **109.00**
 Unit Weight (Infilled)(pcf) : **109.00**
 Center of Gravity(Inches) : **6.00**

Geosynthetic Reinforcement Type and Number

Supplier	Product Name	Number
	SRW Universal	0
	SRW3	0
	SRW5	6
	SRW7	0

Geosynthetic Properties

Geosynthetic Product	Tult (lb/ft)	RFcr	RFd	RFld	LTDS (lb/ft)	CI	Cds
SRW Universal	1200.00	1.56	1.10	1.10	635.73	0.72	0.75
SRW3	2000.00	1.54	1.10	1.08	1093.18	0.72	0.75
SRW5	3600.00	1.55	1.10	1.10	1919.49	0.72	0.75
SRW7	6000.00	1.58	1.10	1.05	2739.88	0.72	0.75

Unit-Unit Interface Properties

Minimum Shear Capacity(lb/ft)	Shear Friction Angle	Maximum Shear Capacity (lb/ft)
410.00	37.00	2670.00

Geosynthetic-SRW Unit Connection Strength properties

Geosynthetic Product	Minimum Conn. Capacity (lb/ft)	1st Inflection Point (lb/ft)		2nd Inflection Point (lb/ft)	
		Normal Load (lb/ft)	Connection Capacity (lb/ft)	Normal Load (lb/ft)	Max Connection Capacity(lb/ft)
SRW Universal	442.00	937.00	585.00	2079.00	736.00
SRW3	800.00	1440.00	1456.00	1800.00	1579.00
SRW5	930.00	1920.00	1785.00	2400.00	1944.00
SRW7	875.00	600.00	1233.00	3000.00	2743.00

Geosynthetic-SRW Unit Shear Strength properties

Geosynthetic Product	Minimum Shear Capacity(lb/ft)	Shear Friction Angle	Maximum Shear Capacity (lb/ft)
SRW Universal	410.00	37.00	2670.00
SRW3	410.00	37.00	2670.00
SRW5	410.00	37.00	2670.00
SRW7	410.00	37.00	2670.00

Vertical Components

Vertical Components of Earth Pressures Used : No

Coefficients of Earth Pressure and Failure Plane Orientation

Reinforcement Soil(Static)(Ka)	: 0.261
Reinforcement Soil(Static)(Kah Horizontal Component)	: 0.252
Internal Modified Back Slope(Bint)	: 0.000
Orientation of failure plane from horizontal(degrees) for Internal Stability	: 53.956
Retained Soil(Static)(Ka)	: 0.258
Retained Soil(Static)(Kah Horizontal Component)	: 0.235
External Modified Back Slope(Bext)	: 0.000
Orientation of failure plane from horizontal(degrees) for External Stability	: 52.632

Result of External Stability Static Analysis

	Calculated	Design Criteria
FOS Sliding	3.38	> 1.50
FOS Overturning	7.19	> 2.00
FOS Bearing Capacity	10.33	> 2.00
Base Reinforcement Length (L)(ft)	9.37	
Base Reinforcement Ratio (L/H)	0.78	> 0.60

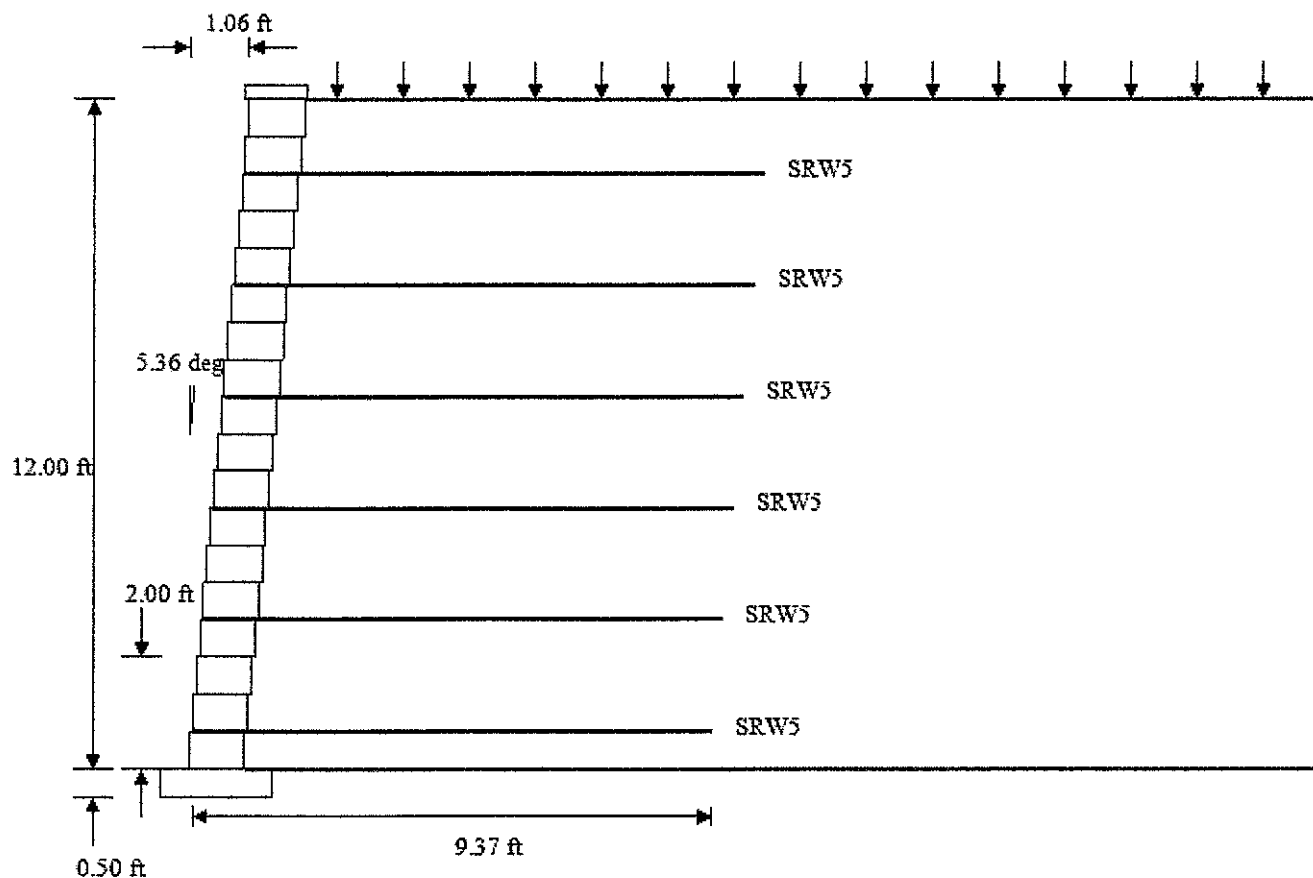
Results of Internal Stability Static Analysis

SRW Unit #	Geosynthetic Product	Elevation (ft)	Length (ft)	Anchor Length (ft)	FOS Overstress ≥1.50	FOS Pullout ≥1.50	FOS Slide ≥1.50	Layer Spacing (ft) ≥2.0
17	SRW5	10.67	9.37	1.61	13.62	1.51	19.58	OK
14	SRW5	8.67	9.37	2.87	7.62	3.79	9.11	OK
11	SRW5	6.67	9.37	4.14	5.15	5.90	6.03	OK
8	SRW5	4.67	9.37	5.41	3.88	8.01	4.53	OK
5	SRW5	2.67	9.37	6.68	3.12	10.10	3.63	OK
2	SRW5	0.67	9.37	7.95	3.17	14.81	3.03	OK

Results of Facing Stability Static Analysis

SRW Unit #	Heel Elev (ft)	Geosynthetic Product	FOS Crest Toppling ≥1.50	FOS Connection ≥1.50
17	10.67	SRW5	2.25	7.06
14	8.67	SRW5		4.33
11	6.67	SRW5		3.19
8	4.67	SRW5		2.60
5	2.67	SRW5		2.25
2	0.67	SRW5		2.44

Wall Reinforcement Layout



Project Identification

Project ID	: 23177
Project Name	: 10.0' WALL PATIO SURCHARGE LOAD
Owner	: 33 ASTOR PLACE WESLEY HILLS
Client	: 33 ASTOR PLACE WESLEY HILLS
Prepared By	: TWS
Company	: Skrable Engineering
Address	: 65 Ramapo Valley Road, Mahwah NJ
Telephone	: 201-529-5010
Section	: 10.0' EXPOSED PATIO SURCHARGE LOAD
Vendor Data File	:
Project File	: 23177SIGMA120INCHEXPOSEDPATIOSURCHARGE.prj
Date and Time	: 11/17/2023 13:30:57

SRWall (Version 4) Report**Project Identification**

Project ID : 23177
 Project Name : 12.0' WALL NO SURCHARGE LOAD
 Owner : 33 ASTOR PLACE WESLEY HILLS
 Client : 33 ASTOR PLACE WESLEY HILLS
 Prepared By : TWS
 Company : Skrable Engineering
 Address : 65 Ramapo Valley Road, Mahwah NJ
 Telephone : 201-529-5010
 Section : 12.0' EXPOSED NO SURCHARGE LOAD
 Project File : 23177SIGMA144INCHEXPOSEDNOSURCHARGE.prj
 Vendor Data File :
 Date and Time : 11/17/2023 13:30:57

Type of Structure : Reinforced Wall

Wall Geometry

Design Wall Height(ft) : 14.00
 Embedment Wall Height(ft) : 2.00
 Exposed Wall Design Height(ft) : 12.00
 Number of Segmental Wall Units : 21
 Wall Inclination(degrees) : 5.36

Grades

Top Slope(degrees) : 0.00

Uniform Distributed Surcharge

Live Load Surcharge(Psf) : 0.00
 Dead Load Surcharge(Psf) : 0.00

Soil Data

Soil Zone	Description	Cohesion (c) (psf)	Friction Angle(Φ) (degrees)	Unit Weight (γ)(pcf)
Reinforced Soil	SILTY LOAM	N/A	30.00	120.00
Retained Soil	SILTY LOAM	N/A	30.00	120.00
Leveling Pad Soil	CRUSHED STONE	N/A	40.00	125.00
Foundation Soil	SILTY LOAM	0.00	30.00	120.00

Segmental Unit Data

Segmental Unit Name : Sigma 8
 Cap Height (Inches) : 3.00
 Unit Height (Hu)(Inches) : 8.00
 Unit Width (Wu)(Inches) : 12.00
 Unit Length (Inches) : 18.00
 Setback (Inches) : 0.75
 Weight (Infilled)(lb) : 109.00
 Unit Weight (Infilled)(pcf) : 109.00
 Center of Gravity(Inches) : 6.00

Geosynthetic Reinforcement Type and Number

Supplier	Product Name	Number
	SRW Universal	0
	SRW3	0
	SRW5	7
	SRW7	0

Geosynthetic Properties

Geosynthetic Product	Tult (lb/ft)	RFcr	RFd	RFid	LTDS (lb/ft)	CI	Cds
SRW Universal	1200.00	1.56	1.10	1.10	635.73	0.72	0.75
SRW3	2000.00	1.54	1.10	1.08	1093.18	0.72	0.75
SRW5	3600.00	1.55	1.10	1.10	1919.49	0.72	0.75
SRW7	5000.00	1.58	1.10	1.05	2739.88	0.72	0.75

Unit-Unit Interface Properties

Minimum Shear Capacity(lb/ft)	Shear Friction Angle	Maximum Shear Capacity (lb/ft)
410.00	37.00	2670.00

Geosynthetic-SRW Unit Connection Strength properties

Geosynthetic Product	Minimum Conn. Capacity (lb/ft)	1st Inflection Point (lb/ft)		2nd Inflection Point (lb/ft)	
		Normal Load (lb/ft)	Connection Capacity (lb/ft)	Normal Load (lb/ft)	Max Connection Capacity(lb/ft)
SRW Universal	442.00	937.00	585.00	2079.00	736.00
SRW3	800.00	1440.00	1456.00	1800.00	1579.00
SRW5	930.00	1920.00	1785.00	2400.00	1944.00
SRW7	875.00	600.00	1233.00	3000.00	2743.00

Geosynthetic-SRW Unit Shear Strength properties

Geosynthetic Product	Minimum Shear Capacity(lb/ft)	Shear Friction Angle	Maximum Shear Capacity (lb/ft)
SRW Universal	410.00	37.00	2670.00
SRW3	410.00	37.00	2670.00
SRW5	410.00	37.00	2670.00
SRW7	410.00	37.00	2670.00

Vertical Components

Vertical Components of Earth Pressures Used : No

Coefficients of Earth Pressure and Failure Plane Orientation

Reinforcement Soil(Static)(Ka)	: 0.261
Reinforcement Soil(Static)(Kah Horizontal Component)	: 0.252
Internal Modified Back Slope(Bint)	: 0.000
Orientation of failure plane from horizontal(degrees) for Internal Stability	: 53.956
Retained Soil(Static)(Ka)	: 0.258
Retained Soil(Static)(Kah Horizontal Component)	: 0.235
External Modified Back Slope(Bext)	: 0.000
Orientation of failure plane from horizontal(degrees) for External Stability	: 52.632

Result of External Stability Static Analysis

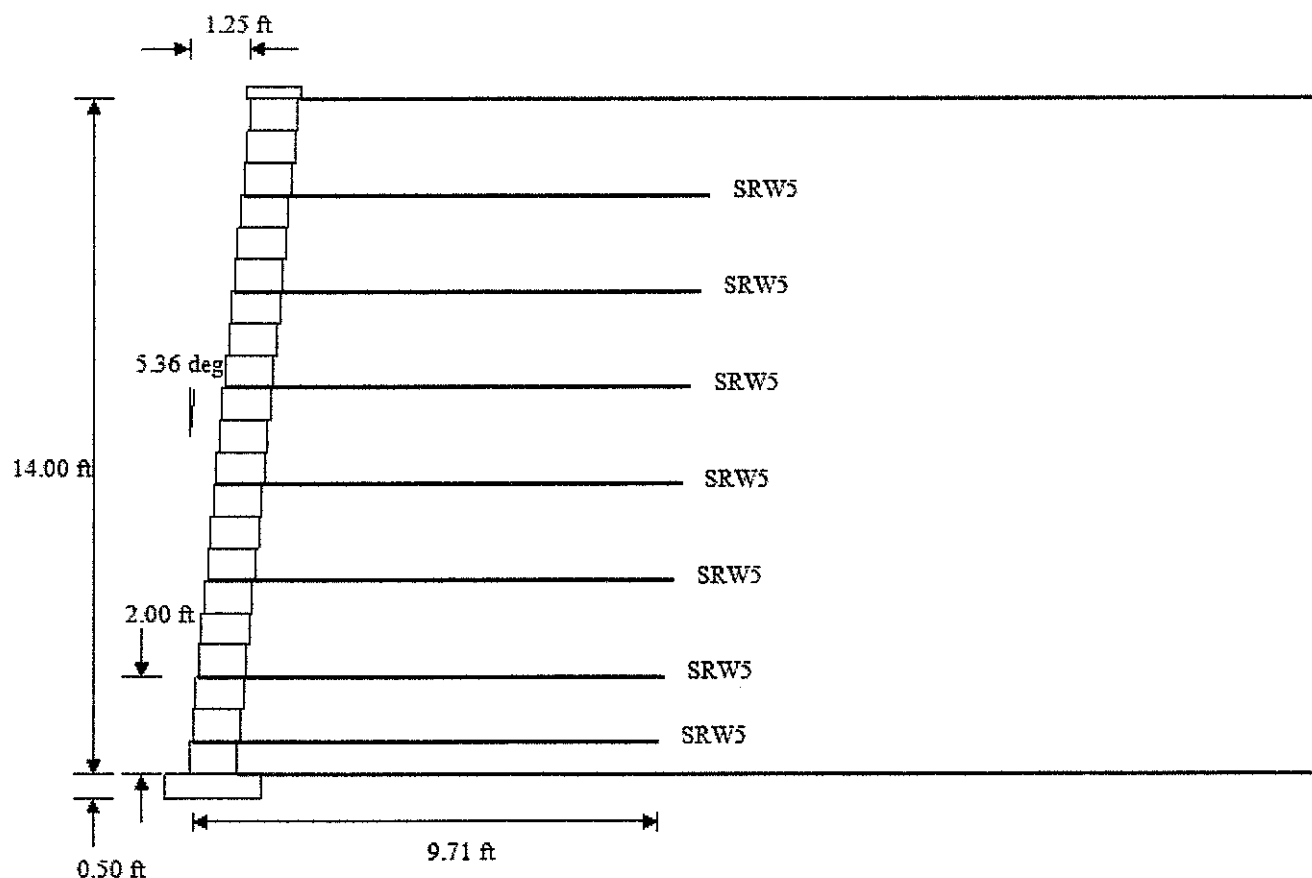
	Calculated	Design Criteria
FOS Sliding	3.42	> 1.50
FOS Overturning	6.95	> 2.00
FOS Bearing Capacity	9.79	> 2.00
Base Reinforcement Length (L)(ft)	9.71	
Base Reinforcement Ratio (L/H)	0.69	> 0.60

Results of Internal Stability Static Analysis

SRW Unit #	Geosynthetic Product	Elevation (ft)	Length (ft)	Anchor Length (ft)	FOS Overstress >=1.50	FOS Pullout >=1.50	FOS Slide >=1.50	Layer Spacing (ft) >=2.0
19	SRW5	12.00	9.71	1.10	14.10	1.62	26.29	OK
16	SRW5	10.00	9.71	2.37	7.93	3.91	11.32	OK
13	SRW5	8.00	9.71	3.64	5.29	6.00	7.14	OK
10	SRW5	6.00	9.71	4.91	3.96	8.09	5.21	OK
7	SRW5	4.00	9.71	6.17	3.17	10.18	4.09	OK
4	SRW5	2.00	9.71	7.44	3.22	14.94	3.37	OK
2	SRW5	0.67	9.71	8.29	3.56	20.46	3.02	OK

Results of Facing Stability Static Analysis

SRW Unit #	Heel Elev (ft)	Geosynthetic Product	FOS Crest Toppling ≥1.50	FOS Connection ≥1.50
19	12.00	SRW5	3.04	7.54
16	10.00	SRW5		4.64
13	8.00	SRW5		3.36
10	6.00	SRW5		2.72
7	4.00	SRW5		2.34
4	2.00	SRW5		2.54
2	0.67	SRW5		2.93

Wall Reinforcement Layout**Project Identification**

Project ID	: 23177
Project Name	: 12.0' WALL NO SURCHARGE LOAD
Owner	: 33 ASTOR PLACE WESLEY HILLS
Client	: 33 ASTOR PLACE WESLEY HILLS
Prepared By	: TWS
Company	: Skrable Engineering
Address	: 65 Ramapo Valley Road, Mahwah NJ
Telephone	: 201-529-5010
Section	: 12.0' EXPOSED NO SURCHARGE LOAD
Vendor Data File	:
Project File	: 23177SIGMA144INCHEXPOSEDNOSURCHARGE.prj
Date and Time	: 11/17/2023 13:30:57

Project Identification

Project ID : 23177
 Project Name : 14.7' WALL PATIO SURCHARGE LOAD
 Owner : 33 ASTOR PLACE WESLEY HILLS
 Client : 33 ASTOR PLACE WESLEY HILLS
 Prepared By : TWS
 Company : Skrable Engineering
 Address : 65 Ramapo Valley Road, Mahwah NJ
 Telephone : 201-529-5010
 Section : 14.7' EXPOSED PATIO SURCHARGE LOAD
 Project File : 23177SIGMA176INCHEXPOSEDPATIOSURCHARGE.prj
 Vendor Data File :
 Date and Time : 11/17/2023 13:30:57

Type of Structure : Reinforced Wall

Wall Geometry

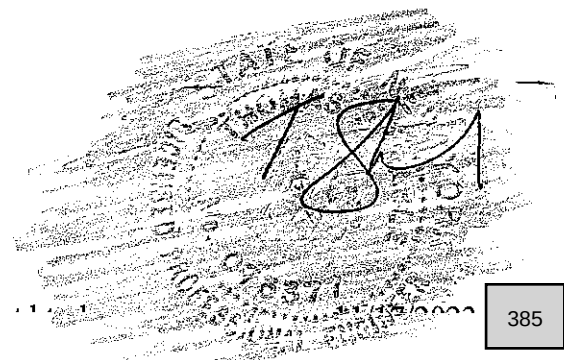
Design Wall Height(ft) : 16.67
 Embedment Wall Height(ft) : 2.00
 Exposed Wall Design Height(ft) : 14.67
 Number of Segmental Wall Units : 25
 Wall Inclination(degrees) : 5.36

Grades

Top Slope(degrees) : 0.00

Uniform Distributed Surcharge

Live Load Surcharge(Psf) : 100.00
 Dead Load Surcharge(Psf) : 0.00



Soil Data

Soil Zone	Description	Cohesion (c) (psf)	Friction Angle(Φ) (degrees)	Unit Weight (γ)(pcf)
Reinforced Soil	SILTY LOAM	N/A	30.00	120.00
Retained Soil	SILTY LOAM	N/A	30.00	120.00
Leveling Pad Soil	CRUSHED STONE	N/A	40.00	125.00
Foundation Soil	SILTY LOAM	0.00	30.00	120.00

Segmental Unit Data

Segmental Unit Name : Sigma 8
 Cap Height (Inches) : 3.00
 Unit Height (Hu)(Inches) : 8.00
 Unit Width (Wu)(Inches) : 12.00
 Unit Length (Inches) : 18.00
 Setback (Inches) : 0.75
 Weight (Infilled)(lb) : 109.00
 Unit Weight (Infilled)(pcf) : 109.00
 Center of Gravity(Inches) : 6.00

Geosynthetic Reinforcement Type and Number

Supplier	Product Name	Number
	SRW Universal	0
	SRW3	0
	SRW5	9
	SRW7	0

Geosynthetic Properties

Geosynthetic Product	Tult (lb/ft)	RFcr	RFd	RFid	LTDS (lb/ft)	Cl	Cds
SRW Universal	1200.00	1.56	1.10	1.10	635.73	0.72	0.75
SRW3	2000.00	1.54	1.10	1.08	1093.18	0.72	0.75
SRW5	3600.00	1.55	1.10	1.10	1919.49	0.72	0.75
SRW7	5000.00	1.58	1.10	1.05	2739.88	0.72	0.75

Unit-Unit Interface Properties

Minimum Shear Capacity(lb/ft)	Shear Friction Angle	Maximum Shear Capacity (lb/ft)
410.00	37.00	2670.00

Geosynthetic-SRW Unit Connection Strength properties

Geosynthetic Product	Minimum Conn. Capacity (lb/ft)	1st Inflection Point (lb/ft)		2nd Inflection Point (lb/ft)	
		Normal Load (lb/ft)	Connection Capacity (lb/ft)	Normal Load (lb/ft)	Max Connection Capacity(lb/ft)
SRW__Universal	442.00	937.00	585.00	2079.00	736.00
SRW3	800.00	1440.00	1456.00	1800.00	1579.00
SRW5	930.00	1920.00	1785.00	2400.00	1944.00
SRW7	875.00	600.00	1233.00	3000.00	2743.00

Geosynthetic-SRW Unit Shear Strength properties

Geosynthetic Product	Minimum Shear Capacity(lb/ft)	Shear Friction Angle	Maximum Shear Capacity (lb/ft)
SRW__Universal	410.00	37.00	2670.00
SRW3	410.00	37.00	2670.00
SRW5	410.00	37.00	2670.00
SRW7	410.00	37.00	2670.00

Vertical Components

Vertical Components of Earth Pressures Used : No

Coefficients of Earth Pressure and Failure Plane Orientation

Reinforcement Soil(Static)(Ka)	: 0.261
Reinforcement Soil(Static)(Kah Horizontal Component)	: 0.252
Internal Modified Back Slope(Bint)	: 0.000
Orientation of failure plane from horizontal(degrees) for Internal Stability	: 53.956
Retained Soil(Static)(Ka)	: 0.258
Retained Soil(Static)(Kah Horizontal Component)	: 0.235
External Modified Back Slope(Bext)	: 0.000
Orientation of failure plane from horizontal(degrees) for External Stability	: 52.632

Item 3.

Result of External Stability Static Analysis

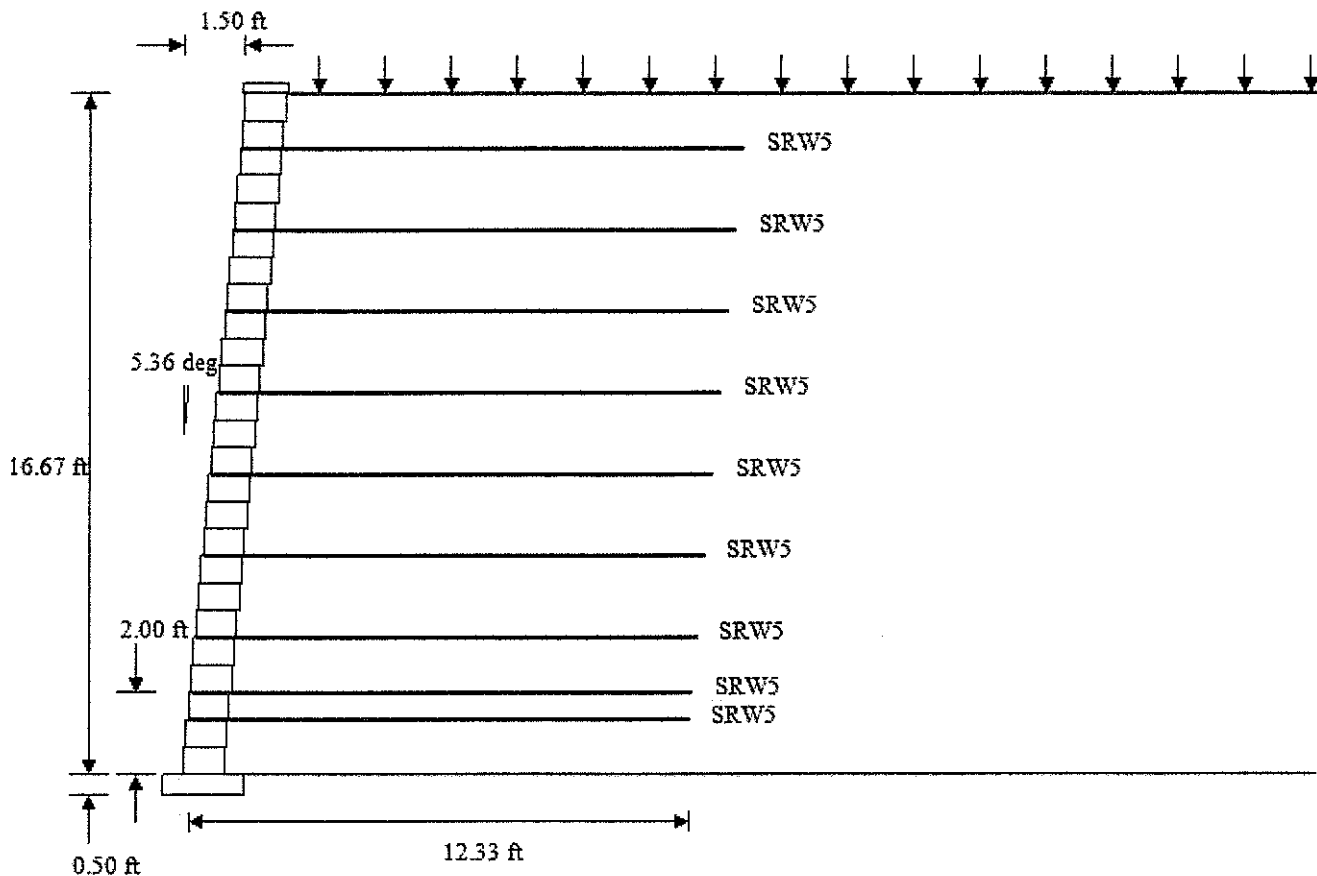
	Calculated	Design Criteria
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Results of Internal Stability Static Analysis

SRW Unit #	Geosynthetic Product	Elevation (ft)	Length (ft)	Anchor Length (ft)	FOS Over Stress ≥1	FOS Pullout ≥1	FOS Slide ≥1	Layer Spacing (ft) ≤3.0
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Results of Facing Stability Static Analysis

SRW Unit #	Heel Elev (ft)	Geosynthetic Product	FOS Crest Toppling ≥1	FOS Connection ≥1
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Wall Reinforcement Layout**Project Identification**

Project ID	: 23177
Project Name	: 14.7' WALL PATIO SURCHARGE LOAD
Owner	: 33 ASTOR PLACE WESLEY HILLS
Client	: 33 ASTOR PLACE WESLEY HILLS
Prepared By	: TWS
Company	: Skrable Engineering
Address	: 65 Ramapo Valley Road, Mahwah NJ
Telephone	: 201-529-5010
Section	: 14.7' EXPOSED PATIO SURCHARGE LOAD
Vendor Data File	:
Project File	: 23177SIGMA176INCHEXPOSEDPATIOSURCHARGE.prj
Date and Time	: 11/17/2023 13:30:57

SRWall (Version 4) Report**Project Identification**

Project ID : 23177
 Project Name : 16.0' WALL NO SURCHARGE LOAD
 Owner : 33 ASTOR PLACE WESLEY HILLS
 Client : 33 ASTOR PLACE WESLEY HILLS
 Prepared By : TWS
 Company : Skrable Engineering
 Address : 65 Ramapo Valley Road, Mahwah NJ
 Telephone : 201-529-5010
 Section : 16.0' EXPOSED NO SURCHARGE LOAD
 Project File : 23177SIGMA192INCHEXPOSEDNOSURCHARGE.prj
 Vendor Data File :
 Date and Time : 11/17/2023 13:30:57

Type of Structure : Reinforced Wall

Wall Geometry

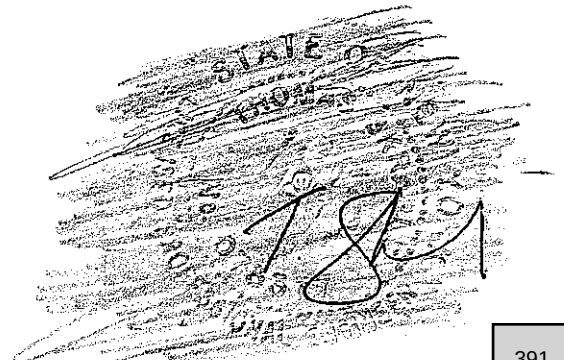
Design Wall Height(ft) : 18.00
 Embedment Wall Height(ft) : 2.00
 Exposed Wall Design Height(ft) : 16.00
 Number of Segmental Wall Units : 27
 Wall Inclination(degrees) : 5.36

Grades

Top Slope(degrees) : 0.00

Uniform Distributed Surcharge

Live Load Surcharge(Psf) : 0.00
 Dead Load Surcharge(Psf) : 0.00



Soil Data

Soil Zone	Description	Cohesion (c) (psf)	Friction Angle(Φ) (degrees)	Unit Weight (γ)(pcf)
Reinforced Soil	SILTY LOAM	N/A	30.00	120.00
Retained Soil	SILTY LOAM	N/A	30.00	120.00
Leveling Pad Soil	CRUSHED STONE	N/A	40.00	125.00
Foundation Soil	SILTY LOAM	0.00	30.00	120.00

Segmental Unit Data

Segmental Unit Name : Sigma 8
 Cap Height (Inches) : 3.00
 Unit Height (Hu)(Inches) : 8.00
 Unit Width (Vu)(Inches) : 12.00
 Unit Length (Inches) : 18.00
 Setback (Inches) : 0.75
 Weight (Infilled)(lb) : 109.00
 Unit Weight (Infilled)(pcf) : 109.00
 Center of Gravity(Inches) : 6.00

Geosynthetic Reinforcement Type and Number

Supplier	Product Name	Number
	SRW Universal	0
	SRW3	0
	SRW5	9
	SRW7	0

Geosynthetic Properties

Geosynthetic Product	Tult (lb/ft)	RFcr	RFd	RFid	LTDS (lb/ft)	CI	Cds
SRW Universal	1200.00	1.56	1.10	1.10	635.73	0.72	0.75
SRW3	2000.00	1.54	1.10	1.08	1093.18	0.72	0.75
SRW5	3600.00	1.55	1.10	1.10	1919.49	0.72	0.75
SRW7	5000.00	1.58	1.10	1.05	2739.88	0.72	0.75

Unit-Unit Interface Properties

Minimum Shear Capacity(lb/ft)	Shear Friction Angle	Maximum Shear Capacity (lb/ft)
410.00	37.00	2670.00

Geosynthetic-SRW Unit Connection Strength properties

Geosynthetic Product	Minimum Conn. Capacity (lb/ft)	1st Inflection Point (lb/ft)		2nd Inflection Point (lb/ft)	
		Normal Load (lb/ft)	Connection Capacity (lb/ft)	Normal Load (lb/ft)	Max Connection Capacity(lb/ft)
SRW Universal	442.00	937.00	585.00	2079.00	736.00
SRW3	800.00	1440.00	1456.00	1800.00	1579.00
SRW5	930.00	1920.00	1785.00	2400.00	1944.00
SRW7	875.00	600.00	1233.00	3000.00	2743.00

Geosynthetic-SRW Unit Shear Strength properties

Geosynthetic Product	Minimum Shear Capacity(lb/ft)	Shear Friction Angle	Maximum Shear Capacity (lb/ft)
SRW Universal	410.00	37.00	2670.00
SRW3	410.00	37.00	2670.00
SRW5	410.00	37.00	2670.00
SRW7	410.00	37.00	2670.00

Vertical Components

Vertical Components of Earth Pressures Used : No

Coefficients of Earth Pressure and Failure Plane Orientation

Reinforcement Soil(Static)(Ka)	: 0.261
Reinforcement Soil(Static)(Kah Horizontal Component)	: 0.252
Internal Modified Back Slope(Bint)	: 0.000
Orientation of failure plane from horizontal(degrees) for Internal Stability	: 53.956
Retained Soil(Static)(Ka)	: 0.258
Retained Soil(Static)(Kah Horizontal Component)	: 0.235
External Modified Back Slope(Bext)	: 0.000
Orientation of failure plane from horizontal(degrees) for External Stability	: 52.632

Result of External Stability Static Analysis

	Calculated	Design Criteria
FOS Sliding	3.35	> 1.50
FOS Overturning	6.71	> 2.00
FOS Bearing Capacity	9.05	> 2.00
Base Reinforcement Length (L)(ft)	12.25	
Base Reinforcement Ratio (L/H)	0.68	> 0.60

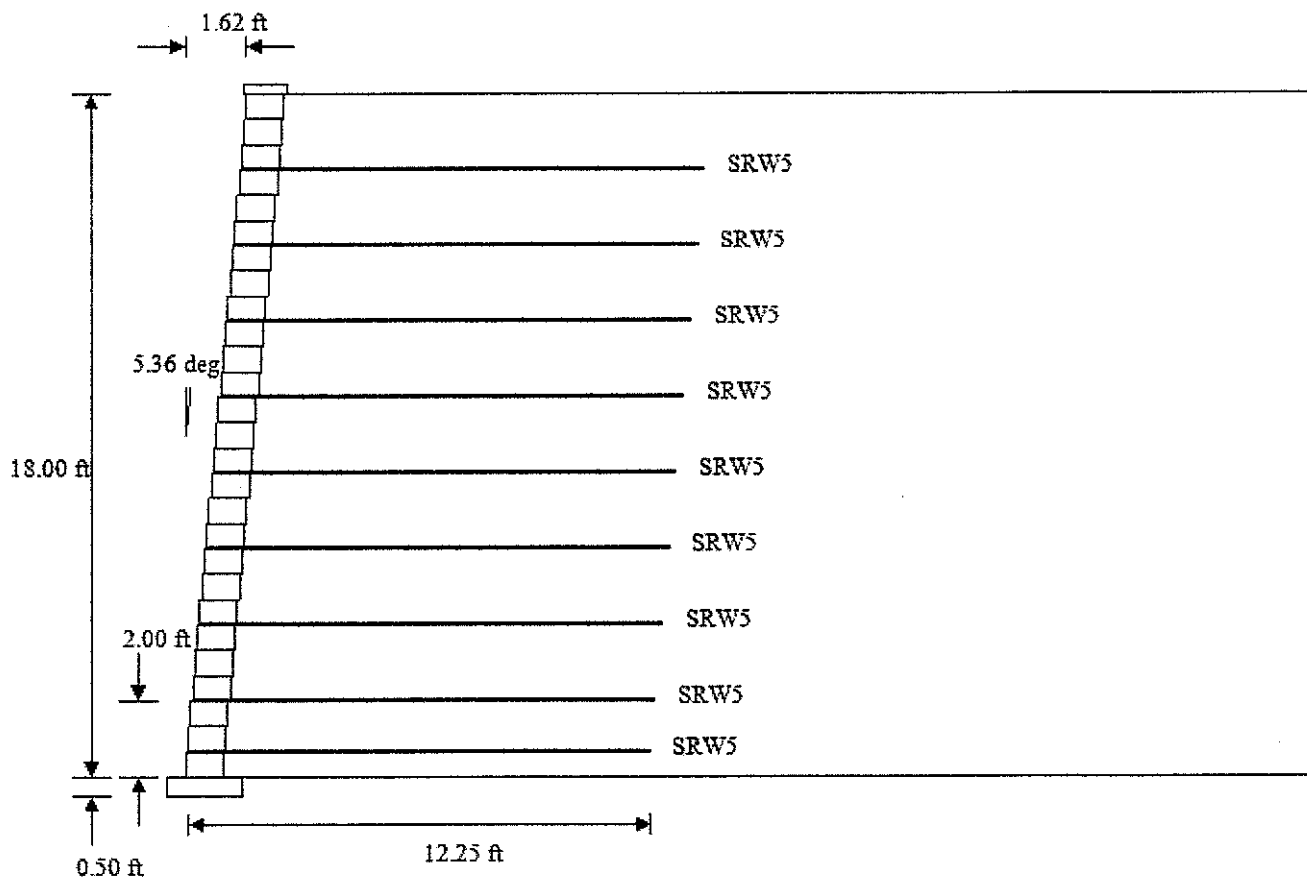
Results of Internal Stability Static Analysis

SRW Unit #	Geosynthetic Product	Elevation (ft)	Length (ft)	Anchor Length (ft)	FOS Overstress ≥ 1.50	FOS Pullout ≥ 1.50	FOS Slide ≥ 1.50	Layer Spacing (ft) ≥ 2.0
25	SRW5	16.00	12.25	1.11	14.10	1.62	30.98	OK
22	SRW5	14.00	12.25	2.37	7.93	3.91	13.67	OK
19	SRW5	12.00	12.25	3.64	5.29	6.00	8.71	OK
16	SRW5	10.00	12.25	4.91	3.96	8.09	6.38	OK
13	SRW5	8.00	12.25	6.18	3.17	10.18	5.03	OK
10	SRW5	6.00	12.25	7.45	2.64	12.27	4.15	OK
7	SRW5	4.00	12.25	8.71	2.27	14.36	3.53	OK
4	SRW5	2.00	12.25	9.98	2.41	19.97	3.08	OK
2	SRW5	0.67	12.25	10.83	2.74	26.73	2.83	OK

Results of Facing Stability Static Analysis

SRW Unit #	Heel Elev (ft)	Geosynthetic Product	FOS Crest Toppling ≥1.50	FOS Connection ≥1.50
25	16.00	SRW5	3.04	7.54
22	14.00	SRW5		4.64
19	12.00	SRW5		3.36
16	10.00	SRW5		2.72
13	8.00	SRW5		2.34
10	6.00	SRW5		2.08
7	4.00	SRW5		1.90
4	2.00	SRW5		2.14
2	0.67	SRW5		2.53

Wall Reinforcement Layout



Project Identification

Project ID	: 23177
Project Name	: 16.0' WALL NO SURCHARGE LOAD
Owner	: 33 ASTOR PLACE WESLEY HILLS
Client	: 33 ASTOR PLACE WESLEY HILLS
Prepared By	: TWS
Company	: Skrable Engineering
Address	: 65 Ramapo Valley Road, Mahwah NJ
Telephone	: 201-529-5010
Section	: 16.0' EXPOSED NO SURCHARGE LOAD
Vendor Data File	:
Project File	: 23177SIGMA192INCHEXPOSEDNOSURCHARGE.prj
Date and Time	: 11/17/2023 13:30:57



Job Name: 33 Astor Place
 Address: 33 Astor Place
 Municipality: Village of Wesley Hills
 SBL: 41.06-1-78
 Date: Jan-22
 Rev Date: Sep-23

Drywell Calculations

Total Area 0.8 acres

Existing Conditions:

Impervious Area: 0.08 acres
 Lawn: 0.29 acres
 Woods: 0.43 acres

Proposed Conditions:

Impervious Area 0.18 acres
 Lawn: 0.16 acres
 Woods: 0.46 acres

Design Storm:

100 year storm, 24 hour rainfall
 9 inches

Soil Characteristics:

Soil Type:
 Hydrologic Soil Group C C
 Existing Curve Number: 74
 Proposed Curve Number: 79

Soil Percolation Rate:

Estimate:
 Rate: 0.02 inches/min
 Diameter: 12 inches

Perc rate

0.00139 CF/SF/min
 2.00 CF/SF/day

Required Storage Volume:

Use 100 year, 24 hour rainfall

Existing Conditions:

$$S=(1000/CN)-10$$

3.51

$$Q=(P-0.2S)^2/(P+0.8S)$$

5.83

Proposed Conditions

$$S=(1000/CN)-10$$

2.66

$$Q=(P-0.2S)^2/(P+0.8S)$$

6.45

Difference in Runoff Depth:

0.62 inches

Storage volume

1789.46 CF

Drywell Storage Volume

Required Storage Volume= 1789.46 CF

Use:

5 ft diameter drywell

5.5 ft depth

18 inch stone surround

0.4 Void Space for Stone

Area of Drywell

19.63 SF

Area Including Stone

50.24 SF

Area of Stone

30.62 SF

Volume of Diameter

107.94 CF

Volume of Stone

243.74 CF

Volume after Voids

97.50 CF

Volume Storage

205.43 CF

Drywell percolation - 24 hours:

Assume no percolation in Side wall area

86.35 SF

Assume percolation in bottom area

Percolation Volume

172.70 CF/day

Total drywell Volume - 24 hours

378.13 CF

Calculate drywells required:

4.73

Use

5 drywells

1890.67 CF

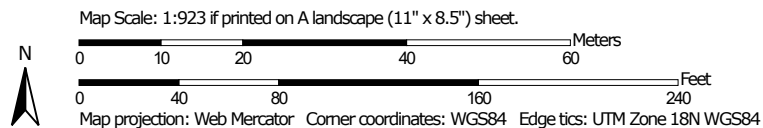
1890.67 >

1789.46

WATERSHED/ SUBBASIN ID	HYDROLOGIC GROUP	COVER TYPE	HYDROLOGIC COND.	TOTAL AREA(AC)	IMPERVIOUS AREA			PERVIOUS AREA			WEIGHTED CN
					AREA(AC)	CN	A * CN	AREA(AC)	CN	A * CN	
Existing											
	C	Impervious	Good	0.08	0.08	98	7.84	0.00	98	0.00	98
	C	Woods	Good	0.43	0.00	98	0.00	0.43	70	30.10	70
	C	Lawn	Good	0.29	0.00	98	0.00	0.29	74	21.76	74
TOTAL:				0.80	0.08		7.84	0.72		51.86	74
Proposed											
	C	Impervious	Good	0.18	0.18	98	17.64	0.00	98	0.00	98
	C	Woods	Good	0.16	0.00	98	0.00	0.16	70	11.20	70
	C	Lawn	Good	0.46	0.00	98	0.00	0.46	74	34.34	74
TOTAL:				0.80	0.18		17.64	0.62		45.54	79

Soil Map—Rockland County, New York

Item 3.



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

1/14/2022
Page 1 of 3

MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Rockland County, New York

Survey Area Data: Version 19, Sep 1, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 13, 2021—Sep 14, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Ad	Alden silt loam	0.2	3.6%
WeC	Wethersfield gravelly silt loam, 8 to 15 percent slopes	3.5	80.8%
WuB	Wethersfield-Urban land complex, 2 to 8 percent slopes	0.7	15.6%
Totals for Area of Interest		4.4	100.0%

Rockland County, New York

WuB—Wethersfield-Urban land complex, 2 to 8 percent slopes

Map Unit Setting

National map unit symbol: 9v5p

Elevation: 0 to 710 feet

Mean annual precipitation: 47 to 50 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 135 to 215 days

Farmland classification: Not prime farmland

Map Unit Composition

Wethersfield and similar soils: 50 percent

Urban land: 25 percent

Minor components: 25 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wethersfield

Setting

Landform: Till plains, hills

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy acid till derived mainly from reddish sandstone, shale, and conglomerate, with some basalt

Typical profile

H1 - 0 to 13 inches: gravelly silt loam

H2 - 13 to 22 inches: gravelly loam

H3 - 22 to 60 inches: gravelly fine sandy loam

Properties and qualities

Slope: 2 to 8 percent

Depth to restrictive feature: 20 to 38 inches to densic material

Drainage class: Well drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 18 to 30 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 2e

Hydrologic Soil Group: C

Ecological site: F145XY012CT - Well Drained Dense Till Uplands

Hydric soil rating: No

Description of Urban Land

Typical profile

H1 - 0 to 6 inches: variable

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 8s

Hydric soil rating: Unranked

Minor Components

Wallington

Percent of map unit: 5 percent

Hydric soil rating: No

Charlton

Percent of map unit: 5 percent

Hydric soil rating: No

Udorthents

Percent of map unit: 5 percent

Hydric soil rating: No

Cheshire

Percent of map unit: 5 percent

Hydric soil rating: No

Riverhead

Percent of map unit: 5 percent

Hydric soil rating: No

Data Source Information

Soil Survey Area: Rockland County, New York

Survey Area Data: Version 19, Sep 1, 2021

Rockland County, New York

WeC—Wethersfield gravelly silt loam, 8 to 15 percent slopes

Map Unit Setting

National map unit symbol: 9v5m

Elevation: 20 to 690 feet

Mean annual precipitation: 47 to 50 inches

Mean annual air temperature: 48 to 52 degrees F

Frost-free period: 135 to 215 days

Farmland classification: Farmland of statewide importance

Map Unit Composition

Wethersfield and similar soils: 80 percent

Minor components: 20 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Wethersfield

Setting

Landform: Till plains, hills

Landform position (two-dimensional): Shoulder

Landform position (three-dimensional): Crest

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Loamy acid till derived mainly from reddish sandstone, shale, and conglomerate, with some basalt

Typical profile

H1 - 0 to 13 inches: gravelly silt loam

H2 - 13 to 22 inches: gravelly loam

H3 - 22 to 60 inches: gravelly fine sandy loam

Properties and qualities

Slope: 8 to 15 percent

Depth to restrictive feature: 20 to 38 inches to densic material

Drainage class: Well drained

Capacity of the most limiting layer to transmit water

(Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: About 18 to 30 inches

Frequency of flooding: None

Frequency of ponding: None

Available water supply, 0 to 60 inches: Low (about 3.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3e

Hydrologic Soil Group: C

Ecological site: F145XY012CT - Well Drained Dense Till Uplands

Hydric soil rating: No

Minor Components

Cheshire

Percent of map unit: 5 percent

Hydric soil rating: No

Charlton

Percent of map unit: 5 percent

Hydric soil rating: No

Riverhead

Percent of map unit: 5 percent

Hydric soil rating: No

Wallington

Percent of map unit: 3 percent

Hydric soil rating: No

Yalesville

Percent of map unit: 2 percent

Hydric soil rating: No

Data Source Information

Soil Survey Area: Rockland County, New York

Survey Area Data: Version 19, Sep 1, 2021

**33 Astor Place
Village of Wesley Hills
Percolation/Deep Tests
March 22, 2022**

Test performed by Devin Crichlow, signed off by Rachel Barese, P.E.

Location 1

Deep Test:

0'-1.5' topsoil

1.5'-5' Brown/red silt/clay with stones 1" – 6"

Bedrock reached at 5'

No signs of groundwater

Location 2

Deep Test:

0'-1.5' topsoil

1.5'-9' Brown/red silt/clay with stones 1" – 6"

No signs of bedrock or groundwater

24" perc test at 5'

Run 1 – 55 minutes

Run 2 – 55 minutes

Run 3 – 55 minutes



Civil Tec Engineering & Surveying P.C.

139 Lafayette Avenue, 2nd Floor, Suffern, NY 10901 Tel 845.547.2241 Fax 845.547.2243
55 Brookside Avenue, Chester, NY 10918 Tel 845.610.3621

Civil-Tec.com



Memorandum

To: Village of Wesley Hills Planning Board

From: Jonathan T. Lockman, AICP
 Aaron M. Kardon

Re: Nancy Rubin, 33 Astor Place – Clearing, Filling or Excavation Permit
 SBL# 41.06-1-78

Date: September 26, 2023

cc: Matthew Trainor, P.E., Village Engineer
 Frank Brown, Esq., Planning Board Attorney
 Alicia Schultz, Deputy Village Clerk
 John Layne, Building Inspector
 Rachel Barese, P.E., CivilTec, for the Applicant

Received and reviewed for this memorandum:

- Cut and Fill Calculations, by CivilTec, dated August 10, 2023.
- Cut and Fill Calculations, by CivilTec, dated February 28, 2023.
- Response to NPV and Brooker comments, from Rachel Barese, P.E., Civil Tec, to Village of Wesley Hills, re: 33 Astor Place, dated September 20, 2023.
- Drywell Calculations, prepared by CivilTec Engineering and Surveying, dated January 2022, revised September 2023.
- Site Plan Set, 2 Sheets, for 33 Astor Place, stamped by Rachel Barese, P.E., CivilTec Engineering & Surveying PC, dated June 29, 2021, with latest revision date of September 20, 2023, as follows.
 - o 1 – Plot Plan
 - o 2 – Details

Project Summary

The subject application is for a Clearing, Filling and Excavation Permit, under Chapter 95 of the Village Code. The subject lot is in the R-35 District on the west side of Astor Place, north of the intersection with Ardley Place. The applicant proposes to tear down and replace a two-story residence and add fill behind retaining walls, to create relatively flat yards and pool and patio areas. Individual retaining walls are proposed up to 16 feet in height.

Submission Comments

1. The amount of proposed fill in this third proposal is now calculated as 2,083 cubic yards (per email correspondence with CivilTec), which is greatly reduced from the 10,181 cubic yards in the first proposal, and slightly lower than the 2,251 cubic yards in the second proposal. The engineer has indicated that the fill will be obtained from 346 Reagen Road in New Square, and it will be transported in triaxle, 15-cubic yard dump trucks. Given this 15-cubic yard capacity and the

amount of fill indicated, 139 truck trips to the site would be required. $2083/15 = 139$) For the previous amount of fill proposed in the second proposal, 150 truck trips would have been required.

2. Per comment 5 of our previous memorandum, we will defer to the Village Engineer's review of drainage matters.

Zoning Comments

3. Zoning comments 3 and 4 our previous comments have been resolved.

Planning Comments

4. We are encouraged that the applicant again has reduced some of the proposed wall heights in this third proposal, but the amount of fill is only somewhat lower than in the second proposal. Section §95-4.C.(2).(a) establishes a standard that the proposed filling project must be in harmony with the surrounding area. This standard reads as follows:

"The location and size of the proposed operation, the nature and intensity of the work involved and the size of the site in relation to the operation are such that, upon completion of the operation and the establishment of the permitted use, the site will be in harmony with the appropriate and orderly development of the area in which it is located."

The Planning Board should discuss whether it finds that the proposed fill and walls in the latest design will be in harmony with their surroundings, considering the size of the site and the location of adjacent and nearby surrounding house lots. While the applicant has reduced the amount of fill proposed and changed the location of the walls, there are still some adjustments that could be made to lessen impacts on the neighbors located on either side. The proposed walls are now set 7 feet from the side property lines, which is the same as in the second proposal. The height of the retaining walls along the Fisher sideline reaches 16 feet, at a distance of only 7 feet from the property line. The wall parallel to the west property line (with n/f Town of Ramapo), ranging from about 13 to 14 feet in height, is set 52 feet from the property line.

The Planning Board may wish to require the creation of three tiered retaining walls, separated by five feet, to allow for landscaping at the top and bottom of each wall section, and to provide a more residential, human-scale appearance with shorter wall heights, particularly against the Fisher property line.

Per our previous memorandum, please provide specifications including textures and colors of proposed wall materials, so the Board may consider how the walls will appear to be abutting properties.

5. We repeat comment 14 of our previous memorandum, and request that applicant's engineer propose both fencing and landscaping at the tops of walls. Full landscaping and fencing plans should be provided, to protect yard-users from falls, and to mitigate the views of these wall sets from neighboring yards. We see that the applicant's engineer is proposing silt fencing, however, more will be required than just this item. A tree planting detail is provided on sheet 2, but not tree planting locations are shown on the site plan sheet 1.

6. We will defer to the Village Engineer regarding the engineering specifications of the wall construction.

SEQRA/GML Comments

7. The project is for the replacement of a house on an approved lot, which typically is considered a type II action, requiring no SEQRA review. While the applicant has reduced the amount of fill, the proposal for filling and walls might still be of a large enough scale to have serious impacts on drainage and the character of the surrounding neighborhood. The Planning Board may still require submittals and design changes to mitigate environmental impacts of this application under its Chapter 95 standards, even if the project is only considered Type II for SEQRA purposes.
8. This action is located more than 500 feet from Lime Kiln and Wilder Roads, the nearest County facilities. The adjacent wooded land is owned by the Town of Ramapo and not by the State or County. Therefore, we believe this application is not required to be sent to Rockland County Planning Department for GML review.

Please let me know if you have any questions or comments regarding this review.

Items Reviewed for our previous memorandum dated September 5, 2023:

- Response to NPV and Brooker comments, from Rachel Barese, P.E., Civil Tec, to Village of Wesley Hills, re: 33 Astor Place, dated August 11, 2023.
- Drywell Calculations, prepared by CivilTec Engineering and Surveying, dated January 2022, revised August 2023.
- Site Plan Set, 2 Sheets, for 33 Astor Place, stamped by Rachel Barese, P.E., CivilTec Engineering & Surveying PC, dated June 29, 2021, with latest revision date of August 3, 2023, as follows.
 - o 1 – Plot Plan
 - o 2 – Details

Items Reviewed for our previous memorandum dated March 31, 2023:

- Response to Planner Comments letter, from Rachel Barese, P.E., Civil Tec, to Village of Wesley Hills, re: 33 Astor Place, dated March 20, 2023.
- Site Plan Set, 2 Sheets, for 33 Astor Place, stamped by Rachel Barese, P.E., CivilTec Engineering & Surveying PC, with latest revision date of March 20, 2023, as follows.
 - o 1 – Plot Plan
 - o 2 – Details

Items reviewed for our previous memorandum, dated March 8, 2023:

- Application for Clearing, Filling or Excavation of Land, signed March 1, 2023.
- Drainage Calculations, by CivilTec Engineering, dated February 2023.
- Site Plan Set, 2 Sheets, stamped by Rachel Barese, P.E., CivilTec Engineering & Surveying PC, last revised February 24, 2023, as follows.
 - o 1 – Plot Plan
 - o 2 – Details

May 15, 2024

Village of Wesley Hills
432 Route 306
Wesley Hills, New York 10952

Re: 2 Charlotte Drive, 110 & 106 Willow Tree Road
Spring Valley, NY, 10977
Tax Lots 41.08-1-34, 44.1, & 44.2

The attached subdivision is for Tax Lots 41.08-1-34, 44.1 & 44.2. The properties are known as 2 Charlotte Drive, 110 & 116 Willow Tree Road in the Village of Wesley Hills. The applicant is seeking to revise the lot lines to end up with two lots in the end. The existing residences were recently demolished. Our plan still shows the prior residences as they were still up when the survey was completed last month. The application proposes a single family residence for each lot. No variances are required.

PART I

RECEIVED
VILLAGE OF WESLEY HILLSName of Municipality VILLAGE OF WESLEY HILLS Date

MAY 15 2024

Please check all that apply:

BUILDING,
PLANNING & ZONING
☒ Planning Board
☐ Zoning Board of Appeals*
 (Fill out Part II of this form.)

☐ Municipal Board
☐ Historical Board
☐ Architectural Review

☒ Subdivision
☒ 3 Number of Lots
☐ Site Plan

☒ Pre-preliminary/Sketch
☐ Preliminary
☐ Final

☐ Special Permit
☐ Zoning Code Amendment
☐ Variance

☐ Conditional Use
☐ Zone Change
Applicant: JAY COURT HOLDINGS LLC Phone # 845-494-7382Address: 6 JAY COURT, MONSEY, NY 10952

Street Name & Number (Post Office)

Project Name: JAY COURT HOLDINGSTax Map Lot No. 44.08-1-44.1 Map Date 5-15-2444.08-1-44.2, 41.08-1-34 Current Zoning R-35Location: On the North side of E. Willow Tree Road
200 feet EAST of RAINBOW COURT in the
 town of RAMAPO hamlet/village of Wesley Hills.Acreage of Parcel 4.764 Zoning District R-35School District East Ramapo Postal District MonseyFire District Hillcrest F.D. Ambulance District HillcrestWater District Veolia Sewer District Rock. Cty Sewer Dist #1

Project Description: (If additional space required, please attach a narrative summary.)

SEE ATTACHED NARRATIVE

If subdivision:

- 1) Is any variance from the subdivision regulations required? N/A
2) Is any open space being offered? No If so, what amount?
3) Is this a standard or average density subdivision? Standard

If site plan:

- 1) Total size of building(s) in square feet N/A
- 2) Proposed addition N/A
- 3) Number of dwelling units N/A

If **special permit**, list special permit use and what the property will be used for.

N/A

Are there **slopes greater than 25%**? If yes, please indicate the amount and show the gross and net area. NO

Are there **streams** on the site? If yes, please provide the names. No

Are there **wetlands** on the site? If yes, please provide the names and type. No

Project History: Has this project ever been reviewed before? No

If so, provide a narrative, including the list case number, name, date, and the board you appeared before.

List tax map section, block & lot numbers for all other abutting properties in the same ownership as this project.

ject. N/A

Property Owner: JAY COURT HOLDINGS LLC Phone # 845-494-7382

Address 6 JAY COURT MONSEY NY 10952
Street Name & Number (Post Office) State Zip code

Engineer/Architect/Surveyor: CIVIL TEC. Phone # 845.547-2241

Address 139 Lafayette Avenue Suffern NY 10901
 Street Name & Number (Post Office) State Zip code

Attorney: NONE Phone #

Address				
Street Name & Number	(Post Office)	State	Zip code	

Contact Person: Steve Saffer Phone # 845-494-7382

Address PO Box 515 POMONA NY 10970
Street Name & Number (Post Office) State Zip code

VILLAGE OF WESLEY HILLS

432 Route 306
 Wesley Hills, New York 10952
 (845) 354-0400 Fax: (845) 354-4097

AFFIDAVIT OF OWNERSHIP

STATE OF NEW YORK }
 COUNTY OF ROCKLAND } SS:
 VILLAGE OF WESLEY HILLS }

DANA GOLDSTEIN

being duly sworn, deposes and

says that he/she resides at

6 JAY COURT

Monsey, NY 10952

in the County of Rockland, State of New York; that he/she is the owner in

fee of all that certain lot, piece or parcel of land situated, lying and being

in the Village of Wesley Hills, and designated on the Town of Ramapo

44.08-1-44.1, 44.08-1-44.2, 44.08-1-34

Map as Section No. _____ Lot No. _____ and that he/she hereby

authorizes the attached application to be submitted in his/her behalf and

that the statements of fact contained in said application are true.

The applicant is the (owner) (contract vendee) of the said property.

JAY COURT HOLDINGS LLC BY
 owner: [Signature] DANA GOLDSTEIN
 SOLE MEMBER

Address:

6 JAY COURT

Monsey, NY 10952

Sworn to before me this

14th day of May 2024

[Signature]
 Notary Public



Applicant's Signature and Certification

State of New York)
County of Rockland) SS.: Ramapo
Town/Village of Ramapo

I, Steven Saffer, hereby depose and say that all the above statements contained in the papers submitted herewith are true.

Steven Saffer

Mailing Address

P.O. Box 515
RAMONA, NY 10970

SWORN to before this

15th day of May, 2024

Notary Public

CAMILLE GUIDO-DOWNEY
NOTARY PUBLIC STATE OF NEW YORK
RESIDING IN ROCKLAND COUNTY
NO. 01GU6337245
MY COMMISSION EXPIRES 02/22/2028

Owner/Applicant's Consent Form to Visit Property

I, DANA GOLDSTEIN, owner/applicant of the property described in application submitted to the town/village board, planning board, zoning board of appeals, and/or supporting staff, do hereby give permission to members of said boards and/or supporting staff to visit the property in question for the purposes incidental to the within application at a reasonable time during the day and upon reasonable notice to the owner or tenant in possession.

JAY COURT HOLDINGS LLC BY
DANA GOLDSTEIN, SOLE MEMBER
Dana Goldstein
Owner/Applicant

SWORN to before this

14th day of May, 2024

Sandra Beth Saffer

Notary Public

SANDRA BETH SAFFER
NOTARY PUBLIC, STATE OF NEW YORK
Registration No. 01SA6436883
Qualified in Rockland County
My Commission Expires July 25, 2028

This property is within **500 feet** of:
(Check all that apply)

IF ANY ITEM IS CHECKED, A REVIEW MUST BE DONE BY THE ROCKLAND COUNTY COMMISSIONER OF PLANNING UNDER THE
STATE GENERAL MUNICIPAL LAW, SECTIONS 239 K, L, M, AND N.

☐ State or County Road	☐ State or County Park
☐ County/State Land or Right-of-Way	☐ County Stream
☐ Municipal Boundary	☐ County Facility

List name(s) of facility checked above.

N/A

Location of Parcel(s)

Referral Agencies: *(Please check with the Village Office to make sure that the appropriate agencies, as needed, receive copies of your application and plans for their review.)*

☐ RC Highway Department	☐ Town of Ramapo Dept. of Public Works
☐ RC Drainage Agency	☐ RC Dept. of Planning
☐ RC Soil and Water Cons. Dist.	☐ RC Dept. of Environmental Health
☐ NYS Dept. of Transportation	☐ NYS Dept. of Environmental Conservation
☐ RC Sewer District #1	☐ Town of Ramapo Building Dept.
☐ Rockland County 911	

Adjacent Municipality

N/A

(AS APPLICABLE)

TO ALL APPLICANTS - YOU MUST SEND A COPY OF APPLICATIONS AND PLANS TO:

Regional Manager
Orange and Rockland
75 West Route 59
Spring Valley, NY 10977

I have informed the above checked agencies and Orange and Rockland on _____.

Signature

Date

Affidavit of Ownership/Owner's Consent

State of New York)
 County of Rockland) SS.:
 Town/Village of

Ramapo

I, DANA GOLDSTEIN being duly sworn, hereby
 depose and say that I reside at: 6 JAY COURT

Monsey, NY 10952
 in the county of Rockland in the state of New York

I am the (* SOLE member of Jay Court Holdings LLC owner in fee simple of premises located at:

44.08-1-44.1, 44.08-1-44.2, 41.08-1-34
 described in a certain deed of said premises recorded in the Rockland County Clerk's
 Office in Liber _____ of conveyances, page _____.

Said premises have been in my/its possession since 2/16/24. Said premises are
 also known and designated on the Town of Ramapo

44.08-1-44.1, 44.08-1-44.2
 Tax Map Lot - No. 41.08-1-34

Map Date 5-15-24

Current Zoning R-35

I hereby authorize the within application on my behalf, and that the statements of fact
 contained in said application are true, and agree to be bound by the determination of the
 board. Also, I do hereby give permission to the Village of Wesley Hills, its agents,
 servants and employees to enter upon the above described property solely for the
 purposes incidental to the within application at reasonable times upon reasonable notice
 to the owner or tenant in possession.

Owner
 Mailing Address

JAY COURT HOLDINGS LLC BY
 DANA GOLDSTEIN, SOLE MEMBER
[Signature]
6 JAY COURT
Monsey, NY 10952

SWORN to before this

14th day of May, 2024

[Signature]
 Notary Public

SANDRA BETH SAFFER
 NOTARY PUBLIC, STATE OF NEW YORK
 Registration No. 01SA6436883
 Qualified in Rockland County
 My Commission Expires July 25, 2026

* If owner is a corporation, fill in the office held by deponent and name of corporation,
 and provide a list of all directors, officers and stockholders owning more than 5% of
 any class of stock.

Affidavit Pursuant to Section 809 of the General Municipal Law

Item 4.

State of New York)

County of Rockland) SS.: Wesley Hills

Town/Village of _____

I, Steven Saffer, being duly sworn, hereby depose and say that all the following statements and the statements contained in the papers submitted herewith are true and that the nature and extent of any interests set forth are disclosed to the extent that they are known to the applicant.

1. Print or type full name and post office address

DANA GOLDSTEIN
6 JAY COURT
MONSEY, NY 10952

certifies that he is owner or agent of all that certain lot, piece or parcel of land and/or building described in this application **and if not the owner that he has been duly and properly authorized to make this application and to assume responsibility for the owner** in connection with this application for the relief below set forth:

2. To the PLANNING BOARD of the ~~Town~~/Village of
Wesley Hills (Board, Commission or Agency), Rockland County, New York:

Application, petition or request is hereby submitted for:

- ☐ Variance or modification from the requirement of Section _____;
- ☐ Special permit per the requirements of Section _____;
- ☒ Review and approval of proposed subdivision plat;
- ☐ Exemption from a plat or official map;
- ☐ An order to issue a certificate, permit or license;
- ☐ An amendment to the Zoning Ordinance or Official Map or change thereof;
- ☐ Other (explain) _____;

To permit construction, maintenance and use of _____

To Change 3 lots into 2 lots

3. Premises affected are in a R-35 zone and from the town of Ramapo tax map, the property is know as:

Tax Map Lot - No. 44.08-1-44.2, 44.08-1-44.1, 41.08-1-34

4. There is no state officer, Rockland County Officer or employee or town/village officer or employee nor his or her spouse, brother, sister, parent, child or grandchild, or a spouse of any of these relatives who is the applicant or who has an interest in the person, partnership or association making this application, petition or request, or is an officer, director, partner or employee of the applicant, or that such officer or employee, if this applicant is a corporation, legally or beneficially owns or controls any stock of the applicant in excess of 5% of the total of the corporation if its stock is listed on the New York or American Stock Exchanges; or is a member or partner of the applicant, if the applicant is an association or a partnership; nor that such town/village officer or employee nor any member of his family in any of the foregoing classes is a party to an agreement with the applicant, express or implied, whereby such officer or employee may receive any payment or other benefit, whether or not for service rendered, which is dependent or contingent upon the favorable approval of this application, petition or request.

5. That to the extent that the same is known to your applicant, and to the owner of the subject premises **there is disclosed herewith** the interest of the following officer or employee of the State of New York or the County of Rockland or of the Town/Village of WESLEY HILLS in the petition, request or application or in the property or subject matter to which it relates:
(if none, so state)

a. Name and address of officer or employee Steven Saffer

b. Nature of interest General Contractor

c. If stockholder, number of shares N/A

d. If officer or partner, nature of office and name of partnership N/A

e. If a spouse or brother, sister, parent, child, grandchild or the spouse of any of these blood relatives of such state, county or town/village officer or employee, state name and address of such relative and nature of relationship to officer and employee and nature and extent of office, interest or participation or association having an interest in such ownership or in any business entity sharing in such ownership. N/A

f. In the event of corporate ownership: A list of all directors, officers and stockholders of each corporation owning more than five (5%) percent of any class of stock, must be attached, if any of these are officers or employees of the State of New York, or of the County of Rockland, or of the Town/Village of WESLEY HILLS.

I, DANA GOLDSTEIN, do hereby depose and say that all the above statements and statements contained in the papers submitted herewith are true, knowing that a person who knowingly and intentionally violates this section is guilty of a misdemeanor.

Mailing Address

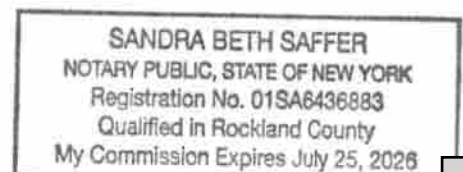
6 JAY COURT
Monsey, NY 10952

JAY COURT HOLDINGS LLC
BY DANA GOLDSTEIN
SOLE MEMBER

SWORN to before this

14th day of May, 2024

Sandra Beth Saffer
Notary Public



DISCLAIMER

APPLICANT TAKES FULL RESPONSIBILITY FOR RESEARCHING THE TAX MAP FOR THE LIST OF NAMES OF PROPERTY OWNERS ON THE ENCLOSED **AFFIDAVIT OF MAILING LIST**, AND SUPPLYING THE NECESSARY AMOUNT OF LABELED STAMPED ENVELOPES.

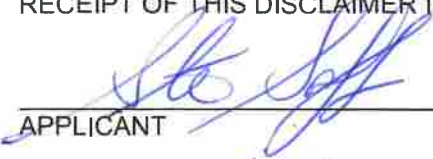
THE APPLICANT'S ENVELOPES MUST COINCIDE WITH THE LIST. THE CLERK'S RESPONSIBILITY IS LIMITED TO CHECKING NAMES ON THE ENVELOPES AGAINST THE AFOREMENTIONED AFFIDAVIT BEFORE MAILING THEM.

RECEIVED
VILLAGE OF WESLEY HILLS

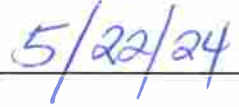
MAY 22 2024

BUILDING,
PLANNING & ZONING

RECEIPT OF THIS DISCLAIMER IS ACKNOWLEDGED



APPLICANT



DATED

AFFIDAVIT

RECEIVED
VILLAGE OF WESLEY HILLS

MAY 22 2024

BUILDING,
PLANNING & ZONING

State of New York)

County of Rockland) SS.:

Town/Village of Wesley Hills

I, Steven Saffer being duly sworn deposes and says that
he is the applicant, agent or attorney for applicant, in the matter of the petition before the
PLANNING (board) in the town/village
of Wesley Hills affecting property located at
2 Charlotte Rd # 110 E Willow, Rockland County, New York.

That the following are all of the owners of property 500 feet (distance) from the premises as to which this application is being taken.

SECTION/BLOCK/LOT

NAME _____

ADDRESS

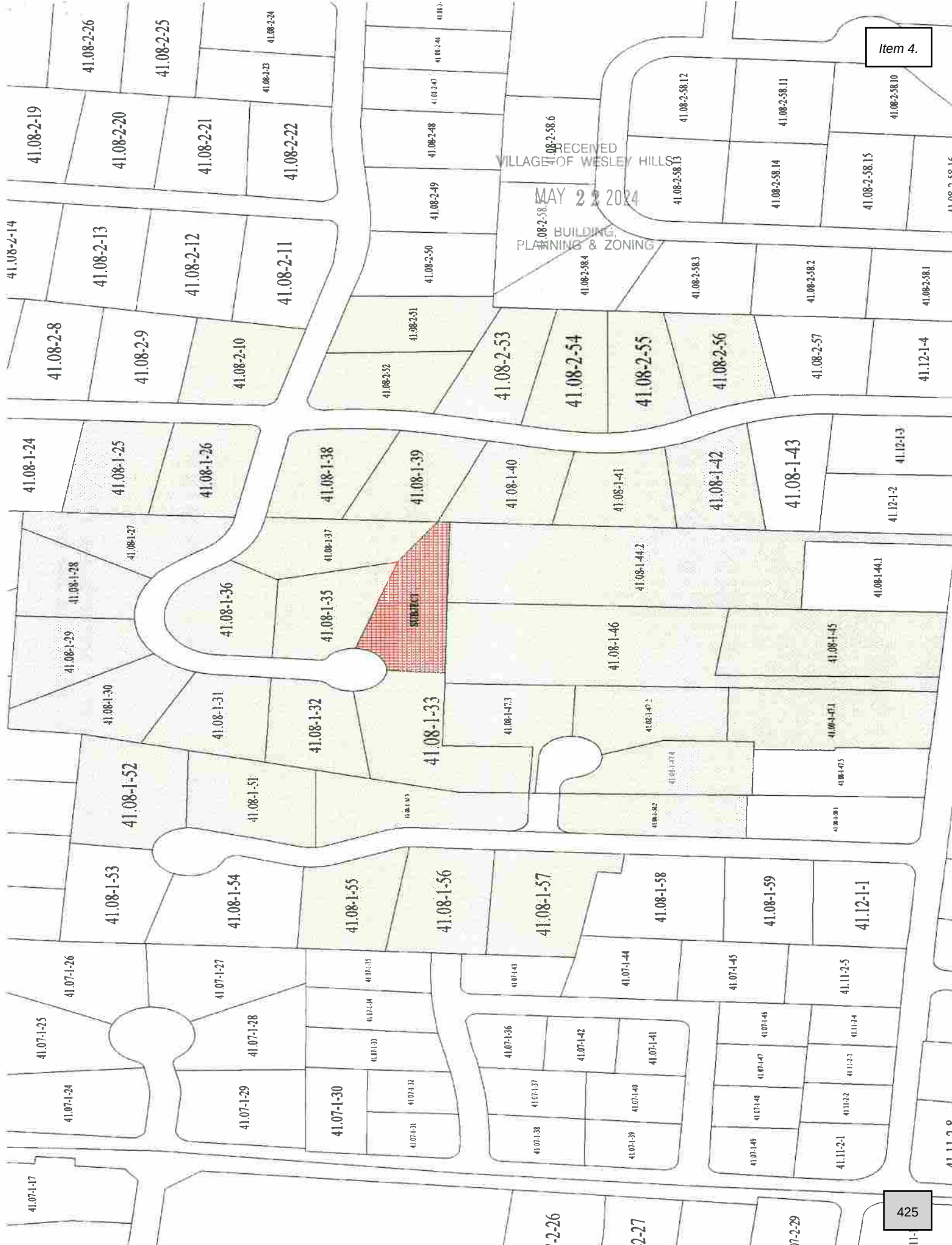
SEE ATTACHED

SWORN to before this

22nd day of May, 2024

Notary Public

CAMILLE GUIDO-DOWNEY
NOTARY PUBLIC STATE OF NEW YORK
RESIDING IN ROCKLAND COUNTY
NO. 01GU6337245
MY COMMISSION EXPIRES 02/22/2028



Item 4.

425

RECEIVED
VILLAGE OF WESLEY HILLS
MAY 22 2024
BUILDING,
PLANNING & ZONING

Item 4.

11/41.08-1-45
EAST WILLOW TREE LLC
36TH FLOOR
225 BROADWAY
NEW YORK, NY 10007

11/41.08-1-42
BENISZ MARK & ELIZABETH
5 DEERWOOD RD
SPRING VALLEY, NY 10977

11/41.08-2-56
HOOK JONATHAN & NAOMI
6 DEERWOOD RD
WESLEY HILLS, NY 10977

11/41.08-2-55
LOEBENBERG LEGACY TRUST
8 DEERWOOD RD
SPRING VALLEY, NY 10977

11/41.08-1-50.2
BARKO ALEKSEY & ANNA
6 MARISA DR
SPRING VALLEY, NY 10977

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ENGELSTEIN YARON
7 DEERWOOD RD
SPRING VALLEY, NY 10977

11/41.08-2-54
GREENWALD MOISHE &
NICOLE A
10 DEERWOOD RD
SPRING VALLEY, NY 10977

11/41.08-1-57
KLEIN ESTHER & JACOB
7 MARISA DR
WESLEY HILLS, NY 10977

11/41.08-1-44.2
JAY COURT HOLDINGS LLC
6 JAY COURT
MONSEY, NY 10952

11/41.08-1-46
SCHECTER EDUARDO
& LEOPOLD MARICA
120 WILLOW TREE RD E
SPRING VALLEY, NY 10977

11/41.08-1-47.1
AHAVAT YISRAEL OF
WESLEY HILLS
126 E WILLOW TREE
WESLEY HILLS, NY 10977

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MAKOWSKY FRADY & ABRAHAM
9 DEERWOOD RD
SPRING VALLEY, NY 10977

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KURTZ SETH & CHAYA
REVOCABLE TRUST
12 DEERWOOD RD
SPRING VALLEY, NY 10977

11/41.08-1-56
CIBORSKI THOMAS F &
REBECCA T
11 PEARL DR
MONSEY, NY 10952

11/41.08-1-34
JAY COURT HOLDINGS LLC
6 JAY COURT
MONSEY, NY 10952

11/41.08-1-33
ROSENBERG SUSAN
1 CHARLOTTE DR
SPRING VALLEY, NY 10977

11/41.08-1-39
TAUB SAMUEL & GITY
1363 EAST 31ST
BROOKLYN, NY 11210

11/41.08-2-51
COHN HENOCHE & MIRJAM
14 CHARLOTTE DR
SPRING VALLEY, NY 10977

11/41.08-1-50.3
KAMINETZKY JEFFREY &
SPIVAK CHERYL
8 MARISA DR
SPRING VALLEY, NY 10977

11/41.08-2-52
POLLAK STUART & ESTHER
14 DEERWOOD RD
SPRING VALLEY, NY 10977

11/41.08-1-55
BIRNBAUM FAMILY RUTH WANG
REVOCABLE TRUST
9 MARISA DR
SPRING VALLEY, NY 10977

11/41.08-1-35
SPIRA ABRAHAM & TZIPORA
4 CHARLOTTE DR
SPRING VALLEY, NY 10977

11/41.08-1-38
BOOK SAMUEL &
ZICHERMAN-BOOK ZIPORA
15 DEERWOOD RD
SPRING VALLEY, NY 10977

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ABRAMS SHEILA REVOCABLE
LIVING TRUST
3 CHARLOTTE DR
SPRING VALLEY, NY 10977

11/41.08-1-37
GLUBERMAN KAREN
47 WAATERS EDGE
CONGERS, NY 10920

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WANOUNOU DAVID & SHOSHANA
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POLLACK MENACHEM M & JUDY
17 CHARLOTTE DR
SPRING VALLEY, NY 10977

11/41.08-1-36
ROSENBERG MOSHE
16 RYAN RD
EDISON, NJ 08817

11/41.08-1-26
MULLER ISAAC & MICHELLE
17 DEERWOOD RD
SPRING VALLEY, NY 10977

11/41.08-1-31
PEPPER ZELDA TRUST THE
5 CHARLOTTE DR
SPRING VALLEY, NY 10977

label size 1" x 2-5/8" compatible with Avery® 5160/8160			Staples.		
04A-U1			Item 4.		
11/41.08-1-52 SHATKIN JASON A & DEBORAH M 17 MARISA DRIVE SPRING VALLEY, NY 10977		11/41.08-1-25 DEERWOOD TRUST 5 FIELDCREST DR MONSEY, NY 10952		11/41.08-1-27 PERKOWSKI JOEL & MIRIAM 13 CHARLOTTE DR SPRING VALLEY, NY 10977	
11/41.08-1-28 DAVIDSON NICHOLAS & JENNIFER 11 CHARLOTTE DR SPRING VALLEY, NY 10977		11/41.08-1-29 GELMAN DOV & LENORE LIVING TRUST 9 CHARLOTTE DR SPRING VALLEY, NY 10977		11/41.08-1-30 GREENFIELD JOSEPH & BARUCHOV JORDANA 3 TOBEY LA MONSEY, NY 10952	
11/41.08-1-47.4 EICHORN AHARON S & RIFKI 5 PLUMBUSH ROAD SUFFERN, NY 10901		11/41.08-1-47.3 BRODIE DONI J & LEAH 7 SOUNDVIEW DR SPRING VALLEY, NY 10977		11/41.08-1-47.2 SCHWARTZ ARON Z & LICHTENSTEIN RACHELLE 4 ROCHELLE LANE WESLEY HILLS, NY 10977	

Item 4.

428

41.07-2-25

11/41.08-1-45
EAST WILLOW TREE LLC
36TH FLOOR
225 BROADWAY
NEW YORK, NY 10007

11/41.12-1-17
SCHWARTZ HENRY & SILA
10 SKYLINE TERR
SPRING VALLEY, NY 10977

11/41.12-2-1
TAMBOR JACOB
2 MARK DRIVE
SPRING VALLEY, NY 10977

11/41.12-1-6
97 E WILLOW TREE ROAD LLC
97 E WILLOW TREE RD
SPRING VALLEY, NY 10977-101

11/41.12-1-9
SELTZER PAUL & DEVORAH
115 E WILLOW TREE RD
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ASH ROCHEL & URIEL
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BEREN JONATHAN & DENISE
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JAY COURT HOLDINGS LLC
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MONSEY, NY 10952

11/41.12-1-19
LERER DANIEL & RIVKA
2 SKYLINE TERR
WESLEY HILLS, NY 10977

11/41.12-1-16
16 SKYLINE TERRACE LLC
16 SKYLINE TERR
WESLEY HILLS, NY 10977

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BARKHORDAR SIAMAK & SOROH
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1907 PREUSS RD
LOS ANGELES, CA 90034

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103 E WILLOW TREE ROAD
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ZWIEBEL MORDECHAI LEIB &
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123 E WILLOW TREE RD
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WEINSTEIN DAVID & SABRINA
LEGACY TRUST
102 E WILLOW TREE RD
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LOEBENBERG LEGACY TRUST
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ABRAHAM ZISHE & ZELDA
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SCHECTER EDUARDO
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11/41.12-1-15
KAIMAN MARK & ERICA
12 RAINBOW CT
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STEFANSKY AARON & FAYE
DINAH
91 WILLOW TREE RD E
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109 E WILLOW TREE
ROAD LLC
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WESLEY HILLS, NY 10977



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ROAD LLC
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109 E WILLOW TREE RD
SPRING VALLEY, NY 10977
11/41.12-1-11
APPLE SPRINGS LLC
318 AVENUE M
BROOKLYN, NY 11230

11/41.12-1-2
WEINSTEIN DAVID & SABRINA
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WESLEY HILLS, NY 10977

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11/41.08-1-47.2
SCHWARTZ ARON Z &
LICHTENSTEIN RACHELLE
4 ROCHELLE LANE
WESLEY HILLS, NY 10977

Short Environmental Assessment Form

Part 1 - Project Information

Instructions for Completing

Part 1 – Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 – Project and Sponsor Information			
Name of Action or Project: 2 Charlotte Drive, 110 & 116 Willow Tree Road			
Project Location (describe, and attach a location map): 2 Charlotte Drive, 110 & 116 Willow Tree Road, Wesley Hills, NY			
Brief Description of Proposed Action: Proposed subdivision to go from 3 lots to 2 lots for single family residences.			
Name of Applicant or Sponsor: Jay Court Holdings LLC		Telephone: 845-494-7382 E-Mail:	
Address: 6 Jay Court			
City/PO: Monsey		State: NY	Zip Code: 10952
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.			NO ☒
2. Does the proposed action require a permit, approval or funding from any other government Agency? If Yes, list agency(s) name and permit or approval: subdivision-PB, sewer-Ramapo DPW & RCSD No. 1			YES ☒
3. a. Total acreage of the site of the proposed action? 4.75 acres b. Total acreage to be physically disturbed? 2 acres c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 4.75 acres			
4. Check all land uses that occur on, are adjoining or near the proposed action: 5. ☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☐ Commercial ☒ Residential (suburban) ☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other(Specify): ☐ Parkland			

		NO	YES	Item 4.
5. Is the proposed action,				
a. A permitted use under the zoning regulations?		☐	☒	☐
b. Consistent with the adopted comprehensive plan?		☐	☒	☐
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?		NO	YES	
		☐	☒	
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area?		NO	YES	
If Yes, identify: _____		☒	☐	
8. a. Will the proposed action result in a substantial increase in traffic above present levels?		NO	YES	
		☒	☐	
b. Are public transportation services available at or near the site of the proposed action?		☒	☐	
c. Are any pedestrian accommodations or bicycle routes available on or near the site of the proposed action?		☒	☐	
9. Does the proposed action meet or exceed the state energy code requirements?		NO	YES	
If the proposed action will exceed requirements, describe design features and technologies: _____ _____		☐	☒	
10. Will the proposed action connect to an existing public/private water supply?		NO	YES	
If No, describe method for providing potable water: _____ _____		☐	☒	
11. Will the proposed action connect to existing wastewater utilities?		NO	YES	
If No, describe method for providing wastewater treatment: _____ _____		☐	☒	
12. a. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places?		NO	YES	
		☒	☐	
b. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory?		☐	☒	
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?		NO	YES	
		☐	☒	
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody?		☒	☐	
If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____ NYSDEC wetland mapper and ACOE wetland mapper show no wetlands on site. _____ _____				

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

- ☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional
☐ Wetland ☐ Urban ☒ Suburban

15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?

NO YES

☒ ☐

16. Is the project site located in the 100-year flood plan?

NO YES

☒ ☐

17. Will the proposed action create storm water discharge, either from point or non-point sources?

NO YES

If Yes,

☐ ☒

a. Will storm water discharges flow to adjacent properties?

☒ ☐

b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)?

☒ ☐

If Yes, briefly describe:

18. Does the proposed action include construction or other activities that would result in the impoundment of water or other liquids (e.g., retention pond, waste lagoon, dam)?

NO YES

If Yes, explain the purpose and size of the impoundment:

☒ ☐

19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility?

NO YES

If Yes, describe:

☒ ☐

20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste?

NO YES

If Yes, describe:

☒ ☐

I CERTIFY THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor/name: Civil Tec Engineering & Surveying PC

Date: 5-15-24

Signature: Nachul B.

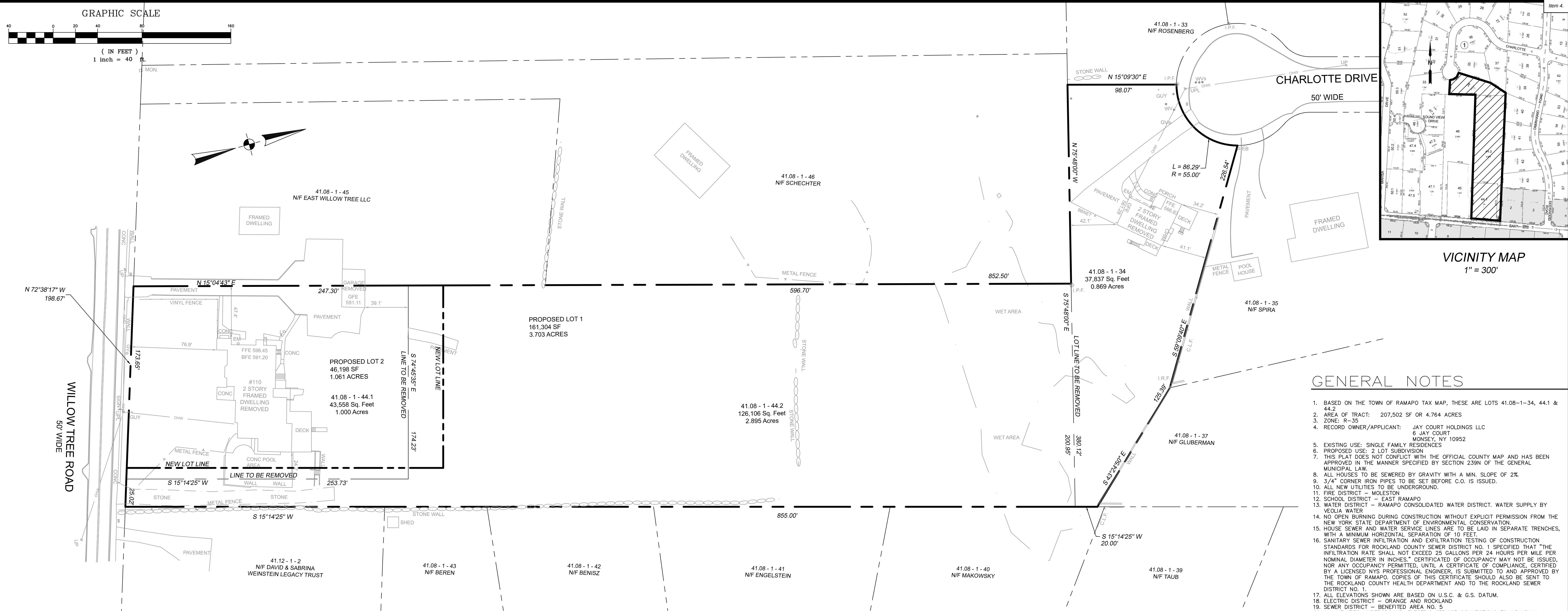
Title: Project Engineer



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National or State Register of Historic Places or State Eligible Sites]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	No
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	No



REFERENCES

1. BEING SECTION 41.08, BLOCK 1, LOTS 34, 44.1 & 44.2 OF THE VILLAGE OF WESLEY HILLS AND TOWN OF RAMAPO TAX MAPING
2. LOT 34 DESCRIBED BY DEED IN INSTRUMENT NO. 2021 AT PAGE 40444 AT THE ROCKLAND COUNTY CLERKS OFFICE
3. LOT 44.1 DESCRIBED BY DEED IN INSTRUMENT NO. 2022 AT PAGE 34277 AT THE ROCKLAND COUNTY CLERKS OFFICE
4. LOT 44.2 DESCRIBED BY DEED IN INSTRUMENT NO. 2020 AT PAGE 26029 AT THE ROCKLAND COUNTY CLERKS OFFICE
5. LOT 34 BEING LOT 8 IN BLOCK A ON A MAP ENTITLED "MAYFLOWER KNOLLS IN POMONA", FILED IN THE ROCKLAND COUNTY CLERK'S OFFICE ON JULY 26, 1963 IN BOOK 66 ON PAGE 70 AS MAP NUMBER 3150.
6. LOTS 44.1 & 44.2 BEING LOTS 1 & 2 ON A MAP ENTITLED "SUBDIVISION PLAT FOR MOSKOWITZ", FILED IN THE ROCKLAND COUNTY CLERK'S OFFICE ON SEPTEMBER 20, 2010 IN BOOK 128 ON PAGE 60 AS MAP NUMBER 8116.
7. REFERRING TO A MAP ENTITLED "SUBDIVISION MAP OF SECTION 2 AND 3 OF RAINBOW RIDGE", FILED IN THE ROCKLAND COUNTY CLERK'S OFFICE ON NOVEMBER 26, 1962 IN BOOK 65 ON PAGE 47 AS MAP NUMBER 3056.
8. REFERRING TO A MAP ENTITLED "FINAL SUBDIVISION PLAT OF PROPERTY OF FRED & ELIZABETH METZ", FILED IN THE ROCKLAND COUNTY CLERK'S OFFICE ON JULY 3, 1986 IN BOOK 106 ON PAGE 2 AS MAP NUMBER 5920.
9. TOTAL AREA OF LOT 34 = 37,837 SQUARE FEET OR 0.869 ACRES.
10. TOTAL AREA OF LOT 44.1 = 43,558 SQUARE FEET OR 1.000 ACRES.
11. TOTAL AREA OF LOT 44.2 = 126,106 SQUARE FEET OR 2.895 ACRES.

Bulk Requirements: R-35 Single Family Residence													
	Min Lot Area	Min Lot Frontage	Min Lot Width	Min Effective Square	Min Front Yard	Min Side Yard	Min Total Side Yard	Min Rear Yard	Max Impervious Surface Ratio	Max Front Yard Impervious Surface Ratio	Max Building Coverage	Max Building Height	Max Exposed Building Height
Required	35,000 SF	100 FT	125 FT / 75 FT cul-de-sac	125 FT	50 FT	25 FT	60 FT	50 FT	0.25	0.2	0.1	2.5 stories / 25 FT	40 FT
Existing Lot 44.1	43,558 SF	174 FT	174 FT	125 FT	76.9 FT	0 FT*	24.2 FT*	39.1 FT*	0.27*	0.05	0.11*	2 stories	<40 FT
Existing Lot 44.2	126,106 SF	25 FT*	199 FT	125 FT	N/A	N/A	N/A	N/A	0.003	N/A	N/A	N/A	N/A
Existing Lot 34	37,837 SF	86 FT*	138 FT	125 FT	65.1 FT	34.2 FT	135.7 FT	42.1 FT*	0.13	0.1	0.04	2 stories	<40 FT
* Existing Condition													

Bulk Requirements: R-35 Single Family Residence													
	Min Lot Area	Min Lot Frontage	Min Lot Width	Min Effective Square	Min Front Yard	Min Side Yard	Min Total Side Yard	Min Rear Yard	Max Impervious Surface Ratio	Max Front Yard Impervious Surface Ratio	Max Building Coverage	Max Building Height	Max Exposed Building Height
Required	35,000 SF	100 FT	125 FT / 75 FT cul-de-sac	125 FT	50 FT	25 FT	60 FT	50 FT	0.25	0.2	0.1	2.5 stories / 25 FT	40 FT
Proposed Lot 1	161,304 SF	121 FT	138 FT	125 FT	244 FT	38 FT	115 FT	204 FT	0.16	0.17	0.05	<25 FT	<40 FT
Proposed Lot 2	46,198 SF	163 FT	164 FT	125 FT	50 FT	35 FT	112 FT	191 FT	0.08	0.07	0.04	<25 FT	<40 FT

WE HEREBY CERTIFY THAT THIS SUBDIVISION PLAT WAS PREPARED BY US AND MADE FROM AN ACTUAL SURVEY COMPLETED BY US ON APRIL 24, 2024.

OWNERS APPROVAL

THE OWNER OR HIS REPRESENTATIVE HEREBY IRREVOCABLY OFFERS FOR DEDICATION TO THE TOWN OF RAMAPO, ALL STREETS, MUNICIPAL USES, PARKS, AND REQUIRED UTILITIES SHOWN ON THE WITHIN SUBDIVISION PLAT AND CONSTRUCTION PLANS IN ACCORDANCE WITH AN IRREVOCABLE OFFER OF DEDICATION.

OWNER OR REPRESENTATIVE _____ DATE _____
APPROVED FOR FILING

OWNER OR REPRESENTATIVE _____ DATE _____

ROCKLAND COUNTY DRAINAGE AGENCY APPROVAL

APPROVED FOR FILING

CHAIRMAN ROCKLAND COUNTY DRAINAGE AGENCY _____ DATE _____

S.B.L. 41.08 - 1 - 34, 44.1 & 44.2

SUBDIVISION PLAT FOR

2 CHARLOTTE DRIVE, 110 & 106 WILLOW TREE ROAD
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK

CIVIL TEC Engineering & Surveying PC

139 Lafayette Avenue, 2nd Fl.
Suffern, NY 10901
P 845.547.2241 - F 845.547.2243

111 Main Street
Chester, NY 10918
845.610.3621

Civil Engineering & Land Surveying Services that Build Communities
www.Civil-Tec.com

DATE: 4/29/24

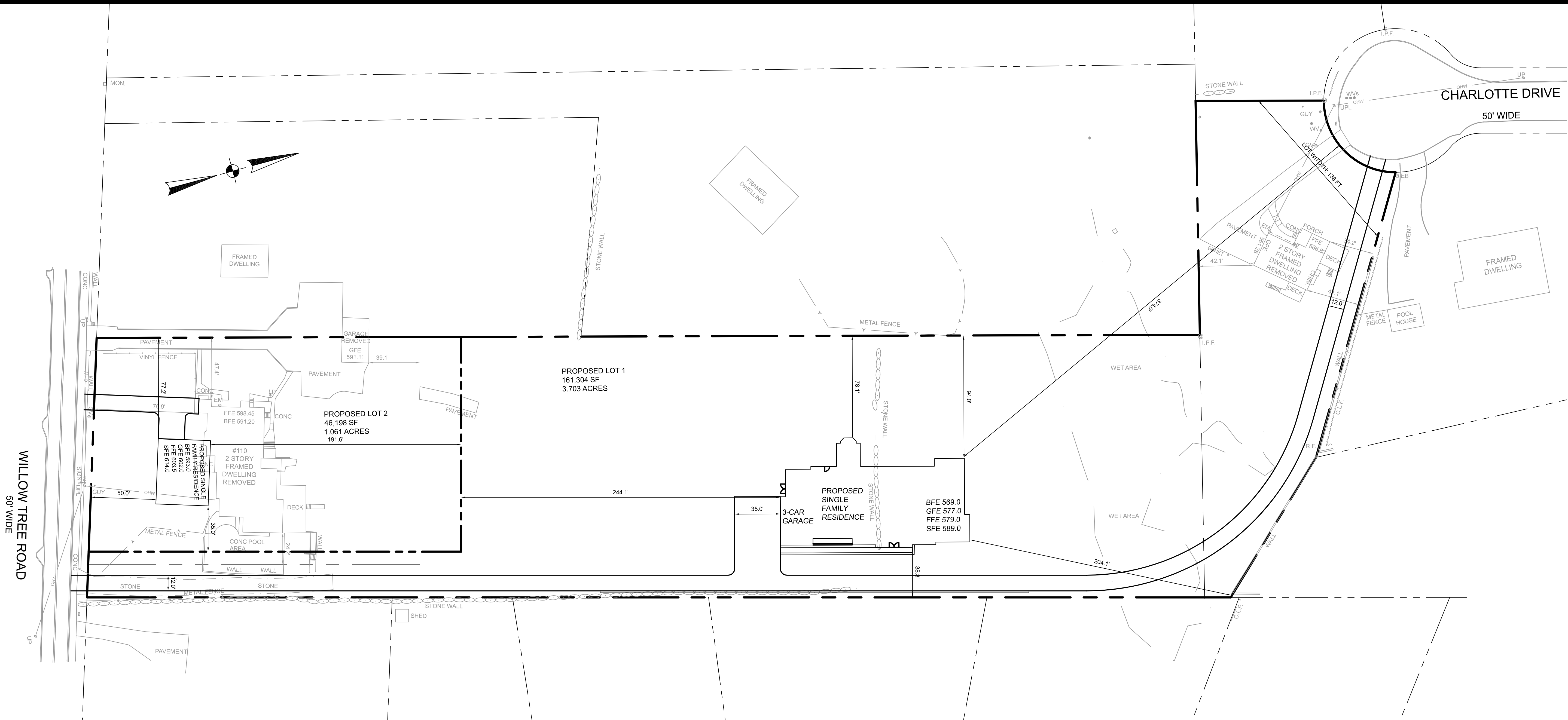
DRAWN BY: RB/LT

CHKD BY: RB/LT

JOB No. 4354

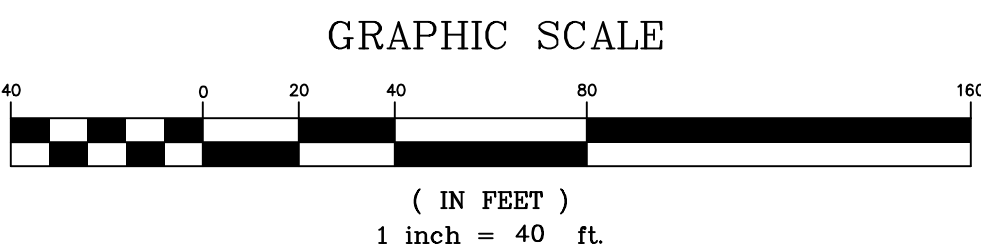
SCALE: 1"=40'

DWG No. 1 OF 1

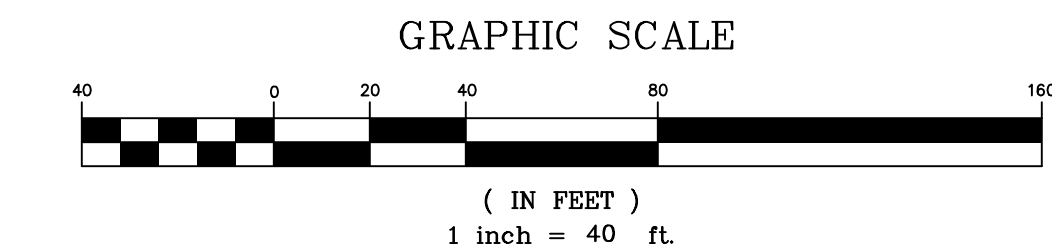
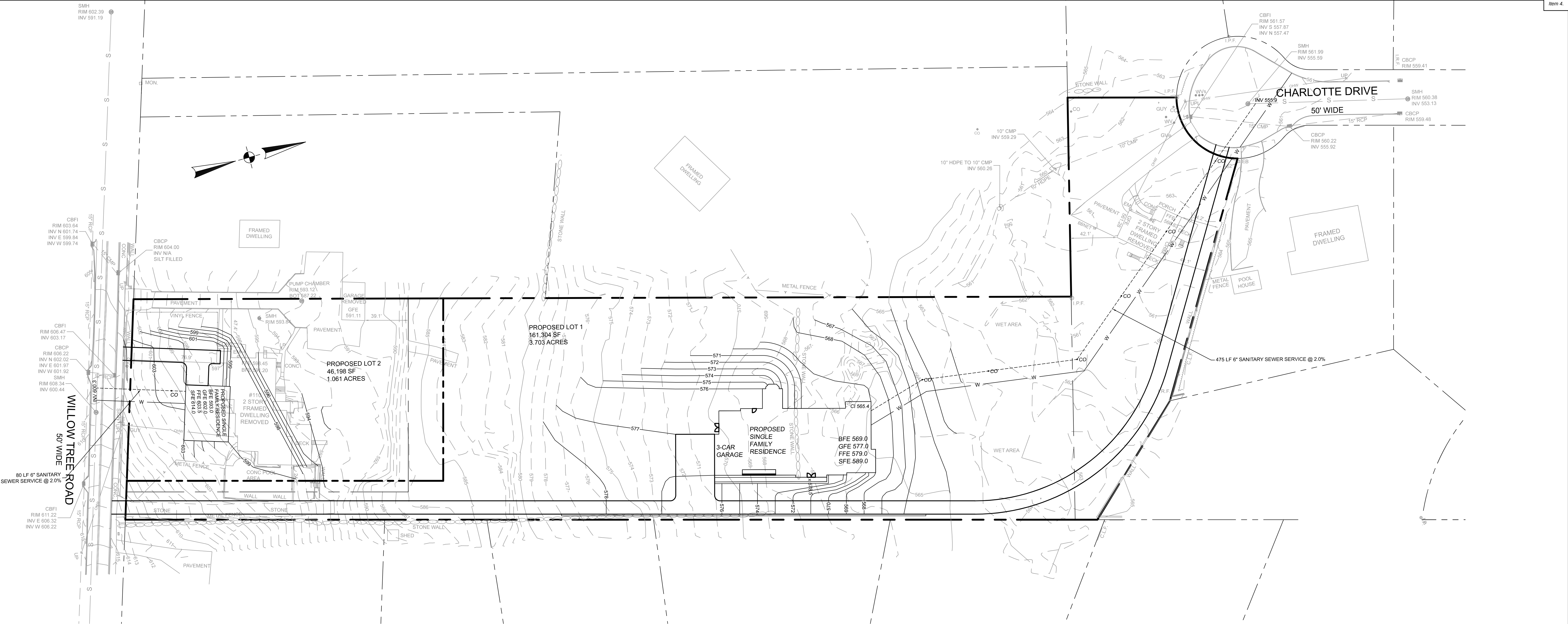


Bulk Requirements: R-35 Single Family Residence													
	Min Lot Area	Min Lot Frontage	Min Lot Width	Min Effective Square	Min Front Yard	Min Side Yard	Min Total Side Yard	Min Rear Yard	Max Impervious Surface Ratio	Max Front Yard Impervious Surface Ratio	Max Building Coverage	Max Building Height	Max Exposed Building Height
Required	35,000 SF	100 FT	125 FT / 75 FT cul-de-sac	125 FT	50 FT	25 FT	60 FT	50 FT	0.25	0.2	0.1	2.5 stories/ 25 FT	40 FT
Existing Lot 44.1	43,588 SF	174 FT	174 FT	125 FT	76.9 FT	0 FT*	24.2 FT*	39.1 FT*	0.27*	0.05	0.11*	2 stories	<40 FT
Existing Lot 44.2	126,106 SF	25 FT*	199 FT	125 FT	N/A	N/A	N/A	N/A	0.003	N/A	N/A	N/A	N/A
Existing Lot 34	37,837 SF	86 FT*	138 FT	125 FT	65.1 FT	34.2 FT	135.7 FT	42.1 FT*	0.13	0.1	0.04	2 stories	<40 FT
* Existing Condition													

Bulk Requirements: R-35 Single Family Residence													
	Min Lot Area	Min Lot Frontage	Min Lot Width	Min Effective Square	Min Front Yard	Min Side Yard	Min Total Side Yard	Min Rear Yard	Max Impervious Surface Ratio	Max Front Yard Impervious Surface Ratio	Max Building Coverage	Max Building Height	Max Exposed Building Height
Required	35,000 SF	100 FT	125 FT / 75 FT cul-de-sac	125 FT	50 FT	25 FT	60 FT	50 FT	0.25	0.2	0.1	2.5 stories/ 25 FT	40 FT
Proposed Lot 1	161,304 SF	121 FT	138 FT	125 FT	244 FT	38 FT	115 FT	204 FT	0.16	0.17	0.05	<25 FT	<40 FT
Proposed Lot 2	46,198 SF	163 FT	164 FT	125 FT	50 FT	35 FT	112 FT	191 FT	0.08	0.07	0.04	<25 FT	<40 FT

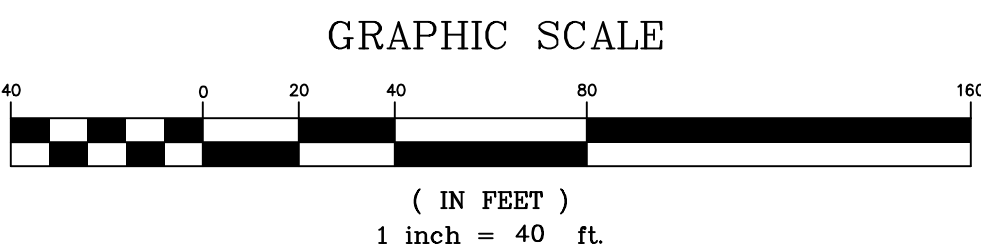
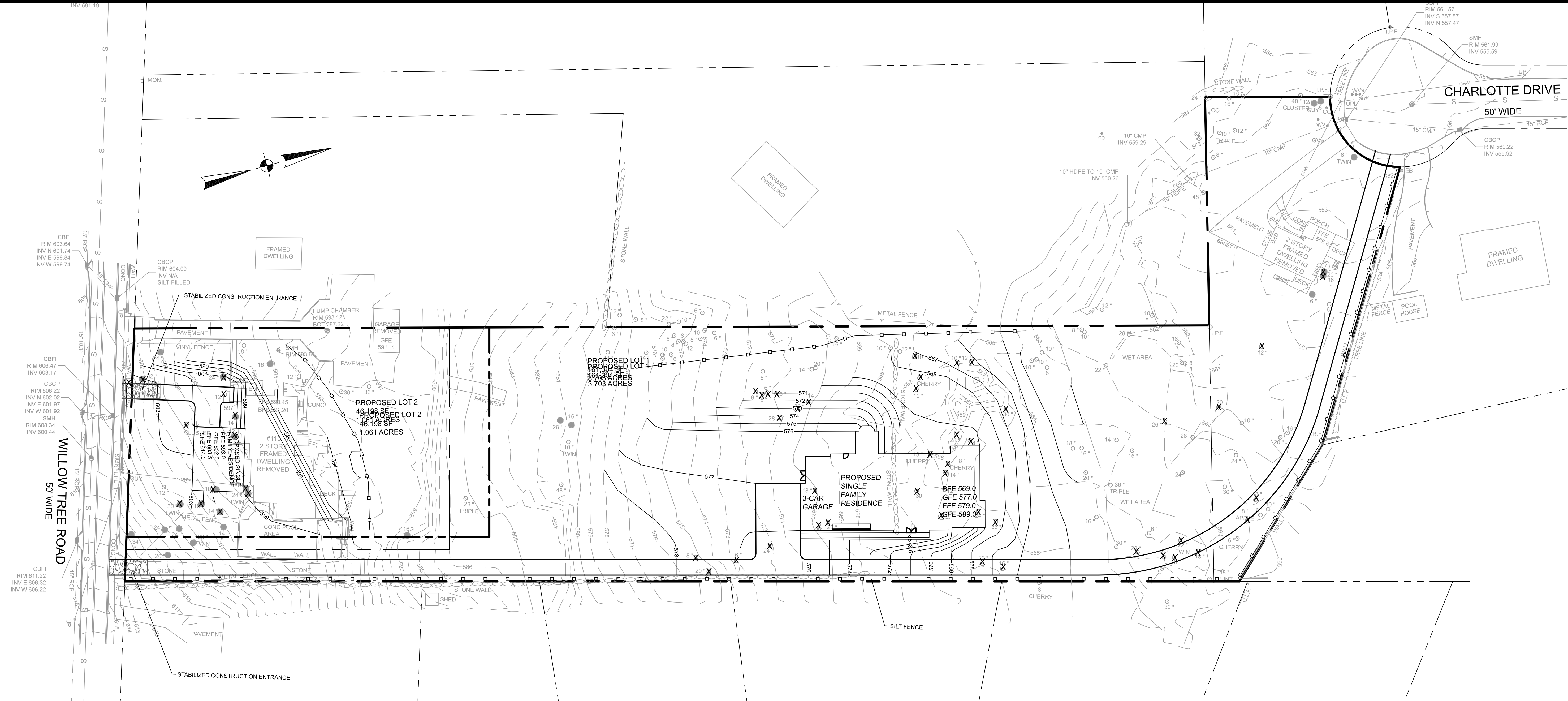


DATE	ISSUE	DESCRIPTION	REVISIONS
		S.B.L. 41.08 - 1 - 34, 44.1 & 44.2	
LAYOUT PLAN			
FOR			
2 CHARLOTTE DRIVE, 110 & 106 WILLOW TREE ROAD			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC			DATE: 4/29/24
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DRAWN BY: RB/LT
111 Main Street Chester, NY 10918 845.610.3621			CHKD BY: RB/LT
Civil Engineering & Land Surveying Services that Build C www.Civil-Tec.com			JOB No. 4354
Rachel B. Barese, P.E. N.Y. Lic. No. 90143			SCALE: 1"=40'
			DWG No. 2 OF 439



DATE	ISSUE	DESCRIPTION	REVISIONS
		S.B.L. 41.08 - 1 - 34, 44.1 & 44.2	
GRADING, DRAINAGE & UTILITIES			
FOR			
2 CHARLOTTE DRIVE, 110 & 106 WILLOW TREE ROAD			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC			DATE: 4/29/24
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DRAWN BY: RB/LT
111 Main Street Chester, NY 10918 845.610.3621			CHKD BY: RB/LT
Civil Engineering & Land Surveying Services that Build C www.Civil-Tec.com			JOB No. 4354
Rachel B. Barese, P.E. N.Y. Lic. No. 90143			SCALE: 1"=40'
			DWG No. 30





DATE	ISSUE	DESCRIPTION	REVISIONS
		S.B.L. 41.08 - 1 - 34, 44.1 & 44.2	
EROSION CONTROL PLAN			
FOR			
2 CHARLOTTE DRIVE, 110 & 106 WILLOW TREE ROAD			
VILLAGE OF WESLEY HILLS - ROCKLAND COUNTY - NEW YORK			
CIVIL TEC Engineering & Surveying PC			DATE: 4/29/24
139 Lafayette Avenue, 2nd Fl. Suffern, NY 10901 P 845.547.2241 - F 845.547.2243			DRAWN BY: RB/LT
111 Main Street Chester, NY 10918 845.610.3621			CHKD BY: RB/LT
Civil Engineering & Land Surveying Services that Build C www.Civil-Tec.com			JOB No. 4354
Rachel B. Barese, P.E. N.Y. Lic. No. 90143			SCALE: 1"=40'
			DWG No. 40



RESOLUTION #19-24
RESOLUTION REFERRING TO THE PLANNING BOARD AND OTHER AGENCIES
THE PROPOSED ZONING LAW AMENDMENT REGARDING FACULTY HOUSING
AT SCHOOLS.

Trustee Schwartz made a motion to approve the following resolution, seconded by Trustee McPherson:

WHEREAS, the Board of Trustees of the Village of Wesley Hills deems it to be in the interest of the Village to consider the enactment of a local law amending the Zoning Law of the Village of Wesley Hills for Faculty Housing at Schools, and

WHEREAS, the Village Attorney, at the request of this Board, has prepared such a proposed local law entitled, “A Local Law Amending the Code of the Village of Wesley Hills to Revise the Zoning Law in Relation to Faculty Housing at Schools,” and be it.

RESOLVED, that in accordance with the provisions of Section 230-76 of the Wesley Hills Code, such proposed local law is hereby referred for review and report to the Planning Board, Zoning Board of Appeals, Village Attorney, Village Engineer, Building Inspector, and Code Inspector of the Village of Wesley Hills, and pursuant to the GML of the County of Rockland Planning Department and all abutting municipalities, and be it

RESOLVED, that the Village Clerk is hereby directed to forward a copy of such proposed local law to such Boards and Officials forthwith.

Upon vote, Yea: Mayor Katz, Trustee McPherson, Trustee Schwartz, this motion was carried unanimously.

DATED:
February 6, 2024
Village of Wesley Hills



Camille Guido-Downey

A LOCAL LAW AMENDING THE CODE OF THE VILLAGE OF
WESLEY HILLS, TO REVISE THE ZONING LAW IN RELATION
TO FACULTY HOUSING AT SCHOOLS.

BE IT ENACTED BY THE BOARD OF TRUSTEES OF THE VILLAGE OF WESLEY
HILLS, as follows:

Section 1. Legislative Intent. The Board of Trustees acknowledges that the operation of kindergarten through 12th grade schools within the Village of Wesley Hills is desirable, provided that such schools are in compliance with the requirements of the Zoning Law. The Board of Trustees has been made aware that qualified faculty of such schools have found it difficult to obtain affordable housing near the Village. The Board of Trustees therefore finds that it is appropriate to allow schools with a dormitory, in order to attract and maintain qualified faculty, under appropriate conditions to provide accessory on-campus housing for its faculty.

Section 2. Amendment to Zoning Law. The following definition is hereby added to Section 230-5 of the Code of the Village of Wesley Hills, to follow the definition of "PLANT HEALTH MATERIALS", to read as follows:

PRACTICAL ACCESS - For all accessory uses and special permit uses for which practical access to a major road is a requirement, the phrase "practical access" means that it must be reasonably possible for actual vehicular access to be designed and constructed along the particular frontage under consideration for that use. It does not require that such access must be constructed or included in an approved site plan if the Planning Board, in the exercise of its discretion, deems it to be in the public interest for the actual vehicular access to be designed along the available frontage of a different road.

Section 3. Amendment to Zoning Law. Section 230-26I of the Code of the Village of Wesley Hills is hereby amended by adding thereto a new Subsection I(17), to read as follows:

(17) Schools which contain faculty housing units shall comply with the following additional requirements:

- (a) Each faculty housing unit shall be set back at least 50 feet from any street.
- (b) Faculty housing shall only be approved for schools meeting all of the following requirements: (1) the

school has at least 4 grade level classes from kindergarten through 12th grade; (2) the school has a dormitory located on the same site; (3) the school shall have been in operation within the Village for at least 3 years; and (4) the school can demonstrate the need for on-campus faculty housing.

- (c) Faculty housing units shall not exceed an average of 2,250 square feet per housing unit, and no faculty housing unit shall exceed 2,500 square feet in any event.
- (d) Except as expressly stated in this Subsection I, faculty housing shall comply with the bulk regulations of the underlying zoning district, including but not limited to height and number of stories. Where there is a conflict between this Subsection and the requirements pertaining to the underlying zoning district, the more restrictive requirement shall apply.
- (e) Any special permit issued to an applicant for faculty housing shall specify, as a condition thereof, the maximum number of faculty housing units authorized on the lot. In no event shall the maximum number of faculty housing units exceed any of the following limits: (1) 40% of the number of faculty members of the school as defined in this Subsection I(17)(i); (2) 7.5% of the average number of active pupils during the most recent 3 years prior to the application; and (3) the ratio of 2.0 units per acre of net lot area.
- (f) Net lot area, as referred to in the previous paragraph, shall be calculated with the same deductions as set forth for minimum lot area in Subsections I(2) and I(3). A school containing faculty housing must satisfy all of the following requirements related to lot area: the minimum lot area requirement set forth in Subsection I(1) (which will determine the maximum number of pupils authorized to be enrolled in the school), the ratio to net lot area requirement set forth in Subsection I(17)(e) (which will determine the maximum number of authorized faculty housing units), and the net lot area requirement set forth in Subsection I(16)(b) (which will determine the maximum number of persons authorized to reside in the dormitory). The same lot area may be used to satisfy all of those requirements simultaneously.
- (g) Any application to add or include faculty housing as

an accessory use to a school shall include, in addition to other items which may be required by the Planning Board, a written statement setting forth information regarding faculty residency restrictions and policies, security provisions (including, without limitation, fencing, lighting, and supervision), and emergency services.

- (h) In addition to any other off-street parking required for a school and accessory uses, there shall be 1 parking space provided for each faculty housing unit. Such parking spaces shall be in close proximity to the faculty housing units, as determined by the Planning Board.
- (i) Faculty housing units shall be occupied only by employed faculty members, as defined in Subsection I(17)(j), of the school being operated on the premises of which the housing units are located, and the spouses of such faculty members and their children up to the age of 25 years or their disabled children of any age. The faculty member to whom the housing unit is assigned must occupy such unit as his or her primary residence. Only one family may occupy a faculty housing unit, irrespective of the number of family members employed as faculty members by the school.
- (j) For purposes of this Subsection I(17), the term "faculty member" who qualifies for on-premises housing shall mean a person employed by the school on a full-time or part-time basis, for no fewer than 22 hours per week, and whose duties include at least one of the following: (1) providing instruction to students for at least 2 classes for at least 1 instructional semester, or (2) providing on-site physical or psychological therapeutic or support services to a student or students, or (3) administrative employees such as a principal, assistant principal, or department chairperson.
- (k) On or before September 1st of each year, the school, by one of its officers, shall submit a signed and notarized affidavit to the Village Clerk, which affidavit shall contain the following information:
 - (1) The name of the school.
 - (2) The name, position or title, and housing unit number of each faculty member occupying

a faculty housing unit.

- (3) Certification that the faculty member occupying the housing unit is or will be employed by the school for the upcoming school year or part thereof (if only part of the school year, the intended employment end date shall be specified).
 - (4) Certification that the faculty member occupying the housing unit has been expressly advised, by written notice, that his or her occupancy of the housing unit is governed by the terms of this provision of the Zoning Law and of the special permit issued by the Planning Board, is further dependent upon his or her continued employment by the school, and that the housing unit must be vacated within 30 days after termination of such employment. A copy of such written notice shall be annexed annually to the affidavit filed with the Village Clerk.
 - (5) In the event that there is a change in occupancy of any housing unit that is not reported on the annual filing required by this Subsection I(17)(k), then within 30 days after such change the school shall file with the Village Clerk the information required in subdivisions (1) through (4) of this Subsection with respect to such new occupant.
 - (6) Failure to provide the affidavit required by this Subsection I(17)(k), or the inclusion of knowingly false, inaccurate, or misleading information in such affidavit, shall constitute a violation of this chapter and may constitute the basis for denial or revocation of the special permit, building permit, or certificate of occupancy for the faculty housing, and for all other applicable remedies.
- (1) No certificate of occupancy for any faculty housing unit shall be issued unless and until the school has been issued a certificate of occupancy.

- (m) If the property is sold or transferred to another school and/or operator, that school and/or operator will require a new special permit (as another school may not be operating in the identical manner). If the property is sold or transferred for any use other than a school, the status of the residential use of all faculty housing units on the property shall expire, and there shall be no as-of-right to continue the residential use of any such units. Certificates of occupancy for all such units shall be terminated and shall be of no force and effect without any further action by the Village.

Section 4. Severability. The invalidity or unenforceability of any section, subsection, paragraph, sentence, clause, provision, or phrase of the aforementioned sections, as declared by the valid judgment of any court of competent jurisdiction to be unconstitutional, unlawful, or unenforceable, shall not affect the validity or enforceability of any other section, subsection, paragraph, sentence, clause, provision, or phrase thereof, which shall remain in full force and effect.

Section 5. Effective Date. This local law shall become effective ten days after publishing, posting and filing with the Secretary of State.

[NOT MOVED]

Item 5.

PLANNING BOARD

VILLAGE OF WESLEY HILLS
ROCKLAND COUNTY, NEW YORK

Resolution # 24-5

RECOMMENDATION CONCERNING PROPOSED
AMENDMENT TO ZONING LAW

WHEREAS, the Board of Trustees of the Village of Wesley Hills is considering the adoption of a proposed local law entitled "A Local Law Amending the Code of the Village of Wesley Hills, to Revise the Zoning Law in Relation to Faculty Housing at Schools"; and

WHEREAS, the Board of Trustees has referred such proposed local law to this Board for review and report pursuant to Section 230-76 of the Code of the Village of Wesley Hills, and this Board has thereupon considered such proposed local law;

NOW, THEREFORE, BE IT RESOLVED, that this Board hereby approves the form of such proposed local law and recommends its adoption, for the following reasons:

1. The purpose and effect of such proposed local law is to reasonably balance (a) the need of schools with a dormitory to provide affordable on-campus housing for its faculty and (b) the objective of the Village to protect the character and environment of its neighborhoods in the vicinity of such schools; and
2. For the foregoing reasons, such proposed local law would be in furtherance of the purposes of the Zoning Law; and

BE IT FURTHER RESOLVED, that a copy of this Resolution, which shall be deemed to be a report of this Board, shall be transmitted to the Board of Trustees forthwith.

Dated: March 27, 2024

A LOCAL LAW AMENDING THE CODE OF THE VILLAGE OF WESLEY HILLS, TO REVISE THE ZONING LAW IN RELATION TO FACULTY HOUSING AT SCHOOLS.

BE IT ENACTED BY THE BOARD OF TRUSTEES OF THE VILLAGE OF WESLEY HILLS, as follows:

Section 1. Legislative Intent.

The Board of Trustees acknowledges that the operation of kindergarten through 12th grade schools within the Village of Wesley Hills is desirable, provided that such schools are in compliance with the requirements of the Zoning Law. The Board of Trustees therefore finds that it is appropriate to allow schools with a dormitory, in order to attract and maintain qualified faculty, under appropriate conditions to provide accessory on-campus housing for its faculty.

Section 2. Amendment to Zoning Law.

The following definition is hereby added to Section 230-5 of the Code of the Village of Wesley Hills, to follow the definition of “Plant Health Materials”, to read as follows:

PRACTICAL ACCESS – For all necessary uses and special permit uses for which practical access to a major road is a requirement, the phrase “practical access” means that it must be reasonably possible for actual vehicular access to be designed and constructed along the particular frontage under consideration for that use. It does not require that such access must be constructed or included in an approved site plan if the Planning Board, in the exercise of its discretion, deems it to be in the public interest for the actual vehicular access to be designed along other available frontage.

Section 3. Amendment to Zoning Law. Section 230-26I of the Code of the Village of Wesley Hills is hereby amended by adding thereto a new Subsection I (17), to read as follows:

(17) Schools which contain faculty housing units shall comply with the following additional requirements:

(a) Applicant must be free of any local violations and be accredited by the New York State Department of Education.

(b) Each faculty housing unit shall be set back at least 50 feet from any street and be located on the same lot as the school.

(c) Faculty housing shall only be approved for schools meeting all of the following requirements: (1) the school has at least 4 grade levels classes from kindergarten through 12th grade; (2) the school has a dormitory located on the same site; (3) the school shall have been in operation within the Village for at least ten (10) years; and (4) the school can demonstrate the need for on-campus faculty housing.

(d) Faculty housing units shall not exceed an average of 2,250 square feet per housing unit, and no faculty housing unit shall exceed 2,500 square feet in any event.

(e) Except as expressly stated in this Subsection I, faculty housing shall comply with the bulk regulations of the underlying zoning district, including but not limited to height and number of stories. Where there is a conflict between this Subsection and the requirements pertaining to the underlying zoning district, the more restrictive requirement shall apply.

(f) Any special permit issued to an applicant for faculty housing shall specify, as a condition thereof, the maximum number of faculty housing units authorized on the lot. In no event shall the maximum number of faculty housing units exceed any of the following limits: (1) 40% of the number of faculty members of the school as defined in this Subsection I (17) (j); (2) 7.5% of the average number of active pupils during the most recent 3 years prior to the application; and (3) the ratio of 2.0 units per acre of net lot area.

(g) Net lot area, as referred to in the previous paragraph, shall be calculated with the same deductions as set forth for minimum lot area in Subsections I (2) and I (3). A school containing faculty housing must satisfy all of the follow requirements related to lot area: the minimum lot area requirement set forth in Subsection I (1) (which will determine the maximum number of pupils authorized to be enrolled in the school), the ratio to net lot area requirement set forth in Subsection I (17) (f) (which will determine the maximum number of authorized faculty units), and the net lot area requirement set forth in Subsection I(16) (b) (which will determine the maximum number of persons authorized to reside in the dormitory). The same lot area may be used to satisfy all of those requirements simultaneously.

(h) Any application to add or include faculty housing as an accessory use to a school shall include, in addition to other items which may be required by the Planning Board, a written statement setting forth information regarding faculty residency restrictions and policies, security provisions (including, without limitation, fencing, lighting, and supervision), and emergency services.

(i) In addition to any other off-street parking required for a school and accessory uses, there shall be 1 parking space provided for each facility housing unit. Such parking spaces shall be in close proximity to the faculty housing units, as determined by the Planning Board.

(j) Faculty housing units shall be occupied only by employed faculty members, as defined in Subsection I (17) (k), of the school being operated on the premises of which the housing units are located, and the family of such faculty. The faculty member to whom the housing unit is assigned must occupy such unit as his or her primary residence. Only one family may occupy a faculty housing unit, irrespective of the number of family members employed as faculty members by the school.

(k) For purposes of this Subsection I (17), the term “faculty member” who qualifies for on-premises housing shall mean a person employed by the school on a full time or part time basis, for no fewer than 22 hours per week, and whose duties include at least one of the following: (1) providing instruction to students for at least 2 classes for at least 1 instructional semester, or (2) providing on-site physical or psychological therapeutic or support services to a student or students, or (3) administrative employees such as a principal, assistance principal or department chairperson.

(l) On or before September 1st of each year, the school, by one of its officers, shall submit a signed and notarized affidavit to the Village Clerk, which affidavit shall contain the following information:

(1) The name of the school.

(2) The name, position or title, and housing unit number of each faculty member occupying a faculty housing unit.

(3) Certification that the faculty member occupying the housing unit is or will be employed by the school for the upcoming school year or part thereof (if only part of the school year, the intended employment end date shall be specified).

(4) Certification that the faculty member occupying the housing unit has been expressly advised, by written notice, that his or her occupancy of the housing unit is governed by the terms of this provision of the Zoning Law and of the special permit issued by the Planning Board, is further dependent upon his or her continued employment by the school, and that the housing unit must be vacated within 30 days after termination of such employment. A copy of such written notice shall be annexed annually to the affidavit filed with the Village Clerk.

(5) In the event that there is a change in occupancy of any housing unit that is not reported on the annual filing required by the Subsection I(17) (l), then within 30 days after such change the school shall file with the Village Clerk the information required in subdivisions (1) through (4) of this Subsection with respect to such new occupant.

(6) Failure to provide the affidavit required by this Subdivision I (17) (l), or the inclusion of knowingly false, inaccurate or misleading information in such affidavit, shall constitute a violation of this chapter and may constitute the basis for denial or revocation of the special permit, building permit, or certificate of occupancy for the faculty housing, and for all other applicable remedies.

(7) Payment of the annual processing fee as described in the Village of Wesley Hills Fee Schedule.

(m) No certificate of occupancy for any faculty housing unit shall be issued unless and until the school has been issued a certificate of occupancy.

(n) If the property is sold, transferred, leased or licensed to another school and/or operator, that school and/or operator will require a new special permit (as another school may not be operating in the identical manner). If the property is sold, transferred, leased or licensed for any use other than a school, the status of the residential use of all faculty housing units on the property shall immediately expire, and there shall be no as-of-right to continue the residential use of any such units. Certificates of occupancy for all such units shall be terminated and shall be of no force and effect without any further action by the Village.

Section 4. Severability.

The invalidity or unenforceability of any section, subsection, paragraph, sentence, clause, provision, or phrase of the aforementioned sections, as declared by the valid judgement of any court of competent jurisdiction to be unconstitutional, unlawful, or unenforceable shall not affect the validity or enforceability of any section, subsection, paragraph, sentence, clause, provision, or phase thereof, which shall remain in full force and effect.

Section 5. Effective Date.

This local law shall become effective ten days after publishing, posting and filing with the Secretary of the State.



PLANNING BOARD MEETING MINUTES

May 29, 2024 at 7:30 PM

432 Route 306, Wesley Hills, NY 10952

Phone: 845-354-0400 | Fax: 845-354-4097

CALL TO ORDER

Present: Chairman- Lon Lieberman, Albert Tew, Neal Wasserman, Vanessa Caren, Joshua Scheinberg, Joseph Zupnik- 1st Alternate

Absent- Tzvee Rotberg- 2nd Alternate

Also Present: Bruce Minsky-Deputy Village Attorney, Devon Palmieri-Village Engineer, Jonathan Lockman-Village Planner, Alicia Schultz-Deputy Village Clerk

CONTINUED PUBLIC HEARING ON THE APPLICATION OF ROCKLAND TREE EXPERT CO., INC. DBA IRA WICKES/ARBORISTS FOR AN AMENDED SITE PLAN AND SPECIAL PERMIT. Affecting property located on the South side of McNamara Road, 0 feet West of Union Road. Designated on the Town of Ramapo Tax Map as Parcel ID #42.13-1-22. Subject property is located at 11 McNamara Road.

Lon Lieberman read this item into the record. Ira Emanuel, the applicant's attorney was present and stated that the items remaining that the Village requested, are a traffic analysis and water testing. Mr. Emanuel stated that the Village received the traffic analysis, which shows there has not been significant change since the study was last done. Mr. Emanuel stated that the water tests have also been performed, however they do not have the reports as of yet, and hopefully will be completed by the June 26, 2024 meeting.

Jonathan Lockman stated that the Village should have their own professionals review the traffic study that was done. Bruce Minsky agrees that the Village should have the report reviewed. Albert Tew stated it is important to have a 3rd party review the report to make sure it is accurate.

Chairman Lieberman made a motion to have the traffic analysis report reviewed by a 3rd party, seconded by Albert Tew. Upon vote, the motion carried 3-2.

11 McNAMARA LANE **SPECIAL PERMIT & AMENDED SITE PLAN**

A regular meeting of the Planning Board of the Village of Wesley Hills Planning Board was convened on May 29, 2024, at 7:30 pm.

The meeting was called to order by the Chairman Lon Lieberman, and with a quorum present, the following Resolution was offered by Chairman Lieberman seconded by Albert Tew to wit:

WHEREAS, in regard to the application submitted by **ROCKLAND TREE EXPERT CO., INC. DBA IRA WICKES/ARBORISTS** for an *Amended Site Plan* and *Special Permit* Application, the same affecting the property located on the South side of McNamara Road, 0 feet West of Union Road. Designated on the Town of Ramapo Tax Map as Parcel ID#42.13-1-22 in an R-35 Zone. The subject Property is commonly known as 11 McNamara Road, Wesley Hills, New York.

WHEREAS, as part of such Application, the Applicant submitted for review a *Traffic Impact Study*, dated February 12, 2024;

WHEREAS, the Planning Board, in consultation with its professionals [Planner, Engineer, Legal], identified the need for a third-party for a review/analysis of the Report; and

NOW, THEREFORE, BE IT RESOLVED that the Planning Board authorizes the Chairman to engage/retain **Colliers Engineering & Design** to review/analyze the Report, with findings of such review/analysis to be submitted to the Planning Board, and with the costs of the Consultant to be borne by the Applicant;

ACTION: A motion to grant/approval this Resolution was made by Chairman Lieberman, with a second from Albert Tew.

The voting in favor was as follows [4-2-0]:

In Favor: Lieberman, Tew, Wasserman, Scheinberg
Oppose: Caren, Zupnick

Chairman Lieberman questioned if anyone from the public would like to speak.

Neal Marcus, New City, stated that he feels it has been a while that this item is in front of the Board, and believes they were instructed by the Supreme Court to construct a new driveway. Ira Emanuel answered that it was indeed not a driveway, but another “practical access” roadway, and they chose one that would have minimal use.

Albert Tew made a motion to adjourn the discussion until the June 26, 2024 meeting, seconded by Neal Wasserman. Upon vote, this motion was carried unanimously.

CONTINUED DISCUSSION ON THE APPLICATION SUBMITTED BY NANCY RUBIN ON BEHALF OF MARK NUSSEN FOR A CLEARING/ FILLING/ EXCAVATING PERMIT. Affecting property located on the west side of Astor Place, 600 feet from the intersection of Ardley Place. Designated on the Town of Ramapo Tax Map as Parcel ID#41.06-1-78. Subject property is located at 33 Astor Place.

Lon Lieberman read this item into the record. Paul Baum, the applicant’s attorney, sent a letter to the Village requesting an adjournment to the June 26, 2024 meeting, as the applicant does not have finalized soil testing reports yet.

Vanessa Caren made a motion to adjourn the discussion until the June 26, 2024 meeting, seconded by Albert Tew. Upon vote, this motion was carried unanimously.

DISCUSSION ON THE APPLICATION OF CONGREGATION AHAVAS YITZCHAK FOR A REVISION OF A SPECIAL PERMIT AND REVISED SITE PLAN APPROVAL FOR A NEIGHBORHOOD GATHERING. Affecting property located on the west side of Forshay Road at the intersection with Parker Blvd. Designated on the Town of Ramapo Tax Map as Parcel ID #41.18-1-12. Subject property is located at 73 Forshay Road.

Lon Lieberman read this item into the record. Rachel Barese, applicant's Engineer, stated that years ago they needed and were planning on a new parking lot, but Co-Vid hit, and the project was stalled. In the interim, the applicant decided they are going to change the original plan and split the project into TWO (2) separate Phases: Phase I is going to include adding 40 parking spaces, which is more spaces than the previously approved plans, and a handicapped accessible ramp. This phase will include removal of the "canopy" portion on the plans dated May 6, 2024. Phase II is going to include a smaller handicapped ramp, entrance and patio.

Devon Palmieri stated that the contractor must make sure that the ramps are ADA compliant and if the impervious surface changes, they must go through the Zoning Board of Appeals. Ms. Barese stated that they changed from previous to impervious pavers, in order to avoid going to the zoning Board.

Jonathan Lockman questioned if there are any conceptual drawings of the interior of the building, and requested they find the negative declaration from the previously approved resolution, that states this is a Type II SEQRA action and does not need extensive research done.. Ms. Barese stated that there are currently no architectural drawings for the project. Ms. Barese added that there was an approved site plan with an impervious surface of .56, and currently are proposing .575.

Albert Tew made a motion to adjourn the application and schedule a public hearing, and adjourn until the June 26, 2024 meeting, seconded by Vanessa Caren. Upon vote, this motion was carried unanimously.

CONSIDERATION OF REQUEST FOR EXTENSION OF TIME FOR FINAL PLAT APPROVAL FOR A THREE-LOT SUBDIVISION FOR ABY EAST, LLC. Affecting property located at the intersection of McNamara Road and Pomona Road. Designated on the Town of Ramapo Tax Map as Parcel ID #33.17-2-1. Subject property located at 1 East Lane.

Lon Lieberman read this item into the record.

Vanessa Caren made a motion to approve the following resolution, seconded by Albert Tew:

1 EAST LANE
SUBDIVISION

WHEREAS, on January 4, 2023, by Resolution# 24-(), the Planning Board

approved the final plat entitled "Final Plat for I East Lane, Village of Wesley Hills, Town of Ramapo, Rockland County, New York", which period of conditional subdivision approval was previously extended until May 29, 2024, and

WHEREAS, the filing of the said plat could not be accomplished by that expiration date,

NOW, THEREFORE, BE IT RESOLVED, that the period of conditional subdivision approval heretofore granted to the said subdivision is hereby further extended until June 26, 2024.

Upon vote, this motion was carried unanimously.

DISCUSSION: Recommendation to Board of Trustees on proposed Zoning Law Amendment.

Chairman Lieberman read this item into the record. The Board had a brief discussion on whether everyone had read the revised Law and had made the discovery that not everyone was familiar with the revisions that have been made to the proposed Law.

Chairman Lieberman made a motion to adjourn the discussion until the June 26, 2024 meeting, seconded by Vanessa Caren. Upon vote, this motion was carried unanimously.

APPROVAL OF MINUTES- March 27, 2024

Albert Tew made a motion to approve the March 27, 2024 minutes, seconded by Neal Wasserman. Upon vote, this motion was carried unanimously.

ADJOURNMENT

Chairman Lieberman made a motion to adjourn the meeting, seconded by Albert Tew. Upon vote, this motion was carried unanimously.

Respectfully Submitted,
Alicia Schultz