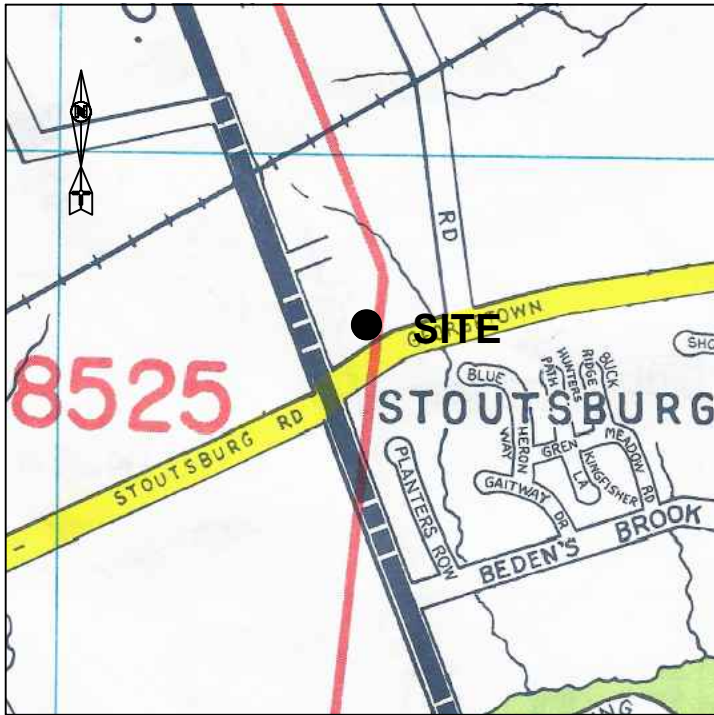


GENERAL NOTES:

1. THERE ARE NO EXISTING WETLANDS OR WETLANDS TRANSITION AREAS ONSITE OR WITHIN 200' OFFSITE AS PER THE TOWNSHIP'S NJDEP WETLANDS MAP AND NJ Geo-Web.
2. THERE ARE NO TOWNSHIP STREAM CORRIDORS AND/ OR EXISTING WATERCOURSES AS PER THE TOWNSHIP'S STREAM CORRIDORS MAP.
3. THERE ARE NO HYDRIC SOILS WITHIN THE BOUNDARIES OF THE SITE AS PER THE USDA WEB SOIL SURVEY WEBSITE.
4. NO FLOODPLAINS EXIST ON THE SUBJECT PROPERTY AS PER THE FLOOD INSURANCE RATE MAPS PUBLISHED BY FEMA FOR THE TOWNSHIP OF MONTGOMERY.
5. THERE ARE NO TOPOGRAPHIC SLOPES 15% OR GREATER ON SITE AS PER SURVEYING REFERENCES.
6. THE SUBJECT PROPERTY IS LOCATED WITHIN THE 'R-5' SINGLE FAMILY RESIDENTIAL ZONE AS DESIGNATED ON THE TOWNSHIP'S ZONING MAP.
7. THE SUBJECT PROPERTY IS SHOWN ON THE TOWNSHIP'S TAX MAP SHEET #37.
8. THE TOTAL NET AREA OF BLOCK 24001 LOT 37 IS 0.226± ACRES (9841± SQ. FT.; SEE NOTE #2 ON SHEET #2).
9. OFFICIAL NOTICE TO BE SERVED FROM CERTIFIED LIST OBTAINED FROM THE TOWNSHIP OF MONTGOMERY.
10. ARCHITECTURAL DATA FOR THE PROJECT PREPARED BY STEVEN CONSIDINE ARCHITECT ENTITLED 'NEW SINGLE FAMILY RESIDENCE FOR TAMER KHARRUBI,' DATED 7-18-22 REVISED THRU 10-23-23, SIGNED BY STEVEN CONSIDINE, RA #11454.
11. THIS PROJECT HAS BEEN DESIGNED TO BE AS CLOSE IN COMPLIANCE AS POSSIBLE WITH ANY/ ALL APPLICABLE STORMWATER ORDINANCES (SEE WAIVER REQUEST/ VARIANCE REQUEST #4 THIS SHEET).
12. THE LAND DEVELOPMENT, SOIL AND SOIL REMOVAL, AND STREETS, RECYCLING, STORM SEWERS, AND SIDEWALKS ORDINANCES AVAILABLE ON THE TOWNSHIP'S WEBSITE, AND THE LAND DEVELOPMENT RESOLUTION AND THE PUBLIC WORKS HANDBOOK AVAILABLE ON THE COUNTY'S WEBSITE WERE USED IN THE PREPARATION OF THE DESIGN SHOWN ON THESE PLANS.
13. ALL PROPOSED UTILITIES TO BE LOCATED UNDERGROUND AND SHALL BE APPROVED BY APPLICABLE AGENCIES.
14. THERE SHALL BE NO ON-SITE BURIAL OF CONSTRUCTION MATERIAL, TREES, TREES STUMPS, BRUSH OR OTHER SURPLUS MATERIAL. ALL SUCH MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.
15. PRIOR TO ANY TREE REMOVAL, LIMITS OF CLEARING IN WOODED AREAS SHALL BE DELINEATED WITH SNOW FENCE. THERE ARE NO FORESTED AREAS ON SITE ACCORDING TO THE DEFINITION IN THE TOWNSHIP'S SOIL AND SOIL REMOVAL ORDINANCE. THERE ARE NO PUBLIC TREES ON SITE AS THE RIGHT-OF-WAY ON SITE IS WITHIN THE COUNTY JURISDICTION.
16. THIS PROPOSED DEVELOPMENT WILL BE SERVED BY AN INDIVIDUAL SUBSURFACE SEWAGE DISPOSAL SYSTEM WHICH HAS BEEN APPROVED BY THE MONTGOMERY TOWNSHIP HEALTH DEPARTMENT. A PROPOSED WATER MAIN EXTENSION WILL PROVIDE POTABLE WATER FOR THE PROPERTY DEVELOPMENT.
17. EXISTING UNDERGROUND UTILITY INFORMATION SHOWN HEREON IS APPROXIMATE AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION PRIOR TO BEGINNING ANY CONSTRUCTION. THE CONTRACTOR SHALL CONTACT ONE CALL SERVICE AT 1-800-272-1000 AND OTHER LOCAL UTILITY COMPANIES AS REQUIRED FOR MARKOUT PRIOR TO ANY EXCAVATION. WHERE EXISTING UNDERGROUND UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING LOCATIONS, ELEVATIONS, MATERIALS AND SIZES. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENT AS REQUIRED TO AVOID CONFLICTS.
18. THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSES OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OF APPROVAL HAVE BEEN SATISFIED ON THE DRAWINGS.
19. SIGHT TRIANGLE EASEMENTS AT THE DRIVEWAY INTERSECTION SHALL CONFORM TO THE MUNICIPAL REGULATIONS APPLICABLE TO SAME.
20. ANY/ ALL AS-BUILT DOCUMENTS WILL BE PROVIDED BY THE LANDOWNER AS THE VARIOUS CONSTRUCTION ITEMS ARE COMPLETED.
21. IT IS ANTICIPATED THAT TRASH COLLECTION WILL BE DONE ON A WEEKLY BASIS AND THAT THE RECYCLING COLLECTION WILL BE DONE ON A BI-WEEKLY BASIS.
22. THE LANDOWNER WILL COMPLY WITH ANY/ ALL APPLICABLE REGULATIONS PERTAINING TO THE NJ WETLANDS AND NJ FLOOD HAZARD ISSUES.
23. LIST OF REQUIRED PERMITS AND/ OR APPROVALS:  
VARIANCE PLAN (MONTGOMERY TOWNSHIP BOARD OF ADJUSTMENT)  
SITE PLAN & ROAD OPENING FOR DRIVEWAY AND UTILITY CONNECTIONS (SOMERSET COUNTY PLANNING BOARD)  
EROSION CONTROL CERTIFICATION (SOMERSET UNION SOIL CONSERVATION DISTRICT)  
CONSTRUCTION PERMITS (MONTGOMERY TOWNSHIP BUILDING DEPARTMENT)  
CERTIFICATE OF OCCUPANCY (MONTGOMERY TOWNSHIP)  
DELAWARE & MARITAN CANAL COMMISSION  
SEPTIC SYSTEM (MONTGOMERY TOWNSHIP HEALTH DEPARTMENT)

- VARIANCES REQUESTED:**
1. VARIANCE REQUESTED FOR AREA AND YARD REQUIREMENTS FOR R-5 SINGLE FAMILY RESIDENTIAL ZONE LISTED IN ORDINANCE 16-4-20 AS THERE IS NO BUILDING ENVELOPE ON SITE DUE TO THE SMALL SIZE OF THE PRE-EXISTING LOT; NO EXCEPTIONS ARE PROVIDED IN THE ORDINANCE SECTION FOOTNOTES FOR A LOT OF THIS SIZE.
  2. VARIANCE REQUESTED FOR COVERAGE REQUIREMENTS FOR R-5 SINGLE FAMILY RESIDENTIAL ZONE LISTED IN ORDINANCE 16-4-20 AS THE PROPOSED DEVELOPMENT EXCEEDS THE MAXIMUM ALLOWABLE BUILDING COVERAGE AND LOT COVERAGE.
  3. VARIANCE REQUESTED FOR FENCE HEIGHT LIMIT STATED IN ORDINANCE 16-5-3B AS THE PROPOSED FENCE IS SIX (6) FEET TALL WHICH IS GREATER THAN THE MAXIMUM ALLOWABLE FENCE HEIGHT OF FOUR (4) FEET.
  4. VARIANCE REQUESTED FOR STORMWATER MANAGEMENT REQUIREMENTS LISTED IN ORDINANCE SUBSECTION 16-5.2 DUE TO THE PROJECT BEING A MINOR DEVELOPMENT AND THE SMALL SIZE OF THE PRE-EXISTING LOT BEING UNABLE TO SUPPORT STORMWATER RUNOFF QUANTITY FACILITIES SUCH AS DETENTION BASINS.



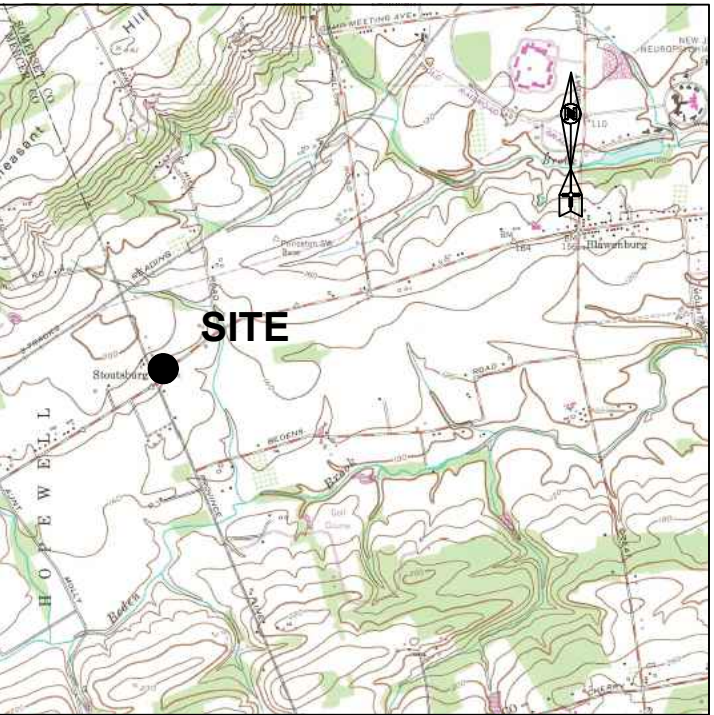
HAGSTROM ROAD MAP  
1" = 2200'±



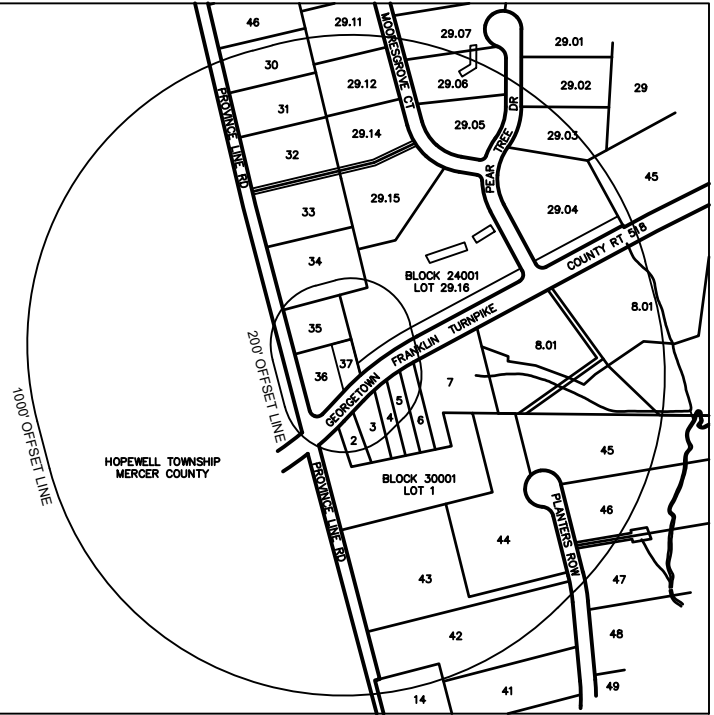
USDA WEB SOIL SURVEY  
1" = 1320'±



AERIAL IMAGING FROM NJGIN WEBSITE  
1" = 600'±



USGS QUADRANGLE MAP 'ROCKY HILL, NJ'  
1" = 2000'



TOWNSHIP TAX MAP DATA  
NOT TO SCALE

**PROJECT ENGINEER:**  
THEODORE H. BAYER, PE  
BAYER-RISSE ENGINEERING INC  
78 ROUTE 173 WEST, SUITE 6  
HAMPTON, NJ 08827  
PHONE: (908) 735-2255  
EMAIL: tbayer@bayer-risse.com

**APPLICANT'S ATTORNEY:**  
RICHARD SCHATZMAN, ESQ.  
SCHATZMAN BAKER, P.C.  
BERNARDSVILLE, NJ 07924  
PHONE: (908) 924-1199  
ASST. EMAIL: aslmok@schatzmanbakerc.com

**PROJECT ARCHITECT:**  
STEVEN CONSIDINE, RA  
63 PROSPECT STREET  
BERNARDSVILLE, NJ 07924  
PHONE: (908) 655-7781  
EMAIL: stevenconsiderinearchitect@gmail.com

PROPERTY OWNERS WITHIN 200' OF SUBJECT PROPERTY:

BELOW IS A DEPICTION OF THE UPDATED OFFICIAL LISTS OF ADJOINING LANDOWNERS PREPARED BY MONTGOMERY TOWNSHIP'S ASSISTANT TAX ASSESSOR CAROLYN S. BOWER, DATED 02-07-23, AND RECEIVED BY THIS OFFICE VIA EMAIL ON 02-07-23 AND HOPEWELL TOWNSHIP'S ASSISTANT COMMUNITY DEVELOPMENT COORDINATOR LINDA BARBIERI, DATED 04-12-23 AND APPLIED TO THIS DRAWING FOR INFORMATIONAL PURPOSES. THIS LISTING MAY BECOME OUTDATED OVER TIME AND, THEREFORE, SHOULD NOT BE USED FOR ANY OFFICIAL NOTIFICATION. ONLY THE OFFICIAL/ CERTIFIED LIST FROM THE TOWNSHIPS SHOULD BE USED FOR SUCH PURPOSES.

SUBJECT PARCEL		OWNER'S NAME & MAILING ADDRESS	PROPERTY LOCATION
BLOCK	LOT		
24001	37	TAMER KHARRUBI 34 JEREMY DRIVE DAYTON, NJ 08810	8 COUNTY ROUTE 518 SKILLMAN, NJ 08558
ADJOINERS			
MONTGOMERY TOWNSHIP			
BLOCK	LOT	OWNER'S NAME & MAILING ADDRESS	PROPERTY LOCATION
24001	29-15	YE, YUNRONG & RUBIN ZHOU 7 MOORES GROVE COURT, SKILLMAN, NJ 08558	SAME
	34	PALUS, LUKE D. & ALLISON J. 245 YOUNGS ROAD, TRENTON, NJ 08619	395 PROVINCE LINE ROAD HOPEWELL, NJ 08525
	35	MIREIDER, DAVID J. & SHAREN J. 387 PROVINCE LINE ROAD, HOPEWELL, NJ 08525	SAME
	36	SEMROD, CATHERINE 4 COUTY ROUTE 518, SKILLMAN, NJ 08558	SAME
BLOCK	LOT	OWNER'S NAME & MAILING ADDRESS	PROPERTY LOCATION
30001	1	TSUCHIHASHI, ZENTA 363 PROVINCE LINE ROAD SKILLMAN, NJ 08558	SAME
	2 & 3	TSUCHIHASHI, ZENTA 363 PROVINCE LINE ROAD, SKILLMAN, NJ 08558	COUNTY ROUTE 518 SKILLMAN, NJ 08558
	4 & 5	GO, BENITO & EONA 15 COUNTY ROUTE 518, SKILLMAN, NJ 08558	SAME
	6 & 7	SOLID ROCK UNITED PENTECOSTAL CH IN 1057 PENNINGTON ROAD, TRENTON, NJ 08618	19 COUNTY ROUTE 518 SKILLMAN, NJ 08558
HOPEWELL TOWNSHIP			
BLOCK	LOT	OWNER'S NAME & MAILING ADDRESS	PROPERTY LOCATION
14	18	ANNING, DAY G. PO BOX 58, HOPEWELL, NJ, 08525	330 PROVINCE LINE ROAD HOPEWELL, NJ 08525
	19	HUSIDE, LOUISE 386 PROVINCE LINE ROAD, HOPEWELL, NJ 08525	SAME
	23	CROGNALE, JOANNE LIVING TRUST 384 PROVINCE LINE ROAD, HOPEWELL, NJ 08525	SAME

PUBLIC UTILITY AND CABLE TV COMPANIES:		
UTILITY COMPANY	STREET ADDRESS	PHONE NUMBER
COMCAST CABLE	100 RANDOLPH ROAD SOMERSET, NJ 08873	(732) 242-3775
NEW JERSEY AMERICAN WATER	1025 LAURAL OAK ROAD VORHEES, NJ 08043	(856) 346-8200
CENTURY LINK	256 PAUL STREET BELVIDERE, NJ 07823	(866) 642-0444
PUBLIC SERVICE ELECTRIC & GAS	80 PARK PLAZA - T6B NEWARK, NJ 07102	(800) 436-7734
DEPARTMENT OF PUBLIC WORKS	100 COMMUNITY DRIVE SKILLMAN, NJ 08558	(908) 533-9338
MONTGOMERY TOWNSHIP CLERK	100 COMMUNITY DRIVE SKILLMAN, NJ 08558	(908) 533-9188
SOMERSET COUNTY PLANNING BOARD	PO BOX 3000 SOMERVILLE, NJ 08876	(908) 231-7000
NJ DEPARTMENT OF TRANSPORTATION	1035 PARKWAY AVENUE, CN600 TRENTON, NJ 08625	(609) 963-1820

REFERENCE MATERIALS & GENERAL NOTES:

1. SURVEY DATA (BOUNDARY) FOR TAMER KHARRUBI FROM BOUNDARY SURVEY ENTITLED 'PLAN OF SURVEY,' PREPARED BY BRUNSWICK SURVEYING, INC, DATED 01-13-2023, AND SIGNED BY ROBERT M. HORVATH, PLS #27476.
2. SURVEY DATA (TOPOGRAPHY) PROVIDED BY VAN CLEEF ENGINEERING ASSOCIATES, LLC AND OBTAINED FROM MONTGOMERY TOWNSHIP ENGINEERING DEPARTMENT GIS DATASET PANELS S\_092 & S\_093. ELEVATIONS ARE REFERENCED TO NAVD88 DATUM.
3. SOIL LOGS AND PARTIAL SURVEY PROVIDED BY VAN CLEEF ENGINEERING ASSOCIATES, LLC. SURVEY DATA FROM APPROVED SEPTIC SYSTEM DESIGN PREPARED BY VAN CLEEF ENGINEERING ASSOCIATES, LLC ENTITLED 'SEPTIC SYSTEM DESIGN FOR BLOCK 24001 LOT 37 SITUATED IN MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY,' DATED 02-02-2022, SIGNED BY MICHAEL K. FORD, PE #34722.
4. PROPOSED SEPTIC SYSTEM COMPONENT LOCATIONS FROM APPROVED SEPTIC SYSTEM REVISION AND PREPARED BY BAYER-RISSE ENGINEERING, INC. ENTITLED 'SEPTIC SYSTEM DESIGN ADDENDUM - 2 BEDROOM REVISION' DATED 10-20-2023, SIGNED BY THEODORE H. BAYER, PE #33806 AND APPROVED BY THE MONTGOMERY TOWNSHIP HEALTH DEPARTMENT ON 11-17-2023.
5. ARCHITECTURAL DATA FOR THE PROJECT PREPARED BY STEVEN CONSIDINE ARCHITECT ENTITLED 'NEW SINGLE FAMILY RESIDENCE FOR TAMER KHARRUBI,' DATED 7-18-22 REVISED THRU 10-23-23, SIGNED BY STEVEN CONSIDINE, RA #11454.
6. MONTGOMERY TOWNSHIP'S TAX MAPS #37 AND #66.
7. MONTGOMERY TOWNSHIP'S ZONING MAP, STREAM CORRIDORS MAP, AND NJDEP WETLANDS MAP.
8. SOMERSET COUNTY'S PUBLIC WORKS HANDBOOK DETAILS.
9. USDA WEB SOIL SURVEY WEBSITE.
10. USGS QUADRANGLE MAP: ROCKY HILL, NJ.
11. NJ-GeoWeb.
12. AERIAL IMAGING FROM NJGIN WEBSITE PANELS #F9D11/ #F9D12/ #F9D15/ #F9D16.
13. FLOOD INSURANCE RATE MAP (FIRM) FOR SOMERSET COUNTY PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) IDENTIFIED AS PANEL 238 OF 301 MAP #34035C0238E.

OWNER/ APPLICANT:

TAMER KHARRUBI  
34 JEREMY DRIVE  
DAYTON, NJ 08810  
PHONE: [REDACTED]  
EMAIL: tamerkharrubi2@ [REDACTED]

I CERTIFY THAT I AM THE OWNER OF THIS PROPERTY AND CONSENT TO THE FILING OF THIS APPLICATION.  
**04/10/2023**  
*Tamer Kharrubi*  
TAMER KHARRUBI DATE

SOMERSET COUNTY ACCEPTANCE BLOCK:

THESE PLANS ARE NOT ACCEPTED FOR CONSTRUCTION UNLESS THIS BLOCK HAS AN ACCEPTANCE STAMP AND IS INITIALED BY A STAFF MEMBER OF THE COUNTY ENGINEERING DIVISION. THE ACCEPTANCE OF THESE PLANS EXPIRES TWO (2) YEARS FROM THE DATE OF ACCEPTANCE.

MUNICIPAL APPROVAL BLOCK:

THIS PLAN WAS APPROVED BY THE ZONING BOARD OF ADJUSTMENT OF MONTGOMERY TOWNSHIP AT A MEETING HELD ON \_\_\_\_\_

BOARD CHAIRMAN \_\_\_\_\_ DATE \_\_\_\_\_

BOARD SECRETARY \_\_\_\_\_ DATE \_\_\_\_\_

TOWNSHIP ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_

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UTILITIES PLAN	SHEET 5
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SOIL EROSION & SEDIMENT CONTROL PLAN	SHEET 7
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VEHICLE MOVEMENT PLANS	SHEET 9
PLAN & PROFILE	SHEET 10

 <b>BAYER-RISSE ENGINEERING, INC.</b> 78 ROUTE 173 WEST, SUITE 6 HAMPTON, NEW JERSEY 08827 PHONE 908-735-2255 FAX 908-735-5838 <small>Certificate of Authorization No. 24G427943900</small>			
	<b>COMPLETENESS ISSUES</b>		
	TOWNSHIP HD INPUT/REVIEW COMMENTS		
REVISION DESCRIPTION		DATE	APPROVED
<b>VARIANCE PLAN COVER SHEET</b>			
Lands of Tamer Kharrubi Block 24001, Lot 37 8 County Route 518 MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY			
<b>THEODORE H. BAYER, P.E.</b> New Jersey Professional Engineer Licence No. GE33806			
DRAWN BY: MH	DESIGNED BY: MH	CHECKED BY: THB	DWG NO.: TK-1
SCALE: As Noted		DATE: April 10, 2023	SHEET: 1 of 10

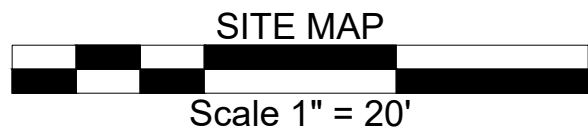




SOIL LOGS		
SL 1		October 18 , 2021
0-10"	7.5YR3/3 Dark Brown silt loam; topsoil; granular, friable.	
10-24"	7.5YR5/3 Brown gravelly silt loam; subangular blocky; no mottling; no seepage.	
24-67"	5YR4/4 Reddish Brown non-soil; fractured shale with 10% loam fillings; no mottling; seepage at 60".	
>67"	Machine refusal.	
SL 2		October 18 , 2021
0-12"	7.5YR3/3 Dark Brown silt loam; topsoil; granular, friable.	
12-34"	7.5YR5/4 Brown gravelly silt loam; subangular blocky; no mottling; no seepage.	
34-73"	5YR4/4 Reddish Brown non-soil; fractured shale with 10% silt loam fillings; no mottling; seepage at 73".	
>73"	Machine refusal.	
SL 3		October 18 , 2021
0-12"	7.5YR3/3 Dark Brown loam; topsoil; granular, friable.	
12-24"	7.5YR5/4 Brown loam; subangular blocky; no mottling; no seepage.	
24-67"	5YR4/4 Reddish Brown non-soil; fractured shale with 10% silt loam fillings; no mottling; no seepage.	
67-74"	5YR4/4 Reddish Brown non-soil; fractured shale with 5% silt loam fillings; no mottling; seepage at 73".	
>74"	Machine refusal.	
SL 4		October 18 , 2021
0-12"	7.5YR3/3 Dark Brown loam; topsoil; granular, friable.	
12-24"	7.5YR5/4 Brown loam; subangular blocky; no mottling; no seepage.	
24-75"	5YR4/4 Reddish Brown non-soil; fractured shale with 10% silt loam fillings; no mottling; no seepage.	
75-77"	5YR4/4 Reddish Brown non-soil; fractured shale with 5% loam fillings; no mottling; seepage at 75".	
>77"	Machine refusal.	
SL 5		October 18 , 2021
0-16"	7.5YR3/3 Dark Brown clay loam; topsoil; granular, friable.	
16-25"	7.5YR5/4 Brown silt loam; subangular blocky; no mottling; no seepage.	
25-100"	5YR4/4 Reddish Brown non-soil; fractured shale with 15% clay loam fillings; no mottling; no seepage.	
>100"	Machine refusal.	
SL 6		October 18 , 2021
0-12"	7.5YR3/3 Dark Brown silty clay loam; topsoil; granular, friable.	
12-25"	7.5YR5/4 Brown silt loam; subangular blocky; no mottling; no seepage.	
25-91"	5YR4/4 Reddish Brown non-soil; fractured shale with 10% clay loam fillings; no mottling; seepage at 80".	
>91"	Machine refusal.	
SL 0803-1		August 3 , 2023
0-8"	Topsoil with fine roots.	
8-26"	7.5YR5/4 Brown silt loam; subangular blocky, friable; 30-40% gravel; no mottling; no seepage.	
26-78"	5YR4/4 Reddish Brown non-soil; common. medium, faint mottling (5YR4/2 Dark Reddish Gray) at 30"; moderate seepage at 42".	
>78"	Machine refusal.	
SL 0803-2		August 8 , 2023
0-12"	Topsoil with fine roots.	
12-34"	7.5YR5/4 Brown silt loam; subangular blocky, friable ; no mottling; no seepage.	
34-73"	5YR4/4 Reddish Brown non-soil; no mottling; moderate seepage at 44".	
>73"	Machine refusal.	

- NOTES:
- NO BUILDING ENVELOPE EXISTS ON THE PROPERTY.
  - GROSS LOT AREA IS 0.272 ACRES (11,828 SF); THIS ACREAGE INCLUDES AREAS WITHIN THE PUBLIC RIGHT-OF-WAY. NET LOT AREA IS 0.244 ACRES (10,645 SF); THIS ACREAGE DOES NOT INCLUDE AREAS WITHIN THE PUBLIC RIGHT-OF-WAY.
  - SOIL TEST LOCATIONS REPRODUCED FROM VAN CLEEF ENGINEERING ASSOCIATES, LLC SEPTIC DESIGN (SEE REFERENCE #3, SHEET #1). THIS OFFICE DOES NOT HAVE INFORMATION REGARDING THE SOIL TESTS PERFORMED IN 1996.
  - THERE ARE NO WETLANDS, WETLANDS TRANSITION AREAS, STREAM CORRIDORS, AND/ OR WATERCOURSES ONSITE OR WITHIN 200' OFFSITE AS PER TOWNSHIPS STREAM CORRIDORS AND NUDEP WETLANDS MAPS (SEE REFERENCE #7, SHEET #1).
  - THERE ARE NO FLOODPLAINS, FLOOD HAZARD AREAS, AND/ OR FLOODWAYS AS PER THE FIRM MAPS PUBLISHED BY FEMA FOR THE TOWNSHIP OF MONTGOMERY (SEE REFERENCE #13, SHEET #1).

 <b>BAYER-RISSE ENGINEERING, INC.</b> 78 ROUTE 173 WEST, SUITE 6 HAMPTON, NEW JERSEY 08827 PHONE 908-735-2255 FAX, 908-735-5838 <small>Certificate of Authorization No. 24G427943900</small>				
		COMPLETENESS ISSUES	12/01/23	THB
		TOWNSHIP HD INPUT/REVIEW COMMENTS	06/06/23	THB
		REVISION DESCRIPTION	DATE	APPROVED
 <b>THEODORE H. BAYER, P.E.</b> New Jersey Professional Engineer Licence No. GE33806		<b>VARIANCE PLAN</b> <b>EXISTING CONDITIONS &amp; DEMO</b>		
		Lands of Tamer Kharrubi Block 24001, Lot 37 8 County Route 518 MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY		
		DRAWN BY: MH	DESIGNED BY: MH	CHECKED BY: THB
		DWG NO.: TK-2	BEE JOB#: 23-2586	
SCALE: As Noted		DATE: April 10, 2023	SHEET: 2 of 10	




A) EXISTING NON-CONFORMING ISSUE AS PER SURVEYING REFERENCES  
B) EXISTING NON-CONFORMING ISSUE AS PER SURVEYING REFERENCES  
C) EXISTING NON-CONFORMING ISSUE AS PER SURVEYING REFERENCES  
D) EXISTING NON-CONFORMING ISSUE AS PER SURVEYING REFERENCES  
E) PROPOSED NON-CONFORMING ISSUE AS PER CLIENT'S DIRECTIONS  
F) PROPOSED NON-CONFORMING ISSUE AS PER CLIENT'S DIRECTIONS  
G) PROPOSED NON-CONFORMING ISSUE AS PER CLIENT'S DIRECTIONS  
H) PROPOSED NON-CONFORMING ISSUE AS PER CLIENT'S DIRECTIONS  
I) PROPOSED NON-CONFORMING ISSUE AS PER CLIENT'S DIRECTIONS

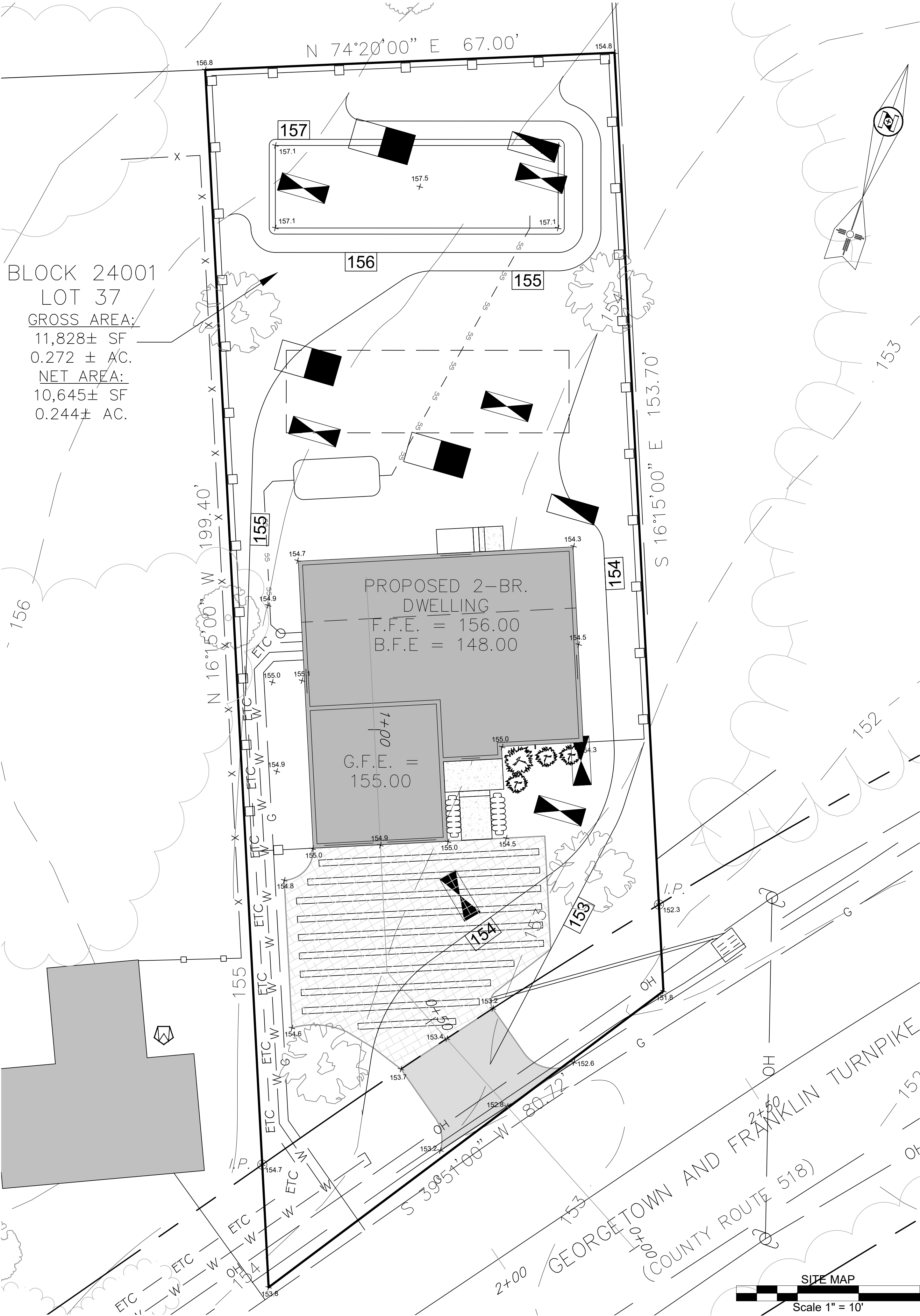
RELIEF REQUIRED FROM ZBA FOR THE FOLLOWING:

CH 16-4.2D) - PRINCIPAL BUILDING AND YARD SETBACK EXCEED THE MAXIMUM ALLOWABLE LOT COVERAGE  
CH 16-4.2D) - INSUFFICIENT FRONT YARD SETBACK FOR THE PRINCIPAL BUILDING  
CH 16-4.2D) - INSUFFICIENT SIDE YARD SETBACK FOR THE PRINCIPAL BUILDING  
CH 16-4.2D) - INSUFFICIENT REAR YARD SETBACK FOR THE PRINCIPAL BUILDING  
CH 16-4.2D) - PRINCIPAL BUILDING EXCEEDS THE MAXIMUM ALLOWABLE BUILDING COVERAGE  
CH 16-4.2D) - LOT BUILDING ENVELOPE FOR R-5 ZONE DOES NOT EXIST

LOT COVERAGES TABLE					
EXISTING CONDITION			PROPOSED CONDITION		
COVERAGE ITEM	AREA	% OF LOT	COVERAGE ITEM	AREA	% OF LOT
CONCRETE AREAS	411 SF	3.48	DWELLING	1789 SF	15.13
			DRIVEWAY (BITUMINOUS & POROUS)	1520 SF	12.85
			CONCRETE AREAS	104 SF	0.88
			MISC. AREA (STEPS/LANDING)	31 SF	0.26
TOTALS (AREA = 11828± SF)	411 SF	3.48	TOTALS (AREA = 11828± SF)	3444 SF	29.12

 <p><b>BAYER-RISSE ENGINEERING, INC.</b>  78 ROUTE 173 WEST, SUITE 6  HAMPTON, NEW JERSEY 08827  PHONE 808-735-2255 FAX. 808-735-5838</p> <p style="font-size: small;">Certificate of Authorization No. 344G247943900</p>					
	COMPLETENESS ISSUES		12/01/23		
	TOWNSHIP HD INPUT/REVIEW COMMENTS		06/06/23		
	REVISION DESCRIPTION		DATE		
<p><b><i>VARIANCE PLAN</i></b></p> <p><b><i>PROPOSED CONDITIONS</i></b></p>					
<p>Lands of Tamer Kharrubi</p> <p>Block 24001, Lot 37</p> <p>8 County Route 518</p> <p>MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY</p>					
<p><b>THEODORE H. BAYER, P.E.</b></p> <p>New Jersey Professional Engineer Licence No. GE33806</p>					
DRAWN BY:		DESIGNED BY:		CHECKED BY:	
MH		MH		THB	
				TK-3	
SCALE:		As Noted		DATE: April 10, 2023	
				SHEET: 3 of 10	
				23-2596	





BLOCK 24001  
LOT 37  
GROSS AREA:  
11,828± SF  
0.272 ± AC.  
NET AREA:  
10,645± SF  
0.244± AC.

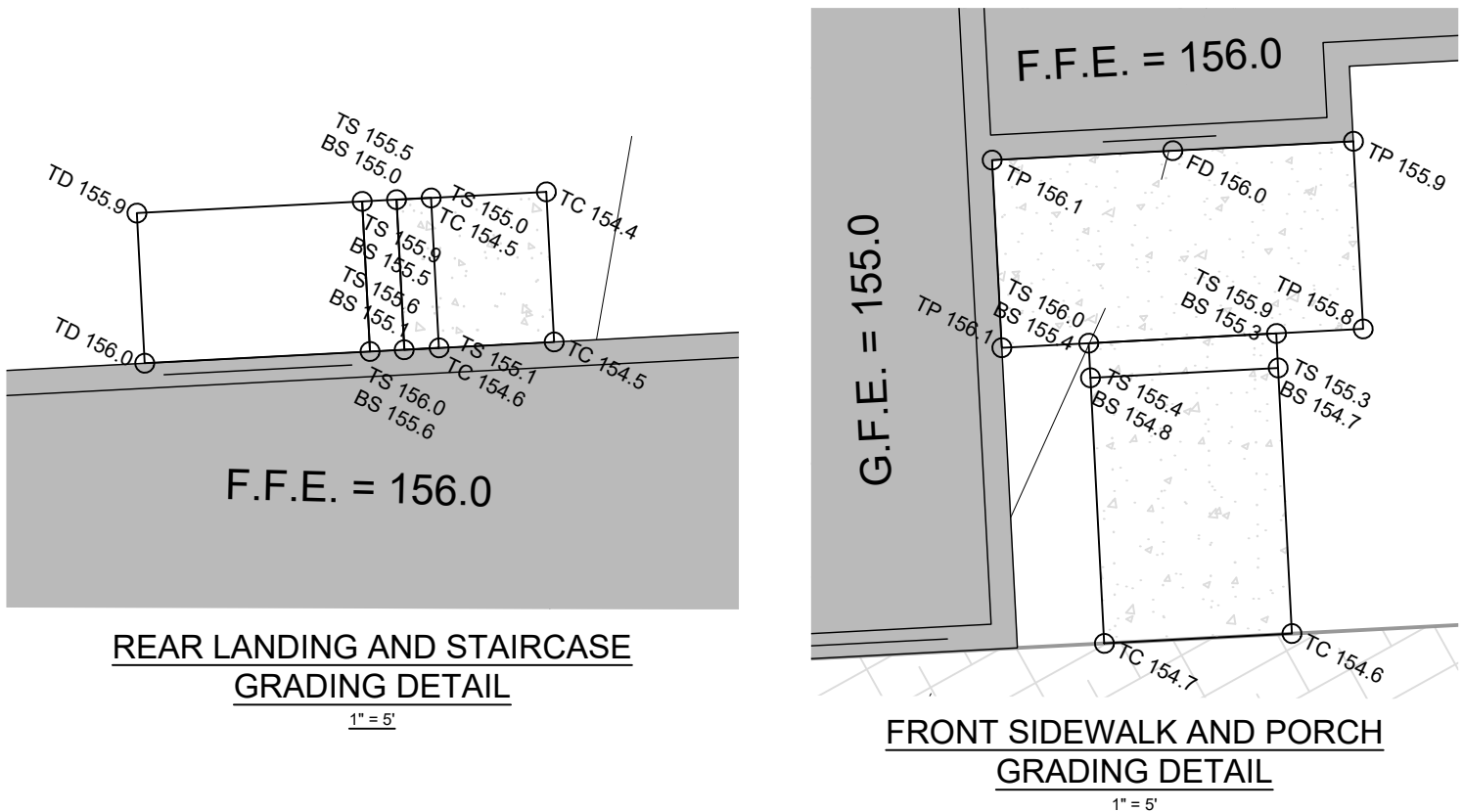
**Cut-and-Fill Analysis for 8 County Rt. 518 (Block 24001, Lot 37)**  
**Montgomery Township, Somerset County, NJ**

Existing Conditions Volumes						
Contour Elev	Plan Area (sf)	Avg Plan Area (sf)	Vertical Distance (ft)	Volume Slice (cf)	Volume Total (cy)	
156.0	402.97	1492.08	1.00	1492.08	1021.49	
155.0	2581.18	5266.23	1.00	5266.23	966.23	
154.0	7951.28	9447.80	1.00	9447.80	771.19	
153.0	10944.32	11374.23	1.00	11374.23	421.27	
152.0	11804.14	11816.33	1.00	11816.33	437.64	
151.0	11828.51					

Proposed Conditions Volumes						
Contour Elev	Plan Area (sf)	Avg Plan Area (sf)	Vertical Distance (ft)	Volume Slice (cf)	Volume Total (cy)	
157.0	747.02	7760.70	1.00	7760.70	1217.30	
156.0	14774.38	8717.87	1.00	8717.87	929.87	
155.0	2661.36	6082.55	1.00	6082.55	606.98	
154.0	9503.74	10305.96	1.00	10305.96	381.70	
153.0	11108.17	11468.34	1.00	11468.34	424.75	
152.0	11828.51					

Additional Excavation Volumes							
Excavation Location	Top Elev.	Bottom Elev.	Vertical Distance (ft)	Plan Area (sf)	Excavation Volume (cf)	Excavation Volume (cy)	Excavation Total (cy)
Septic	-	-	7.0	804.0	5628.0	208.4	208.4
Dwelling	154.0	145.5	8.5	840.5	7144.3	264.6	473.0
Driveway Apron	-	-	0.625	274.86	171.8	6.4	479.4
Concrete	-	-	0.67	104.09	69.7	2.6	482.0
Driveway	-	-	1.44	1022.62	1472.6	54.5	536.5

Volume of Soil to be Imported/Exported			
Existing to Prop. (cy)	Additional Exc. (cy)	Total Soil Volume (cy)	Import or Export
-195.8	536.5	340.7	Export

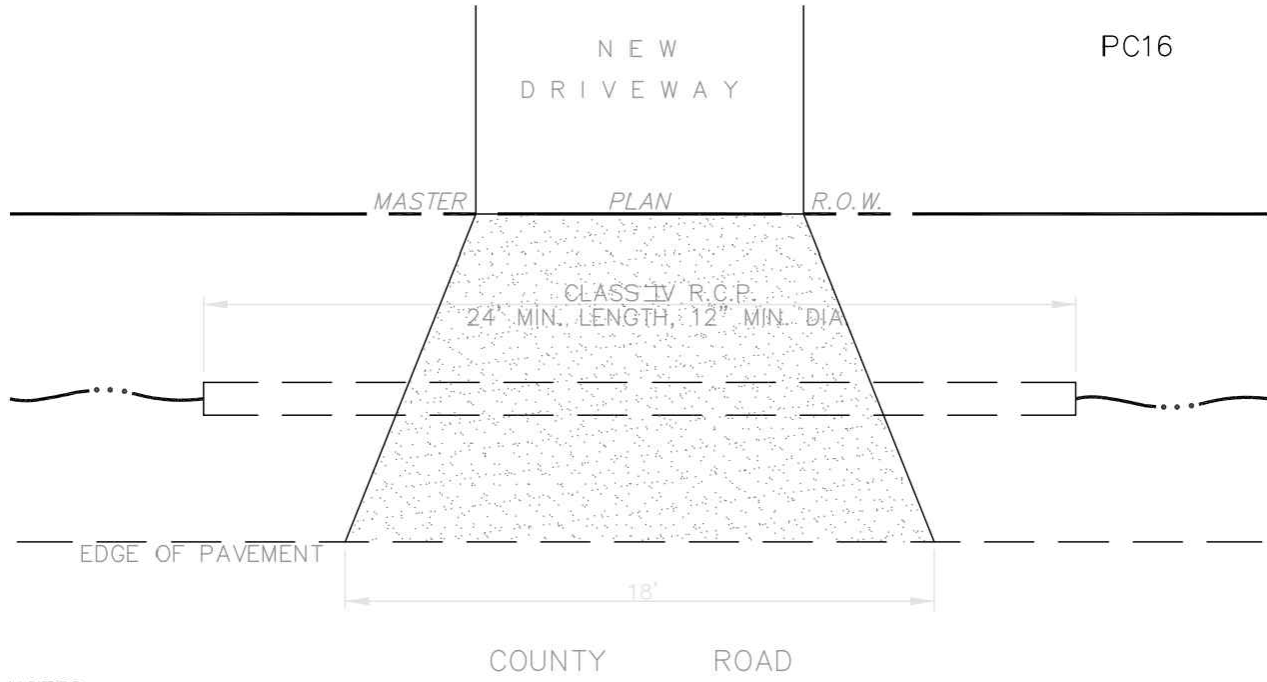


- NOTES:**
1. THIS DRIVEWAY APRON DETAIL IS TO SHOW THE PROPOSED CONDITIONS COMPARED TO THE COUNTY'S STANDARD DRIVEWAY APRON DETAIL SHOWN HEREON.
  2. THE PROPOSED DRIVEWAY APRON DOES NOT UTILIZE A PIPE TO CONVEY THE FLOW OF STORMWATER. THE EXISTING VALLEY GRADING ALONG THE EDGE OF PAVEMENT IS ALTERED TO MAINTAIN THE EXISTING VALLEY GUTTER.

**STANDARD CONSTRUCTION NOTES FOR ROAD IMPROVEMENTS**

1. Prior to the initiation of any excavation or construction within any street, road, or right of way under the jurisdiction of the Somerset County Board of Chosen Freeholders, a Somerset County Road Opening Permit shall be obtained from the Office of the County Engineer.
2. The Office of the County Engineer is to be notified seventy-two (72) hours in advance of commencement of construction of any improvements under the jurisdiction of the County of Somerset. Grade construction sheets will be submitted at this time. These grade construction sheets are to be signed and sealed by a professional land surveyor.
3. As indicated in the "Manual on Uniform Traffic Control Devices," proper and sufficient construction warning signs are to be provided and maintained by contractors performing construction work along County roads. Said signs are to be maintained until construction is completed and approved by the appropriate County inspection personnel.
4. All improvements under the jurisdiction of the County of Somerset are to be constructed in accordance with Somerset County Specifications.
5. All mailboxes, located within the construction improvements in the County R.O.W. will be reset in accordance with the owner of the mailbox and the postmaster.
6. Information monuments, markers, disks, rivets of the National Geodetic Control Survey may be obtained from the New Jersey Department of Transportation, Geodetic Division, 1035 Parkway Avenue, Trenton, NJ, telephone #(609) 530-5641; or the Somerset County Engineering Division, telephone #(908) 231-7024, ext. 7512.
7. The New Jersey Geodetic Control Survey, at the above address, is to be notified two (2) weeks in advance of commencement of construction of any improvements in order to preserve the resetting of existing monuments, or installation of new monuments if required by the County.

Prepared by: Somerset County Department of Public Works

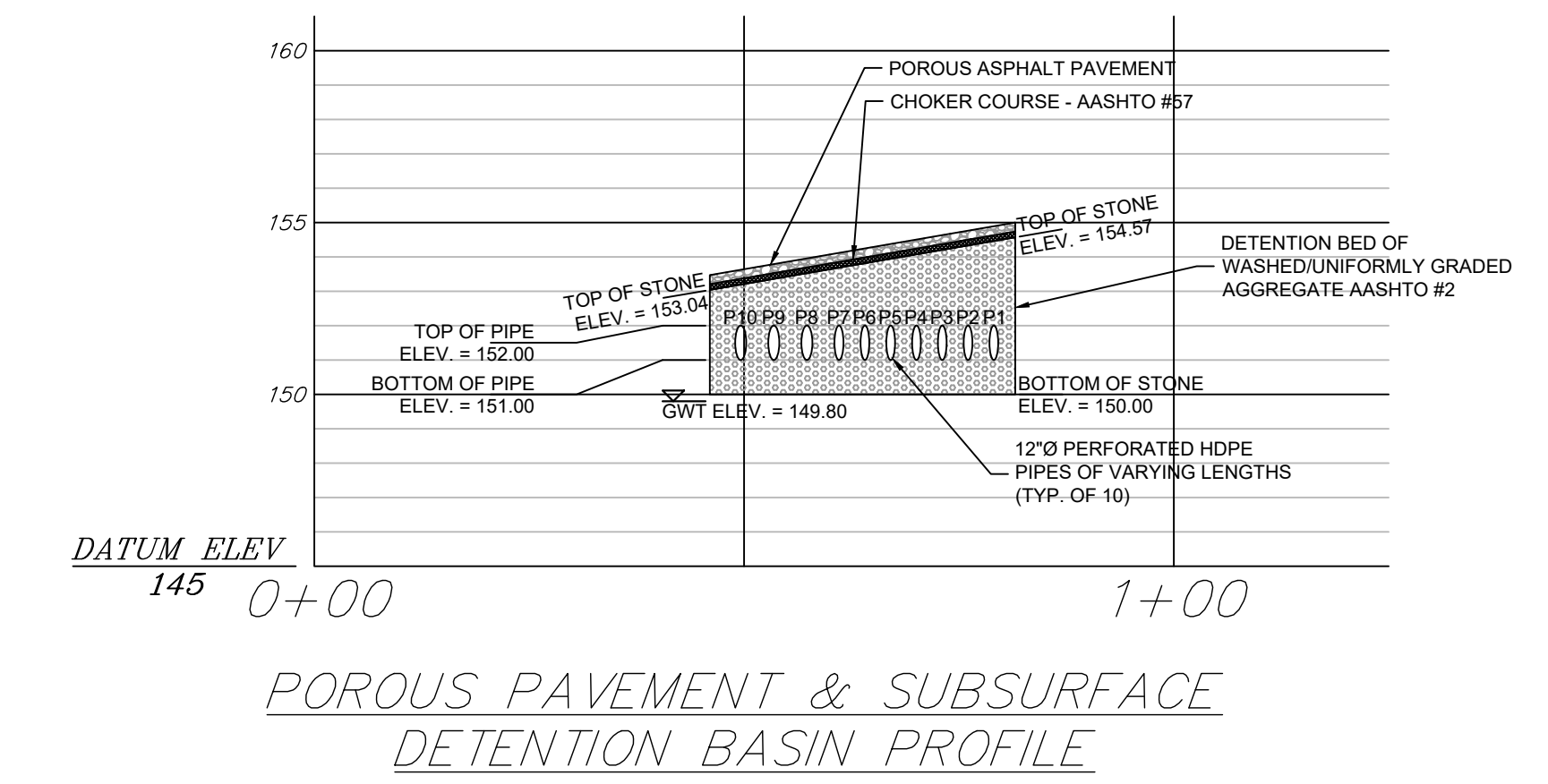
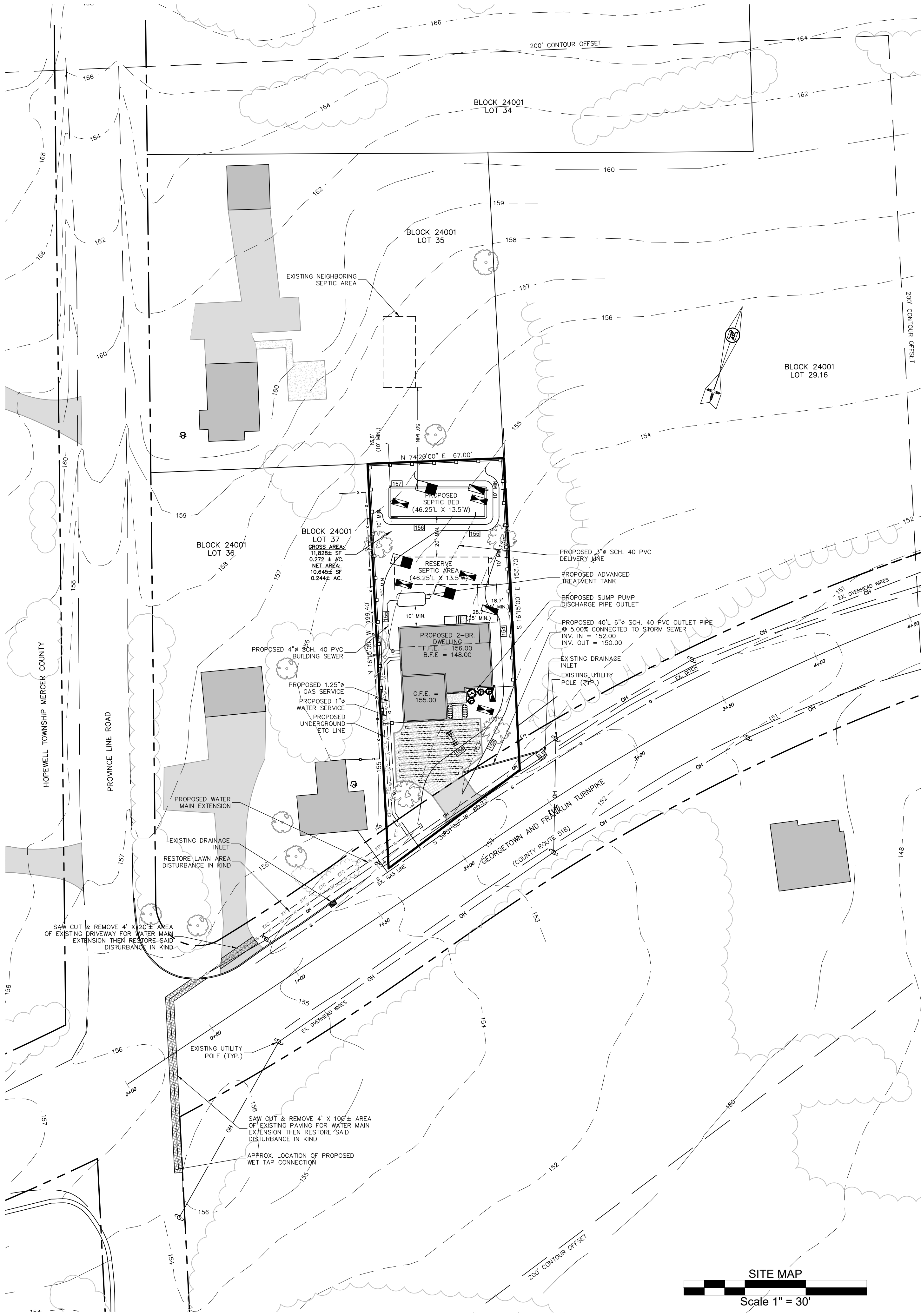


- NOTES:**
1. THE PAVED DRIVEWAY APRON (SHADED AREA ABOVE) SHALL BE COMPOSED OF BITUMINOUS CONCRETE SURFACE COURSE, 1 1/2" THICK, AND BITUMINOUS STABILIZED BASE COURSE, 3" THICK. THE APRON SHALL BE A MINIMUM OF 10' FROM THE EDGE OF THE PAVEMENT, OR TO THE MASTER PLAN R.O.W. PROFILE SHALL NOT EXCEED 6% WITHIN COUNTY R.O.W.
  2. A ROAD-OPENING PERMIT IS REQUIRED BEFORE CONSTRUCTION COMMENCES IN THE COUNTY R.O.W.
  3. THE COMPLETED DRIVEWAY MUST NOT IMPEDE THE FLOW OF STORMWATER ALONG THE COUNTY ROAD. IF NECESSARY, A PIPE IS TO BE INSTALLED AS ILLUSTRATED ABOVE. IF A PIPE IS NOT NECESSARY, THE APRON SHALL BE CONSTRUCTED TO CONVEY FLOWS OVER IT.
- DRIVEWAY APRON**  
N.T.S.

- NOTES:**
1. CONTRACTOR TO MAINTAIN POSITIVE GRADING ON WEST SIDE OF PROPOSED DWELLING TO DIRECT FLOW INTO VALLEY GUTTER ALONG ROAD.
  2. THE ESTIMATED EXISTING VOLUME OF SOIL ABOVE ELEVATION 151.00 IS 1021± CU. YDS. THE ESTIMATED PROPOSED VOLUME OF SOIL ABOVE ELEVATION 152.00 AFTER GRADING IS 1217± CU. YDS., AND THE ESTIMATED PROPOSED VOLUME OF SOIL FROM ADDITIONAL EXCAVATIONS IS 536± CU. YDS. A NET EXPORT OF 340± CU. YDS. OF SOIL IS ESTIMATED.
  3. THE VOLUME OF MATERIAL TO BE IMPORTED/ EXPORTED DOES NOT CONSIDER ANY FILL MATERIAL RELATED TO THE INSTALLATION OF THE PREVIOUSLY APPROVED SEPTIC SYSTEM (SEE REFERENCE #4, SHEET #1).
  4. IT IS ESTIMATED THAT TWENTY-SEVEN (25) 15 CU. YDS. DUMPTRUCKS WILL BE REQUIRED TO REMOVE THE EXCESS SOIL FROM THE SITE. EXACT SIZE AND DETAILS OF THE DUMPTRUCKS, AS WELL AS THE HAULING ROUTE, ARE TO BE DETERMINED BY THE APPLICANT'S CONTRACTOR AND ARE TO BE APPROVED BY THE TOWNSHIP ENGINEER IF NECESSARY.
  5. ALL TOPSOIL MOVED DURING THE COURSE OF CONSTRUCTION IS TO BE REDISTRIBUTED ONSITE SO AS TO PROVIDE ALL AREAS OF LAWN AND OPEN SPACE WITH A MINIMUM FOUR INCHES (4") OF COVER.
  6. FINISHED SOIL SURFACES SHALL BE PITCHED 2% (MIN.) AWAY FROM FOUNDATION OF DWELLING.
  7. AN AS-BUILT SURVEY OF THE HORIZONTAL AND VERTICAL LOCATION OF THE FOUNDATION FOOTING SHALL BE SUBMITTED TO THE ZONING OFFICER AND TOWNSHIP ENGINEER PRIOR TO CONSTRUCTION OF FOUNDATION WALL.
  8. AN AS-BUILT GRADING PLAN SHALL BE SUBMITTED TO THE TOWNSHIP ENGINEER PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

 <b>BAYER-RISSE ENGINEERING, INC.</b> 78 ROUTE 173 WEST, SUITE 6 HAMPTON, NEW JERSEY 08827 PHONE 908-735-2255 FAX 908-735-5838 <small>Certificate of Authorization No. 24G427943900</small>	COMPLETENESS ISSUES			12/01/23	THB
	TOWNSHIP HD INPUT/REVIEW COMMENTS			06/06/23	THB
	REVISION DESCRIPTION			DATE	APPROVED
	<b>VARIANCE PLAN GRADING PLAN</b>				
 <b>THEODORE H. BAYER, P.E.</b> New Jersey Professional Engineer Licence No. GE33806	Lands of Tamer Kharrubi Block 24001, Lot 37 8 County Route 518 MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY				
	DRAWN BY: MH	DESIGNED BY: MH	CHECKED BY: THB	DWG NO.: TK-4	BEE JOB#: 23-2586
SCALE: As Noted			DATE: April 10, 2023	SHEET: 4 of 10	



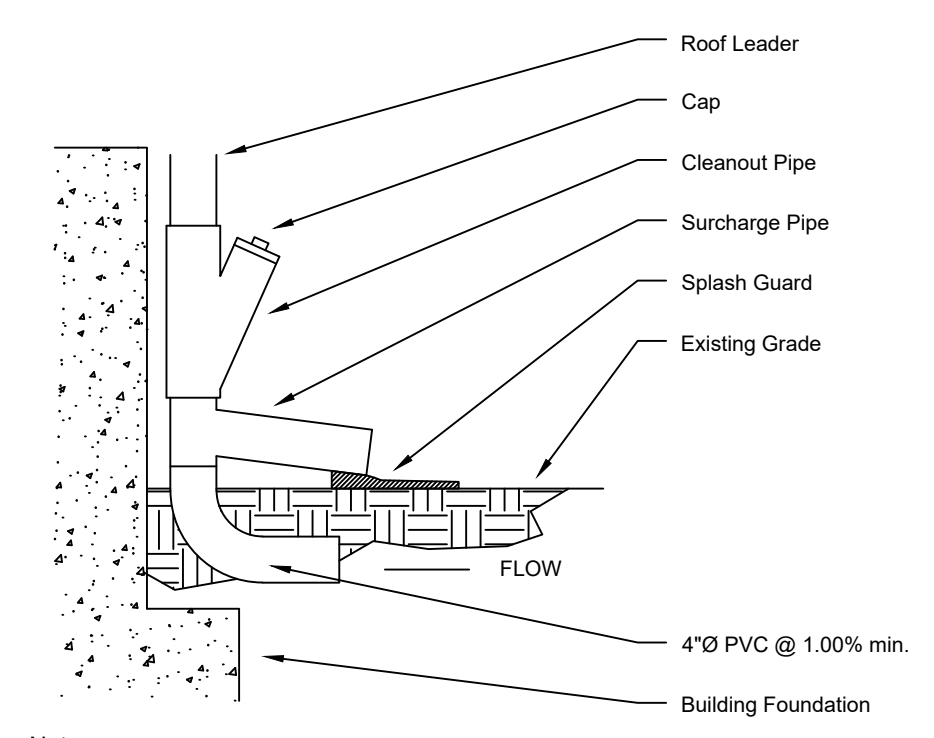
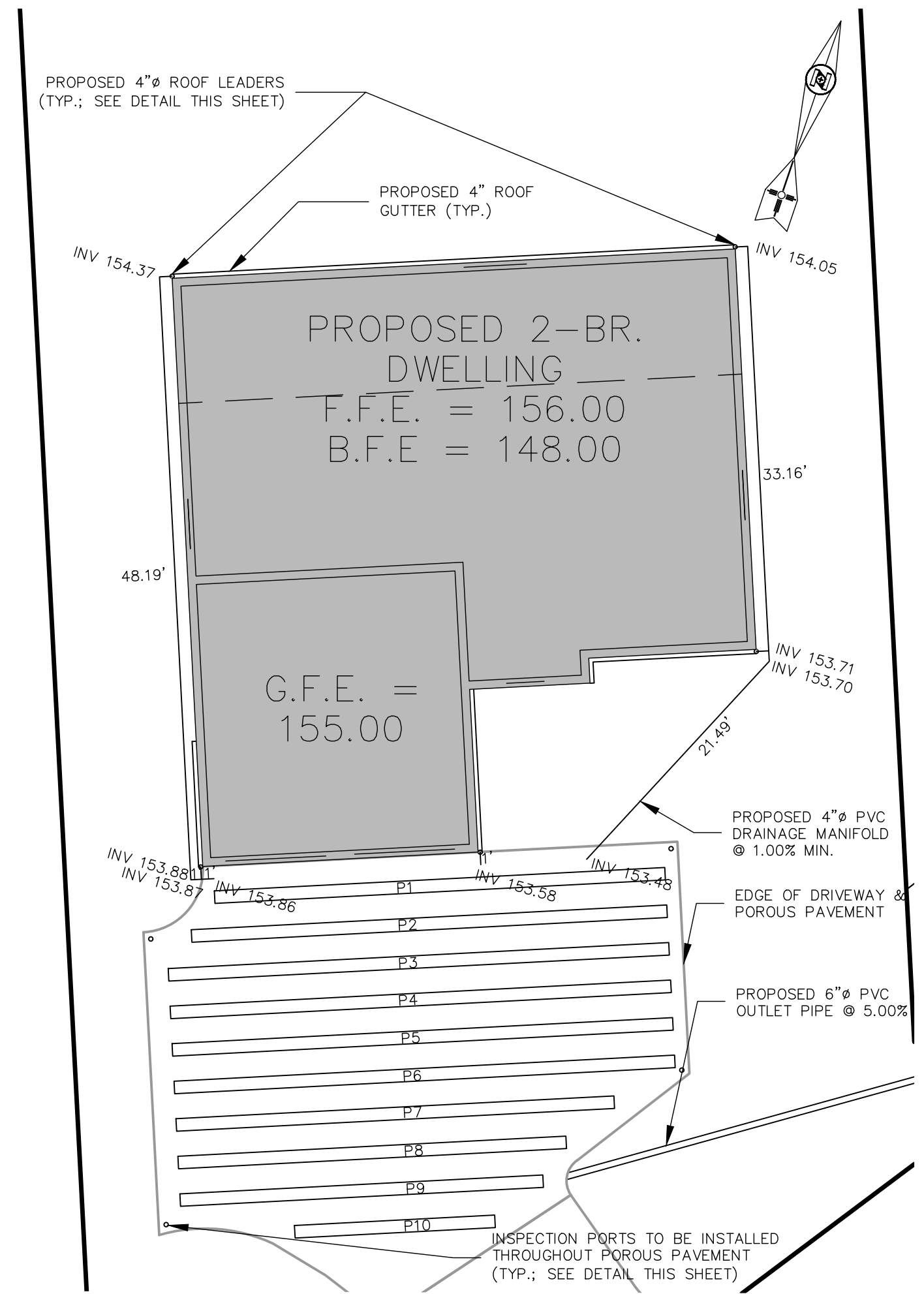


STORMWATER MANAGEMENT BMP SETBACK TABLE (A)				
OBJECT	MINIMUM SETBACK (FEET)	EXISTING CONDITION	PROPOSED CONDITION	STATUS/ COMMENT
PROPERTY LINE	10	---	12.02	CONFORMING
RIGHT-OF-WAY LINE	10	---	0.00 (B)	NON-CONFORMING
GARAGE SLAB ON GRADE	10	---	0.00 (C)	NON-CONFORMING
BASEMENT WALL/FOUNDATION	25	---	13.60 (D)	NON-CONFORMING
NEIGHBORING WELL (LOT 36)	50	---	20.96 (E)	NON-CONFORMING
PRIMARY SEPTIC FIELD	50	---	99.20	CONFORMING
RESERVE SEPTIC FIELD	50	---	65.66	CONFORMING

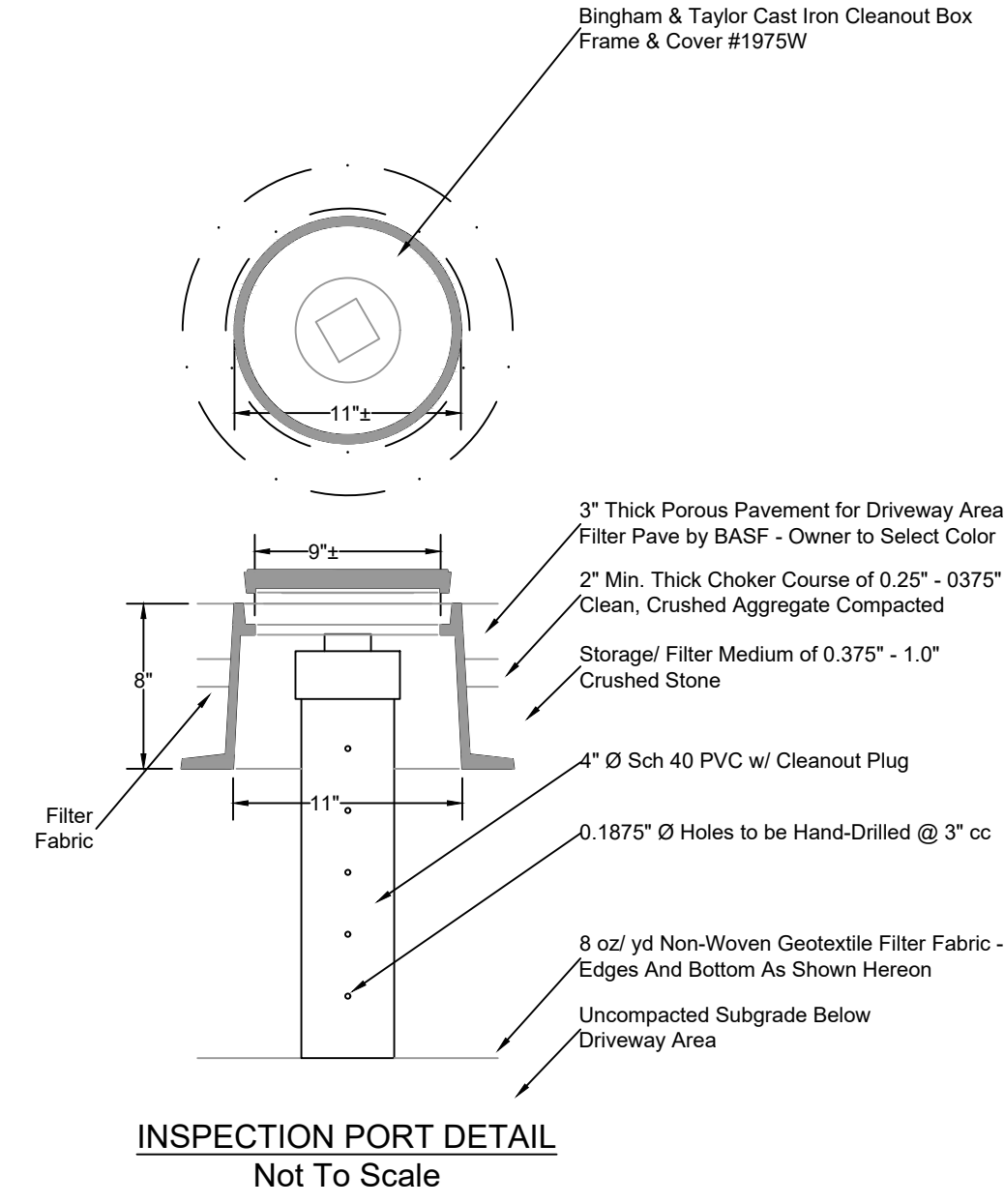
(A) SETBACK DISTANCES FROM TOWNSHIP'S LAND DEVELOPMENT ORDINANCE CHAPTER 16-5.21  
(B) PROPOSED NON-CONFORMING ISSUE AS REQUIRED TO MEET STORMWATER MANAGEMENT REQUIREMENTS  
(C) PROPOSED NON-CONFORMING ISSUE AS REQUIRED TO MEET STORMWATER MANAGEMENT REQUIREMENTS  
(D) PROPOSED NON-CONFORMING ISSUE AS REQUIRED TO MEET STORMWATER MANAGEMENT REQUIREMENTS  
(E) PROPOSED NON-CONFORMING ISSUE AS REQUIRED TO MEET STORMWATER MANAGEMENT REQUIREMENTS

DETENTION BASIN PIPE LENGTHS (FT.)	
PIPE NUMBER	LENGTH
P1	36
P2	38
P3	40
P4	40
P5	40
P6	40
P7	35
P8	31
P9	29
P10	16

RELIEF REQUIRED FROM ZBA FOR THE FOLLOWING:  
(CH 16-5.2C(3)) - UNABLE TO MEET STORMWATER QUANTITY REDUCTION REQUIREMENTS DUE TO SITE CONSTRAINTS  
(CH 16-5.2) - INSUFFICIENT SETBACK TO THE RIGHT-OF-WAY LINE  
(CH 16-5.2) - INSUFFICIENT SETBACK TO THE GARAGE SLAB ON GRADE  
(CH 16-5.2) - INSUFFICIENT SETBACK TO THE BASEMENT WALL/FOUNDATION  
(CH 16-5.2) - INSUFFICIENT SETBACK TO NEIGHBORING WELL



- Notes:
- All roof gutters shall be equipped with gutter guards.
  - All roof leaders shall be connected to the project's stormwater management system.
  - All drainage manifold pipes below motor vehicle services shall be Sch. 80 PVC.



PROFILE VIEWS  
HORIZ. 1"=20'  
VERT. 1"=5'

- NOTES:
- FOUR (4) COPIES OF THE FINAL AS-BUILT PLAN SHOWING THE INSTALLED LOCATION OF THE PROPOSED UTILITY SERVICES SHALL BE PROVIDED TO THE TOWNSHIP ENGINEER.
  - ROADWAY OPENING FOR WATER MAIN EXTENSION AND GAS UTILITY CONNECTION TO BE RESTORED TO EXISTING GRADE AND USE THE FOLLOWING PAVEMENT SPECIFICATIONS OR APPROVED EQUAL: DENSE GRADED AGGREGATE BASE COURSE, 6" THICK; SUPERPAVE HMA 19M64 BASE COURSE, 6" THICK; AND SUPERPAVE HMA 9.5M64 SURFACE COURSE, 2" THICK.
  - SEE TRAFFIC CONTROL PLAN DETAIL ON SHEET #9 FOR UTILITY WORK TO BE PERFORMED IN COUNTY RIGHT-OF-WAY.
  - DRAINAGE MANIFOLD PIPES UNDER DRIVEWAY TO BE SCH. 80 PVC.

**BAYER-RISSE ENGINEERING, INC.**  
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HAMPTON, NEW JERSEY 08827  
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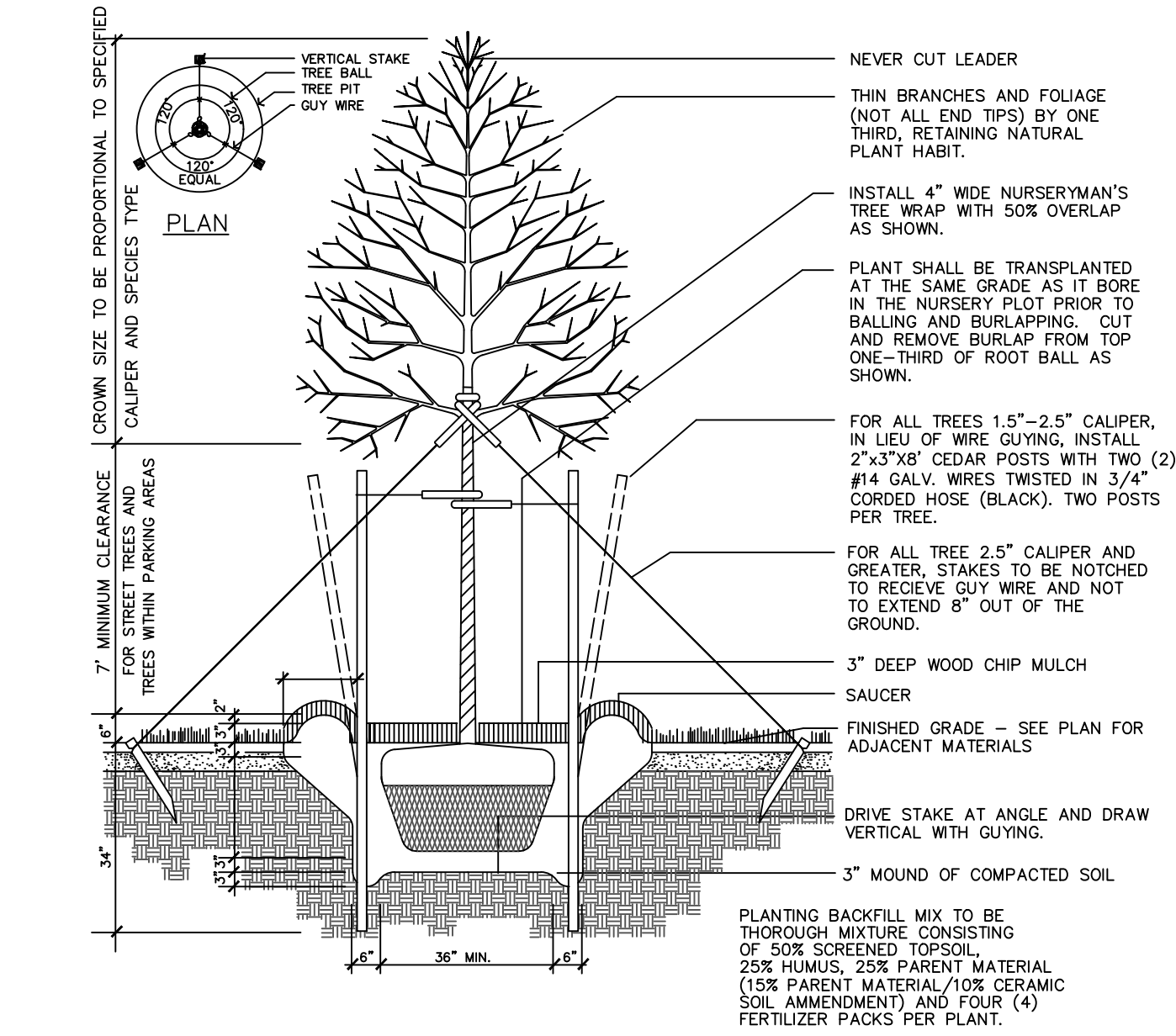
**THEODORE H. BAYER, P.E.**  
New Jersey Professional Engineer Licence No. GE33806

COMPLETENESS ISSUES	12/01/23	THB
TOWNSHIP HD INPUT/REVIEW COMMENTS	06/06/23	THB
REVISION DESCRIPTION	DATE	APPROVED
<b>VARIANCE PLAN UTILITIES PLAN</b>		
Lands of Tamer Kharrubi Block 24001, Lot 37 8 County Route 518 MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY		
DRAWN BY: MH	DESIGNED BY: MH	CHECKED BY: THB
DWG NO.: TK-5	BRE JOB#: 23-2586	
SCALE: As Noted	DATE: April 10, 2023	SHEET: 5 of 10



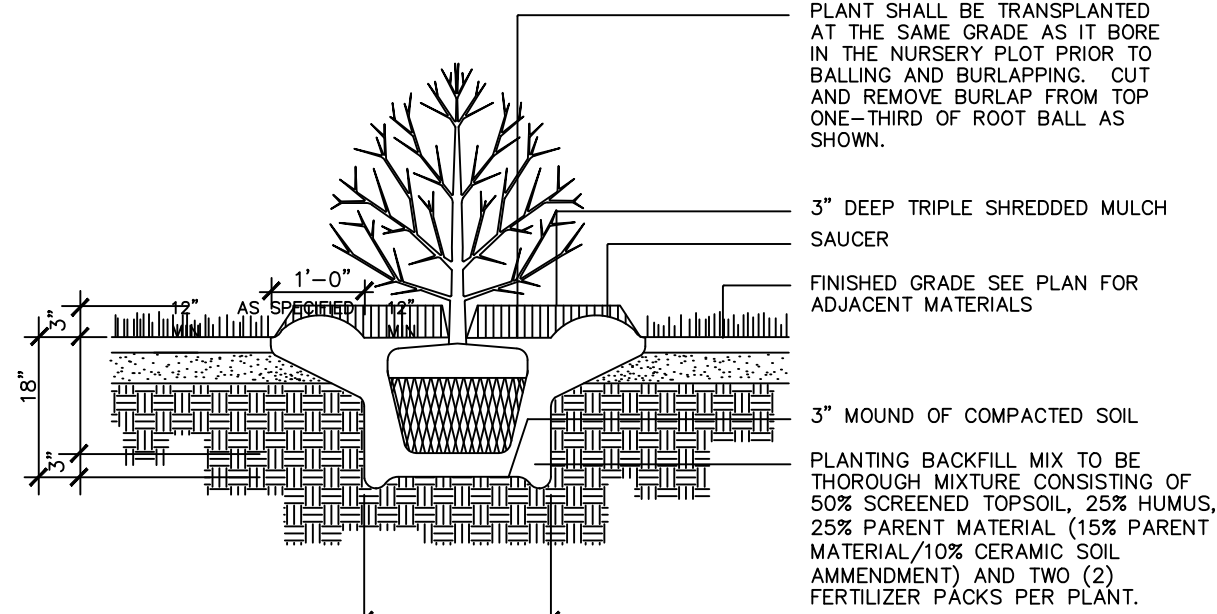


PLANT LIST										
Key	Botanical Name	Common Name	Quantity	Planted Size			Mature Size		Comments	
				Height	Spd/Cal	Root Cont.	Height	Spread		
DECIDUOUS SHADE TREES										
AR	Acer rubrum 'Red Sunset'	Sunset Red Maple	4	13'-15'	2 1/2" - 3"	BB	50'-75'	30'+	Brilliant orange-red FC develops 3 weeks before Oct. Glory, wet site tol.	
DECIDUOUS SHRUBS										
EAC	Euonymus alatus 'Compacta'	Dwarf Burning Bush	1	24'-30"	--	3 gal.	6'-8'	6'	Blazing crimson red fall color, winged corky bark	
SxBA	Spiraea x bumalda 'Anthony Waterer'	Anthony Waterer Spiraea	3	18'-24"	--	3 gal.	2'-4'	3'-4'	rasberry-colored flowers summer til frost	
GROUND COVERS										
LM	Liriope muscari 'Big Blue'	Big Blue Liriope - aka Lily Turf or Monkey Grass	14	12'-15'	12'-15'	2 - Qt.	12'-15'	Spread	Plant 12-18" O.C. Blue flower spikes, dark green, grass-like foliage. Evergreen perennial. Tolerates dry difficult sites.	



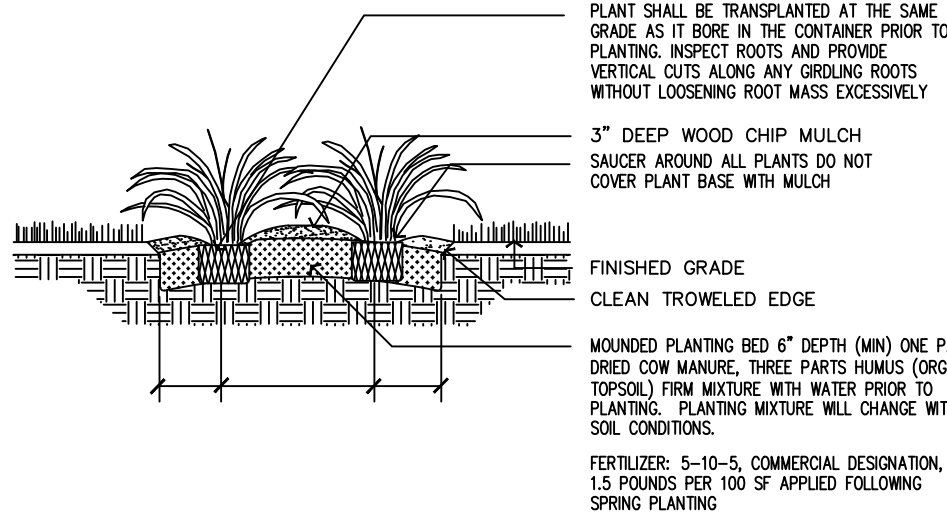
DECIDUOUS TREE PLANTING DETAIL

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DECIDUOUS SHRUB PLANTING DETAIL

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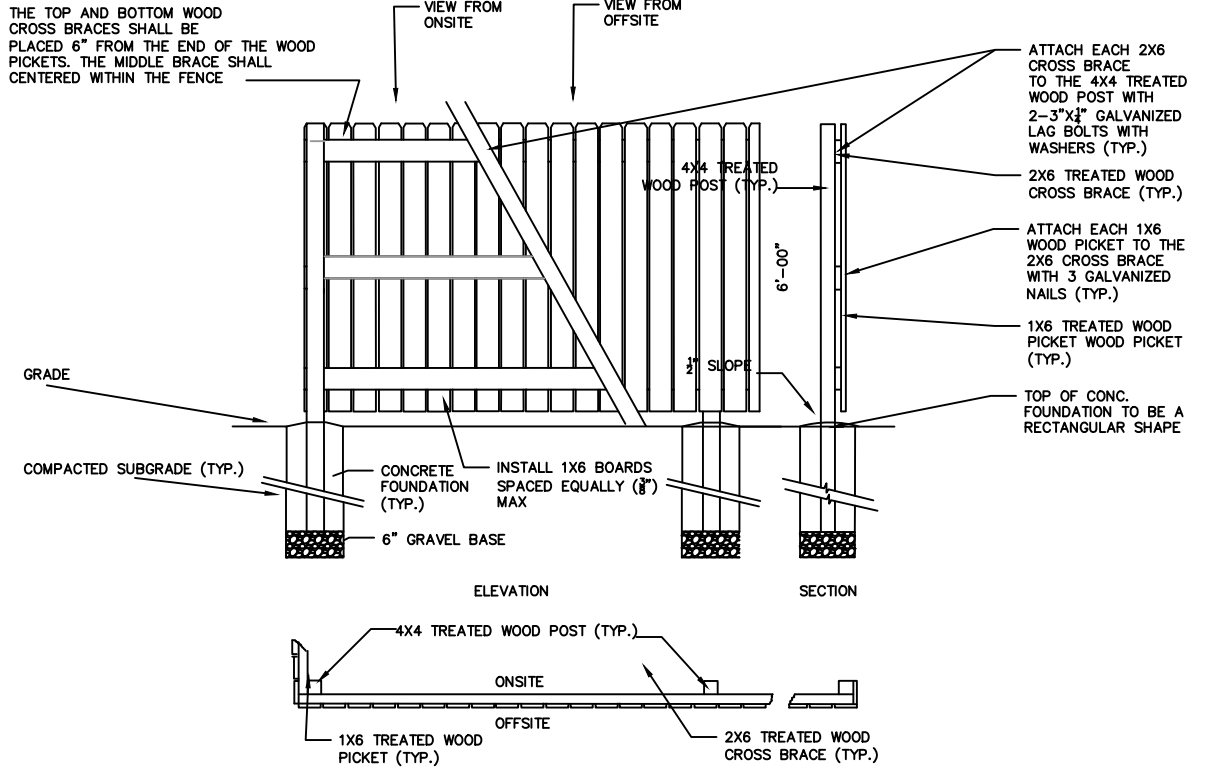
EVERGREEN PERENNIAL PLANTING BED DETAIL

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GENERAL PLANTING NOTES:

- ALL PLANTS AND ENTIRE SHRUB BEDS TO RECEIVE 3" LAYER OF DOUBLE SHREDDED HARDWOOD BARK MULCH WHICH HAS BEEN TREATED WITH PRE-EMERGENT HERBICIDE. MULCH SHALL NOT BE PLACED DIRECTLY AGAINST THE ROOT COLLAR.
- PLANTS SHALL BEAR SAME RELATIONSHIP TO FINISHED GRADE AS THEY BORE TO EXISTING GRADE IN THE NURSERY, OR SLIGHTLY HIGHER, WITH NO SUB-GRADE DISTURBANCE.
- TOPSOIL SHALL BE SANDY LOAM, FREE FROM SUBSOIL STONES LARGER THAN 1", OR ANY UNDESIRABLE MATERIAL, CONTAIN 5% ORGANIC MATTER, PH 6.0 TO 6.5.
- CUT AND REMOVE BURLAP FROM TOP 1/3 OF BALL. NYLON ROPE AND/OR NYLON BAILING MATERIAL IS NOT ACCEPTABLE. ALL SYNTHETIC ROPE AND FABRIC TO BE REMOVED COMPLETELY FROM PLANTING PIT AND DISPOSED OF PROPERLY. BURLAP AND SISAL CORD SHALL NOT BE LEFT EXPOSED TO SOIL SURFACE.
- LOCATE TREE SUPPORT SYSTEM SO IT WILL NOT PULL GROTH APART. ALL TREE SUPPORT SYSTEM TO BE REMOVED WITHIN ONE (1) YEAR OF INSTALLATION.
- ALL PLANT MATERIAL SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN VIGOROUS GROWING CONDITION FOR TWO (2) YEARS FOR TREES AND ONE (1) YEAR FOR SHRUBS. THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTING OR REMOVING ALL STAKES AND REPLACING ALL DEAD OR DYING MATERIAL. REPLACEMENT SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANTING SEASON. ALL REPLACEMENTS SHALL HAVE A GUARANTEE EQUAL TO THAT STATED ABOVE.
- IF THERE IS A DISCREPANCY BETWEEN THE PLANT COUNT SHOWN IN THE PLANT LIST AND THE PLANTING GRAPHIC, THE GRAPHIC SHALL TAKE PRECEDENCE.
- IF THE CONTRACTOR DETERMINES THE SUB-GRADE SOIL CONDITIONS ARE DELETERIOUS TO PLANT GROWTH OR WILL INHIBIT DRAINAGE, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY AND PRIOR TO INSTALLATION OF PLANT MATERIAL.
- ALL TRANSPLANTED SHRUBS SHALL BE "HEELED IN" OR HEAVILY MULCHED IN A SHADED AREA AND WATERED AS NECESSARY UNTIL THEY CAN BE PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR MORE THAN A THREE (3) DAY PERIOD AFTER DELIVERY.
- CONTRACTOR SHALL PROVIDE A MINIMUM OF 6" TOPSOIL IN ALL PLANTED AREAS. PLANT PERENNIALS AND GROUND COVER IN 8" DEEP TOPSOIL BED CONSISTING OF 2/3 TOPSOIL AND 1/3 HUMUS. PLANT BULBS IN NATURALIZED DRIFTS. PLANT SHRUBS AND TREES AS PER PLANT DETAILS.
- TOPSOIL AND SEED ALL AREAS DISTURBED AS A RESULT OF ANY AND ALL DISTURBANCES, CONSTRUCTION, OR STORAGE OF EQUIPMENT WHETHER SUCH AREAS ARE SHOWN ON THE PLANS OR NOT.
- LAWN AREA MIX:
  - 30% ONYX TURF-TYPE TALL FESCUE;
  - 30% MONTAUK TURF-TYPE TALL FESCUE;
  - 30% SANTA FE TURF-TYPE TALL FESCUE;
  - 10% WASHINGTON KENTUCKY BLUEGRASS.
- SEEDING RATE: 75-100 LBS/ ACRE. SEED MULCH SHALL BE STRAW OR HAY, OR WOOD CELLULOSE FIBER, OR SOIL STABILIZATION MATTING.
- ALL PLANT MATERIAL SHALL BE NURSERY GROWN, FREE OF DISEASE, UNIFORM IN SIZE AND FORM AND SHALL MEET OR EXCEED MINIMUMS NOTED IN THE LATEST EDITION OF AMERICAN STANDARDS FOR NURSERY STOCK BY THE AMERICAN ASSOCIATION OF NURSEYMEN, ANSI Z601.
- NO BUILDING MATERIAL, CONSTRUCTION EQUIPMENT, OR SOIL DEPOSITS SHALL BE PLACED WITHIN FOUR FEET OF ANY EXISTING SHRUB OR WITHIN THE DRIP LINE OF ANY TREE TO REMAIN. EXISTING PLANT MATERIAL TO REMAIN SHALL BE PROTECTED WITH A FOUR FOOT HIGH SHOW FENCE BARRIER.
- ALL SUBSTITUTIONS IN PLANT MATERIAL SHALL BE APPROVED, IN WRITING, BY THE LANDSCAPE ARCHITECT.
- PLANTING OPERATIONS SHALL BE PERFORMED DURING THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE. SPRING PLANTING SEASON SHALL BE MARCH 15 THROUGH MAY 15; FALL PLANTING SEASON SHALL BE SEPT 15 THROUGH NOV 1. PLANTING IS ACCEPTABLE DURING OTHER TIMES AS WEATHER PERMITS, THE GROUND IS NOT FROZEN AND SUPPLEMENTAL WATERING IS PROVIDED (IN SUMMER MONTHS).
- NO PLANT, OTHER THAN GROUND COVER, MAY BE PLANTED CLOSER THAN TWO FEET TO EXISTING STRUCTURES OR SIDEWALKS. THE FOLLOWING "ALL PLANTING HAZARD" TREE SPECIES SHALL BE PLANTED IN THE SPRING SEASON ONLY:
  - ACER RUBRUM;
  - LIQUIDAMBAR;
  - QUERCUS (EXCEPT QUERCUS PALUSTRIS).
- ALL TREE PRUNING WORK SHALL BE PERFORMED BY A NEW JERSEY BOARD CERTIFIED TREE EXPERT.
- A NURSERY CERTIFICATE, OR PLANT DEALER CERTIFICATE, CONFIRMING NURSERY STOCK CERTIFICATION BY THE NEW JERSEY DEPARTMENT OF AGRICULTURE (NJSA 4:7-15) SHALL BE SUBMITTED FOR TOWNSHIP FILE, AS REQUIRED.
- SHADE AND EVERGREEN TREES SHALL NOT HAVE THEIR CENTRAL LEADER REMOVED. ONLY DEAD OR BROKEN BRANCHES SHALL BE PRUNED TO NATURAL TARGETS. TREE SUPPORT SYSTEM THAT DIRECTLY CONTACT THE TREE TRUNK SHALL EITHER BE LOOSELY SECURED WIDE STRAPPING, 1" MINIMUM WIDE PLASTIC INTERLOCK TYPE CHAIN, OR AN APPROVED SUBSTITUTE APPROVED BY THE LANDSCAPE ARCHITECT. TREE SUPPORT SYSTEMS SHALL BE REMOVED WITHIN ONE YEAR (1) OF INSTALLATION FROM TREE THAT DO NOT REQUIRE OBVIOUS STRAIGHTENING.
- ALL TREE TRUNK WRAP MATERIAL SHALL BE REMOVED DURING INSTALLATION PROCESS. FERTILIZER SHALL NOT BE USED DURING THE FIRST YEAR AFTER INSTALLATION.
- CONSERVATION EASEMENT SEED MIX SHALL BE "SHOWY NORTHEAST NATIVE WILDFLOWER MIX"; ERNMX-153, AS SUPPLIED BY ERNST SEED CO. AND CONSISTS OF THE FOLLOWING:



15% LITTLE BLUESTEM	5% BLACKEYED SUSAN	2% BUTTERFLY MILKWEED
10% SIDOATS GRAMA, 'BUTTE'	4.5% TALL WHITE BEARDTONGUE	2% WHORLED ROSINWEED
10% SILKY WILD RYE	4% WILD SERNIA	2% OHIO SPIDERWORT
10% TOMAHAWK INDIANA GRASS	3% ZIZAG-ASTER/ MY ASTER MIX	1.5% NEW ENGLAND ASTER
7% PARTRIDGE PEA	3% GREAT ST JOHN'S WORT	1.5% BLUE FALSE INDIGO
5% NIAGRA BIG BLUESTEM	2% GOLDEN ALEXANDERS	1% WILD BLUE LUPINE
5% OX EYE SUNFLOWER	2% COMMON MILKWEED	0.5% ROUNDHEAD LESPEDEZA
- SOIL TESTS SHOULD BE PROVIDED FOR THE BIO-RETENTION MIXTURE DELIVERED TO THE SITE.



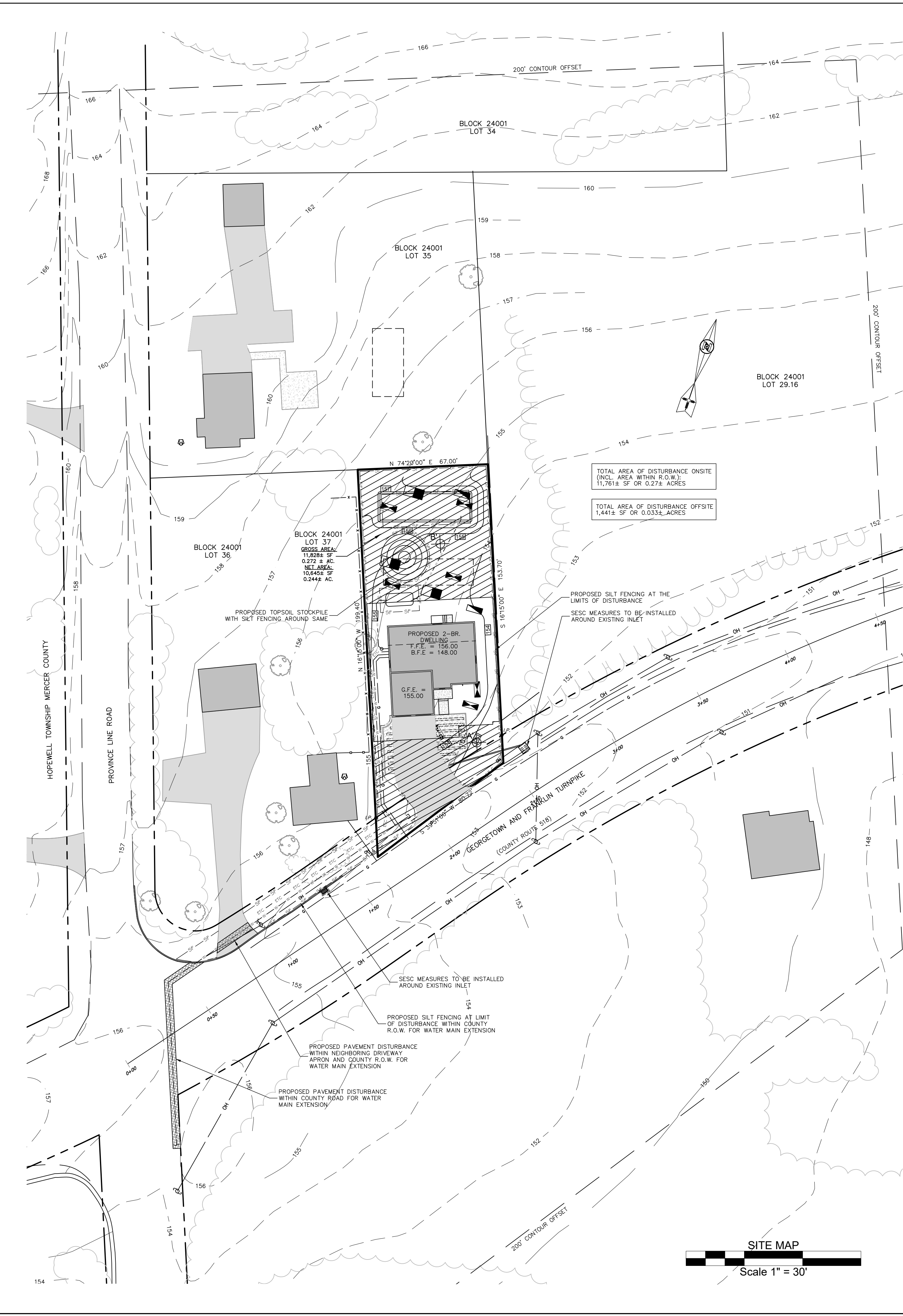
ALL WOODEN PARTS OF THIS FENCING TO BE PRESSURE-TREATED LUMBER.

STOCKADE FENCE DETAIL

Not to Scale

 <b>BAYER-RISSE ENGINEERING, INC.</b> 78 ROUTE 173 WEST, SUITE 6 HAMPTON, NEW JERSEY 08827 PHONE 908-735-2255 FAX. 908-735-5838 <small>Certificate of Authorization No. 24G427943900</small>	COMPLETENESS ISSUES		12/01/23	THB
	TOWNSHIP INPUT/REVIEW COMMENTS		06/06/23	THB
	REVISION DESCRIPTION		DATE	APPROVED
	<b>VARIANCE PLAN LANDSCAPING PLAN</b>			
 <b>THEODORE H. BAYER, P.E.</b> New Jersey Professional Engineer Licence No. GE33806	Lands of Tamer Kharrubi Block 24001, Lot 37 8 County Route 518 MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY			
	DRAWN BY: MH	DESIGNED BY: MH	CHECKED BY: THB	DWG NO.: TK-6
	SCALE: As Noted		DATE: April 10, 2023	BEE JOB#: 23-2586
SCALE:		DATE:	APRIL 10, 2023	SHEET: 6 of 10





- GENERAL AGRONOMIC SPECIFICATIONS FOR LAWNS AND CONSTRUCTION SITES**
- (1) All disturbed areas that are not being graded, not under active construction, or not permanently seeded within 30 days shall be temporarily stabilized as per specifications below.
  - (2) All exposed areas which are to be permanently vegetated shall be seeded and mulched within 10 days of final grading.
  - (3) Straw mulch (hay mulch may be substituted if approved by the District) is to be applied to all seeding at a rate of 1.5 to 2 tons per acre (approx. 100 to 130 bales per acre).
  - (4) Mulch anchoring is required after mulching to minimize loss by wind or water. This shall be done using one of the methods (crimping, liquid mulch binders, nettings, etc.) in the "Standards for Soil Erosion and Sediment Control in New Jersey".
  - (5) Existing weedy and poorly-vegetated areas with less than 80% perennial grass cover must receive permanent stabilization (as specified below). This is to include all acreage of the subject property and/or former cropland fields that were left fallow.
  - (6) All bags shall be saved for lime, fertilizer, seed (if used as mulch anchoring method), such proofs shall be submitted to the district inspector for verification of materials and quantities used for all seeding.
  - (7) An additional fee of \$120.00 per inspection will be assessed on those sites where additional inspections are necessitated as a result of non-compliance with the approved plan. This includes additional inspections performed after the failure of an initial Report of Compliance inspection. The entire project site is inspected at the time of a request for Report of Compliance.

- SEED-BED PREPARATION FOR ALL SEEDINGS**
- (1) **SUB-SOIL PREPARATION:** Immediately prior to seeding and topsoil application, the surface should be scarified to a depth of 6-12" where there has been soil compaction (e.g. areas of heavy construction traffic). This practice is to be applied to all compacted areas where there is no danger to underground utilities (cables, irrigation systems, etc.).
  - (2) **TOPSOILING:** Areas to be seeded shall have a minimum of 5" of friable, loamy topsoil free of objectionable weeds, stones and debris. A cross-reference to permanent vegetative stabilization standards has been added which requires additional, intensive measures such as additional organic matter, aeration etc., should vegetative stabilization fail to achieve a minimum of 80% coverage
  - (3) **FINAL GRADING:** Grading shall be smooth of ruts and free of objectionable stones, depressions, vehicle tracks and rough edges. There shall be positive drainage away from all buildings and dwellings. Refuse from seedbed preparation (rocks, sticks, stones, construction debris) must be disposed of properly.
  - (4) **LIMING/FERTILIZING:** Apply limestone and fertilizer to soil test recommendations or as follows:
    - A. Lime shall be applied at the rate of 2 tons (4,000 lbs) per acre. Lime may be any product type as long as the CGE Calcium Carbonate Equivalency = 2 tons/acre. Pelletized and liquid products may be preferred because of their lack of dust and ease of handling but must meet the fore-mentioned criteria.
    - B. Starter fertilizer, specified as 10-20-10, shall be applied at 500 lb. per acre.
    - C. Lime and fertilizer shall be worked into the soil to a depth of 4 inches.

**TEMPORARY SEEDING**

Temporary seeding shall be used on all disturbed areas where permanent stabilization will not be accomplished for a period up to 6 months.

Product	Rate	Recommended optimum seeding dates
Perennial Ryegrass	100 lbs. per acre	3/15 - 5/15 & 8/15 - 10/1
Spring Oats	88 lbs. per acre	3/15 - 5/1 & 8/1-10/1
Winter Cereal Rye	112 lbs. per acre	8/1 - 11/15
Winter Barley	95 lbs. per acre	8/15 - 10/1
Pearl Millet	20 lbs. per acre	5/15 - 8/15
German or Hungarian Millet	30 lbs. per acre	5/15 - 8/15

**TEMPORARY STABILIZATION WITH MULCH ONLY**

Straw mulch (hay mulch may be substituted if approved by the District) shall be spread uniformly at the rate of 2 to 2.5 tons per acre (total ground surface coverage). This practice is limited to periods when vegetative cover can not be established due to the season or other conditions. Mulch must be anchored in accordance with New Jersey Standards for Soil Erosion and Sediment Control. Mulch alone can only be used for short periods and will require maintenance and renewal. Other mulch materials may be utilized if approved by the District.

**STABILIZATION WITH SOD**

Stabilization with sod is permitted in areas where maintenance and irrigation are adequate to insure proper establishment and longevity. Seedbed preparation shall be consistent with any other stabilization requirements. (Lime and fertilizer bags are to be retained for District inspections). On slopes greater than 3:1, sod must be properly anchored to the slope in accordance with the NJ Standards for Soil Erosion and Sediment Control.

- PERMANENT SEEDING**
- (A) Seed shall be incorporated into the soil 14" - 12".
  - (B) Lawn seedings shall be a mixture of bluegrasses, turf-type fescues, and turf-type perennial ryegrasses to insure longevity, tolerance, and durability. No seed shall be accepted with a germination test of more than 12 months old unless retested.
  - (C) Professional seed mixtures are recommended rather than seed mixing by contractor.
  - (D) Seed mixture (as specified below) shall be applied at a minimum rate of 200 lb. per acre of perennial seed.
  - (E) Optimum seeding period for Hunterdon County is from March 1 to May 15 and August 15 to October 1. Outside of those periods, the seeding rates shall be increased by 50% (i.e., 300 lb. per acre of perennial seed instead of the required 200 lb. per acre during optimum periods).
  - (F) Seedings shall receive an application of fertilizer such as 10-10-10 or equivalent at 400 lb. per acre approximately 6 months after first application.

**SEEDING MIXTURE FOR GENERAL SEEDING (Lawn)**

40% turf-type tall fescue 10% creeping red fescue 10% Kentucky bluegrass 30% turf-type perennial ryegrass OR  
80% Kentucky bluegrass 20% turf-type perennial ryegrass 20% creeping fescue

**SEEDING MIXTURE FOR HIGH TRAFFIC & CRITICAL AREAS (example: waterways, diversions, etc.)**

80% turf-type tall fescue 10% Kentucky bluegrass 10% turf-type perennial ryegrass

Other seed mixtures, such as blended varieties of perennial turf-type ryegrass, turf-type tall fescues, or bluegrasses may also be acceptable if approved by the District.

- SOIL EROSION AND SEDIMENT CONTROL NOTES**
- (1) All Soil Erosion and Sediment Control practices shall be installed prior to any major soil disturbances, or in their proper sequence and maintained until permanent protection is established.
  - (2) Any Disturbed areas that will be left exposed more than 30 days and not subject to construction traffic, will immediately receive a temporary seeding. If the season prevents the establishment of a temporary cover, the disturbed areas will be mulched with straw, or equivalent material, at a rate of two (2) tons per acre, according to NJ State Standards.
  - (3) Permanent Vegetation shall be seeded or sodded on all exposed areas within ten (10) days after final grading. Mulch will be used for protection until seeding is established.
  - (4) All work shall be done in accordance with the NJ State Standards for Soil Erosion and Sediment Control in New Jersey, 7th Edition last revised January 2014.
  - (5) A sub-base course will be applied immediately following rough grading and installation of improvements in order to stabilize streets, roads, driveways and parking areas. In areas where no utilities are present, the sub-base shall be installed within 15 days or preliminary grading.
  - (6) Immediately following initial disturbance or rough grading all critical areas subject to erosion (i.e.: steep slopes, roadway embankments) will receive a temporary seeding in combination with straw mulch or a suitable equivalent, at a rate of two (2) tons per acre, according to the NJ State Standards.
  - (7) Any steep slopes receiving pipeline installation will be backfilled and stabilized daily, as the installation proceeds (i.e.: slopes greater than 3:1).
  - (8) Traffic control Standards require the installation of a 50'x30'x6" pad of 1 1/2" or 2" stones, at all construction driveways, immediately after initial site disturbance.
  - (9) The Somerset-Union Soil Conservation District shall be notified in writing 48 hours in advance of any land disturbing activity.
  - (10) At the time when the site preparation for permanent vegetative stabilization is going to be accomplished, any soil that will not provide a suitable environment to support adequate vegetative ground cover, shall be removed or treated in such a way that will permanently adjust the soil conditions and render it suitable for vegetative ground cover. If the removal or treatment of the soil will not provide suitable conditions, non-vegetative means of permanent ground stabilization will have to be employed. Topsoil should be handled only when it is dry enough to work without damaging the soil structure. A uniform application to a depth of 5 inches (unsettled) is required on all sites.
  - (11) In that NJSAC 424-28 et seq., requires that no Certificate of Occupancy be issued before the provisions of the Certified Plan for Soil Erosion and Sediment Control have been completed and for permanent measures, all site work for site plans and all work around individual lots in subdivisions, will have to be completed prior to the District issuing a Report of Compliance for the issuance of a Certificate of Occupancy by the Municipality.
  - (12) Conduit Outlet Protection must be installed at all required outfalls prior to the drainage system becoming operational.
  - (13) Any changes to the Certified Soil Erosion and Sediment Control Plan will require the submission of revised Soil Erosion and Sediment Control Plans to the District for re-certification. The revised plans must meet all current NJ State Soil Erosion & Sediment Control Standards.
  - (14) The Somerset-Union Soil Conservation District shall be notified of any changes in ownership.
  - (15) Mulching to the NJ Standards is required for obtaining a Conditional Report of Compliance. Conditions are only issued when the season prohibits seeding.
  - (16) Contractor is responsible for keeping all adjacent roads clean during life of construction project.
  - (17) The developer shall be responsible for remedying any erosion or sediment problems that arise as a result of ongoing construction at the request of the Somerset-Union Soil Conservation District.
  - (18) Hydro seeding is a two-step process. The first step includes seed, fertilizer, lime, etc., along with minimal amounts of mulch to promote consistency, good seed to soil contact, and give a visual indication of coverage. Upon completion of seeding operation, hydro-mulch should be applied at a rate of 1500 lbs. per acre in second step. The use of hydro-mulch, as opposed to straw, is limited to optimum seeding dates as listed in the NJ Standards.

**SEQUENCE OF SITE WORK CONSTRUCTION**

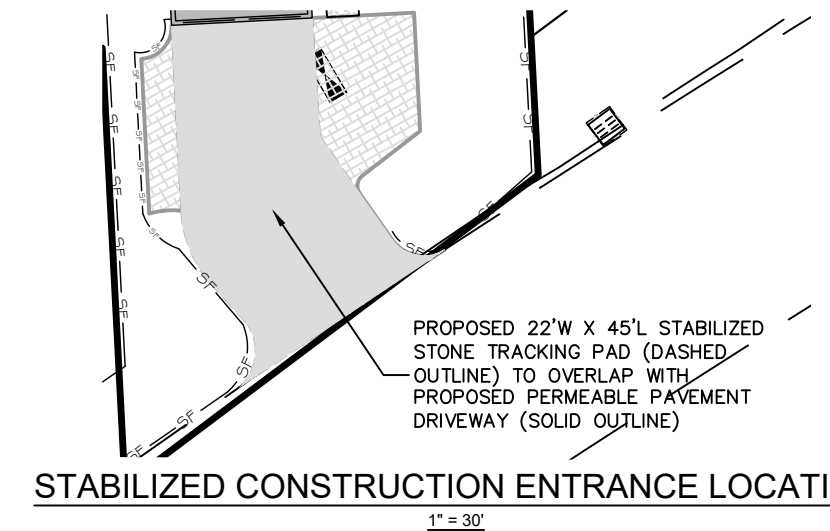
All work shall be performed in accordance with the New Jersey Soil Erosion and Sediment Control Standards.

All temporary erosion controls shall be implemented before construction begins and maintained throughout the construction activity. No clearing and/or grubbing of the site may take place until all the erosion and sedimentation controls have been installed and are functional.

If excess materials are removed from site, the project owner/applicant shall be responsible for its proper disposal and shall notify the Somerset Union Soil Conservation District of this location prior to removal from site.

Prior to the commencement of any land disturbance, the soil erosion and sediment control portion of this application must be approved by the Somerset Union Soil Conservation District.

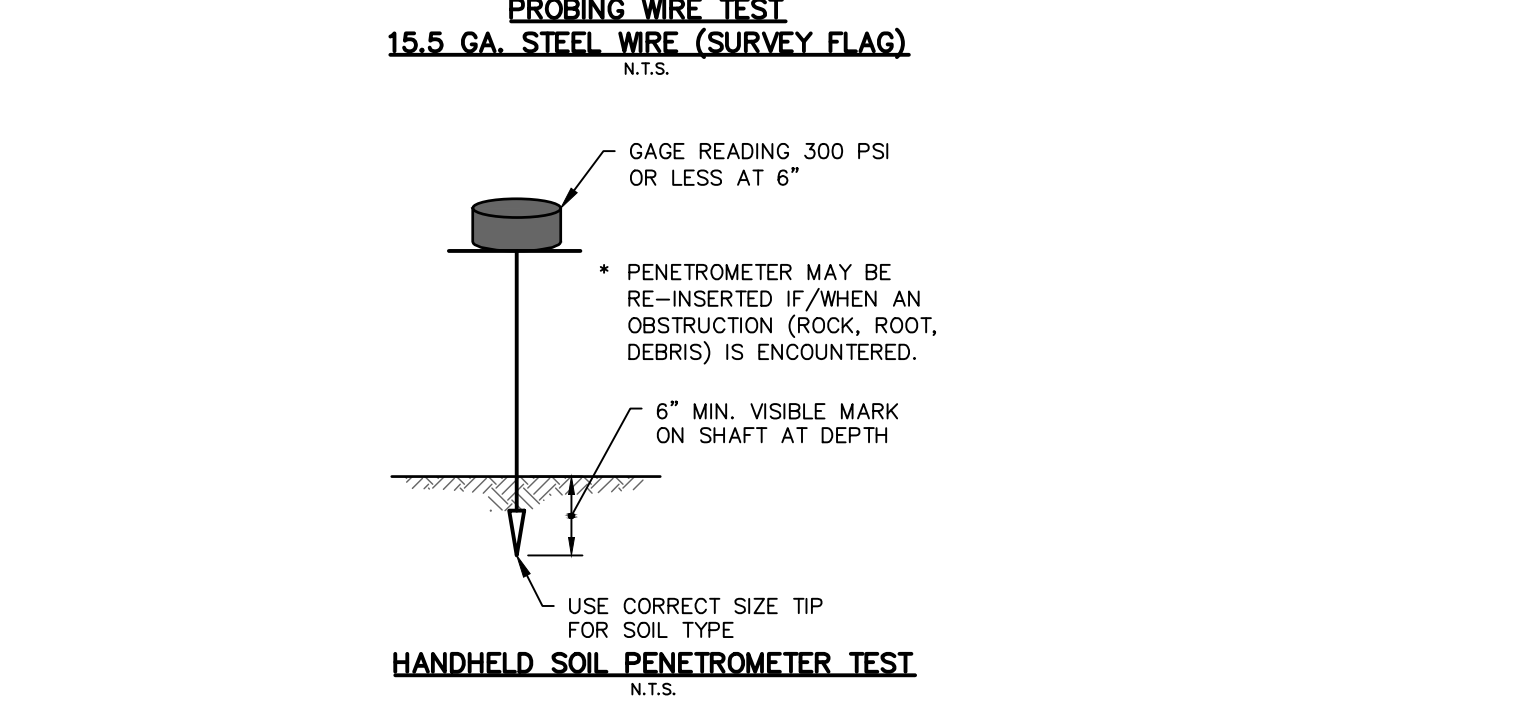
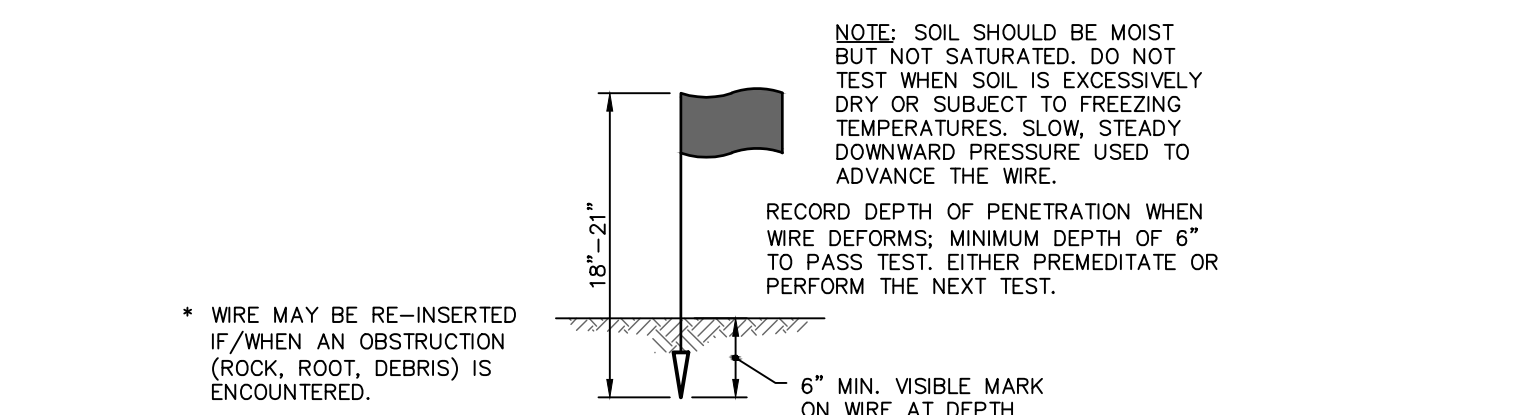
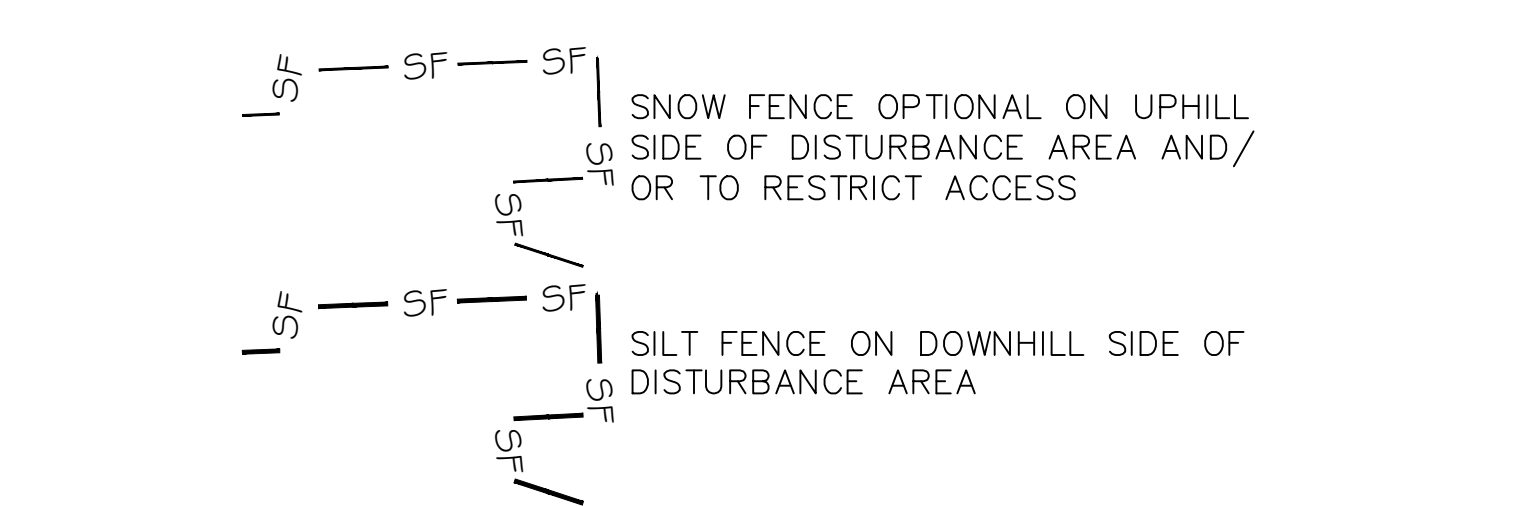
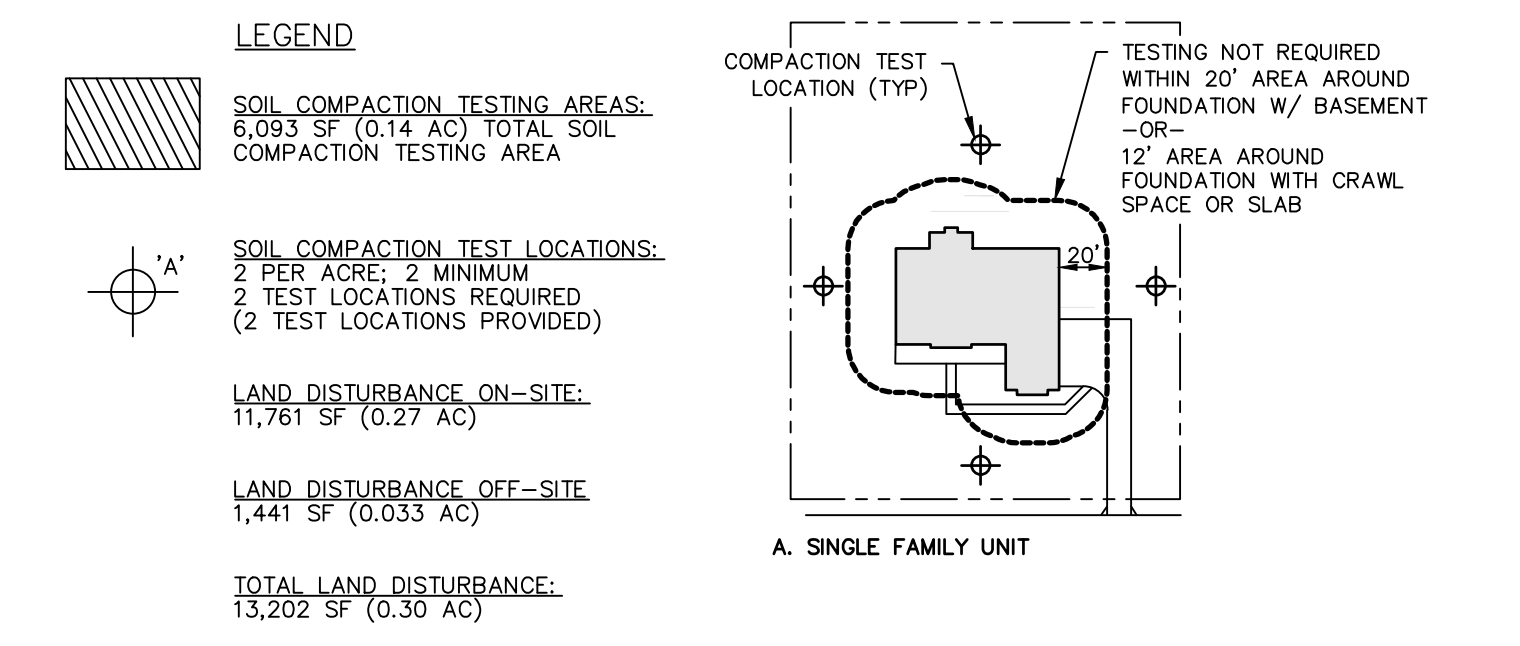
ON-SITE PROJECT CONSTRUCTION TASKS	# Days	Week #
(1) Install temporary SESC measures at construction entrance and at disturbance limits on site as shown	2	1
(2) Abandon/remove existing seepage pit and remove existing concrete pad	1	1
(3) Strip/stockpile topsoil on site as shown including silt fencing around same	2	1
(4) Install proposed septic system and sanitary sewer structures	5	2
(5) Install silt fencing around septic system structures	1	2
(6) Lay base course for driveway	1	7
(7) Excavate for and construct footings/foundations	5	3
(8) Install proposed waterline extension and proposed water service line	10	4 - 5
(9) Install proposed gas and ETC lines and connect building sewer to septic system	10	6 - 7
(10) Complete construction of house	60	8 - 20
(11) Backfill, rough grade, and regrade disturbed area	3	21
(12) Finish grade and final paving of driveway as required	3	21 - 22
(13) Final grade	4	23
(14) Plant landscaping features	1	23
(15) Install proposed stockade fence	2	23
(16) Perform soil de-compaction test	1	24
(17) Spread topsoil/fertilizer/seeding/mulch according to agspecs on Sheet #7	2	24
(18) Remove remaining temporary SESC measures after site area is stabilized and 70% vegetative cover is achieved	2	24



- SOIL DE-COMPACTION AND TESTING REQUIREMENTS**
- A. SOIL COMPACTION TESTING REQUIREMENTS**
1. Subgrade soils prior to the application of topsoil (see permanent seeding and stabilization note for topsoil requirements) shall be free of excessive compaction to a depth of 6.0 inches to enhance the establishment of permanent vegetative cover.
  2. Areas of the site which are subject to compaction testing and or mitigation are graphically denoted on the Certified Soil Erosion Control Plan.
  3. Compaction testing locations are denoted on the plan. Location ID's shall be used to complete the compaction remediation form available from the local Soil Conservation District. This form must be filled out and submitted prior to receiving a certificate of compliance from the District.
  4. In the event that testing indicates compaction in excess of the maximum thresholds indicated for the simplified testing methods (see details below), the contractor/owner shall have the option to perform either 1) compaction mitigation over the entire mitigation area denoted on the plan (excluding the exempt areas), or 2) perform additional, more detailed testing to establish the limits of excessive compaction whereupon only the excessively compacted areas would require compaction mitigation. Additionally detailed testing shall be performed by a trained, licensed professional.

- B. COMPACTION METHODS**
1. Probing Wire Test (see detail).
  2. Hand-held Penetrometer Test (see detail).
  3. Tube Bulk Density Test (licensed professional required).
  4. Nuclear Density Test (licensed professional required).
  6. Note: Additional testing methods which conform to ASTM Standards and Specifications, and which produce a dry weight. Soil Bulk Density measurement may be allowed subject to District approval.
  6. Detailed requirements for each compaction testing method can be found in section 19 "Standard for Land Grading" of the NJ Standards for Soil Erosion and Sediment Control, latest edition.
  7. Soil compaction testing is not required if when subsoil compaction remediation (scarification/tillage (6" minimum depth) or similar) is proposed as part of the sequence of construction.

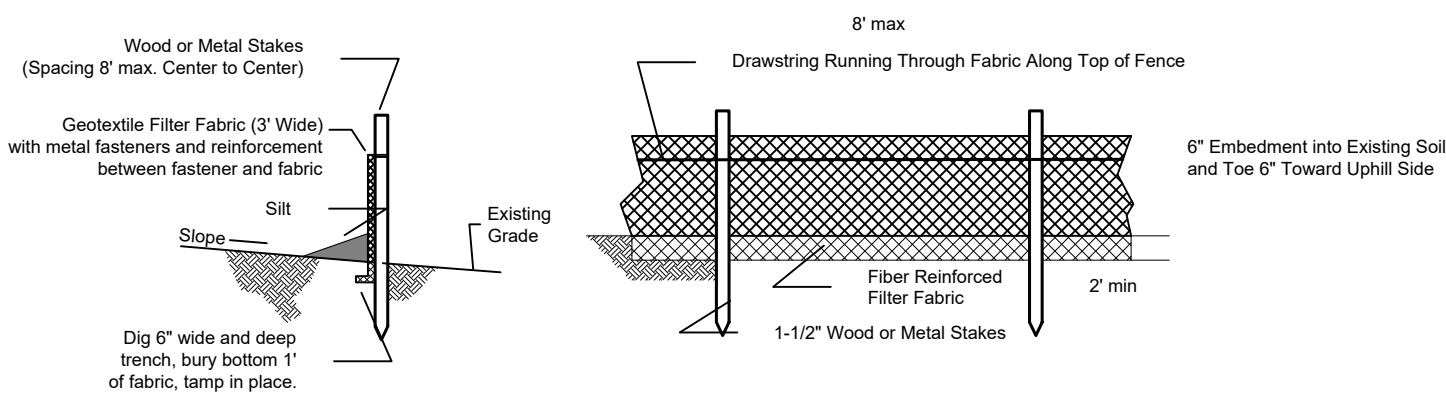
- C. PROCEDURES FOR SOIL COMPACTION MITIGATION**
1. Procedures shall be used to mitigate excessive soil compaction prior to placement of topsoil and establishment of permanent vegetative cover.
  2. Restoration of compacted soils shall be through deep scarification/tillage (6" minimum depth) where there is no danger to underground utilities (cables, irrigation systems, etc.). In the alternative, another method as specified by a new jersey licensed professional engineer may be substituted subject to District approval.



- NOTES:**
1. UPON INSTALLATION/ CONSTRUCTION OF PROPOSED SEPTIC SYSTEM COMPONENTS, SILT FENCING SHALL BE PLACED AROUND SAME FOR PROTECTION.
  2. NO CONSTRUCTION EQUIPMENT/ MATERIALS OR HEAVY MACHINERY SHALL BE PLACED OVER THE SEPTIC SYSTEM COMPONENTS DURING CONSTRUCTION OF THE RESIDENCE.
  3. UPON INSTALLATION/ CONSTRUCTION OF PROPOSED PERMEABLE PAVEMENT DRIVEWAY, SILT FENCING SHALL BE PLACED ALONG WESTERN EDGE OF SAME FOR PROTECTION.
  4. PAVEMENT DISTURBANCE IS NOT INCLUDED IN THE TOTAL LAND DISTURBANCE FIGURES ABOVE AS PAVEMENT IS ALREADY CONSIDERED DISTURBANCE FOR THE PURPOSES OF SOIL EROSION & SEDIMENT CONTROL.

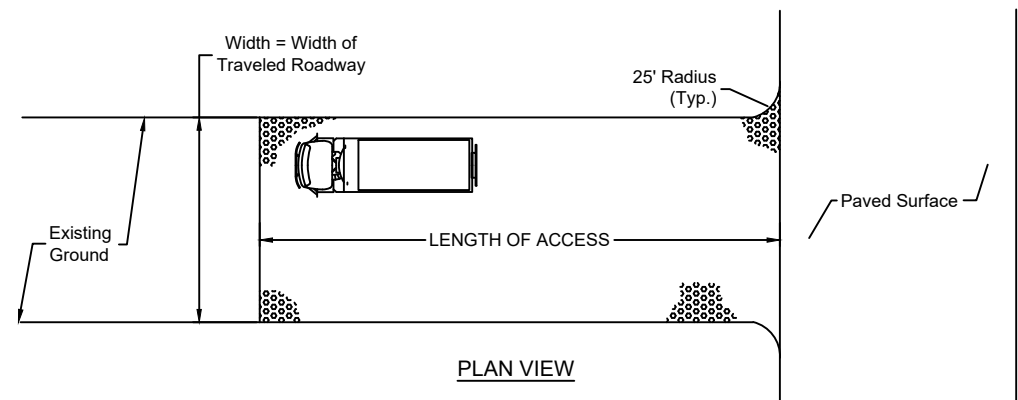
<b>BAYER-RISSE ENGINEERING, INC.</b> 78 ROUTE 173 WEST, SUITE 6 HAMPTON, NEW JERSEY 08827 PHONE 908-735-2255 FAX. 908-735-5838 <small>Certificate of Authorization No. 24G427943900</small>			
<b>THEODORE H. BAYER, P.E.</b> New Jersey Professional Engineer Licence No. GE33806			
COMPLETENESS ISSUES	12/01/23	THB	
TOWNSHIP HD INPUT/REVIEW COMMENTS	06/06/23	THB	
REVISION DESCRIPTION		DATE	APPROVED
<b>VARIANCE PLAN SESC PLAN</b>			
Lands of Tamer Kharrubi Block 24001, Lot 37 8 County Route 518 MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY			
DRAWN BY:	DESIGNED BY:	CHECKED BY:	DWG NO.:
MH	MH	THB	TK-7
BEE JOB#:		23-2586	
SCALE:	As Noted	DATE:	April 10, 2023
SHEET:		7 of 10	



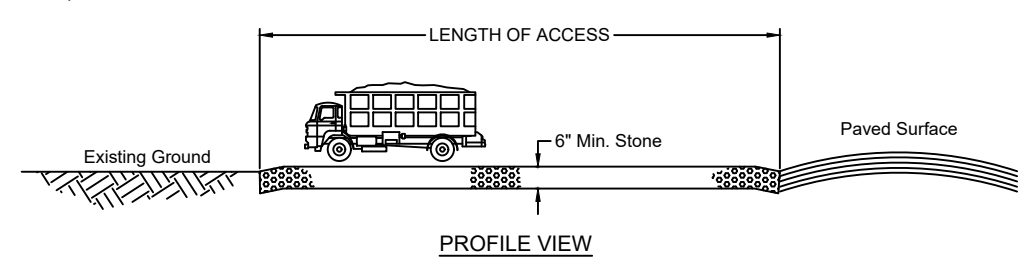


- NOTES:
1. Stakes shall be spaced 8' center to center or closer, extended 2' above and below grade.
  2. Filter Fabric shall be buried at least 6" deep in the ground and extended at least 2 ft. above the ground.
  3. Filter Fabric shall have a draw string running through fabric along the top of the fence.

**SILT FENCE DETAIL**  
Not To Scale



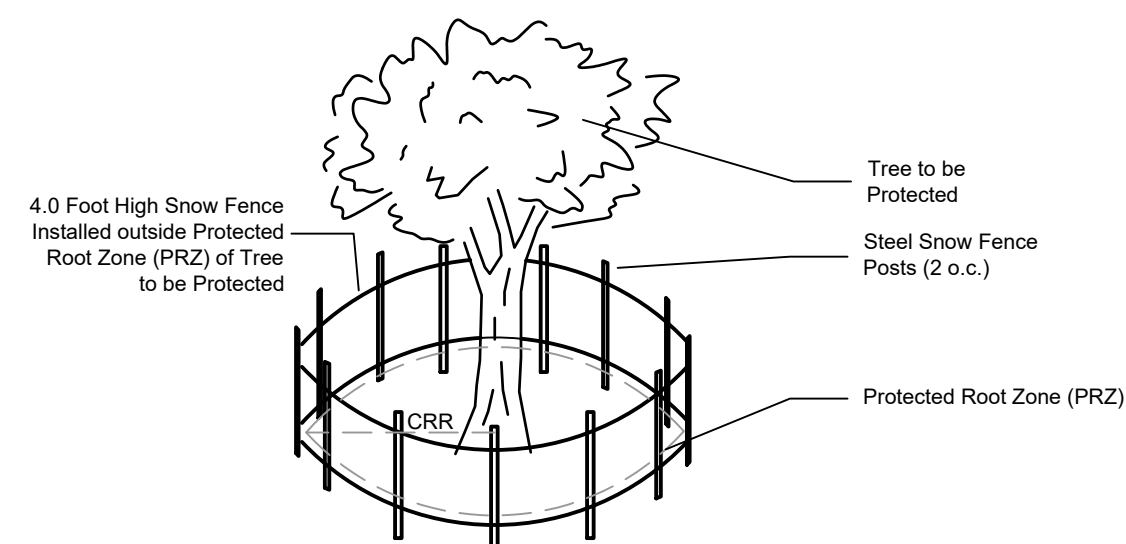
LENGTH OF ACCESS  
0-2% Slope = 50 ft. Coarse Grained Soil; 100 ft. Fine Grained Soil  
2-5% Slope = 100 ft. Coarse Grained Soil; 200 ft. Fine Grained Soil  
> 5% Slope = Entire Surface Stabilized with FABC Base Course



- NOTES:
1. Stone is shall be 1.5" - 2.5" crushed angular stone, not round.
  2. Provide appropriate transition between stabilized construction entrance and public R.O.W.
  3. If poor drainage conditions exist, underlay filter fabric on existing grade before placing stone.

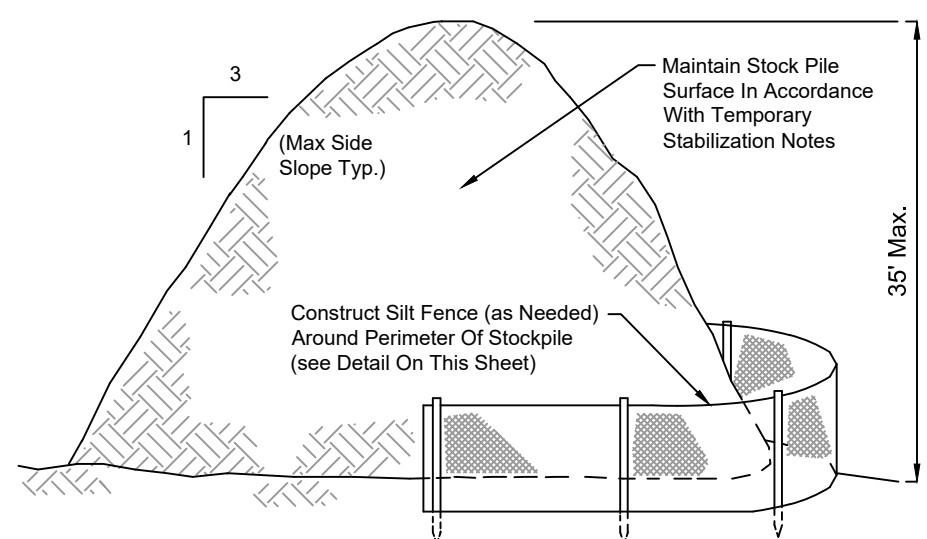
MAINTENANCE  
1. Periodic addition of stone to thickness and length to prevent flow of sediment or tracking.  
2. All sediment tracked onto the public R.O.W. must be removed at the end of each day.

**STABILIZED CONSTRUCTION ENTRANCE DETAIL**  
Not to Scale

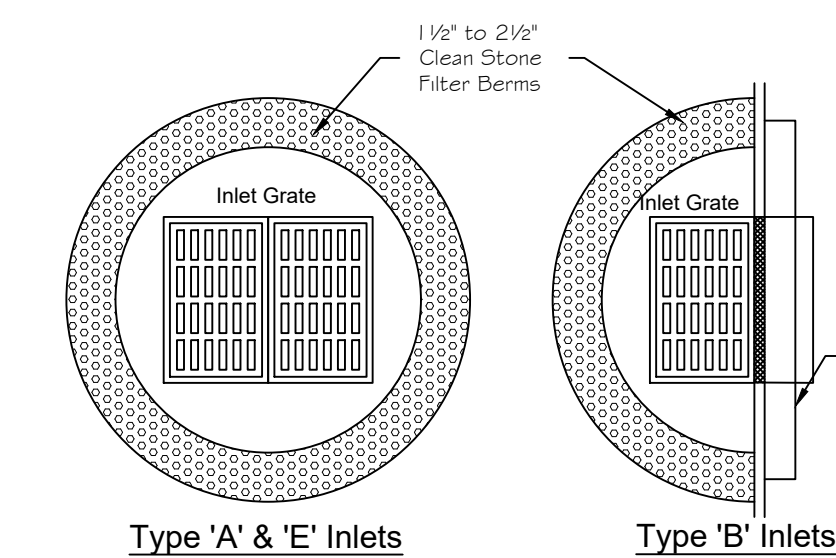


- Notes:
1. Tree protection shall be provided for any and all trees to be preserved during and after construction.
  2. 4.0 foot snowfence shall be placed at the drip line of the tree and enclose the entire tree.
  3. Protected Root Zone (PRZ) of a tree shall be estimated by calculating Critical Root Radius (CRR) using following criteria:
    - Measure the Dbh (diameter of tree at breast height, 4.5 feet above ground on the uphill side of tree) in inches.
    - Multiply measured Dbh by 1.5 or 1.0. Express the result in feet.
    - Dbh x 1.5. Critical root radius for older, unhealthy, or sensitive species.
    - Dbh x 1.0. Critical root radius for younger, healthy or tolerant species.
  4. Boards shall not be nailed to trees during construction.
  5. Roots shall not be cut in an area inside the drip line of the tree branches.
  6. Damaged trunks or roots will be painted immediately with a good grade of tree paint.
  7. Tree limb removal, where necessary, will be done flush with the trunk or main limb and painted immediately with a good grade of tree paint and be performed under the immediate supervision of a licensed nurseryman.

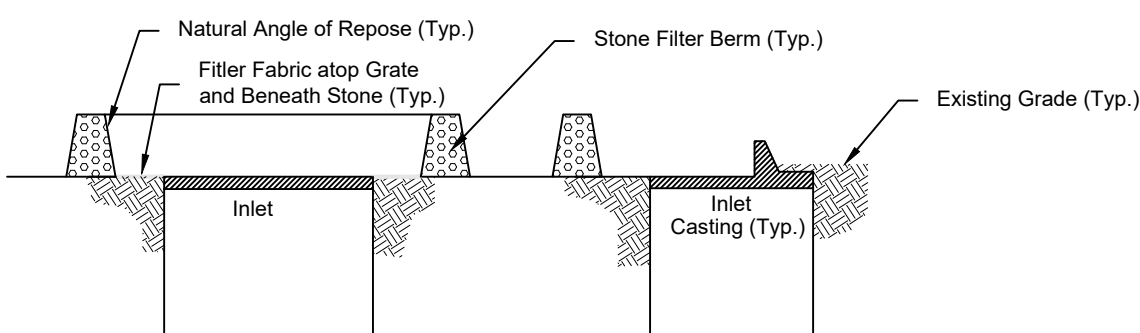
**TREE PROTECTION DETAIL**  
Not to Scale



**TEMPORARY STOCKPILE DETAIL**  
Not To Scale



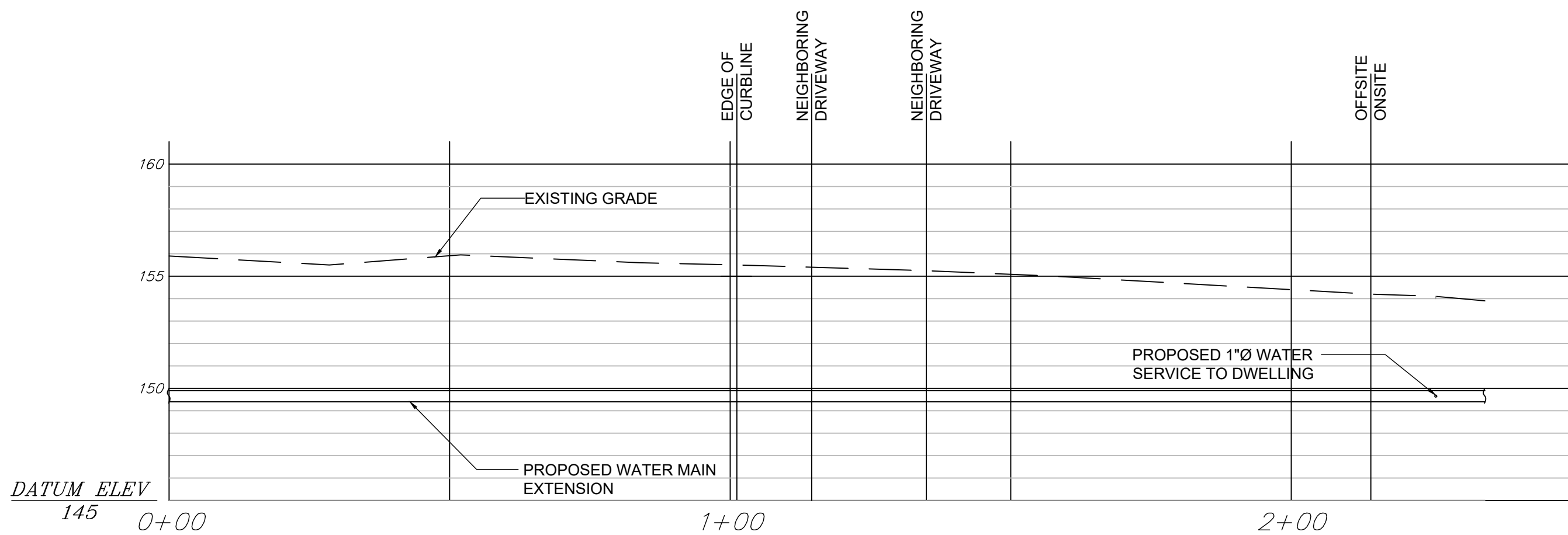
**PLAN VIEW**



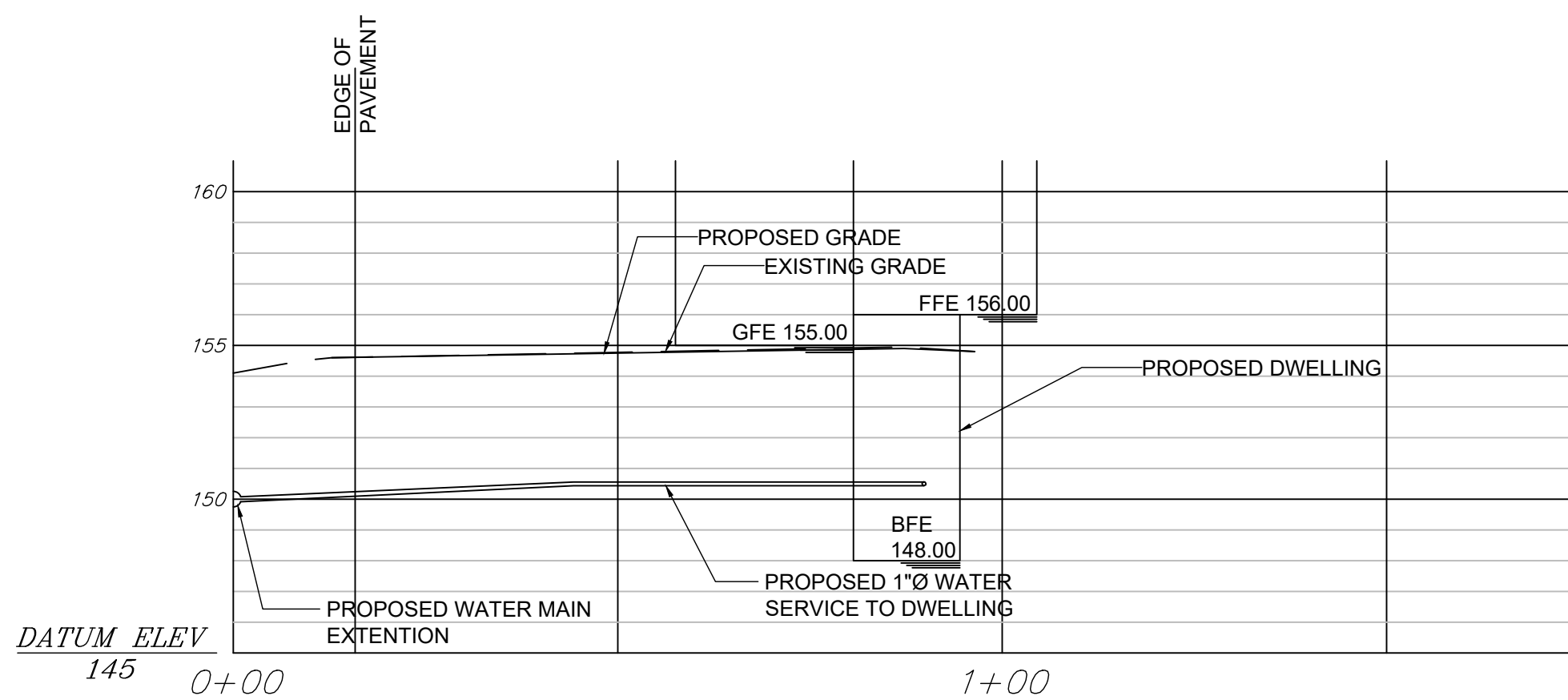
**CROSS-SECTION**

- NOTES
1. Berm shall be bales of stray/ hay or clean gravel meeting ASTM C-33 #2 or #3 (1.5" - 2.5" stone). Stray or hay bales are to be securely tied, staked, or lashed together.
  2. Berns shall encircle the inlet and have a perimeter length of at least 4X the perimeter length of the storm sewer inlet.
  3. A wire mesh screen with 1/2" openings shall cover the inlet and shall be anchored by the filter berm.

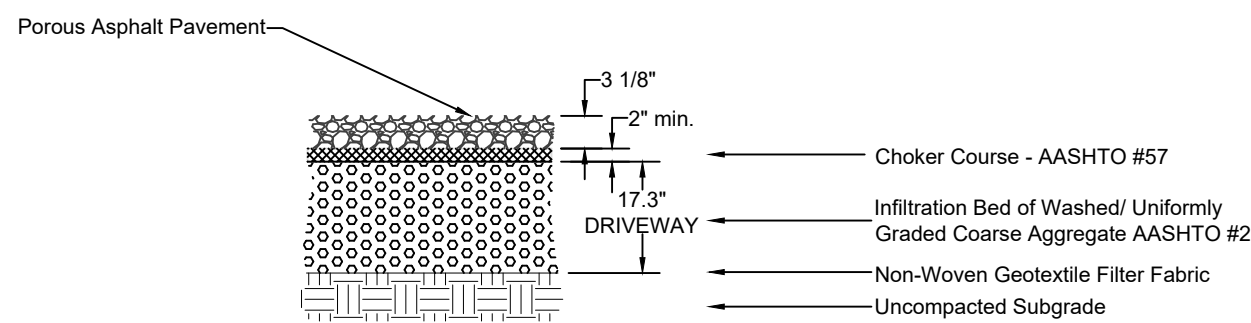
**INLET PROTECTION DETAIL**  
Not To Scale



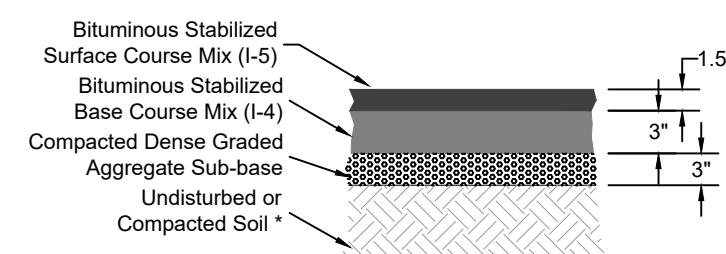
**WATER MAIN EXTENSION PROFILE**



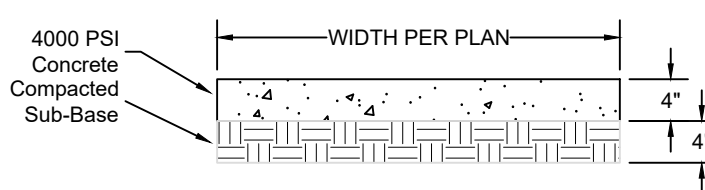
**WATER SERVICE TO HOUSE PROFILE**



**PERMEABLE PAVEMENT DETAIL**  
Not to Scale

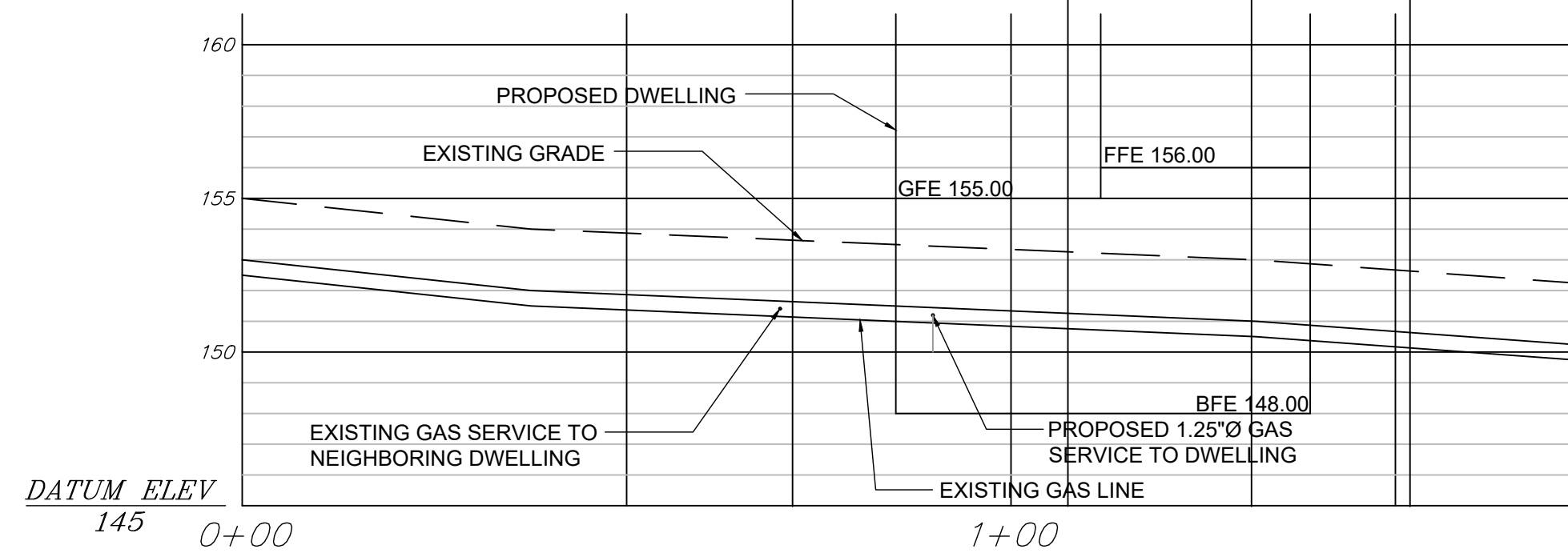


**DRIVEWAY PAVEMENT**  
Not to Scale

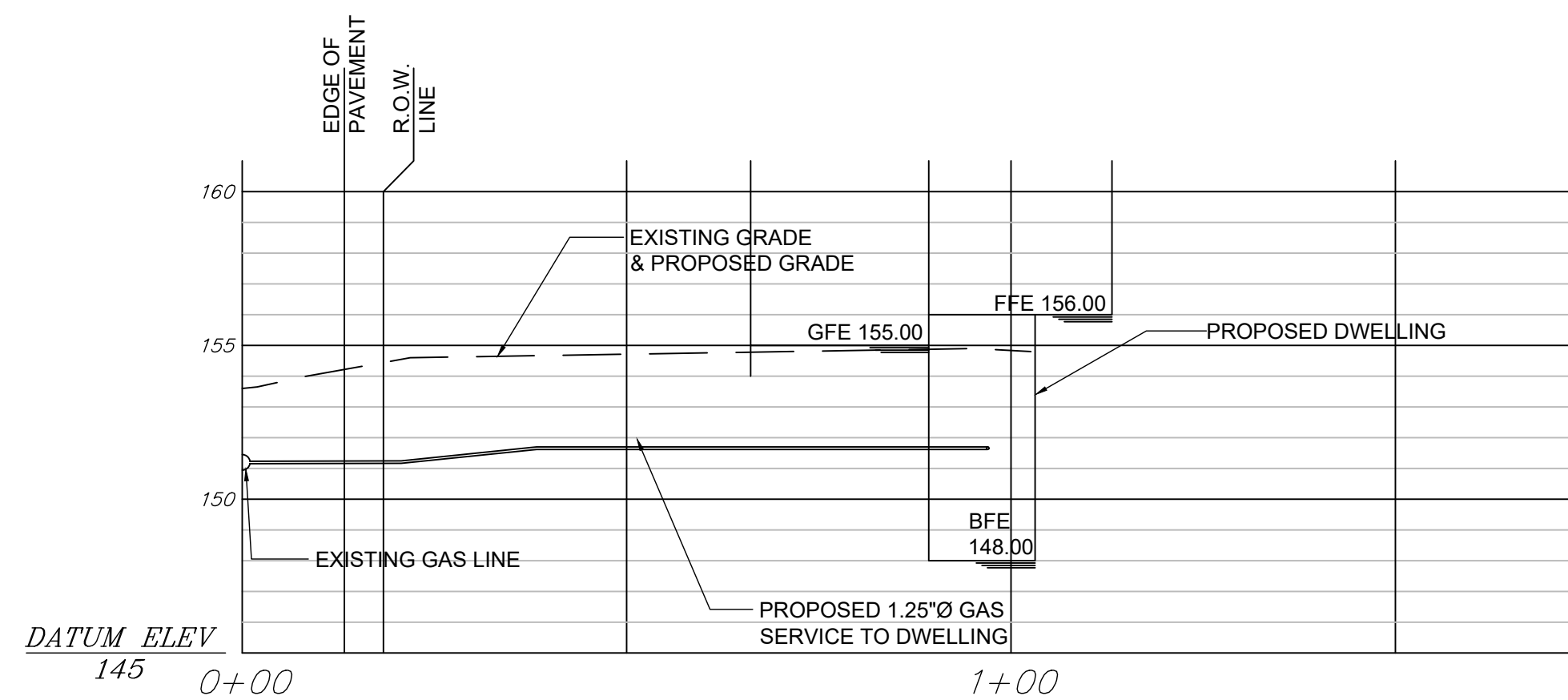


**CONCRETE PADS/ SIDEWALK DETAIL**  
Not to Scale

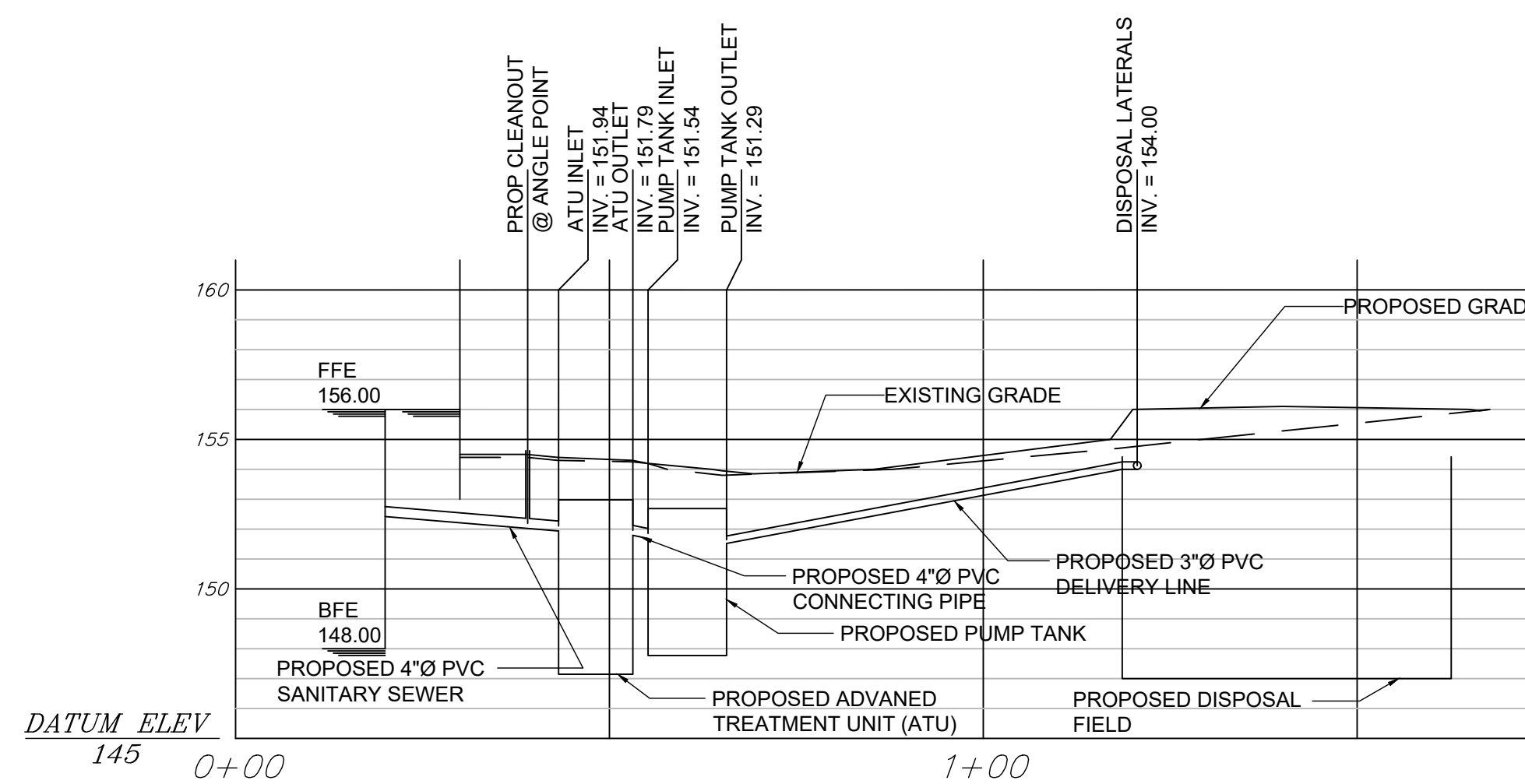
**PROFILE VIEWS**  
HORIZ: 1"=20'  
VERT: 1"=5'



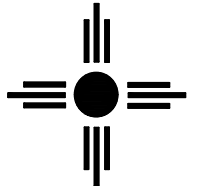
**GAS LINE PROFILE**



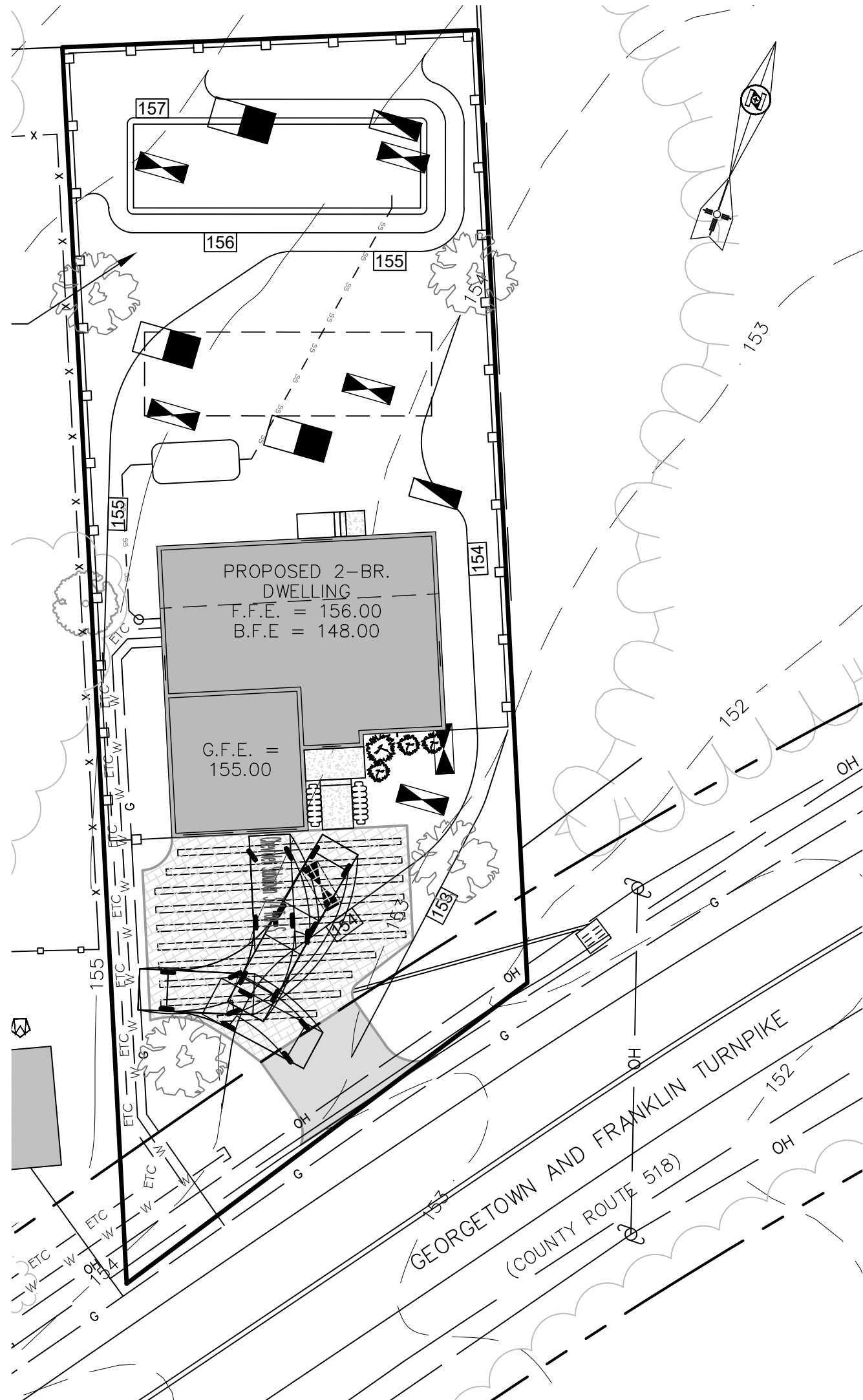
**GAS SERVICE TO HOUSE PROFILE**



**SANITARY SEWER & SEPTIC PROFILE**

 <p><b>BAYER-RISSE ENGINEERING, INC.</b> 78 ROUTE 173 WEST, SUITE 6 HAMPTON, NEW JERSEY 08827 PHONE 908-735-2255 FAX, 908-735-5838 <small>Certificate of Authorization No. 24G427943900</small></p>			
		COMPLETENESS ISSUES	12/01/23 THB
		TOWNSHIP HD INPUT/REVIEW COMMENTS	06/06/23 THB
		REVISION DESCRIPTION	DATE APPROVED
		<b>VARIANCE PLAN CONST. DETAILS</b>	
		Lands of Tamer Kharrubi Block 24001, Lot 37 8 County Route 518 MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY	
		DRAWN BY: MH	DESIGNED BY: MH
		CHECKED BY: THB	DWG NO.: TK-8
		BRE JOB#:	23-2586
		SCALE: As Noted	DATE: April 10, 2023
		SHEET:	8 of 10





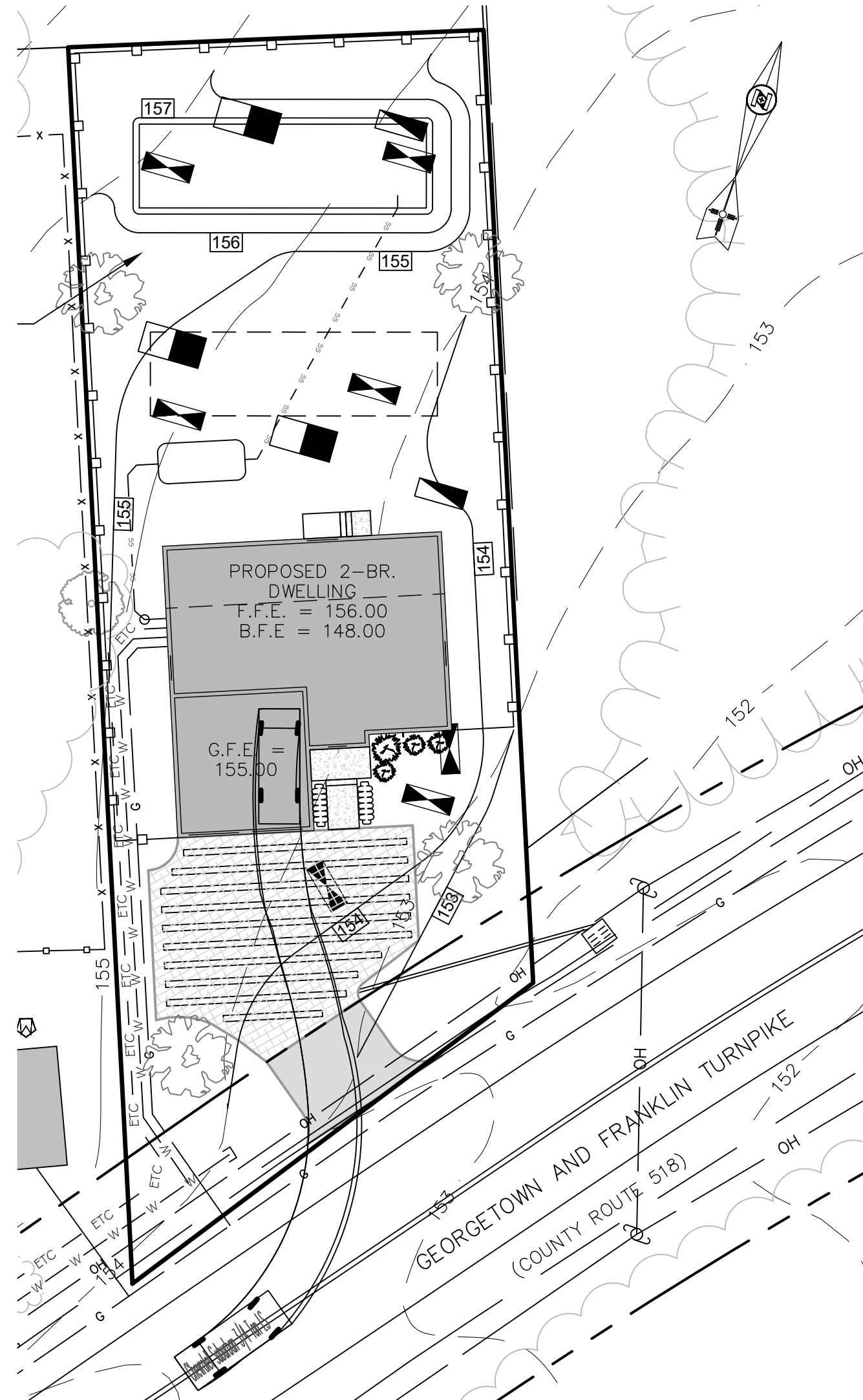
VEHICLE MOVEMENT DETAIL:  
BACKING OUT FROM EAST SIDE OF DRIVEWAY

1"=20'



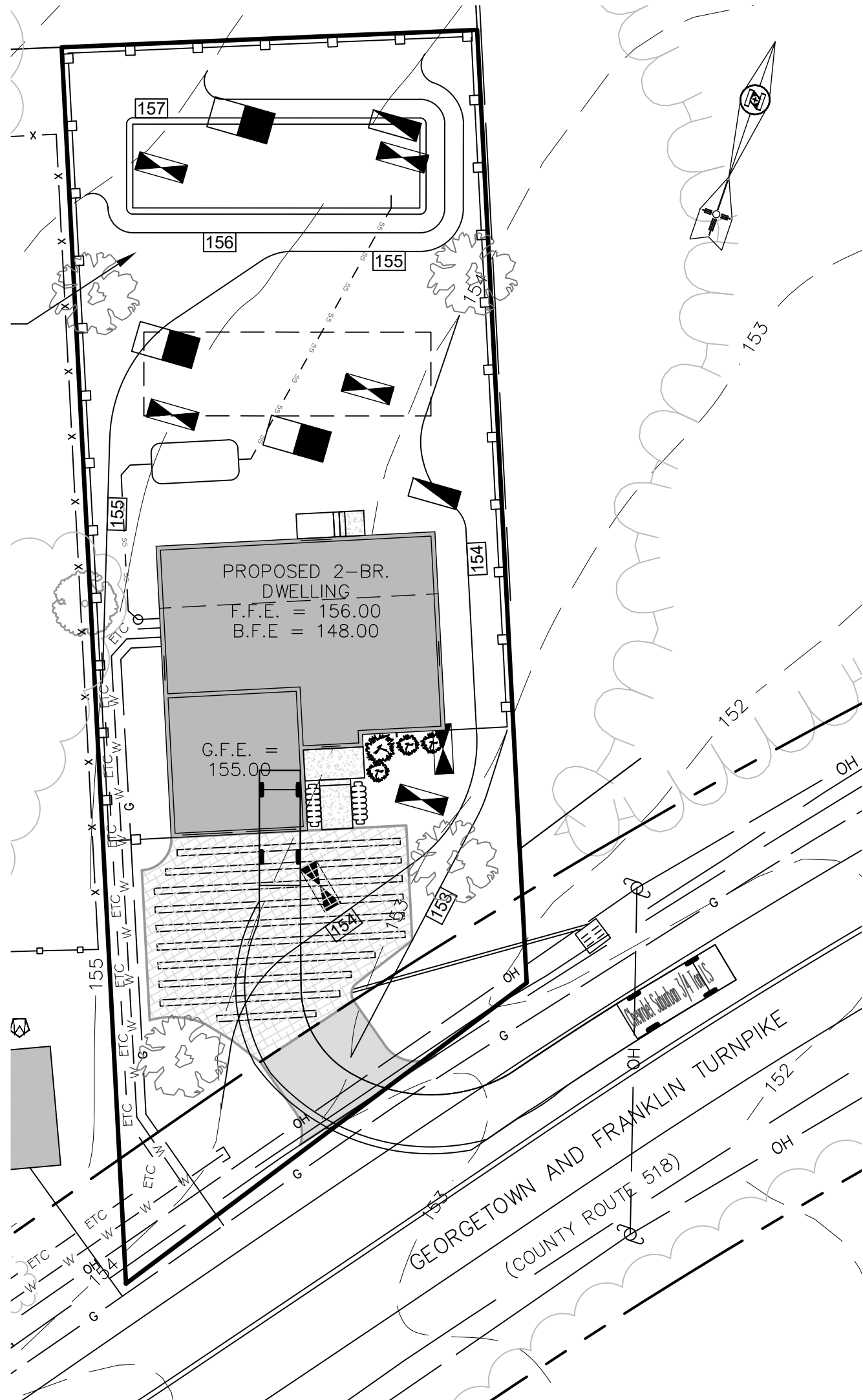
VEHICLE MOVEMENT DETAIL:  
BACKING OUT FROM WEST SIDE OF DRIVEWAY

1"=20'



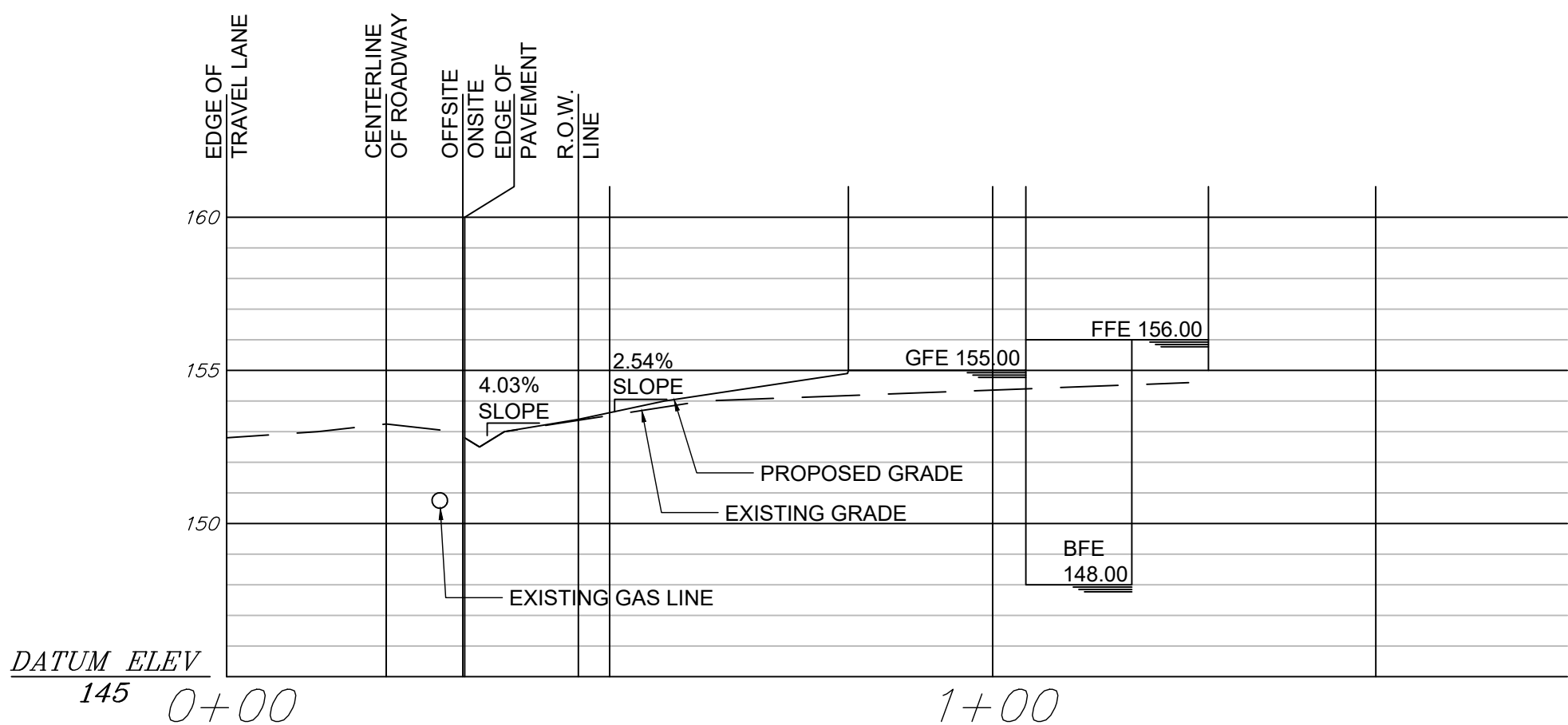
VEHICLE MOVEMENT DETAIL:  
TURNING INTO DRIVEWAY FROM EASTWARD  
DIRECTION

1"=20'



VEHICLE MOVEMENT DETAIL:  
TURNING INTO DRIVEWAY FROM WESTWARD  
DIRECTION

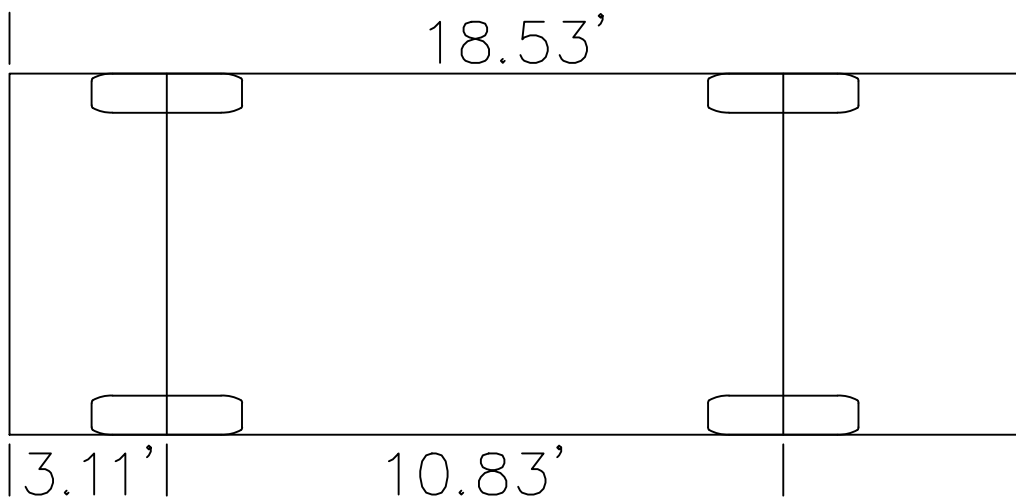
1"=20'



DRIVEWAY PROFILE



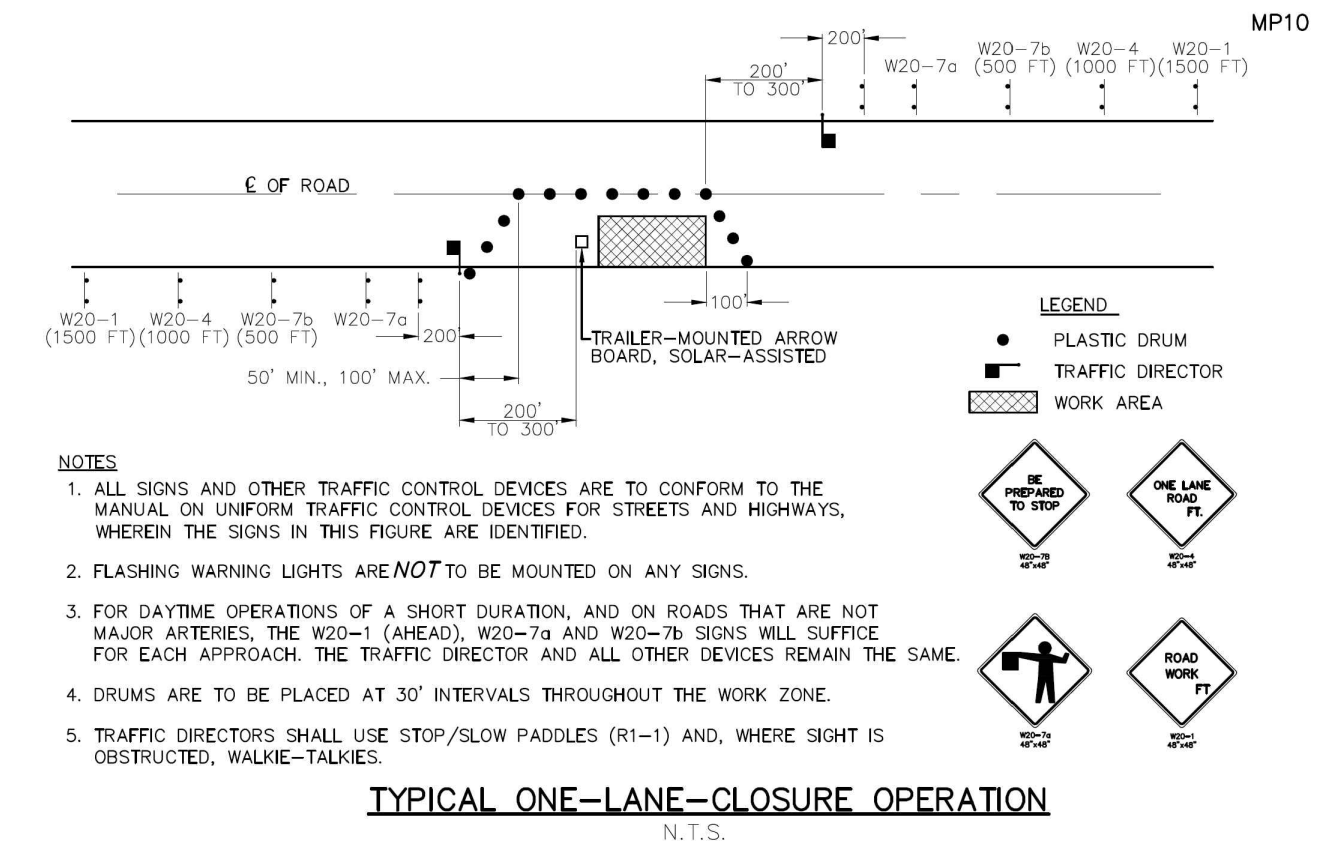
PASSENGER VEHICLE SIZE CONFIGURATION  
OVERALL LENGTH = 18.53'  
WIDTH = 6.59'  
HEIGHT = 6.26'  
TRACK = 6.59'  
LOCK TO LOCK TIME = 4.00 sec  
TURNING RADIUS = 22.65'



PASSENGER VEHICLE DETAIL

N.T.S.

PROFILE VIEWS  
HORIZ: 1"=20'  
VERT: 1"=5'



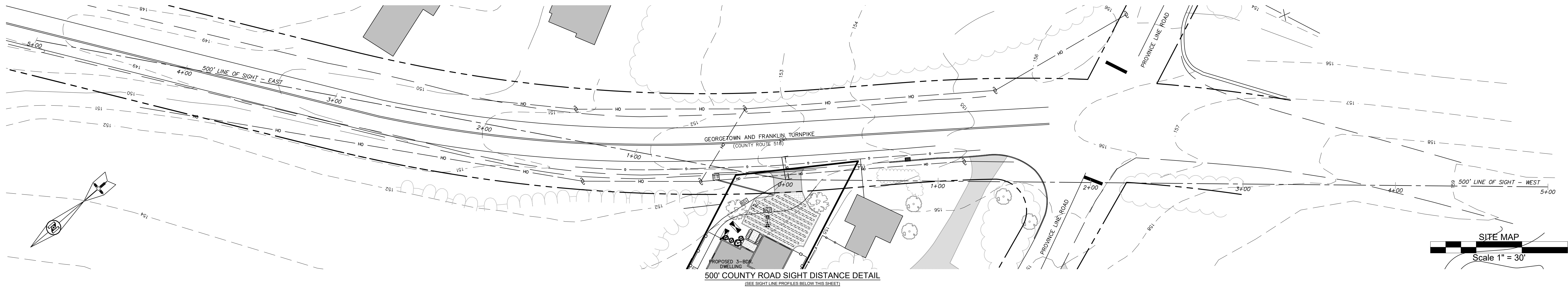
TYPICAL ONE-LANE-CLOSURE OPERATION

N.T.S.

- GENERAL NOTES:
- VEHICLE MOVEMENT DETAILS SHOWN HEREON WERE DETERMINED USING DIMENSIONS OF A TYPICAL LARGE SUV (CHEVY SUBURBAN; SEE DETAIL THIS SHEET).
  - VEHICLE TURNING ANALYSIS PERFORMED USING VEHICLE TRACKING SOFTWARE IN AUTODESK CIVIL 3D.
  - TRAFFIC CONTROL PLAN DETAIL THIS SHEET FROM SOMERSET COUNTY PUBLIC WORKS HANDBOOK DETAILS (SEE REFERENCE #8, SHEET #1).

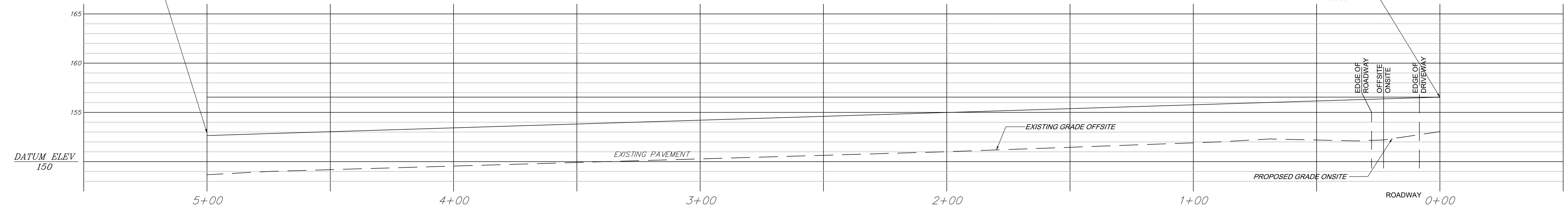
 <b>BAYER-RISSE ENGINEERING, INC.</b> 78 ROUTE 173 WEST, SUITE 6 HAMPTON, NEW JERSEY 08827 PHONE 908-735-2255 FAX 908-735-5838 <small>Certificate of Authorization No. 24G427943900</small>			
	COMPLETENESS ISSUES	12/01/23	THB
	TOWNSHIP HD INPUT/REVIEW COMMENTS	06/06/23	THB
	REVISION DESCRIPTION	DATE	APPROVED
	<b>VARIANCE PLAN VEHICLE MOVEMENT PLANS</b>		
	Lands of Tamer Kharrubi Block 24001, Lot 37 8 County Route 518 MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY		
<b>THEODORE H. BAYER, P.E.</b> New Jersey Professional Engineer Licence No. GE33806	DRAWN BY: MH	DESIGNED BY: MH	CHECKED BY: THB
	DWG NO.: TK-9	BEE JOB#: 23-2586	SCALE: As Noted
DATE: April 10, 2023		SHEET: 9 of 10	





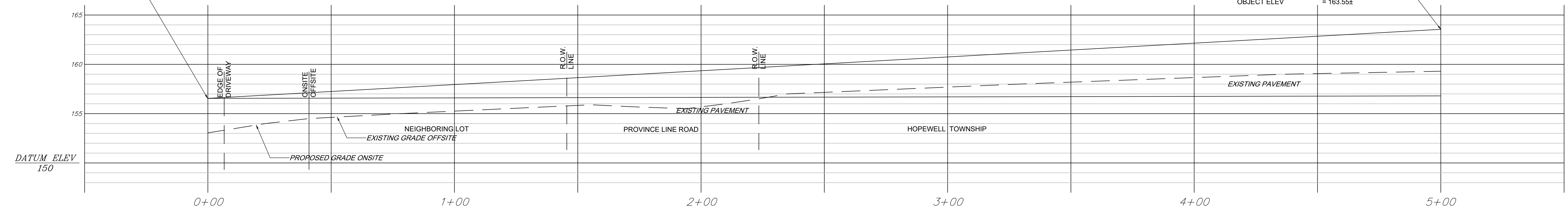
OBJECT LOCATION  
EXIST PAVEMENT ELEV = 148.40±  
DIST ABOVE PAVEMENT = 4.25' COUNTY  
OBJECT ELEV = 152.65±  
  
EXIST PAVEMENT ELEV = 148.40±  
DIST ABOVE PAVEMENT = 4.25' TWP  
OBJECT ELEV = 152.65±

COUNTY RT. #518 - SIGHT LINE PROFILE - EAST



DRIVER'S EYE LOCATION  
PROP PAVEMENT ELEV = 153.05±  
DIST ABOVE PAVEMENT = 3.5'  
DRIVER'S EYE ELEV = 156.55±

COUNTY RT. #518 - SIGHT LINE PROFILE - WEST



DRIVER'S EYE LOCATION  
PROP PAVEMENT ELEV = 153.05±  
DIST ABOVE PAVEMENT = 3.5'  
DRIVER'S EYE ELEV = 156.55±

OBJECT LOCATION  
EXIST PAVEMENT ELEV = 159.30±  
DIST ABOVE PAVEMENT = 4.25' COUNTY  
OBJECT ELEV = 163.55±  
  
EXIST PAVEMENT ELEV = 159.30±  
DIST ABOVE PAVEMENT = 4.25' TWP  
OBJECT ELEV = 163.55±

GENERAL NOTES:  
1. IF NECESSARY, ALL SIGHT OBSTRUCTIONS SHALL BE CLEARED WITHIN THE CLEAR SIGHT AREAS.

PROFILE VIEWS  
HORIZ: 1"=20'  
VERT: 1"=5'

 <b>BAYER-RISSE ENGINEERING, INC.</b> 78 ROUTE 173 WEST, SUITE 6 HAMPTON, NEW JERSEY 08827 PHONE 908-735-2255 FAX, 908-735-5838 <small>Certificate of Authorization No. 24G427943900</small>			
	COMPLETENESS ISSUES 12/01/23 THB		
	TOWNSHIP HD INPUT/REVIEW COMMENTS 06/06/23 THB		
	REVISION DESCRIPTION DATE APPROVED		
 <b>THEODORE H. BAYER, P.E.</b> New Jersey Professional Engineer Licence No. GE33806	<b>VARIANCE PLAN PLAN &amp; PROFILE</b>		
	Lands of Tamer Kharrubi Block 24001, Lot 37 8 County Route 518 MONTGOMERY TOWNSHIP, SOMERSET COUNTY, NEW JERSEY		
	DESIGNED BY: MH	CHECKED BY: THB	DWG NO.: TK-10
	SCALE: As Noted	DATE: April 10, 2023	SHEET: 10 of 10