

# TOWN OF NEWBURGH PLANNING BOARD TECHNICAL REVIEW COMMENTS

PROJECT NAME: CHADWICK WOODS – 5 LOT SUBDIVISION

PROJECT NO.: 19-02

PROJECT LOCATION: 174 ROUTE 300

**SECTION 14, BLOCK 1, LOT 51** 

REVIEW DATE: 9 FEBRUARY 2024
MEETING DATE: 15 FEBRUARY 2024

PROJECT REPRESENTATIVE: ENGINEERING & SURVEYING PROPERTIES

- The NYSDOT has identified conceptual approval for the two common driveways proposed. A 27
  April 2023 email identifies that tree clearing will be required for sight distance at the driveways.
  It is requested the clearing limits be depicted on the plans such that the tree clearing is
  complete prior to issuance of building permits. A note should be placed on the map requiring
  the tree clearing identified by NYSDOT to be completed.
- 2. A Public Hearing for the project was held on 4 May 2023. The hearing was closed at that time after the applicant waived the 62 day timeframe.
- 3. The applicant's representative has provided calculations in support of the design of the 1.5 inch water services proposed to each of the residences. It is noted that the calculations identify a 1.5 inch water service for each of the residences while the plans identify 1 inch services.
- 4. Emergency vehicle pull offs may be required based on length of the driveway per the 2020 Fire Code. Comments from Code Compliance regarding this should be received.
- 5. Coverage under the NYSDEC Stormwater Permit Program is required. Any approval should be conditioned upon receipt of the permit prior to any stamping of the plans.
- 6. A tree preservation plan has been provided identifying calculations for tree removal on the site. These sample plots were utilized in compliance with the recently adopted changes to the Tree Preservation Ordinance. No threshold in the Tree Preservation Ordinance will be exceeded based on the information provided by the applicant's representative.
- 7. A note should be added to the plans identifying the limits of disturbance will be marked in the field with orange construction fence prior to site grading occurring. In addition, trees to be removed should be specifically identified in the field within the limits of disturbance.
- 8. Sub-surface sanitary sewer disposal systems have been modified per our previous comments.

Respectfully submitted,

MHE Engineering, D.P.C.

Patrick J. Hines

Principal

PJH/ltm



Montgomery Office: 71 Clinton Street Montgomery, NY 12549 Goshen Office: 262 Greenwich Ave, Ste B Goshen, NY 10924

(845) 457 - 7727 www.EngineeringPropertiesPC.com

January 24, 2024

Town of Newburgh Planning Board 308 Gardnertown Road Newburgh, NY 12550

RE: CHADWICK WOODS – 5 LOT SUBDIVISION PROJECT NO. 19-02
174 NYS ROUTE 300
TOWN OF NEWBURGH

Dear Planning Board:

We are in receipt of the technical review comments regarding the above-mentioned project dated April 28, 2023 from MH&E Consulting Engineers, D.P.C. Below is a comment-by-comment response;

- See attached sheet C-104. The tree preservation plan addresses the Town's Tree Clearing Ordinance requirements per the new revision. Less than 50% of the total inches in diameter of the Significant and Specimen Trees will be removed. Less than 75% of the total inches in diameter of the Protected Trees will be removed. No reforestation or restitution plan is required.
- 2. No Response Required.
- 3. See attached hydrant testing analysis. The rear lots will have adequate pressure utilizing the current proposed 1.5-inch laterals.
- 4. We request that the common driveway Access and Maintenance Agreements be a condition of approval.
- 5. NYSDEC Construction Stormwater Permit NOI will be filed prior to building permit. See General Note #9 on sheet RS-1.

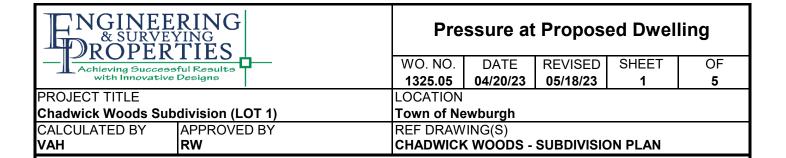
If you need any additional information, please do not hesitate to contact this office.

Sincerely,

Engineering & Surveying Properties, PC

Ross Winglovitz, P.E.

Principal



Static Pressure @ Test Hydrant 50.0 psi

Elevation of Static Hydrant 526.0 ft

HGL 641.50 ft

Q = 5.00 gpm \*Needed Flow

Water Service Dia = 1.5 in.

Elev @ Proposed Dwelling = 537.00 ft (LOT 1)

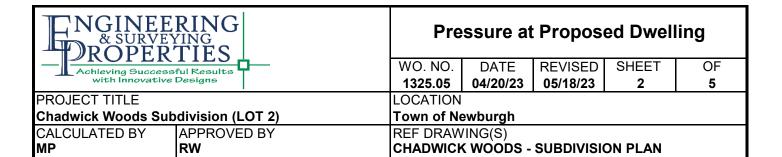
**Head Loss** 

System Information:

L = 260 feet (Eq L + Prop L)

hf = 0.9 feet

Pressure @ Proposed Dwelling 44.8 psi (P = (HGL - Elev @ Pr. Dwelling - hf) / (2.31 feet/psi))



Static Pressure @ Test Hydrant 50.0 psi

Elevation of Static Hydrant 526.0 ft

HGL 641.50 ft

Q = 5.00 gpm \*Needed Flow

Water Service Dia = 1.5 in.

Elev @ Proposed Dwelling = 498.00 ft (LOT 2)

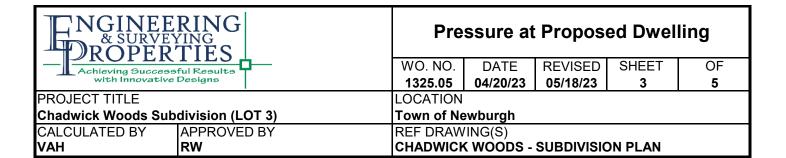
**Head Loss** 

System Information:

 $L = 342 \text{ feet} \qquad (Eq L + Prop L)$ 

hf = 1.2 feet

Pressure @ Proposed Dwelling 61.6 psi (P = (HGL - Elev @ Pr. Dwelling - hf) / (2.31 feet/psi))



Static Pressure @ Test Hydrant 50.0 psi

Elevation of Static Hydrant 526.0 ft

HGL 641.50 ft

Q = 5.00 gpm \*Needed Flow

Water Service Dia = 1.5 in.

Elev @ Proposed Dwelling = 525.00 ft (LOT 3)

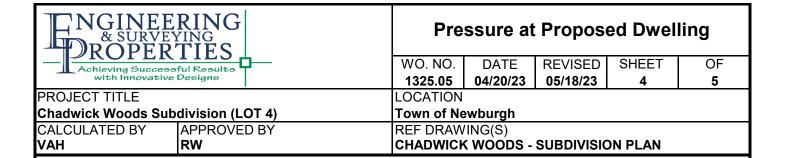
**Head Loss** 

System Information:

L = 342 feet (Eq L + Prop L)

hf = 1.2 feet

Pressure @ Proposed Dwelling 49.9 psi (P = (HGL - Elev @ Pr. Dwelling - hf) / (2.31 feet/psi))



Static Pressure @ Test Hydrant 50.0 psi

Elevation of Static Hydrant 526.0 ft

HGL 641.50 ft

Q = 5.00 gpm \*Needed Flow

Water Service Dia = 1.5 in.

Elev @ Proposed Dwelling = 522.00 ft (LOT 4)

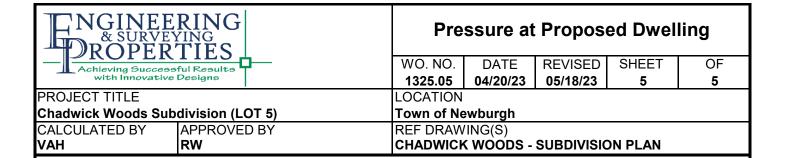
**Head Loss** 

System Information:

L = 1008 feet (Eq L + Prop L)

hf = 3.5 feet

Pressure @ Proposed Dwelling 50.2 psi (P = (HGL - Elev @ Pr. Dwelling - hf) / (2.31 feet/psi))



Static Pressure @ Test Hydrant 50.0 psi

Elevation of Static Hydrant 526.0 ft

HGL 641.50 ft

Q = 5.00 gpm \*Needed Flow

Water Service Dia = 1.5 in.

Elev @ Proposed Dwelling = 513.00 ft (LOT 5)

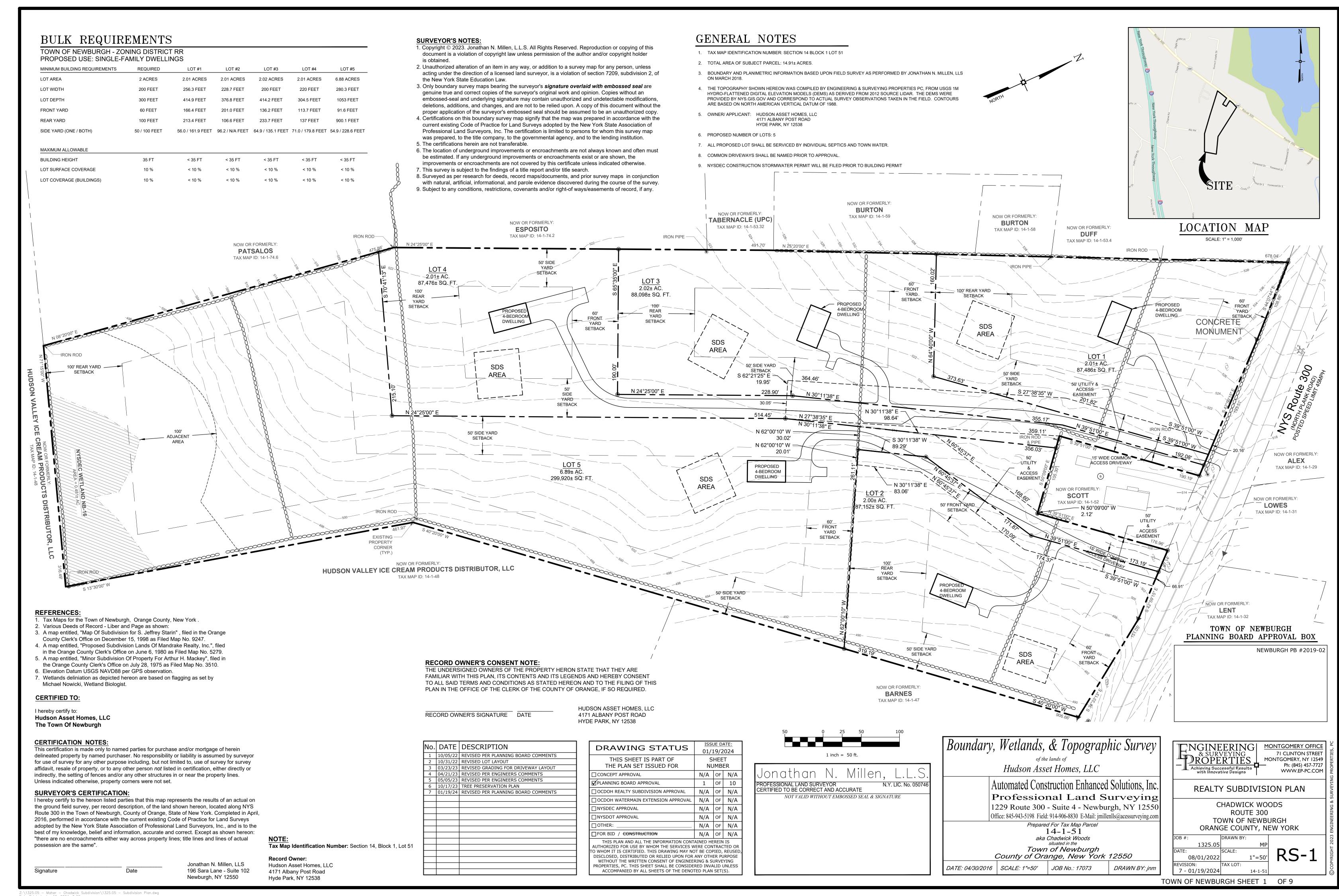
**Head Loss** 

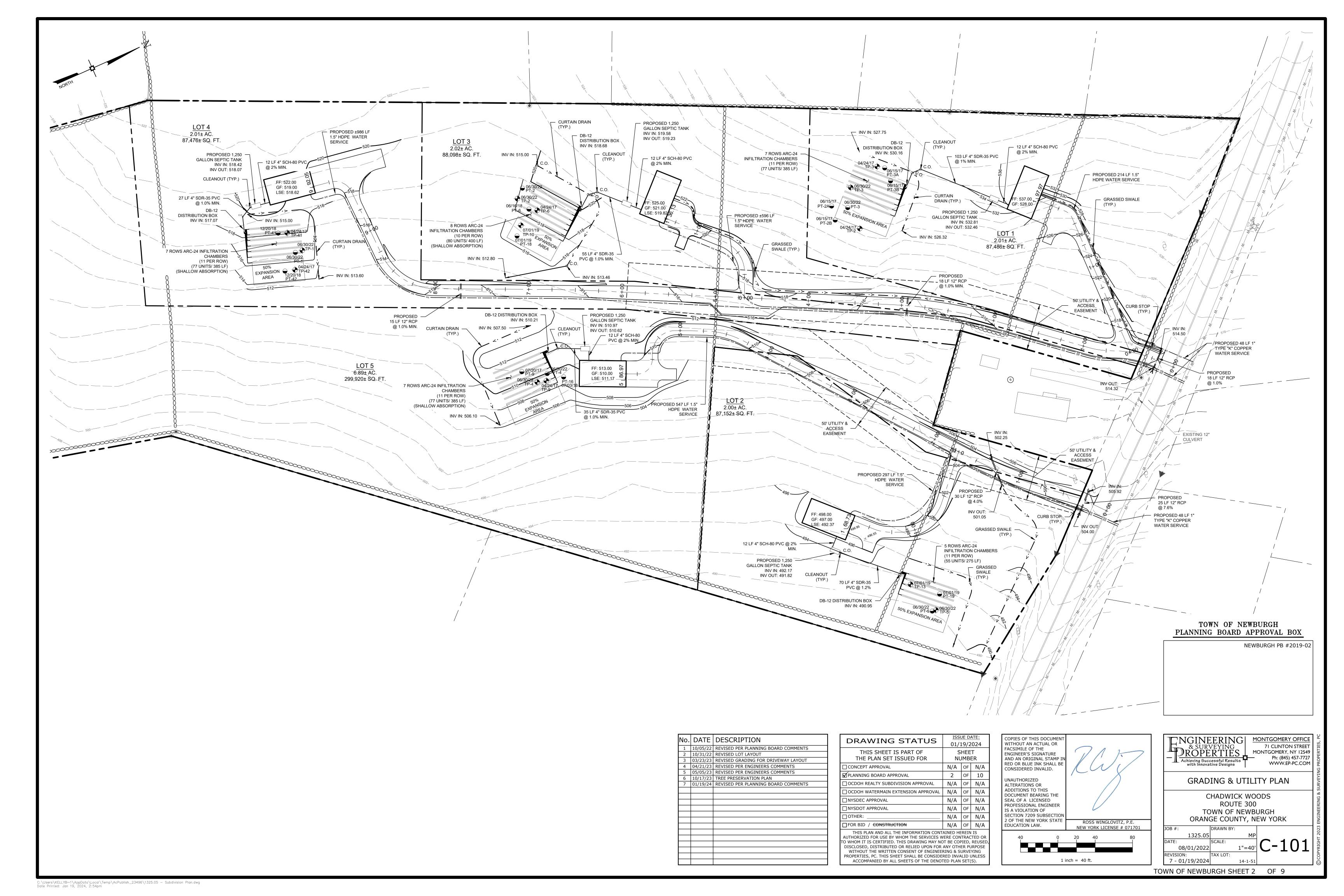
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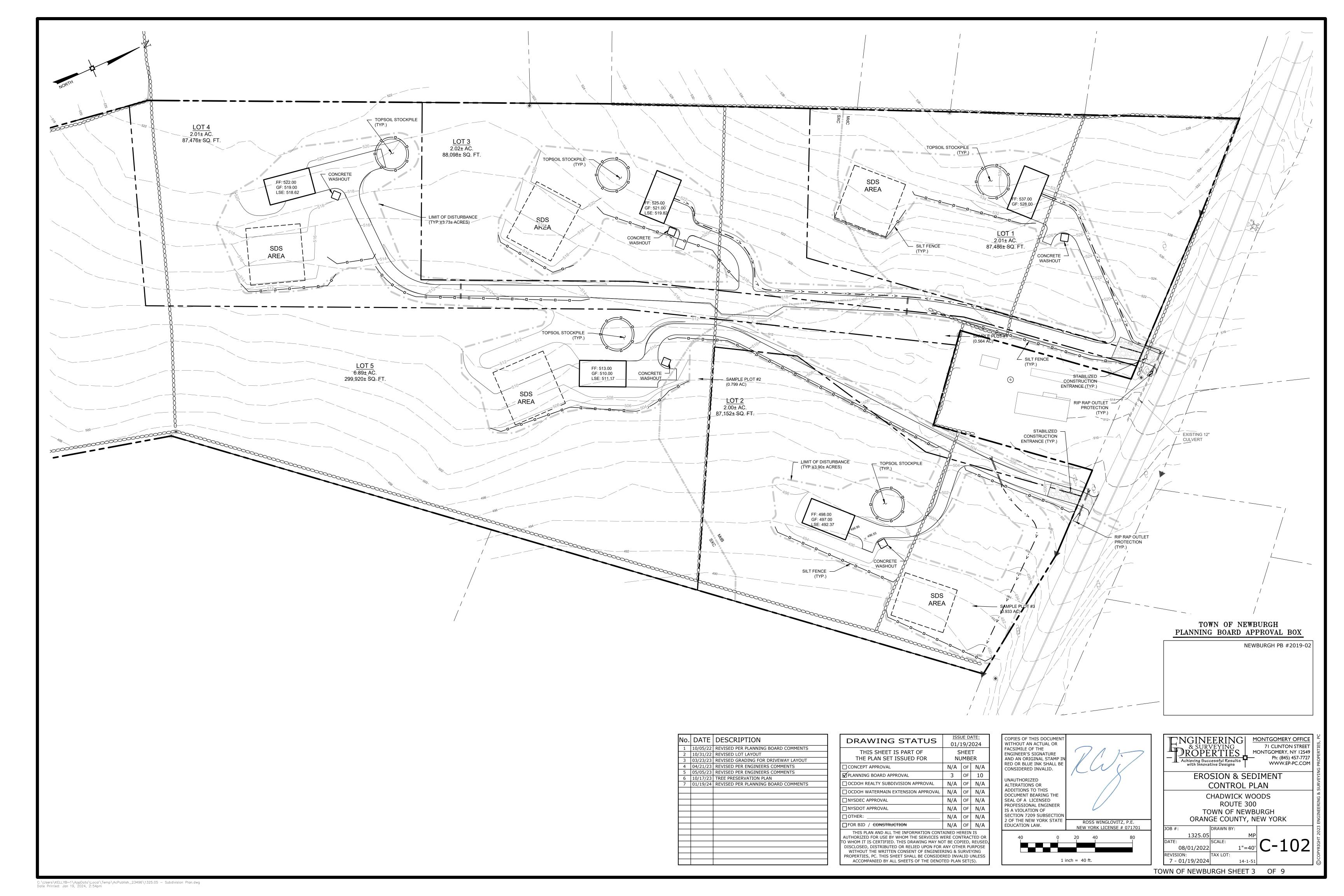
L = 594 feet (Eq L + Prop L)

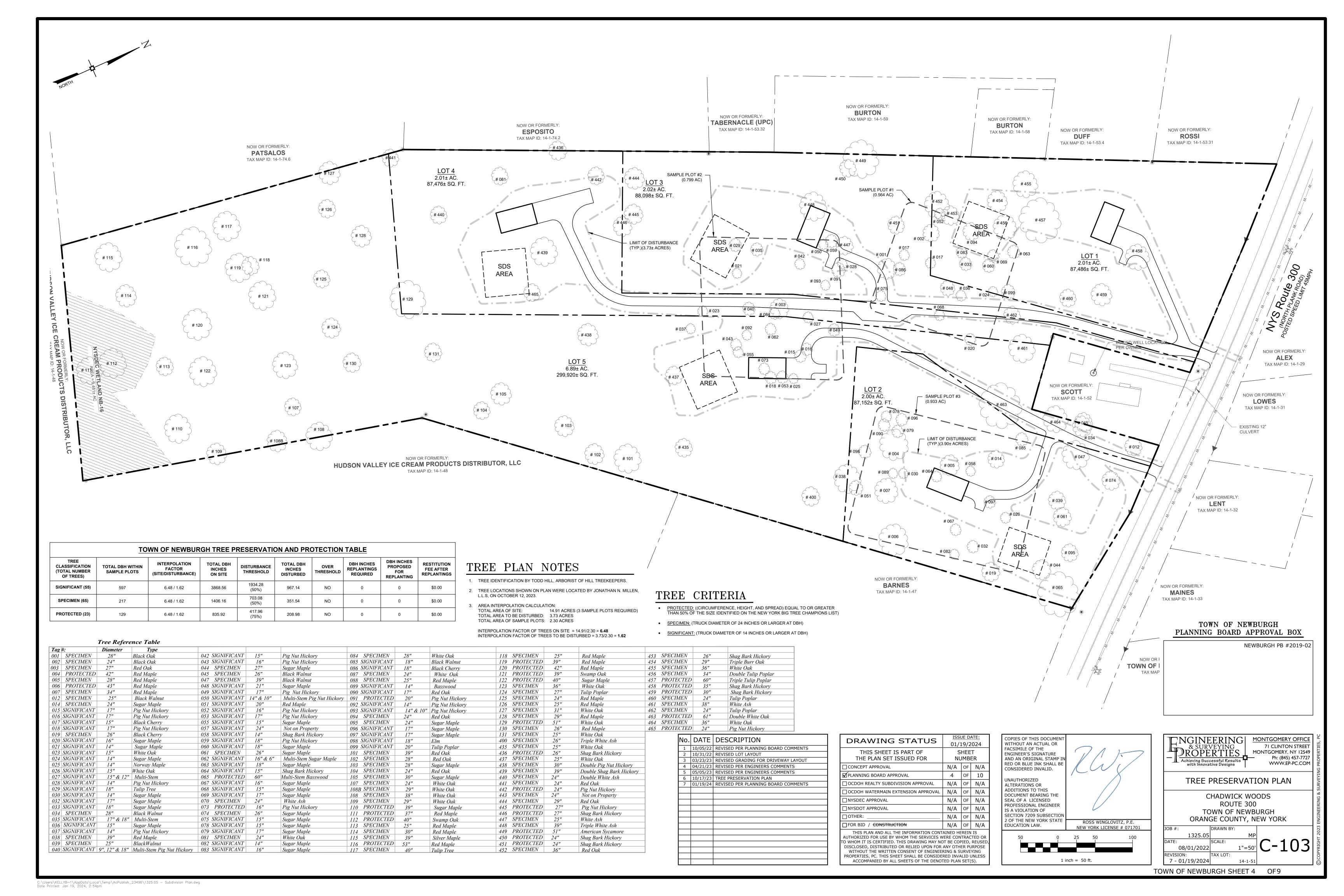
hf = 2.1 feet

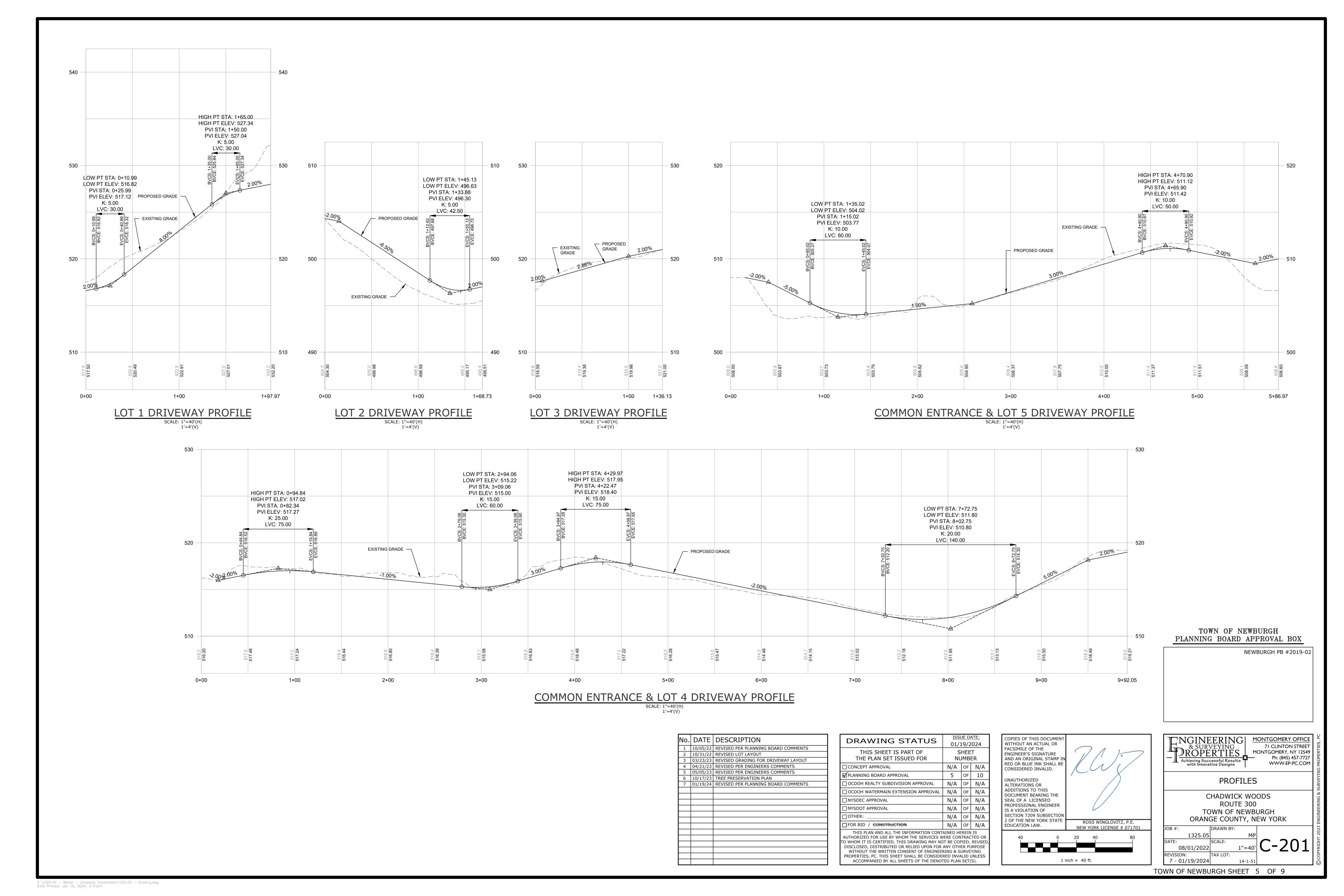
Pressure @ Proposed Dwelling 54.7 psi (P = (HGL - Elev @ Pr. Dwelling - hf) / (2.31 feet/psi))











# PERCOLATION TEST RESULTS

LOT#	PERC HOLE#	PERC HOLE DEPTH	PERC HOLE DIA	TIME	PERCOL		JNS - STOPWATC R 1" DROP IN WAT		LL TESTS	STABLIZED RATE	
				FINISH							
	06/30/22 PT-3	24"	8"	START	STOPWATCH	USED FOR TIM	ED INTERVALS			6 MIN	
	F 1-3			TIME	00:01:22	00:02:11	00:04:15	00:05:18	00:05:33		
1				FINISH	01:10	01:47	02:32	03:29	04:49		
	06/15/17 *PT-2B	24"	8"	START	12:52	01:11	01:48	02:35	03:30	54 MIN	
	F 1-2D		-	TIME	00:18	00:36	00:44	00:54	00:54		
				FINISH							
	06/15/17 PT-5	24"	8"	START	STOPWATCH	USED FOR TIM	ED INTERVALS			5 MIN	
	P 1-5		-	TIME	00:03:27	00:04:44	00:04:59				
2				FINISH	03:02	03:17	03:32				
	07/01/19 *DT 10	24"	8"	START	02:49	03:03	03:18			14 MIN	
	*PT-19		-	TIME	00:13	00:14	00:14				
				FINISH							
	06/30/22	'J <u>Δ</u> "	24"	8"	START	STOPWATCH	USED FOR TIM	ED INTERVALS			9 MIN
	PT-2		_	TIME	00:01:45	00:03:06	00:05:58	00:07:45	00:08:27		
3				FINISH	12:40	01:30	02:18				
	06/16/18	24"	8"	START	12:20	12:43	01:31			47 MIN	
	*PT-6			TIME	00:20	00:47	00:47				
				FINISH							
	06/30/22 PT-1	24"	8"	START	STOPWATCH	USED FOR TIM	ED INTERVALS			15 MIN	
4	F 1-1		-	TIME	00:06:25	00:11:04	00:14:42	00:15:37			
4				FINISH	01:31	02:29	03:27				
	12/20/18 *PT-41	24"	8"	START	12:47	01:32	02:30			57 MIN	
	P1-41		-	TIME	00:44	00:57	00:57				
				FINISH							
	06/30/22	24"	8"	START	STOPWATCH	USED FOR TIM	ED INTERVALS			22 MIN	
_	PT-4		-	TIME	00:12:42	00:18:12	00:20:22	00:21:01			
5				FINISH	12:05	12:57	01:48	02:39			
	07/20/17 *DT 0	24"	' 8"	START	11:30	12:11	12:48	01:49		50 MIN	
	*PT-9		-	TIME	00:35	00:46	00:50	00:50			

\* TESTING PERFORMED BY TALCOTT ENGINEERING DESIGN, PLLC

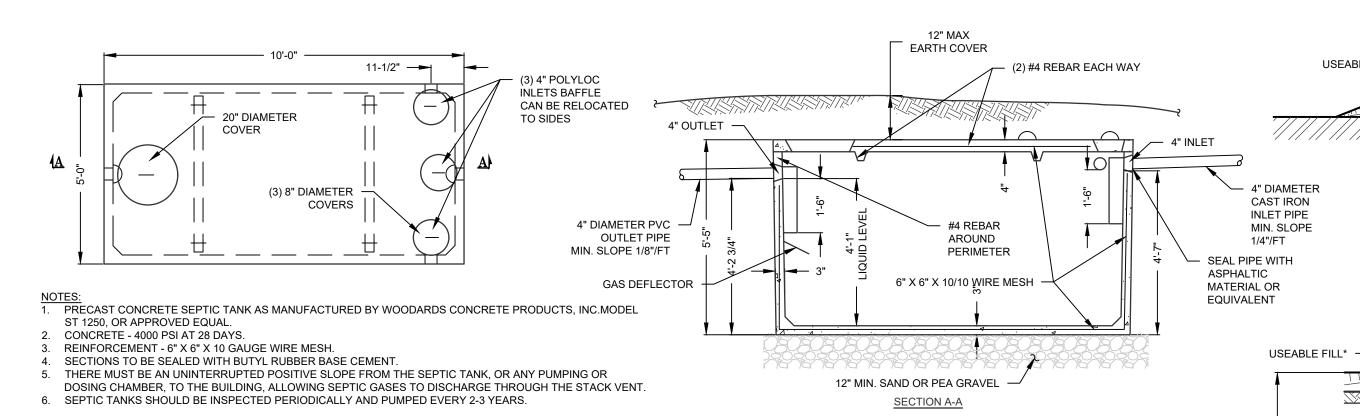
# DEEP TEST HOLE RESULTS

LOT#	TEST HOLE#	DATE	DEPTH	DESCRIPTION
_	TP-3	06/30/22	0" - 12" 12" - 8'	TOPSOIL W/ COBBLES BROWN SILTY LOAM W/ COBBLES NO ROCK, NO WATER, NO MOTTLING
1	*TP-2	04/24/17	0" - 6" 6" - 32" 32" - 78"	TOPSOIL CLAY LOAM CLAY LOAM "DAMP" NO ROCK, NO WATER, NO MOTTLING
2	TP-5	06/30/22	0" - 6" 6" - 4' 4' - 8'	TOPSOIL TAN SILTY CLAY LOAM BROWN SILTY CLAY SANDY GRAVELLY LOAM NO ROCK, NO WATER, NO MOTTLING
۷	*TP-13	07/01/19	0" - 6" 6" - 30"	TOPSOIL CLAY LOAM NO ROCK, NO WATER, NO MOTTLING
2	TP-2	06/30/22	0" - 6" 6" - 4' 4' - 8'	TOPSOIL TAN SILTY CLAY LOAM BROWN SILTY CLAY SANDY GRAVELLY LOAM NO ROCK, NO WATER, NO MOTTLING
3	*TP-6	04/24/17	0" - 6" 6" - 40" 40" - 60"	TOPSOIL CLAY LOAM WET CLAY LOAM W/ GRAVEL NO ROCK, WATER @ 40", MOTTLING @ 40"
4	TP-1	06/30/22	0" - 10" 10" - 27" 27" - 7' 7' - 8'	TOPSOIL W/ COBBLES TAN SILTY CLAY LOAM W/ COBBLES TAN SILTY CLAY SANDY LOAM W/ COBBLES TAN SILTY SANDY LOAM NO ROCK, WATER @ 90", NO MOTTLING
4	*TP-41	04/24/17	0" - 6" 6" - 24" 24" - 72"	TOPSOIL CLAY LOAM W/ GRAVEL CLAY LOAM NO ROCK, WATER @ 30", NO MOTTLING
5	TP-4	06/30/22	0" - 6" 6" - 36" 36" - 8'	TOPSOIL W/ COBBLES TAN SILTY CLAY LOAM BROWN SILTY SANDY GRAVELLY LOAM NO ROCK, WATER @ 6', MOTTLING @ 55"
J	*TP-9	04/24/17	0" - 6" 6" - 60"	TOPSOIL CLAY LOAM W/ STONES NO ROCK, WATER @ 40", NO MOTTLING

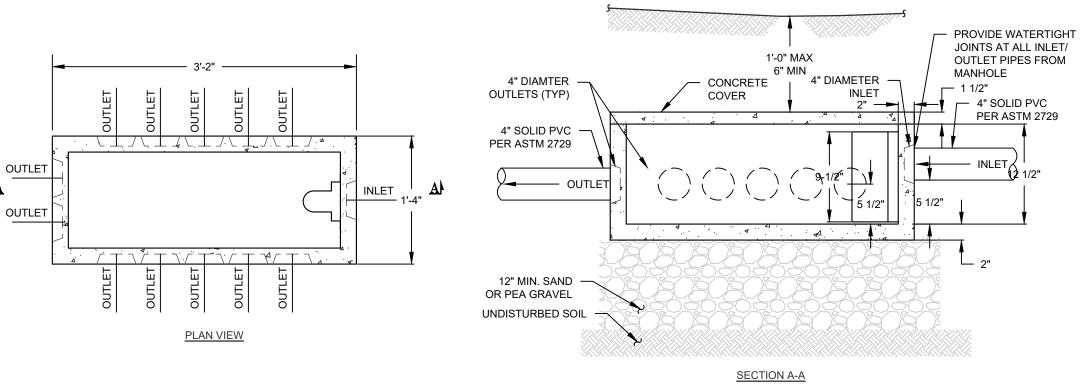
\* TESTING PERFORMED BY TALCOTT ENGINEERING DESIGN, PLLC

# SEPTIC SYSTEM DESIGN SCHEDULE

LOT#	NUMBER OF BEDROOMS	DESIGN PERC RATE (min)	FLOW RATE (GPD)	APPLICATION RATE (GPD/Sq. ft.)	REQUIRED AREA (Sq. ft.)	REQUIRED ABSORPTION FIELD LENGTH (ft) (BASED UPON 2' WIDE TRENCH)	REQUIRED FIELD LENGTH BASED USING GRAVELESS CHAMBERS (25% REDUCTION)	PROPOSED ABSORPTION FIELD LENGTH (ft)
1	4	54	440	0.45	978	489	367	7 LATERALS @ 55' 77 CHAMBERS (385' TOTAL)
2	4	14	440	0.80	550	275	207	5 LATERALS @ 55' 55 CHAMBERS (275' TOTAL)
3	4	47	440	0.45	978	489	367	7 LATERALS @ 55' 77 CHAMBERS (385' TOTAL)
4	4	57	440	0.45	978	489	367	7 LATERALS @ 55' 77 CHAMBERS (385' TOTAL)
5	4	50	440	0.45	978	489	367	7 LATERALS @ 55' 77 CHAMBERS (385' TOTAL)



# 1250 GALLON SEPTIC TANK

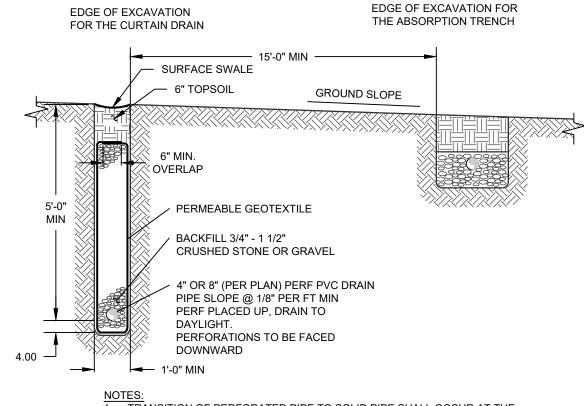


NOTES:

1. DISTRIBUTION BOX AS MANUFACTURED BY WOODARDS CONCRTE PRODUCTS, INC. CATALOG No. DB-12 OR APPROVED EQUAL. 2. MINIMUM CONCRETE STRENGTH 4,000 PSI AT 28 DAYS. CONCRETE TO BE FIBER REINFORCED PER MANUFACTURER'S SPECIFICATION. SEAL ALL JOINTS AT INLET/OUTLET PIPES WITH ASPHALTIC MATERIAL OR EQUIVALENT.

PROVIDE SPEED LEVELERS AT ALL DISTRIBUTION BOX OUTLETS. 6. FIRST 30" MIN. OF OUTLET PIPE(S) TO BE SOLID PVC. 7. UNUSED OUTLETS TO REMAIN PLUGGED.

# 12 HOLE DISTRIBUTION BOX



TRANSITION OF PERFORATED PIPE TO SOLID PIPE SHALL OCCUR AT THE LOCATIONS AS SHOWN ON THE PLANS. MORE SPECIFICALLY AT AN ELEVATION BELOW THAT OF THE LAST LATERAL OF THE SEPTIC SYSTEM. 2. PROVIDE RODENT SCREENS AT PIPE DAYLIGHT LOCATION.

**CURTAIN DRAIN** 



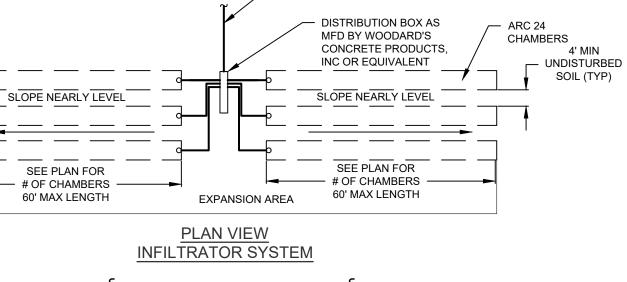
No.		DESCRIPTION		DRAW
1	10/05/22	REVISED PER PLANNING BOARD COMMENTS		TUIC
2	10/31/22	REVISED LOT LAYOUT		THIS
3	03/23/23	REVISED GRADING FOR DRIVEWAY LAYOUT		THE PLA
4	04/21/23	REVISED PER ENGINEERS COMMENTS		☐ CONCEPT APP
5	05/05/23	REVISED PER ENGINEERS COMMENTS		PLANNING BC
6	10/17/23	TREE PRESERVATION PLAN		V PLAININING BC
7	01/19/24	REVISED PER PLANNING BOARD COMMENTS		☐ OCDOH REAL
			4	☐ OCDOH WATE
			1	☐ NYSDEC APPR
			1	□ NYSDOT APPR
			4	OTHER:
			1	□FOR BID / €
				THIS PLAN A AUTHORIZED FO TO WHOM IT IS CI DISCLOSED, DIS WITHOUT THE

VING STATUS SHEET IS PART OF SHEET LAN SET ISSUED FOR NUMBER N/A OF N/A BOARD APPROVAL 6 OF 10 N/A OF N/A LTY SUBDIVISION APPROVAL N/A OF N/A TERMAIN EXTENSION APPROVAL PROVAL N/A OF N/A N/A OF N/A PROVAL N/A OF N/A CONSTRUCTION N/A OF N/A AND ALL THE INFORMATION CONTAINED HEREIN IS OR USE BY WHOM THE SERVICES WERE CONTRACTED O CERTIFIED. THIS DRAWING MAY NOT BE COPIED, REUSE ISTRIBUTED OR RELIED UPON FOR ANY OTHER PURPOSE HE WRITTEN CONSENT OF ENGINEERING & SURVEYING PROPERTIES, PC. THIS SHEET SHALL BE CONSIDERED INVALID UNLESS

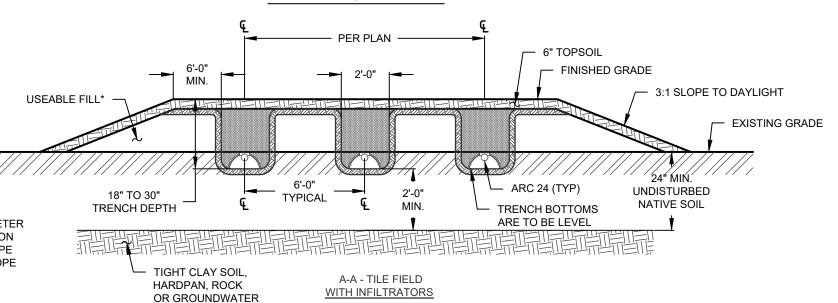
ACCOMPANIED BY ALL SHEETS OF THE DENOTED PLAN SET(S).

COPIES OF THIS DOCUMENT WITHOUT AN ACTUAL OR FACSIMILE OF THE ENGINEER'S SIGNATURE AND AN ORIGINAL STAMP RED OR BLUE INK SHALL BI CONSIDERED INVALID. JNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DOCUMENT BEARING THE SEAL OF A LICENSED PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209 SUBSECTION 2 OF THE NEW YORK STATE ROSS WINGLOVITZ, P.E. EDUCATION LAW. NEW YORK LICENSE # 071701

TNGINEERING| MONTGOMERY OFFICE MONTGOMERY, NY 12549 Achieving Successful Results with Innovative Designs **DETAILS** CHADWICK WOODS ROUTE 300 TOWN OF NEWBURGH ORANGE COUNTY, NEW YORK DRAWN BY: 1325.05 AS NOTED C-3 08/01/2022 REVISION: ORIGINAL SCALE IN INCHES 7 - 01/19/2024



PIPE FROM SEPTIC TANK @ 1.0% MIN.



\_\_ 6" TOPSOIL

- FINISHED GRADE

EXISTING GRADE

UNDISTURBED

NATIVE SOIL

\* USEABLE FILL SHOULD HAVE A PERCOLATION

RATE SIMILAR TO BUT NOT FASTER THAN THE

USEABLE SOIL PERCOLATION RATE.

TYPICAL TRENCH SECTION

SEE PLAN FOR

CHAMBER TRENCH

WIDTH (TYP)

18" TO 30"

TRENCH DEPTH

6" MIN.

TRENCH BOTTOMS

ARC 24 STANDARD CHAMBER

HARDPAN, ROCK

OR GROUNDWATER

ARE TO BE LEVEL

SEPTIC TANK TO BE LOCATED A MINIMUM DISTANCE OF 10 FEET FROM THE BUILDING.

- 2. THERE SHALL BE NO REGRADING, IN THE AREA OF THE ABSORPTION FIELDS, EXCEPT AS SHOWN ON THE APPROVED PLANS. 3. SWIMMING POOLS, DRIVEWAYS AND/OR STRUCTURES THAT MAY
- COMPACT THE SOIL ARE NOT TO BE CONSTRUCTED OVER ABSORPTION 4. ASPHALTIC SEALS SHALL BE MAINTAINED BETWEEN THE SEPTIC TANK,
- AND ALL PIPES AND COVERS. 5. NO TRENCHES TO BE INSTALLED IN WET SOIL. 6. RAKE SIDES AND BOTTOM OF TRENCH PRIOR TO PLACING CHAMBERS IN ABSORPTION TRENCH.
- 7. GROUT ALL PIPE PENETRATIONS INTO AND OUT OF ANY DISTRIBUTION 8. ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS AS SET
- FORTH IN THE PUBLICATION "NEW YORK STATE DEPARTMENT OF HEALTH - RESIDENTIAL ONSITE WASTEWATER TREATMENT SYSTEMSS -DESIGN HANDBOOK, 2012 AND OCDOH DESIGN POLICY & STANDARDS -APPENDIX 75-A. 9. ABSORPTION CHAMBER TO BE CAPPED AT ENDS.
- 10. PROVIDE A MINIMUM OF 30" OF SOLID PIPE PRIOR TO START OF LEACHING CHAMBERS AND BE BACKFILLED WITH NATIVE MATERIAL THERE MUST BE AN UNINTERRUPTED POSITIVE SLOPE FROM THE SEPTIC TANK (OR ANY PUMPING OR DOSING CHAMBER) TO THE BUILDING. ALLOWING SEPTIC GASES TO DISCHARGE THROUGH THE STACK VENT.
- 12. HEAVY EQUIPMENT SHALL BE KEPT OFF THE AREA OF THE ABSORPTION FIELDS EXCEPT DURING THE ACTUAL CONSTRUCTION. THERE SHALL BE NO UNNECESSARY MOVEMENT OF CONSTRUCTION EQUIPMENT IN THE ABSORPTION FIELD AREA BEFORE, DURING, OR AFTER CONSTRUCTION. EXTREME CARE MUST BE TAKEN DURING THE ACTUAL CONSTRUCTION SO TO AS TO AVOID ANY UNDUE COMPACTION THAT COULD RESULT IN A CHANGE OF ABSORPTION CAPACITY OF THE SOIL ON WHICH THE DESIGN
- WAS BASED 13. THIS SYSTEM HAS NOT BEEN DESIGNED TO ACCOMMODATE GARBAGE GRINDERS, JACUZZI STYLE SPA TUBS OVER 100 GALLONS, OR WATER CONDITIONERS AND SHALL NOT BE INSTALLED WITHOUT ADDITIONAL REVIEW AND AND APPROVAL OF THE ORANGE COUNTY DEPARTMENT OF

# SHALLOW ABSORPTION TILE FIELD OVERALL PLAN

4" PVC RISER 45° BEND - PROPOSED 4" PVC **GRAVITY SEWER** TYPICAL CLEANOUT

PLANNING BOARD APPROVAL BOX NEWBURGH PB #2019-02

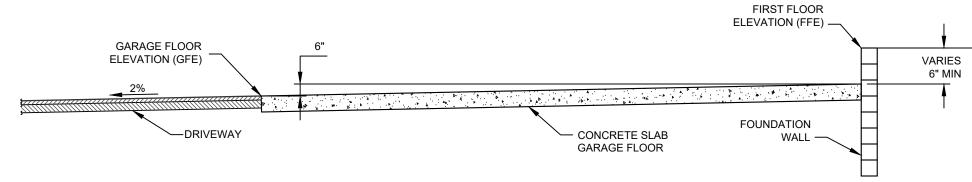
71 CLINTON STREET

Ph: (845) 457-7727

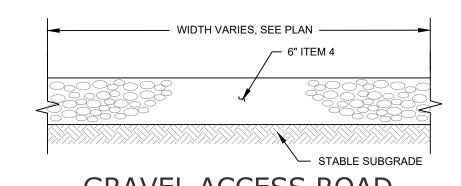
WWW.EP-PC.COM

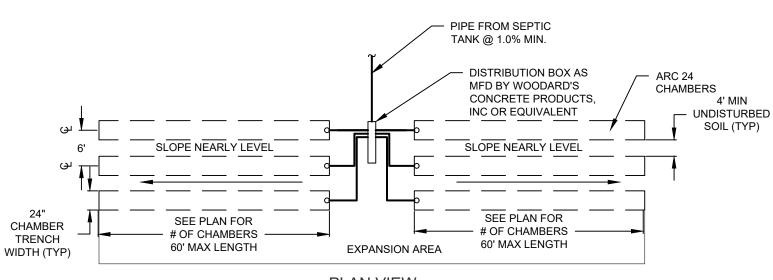
TOWN OF NEWBURGH

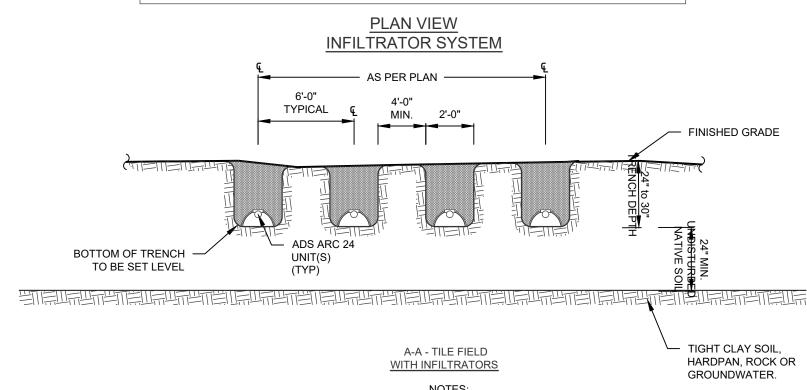
TOWN OF NEWBURGH SHEET 6 OF 9



TYPICAL GARAGE ELEVATION SECTION







4. ASPHALTIC SEALS SHALL BE MAINTAINED BETWEEN THE SEPTIC TANK, AND ALL PIPES AND COVERS. NO TRENCHES TO BE INSTALLED IN WET SOIL. RAKE SIDES AND BOTTOM OF TRENCH PRIOR TO PLACING CHAMBERS IN ABSORPTION TRENCH. THE SEWAGE DISPOSAL SYSTEM IS NOT DESIGNED TO ACCOMODATE GARBAGE GRINDERS, OR JACUZZI TYPE TUBS (OVER 100 GALLONS). THESE ITEMS SHALL NOT BE INSTALLED WITHOUT A DESIGN CHANGE APPROVED BY THE ORANGE COUNTY DEPARTMENT OF HEALTH.

8. ALL CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS AS SET FORTH IN 10NYCRR APPENDIX 75-A "WASTEWATER TREATMENT STANDARDS - RESIDENTIAL ONSITE SYSTEMS" DATED FEBRUARY 3, 2010, THE PUBLICATION "RESIDENTIAL ONSITE WASTEWATER TREATMENT SYSTEMS" (GREEN BOOK) BY THE NEW YORK STATE DEPARTMENT OF HEALTH DATED 2012 AND THE ORANGE COUNTY DEPARTMENT OF HEALTH'S ADDENDUM TO APPENDIX 75-A DATED SEPTEMBER 2014. ABSORPTION CHAMBER TO BE CAPPED AT ENDS. 10. PROVIDE A MINIMUM OF 30" OF SOLID PIPE PRIOR TO START OF LEACHING

SEPTIC TANK TO BE LOCATED A MINIMUM DISTANCE OF 10 FEET FROM THE THERE SHALL BE NO REGRADING, IN THE AREA OF THE ABSORPTION FIELDS,

SOIL ARE NOT TO BE CONSTRUCTED OVER ABSORPTION FIELDS.

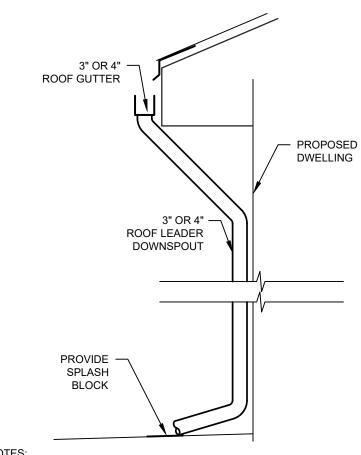
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EXCEPT AS SHOWN ON THE APPROVED PLANS.

CHAMBERS AND BE BACKFILLED WITH NATIVE MATERIAL. 11. THERE MUST BE AN UNINTERRUPTED POSITIVE SLOPE FROM THE SEPTIC TANK (OR

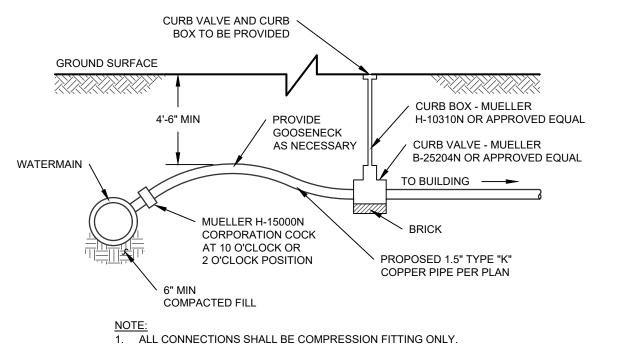
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ABSORPTION TILE FIELD OVERALL PLAN

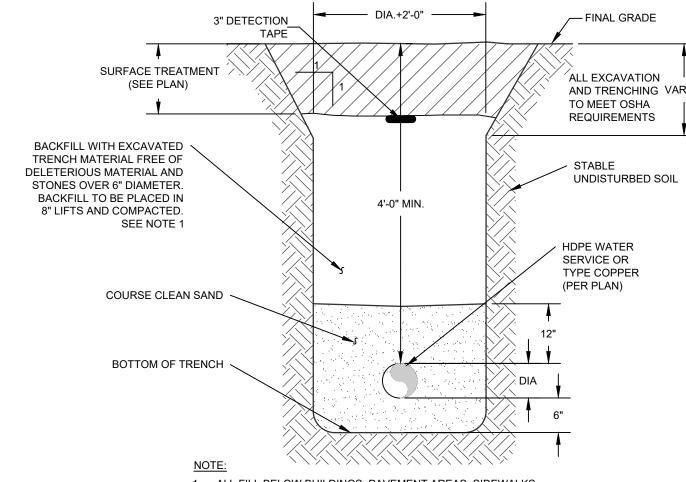


IN ACCORDANCE WITH NYSDEC STORMWATER GREEN INFRASTRUCTURE REQUIREMENTS, ALL ROOF LEADER DOWNSPOUTS SHALL DISCHARGE EFFLUENT ALONG THE SURFACE FOR INFILTRATION. CONNECTION OF ROOF LEADERS TO CLOSED SYSTEMS IS PROHIBITED. HOMEOWNERS SHALL MAINTAIN SPLASH BLOCK LAWN AREA AS SHOWN ON

### THE PLANS TO PROVIDE INFILTRATION OF STORMWATER ROOF RUNOFF. ROOF LEADER AND SPLASH PAD



WATER SERVICE CONNECTION



CURBS, ETC; SHALL BE WITH R.O.B. GRAVEL (NYSDOT SPEC) FOR THE FULL DEPTH THE EXCAVATION. BACKFILL SHALL BE PLACED IN 8" MAXIMUM LIFTS AND COMPACTED TO 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR TEST.

WATER PIPE TRENCH

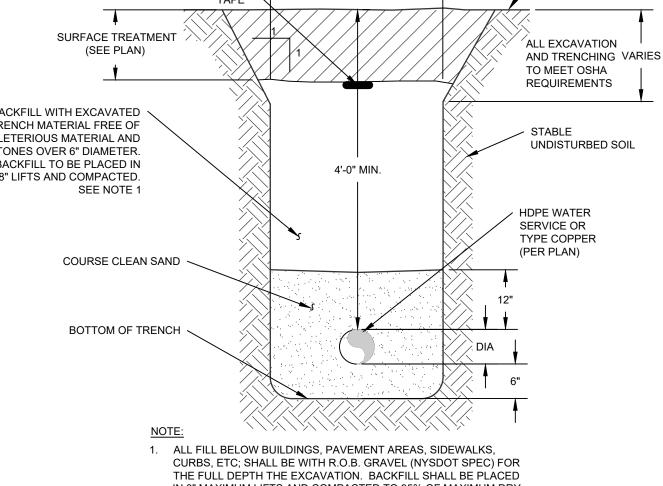
ACCOMPANIED BY ALL SHEETS OF THE DENOTED PLAN SET(S).

# TOWN OF NEWBURGH WATER SYSTEM NOTES

- 1. CONSTRUCTION OF POTABLE WATER UTILITIES AND CONNECTION TO THE TOWN OF NEWBURGH WATER SYSTEM REQUIRES A PERMIT FROM THE TOWN OF NEWBURGH WATER DEPARTMENT. ALL WORK AND MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF THE NYSDOH AND THE TOWN OF NEWBURGH
- 2. ALL WATER SERVICE LINES FOUR (4) INCHES AND LARGER IN DIAMETER SHALL BE CEMENT LINED CLASS 52 DUCTILE IRON PIPE CONFORMING TO ANSI/AWWA C151/A21.51 FOR DUCTILE IRON PIPE, LATEST REVISION. JOINTS SHALL BE EITHER PUSH-ON OR MECHANICAL JOINT AS REQUIRED.
- 3. THRUST RESTRAINT OF THE PIPE SHALL BE THROUGH THE USE OF JOINT RESTRAINT. THRUST BLOCKS ARE NOT ACCEPTABLE. JOINT RESTRAINT SHALL BE THROUGH THE USE OF MECHANICAL JOINT PIPE WITH RETAINER GLANDS. ALL FITTINGS AND VALVES SHALL ALSO BE INSTALLED WITH RETAINER GLANDS FOR JOINT RESTRAINT. RETAINER GLANDS SHALL BE EBBA IRON MEGALUG SERIES 1100 OR APPROVED EQUAL. THE USE OF A MANUFACTURED RESTRAINED JOINT PIPE IS ACCEPTABLE WITH PRIOR APPROVAL OF THE WATER DEPARTMENT.
- 4. ALL FITTINGS SHALL BE CAST IRON OR DUCTILE IRON, MECHANICAL JOINT, CLASS 250 AND CONFORM TO ANSI/AWWA C110/A21.10 FOR DUCTILE AND GRAY IRON FITTINGS OR ANSI/AWWA C153/A21.53 FOR DUCTILE IRON COMPACT FITTINGS, LATEST REVISION.
- 5. ALL VALVES 4 TO 12 INCHES SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO ANSI/AWWA C509 SUCH AS MUELLER MODEL A-2360-23 OR APPROVED EQUAL. ALL GATE VALVES SHALL OPEN LEFT (COUNTERCLOCKWISE).
- 6. TAPPING SLEEVE SHALL BE MECHANICAL JOINT SUCH AS MUELLER H-615 OR EQUAL. TAPPING VALVES 4 TO 12 INCHES SHALL BE RESILIENT WEDGE GATE VALVES CONFORMING TO ANSI/AWWA C509 SUCH AS MUELLER MODEL T-2360-19 OR APPROVED EQUAL. ALL TAPPING SLEEVES AND VALVES SHALL BE TESTED TO 150 PSI MINIMUM; TESTING OF THE TAPPING SLEEVE AND VALVE MUST BE WITNESSED AND ACCEPTED BY THE TOWN OF NEWBURGH WATER DEPARTMENT PRIOR TO CUTTING INTO THE PIPE.
- 7. ALL HYDRANTS SHALL BE CLOW-EDDY F-2640 CONFORMING TO AWWA STANDARD C-502, LATEST REVISION. ALL HYDRANTS SHALL INCLUDE A 5 ¼ INCH MAIN VALVE OPENING, TWO 2 ½ INCH DIAMETER NPT HOSE NOZZLES, ONE 4 INCH NPT STEAMER NOZZLE, A 6 INCH DIAMETER INLET CONNECTION AND A 1 ½ INCH PENTAGON OPERATING NUT. ALL HYDRANTS SHALL OPEN LEFT (COUNTER-CLOCKWISE). HYDRANTS ON MAINS TO BE DEDICATED TO THE TOWN SHALL BE EQUIPMENT YELLOW. HYDRANTS LOCATED ON PRIVATE PROPERTY SHALL BE RED.
- 8. ALL WATER SERVICE LINES TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING. CORPORATION STOPS SHALL BE MUELLER H-15020N FOR ¾ AND 1 INCH, MUELLER H-15000N OR B-25000N FOR 1 ½ AND 2 INCH SIZES. CURB VALVES SHALL BE MUELLER H-1502-2N FOR ¼ AND 1 INCH AND MUELLER B-25204N FOR 1 ½ AND 2 INCH SIZES. CURB BOXES SHALL BE MUELLER H-10314N FOR ¾ AND 1 INCH AND MUELLER H-10310N FOR 1 ½ AND 2 INCH SIZES.
- 9. ALL PIPE INSTALLATION SHALL BE SUBJECT TO INSPECTION BY THE TOWN OF NEWBURGH WATER DEPARTMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INSPECTIONS AS REQUIRED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT
- 10. THE WATER MAIN SHALL BE TESTED, DISINFECTED AND FLUSHED IN ACCORDANCE WITH THE TOWN OF NEWBURGH REQUIREMENTS. ALL TESTING, DISINFECTION AND FLUSHING SHALL BE COORDINATED WITH THE TOWN OF NEWBURGH WATER DEPARTMENT. PRIOR TO PUTTING THE WATER MAIN IN SERVICE SATISFACTORY SANITARY RESULTS FROM A CERTIFIED LAB MUST BE SUBMITTED TO THE TOWN OF NEWBURGH WATER DEPARTMENT. THE TEST SAMPLES MUST BE COLLECTED BY A REPRESENTATIVE OF THE TESTING LABORATORY AND WITNESSED BY THE WATER DEPARTMENT.
- 11. THE FINAL LAYOUT OF THE PROPOSED WATER AND/OR SEWER CONNECTION, INCLUDING ALL MATERIALS, SIZE AND LOCATION OF SERVICE AND ALL APPURTENANCES, IS SUBJECT TO THE REVIEW AND APPROVAL OF THE TOWN OF NEWBURGH WATER AND/OR SEWER DEPARTMENT. NO PERMITS SHALL BE ISSUED FOR A WATER AND/OR SEWER CONNECTION UNTIL A FINAL LAYOUT IS APPROVED BY THE RESPECTIVE DEPARTMENT.
- 12. CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF EXISTING WATER AND SEWER UTILITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- 13. CONTRACTOR TO CALL UNDERGROUND MARK-OUT AT LEAST 2 DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION AT 1-800-962-7962 FOR COMPLETE UTILITIES MARKOUT.
- 14. CONTRACTOR TO CONTACT TOWN OF NEWBURGH WATER DEPARTMENT AT (845) 564-7813 AT LEAST 2 DAYS PRIOR TO
- 15. CONTRACTOR TO NOTIFY ENGINEER IMMEDIATELY OF ANY DEVIATION FROM HORIZONTAL OR VERTICAL ALIGNMENTS WITH REGARDS TO EXISTING UTILITIES BEFORE PROCEEDING.
- 16. A CERTIFIED AS BUILT MAP OF THE WATER SYSTEM IMPROVEMENTS SHALL BE PROVIDED TO THE TOWN OF NEWBURGH
- WATER DEPARTMENT BY A LICENSED DESIGN PROFESSIONAL. 17. ALL APARTMENT UNITS AND THE CLUBHOUSE ARE TO BE INDIVIDUALLY METERED IN ACCORDANCE WITH THE TOWN OF
- 18. ALL PIPE. FIXTURES AND FITTINGS MUST COMPLY WITH THE FEDERAL "SAFE DRINKING WATER ACT". SECTION 1417 WHICH
- REQUIRES ALL SURFACES IN CONTACT WITH POTABLE WATER CONTAIN NO MORE THAN 0.25% LEAD BY WEIGHT.
- 19. THE TOWN OF NEWBURGH COMMISSIONER OF PUBLIC WORKS OR HIS DESIGNATED REPRESENTATIVE MUST BE INFORMED OF ANY HYDROSTATIC OR BACTERIOLOGICAL TESTING TO PERMIT THE TESTING TO BE WITNESSED.
- HYDROSTATIC AND BACTERIOLOGICAL TEST RESULTS AS ADEQUATE.

20. THE TOWN OF NEWBURGH COMMISSIONER OR PUBLIC WORKS OR HIS DESIGNATED REPRESENTATIVE MUST ACCEPT

TOWN OF NEWBURGH PLANNING BOARD APPROVAL BOX NEWBURGH PB #2019-02



No. DATE DESCRIPTION DRAWING STATUS 10/05/22 REVISED PER PLANNING BOARD COMMENTS THIS SHEET IS PART OF 2 | 10/31/22 | REVISED LOT LAYOUT THE PLAN SET ISSUED FOR 3 03/23/23 REVISED GRADING FOR DRIVEWAY LAYOUT 4 04/21/23 REVISED PER ENGINEERS COMMENTS CONCEPT APPROVAL 5 05/05/23 REVISED PER ENGINEERS COMMENTS ✓ PLANNING BOARD APPROVAL TREE PRESERVATION PLAN OCDOH REALTY SUBDIVISION APPROVAL 01/19/24 REVISED PER PLANNING BOARD COMMENTS OCDOH WATERMAIN EXTENSION APPROVAL ☐ NYSDEC APPROVAL NYSDOT APPROVAL OTHER: ☐FOR BID / <del>CONSTRUCTION</del> THIS PLAN AND ALL THE INFORMATION CONTAINED HEREIN IS UTHORIZED FOR USE BY WHOM THE SERVICES WERE CONTRACTED O O WHOM IT IS CERTIFIED. THIS DRAWING MAY NOT BE COPIED, REUSEI DISCLOSED, DISTRIBUTED OR RELIED UPON FOR ANY OTHER PURPOSE WITHOUT THE WRITTEN CONSENT OF ENGINEERING & SURVEYING PROPERTIES, PC. THIS SHEET SHALL BE CONSIDERED INVALID UNLESS

COPIES OF THIS DOCUMENT WITHOUT AN ACTUAL OR FACSIMILE OF THE SHEET ENGINEER'S SIGNATURE NUMBER AND AN ORIGINAL STAMP RED OR BLUE INK SHALL BI N/A OF N/A CONSIDERED INVALID. 7 OF 10 JNAUTHORIZED N/A OF N/A ALTERATIONS OR ADDITIONS TO THIS N/A OF N/A DOCUMENT BEARING THE N/A OF N/A SEAL OF A LICENSED PROFESSIONAL ENGINEER N/A OF N/A IS A VIOLATION OF SECTION 7209 SUBSECTION N/A OF N/A 2 OF THE NEW YORK STATE N/A OF N/A EDUCATION LAW.

ORIGINAL SCALE IN INCHES

ROSS WINGLOVITZ, P.E. NEW YORK LICENSE # 071701 1325.05 08/01/2022

INGINEERING! 71 CLINTON STREET MONTGOMERY, NY 12549 Ph: (845) 457-7727 Achieving Successful Results with Innovative Designs WWW.EP-PC.COM **DETAILS** CHADWICK WOODS ROUTE 300 TOWN OF NEWBURGH ORANGE COUNTY, NEW YORK DRAWN BY: AS NOTED C-3 7 - 01/19/2024 14-1-51

TOWN OF NEWBURGH SHEET 7 OF 9

MOUND TOPSOIL

FOR SETTLING

ARCH 24

STANDARD

CHAMBER

TENCH

COVER

TYPICAL TRENCH SECTION

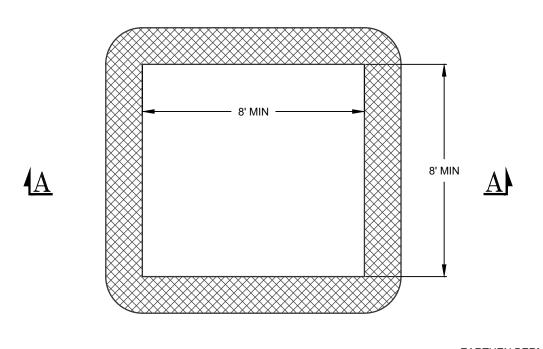
- EARTH BACKFILL

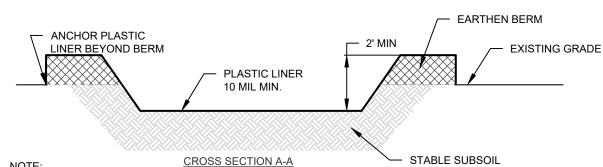
12" CHAMBER

GROUNDWATER,

IMPERVIOUS LAYER

- BEDROCK OR

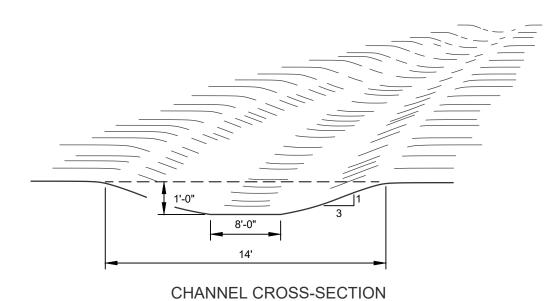




PLASTIC LINER SHALL BE INSPECTED DAILY TO ENSURE THAT THERE ARE NO HOLES OR TEARS. IF ANY HOLES OF TEARS ARE FOUND THE LINER SHALL BE REPLACED AND CLEANED IMMEDIATELY. THE PLASTIC LINER SHALL BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.

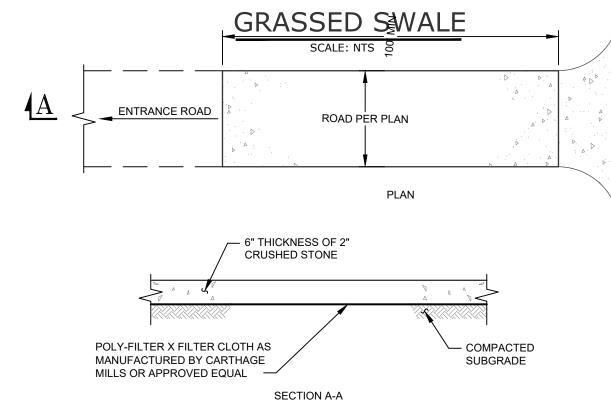
- WASHOUT FACILITY SHALL BE LOCATED A MINIMUM OF 100 FEET FROM DRAINAGE SWALES, STORM DRAIN INLETS, WETLANDS, STREAMS OR OTHER SURFACE WATERS.
- ACCUMULATED HARDENED MATERIAL SHALL BE REMOVED WHEN 75% OF THE STORAGE CAPACITY OF THE STRUCTURE IS FILLED. ANY EXCESS WASH WATER SHALL BE PUMPED INTO A CONTAINMENT VESSEL AND PROPERLY DISPOSED OF.
- 4. DISPOSE OF THE HARDENED MATERIAL OFF-SITE IN A CONSTRUCTION/DEMOLITION LANDFILL.

# **CONCRETE WASHOUT**



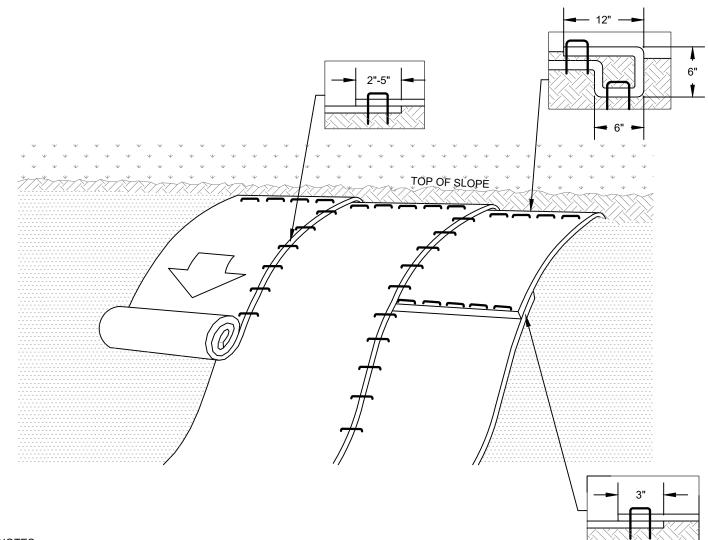
### **CONSTRUCTION SPECIFICATIONS:**

- 1. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS AND OTHER OBJECTIONABLE SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE WATERWAY
- 2. THE WATERWAY SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN, AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
- 3. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF OUTSIDE THE WETLAND SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE WATERWAY.
- 4. STABILIZATION SHALL BE DONE ACCORDING TO THE APPROPRIATE STANDARDS AND SPECIFICATIONS FOR VEGETATIVE PRACTICES. SEEDING AND MULCHING SHALL BE USED FOR ESTABLISHMENT OF THE VEGETATION. VEGETATION PROVIDED SHALL BE REED CANARYGRASS, TALL FESCUE, KENTUCKY



- 1. STONE SIZE USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- 2. WIDTH 35 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
- 3. 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 SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF WAY. THIS MAY REQUIRED PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY
- 5. WASHING WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- 6. PERIODIC INSPECTIONS AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER

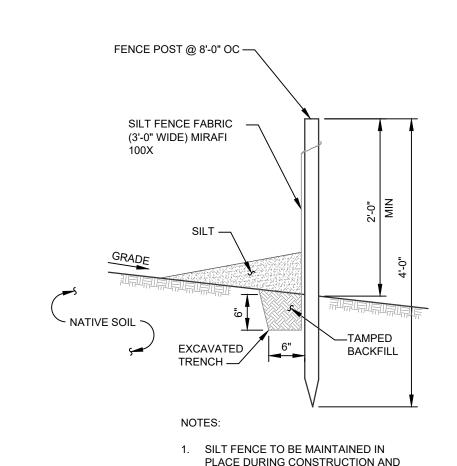
# STABILIZED CONSTRUCTION ENTRANCE



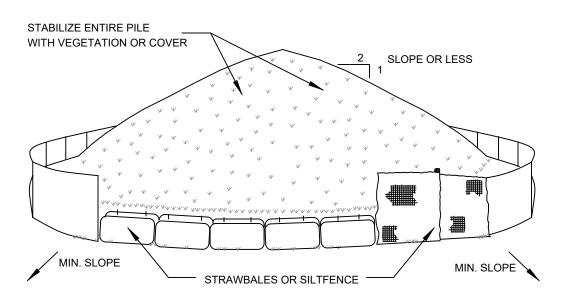
1. ROLLED EROSION CONTROL PRODUCT (RECP'S) SHALL BE USED ON ALL CONSTRUCTED SLOPES GREATER THAN 3 HORIZONTAL

- 2. PREPARATION OF THE SOIL INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED SHALL BE COMPLETED PRIOR TO INSTALLATION OF ANY RECP'S.
- INSTALL RECP NORTH AMERICAN GREEN BIONET S150BN OR APPROVED EQUAL. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIAMTELY 12" APART IN THE BOTTON OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACE APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
- 4. ROLL THE RECP'S DOWN THE SLOPE OR HORZONTALLY ACROSS THE SLOPE. ALL RECP'S MUST BE SECURLY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE PRODUCT'S STAPLE PATTERN
- THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2" TO 5" OVERLAP DEPENDING ON RECP'S TYPE.
- CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIAMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS THE ENTIRE RECP'S WIDTH.

# SLOPE STABILIZATION (ROLLED EROSION CONTROL PRODUCT)



SOIL STABILIZATION PERIOD.



- 1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
- 2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
- 3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED A WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED WITH VEGETATION OR COVERED.
- 4. SEE SPECIFICATIONS (THIS MANUAL) FOR INSTALLATION OF SILTFENCE.

## SOIL RESTORATION NOTES

Type of Soil Disturbance	oil Restoration Requirent tion Requirement	Comments/Examples	
No soil disturbance	Restoration not		Preservation of Natural Features
Minimal soil disturbance R	estoration not req	uired	Clearing and grubbing
Areas where topsoil is stripped only - no change in grade			Protect area from any ongoing construction activities.
Areas of cut or fill	HSG A &B  Aerate and apply 6 inches of topsoil  HSG C & D  Apply full Soil Restoration **		
Heavy traffic areas on site (especially in a zone 5-25 feet around buildings but not within a 5 foot perimeter around foundation walls)	Apply full Soil compaction and enhancement)	Restoration (de- compost	
Areas where Runoff Reduction and/or Infiltration practices are applied	applied to enhar	required, but may be nee the reduction propriate practices.	Keep construction equipment from crossing these areas. To protect newly installed practice from any ongoing construction activities construct a single phase operation fence area
Redevelopment projects	Soil Restoration redevelopment J where existing i be converted to	projects in areas mpervious area will	

\* Aeration includes the use of machines such as tractor-drawn implements with coulters making a narrow slit in the soil, a roller with many spikes making indentations in the soil, or prongs which function like a mini-subsoiler

## EARTHWORK CONSTRUCTION NOTES

- 1. ALL WORK TO BE PERFORMED TO THE SPECIFICATIONS OF THE TOWN OF NEWBURGH
- 2. ALL TOPSOIL, ROOTS, STUMPS AND OTHER DELETERIOUS MATERIAL SHALL BE REMOVED FROM ALL CONSTRUCTION AREAS.
- 3. ALL FILL FOR POND CONSTRUCTION, BELOW BUILDINGS AND PAVEMENT TO BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR COMPACTION TEST ASTM D1557.
- 4. CELLAR, ROOF AND FOOTING DRAINS SHALL CONNECT TO THE STORM DRAINAGE SYSTEM OR OTHER FREE-FLOWING OUTLET AT A MINIMUM SLOPE OF 0.5%. FOOTING DRAIN SHALL BE INSTALLED BENEATH BOTTOM OF FOOTING.
- 5. COMPLETION OF GRADING AND BASIN, BERMS AFTER OCTOBER 15 SHALL REQUIRE MULCHING AND ANCHORING IN ACCORDANCE WITH NOTES ENTITLED "SEDIMENTATION EROSION CONTROL".
- 6. ALL SLOPES IN EXCESS OF 3H:1V SHALL BE CONSTRUCTED WITH LOCALLY AVAILABLE GLACIAL TILL. THE EMBANKMENT FILL SHALL BE PLACED IN SIX-INCHTHICK LIFTS. EACH LIFT SHALL BE PLACED AND COMPACTED TO 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR COMPACTION TEST ASTM D1557.
- 7. CONSTRUCT POND EMBANKMENT WITH LOCALLY AVAILABLE GLACIAL TILL WITH 3H:1V SIDE SLOPES OR AS NOTED ON PLAN. THE EMBANKMENT FILL SHALL BE PLACED IN A SIX-INCH THICK CONTINUOUS LAYER OVER THE ENTIRE LENGTH.EACH LIFT SHALL BE PLACED AT OPTIMUM MOISTURE CONTENT AND COMPACTED TO 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR COMPACTION TEST ASTM D1557.
- 8. STABILIZATION OF POND BERMS, AND ALL SLOPES IN EXCESS OF 3H:1V IN ACCORDANCE WITH "EROSION AND
- 9. ALL POND OUTLETS SHALL HAVE SEEPAGE CONTROL COLLARS PLACED AT 1/3 AND 2/3 THE WIDTH OF THE EMBANKMENT.
- 10. SOIL RESTORATION SHALL BE APPLIED TO ALL DISTURBED AREAS THAT WILL REMAIN AS PERVIOUS SURFACES. SOIL RESTORATION SHALL CONSIST OF THE FOLLOWING:
- 10.A. APPLY 3 INCHES OF COMPOST OVER SUBSOIL
- 10.B. TILL COMPOST INTO SUBSOIL TO A DEPTH OF AT LEAST 12 INCHES USING A CAT-MOUNTED RIPPER, TRACTOR MOUNTED DISC, OR TILLER, MIXING, AND CIRCULATING AIR AND COMPOST INTO SUB-SOILS.
- 10.C. ROCK-PICK UNTIL UPLIFTED STONE/ROCK MATERIALS OF FOUR INCHES AND LARGER SIZE ARE CLEANED OFF THE SITE.
- 10.D. APPLY TOPSOIL TO A DEPTH OF 6 INCHES.
- 10.E. VEGETATE IN ACCORDANCE WITH LANDSCAPE PLAN.

## SEQUENCE OF CONSTRUCTION ACTIVTY

- 1. PRE-CONSTRUCTION: NOTIFY APPROPRIATE MUNICIPAL AND UTILITY OFFICIALS 3 DAYS PRIOR TO START OF CONSTRUCTION.
- 2. CONSTRUCTION STAGING: STAKE OUT LIMIT OF DISTURBANCE. INSTALL SILT FENCE DOWN HILL OF PROPOSED CONSTRUCTION. INSTALL ORANGE CONSTRUCTION FENCING ALONG THE LIMITS OF DISTURBANCE NEAR WETLAND AREAS. INSTALL STABILIZED CONSTRUCTION ENTRANCE AND STABILIZE CONSTRUCTION ROAD(S). INSTALL PERMANENT/TEMPORARY GRASSED
- 3. CLEARING AND GRUBBING: REMOVE VEGETATION FROM AREA OF CONSTRUCTION. STRIP TOPSOIL AND STOCKPILE IN AREAS SHOWN ON THE PLAN. INSTALL SEDIMENT BARRIERS AROUND AND ESTABLISH TEMPORARY VEGETATION ON TOPSOIL STOCKPILES.
- 4. ROUGH GRADING: CUT AND FILL SITE TO APPROXIMATE ELEVATIONS SHOWN ON THE PLAN IMPLEMENT DUST CONTROL MEASURES AS NECESSARY ESTABLISH PERMANENT STABLIZATION IN AREAS THAT ARE COMPLETE. ESTABLISH TEMPORARY STABLIZATION ON AREAS THAT WILL BE GRADED AGAIN MORE THAN 21 DAYS FROM LAST DISTURBANCE.
- 5. ROAD/BUILDING CONSTRUCTION AND UTILITY INSTALLATION: FINAL GRADING AND CONSTRUCTION OF ROADWAYS. BUILDING EXCAVATION AND CONSTRUCTION. INSTALL UTILITIES. ENSURE ALL EROSION CONTROL MEASURES ARE IN WORKING ORDER.
- 6. FINAL GRADING AND LANDSCAPING: COMPLETE FINE GRADING OF SITE. SPREAD TOPSOIL AND PREPARE FOR PERMANENT SEEDING AND PLANTING. ESTABLISH PERMANENT VEGETATION IN ALL REMAINING UNSTABILIZED AREAS. INSTALL ALL SITE LANDSCAPING AND PLANTINGS.
- 7. POST CONSTRUCTION: UPON STABILIZATION OF THE SITE AND ESTABLISHMENT OF ALL VEGETATION COVER, REMOVE ALL REMAINING TEMPORARY EROSION CONTROL MEASURES SUCH AS SILT FENCE. REMOVE ALL SILT AND DEBRIS FROM THE SITE INCLUDING ROADWAYS AND STORM DRAINS.

## EROSION AND SEDIMENTATION CONTROL NOTES

- . SITE DISTURBANCE SHALL BE LIMITED TO THE MINIMUM NECESSARY GRADING AND VEGETATION REMOVAL REQUIRED FOR CONSTRUCTION.
- 2. TEMPORARY EROSION CONTROL MEASURES, INCLUDING SILT FENCES AND/OR STRAW BALE DIKES, SEDIMENT BASIN, TEMPORARY DIVERSION SWALE DRAINAGE STRUCTURES, AND RIP-RAP PROTECTION SHALL BE INSTALLED PRIOR TO GROUND DISTURBANCE FOR GRADING AND CONSTRUCTION.
- ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL FOLLOWING DISTURBANCE TO STABILIZE BARE SOIL AND PROMOTE THE PROMPT RE-ESTABLISHMENT OF VEGETATION:
- 3.1. AN ADEQUATE SEEDBED SHALL BE PREPARED BY SCARIFYING COMPACTED SOIL AND REMOVING SURFACE DEBRIS
- 3.2. LIME SHALL BE APPLIED SUFFICIENTLY TO ATTAIN A SOIL ACIDITY PH OF 6.0 TO 7.0. 3.3. FERTILIZER (5-10-10 MIXTURE OR EQUIVALENT) SHALL BE APPLIED PER SOIL TEST RESULTS OR AT A RATE OF 600
- 3.4. DISTURBED AREAS WHICH WILL REMAIN TEMPORARILY FALLOW FOR PERIODS GREATER THAN 30 DAYS SHALL BE SEEDED AT THE FOLLOWING RATE TO PRODUCE TEMPORARY GROUND COVER: 30 LBS. RYEGRASS (ANNUAL OR
- PERENNIAL) PER ACRE. DURING THE WINTER, USE 100 LBS. CERTIFIED "AROOSTOOK" WINTER RYE (CEREAL RYE) 3.5. PERMANENT SEEDING SHALL BE APPLIED ON 4" MIN TOPSOIL AT THE FOLLOWING RATE: 8 LBS EMPIRE BIRDSFOOT TREFOIL OR COMMON WHITE CLOVER
- 20 LBS TALL FESCUE PER ACRE PLUS 2 LBS REDTOP OR 5 LBS RYEGRASS (PERENNIAL) PER ACRE 3.6. ALL SEEDING SHALL BE PERFORMED USING THE BROADCAST METHOD OR HYDROSEEDING, UNLESS OTHERWISE
- 3.7. ALL DISTURBED AREAS SHALL BE STABILIZED SUBSEQUENT TO SEEDING BY APPLYING 2 TONS OF STRAW MULCH PER ACRE. STRAW MULCH SHALL BE ANCHORED BY APPLYING 750 LBS OF WOOD FIBER MULCH PER ACRE WITH A HYDROSEEDER, OR TUCKING THE MULCH WITH SMOOTH DISCS OR OTHER MULCH ANCHORING TOOLS TO A DEPTH OF 3". MULCH ANCHORING TOOLS SHALL BE PULLED ACROSS SLOPES ALONG TOPOGRAPHIC CONTOURS.
- 4. ALL EROSION AND SEDIMENTATION CONTROL MEASURES AND DRAINAGE STRUCTURES SHALL BE INSPECTED FOLLOWING EVERY RAIN EVENT, AND MAINTENANCE AND REPAIRS SHALL BE PERFORMED PROMPTLY TO MAINTAIN PROPER FUNCTION. TRAPPED SEDIMENT SHALL BE REMOVED AND DEPOSITED IN A PROTECTED AREA IN A PROPER MANNER WHICH WILL NOT RESULT IN EROSION.
- TEMPORARY CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED AND GROUND COVER IS COMPLETELY REESTABLISHED. FOLLOWING STABILIZATION, TEMPORARY MEASURES SHALL BE
- 6. ALL STORM INLETS TO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION.
- 7. SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED UNDER SUITABLE CONDITIONS AND IN SUFFICIENT
- 8. MULCH NETTING SUCH AS PAPER, JUTE, EXCELSIOR, COTTON OR PLASTIC MAY BE USED. STAPLE IN PLACE. OVER HAY OR STRAW MULCH. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
- 9. STABILIZATION OF STEEP SLOPES SHALL BE ACHIEVED BY APPLYING LIME AND FERTILIZER AS SPECIFIED ABOVE AND SEEDING WITH THE FOLLOWING MIXTURE:
  - PERENNIAL RYE GRASS CROWN VETCH SPREADING FESCUE
- 10. OPTIMUM SEEDING PERIODS ARE 3/15-6/1 AND 8/1-10/15.
- 11. ALL UPSTREAM SITE WORK AND STABILIZATION SHALL OCCUR BEFORE CONNECTING UNDERGROUND DETENTION/INFILTRATION FACILITY TO PREVENT ANY ERODED SEDIMENTS FROM ENTERING UNDERGROUND FACILITY.
- 12. IN ACCORDANCE WITH THE NYSDEC SPDES GP 0-20-001, THERE SHALL BE NO MORE THAN 5 ACRES DISTURBED AT

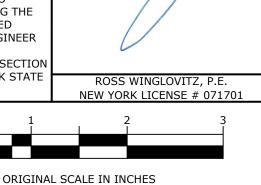
TOWN OF NEWBURGH PLANNING BOARD APPROVAL BOX

NEWBURGH PB #2019-02

No.	DATE	DESCRIPTION		DRAWING STATUS		UE D	
1	10/05/22	REVISED PER PLANNING BOARD COMMENTS	1		01/	19/2	2024
2		REVISED LOT LAYOUT	1	THIS SHEET IS PART OF	S	SHEE	:T
3		REVISED GRADING FOR DRIVEWAY LAYOUT	1	THE PLAN SET ISSUED FOR	Nl	JMB	ER
4		REVISED PER ENGINEERS COMMENTS	1	CONCEPT APPROVAL	N/A	OF	N/A
5	05/05/23	REVISED PER ENGINEERS COMMENTS	1	<del>_</del>	<del>'</del>	_	<u> </u>
6	10/17/23	TREE PRESERVATION PLAN	1	☑ PLANNING BOARD APPROVAL	8	OF	10
7	01/19/24	REVISED PER PLANNING BOARD COMMENTS	]	☐ OCDOH REALTY SUBDIVISION APPROVAL	N/A	OF	N/A
				☐ OCDOH WATERMAIN EXTENSION APPROVAL	N/A	OF	N/A
			1	☐ NYSDEC APPROVAL	N/A	OF	N/A
			1	□ NYSDOT APPROVAL	N/A	OF	N/A
			-	OTHER:	N/A	OF	N/A
			1	☐FOR BID / <del>CONSTRUCTION</del>	N/A	OF	N/A
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ACCOMPANIED BY ALL SHEETS OF THE DENOTED PLAN SET(S).

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NGINEERING| MONTGOMERY OFFICE 71 CLINTON STREET MONTGOMERY, NY 12549 Ph: (845) 457-7727 Achieving Successful Results WWW.EP-PC.COM with Innovative Designs **DETAILS** CHADWICK WOODS ROUTE 300 TOWN OF NEWBURGH ORANGE COUNTY, NEW YORK DRAWN BY: AS NOTED 👅 08/01/2022

TOWN OF NEWBURGH SHEET 8 OF 9

7 - 01/19/2024

<sup>\*\*</sup> Per "Deep Ripping and De-compation, DEC 2008"

TABLE 410-01: ADVANCE WARNING SIGN SPACIN							
ROAD TYPE	DISTANCE BE	TWEEN SIGN:					
ROAD TIPE	A (FT.)	B (FT.)					
URBAN (≤ 30 MPH*)	100	100					
URBAN (35-40 MPH*)	200	200					
URBAN (≥ 45 MPH*)	350	350					
RURAL 500 500							
+ 55560000000000000000000000000000000000							

\* PRECONSTRUCTION POSTED SPEED LIMIT

	TABLE 410-0	2: LONGITUDIN	IAL BUFFER SF	PACE AND TAPE	R LENGTHS			
PRECONSTRUCTION POSTED SPEED	LONGITUDINAL BUFFER SPACE DISTANCE		LENGTH: L (FT.) / # OF CHANNELIZING		SHOULDER TAPER LENGTH: L / 3 (FT.) / # OF SKIP LANES / # OF CHANNELIZING DEVICES			
LIMIT (MPH)	(FT.) / # OF SKIP LANES		OR LANE WIDTH IN HIFT OF TRAFFIC		FC	OR SHOULDER WIE	DTH	
		10	11	12	≤ 4 FT.	5 - 7 FT.	≥ 8 FT.	
25	155 / 4	120 / 3 / 4	120 / 3 / 4	120 / 3 / 4	40 / 1 / 2	40 / 1 / 2	40 / 1 / 2	
30	200 / 5	160 / 4 / 5	160 / 4 / 5	200 / 5 / 6	40 / 1 / 2	40 / 1 / 2	40 / 1 / 2	
35	250 / 6	200 / 5 / 6	240 / 6 / 7	240 / 6 / 7	40 / 1 / 2	40 / 1 / 2	80/2/3	
40	305 / 8	280 / 7 / 8	320 / 8 / 9	320 / 8 / 9	40 / 1 / 2	80 / 2 / 3	80 / 2 / 3	
45	360 / 9	440 / 11 / 12	520 / 13 / 14	560 / 14 / 15	80 / 2 / 3	80 / 2 / 3	120 / 3 / 4	
50	425 / 11	520 / 13 / 14	560 / 14 / 15	600 / 15 / 16	80 / 2 / 3	120 / 3 / 4	160 / 4 / 5	
55	495 / 13	560 / 14 / 15	600 / 15 / 16	680 / 17 / 18	80 / 2 / 3	120 / 3 / 4	160 / 4 / 5	

TABLE 410-03: PROTECTIVE VEHICLE REQUIREMENTS								
	ROAD TYPE		NON-FREEWAY					
CLOSURE TYPE	& SPEED	≥ 45 MPH	35 - 40 MPH	≤ 30 MPH				
	EXPOSURE CONDITIONS <sup>1</sup>							
LANE CLOSURE OR	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	P, TMIA	SEE NOTE 2				
ENCROACHMENT	OTHER HAZARDS NO WORKERS EXPOSED	P, TMIA	SEE NOTE 2	SEE NOTE 2				
SHOULDER CLOSURE	WORKERS ON FOOT OR VEHICLE EXPOSED TO TRAFFIC	P, TMIA	SEE NOTE 2	SEE NOTE 2				
OR ENCROACHMENT	OTHER HAZARDS NO WORKERS EXPOSED	SEE NOTE 2	SEE NOTE 2	SEE NOTE 2				

P: PROTECTIVE VEHICLE REQUIRED FOR EACH CLOSED LANE & EACH CLOSED PAVED SHOULDER 8' OR WIDER, IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE PROTECTIVE VEHICLE SHALL BE REPOSITIONED ACCORDINGLY

### TMIA: TMIA REQUIRED

1 THE EXPOSURE CONDITIONS ASSUMES THERE IS NO POSITIVE PROTECTION PRESENT 2. EITHER A PROTECTIVE VEHICLE OR THE STANDARD BUFFER SPACE SHALL BE PROVIDED

TABLE 410-04: ROLL AHEAD DISTANCE					
ROLL AHEAD DI SKIP LINES	STANCE (FT.) / FOR VEHICLES				
PRE CONSTRUCTION POSTED SPEED LIMIT	STATIONARY OPERATION				
(MPH)	MIN	MAX			
≥ 55	120 / 3	200 / 5			
45 - 50	80 / 2	160 / 4			
≤ 40	40 / 1	120 / 3			

TABLE 410-05: CHANNELIZIN	IG DEVI	CE APPL	ICATION	FOR INT	ERMEDIA	ATE-TER	M STATIO	DNARY W	ORK ZO	NES
WORK ZONE PROVISIONS	ŋ 9		MUTCD COMPLIANT CHANNELIZING DEVICE							
INTERMEDIATE-TERM STATIONARY WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE III BARRICADES
SHOULDER / MERGING /	20 FT.*	Х							Х	
SHIFTING TAPERS	40 FT.	X							Х	
MARKING FOR TRANSVERSE BUMPS <sup>1</sup>	N/A	X <sup>2</sup>			X <sup>2</sup>				X <sup>2</sup>	
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND / OR SHOULDER	800 FT.	Х		×	X			×	×	0
REMOVAL OF EXISTING GUIDE RAIL	80 FT. 40 FT.	Х		Х	х	х		х	х	0

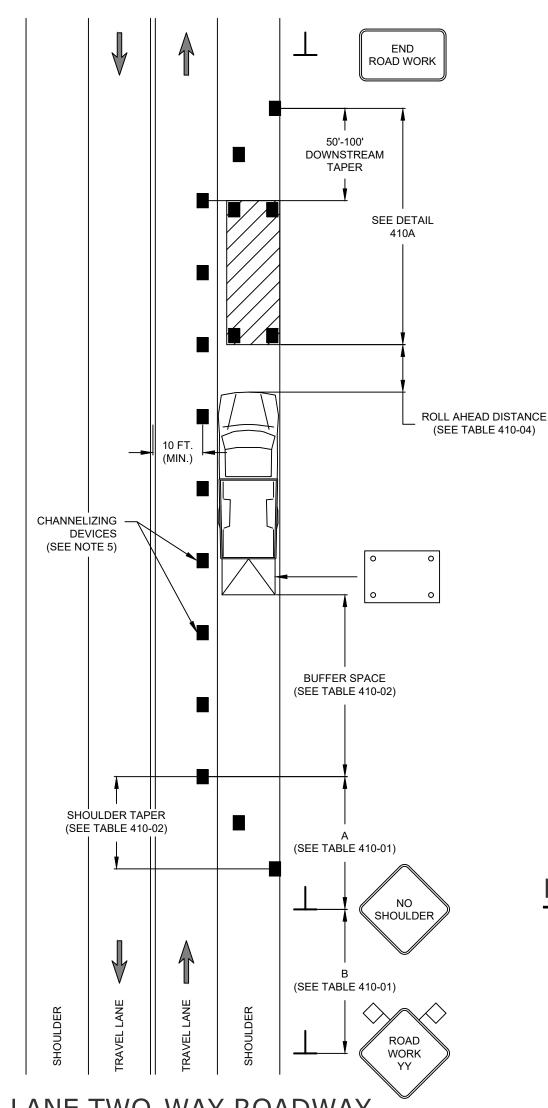
\* SEE NOTE 5

1. A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE 2. CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT

NOTES: X = ALLOWED, BLANK = NOT ALLOWED, 0 = OPTIONAL

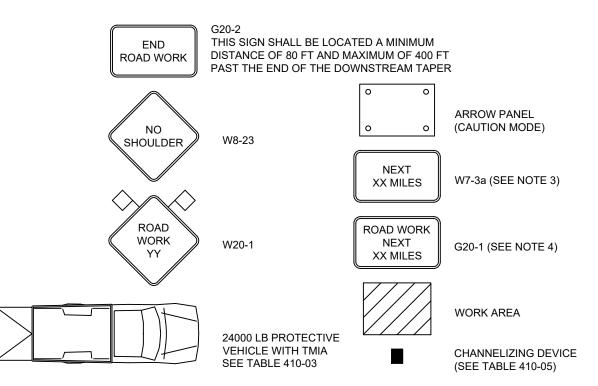
TABLE 410-06: REQUIRED SIGN SIZES*								
SIGN	NON-FREEWAY	FREEWAY						
G20-2	36 x 18	48 x 24						
W20-1	36 x 36	48 x 48						
W21-5	36 x 36	48 x 48						
W7-3a	24 x 18	36 x 30						
G20-1	36 x 18	48 x 24						
WARNING FLAG	18 x 18	18 x 18						

\* FREEWAY SIZES MAY BE USED ON NON-FREEWAY. IF SPACE CONSTRAINTS DO NOT EXIST



TWO-LANE TWO-WAY ROADWAY SHOULDER CLOSURE INTERMEDIATE TERM OPERATION

SCALE: N.T.S.



ROAD WORK

DOWNSTREAM

CHANNELIZING

**ROLL AHEAD DISTANCE** 

(SEE TABLE 410-04)

DEVICES

- . INTERMEDIATE-TERM IS STATIONARY WORK THAT OCCUPIES A LOCATION MORE THAN ONE DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK LASTING MORE THAN 1 HOUR
- NO WORK ACTIVITY OR STORAGE OF EQUIPMENT, VEHICLES, OR MATERIAL SHOULD OCCUR WITHIN A BUFFER SPACE.
- XX IS THE EXPECTED OVERALL LENGTH OF THE OPERATION TO BE COMPLETED WITHIN THE WORK DAY, A SUPPLEMENTAL DISTANCE PLAQUE W7-3a SHALL BE USED WITH SIGN W20-1 WHEN THE DISTANCE BETWEEN THE ADVANCE WARNING SIGNS AND WORK MAY BECOME GREATER THAN 2 MILES AS A RESULT OF THE FOLLOWING MULTIPLE WORK LOCATIONS ARE ANTICIPATED WITHIN XX MILES FROM THE W20-1
- WORK AREA WILL BE RELOCATED DURING THE DURATION OF THE WORK WITHIN XX
- MILES FROM THE W20-1 SIGN THE SUPPLEMENT SIGN W7-3a SHALL INDICATE THE MAXIMUM ANTICIPATED DISTANCE BETWEEN THE W20-1 SIGN AND THE FARTHEST WORK LOCATION. WHEN MULTIPLE WORK LOCATIONS EXIST WITHIN XX MILES FROM THE W20-1 SIGN, A G20-1 SIGN SHALL BE PLACED EVERY TWO MILES INDICATING THE DISTANCE FROM
- THE SIGN TO THE FARTHEST WORK LOCATION. 5. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 20' IN THE ACTIVE WORK SPACE.

800' AS SHOWN WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS

6. CHANNELIZING DEVICES SHALL BE PLACED TRANSVERSELY A MINIMUM OF EVERY

CLOSED FOR A DISTANCE GREATER THAN 800'. 7. THE PROTECTIVE VEHICLE(S) SHALL MAINTAIN THE APPROPRIATE ROLL AHEAD DISTANCE, BE AN UNOCCUPIED TRUCK POSITIONED PARALLEL TO TRAFFIC, PARKING BRAKE SET, PLACED IN 2ND GEAR (MANUAL TRANSMISSIONS / ENGINE OFF) OR PARK / NEUTRAL (AUTOMATIC TRANSMISSIONS) AND HAVE THE FRONT WHEELS ALIGNED WITH THE LANE STRIPING.

### NOTES ON NIGHTTIME WORK:

- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE
- CONSIDERED NIGHTTIME OPERATIONS. N2. ALL SIGNS, STOP / SLOW PADDLES AND RED FLAGS USED TO WARN / ALERT /
- CONTROL TRAFFIC SHALL BE RETROREFLECTIVE. N3 ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH \$107-05A, HIGH VISIBILITY APPAREL AT ALL TIMES.
- VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS OR FLASHING LED BEACONS AT ALL TIMES.
- N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF THE LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS. ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND / OR REMOVAL OPERATIONS. INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR
- MILLING MACHINE. N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL / MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY
- PRIOR TO THE START OF NIGHTTIME OPERATIONS, A WRITTEN NIGHTTIME OPERATIONS AND LIGHTING PLAN IS REQUIRED FOR APPROVAL. N10. SEE NIGHTTIME SAFETY BULLETIN, HDM §16.5.7, & STANDARD SPECIFICATIONS §619 FOR ADDITIONAL REQUIREMENTS AND CONSIDERATIONS.

# REQUIRED TREATMENT FOR PAVEMENT EDGE DROP-OFFS

DETAIL 410A: SEE NOTE 6

### PAVEMENT EDGE DROP-OFF PROTECTION MINIMUM MINIMUM DROP-OFF EDGE LINE SHOULDER MINIMUM VERTICAL TUBULAR TALL CONES SIGNS PAVEMENT DRUM CLOSURE PANEL MARKERS SPACING SPACING SPACING MARKINGS SPACING DROP-OFF AT OR WITHIN SHOULDER WITHIN 4 FT FROM TRAVELLANE 100 FT. 100 FT. 40 FT. 40 FT. NO NO SHOULDER YES 40 FT. 40 FT. NO NO NO SHOULDER 20 FT. 20 FT. NO NO NO SHOULDER YES WITHIN 4 FT. FROM TRAVEL LANE 200 FT. 200 FT. 100 FT. 100 FT. NO SHOULDER YES 2 - 6 IN. 100 FT. 100 FT. 40 FT. 40 FT. NO SHOULDER NO YES YES 40 FT. 40 FT. NO NO NO SHOULDER YES 40 FT. 40 FT. NO NO NO SHOULDER YES 6 - 24 IN. DROP-OFF OUTSIDE SHOULDER EDGE SHOULDER WIDTH < 4FT 100 FT. NO NO LOW SHOULDER YES 2 - 6 IN. 100 FT. 100 FT. NO NO NO SHOULDER YES NO NO LOW SHOULDER YES NO 40 FT. 40 FT. 6 - 24 IN. YES 40 FT. 40 FT. NO NO NO SHOULDER SHOULDER WIDTH > 4FT. YES 100 FT. 100 FT. 40 FT. 100 FT. 100 FT. 40 FT. 40 FT. LOW SHOULDER 6 - 24 IN.

# NOTES:

1. THE TABLE SHOWS SPACING FOR DRUMS OF TYPE II BARRICADES. THE SPACING SHALL BE HALVED IF OTHER CHANNELIZING DEVICES ARE USED. TYPE III BARRICADES MAY BE USED INSTEAD OF DRUMS, IF SPACE PERMITS BUT NO SEPARATE PAYMENT WILL BE MADE UNLESS

YES 40 FT. 40 FT. NO NO NO SHOULDER

- 2. FOR DROP-OFF LENGTHS SHORTER THAN THE MAXIMUM DEVICE SPACING SHOWN IN TABLE 1, OR FOR DROP-OFFS AT INTERSECTIONS, THE DEVICE SPACING SHALL BE SHORTENED TO PROVIDE ADEQUATE CHANNELIZATION AS DIRECTED BY THE ENGINEER. 3. TWO FLASHING WARNING LIGHTS SHALL BE USED AT THE BEGINNING OF EACH WORK ZONE DROP-OFF.
- 4. THE RAMP FROM THE PAVEMENT SURFACE TO THE EXCAVATED AREA SHALL NOT EXCEED THE SLOPE SHOWN IN THE TABLE. FOR CASES WHERE NO SLOPE IS SHOWN, NO SLOPE RAMP IS REQUIRED. 5. WHENEVER, IN THE OPINION OF THE ENGINEER IT IS NOT PRACTICABLE TO ACHIEVE THE DESIRED RAMP SLOPE SHOWN IN THE TABLE, THE FLATTEST PRACTICABLE RAMP SHALL BE CONSTRUCTED AND THE DEVICE SPACING SHALL MATCH THE <7 DAY SPACING, EXCEPT POSITIVE

BARRIER SHALL BE REQUIRED FOR DROP-OFFS EXCEEDING 24 INCHES ON ROADWAYS WITH TRAFFIC VOLUMES EXCEEDING 7500 VEHICLES

- 6. AT THE CONTRACTORS OPTION, REQUIRED 1:2 RAMPS MAY BE FLATTENED TO 1:4 AND DEVICE SPACING INCREASE TO 200 FEET. 7. FOR DROP-OFFS LOCATED MORE THAN 10 FEET FROM THE EDGE OF THE TRAVEL LANE, RAMPING SHALL NOT BE REQUIRED AND THE REQUIRED SPACING FOR DRUMS AND TYPE III BARRICADES SHOULD BE 100 FEET (50 FEET FOR ALTERNATE DEVICES) DRUMS OR TYPE III BARRICADES SPACED 100 FEET OR OTHER APPROVED DEVICES SPACED AT 50 FEET MAY BE SUBSTITUTED FOR POSITIVE BARRIER. SIGNS
- AND FLASHING WARNING LIGHTS SHALL BE PROVIDED AS REQUIRED FOR DROP-OFFS GREATER THEN 6 INCHES. 8. FOR WINTER SHUTDOWN PERIODS. THE CONTRACTOR SHALL RESTORE THE ROADWAY TO THE NORMAL OPERATING CONDITION. 9. FOR DROP-OFFS EXCEEDING 24 INCHES IN DEPTH FOR EXPOSURE TIME OF 7 DAYS OR LESS AND WHEN AN OFFSET OF AT EAST TWO FEET CANNOT BE PROVIDED FROM THE EDGE OF THE TRAVELED LANE TO THE DROP-OFF, ALTERNATE TRAFFIC CONTROL PLANS MAY BE REQUIRED BY THE ENGINEER.

No. DATE DESCRIPTION

2 | 10/31/22 | REVISED LOT LAYOUT

10/05/22 REVISED PER PLANNING BOARD COMMENTS

01/19/24 REVISED PER PLANNING BOARD COMMENTS

3 | 03/23/23 | REVISED GRADING FOR DRIVEWAY LAYOUT

4 04/21/23 REVISED PER ENGINEERS COMMENTS

5 05/05/23 REVISED PER ENGINEERS COMMENTS TREE PRESERVATION PLAN

# 115 | 165 | 225 | 295 | 495 | 550 | 605 | 660 | 715 125 | 180 | 245 | 320 | 540 | 600 | 660 | 720 | 780 TOWN OF NEWBURGH PLANNING BOARD APPROVAL BOX

DROP-OFF REQUIREMENTS

DEVICES MUST BE PLACED ENTIRELY ON THE PAVEMENT.

DELINEATION DEVICES.

ATTACHED TABLE 619-3.

TABLE 6H-4 FORMULAS FOR DETERMINING TAPER LENGTHS

STANDARD TAPER LENGTHS

120 | 165 | 215 | 360 |

150 | 205 | 270 | 450 | 500 |

TEMPORARY TRAFFIC CONTROL ZONE POSTED SPEED LIMIT

25 | 30 | 35 | 40 | 45 | 50 | 55 | 60 | 65

45 | 60 | 85 | 110 | 180 | 200 | 220 | 240 | 260

55 | 75 | 105 | 135 | 225 | 250 | 275 | 300 | 325

75 | 105 | 145 | 190 | 315 | 350 | 385 | 420 | 455

95 | 135 | 185 | 240 | 405 | 450 | 495 | 540 | 585

90 | 125 | 160 | 270 | 300 | 330 | 360 | 390

400

 $L = WS^2 / 60$ 

L = WS

\_ = TAPER LENGTH

LIMIT (MPH)

W = WIDTH OF OFFSET (FEET)

S = PRECONSTRUCTION POSTED SPEED

SPEED LIMIT (S) TAPER LENGTH (L)

(40 MPH) OR LESS

(45 MPH) OR MORE

TRAFFIC

**FLOW PATH** 

(FEET)

4

10

11

12

1. FOR DROP-OFFS WITHIN TEN (10) FEET OF TRAVEL LANES, THE CONTRACTOR SHALL PROVIDE TRAFFIC PROTECTION IN ACCORDANCE WITH THE PROVISIONS OF TABLE 619-3, "PAVEMENT EDGE DROP-OFF

DOCUMENTS. IN ALL CASES, CONSTRUCTION OPERATIONS SHALL BE CONDUCTED SO AS TO MINIMIZE TO

EXPOSED. AT THE CLOSE OF WORK EACH DAY, THE CONTRACTOR SHALL PROVIDE THE TREATMENT SHOWN

IN TABLE 619-3. AT THE TIME A DROP-OFF CONDITION FIRST OCCURS. THE PROTECTION TREATMENT SHALL

DROP-OFF. THE ANTICIPATED EXPOSURE TIME SHALL BE DETERMINED BY THE CONTRACTOR, SUBJECT TO

FREATMENT, THE ENGINEER DETERMINES THAT THE ANTICIPATED EXPOSURE TIME IS LIKELY TO INCREASE

VERIFICATION BY THE ENGINEER. IF AT ANY TIME SUBSEQUENT TO INSTALLATION OF THE PROTECTION

SUCH THAT ADDITIONAL PROTECTIONS IS REQUIRED. THAT INCREASE PROTECTION SHALL BE INSTALLED

AS SOON AS PRACTICABLE, AND IT SHALL BE BASED ON THE REVISED ANTICIPATED EXPOSURE TIME

MEASURED FROM THE FIRST DAY THEY DROP-OFF CONDITION EXISTED. IN ADDITION, "LOW SHOULDER:

SIGNS OR "NO SHOULDER" SIGNS, AS APPROPRIATE, SHALL BE USED FOR ALL DROP-OFFS WITHIN THE

IF A RAMP IS REQUIRED BY TABLE 619-3, IT SHALL BE CONSTRUCTED FROM THE PAVEMENT SURFACE TO

EROSION RESISTANT, FULLY COMPACTED, AND COMPATIBLE WITH THE MATERIAL IN THE EXCAVATED AREA

ANCHORED TO THE UNDERLYING COURSE. UNLESS INDICATED OTHERWISE IN THE PLANS OR PERMITTED IN

THE EXCAVATED AREA USING THE MAXIMUM SLOPE SHOWN IN THE TABLE, RAMP MATERIAL SHALL BE

WRITING BY THE ENGINEERS. CHANNELIZING DEVICES OR TEMPORARY TRAFFIC BARRIERS USED TO

PROTECT DROP-OFFS SHALL NOT INTRUDE INTO THE TRAVEL WAY TO THE EXTENT THAT THEY REDUCE

AVAILABLE LANE WIDTH TO LESS THAN 10 FEET ON ROADWAYS WITH OPERATING SPEEDS OF 45 MPH OR

LESS OR 11 FEET ON ALL OTHER ROADWAYS. CHANNELIZING DEVICES MAY BE PLACED IN THE DROP-OFF AREA ONLY FOR DEPTHS OF UP TO 6 INCHES. FOR DROP-OFFS DEEPER THAN 6 INCHES THE CHANNELIZING

THE CONTRACTOR SHALL FURNISH, ERECT, MOVE, MAINTAIN AND REMOVE DELINEATORS, CHANNELIZING

PROPERLY MARKED AT ALL TIMES EITHER BY THE USE OF DELINEATION AND CHANNELIZING DEVICES OF FLAGGERS, WHERE PRIVATE DRIVEWAYS, PEDESTRIAN OR HANDICAPPED FACILITIES EXIST, THE ENTIRE

ACCESS AREA SHALL BE KEPT SAFE AND SMOOTH FOR CONVENIENT INGRESS AND EGRESS. ANY AREA

DETERMINED BY THE ENGINEER TO BE PARTICULARLY HAZARDOUS SHALL BE MARKED BY THE USE OF

USAGE, PLACEMENT AND DESIGN OF CHANNELIZING DEVICES SHALL BE CONSISTENT WITH THE MUTCD.

ALL CHANNELIZING DEVICES SHALL BE MAINTAINED UPRIGHT, IN PROPER ALIGNMENT AND POSITION OF

THE DEVICES BY DRY SAND PLACED AT GROUND LEVEL. THE SAND SHALL BE CONTAINED IN WATERPROOF

CLOSED BAGS OR IN A WATERPROOF COMPARTMENT OF THE DEVICE SPECIFICALLY DESIGNED FOR THE

ABOVE GROUND LEVEL ON ANY OF THESE DEVICES. IF PLASTIC DRUMS ARE USED, THEY SHALL BE

TWO-PIECE DEVICES WITH ELONGATED BASES PROVIDED TO HOLD THE BALLAST. IN THE CASE OF

ONE-PIECE DEVICES, THE SAND-BAG BALLAST SHALL BE PLACED ON THE SIDE FROM WHICH TRAFFIC

USED FOR THE ATTACHMENT OF LIGHTS AS RECOMMENDED BY THE DRUM MANUFACTURER.

IF POST-MOUNTED DELINEATORS ARE USED, THEY SHALL BE SECURELY MOUNTED AND PLACED IN

DELINEATORS FOR MOUNTING ON TRAFFIC BARRIERS OR OTHER PURPOSE MAY BE CIRCULAR OR

CHOOSES TO SUBSTITUTE, NO SEPARATE PAYMENT WILL BE MADE FOR THE BARRIER. IF THE

TABLE 619-3, IT SHALL BE INSTALLED BY THE CONTRACTOR A T NO ADDITIONAL COST.

POSITIVE BARRIER IF APPROVED IN WRITING BY THE ENGINEER.

RECTANGULAR IN SHAPE AND SHALL BE CONSTRUCTED OF REFLECTIVE SHEETING HAVING A MINIMUM

A POSITIVE TRAFFIC BARRIER IN LIEU OF THE TREATMENT SHOWN IN TABLE 619-3. IF THE CONTRACTOR

CONTRACTOR'S OPERATIONS ARE DELAYED TO THE EXTENT THAT POSITIVE BARRIER IS REQUIRED BY

WHENEVER POSITIVE BARRIER IS USED OR REQUIRE BY TABLE 619-3. THE CONTRACTOR SHALL PROVIDE

TEMPORARY CONCRETE BARRIER. HOWEVER, IF ADEQUATE DEFLECTION SPACE IS AVAILABLE, AND ALL APPLICABLE DESIGN CRITERIA ARE MET, THE CONTRACTOR MAY ELECT TO SUBSTITUTE A DIFFERENT

AREA OF 20 SQUARE INCHES OR REFLECTIVE BUTTONS HAVING A MINIMUM DIAMETER OF 3 INCHES. THE CONTRACTOR MAY CHOOSE AT HIS OPTION, WITH WRITTEN APPROVAL OF THE ENGINEER TO PROVED

PURPOSE. UNDER NO CIRCUMSTANCES SHALL BALLAST BE PLACED ON TOP OF A DRUM OR AT ANY POINT

APPROACHES. IN NO CASE WILL THE USE OF STEEL DRUMS OR OPEN-TOP PLASTIC DRUMS BE PERMITTED.

WHERE WARNING LIGHTS ARE ATTACHED TO THE TOPE OF DRUMS, A BOLT, NUT AND WASHER SHALL BE

ACCORDANCE WITH THE REQUIREMENTS OF MUTCD. THEY SHALL BE PLACED ONLY BEHIND CURBING OR

TO MARK THE OUTSIDE LIMITS OF USABLE SHOULDERS. POST-MOUNTED DELINEATORS ARE NOT REQUIRED

TO BE INSTALLED BEHIND CHANNELIZING DEVICES, BUT SUCH AN INSTALLATION IS NOT PROHIBITED. OTHER

FOR USE BY TRAFFIC. THESE DEVICES SHALL PHYSICALLY SEPARATE TRAFFIC FROM THE ROADWAY

SECTION NOT TO BE USED, AND SHALL BE SPACED AS RECOMMENDED IN THE MUTCD AND IN THE

BARRICADES. OR VERTICAL PANELS SHALL BE USED TO MARK THE LIMITS OF THE TRAVEL WAY AVAILABLE

FLASHING WARNING LIGHTS CONFORMING TO THE MUTCD IN ADDITION TO THE CHANNELIZING OR

CHANNELIZING DEVICES CONSISTING OF CONES, PLASTIC DRUMS, TUBULAR MARKERS, TYPE II

DEVICES, AND TRAFFIC BARRIER AS REQUIRED BY THE CONTRACT DOCUMENTS AND AS DIRECTED BY THE

ENGINEER. IN AREAS WHERE GRADING IS BEING DONE, A SAFE AND EASILY TRAVELED ROADWAY SHALL BE

AT THE CONTRACTOR'S OPTION, A PREFORMED RAMP MAY BE USED PROVIDED IT IS ADEQUATELY

SHOULDER" SIGN WILL NOT BE NECESSARY AFTER EDGE LINES ARE INSTALLED.

FINAL SHOULDER WIDTH FOR LONG DROP-OFFS. THESE SIGNS SHALL BE PLACED BEYOND INTERSECTIONS

AND AT SPACING NOT EXCEEDING 1000 FEET. FOR DROP-OFFS LESS THAN TOW (2) INCHES DEEP, THE "LOW

THE EXTENT PRACTICABLE THE TIME, DEPTH, AND LENGTH OF DROP-OFFS TO WHICH MOTORISTS ARE

BE INSTALLED BASED ON THE ANTICIPATED NUMBER OF DAYS THE TRAFFIC WILL BE EXPOSED TO THE

PROTECTION" AND THE ACCOMPANYING NOTES. UNLESS OTHERWISE SHOWN IN THE CONTRACT

	ISSUE DATE:		
DRAWING STATUS	01/19/2024		
THIS SHEET IS PART OF THE PLAN SET ISSUED FOR	SHEET NUMBER		
CONCEPT APPROVAL	N/A	OF	N/A
☑ PLANNING BOARD APPROVAL	9	OF	10
OCDOH REALTY SUBDIVISION APPROVAL	N/A	OF	N/A
OCDOH WATERMAIN EXTENSION APPROVAL	N/A	OF	N/A
NYSDEC APPROVAL	N/A	OF	N/A
□NYSDOT APPROVAL	N/A	OF	N/A
OTHER:	N/A	OF	N/A
☐FOR BID / <del>CONSTRUCTION</del>	N/A	OF	N/A
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NEWBURGH PB #2019-02

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