

Watershed Inventory Report

Phase 1 of the Watershed Improvement Plan

Borough of Keyport
Monmouth County

Date Report Finalized: _____

Permit Number: NJG0149012

Stormwater Program Coordinator: Trevor Taylor, PE, PP, CFM, CME

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Acknowledgements

The Borough of Keyport's Inventory Report has been prepared by:

- Trevor J. Taylor, PE, PP, CME, CFM

Acronyms & Definitions

Acronyms

- **BMP** – Best Management Practice
- **C1** – Category 1 Water
- **FW2-NT/SE1** – Freshwater Classification 2, Non-Trout, Saline Estuarine Classification 1 Water
- **GIS** – Geographic Information System
- **HUC 14** – Hydrologic Unit Code 14
- **NJ-WET** – New Jersey Watershed Evaluation Tool
- **SE1** – Saline Estuarine Classification 1 Water
- **SE1C1** – Saline Estuarine Classification 1, Category 1 Water
- **TMDL** – Total Maximum Daily Load

Definitions

- **Category 1 Water (C1)** - Those waters designated in the tables in N.J.A.C. 7:9B-1.15(c) through (h), for purposes of implementing the antidegradation policies set forth in N.J.A.C. 7:9B-1.5(d), for protection from measurable changes in water quality characteristics because of their clarity, color, scenic setting, other characteristics of aesthetic value, exceptional ecological significance, exceptional recreational significance, exceptional water supply significance, or exceptional fisheries resource(s).
- **Freshwaters (FW)** - Freshwaters are classified as FW1 waters (not subject to any man-made wastewater discharges) and FW2 waters (all other freshwaters except Pinelands waters). FW1 waters are nondegradation waters set aside for posterity because of their unique ecological significance. FW2 waters are further classified based on their ability to support trout, which thrive in cooler stream temperatures. Trout classifications include trout production (FW2-TP), trout maintenance (FW2-TM), and nontrout (FW2-NT).
- **Saline Waters (SE)** - Saline waters are classified as saline estuarine (SE) and saline coastal (SC). SE waters are further classified as SE1, SE2, and SE3 waters based on their ability to support recreation, shellfish harvesting and warm water fish species. Waters within the Pinelands Protection and Preservation areas (which may be either freshwater or saline) are classified as Pinelands waters (PL) unless they are classified as FW1 waters.
- **Hydrologic Unit Code 14 (HUC 14)** – an area within which water drains to a particular receiving surface water body, also known as a subwatershed, which is identified by a 14-digit hydrologic unit boundary designation, delineated within New Jersey by the United States Geological Survey. (see N.J.A.C. 7:9B)

- **Outfall** – means any point source which discharges directly to waters of the United States and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels or other conveyances which connect segments of the same stream or other waters of the United States and are used to convey waters of the United States.
- **Stormwater** – water resulting from precipitation (including rain and snow) that runs off the land's surface, is transmitted to the subsurface, is captured by separate storm sewers or other sewerage or drainage facilities or is conveyed by snow removal equipment.
- **Total Maximum Daily Load (TMDL)** – a total maximum daily load formally established pursuant to Section 7 of the Water Quality Planning Act (N.J.S.A. 58:11A-7) and Section 303(d) of the Clean Water Act, 33 U.S.C. §§12512 et seq. A TMDL is the sum of individual wasteload allocations for point sources, load allocations for nonpoint sources of pollution, other sources such as tributaries or adjacent segments, and allocations to a reserve or margin of safety for an individual pollutant.

Introduction:

- **Location**
 - Borough of Keyport, Monmouth County, NJ
- **Population**
 - 7,159 per 2020 United States Census
- **Area**
 - 1.46 Square Miles
- **Demographics**
 - Age
 - 0-9 Years Old – 12.5%
 - 10-19 Years Old – 7.9%
 - 20-29 Years Old – 13.5%
 - 30-39 Years Old – 13.1%
 - 40-49 Years Old – 8.7%
 - 50-59 Years Old – 15.6%
 - 60-69 Years Old – 17.4%
 - 70-79 Years Old – 7.6%
 - 80+ Years Old – 3.8%
 - *The available data provides percentages rounded to one decimal place, therefore the sum of the above percentages results in 100.1%.
 - Sex
 - Female – 52.8%
 - Male – 47.2%
 - Race & Ethnicity
 - White – 67.6%
 - Black – 4.7%
 - Hispanic – 20.3%
 - Native – 0.0%
 - Asian – 2.5%
 - Islander – 0.0%
 - Other – 0.2%
 - Two+ – 4.7%
- **Land use types**
 - Residential, High Density or Multiple Dwelling
 - Residential, Single Unit, Medium Density

- Commercial/Services
- Industrial
- Recreational Land
- **Subwatersheds within or bordering Keyport Borough**
 - Matawan Creek (below Ravine Drive) (02030104060030)
 - The Matawan Creek subwatershed includes the Luppataong Creek watershed as the Luppataong Creek is not delineated as it's own watershed.
 - Chingarora Creek to Thornes Creek (02030104060040)
 - Raritan Bay (West of Thornes Creek) (02030104910010)
- **Areas Prone to Flooding**
 - As depicted on FEMA FIRMs 34025C0029G, 34025C0033G and 34025C0037G, the Borough of Keyport contains areas located within Flood Hazard Area Zones AE and VE and have base flood elevations ranging from elevation 13 to elevation 20.
- **Goal for the Watershed Improvement Plan**
 - Goals of the Watershed Improvement Plan consist of improving flooding issues and reducing pollutants within the watershed.
 - Additional feedback will be provided under Phase II in 2026.

Keyport Borough Stormwater Webpage: <https://www.keyportonline.com/stormwater>

Public Participation:

- **List of stakeholders**
 - Borough of Keyport
- **List of Previously Held Meetings**
 - N/A
- **Summary of Feedback**
 - N/A
- **Future Scheduled Meetings**
 - Future meetings to be scheduled in 2026.

Stormwater Outfalls:

Stormwater Outfalls Owned/Operated by Permittee:

- 57 total outfalls are owned/operated by the Borough of Keyport.
- 27 outfalls discharge to the Matawan Creek (below Ravine Drive) sub-watershed.
- 11 outfalls discharge to the Chingarora Creek to Thornes Creek sub-watershed.
- 19 outfalls discharge to the Raritan Bay (west of Thornes Creek) sub-watershed.

Receiving Surface Waters:

- Raritan Bay: 19 outfalls
- Matawan Creek: 6 outfalls
- Luppataong Creek: 21 outfalls
- Chingarora Creek: 11 outfalls

Water Quality Classifications:

- Raritan Bay: FW2-NT/SE1
- Matawan Creek: FW2-NT/SE1
- Luppataong Creek: FW2-NT/SE1
- Chingarora Creek: FW2-NT/SE1
- All outfalls discharge to FW2-NT/SE1 waters.

Table #1: Receiving Surface Water Bodies & Water Quality Classifications

Local Outfall ID	Receiving Surface Waterbody	Water Quality Classification
CHG-1	Chingarora Creek	FW2-NT/SE1
CHG-2	Chingarora Creek	FW2-NT/SE1
CHG-3	Chingarora Creek	FW2-NT/SE1
CHG-4	Chingarora Creek	FW2-NT/SE1
CHG-5	Chingarora Creek	FW2-NT/SE1
CHG-6	Chingarora Creek	FW2-NT/SE1
CHG-7	Chingarora Creek	FW2-NT/SE1
CHG-8	Chingarora Creek	FW2-NT/SE1
CHG-9	Chingarora Creek	FW2-NT/SE1
CHG-10	Chingarora Creek	FW2-NT/SE1
CHG-11	Chingarora Creek	FW2-NT/SE1
KYT-5	Luppataong Creek	FW2-NT/SE1
KYT-8	Luppataong Creek	FW2-NT/SE1
LUP-1	Luppataong Creek	FW2-NT/SE1
LUP-2	Luppataong Creek	FW2-NT/SE1
LUP-3	Luppataong Creek	FW2-NT/SE1
LUP-4	Luppataong Creek	FW2-NT/SE1
LUP-5	Luppataong Creek	FW2-NT/SE1
LUP-6	Luppataong Creek	FW2-NT/SE1
LUP-7	Luppataong Creek	FW2-NT/SE1
LUP-7A	Luppataong Creek	FW2-NT/SE1
LUP-8	Luppataong Creek	FW2-NT/SE1
LUP-9	Luppataong Creek	FW2-NT/SE1
LUP-10	Luppataong Creek	FW2-NT/SE1
LUP-11	Luppataong Creek	FW2-NT/SE1
LUP-12	Luppataong Creek	FW2-NT/SE1

Local Outfall ID	Receiving Surface Waterbody	Water Quality Classification
LUP-13	Luppataong Creek	FW2-NT/SE1
LUP-14	Luppataong Creek	FW2-NT/SE1
LUP-15	Luppataong Creek	FW2-NT/SE1
LUP-17	Luppataong Creek	FW2-NT/SE1
LUP-18	Luppataong Creek	FW2-NT/SE1
LUP-19	Luppataong Creek	FW2-NT/SE1
MAT-1	Matawan Creek	FW2-NT/SE1
MAT-2	Matawan Creek	FW2-NT/SE1
MAT-3	Matawan Creek	FW2-NT/SE1
MAT-4	Matawan Creek	FW2-NT/SE1
MAT-5	Matawan Creek	FW2-NT/SE1
MAT-6	Matawan Creek	FW2-NT/SE1
RB-1	Raritan Bay	FW2-NT/SE1
RB-2	Raritan Bay	FW2-NT/SE1
RB-3	Raritan Bay	FW2-NT/SE1
RB-4	Raritan Bay	FW2-NT/SE1
RB-5	Raritan Bay	FW2-NT/SE1
RB-6	Raritan Bay	FW2-NT/SE1
RB-7	Raritan Bay	FW2-NT/SE1
RB-8	Raritan Bay	FW2-NT/SE1
RB-9	Raritan Bay	FW2-NT/SE1
RB-10	Raritan Bay	FW2-NT/SE1
RB-11	Raritan Bay	FW2-NT/SE1
RB-12	Raritan Bay	FW2-NT/SE1
RB-13	Raritan Bay	FW2-NT/SE1
RB-14	Raritan Bay	FW2-NT/SE1
RB-15	Raritan Bay	FW2-NT/SE1
RB-16	Raritan Bay	FW2-NT/SE1
RB-17	Raritan Bay	FW2-NT/SE1
RB-18	Raritan Bay	FW2-NT/SE1
RB-19	Raritan Bay	FW2-NT/SE1

Stormwater Interconnections:

Interconnections are shown on the Outfall and Interconnection Drainage Area Maps (Figure #3) and are listed in Table #2.

Table #2 Stormwater Interconnections

Local ID	Type	Upstream Entity	Downstream Entity
IC DA #CHG-9.1	Interconnection	Hazlet Township	Keyport Borough
IC DA #LUP-13.1	Interconnection	Aberdeen Township	Keyport Borough
IC DA #MAT-4.2	Interconnection	Aberdeen Township	Keyport Borough

Drainage Areas for Stormwater Outfalls and Stormwater Interconnections:**Storm Drain Inlets**

- Based on available information, there are 556 inlets owned/operated by the Borough of Keyport.

MS4 Outfall Drainage Areas

- Topography was taken from Monmouth County GIS Parcel Data and is dated June 21, 2021.
- Stormwater outfalls as shown on the Outfall and Interconnection Drainage Area Maps (Figure #3) have been located based on field investigation, historic mapping and available GIS data.
- The drainage area for each outfall was determined by analyzing the existing topography and pipe network within the Borough as shown on Figure #3.

Table #3: Outfall Drainage Areas:

Drainage Area ID	Area (Acres)	Interconnection/Outfall
CHG-1	10.60	Outfall
CHG-2	0.90	Outfall
CHG-3	6.49	Outfall
CHG-4	41.49	Outfall
CHG-5	15.52	Outfall
CHG-6	5.78	Outfall
CHG-7	3.75	Outfall
CHG-8	110.71	Outfall
CHG-9	127.17	Outfall
CHG-10	1.99	Outfall
CHG-11	17.39	Outfall
KYT-5	2.12	Outfall
KYT-8	0.47	Outfall
LUP-1	2.39	Outfall

Drainage Area ID	Area (Acres)	Interconnection/Outfall
LUP-2	2.54	Outfall
LUP-3	0.26	Outfall
LUP-4	21.68	Outfall
LUP-5	0.24	Outfall
LUP-6	7.89	Outfall
LUP-7	10.60	Outfall
LUP-7A	10.60	Outfall
LUP-8	0.43	Outfall
LUP-9	4.03	Outfall
LUP-10	1.74	Outfall
LUP-11	18.09	Outfall
LUP-12	8.06	Outfall
LUP-13	16.67	Outfall
LUP-14	0.70	Outfall
LUP-15	0.82	Outfall
LUP-17	3.91	Outfall
LUP-18	1.44	Outfall
LUP-19	4.74	Outfall
MAT-1	14.27	Outfall
MAT-2	3.05	Outfall
MAT-3	8.47	Outfall
MAT-4	9.14	Outfall
MAT-5	7.22	Outfall
MAT-6	7.98	Outfall
RB-1	1.12	Outfall
RB-2	0.88	Outfall
RB-3	1.01	Outfall
RB-4	2.93	Outfall
RB-5	1.54	Outfall
RB-6	1.67	Outfall
RB-7	1.26	Outfall
RB-8	3.36	Outfall
RB-9	0.67	Outfall
RB-10	16.34	Outfall
RB-11	42.81	Outfall
RB-12	2.29	Outfall
RB-13	1.21	Outfall
RB-14	1.77	Outfall
RB-15	5.45	Outfall
RB-16	4.36	Outfall

Drainage Area ID	Area (Acres)	Interconnection/Outfall
RB-17	2.36	Outfall
RB-18	2.15	Outfall
RB-19	1.55	Outfall

TMDLs and Water Quality Impairments:

Matawan Creek (below Ravine Drive)

- TMDL
 - Total Maximum Daily Load for Mercury Impairments
- Water Quality Impairment
 - Dissolved Oxygen (Aquatic Life)
 - Enterococcus (Recreation)
 - Escherichia Coli (Recreation)
 - PCBs in Fish Tissue (Fish Consumption)
 - pH (Aquatic Life)
- Environmental Impacts
 - Dissolved Oxygen (Aquatic Life) – Stormwater runoff contains nutrients such as nitrate, phosphorus, and organic TSS matter, and animal and pet waste cause the levels of dissolved oxygen to decrease in receiving waters. An increase in these materials transported via stormwater runoff will have a greater impact on receiving waters.
 - Enterococcus (Recreation) – Enterococcus indicates the presence of fecal contamination within a waterbody, primarily saltwater.
 - Escherichia Coli (Recreation) – Enterococcus indicates the presence of fecal contamination within a waterbody, primarily freshwater.
 - PCBs in Fish Tissue (Fish Consumption) – Polychlorinated Biphenyls are easily carried away as a TSS by stormwater runoff from products containing the compounds which are exposed to stormwater and known and unknown contaminated areas. PCBs have a moderate level of volatility, which means that their vapors are also readily carried aloft by the wind. PCBs are then deposited on exposed surfaces via air deposition.
 - pH (Aquatic Life) – pH values range from 0 to 14, with 0 representing the most acidic and 14 representing the most basic. Pure water has a neutral pH equal to 7 but when chemicals or pollutants are mixed with stormwater runoff, the mixture can become either acidic or basic. Such is the case when stormwater runoff encounters ammonia, sulfur, battery acids, lime, cement, wet or fresh concrete, fertilizers, compost, and other pollutants.

Chingarora Creek to Thornes Creek

- TMDL
 - None
- Water Quality Impairment
 - Dissolved Oxygen (Aquatic Life)
 - Enterococcus (Recreation)
 - PCBs in Fish Tissue (Fish Consumption)
- Environmental Impacts
 - Dissolved Oxygen (Aquatic Life) – Stormwater runoff contains nutrients such as nitrate, phosphorus, and organic TSS matter, and animal and pet waste cause the levels of dissolved oxygen to decrease in receiving waters. An increase in these materials transported via stormwater runoff will have a greater impact on receiving waters.
 - Enterococcus (Recreation) – Enterococcus indicates the presence of fecal contamination within a waterbody, primarily saltwater.
 - PCBs in Fish Tissue (Fish Consumption) – Polychlorinated Biphenyls are easily carried away as a TSS by stormwater runoff from products containing the compounds which are exposed to stormwater and known and unknown contaminated areas. PCBs have a moderate level of volatility, which means that their vapors are also readily carried aloft by the wind. PCBs are then deposited on exposed surfaces via air deposition.

Raritan Bay (West of Thornes Creek)

- TMDL
 - None
- Water Quality Impairment
 - Benzo(a)pyrene (PAH) (Fish Consumption)
 - Dissolved Oxygen (Aquatic Life)
 - PCBs in Fish Tissue (Fish Consumption)
 - pH (Aquatic Life)
- Environmental Impacts
 - Benzo(a)pyrene (PAH) (Fish Consumption) – Stormwater runoff contains Benzo(a)pyrene which is deposited on surfaces from vehicle and industrial emissions and is a by-product of combustion. It is easily washed into surface waters by rainfall.
 - Dissolved Oxygen (Aquatic Life) – Stormwater runoff contains nutrients such as nitrate, phosphorus, and organic TSS matter, and animal and pet waste cause the levels of dissolved oxygen to decrease in receiving waters. An increase in these materials transported via stormwater runoff will have a greater impact on receiving waters.

- PCBs in Fish Tissue (Fish Consumption) – Polychlorinated Biphenyls are easily carried away as a TSS by stormwater runoff from products containing the compounds which are exposed to stormwater and known and unknown contaminated areas. PCBs have a moderate level of volatility, which means that their vapors are also readily carried aloft by the wind. PCBs are then deposited on exposed surfaces via air deposition.
- pH (Aquatic Life) – pH values range from 0 to 14, with 0 representing the most acidic and 14 representing the most basic. Pure water has a neutral pH equal to 7 but when chemicals or pollutants are mixed with stormwater runoff, the mixture can become either acidic or basic. Such is the case when stormwater runoff encounters ammonia, sulfur, battery acids, lime, cement, wet or fresh concrete, fertilizers, compost, and other pollutants.

Table #4: TMDLs and Impairments for HUC 14s within or bordering Keyport Borough

HUC 14	Subwatershed Name	TMDL(s)	Impairment(s)
02030104060030	Matawan Creek (below Ravine Drive)	-Mercury Impairments	- Dissolved Oxygen - Enterococcus - Escherichia Coli - PCBs in Fish Tissue - pH
02030104060040	Chingarora Creek to Thornes Creek	None	- Dissolved Oxygen - Enterococcus - PCBs in Fish Tissue
02030104910010	Raritan Bay (West of Thornes Creek)	None	- Benzo(a)pyrene - Dissolved Oxygen - PCBs in Fish Tissue - pH

Overburdened Communities:

Matawan Creek (below Ravine Drive)

- No mapped overburdened communities within the sub-watershed.

Chingarora Creek to Thornes Creek

- Minority

Raritan Bay (West of Thornes Creek)

- No mapped overburdened communities within the sub-watershed.

It is important to maintain clean surface water in overburdened communities to protect public health, safety and the environment.

Impervious Area:

Per NJAC 7:8, “impervious surface” is defined as a surface that has been covered with a layer of material so that it is highly resistant to infiltration by water. Increasing the amount of impervious coverage within a drainage area or sub-watershed area typically results in increased stormwater runoff volume and flow rate to the receiving waterbody. Further, increased impervious coverage also increases the number of pollutants that will enter the receiving waterbody from the collection upstream of same. In other words, drainage areas or sub-watersheds with higher impervious coverage percentages can potentially be harmful to aquatic ecosystems.

Figure #6 includes a map of the impervious surfaces within the Borough of Keyport as depicted on NJ-WET and NJ GeoWeb.

Non-Municipally Owned or Operated Stormwater Facilities:

The information below was been obtained from the New Jersey Hydrologic Modeling Database on December 2, 2025.

Table #5: Non-municipally Owned/Operated Stormwater Infrastructure in Keyport Borough

Chapter 251 #	Type of BMP	Owner	Sub-watershed (HUC 14)
1985-0611	Detention Basin	Gateway Park	02030104060040
2005-0548	Detention Basin	Valley National Bank	02030104060040

Conclusion

The Watershed Inventory Report, Phase 1 of the Watershed Improvement Plan, identifies stormwater infrastructure, as required in the MS4 permits. It also summarizes water quality data, including stream classifications, TMDLs, and water quality impairments. The data that accompanies this inventory report has been compiled as an electronic map and submitted to the NJDEP through NJDEP Online via the Stormwater Document Submittal Service. The information from this inventory report will be used to make informed decisions during the creation of the Watershed Assessment Report, Phase 2 of the Watershed Improvement Plan. The work done in Phase 2 will identify areas of potential concern and where potential water quality improvement projects may be implemented to address the highlighted water quality and quantity issues identified in this inventory report.

References

Data Sources

2020 Census of Population and Housing from U.S. Department of Commerce, U.S. Census Bureau website: <https://data.census.gov/>.

New Jersey 2022 Integrated Water Quality Report, including the 303(d) Impaired Waters List from New Jersey Department of Environmental Protection, Bureau of Bureau of Environmental Analysis, Restoration and Standards website: <https://dep.nj.gov/wms/bears/integrated-wq-assessment-report-2022/>.

New Jersey Watershed Evaluation Tool (NJ-WET) from Division of Watershed and Land Management, Bureau of NJPDES Stormwater Permitting website: <https://dep.nj.gov/njpdes-stormwater/municipal-stormwater-regulation-program/watershed-improvement-plan-guidance/>.

NJDEP Open Data from Division of Information Technology, NJDEP Bureau of GIS website: <https://gisdata-njdep.opendata.arcgis.com/>.

Total Maximum Daily Load (TMDL) Look-Up Tool from New Jersey Department of Environmental Protection, Bureau of NJPDES Stormwater Permitting website: <https://dep.nj.gov/njpdes-stormwater/municipal-stormwater-regulation-program/tmdl/>.

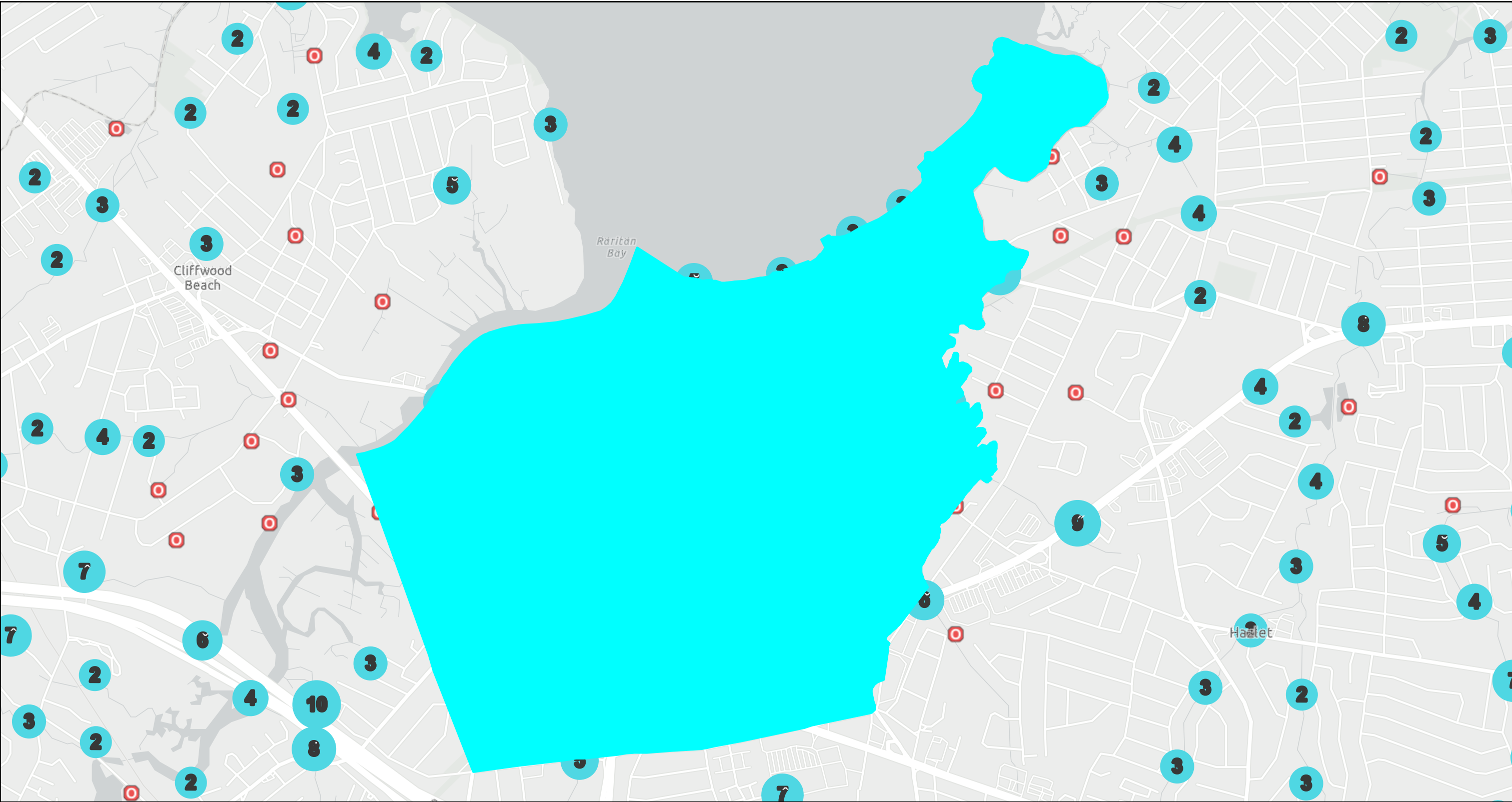
NJDEP GeoWeb, website: [NJ-GeoWeb](#)

New Jersey Hydrologic Modeling Database, website: <https://hydro.rutgers.edu/>

FIGURE #1

MS4 OUTFALLS WITHIN KEYPORT BOROUGH

06 2XWIDOOV ZLWKLQ .H\SRUW %RURXJK



06 2XWIDOOV

5" 7LHU \$

5 7LHU %

5 3XEOLF &R

5 +LJKZD\ \$7

+LJK

0XQLFLSDOLW\

5 /RZ

OH[

6RXUFHV\ (VUL 7RP7RP *DUPLQ)\$2 1

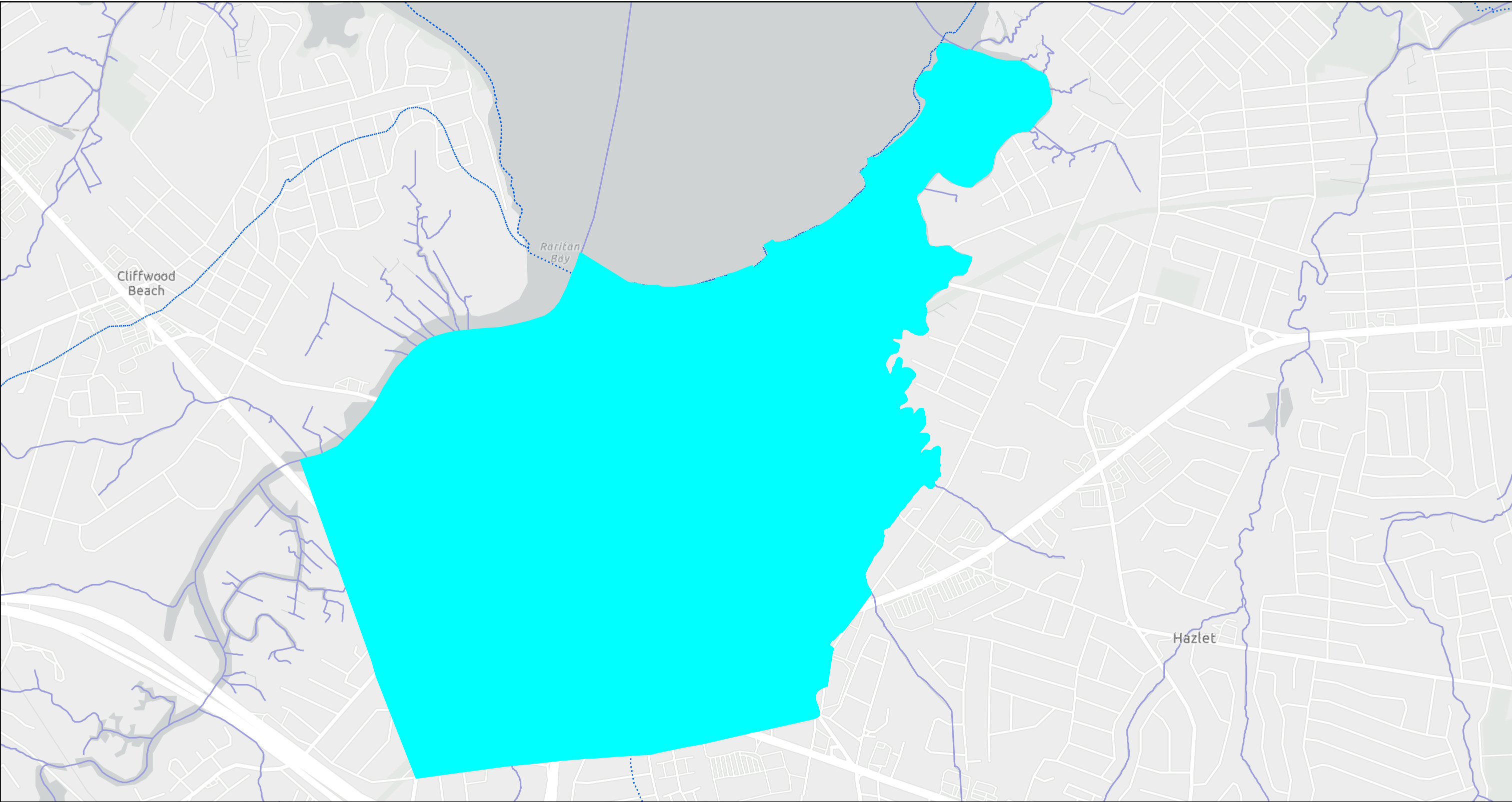
2SHQ6WUHHWODS FRQWULEXWRUV D

&RPPXQLW\

NP

FIGURE #2

**HUC 14 & SURFACE WATER QUALITY CLASSIFICATIONS WITHIN
KEYPORT BOROUGH**



0XQLFLSDOLW\

:DWHUVKHGV '(3+8&

6XUIDFH :DWHU 4XDOLW\ &ODVVLILFDWLRQV

): 17 6(

NP

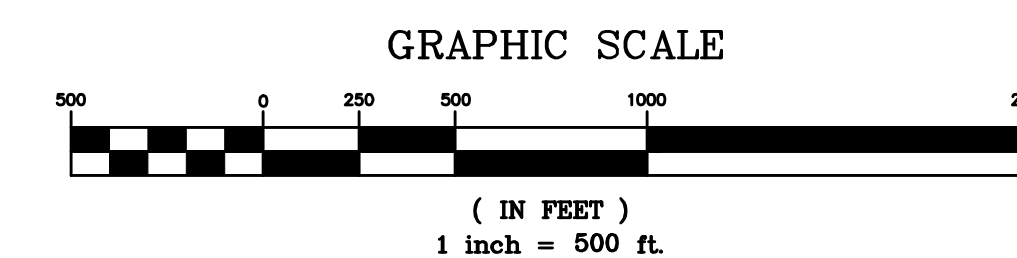
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&RPPXQLW\

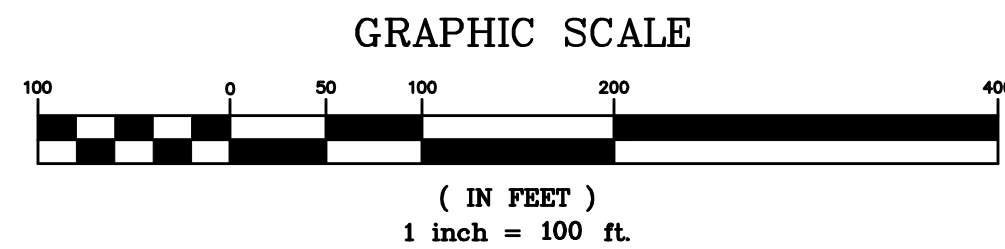
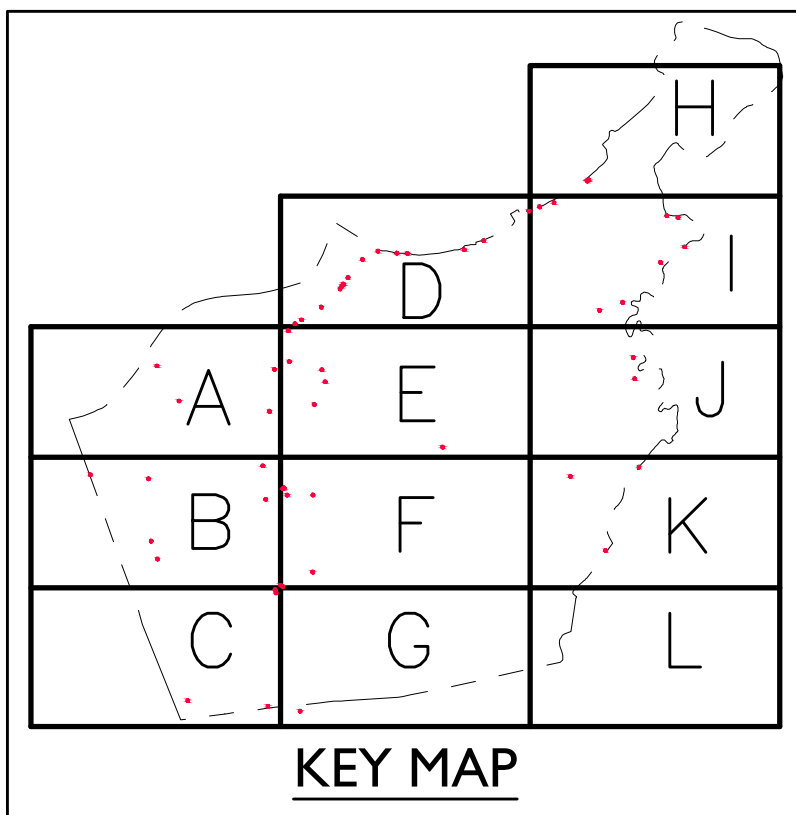
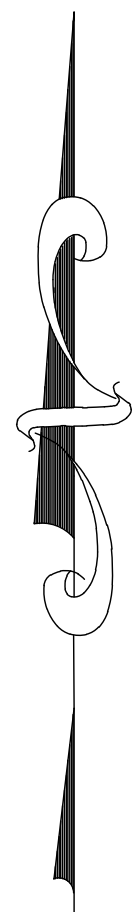
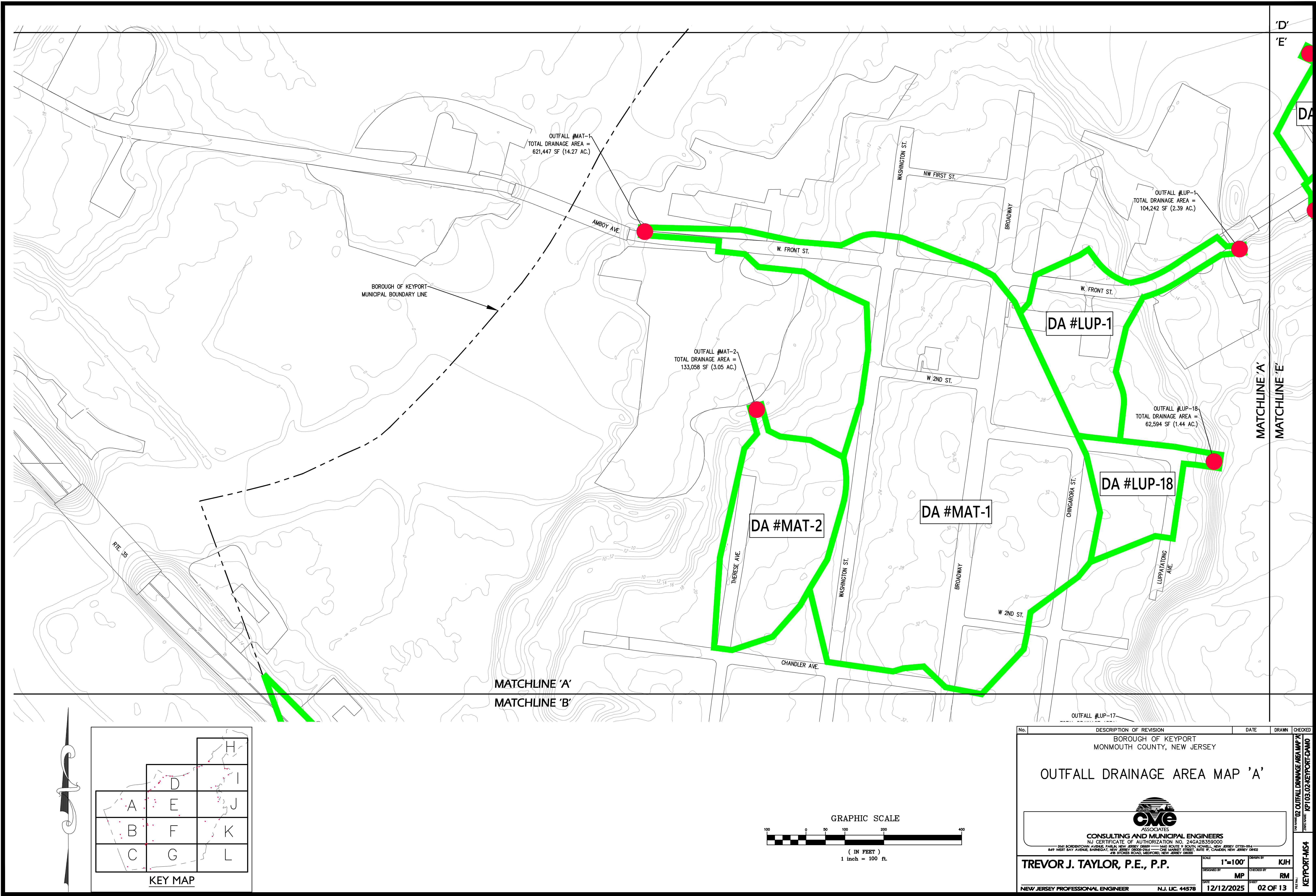
FIGURE #3

OUTFALL AND INTERCONNECTION DRAINAGE AREAS



No.	DESCRIPTION OF REVISION BOROUGH OF KEYPORT MONMOUTH COUNTY, NEW JERSEY OVERALL OUTFALL DRAINAGE AREA MAP  CME ASSOCIATES CONSULTING AND MUNICIPAL ENGINEERS NJ CERTIFICATE OF AUTHORIZATION NO. 246A28359000 3441 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859 5440 ROUTE 9 SOUTH, HOWELL, NEW JERSEY 07731-1914 649 WEST BAY AVENUE, BARRINGTON, NEW JERSEY 08009-2544 ONE MARKET STREET, SUITE 9, CAMDEN, NEW JERSEY 08102 476 STOKES ROAD, MEDFORD, NEW JERSEY 08055	DATE	DRAWN BY
	TREVOR J. TAYLOR, P.E., P.P.	SCALE 1"=500'	KJH
		DESIGNED BY MP	CHECKED BY RM
		DATE 12/12/2025	SHEET 01 OF 13
NEW JERSEY PROFESSIONAL ENGINEER		N.J. LIC. 44578	

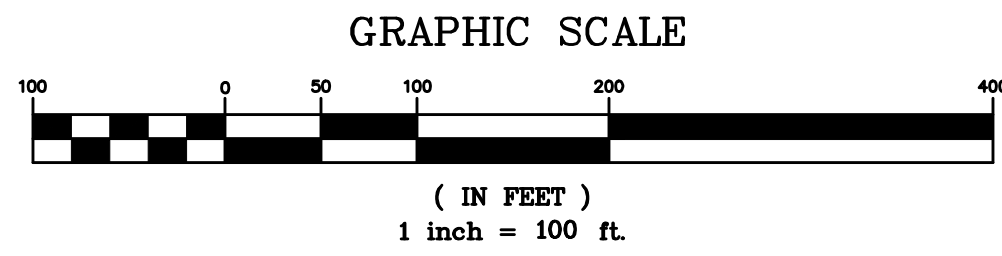
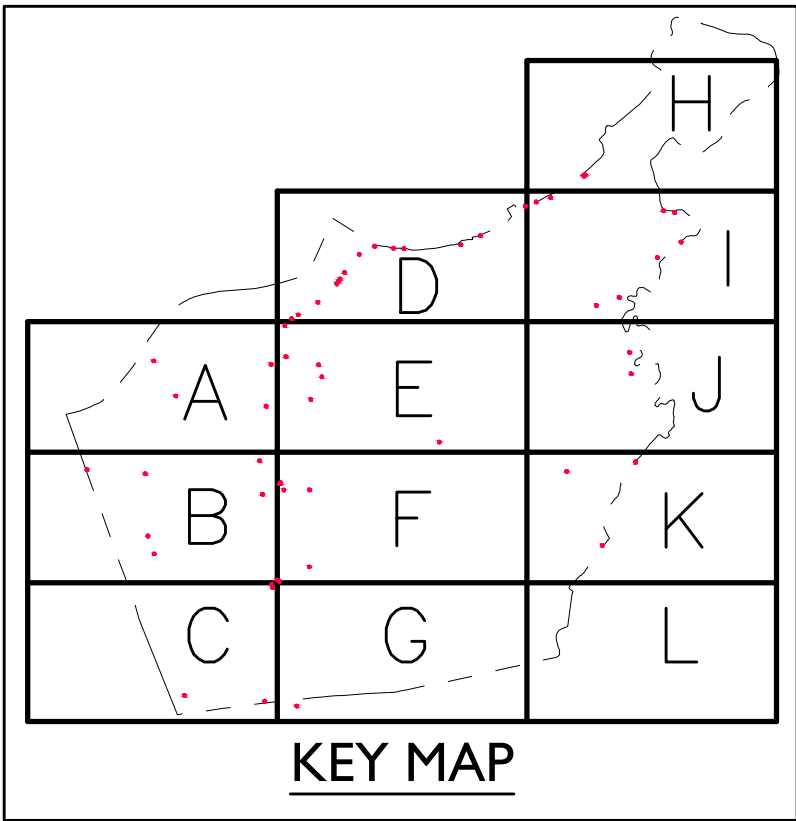
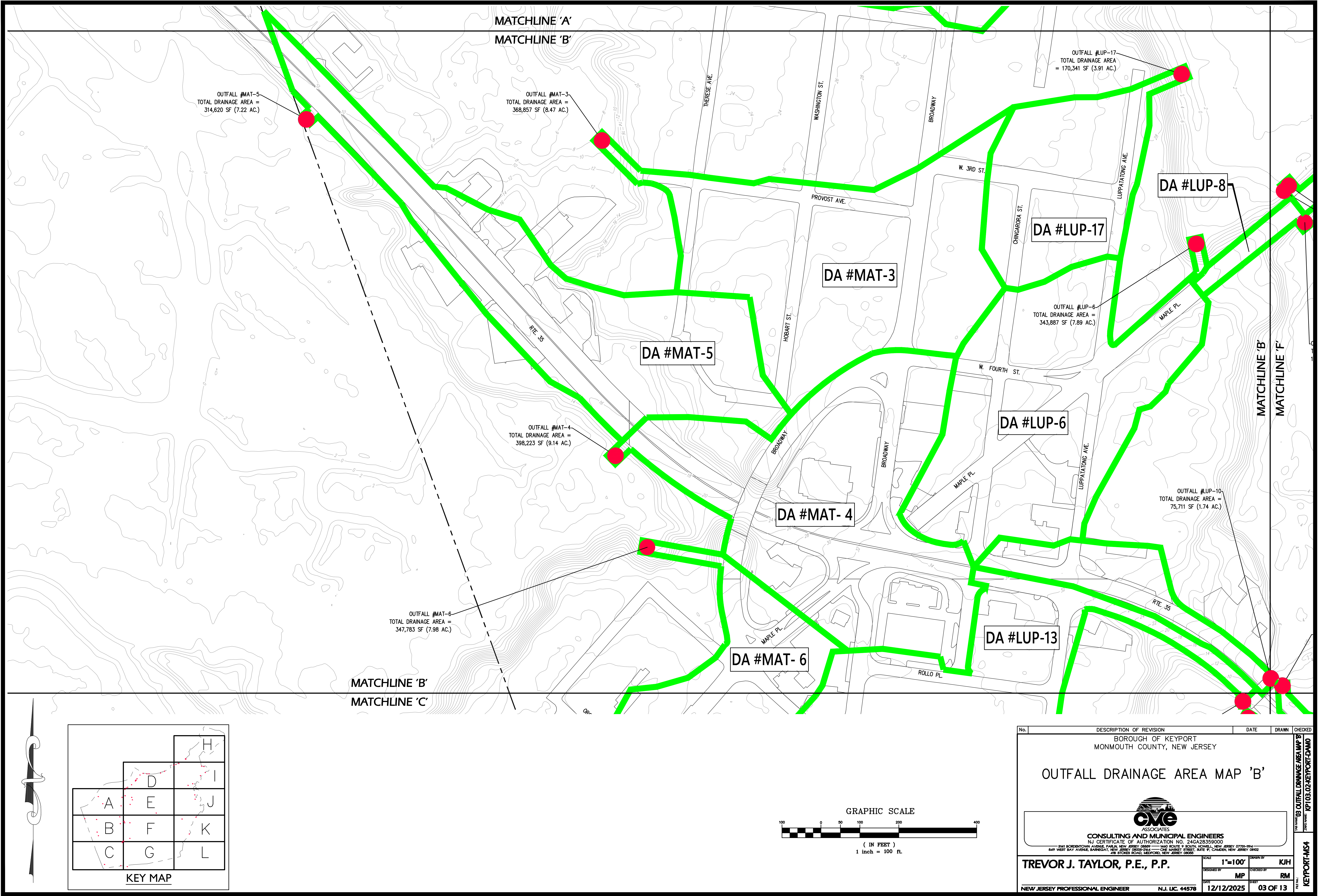
G:\sdsproj\KP103.02 - Keyport Outfall DA Map\DA Map\KP10302-KEYPORT-DAM0.dwg



No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED
	BOROUGH OF KEYPORT MONMOUTH COUNTY, NEW JERSEY			
OUTFALL DRAINAGE AREA MAP 'A'				
CONSULTING AND MUNICIPAL ENGINEERS NJ CERTIFICATE OF AUTHORIZATION NO. 240A2350000 3441 BORDENTOWN AVENUE, PARLIN, NEW JERSEY 08859 6442 ROUTE 9 SOUTH HOWELL, NEW JERSEY 07728-9904 649 WEST BAY AVENUE, SANFORD, NEW JERSEY 08080-2014 ONE MARKET STREET, SUITE F, CANDEL, NEW JERSEY 08032 478 STOCKES ROAD, MEDFORD, NEW JERSEY 08055				
TREVOR J. TAYLOR, P.E., P.P.		SCALE 1"=100'	DRAWN BY KJH	
NEW JERSEY PROFESSIONAL ENGINEER N.J. LIC. 44578		CHECKED BY MP	DATE 12/12/2025	02 OF 13

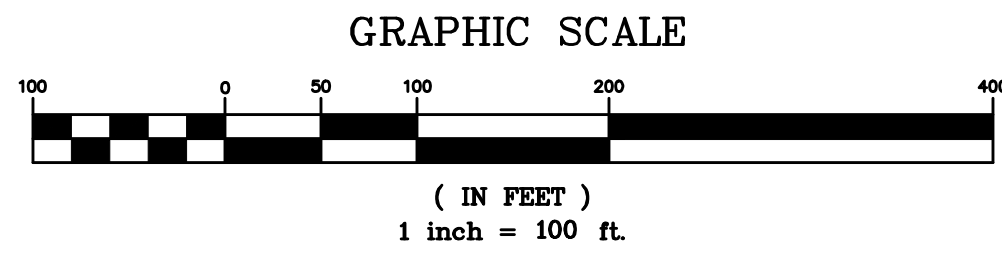
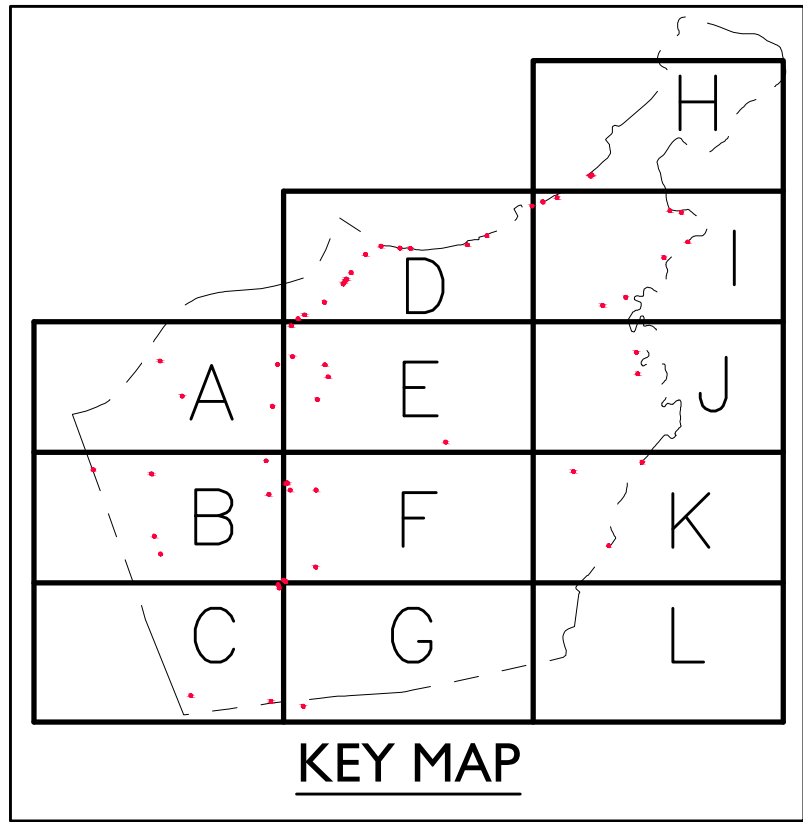
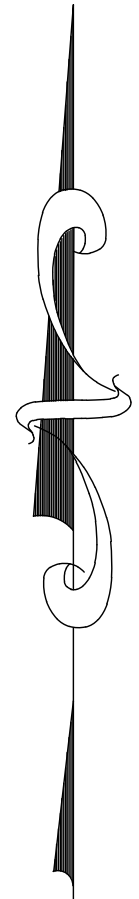
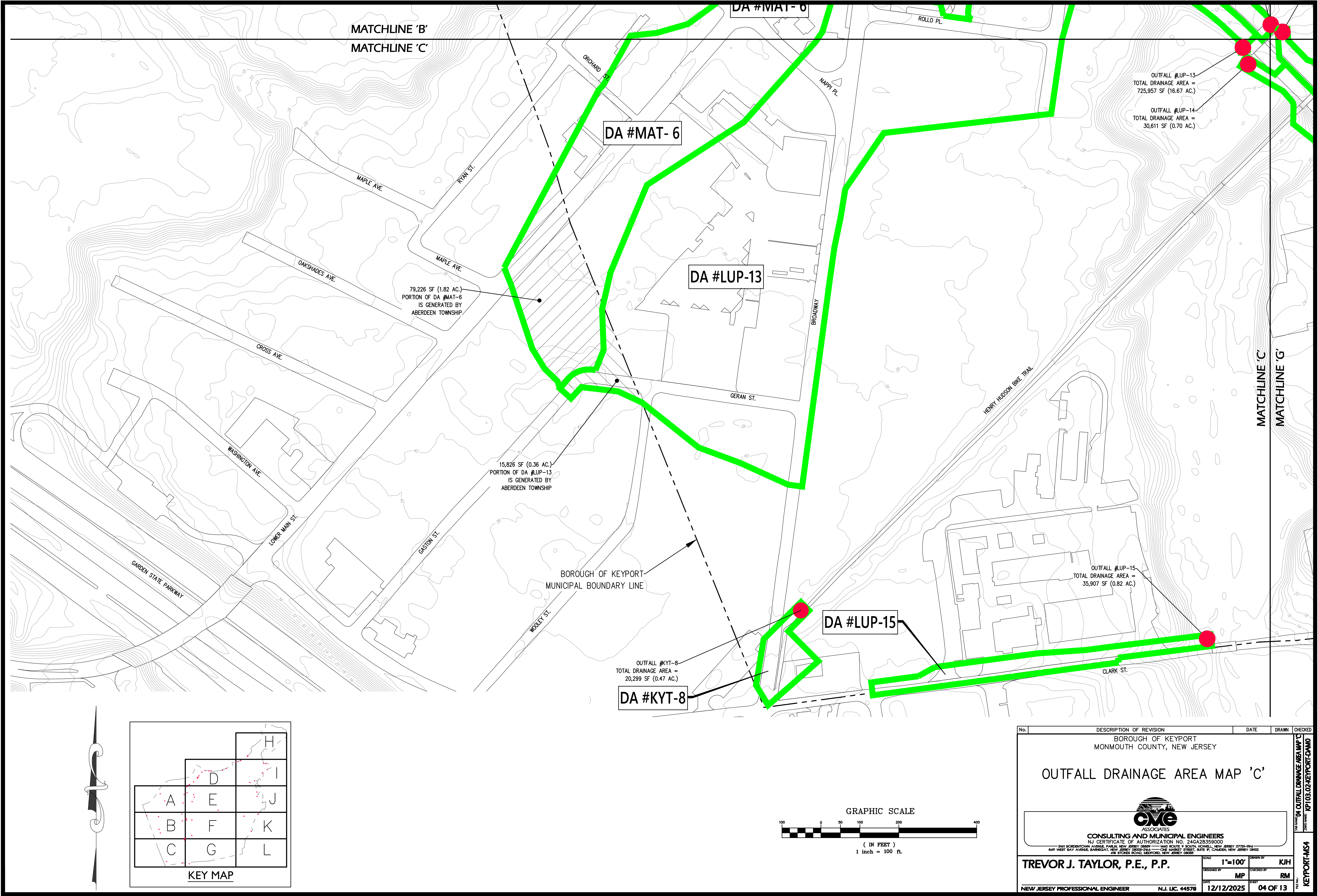
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FILE NAME: KEYPORT-MS4

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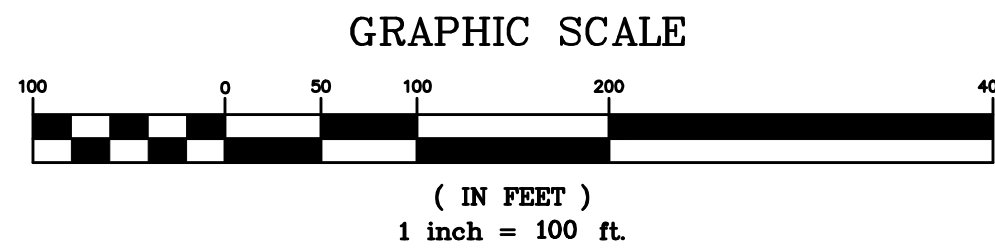
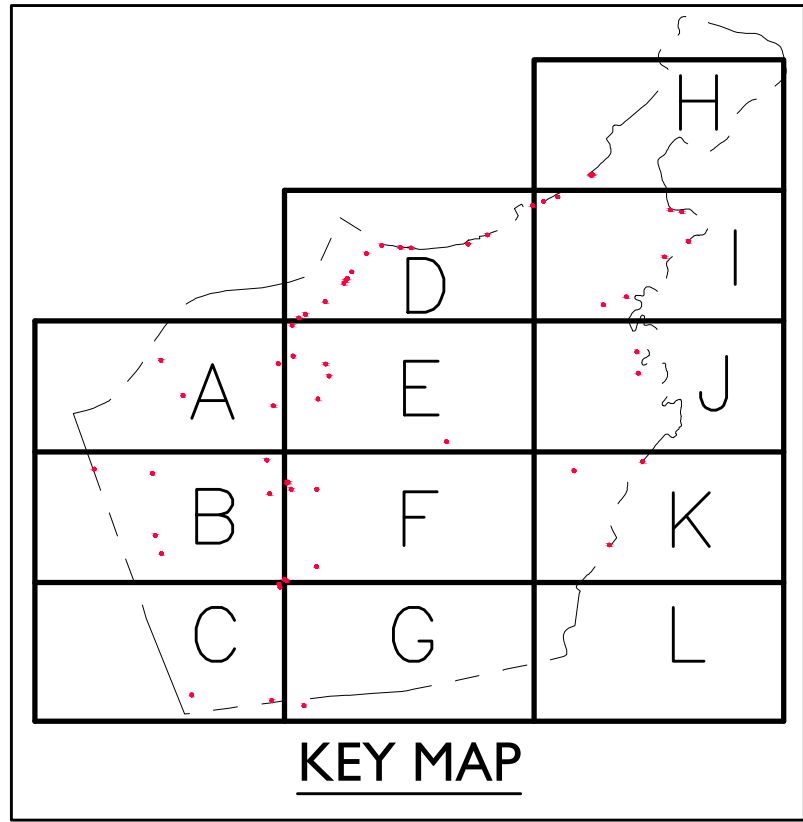
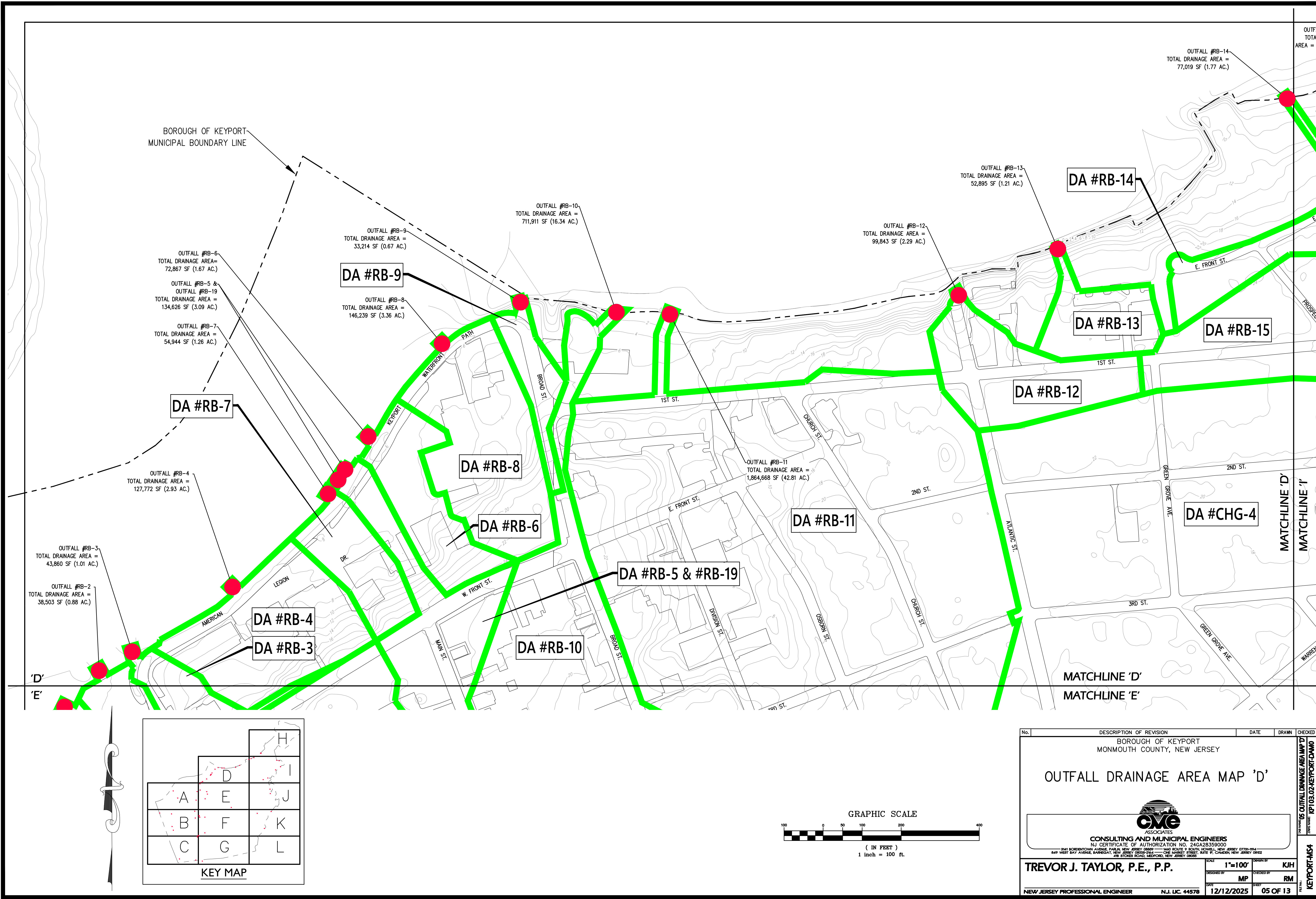
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TREVOR J. TAYLOR, P.E., P.P.		SCALE 1"=100'	DRAWN BY KJH	KEYPORT-MS4
NEW JERSEY PROFESSIONAL ENGINEER N.J. LIC. 44578		CHECKED BY MP	DATE 12/12/2025	
		DATE 12/12/2025	03 OF 13	

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No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED
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TREVOR J. TAYLOR, P.E., P.P.		SCALE 1"=100'	DRAWN BY KJH	KEYPORT-MS4
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N.J. LIC. 44578		DATE 12/12/2025	SHEET 04 OF 13	

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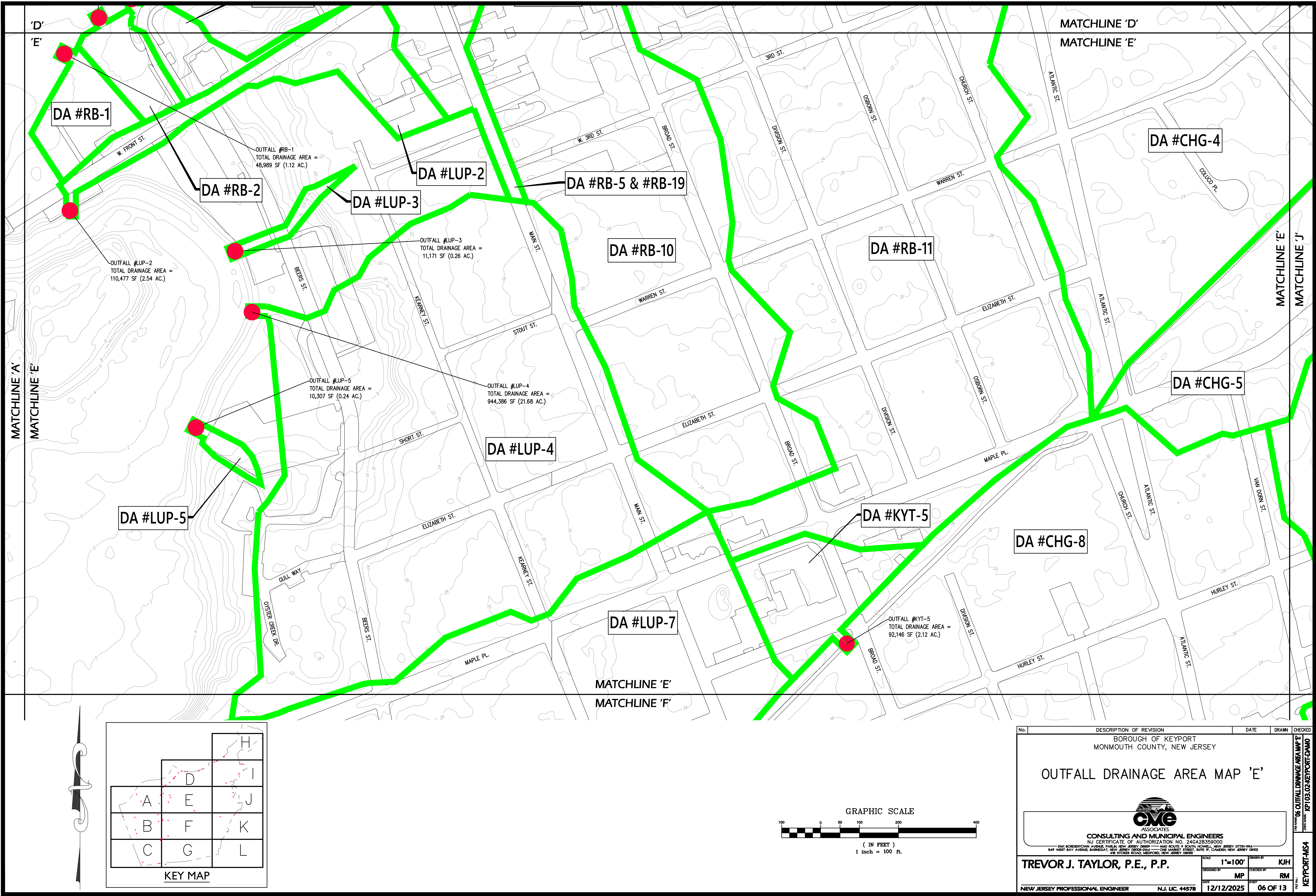
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TREVOR J. TAYLOR, P.E., P.P.		SCALE 1"=100'	DRAWN BY KJH	
DESIGNED BY MP		CHECKED BY RM		
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NEW JERSEY PROFESSIONAL ENGINEER N.J. LIC. 44578				

FILE NO.: **KEYPORT-MS4**

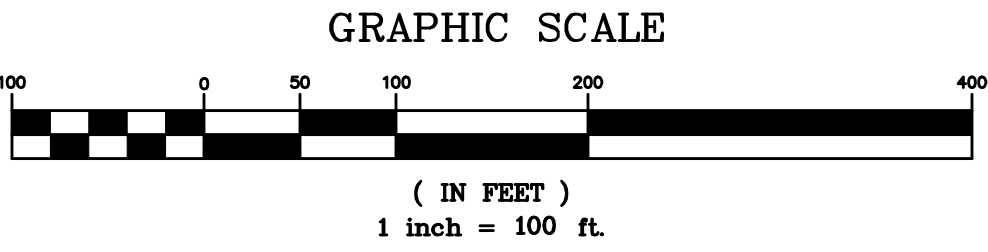
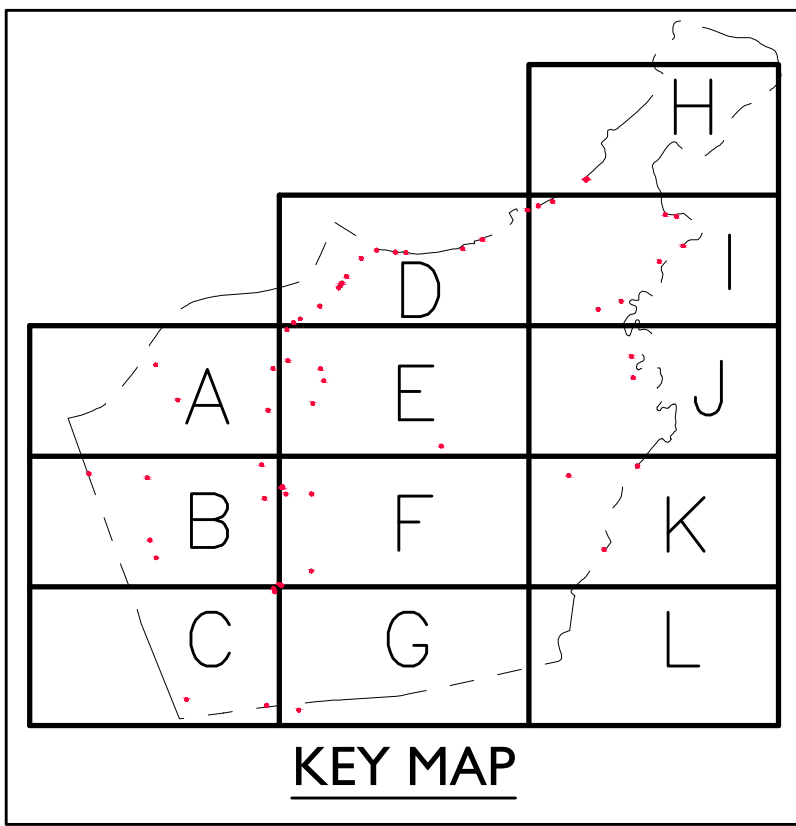
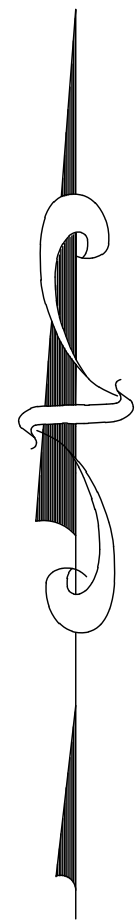
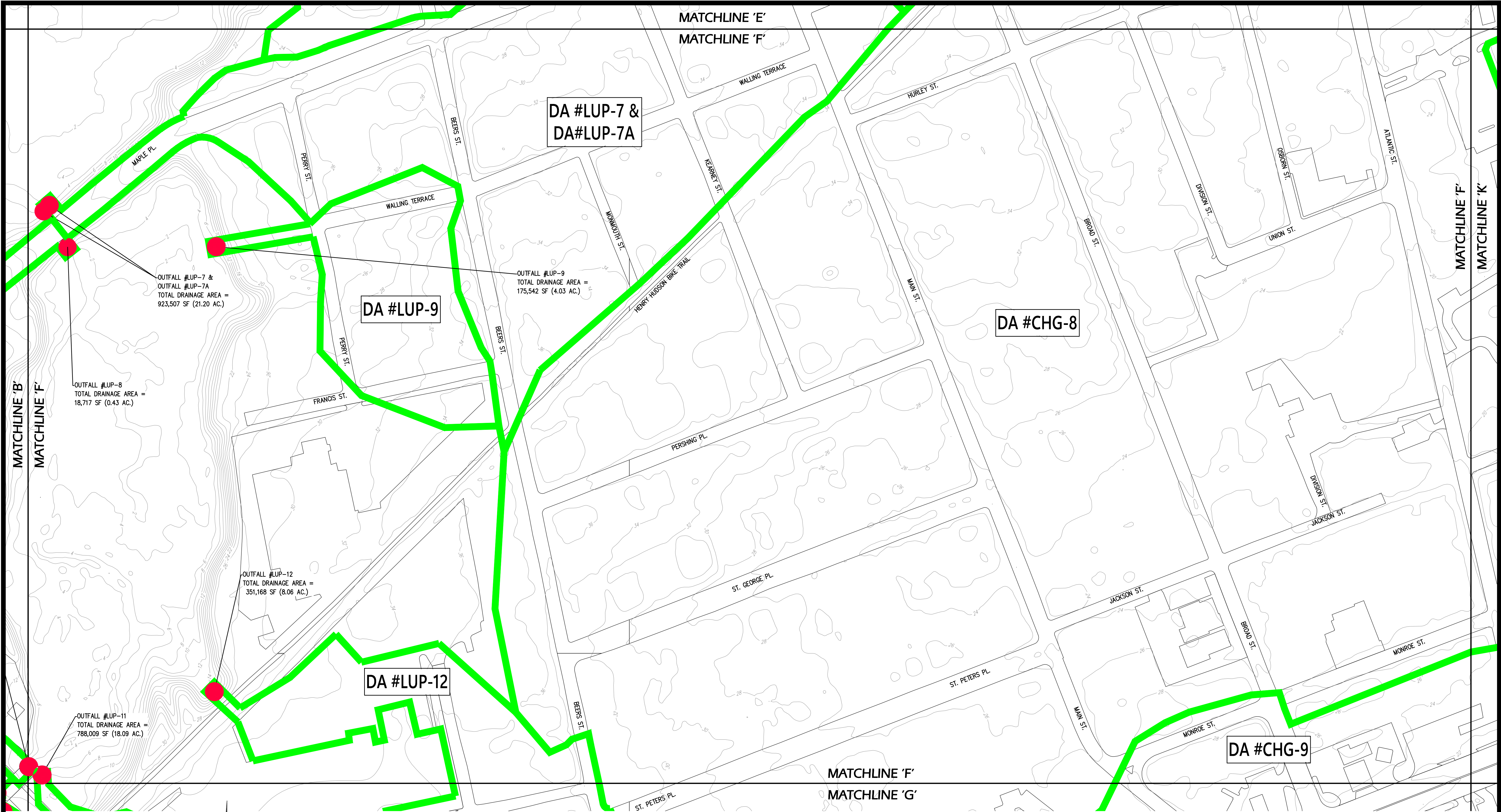
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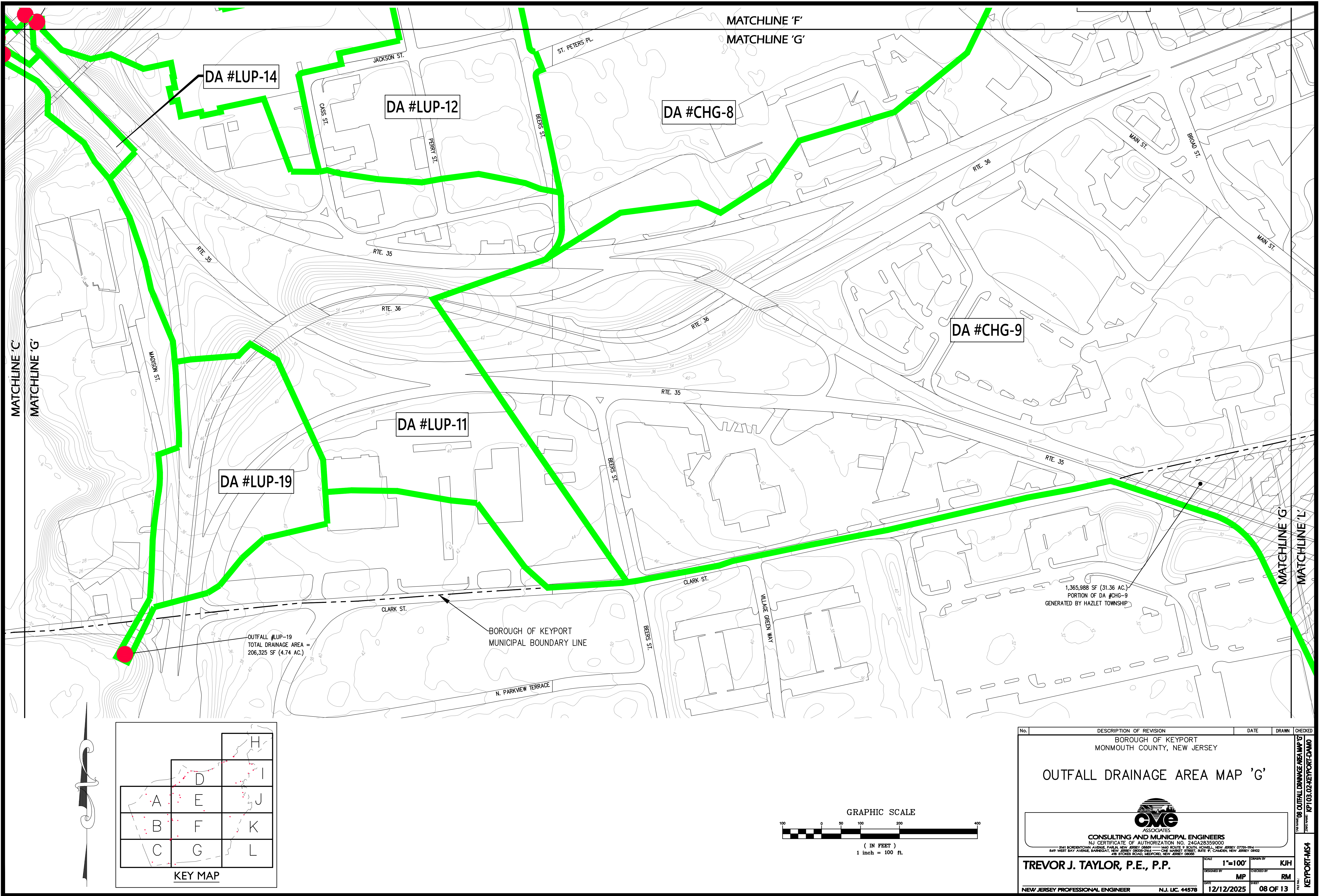


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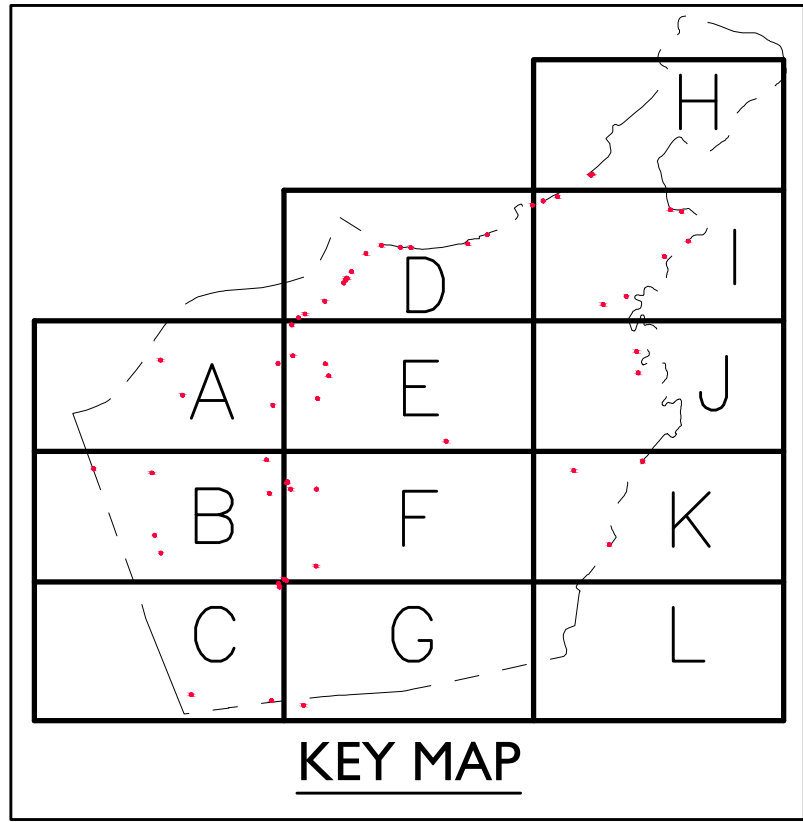
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TREVOR J. TAYLOR, P.E., P.P.		SCALE 1"=100'	DRAWN BY KJH	KEYPORT-MS4
DESIGNED BY		CHECKED BY MP	DATE 12/12/2025	
NEW JERSEY PROFESSIONAL ENGINEER		DATE 12/12/2025	07 OF 13	

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No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED
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TREVOR J. TAYLOR, P.E., P.P.		SCALE 1"=100'	DRAWN BY KJH	KEYPORT-MS4
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NEW JERSEY PROFESSIONAL ENGINEER		DATE 12/12/2025	SHEET 08 OF 13	

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BOROUGH OF KEYPORT
MUNICIPAL BOUNDARY LINE

OUTFALL #RB-18
TOTAL DRAINAGE AREA =
93,682 SF (2.15 AC.)

DA #RB-18

OUTFALL #RB-17
TOTAL DRAINAGE AREA =
104,138 SF (2.36 AC.)

DA #RB-17

OUTFALL #RB-15
TOTAL DRAINAGE
AREA = 237,275 SF

MATCHLINE 'H'
MATCHLINE 'I'

GRAPHIC SCALE

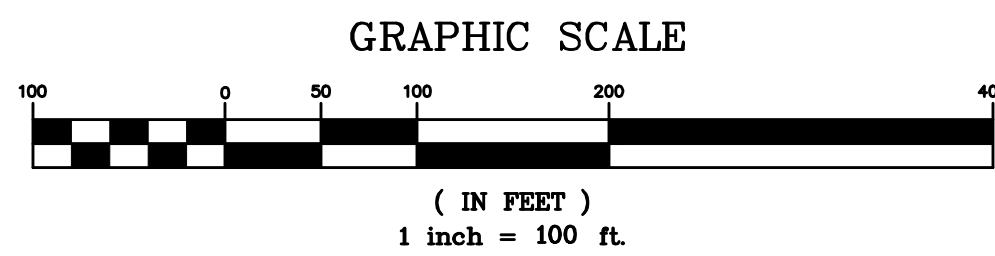
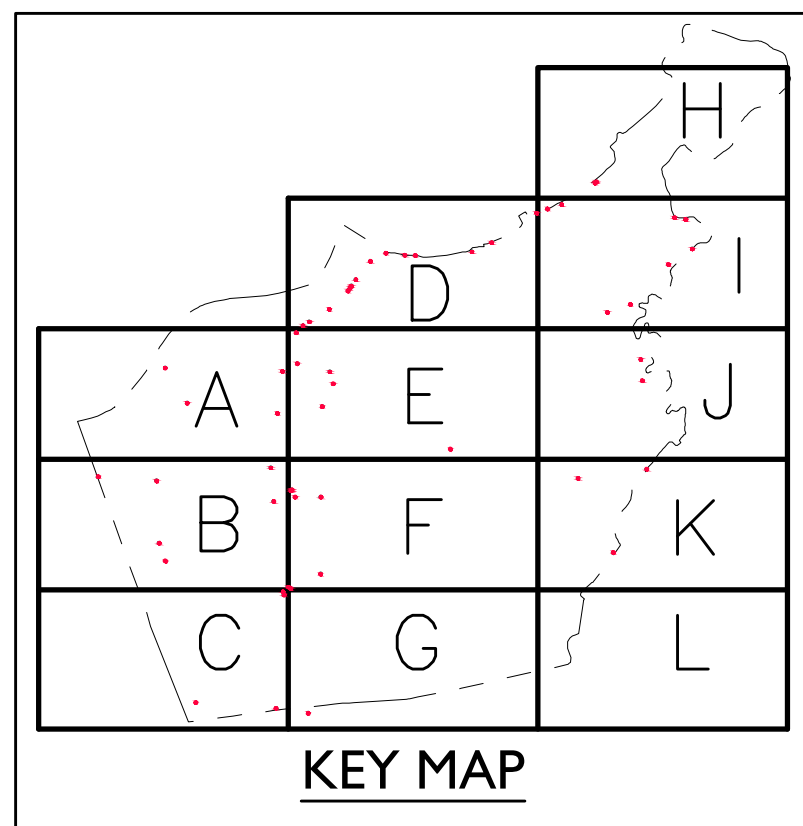
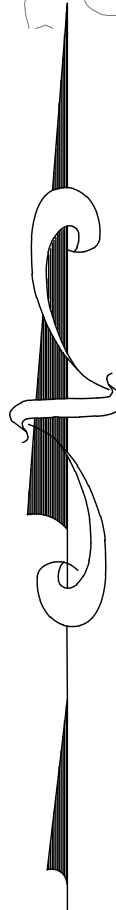
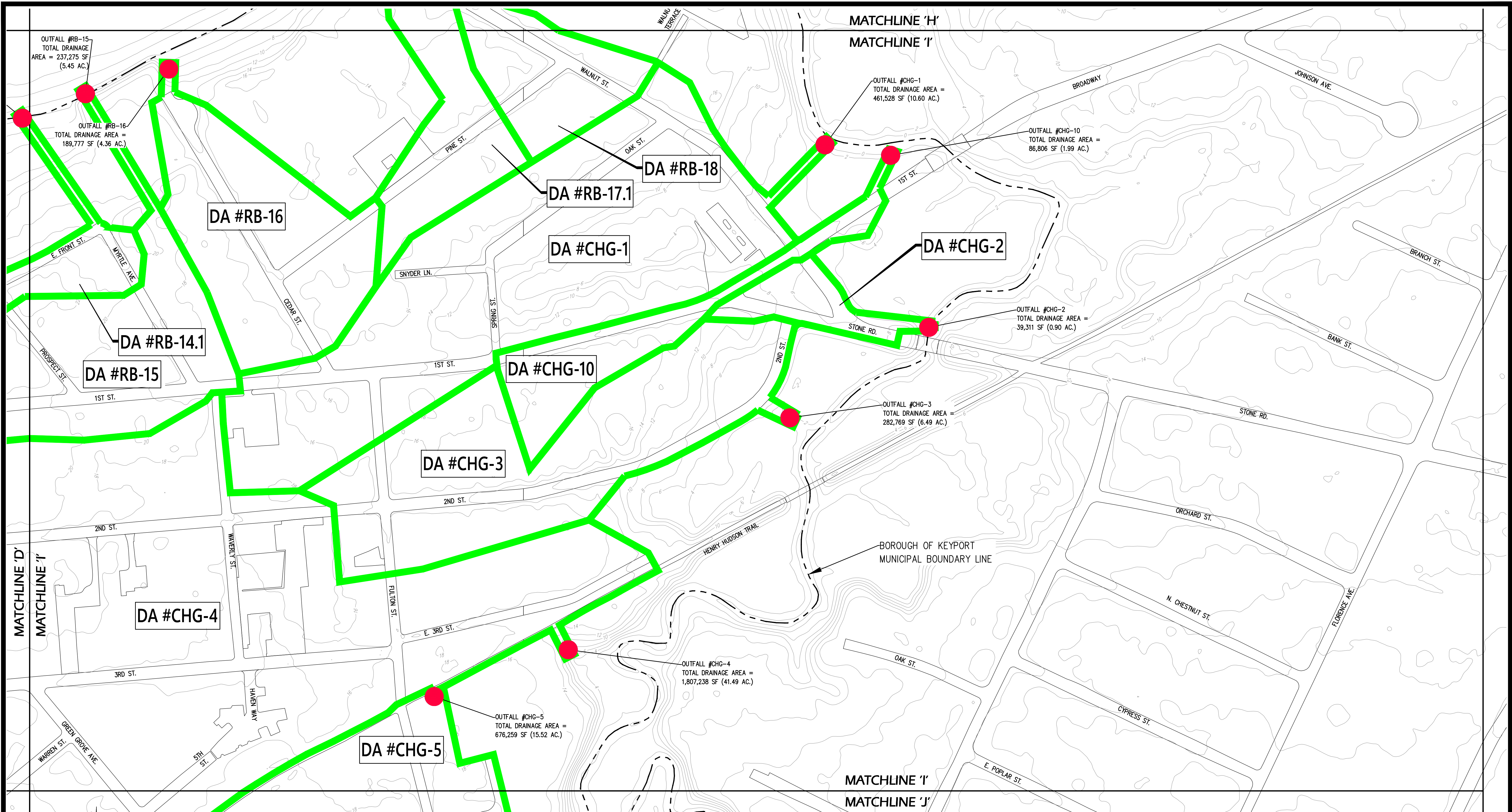


(IN FEET)
1 inch = 100 ft.

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TREVOR J. TAYLOR, P.E., P.P.		SCALE 1"=100'	DRAWN BY KJH	
NEW JERSEY PROFESSIONAL ENGINEER N.J. LIC. 44578		DESIGNED BY MP	CHECKED BY RM	
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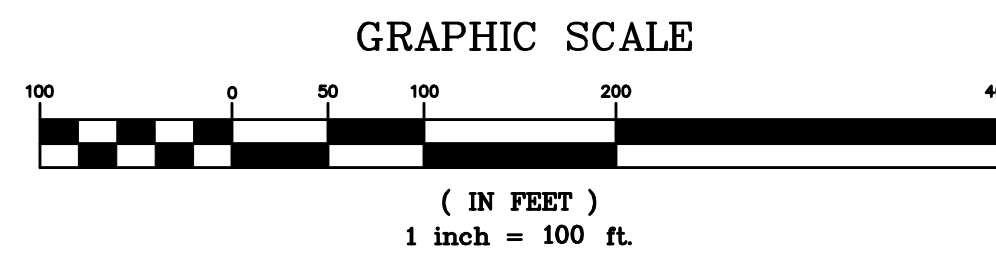
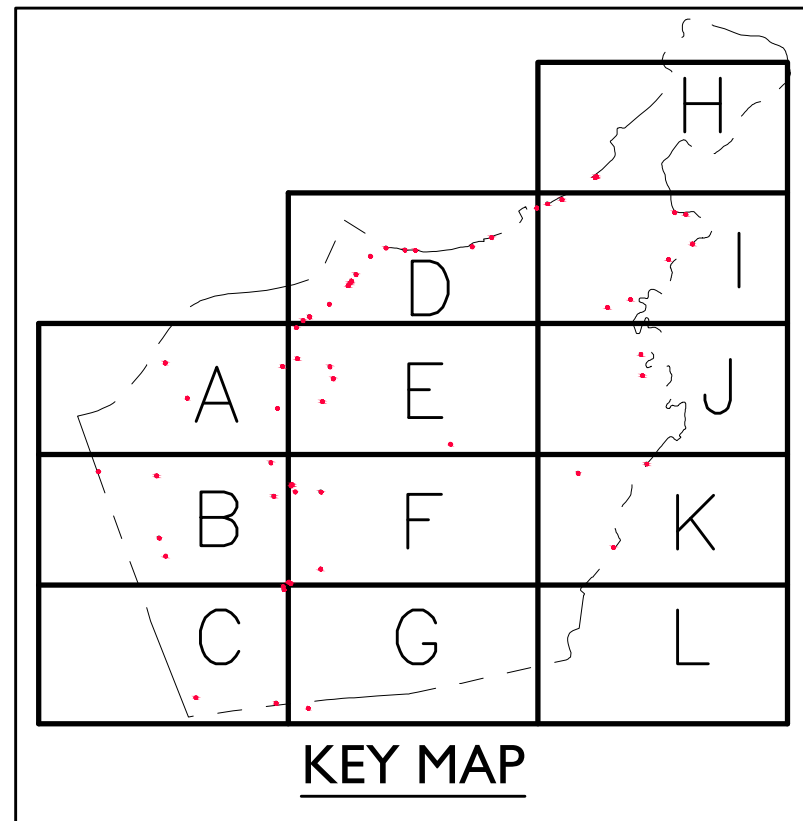
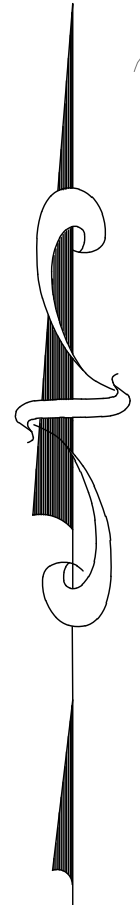
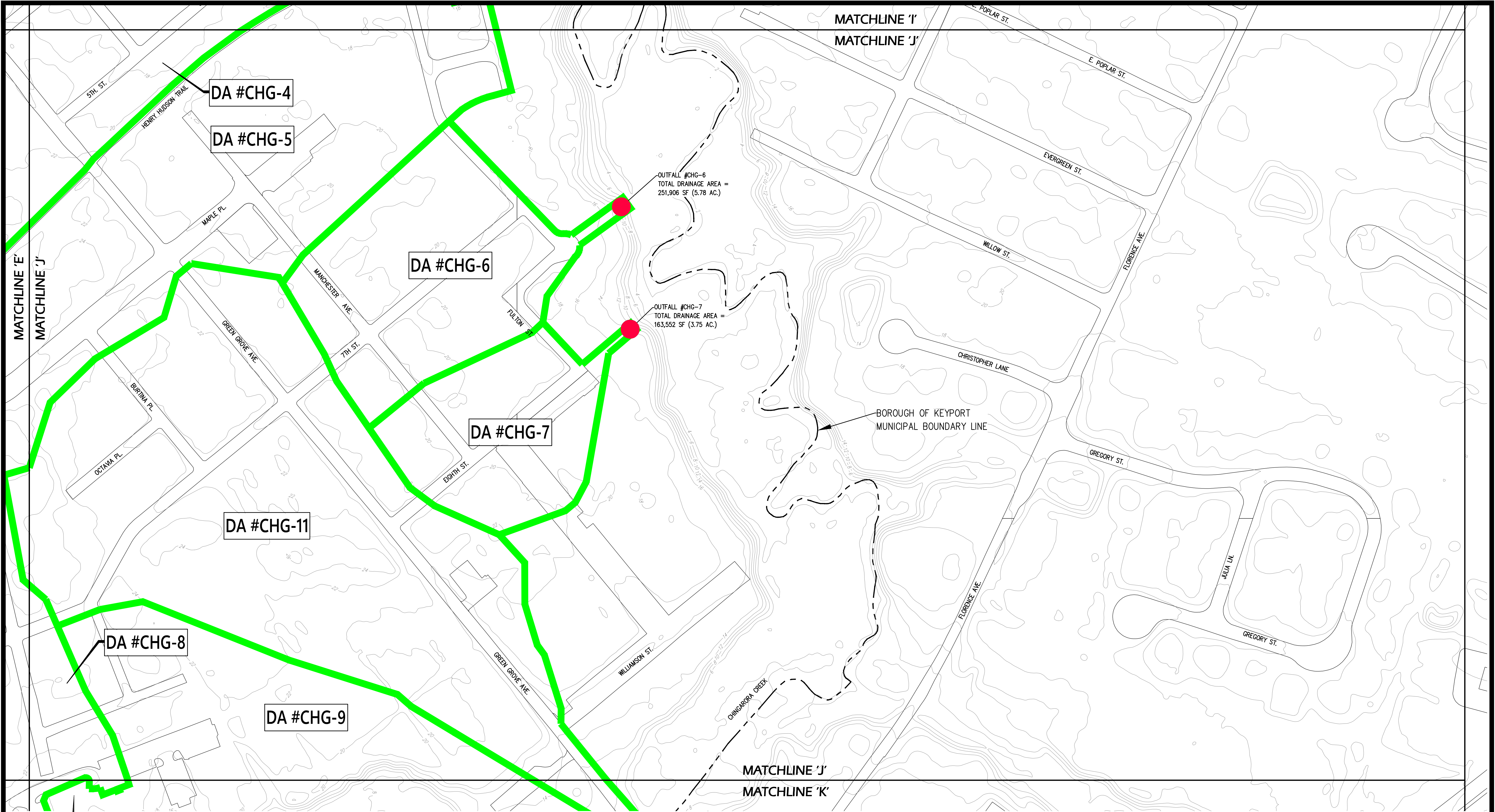
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N.J. LIC. 44578		DATE 12/12/2025	SHEET 10 OF 13	

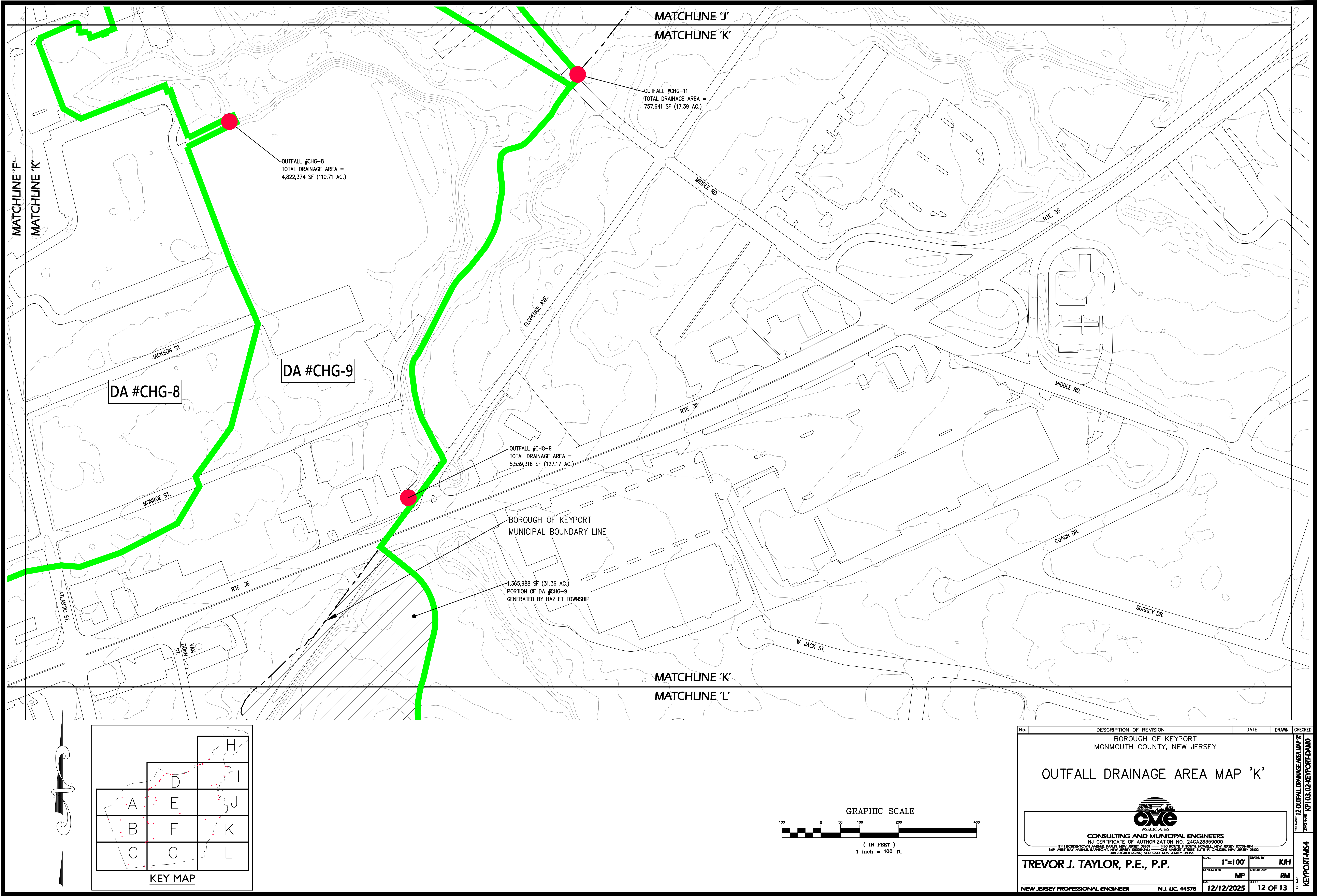
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No.	DESCRIPTION OF REVISION	DATE	DRAWN	CHECKED
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NEW JERSEY PROFESSIONAL ENGINEER		DESIGNED BY MP	CHECKED BY RM	
N.J. LIC. 44578		DATE 12/12/2025	SHEET 12 OF 13	

FILE NAME: 12 OUTFALL DRAINAGE AREA MAP 'K'
SHEET NAME: KP103.02-KEYPORT-DAM0
FILE NO.: KEYPORT-MS4







KEY MAP



GRAPHIC SCALE

(IN FEET)

1 inch = 100 ft.

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CONSULTING AND MUNICIPAL ENGINEERS				
NJ CERTIFICATE OF AUTHORIZATION NO. 24GA28359000				
3441 ROCKYHILL AVENUE, PARLIN, NEW JERSEY 08859 849 WEST BAY AVENUE, BARNEGAT, NEW JERSEY 08005-2944 418 STOKES ROAD, LEBESQUE, NEW JERSEY 08855				
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FILE NO.	12/12/2025			
NEW JERSEY PROFESSIONAL ENGINEER	N.J. LIC. 44578			
DATE	12/12/2025			
CHECKED BY	RM			
DESIGNED BY	MP			
SCALE	1"=100'			
DRAWN BY	KJH			
KEYPORT-HS4				

FIGURE #4

**TMDLs BY PARAMETER RELATED TO STORMWATER FOR
KEYPORT BOROUGH**

Total Maximum Daily Load (TMDL) Information**Municipality and County**

Keyport Borough
Monmouth County

Total Maximum Daily Load(TMDL) Information for Selected Municipality:**Applicable Stream TMDL(s)**

- Total Maximum Daily Load for Mercury Impairments Based on Concentration in Fish Tissue Caused Mainly by Air Deposition to Address 122 HUC 14s Statewide

Mercury - 2010 : Matawan Creek (below Ravine Drive) : [View the TMDL Document](#)

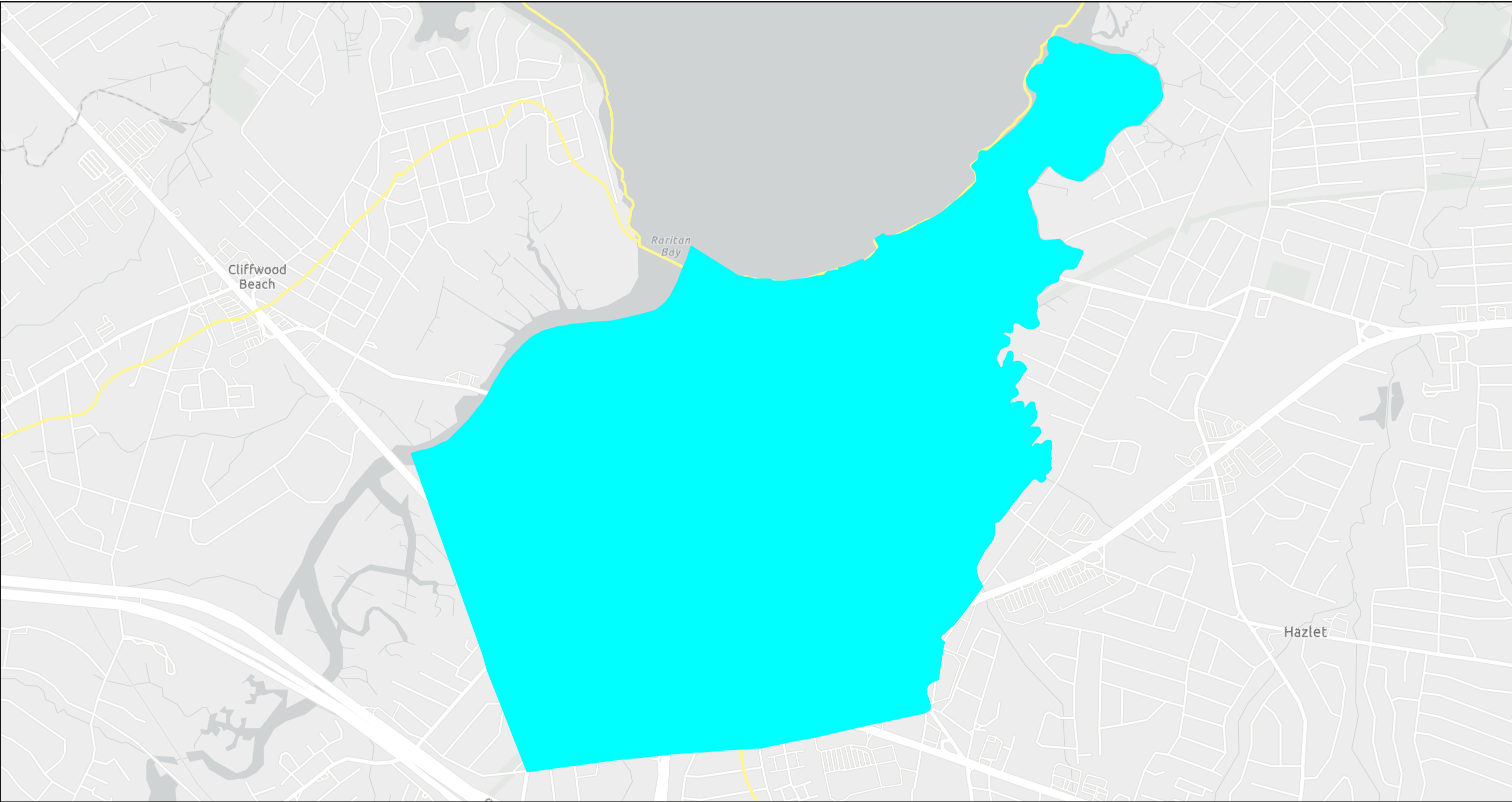
Applicable Lake TMDL(s)

None

Applicable Shellfish TMDL(s)

None

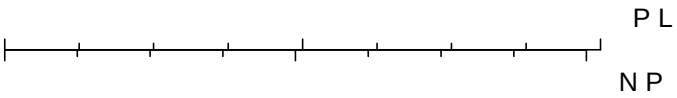
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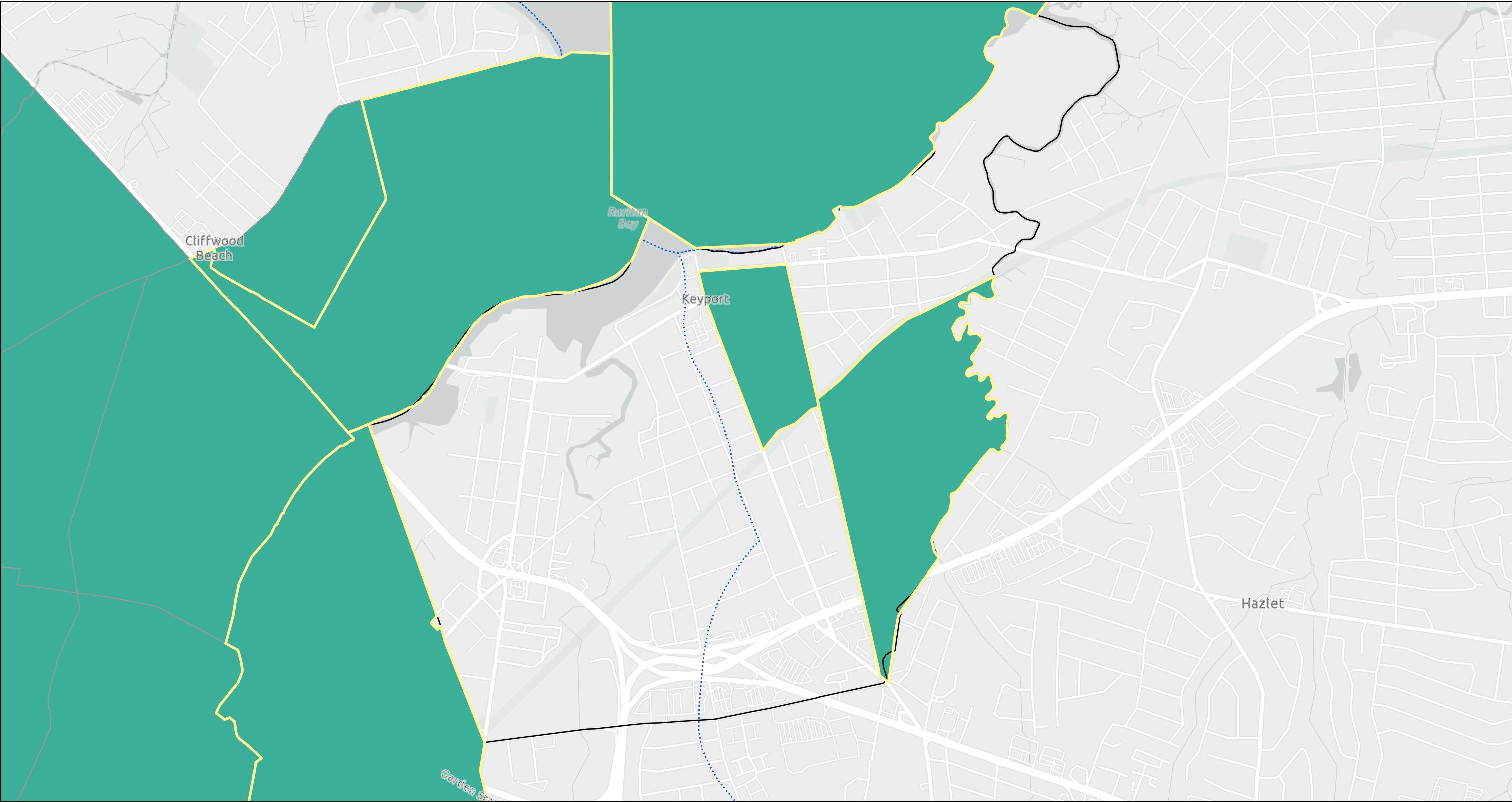
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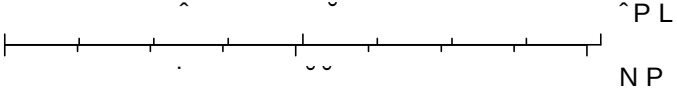
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FIGURE #5

OVERBURDENED COMMUNITIES WITHIN KEYPORT BOROUGH



30
2YHUEXUGHQH G &RPPXQLWLHV XQGHU WKH 1HZ -HUVH\ (QYLURQPHQWDO -XVWLFH /DZ
2YHUEXUGHQH G &RPPXQLWLHV
:DWHUVKHGV '(3+8&



6RXUFHV (VUL 7RP7RP *DUPLQ)\$2 1
2SHQ6WUHHWODS FRQWULEXWRUV D
&RPPXQLW\

FIGURE #6

IMPERVIOUS AREA WITHIN KEYPORT BOROUGH

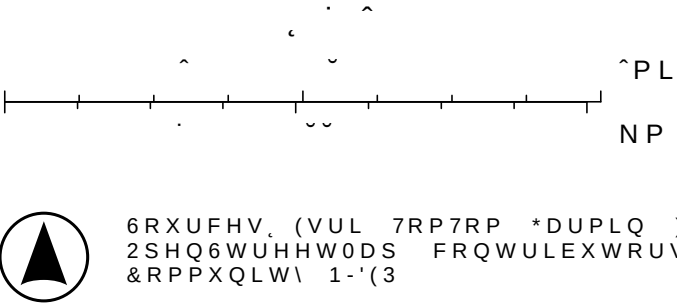
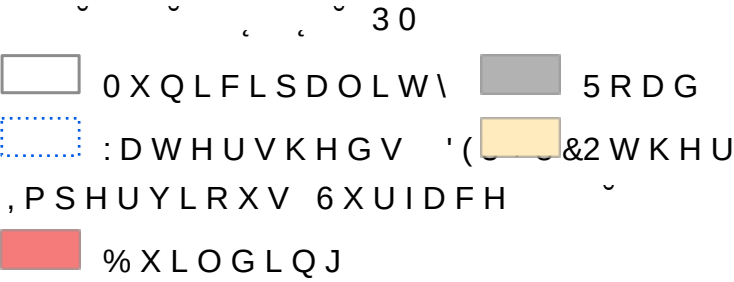
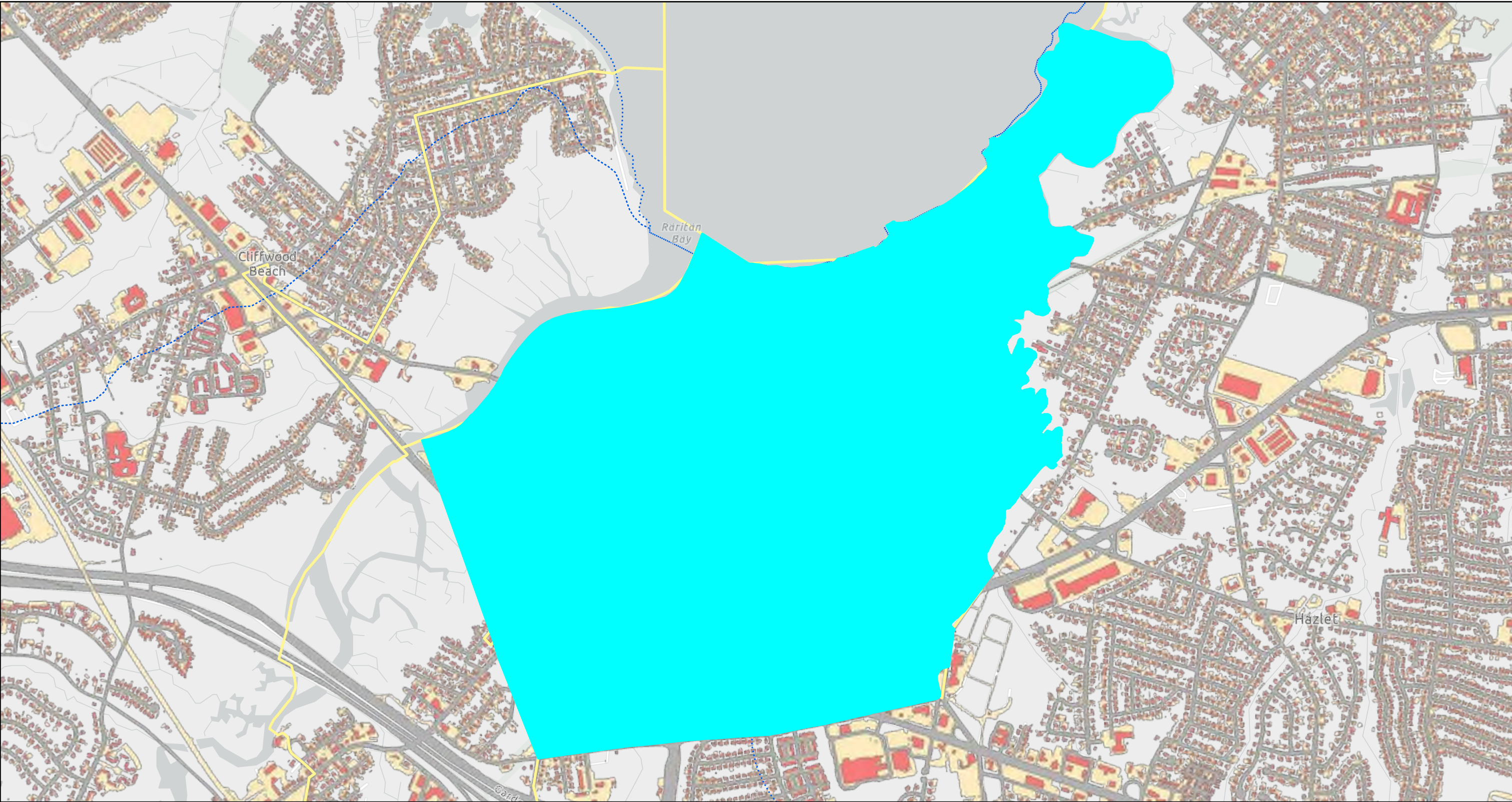


FIGURE #7

**NON-MUNICIPALLY OWNED/OPERATED STORMWATER
INFRASTRUCTURE IN KEYPORT BOROUGH**

Figure #7a

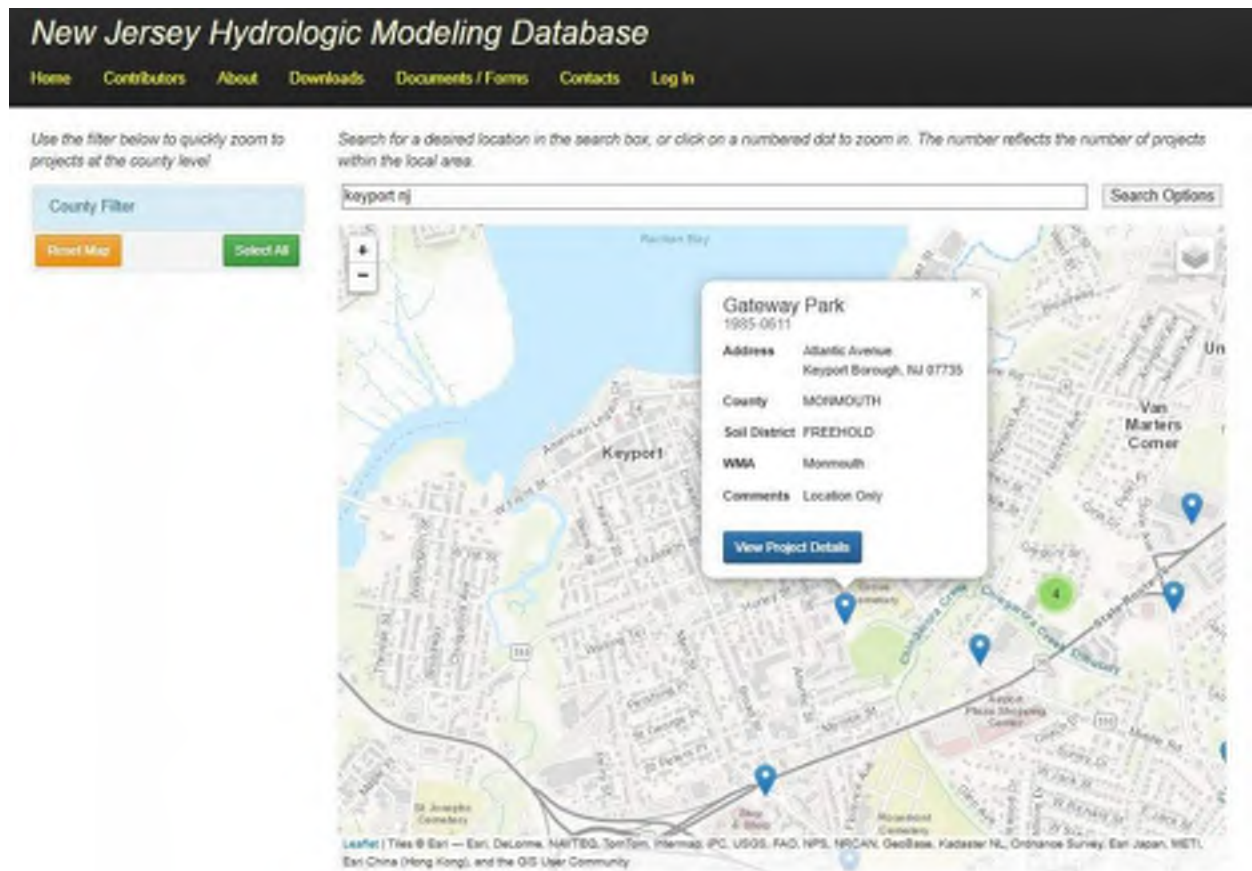


Figure #7b

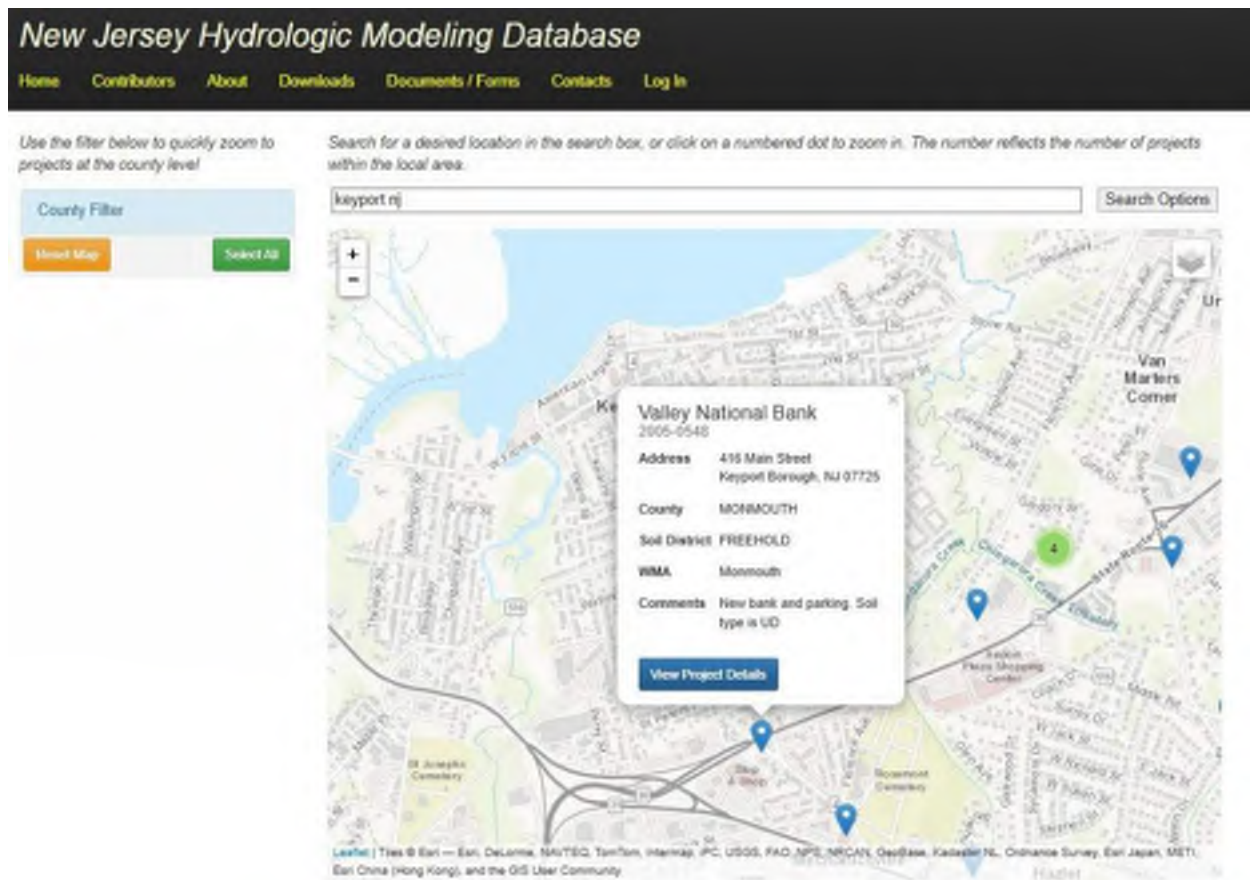


FIGURE #8
FEMA MAPS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov>.

This map reflects more detailed and up-to-date **stream channel configurations and floodplain delineations** than those shown on the previous FIRMs for this jurisdiction. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map. Also, the road to floodplain relationships for unrevised streams may differ from what is shown on previous maps.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

The AE Zone category has been divided by a **Limit of Moderate Wave Action (LiMWA)**. The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between the VE Zone and the LiMWA (or between the shoreline and the LiMWA for areas where VE Zones are not identified) will be similar to, but less severe than those in the VE Zone.

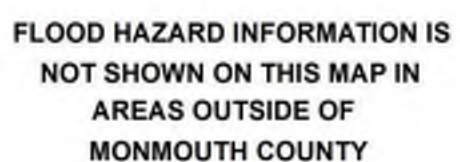
Contact the **FEMA Map Information eXchange** at 1-877-336-2627 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Information eXchange may also be reached by Fax at 1-800-358-9620 and their website at <http://www.msc.fema.gov/>.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at <http://www.fema.gov/business/info>.

11-16-1990 CBRS Area
FLOOD INSURANCE NOT AVAILABLE FOR STRUCTURES NEWLY BUILT OR SUBSTANTIALLY IMPROVED ON OR AFTER NOVEMBER 16, 1990, IN DESIGNATED CBRS AREAS.

11-16-1991 Otherwise Protected Area (OPA)
FLOOD INSURANCE NOT AVAILABLE FOR STRUCTURES NEWLY BUILT OR SUBSTANTIALLY IMPROVED ON OR AFTER NOVEMBER 16, 1991, IN DESIGNATED OPAs WITHIN THE CBRS.

Boundaries of the John H. Chafee Coastal Barrier Resources System (CBRS) shown on this FIRM were transferred from the official CBRS source map(s) for this area and are depicted on this FIRM for informational purposes only. The official CBRS maps are enacted by Congress via the Coastal Barrier Resources Act, as amended, and maintained by the U.S. Fish and Wildlife Service (FWS). The official CBRS maps used to determine whether or not an area is located within the CBRS are available for review at <http://www.fws.gov>. For any determination of whether or not an area is located within the CBRS, or for any questions regarding the CBRS, please contact the FWS field office for this area at (609) 646-9310.

 SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

 FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

 **ZONE X**

OTHER FLOOD AREAS

Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

	OTHER AREAS
ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

 COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS
 OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

Legend for Flood Hazard Area symbols:

- 1% annual chance floodplain boundary
- New Jersey Flood Hazard Area Design Flood (NJFHADF)
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.

* Referenced to the North American Vertical Datum of 1988

	Cross section line
	Limited detail cross section line
	Transect line

87°07'45", 32°22'30"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
2476 ⁰⁰⁰⁰ N	1000-meter Universal Transverse Mercator grid values, zone 18N

600000 FT 5000-foot grid values; New Jersey State Plane coordinate system (FIPSZONE 2900), Transverse Mercator projection

DX5510 x Bench mark (see explanation in Notes to Users section of this FIRM panel)

● M1.5 River Mile

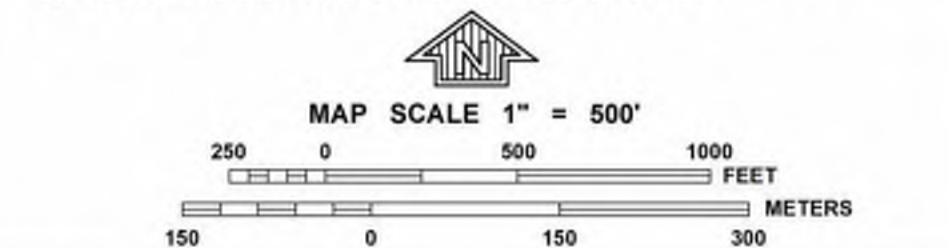
MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
September 25, 2009

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

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NATIONAL FLOOD INSURANCE PROGRAM	NFIP PANEL 0029G																							
	FIRM																							
	FLOOD INSURANCE RATE MAP																							
	MONMOUTH COUNTY, NEW JERSEY (ALL JURISDICTIONS)																							
	PANEL 29 OF 457																							
	(SEE MAP INDEX FOR FIRM PANEL LAYOUT)																							
	<u>CONTAINS:</u>																							
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 MAP NUMBER 34025C0029G MAP REVISED																								
Federal Emergency Management Agency																								

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

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The **projection** used in the preparation of this map was New Jersey State Plane FIPS 2500. The **horizontal datum** was NAD83, GRS 80 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at <http://www.ngs.noaa.gov> or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, NINGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at <http://www.ngs.noaa.gov>.

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COASTAL BARRIER RESOURCES SYSTEM (CBRS) LEGEND

11-16-1990 CBRS Area
FLOOD INSURANCE NOT AVAILABLE FOR STRUCTURES NEWLY BUILT OR SUBSTANTIALLY IMPROVED ON OR AFTER NOVEMBER 16, 1990, IN DESIGNATED CBRS AREAS.

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Boundaries of the John H. Chafee Coastal Barrier Resources System (CBRS) shown on this FIRM were transferred from the official CBRS source map(s) for this area and are depicted on this FIRM for informational purposes only. The official CBRS maps are enacted by Congress via the Coastal Barrier Resources Act, as amended, and maintained by the U.S. Fish and Wildlife Service (FWS). The official CBRS maps used to determine whether or not an area is located within the CBRS are available for download at <http://www.fws.gov>. For an official determination of whether or not an area is located within the CBRS, or for any questions regarding the CBRS, please contact the FWS field office for this area at (609) 646-9310.

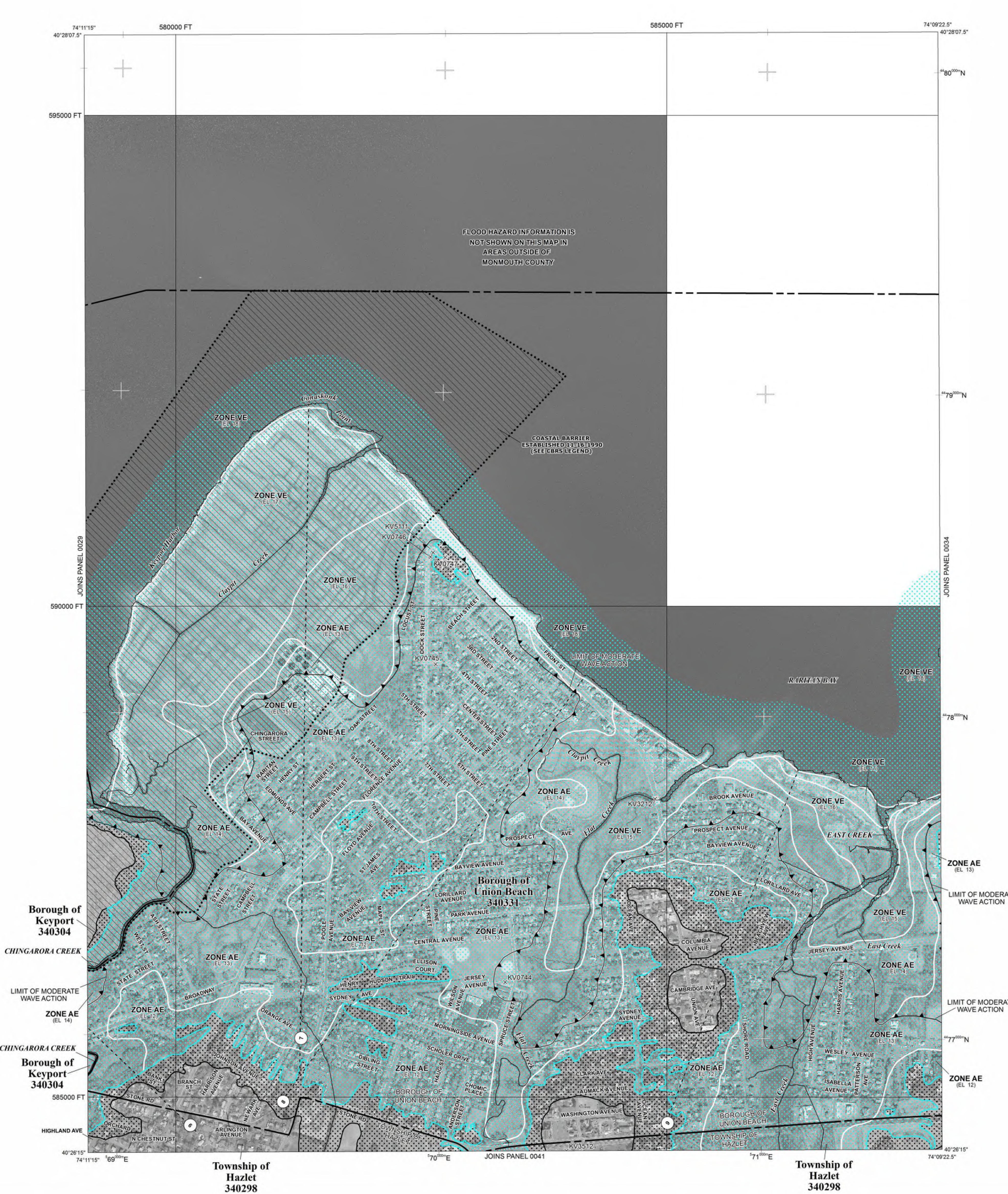
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LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A** No Base Flood Elevations determined.
- ZONE AE** Base Flood Elevations determined.
- ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
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- ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE
The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS
ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS
ZONE X Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS
OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- New Jersey Flood Hazard Area Design Flood (NFHADF)
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
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- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- 1 M1.5
- River Mile
- MAP REPOSITORY
- Refer to listing of Map Repositories on Map Index
- EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
- September 25, 2009
- EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

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MAP SCALE 1" = 500'

250 0 500 1000 FEET
150 0 150 300 METERS

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National Geodetic Survey
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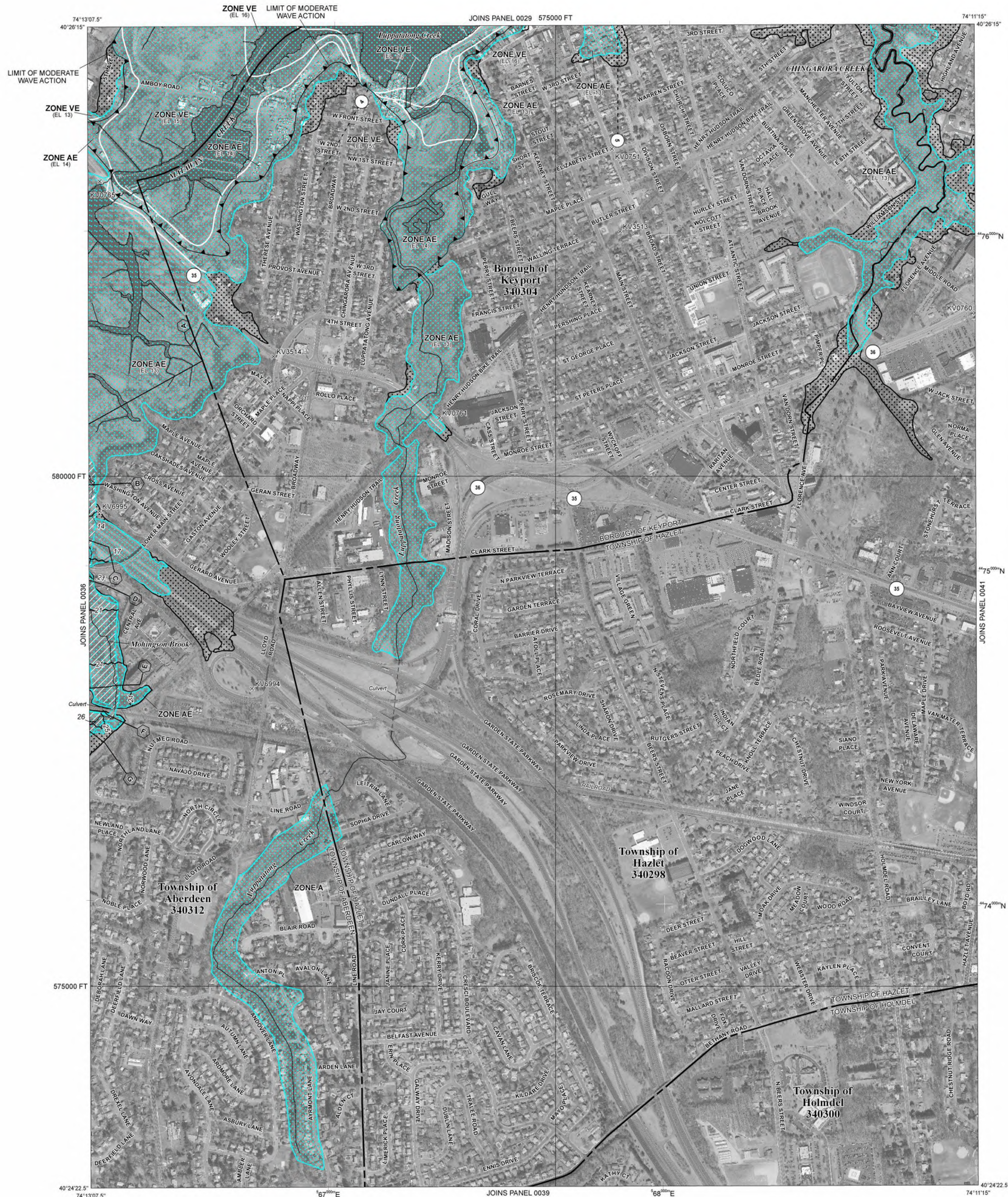
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LEGEND

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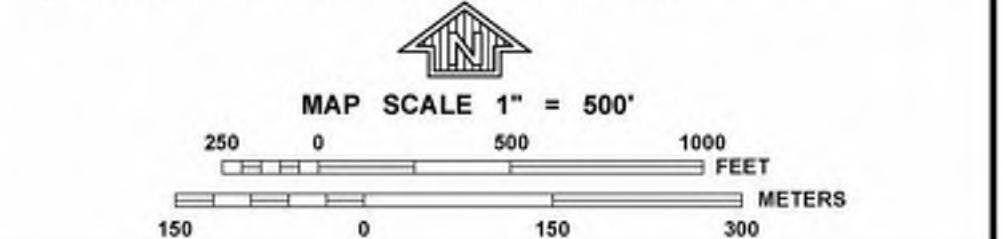
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- Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western Hemisphere
- 1000-meter Universal Transverse Mercator grid values, zone 18N
- 5000-foot grid values: New Jersey State Plane coordinate system (FIPS2900), Transverse Mercator projection
- Bench mark (see explanation in Notes to Users section of this FIRM panel)
- River Mile
- MAP REPOSITORY
- Refer to listing of Map Repositories on Map Index
- EFFECTIVE DATE OF COUNTY-WIDE FLOOD INSURANCE RATE MAP September 25, 2009
- EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your Insurance agent or call the National Flood Insurance Program at 1-800-638-6620.



NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0037G
FIRM
FLOOD INSURANCE RATE MAP
MONMOUTH COUNTY, NEW JERSEY (ALL JURISDICTIONS)
PANEL 37 OF 457
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
ABERDEEN, TOWNSHIP OF	340312	0037	G
HAZLET, TOWNSHIP OF	340298	0037	G
HOLMDEL, TOWNSHIP OF	340300	0037	G
KEYPORT, BOROUGH OF	340304	0037	G

PRELIMINARY
JANUARY 31, 2014
Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
34025C0037G
MAP REVISED
Federal Emergency Management Agency