

Drywell Design:
Soils: Well-sorted "C"

Development size = 0.1330 Acre
 Undeveloped SCS Curve No = 74.0000
 Developed SCS Curve No = 98.0000
 100 year, 24-hour 9.3000

1. Select Design Storm
 Precast drywell with 3'-3/4" crushed stone

2. Type of subsurface disposal system.
 Precast drywell with 3'-3/4" crushed stone

3. Determine Percolation Rate:
 Percolation Rate = 1.0000 inches
 Drop = 30.0000 minutes

4. Area of Percolation (Ap):
 Surface area of Drywell = 1.0000 lot
 Area of 1' Diameter = 2.2253 FT²
 Inset = 8.5000 inches
 Bottom Area = 2.2253 FT²
 Ap = P² / 4 = 0.7654 FT²

Volume of Percolation:
 Ap = Ac / Ab = 3.0107 FT²
 Ap = Ac / Ab = 0.0654 FT³
 Soil Percolation Rate = 0.0007 FT³/FT²/Min.
 Soil Volume Available = 1.0435 FT³/FT²/day
 Sr = (minus clogging factor of 25%) = 0.7823 FT³/FT²/day

4. Calculate Required Storage Volume:
 100yr, 24 hour rainfall = 74.0000 inches
 From Table 2.1 of TR-55 Existing CN = 98.0000 therefore depth V_r = 6.11 inches
 Proposed CN = 2.9900 inches
 Delta V_r = 1443.1733 FT³

5. Calculate Volume per Drywell:
 V_w = P² / 4 * height = 3.0000 feet
 Thickness of Stone = 0.3330 feet
 Diameter of drywell = 6.0000 feet
 Height of drywell = 225.1000 FT³
 V_w = 1443.1733 FT³

6. Calculate 24-hour percolation volume per drywell (V_D):
 V_r = side surface area of drywell * soil percolation rate (Sr)
 V_D = P * D * π * Sr = 98.8683 FT³/day/drywell

7. Calculate the total 24-hour Volume per drywell (V_T):
 V_T = Volume of drywell not included = 323.7083 FT³
 V_T = Volume of drywell (V_w) / percolation volume (V_D) = 4.5

8. Determine number of drywells required (DWR):
 DWR = Req. Volume of Storage (V_T / Total Vol per Drywell (V_T)) = 5

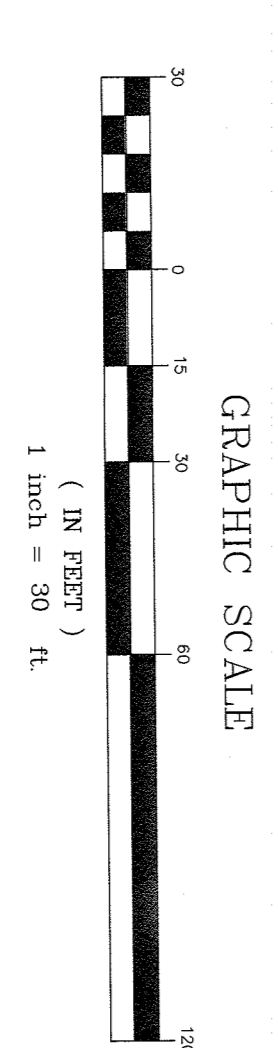
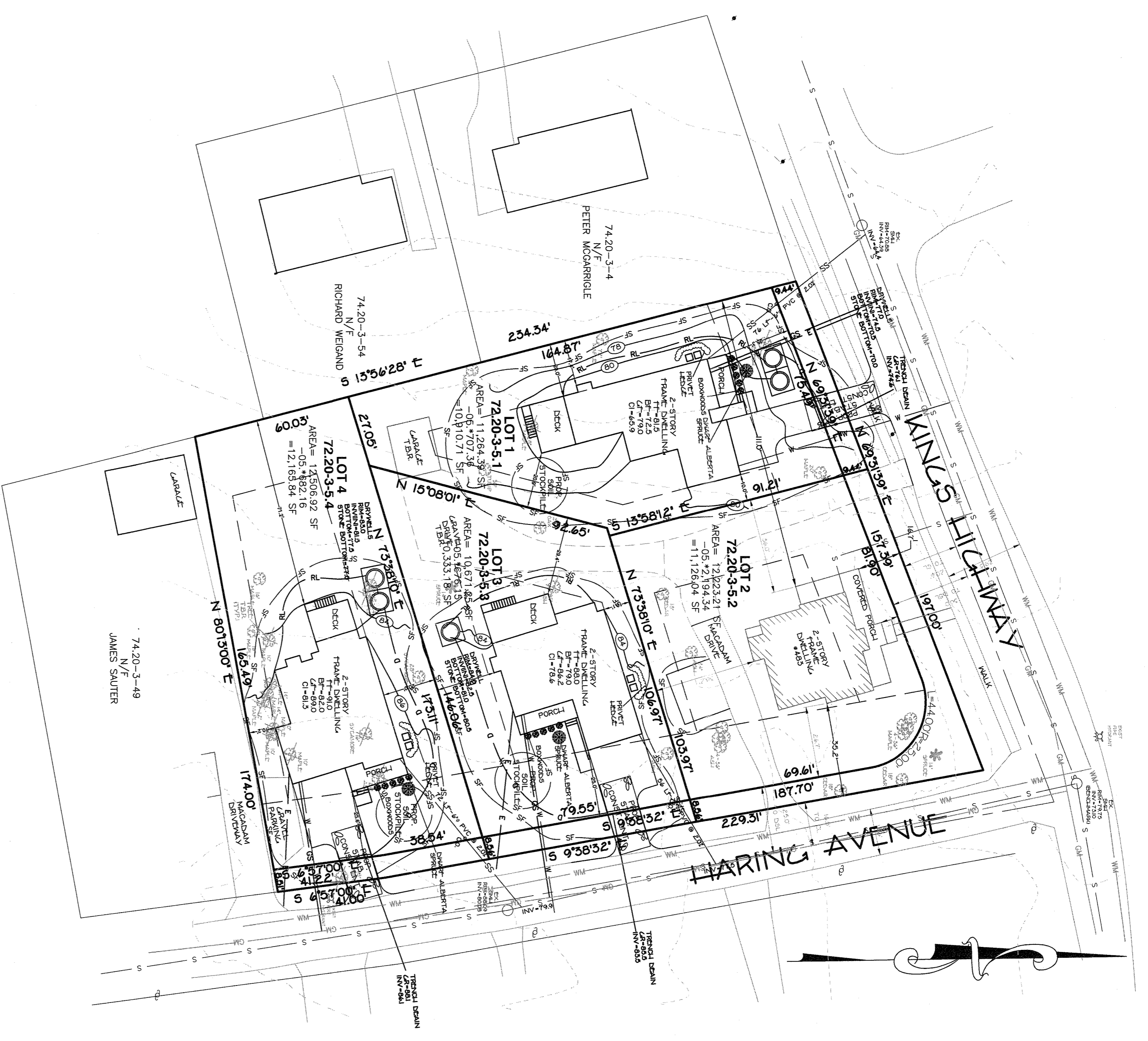
COVERAGE BREAKDOWN

EXISTING T.B.R.	PROPOSED	NET
PROVIDED LOT 1	458	2,704
PROVIDED LOT 2	1,264	354
PROVIDED LOT 3	1,343	2,889
PROVIDED LOT 4	0	2,942

BULK REGULATIONS - ZONE R0 GROUP-Q

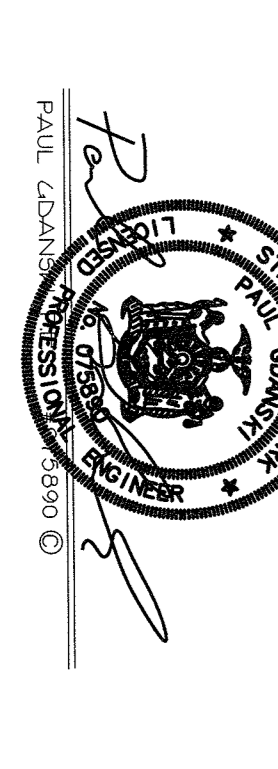
LOT AREA (SF)	STREET FRONTAGE (FT)	LOT WIDTH (FT)	FRONT YARD (FT)	SIDE YARD (FT)	BOTH SIDE YARDS (FT)	REAR YARD (FT)	ACR. SIDE SET	MAX. BULK HT.	MAX. F.A.R.
REQUIRED	10,000	50	75	25	10	30	25	14' / FT F/V	0.30
PROVIDED LOT 1	10,911	75.5	25.0	10.0	30.0	25.0	NA	11.5' / FT F/V	0.29
PROVIDED LOT 2	11,136	195.5	97.6	6.7*	36.0	NA	NA	14' / FT F/V	0.29
PROVIDED LOT 3	10,333	79.6	79.6	25.0	10.0	30.0	NA	12' / FT F/V	0.30
PROVIDED LOT 4	12,185	79.8	76.9	25.0	10.0	30.0	NA	12' / FT F/V	0.30

* PRE-EXISTING CONDITION
 * VARIANCE REQUIRED



IN WITNESS WHEREOF, I have hereunto set my hand and the seal of the State of New York, this 15th day of January, 2020.

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LANDING, UTILITY AND SOLE EROSION PLAN
 MAJOR SUBDIVISION
 FOR
 HAMLET OF TARPAN
 TOWN OF ORANGETOWN
 ROCKLAND COUNTY, NEW YORK

DATE	REVISIONS
DESIGNED EM	CHECKED PG
DRAWN EM	APPROVED PG

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