

DONNA M. JENNINGS, ESQ.

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June 18, 2024

VIA HAND DELIVERY AND EMAIL

Nancy Tran, Land Use Board Secretary Borough of Highlands Land Use Board 151 Navesink Avenue Highlands, NJ 07732

> RE: 60 Bay Ave Highlands LLC Preliminary & Final Major Site Plan Approval 60 Bay Avenue Block 42, Lot 1

Dear Ms. Tran:

This office represents 60 Bay Ave Highlands LLC in connection with the above-referenced application. Enclosed, for filing, please accept the following as included in the applicant's site plan application:

- 1. Eighteen (18) copies of the Land Use Board Application, amended to reflect updated tax payment, with Rider.
- 2. Eighteen (18) copies of an updated Zoning Permit Denial, dated April 23, 2024.
- 3. Eighteen (18) copies of a Response Letter, prepared by InSite Engineering, LLC, to the Roberts Engineering Group LLC Completeness Review No. 1, dated May 17, 2024.
- 4. Eighteen (18) copies of Proof of Property Taxes Paid provided by Donna Conrad, Borough Tax Clerk/Cashier, dated June 12, 2024.
- 5. Eighteen (18) copies of email correspondence from Kevin Rooney, Cashier, confirming sewer bill payment, dated June 18, 2024.
- 6. Eighteen (18) copies of Executed W-9, dated March 18, 2024.

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- 7. Eighteen (18) copies of Stormwater Management Statement of Compliance, prepared by InSite Engineering, LLC, dated April 11, 2024.
- 8. Eighteen (18) copies of a sanitary sewer and water volume report, entitled "Engineer's Report," prepared by InSite Engineering, LLC, dated June 10, 2024.
- 9. Eighteen (18) copies of a survey, entitled "Boundary & Topographic Survey," prepared by InSite Surveying, LLC, dated November 30, 2023, last revised December 20, 2023, consisting of one (1) sheet.
- 10. Eighteen (18) copies of floor plans and elevations, entitled "60 Bay Ave Highland LLC Multi-Family Residence 60 Bay Avenue Highlands, New Jersey," prepared by LaFerlita Architectural Services, dated June 12, 2024.
- 11. Eighteen (18) copies of a preliminary & final major site plan, entitled "Proposed-Multi Family Residence," prepared by InSite Engineering, LLC, dated February 5, 2024, last revised June 5, 2024, consisting of thirteen (13) sheets.

Please be advised that the application and escrow fees were provided under separate cover. Additionally, please advise as to when this matter will be scheduled for a public hearing before the Land Use Board.

Thank you for your continued assistance in this matter. Should you require any additional information, please do not hesitate to contact this office.

ery truly yours,

NA M. JENNINGS

w/encl.

CC: 60 Bay Ave Highlands, LLC Doug Clelland, PE Sal LaFerlita, AIA Luke H. Policastro, Esq. Land Use Board Borough of Highlands Attn: Nancy Tran

Land Use Board Secretary

151 Navesink Avenue

Highlands, New Jersey 07732

June 12, 2024

Via Hand Delivery



Response Letter (HLPB2024-02)

Block 42, Lot 1; 60 Bay Avenue

Borough of Highlands, Monmouth County, New Jersey

Ms. Tran:

We are submitting this letter on behalf of the Owner/Applicant in response to Roberts Engineering Group Review Letter dated May 17, 2024. Each comment and response are numbered in accordance with the aforementioned review memo. Italicized text is taken from the review memo for your ease of reference; non-italicized text represents our responses.

Review Letter, dated May 17, 2024

III. **CHECKLIST ITEMS**

3. The location of all existing watercourses, wooded areas, easements, rights-of-way, streets, roads, highways, rivers, buildings, structures, and any other feature on the property and within seventy-five (75) feet of the property line. Partially provided.

Provide existing features and information as described within seventy-five feet of the property lines.

Engineering • Surveying • Planning

The Location Map on the Title Sheet (C100) was revised accordingly.

4. Location, Use and ground floor area of all existing and proposed buildings, with the building setback, sideline, and rear yard distance. Partially provided.

Provide ground floor area(s) on the site plans.

A "Building Data" chart was added to the Site Layout Plan (C300).

5. Elevations at the corners of all proposed buildings and paved areas and at property corners if new buildings or paved areas are proposed. Partially provided.

Provide additional elevations on the site plans.

Additional elevations were added to the Grading, Drainage & Utility Plan (C400).

8. Location of all structures withing seventy-five (75) feet of the property. Partially provided.

Provide location of all structures within seventy-five feet of the property.

The Location Map on the Title Sheet (C100) was revised accordingly.

10. Stormwater management and sanitary sewer reports, including proposed storm drainage and sanitary disposal facilities; specifically, the location, type, and size of all existing and proposed catch basins, storm drainage facilities, utilities, plus all required design data supporting the adequacy of the existing or proposed facilities to handle future storm flows. Partially provided.

Applicant has provided stormwater management report.

Provide existing and proposed sanitary sewer report, locations, and total average daily sewerage flow. Please see general comments.

An Engineer's Report is included in this submission, accordingly.

11. Existing and proposed contours of the property and for seventy-five (75) feet outside the property at one (1) foot intervals when new buildings or parking areas are proposed. Spot elevations for any development in a flood hazard area. Partially provided.

Provide existing contours for seventy-five (75) feet outside the property.

Provide additional proposed spot elevations in the flood hazard area.

Monmouth County topographic data was added to a key map on the Title Sheet (C100).

16. The nature and location of public and private utilities, including maintenance and solid waste disposal, recycling and/or storage facilities. Partially provided.

Provide location of recycling bins. Provide location of garbage disposal pick up.

The location of recycling bins and the location for garbage disposal pick up was added to the Site Layout Plan (C300).

21. Soil borings, when required by Board Engineer. Not provided. May be required for footings for construction.

The Applicant agrees to comply, as required, prior to construction.

23. Certification statement for the County Planning Board approval/disapproval, if required. Not provided. Condition of Approval.

Bay Avenue is County Route 8; therefore, County Planning Board approval will be required.

The Applicant agrees to comply as a condition of approval, if approved.

24. The Board may require any additional information which is reasonably necessary to ascertain compliance with the provisions of this chapter. Open.

Informational, no response required.

II. <u>DESIGN WAIVERS</u>

1. Relief is requested from Ordinance Subsection 21-65.5(C)(1) Maximum Driveway Width at Curb. Eighteen (18) feet is permitted, and 19.09 feet is proposed for the site.

Supporting testimony will be provided.

2. Relief is requested from the Ordinance Subsection 21-65(11)(E) Minimum Lighting Level. 0.3 fc is required, and 0.1 fc is proposed for the site.

Supporting testimony will be provided.

3. Relief is requested from Ordinance Subsection 21-65(11)(F) Maximum Lighting Level at property line. 0.3 fc is permitted, and 1.7fc is proposed for the site.

Supporting testimony will be provided.

V. GENERAL COMMENTS

1. Please confirm that the existing dwelling will be moved closer to Bay Avenue.

The Land Use Board Application, Rider, cover letter and reports do not indicate that the existing structure is to be located closer to Bay Avenue.

The Denial of Zoning Permit notes "Lift house up to flood requirements. Move forward toward Bay Avenue..." The Boundary and Topographic Survey, Existing Conditions Plan, Site Plan and architectural plans were compared, the common existing and proposed walls appear to be closer to Bay Avenue.

Please provide a note on the plans clearly indicating that the dwelling is to be relocated.

The site plan was revised accordingly (multiple sheets).

2. The site was issued a Denial of Zoning Permit on February 14, 2024, by Courtney Lopez, Zoning Officer for the Borough of Highlands. The site was denied for non-compliance for having a building coverage of 52.4% where 35% is permitted: proposed parking spaces at 7 where 10.01 spaces are required and proposed driveway at curb is 19.09 feet where 18 feet is permitted.

Informational, no response required.

3. The proposed site is located in the CBD Redevelopment Overlay 2 Zone (C-RO-2) Gateway Parcels which allows for 80% building coverage. The Applicant is proposing 62%.

Informational, no response required.

4. Please indicate on the plans the elevation and square footage of the floors and the required minimum outdoor living per 100 sf/unit plus 50 sf/BR. Please update the bulk requirements summary.

The architectural plans as well as the Zoning Compliance Chart on the Site Layout Plan (C300) was revised accordingly.

5. Eleven spaces (10.1 spaces per RSIS Midrise Apartments) per C-RO-2 are required for the proposed site. Per §VIIA Vehicular Parking, residential uses are permitted to count first any available on-street parking spaces before determining the number of parking spaces that must be provided off-street. The Applicant notes that there are more than 3.1 existing on street parking spaces within the immediate vicinity and therefore the project complies.

Bay Avenue, South Street and Shrewsbury Avenue have no parking areas that are designated by yellow painted curbing.

Please indicate and dimension the available on-street parking spaces on the plans and confirm that the parking requirement has been met. Please update the parking chart.

The existing parking spaces across Shrewsbury Avenue were added to the plan. Although not striped, parking is also available along Bay Avenue. The parking spaces that are provided on-site are indicated in the proposed column and footnote (1) describes the available parking in the immediate vicinity to demonstrate compliance.

6. The Applicant is requesting a design waiver for the proposed 19.01 ft width driveway with apron and sidewalk accessing Shrewsbury Avenue.

Please explain why an 18 ft width driveway is not sufficient for the proposed driveway. An 18 ft driveway is required per §21-65.5.

Please provide spot elevations for the proposed apron and sidewalk ramps. Confirm ADA compliant.

Additional spot elevations were added to the plan. The proposed driveway was made slightly wider than 18' in order to accommodate two complete parking areas fully within the driveway and on the subject property.

7. Please provide proposed spot elevations indicating positive drainage between the rear driveway and the landscape buffer towards the roadway. Flow arrows and spot elevations are shown in the landscaped area, which cannot be relied on for long term positive flow.

Additional spot grades were added to the plan, accordingly.

8. There is existing 4 ft and 6 ft high fencing along Lot 15, as shown on the Boundary and Topographic Survey and the Existing Conditions Plan.

The fencing is missing from the site plans. Please confirm ownership of the fence and place on the site plans.

The existing fence was added to the plans, testimony will be provided regarding ownership of the fence.

9. Please provide proposed spot elevations indicating positive drainage between and along the existing fence with Lot 15, paved walkway and building to the roadway.

Additional spot grades were added to the plan, accordingly.

10. The ground elevations on the Architectural plans are 4.00 whereas the grading plan is 5.00. Please confirm the elevations and correct.

The architectural plans were revised, accordingly.

11. There are elevation five – and six contours shown in the southeast corner of the lot between the proposed dwelling, under the deck and the existing sidewalk. The ground elevation at the dwelling is 5.00. Please provide positive drainage and spot elevations.

Existing contours are shown as shaded (grey). We leave them on the plan so that the future contractor has an indication of the earthwork necessary. There is only one proposed 5 contour which was added to the plan. The proposed elevation at the base of the building is 5 and the existing/proposed sidewalk varies between 4 and 4.5, therefore positive drainage is maintained.

12. Provide proposed spot elevations at all the corners of the proposed building, walkways, driveway, and aprons.

Additional spot grades were added, accordingly.

13. Please revise the building height per architectural plans from 29.25 ft to 29.33 ft.

The plans were revised accordingly.

14. Plantings are shown on the northeast portion of the proposed dwelling beneath the decking and upper floors.

Please confirm that the proposed plantings will thrive with minimum sun exposure.

Please place landscaping details on the Landscape Plan.

With the area getting southern exposure, there will be ample morning sun, with the potential for more in the spring and fall months when the sun angle is lower.

15. Please indicate if there is lawn or stone under the proposed decking. Please update the stormwater calculation if necessary.

The plan was revised, accordingly.

16. Provide a note on the plans that the Applicant is responsible for any damages to any/all existing curb, sidewalk, roadway, and other off-site objects made during construction and must be repaired and/or replaced to the satisfaction of the Borough Engineer and costs paid by the Applicant.

General Note 18 was added to the plan (C101).

17. Indicate the pavement replacement areas for the installation of all utilities and proposed driveways.

Update pavement details according to § 21-65.15.

The plan was revised, accordingly.

18. Indicate the areas of concrete sidewalk and paver walkway repair for the installation of utilities and provide details.

The plan was revised, accordingly.

19. Indicate inverts, cleanouts, roof leader connections and splash blocks on the plans for the roof leader collection system that discharges to an existing inlet located on South Street. Provide size and material type on the plans.

Proposed downspout locations were added, accordingly. The "Exterior Downspout Collector" detail indicates that a splash block is proposed at each downspout location. Size, material, and slope of pipe is indicated on the plans with capacity calculations.

20. A proposed sanitary sewer connection within a proposed driveway is shown connecting to the sanitary sewer line in Bay Avenue.

It is recommended that the lateral not be placed in the driveway and a cleanout provided near the dwelling and near the curb.

Provide the size and type of material for the lateral.

Provide cleanout protection box details for paved or unpaved areas.

The plan was revised to provide additional detail on the sanitary sewer connection.

21. An existing cleanout is shown approximately 4.5 ft within an asphalt area of sidewalk near on of the two pairs of proposed driveways accessing Bay Ave.

Please indicate the location of the existing sanitary sewer connection (size and material) and its intent as to whether it is to be abandoned or to serve in conjunction with the proposed sanitary lateral. Please provide note on plan.

The plan was revised accordingly.

22. A Sanitary Sewer Connection Fee will be required for the site.

As per N.J.S.A. 40A:26a-11.1, "A municipal sewerage facility may charge an additional connection fee for an addition, alteration, or change in use that materially increases the level of use (15% or more) and imposes a greater demand on the sewerage system but does not involve a new physical connection of the property to the sewerage system."

The additional dwelling unit and increased number of overall bedrooms is anticipated to increase the flow by over 15%.

The Applicant is requested to provide the existing and projected increased total daily sanitary sewer flow to calculate the connection fee.

The projected average daily sanitary flow shall be based on NJDEP criteria for N.J.A.C. 7:11A-23.3(a).

Please provide a table of calculations on the plan.

An Engineer's Report is included in this submission, accordingly. Demand calculations were also added to the Grading, Drainage & Utility Plan, as requested.

23. An existing water meter is shown approximately 1.5 ft within the existing paver sidewalk near one of the two pairs of proposed driveways accessing Bay Ave.

Please indicate the location of the existing water service (size and material) and its intent as whether it is to be abandoned or to serve in conjunction with the proposed water service.

Please provide the size and material type for the proposed water service on the plan.

The existing service was identified as to be abandoned and the proposed service size and material have been identified on the plan. This is subject to confirmation from the project MEP, prior to construction, if approved.

24. There is an existing gas service line in Bay Avenue on the Boundary and Topographic survey but is not shown on the site plans.

Please indicate the location of the existing gas service and its intent as to whether it is to be abandoned or to serve in conjunction with the proposed gas service. Please provide a note on the plan.

There is a gas valve at the existing rear driveway on Shrewsbury Avenue. Provide the existing gas service line on the plans. Please provide a note regarding its service to the proposed building.

The existing service was identified as to be abandoned and the proposed service has been identified on the plan. This is subject to confirmation from the project MEP, prior to construction, if approved.

25. There are two existing overhead services on Bay Avenue and Shrewsbury Avenue as shown on the Boundary and Topographic Survey and the Existing Conditions Plan. A proposed and existing overhead service is shown for Bay Avenue on the Grading, Drainage and Utility Plan, however the existing service on Shrewsbury is not shown.

Please indicate the existing service on the plan and note if it is to be removed.

All proposed utilities are required to be underground per §21-65.26 B, however the section allows overhead service with the provision of:

Lots which abut existing streets where overhead electric or telephone distribution supply lines and service connections have heretofore been installed may be supplied with electric and telephone service from these overhead lines, but any new service from these overhead lines shall be installed underground.

Provide a note on the plans.

The existing service was identified as to be abandoned and the proposed service has been identified on the plan as underground. Tapping points are subject to confirmation from the project MEP, prior to construction, if approved.

26. An existing decorative streetlight is located within one of the proposed driveway aprons along Bay Avenue. Please provide a design solution for the conflict and location for the relocated pole.

The plans were revised to show this light as being relocated, accordingly.

- 27. The Application is requesting relief from 2 Lighting Ordinances:
 - a. Subsection 21-65(11)(E) Minimum Lighting Level. 0.3 fc is required, and 0.1 fc is proposed for the site.
 - b. Subsection 21-65(11)(F) Maximum Lighting Level at property line. 0.3 fc is permitted, and 1.7 fc is proposed for the site.

The Applicant did not include existing lighting in the analysis.

The existing decorative streetlight (see comment above) and street lighting need to be included for an overall analysis.

It is unknown if the existing fencing along Lot 15 has factored into the analysis. The proposed light facing Lot 15 does not seem to have the same intensity as those of the other proposed lights.

There is a lighting void area for the main entrance and sidewalk to the proposed building along Bay Avenue. Please provide sufficient lighting for the entrance and sidewalk.

Please provide the manufacturer's specifications.

We recommend the applicant provide the minimum lighting level required, and a decrease in lighting levels at the property line, along with testimony of why such highlighting levels are being requested.

The existing fence along Lot 15 was factored into the analysis. Manufacturers specifications were added to the plans. Existing lighting from the ROW was added to the plan first in a standalone viewport, and secondly it was included in the proposed lighting conditions.

28. There is a rear entrance and a doorway for a storage unit on the north side of the building which access to a lawn and gravel area, respectively. It is recommended that a sidewalk be provided to connect the rear entrance with the walkway area for the garbage bin area and the rear gravel driveway.

A sidewalk was added, accordingly.

29. Please indicate where the recycling bins are to be placed.

The Site Layout Plan was revised (C300), accordingly.

30. Please indicate if there is a dedicated area for garbage and recycling pickup.

The Site Layout Plan was revised (C300), accordingly.

31. Please revise the concrete vertical curb to indicate the depressed curb.

The Construction Details (C800 & C801) were revised, accordingly.

32. As a condition of approval, it is recommended that the Applicant provide a plot plan for review and approval at the time of obtaining the building permit.

The Applicant agrees to comply as a condition of approval, if approved.

33. The property is located in the AE flood zone with a Base Flood Elevation of 11 feet and the proposed finished floor elevation is 14.00.

We defer further review to the Flood Plain Administrator and Construction Official for any applicable building requirements accordingly.

Informational, no response required.

34. According to XI.E General Administrative Requirements Affordable Housing Provisions, the mandatory set-aside requirements in Section 26-2 of the Borough of Highlands Affordable Housing Ordinance apply to any multifamily residential development of five (5) dwelling units or more, including the residential portion of a mixed-use project.

The applicant is to address this and provide testimony related to the same.

Testimony will be provided at the hearing.

V. APPROVALS

Approval of this application will be conditioned upon the Applicant obtaining or providing approved documents for the following:

- 1. Monmouth County Planning Board. WILL COMPLY
- 2. Freehold Soil Conservation Service. WILL COMPLY
- 3. Coastal Area Facilities Review Act (CAFRA) Zone. WILL COMPLY

In accordance with the above, enclosed please find the following:

- Nineteen (19) copies of the plan entitled, "Preliminary and Final Major Site Plan", dated 02/05/24, last revised 06/05/24 (r4), totaling thirteen (13) sheets, as prepared by this office;
- Nineteen (1) copies of the survey for the project;
- Nineteen (19) copies of the Engineer's Report for the project; and,
- Nineteen (19) copies of the Stormwater Statement for the project.

Thank you for your continued courtesies regarding this application. If you have any questions or require further information, please feel free to contact this office anytime.

Sincerely,

InSite Engineering. LLC

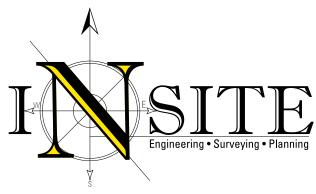
Douglas D. Clelland, PE

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Job #23-2237-01 DDC/mn

cc: 60 Bay Ave Highlands, LLC, Applicant (via Email)

Donna Jennings, Esq., Applicant's Attorney (via Émail) Sal Laferlita, AIA, Applicant's Architect (via Email)



This

ENGINEERS REPORT

for a

PRELIMINARY & FINAL MAJOR SITE PLAN FOR PROPOSED RESIDENTIAL USE

of

BLOCK 42; LOT 1 60 BAY AVENUE

in

THE BOROUGH OF HIGHLANDS MONMOUTH COUNTY, NJ

has been prepared for

60 BAY AVE HIGHLANDS, LLC

60 Bay Avenue

Highlands, NJ 07732

by

InSite Engineering, LLC

1955 Route 34, Suite 1A
Wall, NJ 07719
CERTIFICATE OF AUTHORIZATION 24GA28083200

On.

June 10, 2024

InSite Project No. 23-2237-01

ough D allul

Douglas D. Clelland NJPE 53310

InSite Engineering, LLC

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Engineers Report 60 Bay Ave Highlands, LLC 60 Bay Avenue Page 3 of 5 Block 42; Lot 1 Borough of Highlands, Monmouth County, NJ

INTRODUCTION

The project site is located on Lot 1 within Block 42 (0.148 acre) that has frontage on Bay Avenue

to the west, South Street to the south, Shrewsbury Ave to the east, and residential developments to

the north. The 0.148 acre site is currently developed with a multi-family residential use.

The applicant, 60 Bay Ave Highlands, LLC is proposing to relocate, elevate and expand the 3 story

multifamily residential building. The current building has three 2-bedroom apartments and one

studio apartment. The expanded building will have four 2-bedroom apartments and one 3-bedroom

apartments. Additional improvements include parking areas, lighting and landscaping measures,

stormwater management facilities, and other associated site amenities.

This report analyzes the proposed sanitary sewer and water volume for the project. The analysis

presented herein is intended to support applications for approval of the service connections by the

Borough of Highlands and New Jersey American Water.

PROJECT SUMMARY

The project is located in a Sewer Service Area with existing service located in the Bay Avenue

ROW. As part of the application, the applicant is proposing to connect to the existing sewer main

with a proposed 34 LF of 4" SDR-35 PVC at a slope of 2.1%. Flow rate calculations as well as

conveyance system details and specifications are in accordance with the requirements of Title 7 of

the New Jersey Administrative Code and the NHSA.

Additionally, the project contains an existing water main located within the Bay Avenue ROW.

The applicant is proposing to connect to this main via a wet tap. The proposed water service

consists of a 2" copper domestic service lateral. Demand calculations are provided in accordance

with N.J.A.C. 5:21-5.2. The proposed service line sizes are subject to a more detailed design by

the project MEP Engineer. The MEP Engineer was not yet retained as of the writing of this report.

SEWER FLOW CALCULATIONS

A. Proposed Average Daily Flow (per N.J.A.C. 7:14A-23.3):

<u>Two-Bedroom Apartment (unit) = 4 units</u>

Two-Bedroom Apartment (225 gpd/unit): Q_{avg}. = 225 gpd x 4 units = 900 gpd

Three-Bedroom Apartment (unit) = 1 units

One-Bedroom Apartment (300 gpd/unit): Q_{avg}. = 300 gpd x units = 300 gpd

Total Estimated Flow: = $1,200 \text{ gpd} \approx 0.0012 \text{ mgd}$

B. Service Connections Capacity Analysis

Proposed Service Connection: Bay Avenue

The proposed 4-inch SDR-35 PVC sanitary sewer service connection will be sufficient to convey the proposed residential flows from the building (1,050 gpd or 0.0011 mgd) as calculated below:

$$Q_d = (1.486 / n) x A x R^{2/3} x S^{1/2}$$

where,

 Q_d = design capacity, cfs (1/2 full)

n = Mannings roughness coefficient (PVC = 0.010)

A = flow area (1/2 full) = 0.087 S.F.

R = hydraulic radius = A/WP = 0.083 ft.

S = pipe slope = 0.02 ft/ft.

 $Q_d = (1.486/0.010) \times 0.087 \times 0.083^{2/3} \times 0.02^{1/2} = 0.348 \text{ cfs}$

 $Q_d = 0.348 \text{ cfs } x \ 0.6463 \text{ mgd/cfs} = 0.225 \text{ mgd}$

Minimum Design Capacity = $2 \times Q_{avg.}$ (flowing 1/2 full)

 $\underline{Q}_d = \underline{0.225 \text{ mgd}} = 187.5 > 2$ \therefore **OK** \underline{Q}_{avg} . 0.0012 mgd (Capacity exceeds demand)

WATER DEMAND CALCULATIONS

A. Proposed Average Daily Demand (per N.J.A.C. 5:21-5.2):

Peak Demand

<u>Two-Bedroom Apartment (Unit) = 4 Units</u>

Two-Bedroom Apartment (140 Gpd/Unit: Q/Avg. = 140 Gpd/Unit X 4 Units = 560 Gpd

<u>Three-Bedroom Apartment (Unit) = 1 Units</u>

Three-Bedroom Apartment (200 Gpd/Unit: Q/Avg. = 200 Gpd/Unit X 1 Units = 200 Gpd

Total Proposed Average Daily Demand: = 560 Gpd + 200 Gpd= 760 Gpd ≈ 0.0006 Mgd

CONCLUSION

The analysis herein demonstrates that the proposed building service connection will adequately convey wastewater and water flows from the proposed building into the existing infrastructure within Bay Avenue.

PRELIMINARY & FINAL MAJOR SITE PLAN **FOR**

PROPOSED MULTI-FAMILY RESIDENCE

BLOCK 42, LOT 1 TAX MAP SHEET #11 60 BAY AVENUE BOROUGH OF HIGHLANDS, MONMOUTH COUNTY, NEW JERSEY

PROPERTY OWNERS WITHIN 200' (2/21/2024)

Block/Lot	Current Owner	Mailing Address		
1319-41-8	75 BAY AVENUE SWANTON LLC	75 BAY AVENUE	HIGHLANDS NJ	07732
1319-41-9	DOUTY DOUGLAS & BAYARD	88 BAY AVENUE	HIGHLANDS NJ	07732
1319-41-10	AMERICAN LEGION	BAY AVE	HIGHLANDS NJ	07732
1319-42-2	SHARKEY MARY T	68 BAY AVENUE	HIGHLANDS NJ	07732
1319-42-13	WEST CARL & BUSICHIO KARIN	78 BAY AVENUE	HIGHLANDS NJ	07732
1319-42-14	TRI STATE REALTY LLC	494 SYCAMORE AVE.STE.100	SHREWSBURY NJ	07702
1319-39-1.01	BOROUGH OF HIGHLANDS	171 BAY AVE	HIGHLANDS NJ	07732
1319-39-1.02	BOROUGH OF HIGHLANDS	171 BAY AVE	HIGHLANDS NJ	07732
1319-42-3	PISANO BEVERLY	11 SHREWSBURY AVE	HIGHLANDS NJ	07732
1319-41-4	61 BAY AVENUE LLC	28 ATLANTIC AVENUE	OCEAN GROVE NJ	07756
1319-41-7	KEMPSON MATTHEW	30 SECOND STREET	HIGHLANDS NJ	07732
1319-42-9	KURDES LAWRENCE J & MARY-ALISON	8 KAY ST	HIGHLANDS NJ	07732
1319-41-2.01	BASKET EUGENE J	57 BAY AVENUE	HIGHLANDS NJ	07732
1319-43-3	REMIAS ROSE MARIE	22 SHREWSBURY AVENUE	HIGHLANDS NJ	07732
1319-42-12.01	RICCIARDONE BRIAN	163 FANNING STREET	STATEN ISLAND NY	10314
1319-42-15	SHARKEY HUGH & MARY	68 BAY AVENUE	HIGHLANDS NJ	07732
1319-43-1	LAURITANO VICTOR	18 SHREWSBURY AVE	HIGHLANDS NJ	07732
1319-43-2	FRANSON LOREEN	20 SHREWSBURY AVE	HIGHLANDS NJ	07732
1319-41-3	KU WALTER & EVA L	59 BAY AVENUE	HIGHLANDS NJ	07732
1319-42-4	HARTSGROVE TROY & JOY ANNE	13 SHREWSBURY AVE	HIGHLANDS NJ	07732
1319-42-5	STENSETH MARK D & ALECIA E	15 SHREWSBURY AVENUE	HIGHLANDS NJ	07732
1319-42-6	MAZZELLA KIM M	17 SHREWSBURY AVENUE	HIGHLANDS NJ	07732
1319-42-7	MENZA DAN & KAREN	19 SHREWSBURY AVENUE	HIGHLANDS NJ	07732
1319-41-5	SMITH MURRAY T.	226 PARK STREET	MONTCLAIR NJ	07042
1319-38.01-17.01	MONAHAN WILLIAM	55 A BAY AVE	HIGHLANDS NJ	07732
1319-38.01-17.02	DAVIS COREY MOLZON & JOHN A	55 BAY AVENUE	HIGHLANDS NJ	07732
1319-38.01-17.03	KEETON RANDALL E & DALE ANN	53 BAY AVENUE	HIGHLANDS NJ	07732
1319-38.01-17.04	FEGHHI ALICIA M	51 BAY AVENUE	HIGHLANDS NJ	07732
1319-38.01-17.05	ZHENG WU & OI SUM	27 SOUTH AVENUE	ATLANTIC HIGHLAND	OS NJ 0771

UTILITY CONTACTS

P.O. BOX 810

NAVESINK NJ 07752

* If you are located within 200 feet of a State Highway, you MUST notify the NJ Department of

NJ Dept. of Transportation 1035 Pkwy Avenue PO Box 600 Trenton, NJ 08625

KOEPPEL RICHARD J & JOSEPH W

*If you are within 200 feet of a County owned road, you MUST notify the Monmouth County Planning Board:

> Monmouth County Planning Board Hall of Records Annex 2nd Floor One East Main St. PO Box 1255 Freehold, NJ 07728

300 Madison Avenue PO Box 1911

Morristown, NJ 07960

NEW JERSEY AMERICAN WATER COMPANY Attn: Construction Departmen 661 Shrewsbury Ave Shrewsbury, NJ 07702

COMCAST COMMUNICATIONS OF MONMOUTH COUNTY Ron Bertrand, Construction Foreman 403 South St Eatontown, NJ 07724

VERIZON COMMUNICATIONS One Verizon Way Basking Ridge, NJ 07920

TOWNSHIP OF MIDDLETOWN SEWERAGE AUTHORITY Raymond J. Nierstedt, P.E., Executive Director PO Box 205, 100 Beverly Way Belford, NJ 07718

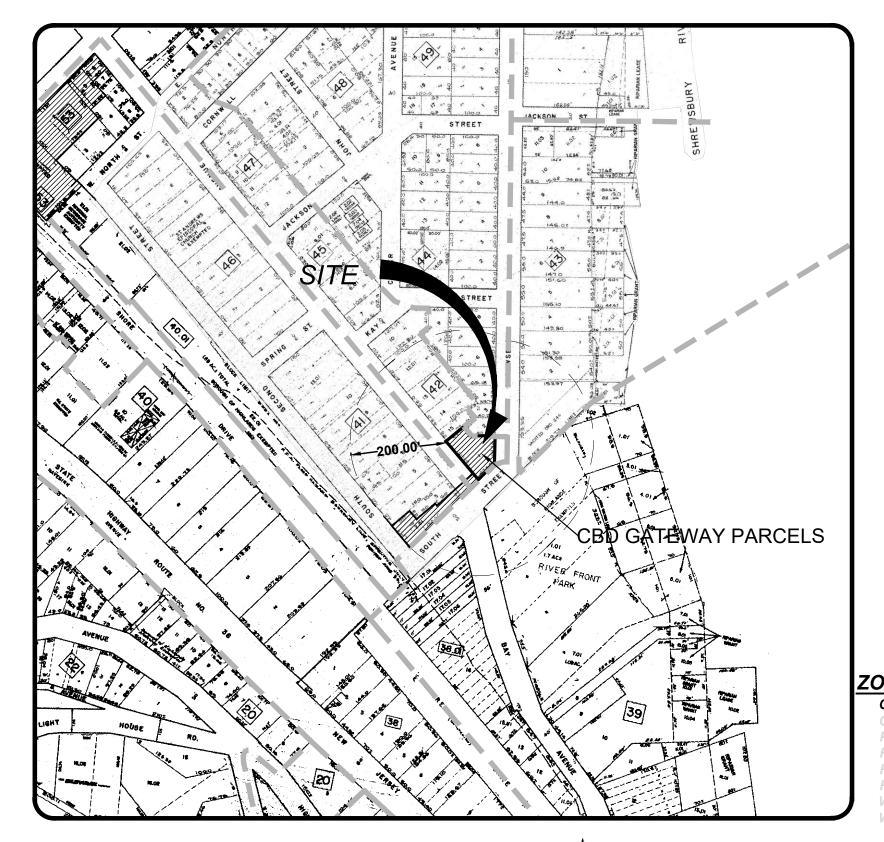
NEW JERSEY NATURAL GAS COMPAN Attn: Joan Purcaro

PO Box 1464 1415 Wyckoff Road Wall, NJ 07719

> MONMOUTH COUNTY BAYSHORE OUTFALL AUTHORITY Attn: Executive Director

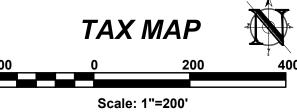
200 Harbor Way PO Box 184 Belford, NJ 07718

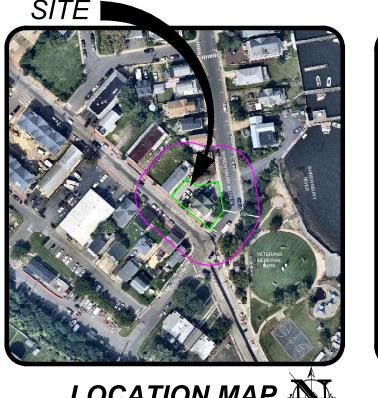
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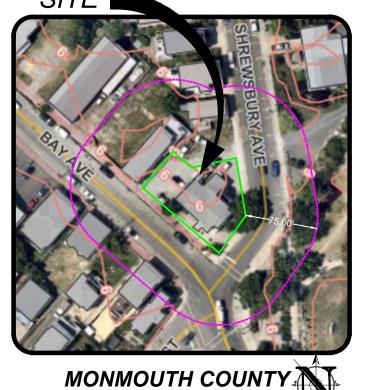
REDEVELOPMENT OVERLAY 2 ZONE (C-RO-2) REDEVELOPMENT OVERLAY 3 ZONE (C-RO-3) PROFESSIONAL BUSINESS

R-1.01 SINGLE FAMILY RESIDENTIAL R-2.02 SINGLE FAMILY RESIDENTIAL ONE-FAMILY RESIDENTIAL WC-1 WATERFRONT COMMERCIAL WT-R WATERFRONT TRANSITION RESIDENTIAL

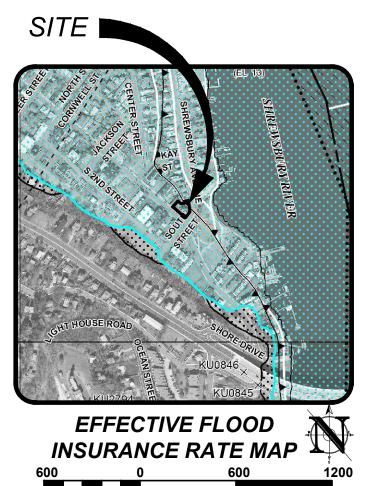




Scale: 1"=200'



Scale: 1"=100'



Scale: 1"=600'

LAND USE BOARD APPROVAL	
APPROVED BY THE BOROUGH OF HIGHLA	NDS LAND USE BOARD
BOARD CHAIRPERSON	DATE
BOARD SECRETARY	DATE
BOARD ENGINEER	DATE

	INDEX OF SHEETS:		
EET#:	SHEET TITLE:	INITIAL RELEASE:	REV. DATE:
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C200	EXISTING CONDITIONS & SITE PREPARATION PLAN	02/05/24	06/05/24
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C600	LANDSCAPE PLAN	02/05/24	06/05/24
C601	LIGHTING PLAN - EXISTING CONDITIONS R.O.W. ONLY	06/05/24	06/05/24
C602	LIGHTING PLAN - PROPOSED CONDITIONS	02/05/24	06/05/24
C800	CONSTRUCTION DETAILS	02/05/24	06/05/24
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C900	SOIL EROSION & SEDIMENT CONTROL PLAN	02/05/24	06/05/24
C901	SESC NOTES	02/05/24	06/05/24
C902	SESC DETAILS	02/05/24	06/05/24

PROPOSED

PROJECT INFORMATION

MULTI -FAMILY RESIDENCE

60 BAY AVENUE BOROUGH OF HIGHLANDS.

60 BAY AVE HIGHLANDS, LLC

60 BAY AVE HIGHLANDS, LLC 60 BAY AVENUE

APPLICANT'S PROFESSIONALS

ATTORNEY: DONNA M. JENNINGS ESQ. WILENTZ, GOLDMAN & SPITZER, PA 90 WOODBRIDGE CENTER DRIVE, SUITE 900

SALVATORE LA FERLITA, R.A. LINCROFT, NJ 07738

SURVEYOR: INSITE SURVEYING, LLC 1955 ROUTE 37, SUITE 1A



CALL BEFORE Y	OU DIG!
NJ ONE CALL80	
(at least 3 days prior to e	xcavation)
ELECTRIC	RED
GAS / OIL	YELLOW
COMMUNICATION / TV	ORANGE
WATER	BLUE
SEWER	GREEN
TEMP SURVEY MARKINGS	MAGENTA



CERTIFICATE OF AUTHORIZATION: 24GA28083200 1955 ROUTE 34, SUITE 1A, WALL, NJ 07719 732-531-7100 (Ph) 732-531-7344 (Fax) InSite@InSiteEng.net www.InSiteEng.net

LICENSED IN: NEW JERSEY, NEW YORK, PENNSYLVANIA DELAWARE, CONNECTICUT, NORTH CAROLINA COLORADO, & DISTRICT OF COLUMBIA

CAUTION: IF THIS DOCUMENT DOES NOT CONTAIN THE SIGNATURI AND RAISED SEAL OF THE PROFESSIONAL, IT IS NOT AN ORIGINA AND MAY HAVE BEEN ALTERED Dougla D allul

> PROFESSIONAL ENGINEER NJ PE 24GE05331000

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4	06/05/24	PER BOROU	GH COMMENTS
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NOT FOR CONSTRUCTION

CAD ID: 23-2237-01r3

FOR CONSTRUCTION PLAN INFORMATION

PRELIMINARY & FINAL MAJOR SITE PLAN

TITLE SHEET

a. CUT SLOPES: THESE SURFACES SHALL BE ROUGHENED IN A HORIZONTAL DIRECTION FOLLOWING THE CONTOUR OF THE SLOPE. THE ROUGHENED TEXTURE SHALL BE MADE BY HAND RAKING OR SIMILAR MECHANICAL MEANS b. FILL SLOPES: THESE SURFACES SHALL BE COMPACTED AND FINISHED AND ALSO ROUGHENED IN A HORIZONTAL DIRECTION FOLLOWING

THE CONTOUR OF THE SLOPE. THE ROUGHENED TEXTURE SHALL BE MADE BY HAND RAKING OR SIMILAR MECHANICAL MEANS. WEED ERADICATION a. MANUALLY REMOVE EXISTING VEGETATION WHERE NOTED ON PLAN AND DISPOSE OFFSITE.

b. FERTILIZE ALL PLANTING AREAS BASED UPON SOIL ANALYSIS. BEGIN WATERING PROCESS TO ACTIVATE FERTILIZER AND ADDITIVE CHEMICALS.

c. WATER ALL PLANTING AREAS THOROUGHLY FOR A PERIOD OF TWO (2) CONSECUTIVE WEEKS. THE UNDERSIGNED SHALL APPROVE SPECIFIC WATERING DURATION AND FREQUENCY DESIGNED TO GERMINATE ALL RESIDUAL WEED SEEDS. d. IF PERENNIAL WEEDS APPEAR, DISCONTINUE WATERING PROCESS FOR TWO (2) DAYS, THEN APPLY RECOMMENDED HERBICIDE BY

LICENSED APPLICATOR IF ANNUAL WEEDS APPEAR. USE STRAIGHT CONTACT HERBICIDE AS PER THE LICENSED APPLICATOR'S RECOMMENDATIONS. NO WATER SHALL BE APPLIED FOR A MINIMUM OF FOUR (4) DAYS FOLLOWING APPLICATION CONTACT WEED KILLER. e. ALLOW SUFFICIENT PERIOD OF TIME TO INSURE THAT ALL WEEDS ARE DEAD WATER ALL PLANTING AREAS THOROUGHLY FOR A PERIOD OF THREE (3) WEEKS. A SHORTER WATERING PERIOD MAY BE PERMISSIBLE AT THE DISCRETION OF THE UNDERSIGNED AND/OR THE PEST CONTROL ADVISOR. DISCONTINUE WATERING FOR ONE (1) DAY PRIOR TO THE

SECOND APPLICATION OF THE HERBICIDE. RE-APPLY A STRAIGHT CONTACT WEED KILLER, AS PER THE PEST CONTROL ADVISOR'S RECOMMENDATIONS. FOR EFFECTIVE WEED ERADICATION, ALLOW A MINIMUM OF FOUR (4) DAYS WITHOUT IRRIGATION.RO a. REMOVE ALL DESICCATED WEEDS FROM SLOPES. PLANTING
PLANT TREES AND SHRUBS AS INDICATED ON PLANTING PLAN AND AS DETAILED ON PLANTING DETAIL SHEET. SUBSTITUTIONS OF PLANTS WILL

NOT BE ACCEPTED UNLESS APPROVED IN WRITING BY THE UNDERSIGNED. INSTALL ALL CONTAINER GROWN PLANTS ACCORDING TO TREE AND SHRUB PLANTING AND STAKING DETAIL. THOROUGHLY MIX THE SPECIFIED MATERIALS FOUND IN THE SOIL ANALYSIS AND THOSE SPECIFIED IN THE PLANTING DETAIL SHEET WITH THE SITE SOIL PRIOR TO BACKFILLING OF PLANTING PITS

GENERAL NOTES

SUBJECT PROPERTY
TAX MAP 11: BLOCK 42, LOTS 1, BOROUGH HIGHLANDS, MONMOUTH COUNTY, NEW JERSEY

S PLAN SET HAS BEEN PREPARED FOR THE PURPOSE OF PRELIMINARY/FINAL SITE PLAN MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THE PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL FINAL APPROVALS HAVE BEEN OBTAINED AND ALL THE CONDITIONS OF THE APPROVALS HAVE BEEN SATISFIED.

SURVEY DATA
SURVEY INFORMATION CONTAINED HEREON IS BASED ON A FIELD SURVEY PERFORMED BY INSITE SURVEYING, LLC, ENTITLED

TO THE MORTH AMERICAN "BOUNDARY AND TOPOGRAPHIC SURVEY", LAST REVISED 12/20/23. ALL ELEVATIONS ARE RELATIVE TO THE NORTH AMERICAN DATUM OF 1988 (NAVD88). SEE SURVEY FOR DEED REFERENCES.

ACCORDING TO FEMA'S EFFECTIVE FIRM ENTITLED "FIRM - FLOOD INSURANCE RATE MAP (FIRM) MONMOUTH COUNTY NEW JERSEY (ALL JURISDICTIONS)." COMMUNITY PANEL #34025C00088H. DATED 6/15/22. THE SITE IS LOCATED IN ZONE AE WITH A BASE FLOOD ELEVATION OF 11. ACCORDING TO FEMA'S CURRENT PRELIMINARY FIRM ENTITLED, "PRELIMINARY FLOOD INSURANCE RATE MAP (FIRM)", COMMUNITY PANEL #34025C00088H, DATED 6/15/22, THE SITE IS LOCATED IN ZONE AE WITH A BASE FLOOD ELEVATION OF 11. BOTH FEMA MAPS REFERENCE THE NAVD88 VERTICAL DATUM.

RCHITECTURAL INFORMATION CONTAINED HEREON IS BASED ON PLANS PREPARED BY SALVATORE LA FERLITA, R.A.

ARCHITECTURAL SERVICE CONSTRUCTION MANAGEMENT.

FOR ANY EXCAVATION IN NEW JERSEY, THE CONTRACTOR MUST CALL NEW JERSEY ONE CALL SERVICE AT 1-800-272-1000 FOR A MARKOUT REQUEST NO LESS THAN THREE (3) WORKING DAYS PRIOR TO STARTING ANY EXCAVATION.

IE CONTRACTOR IS DIRECTED TO THE FACT THAT THE APPROXIMATE LOCATIONS OF KNOWN UTILITY STRUCTURES AND FACILITIES (INCLUDING BUT NOT LIMITED TO SANITARY SEWERS, STORM SEWERS, POTABLE WATER LINES AND APPURTENANCES, NATURAL GAS LINES, ELECTRIC, TELEPHONE AND CATV LINES AND UNDERGROUND STORAGE TANKS) THAT MAY BE ENCOUNTERED WITHIN AND ADJACENT TO THE LIMITS OF THE WORK ARE SHOWN ON THE PLANS. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION IS NOT GUARANTEED BY THE ENGINEER, AND THE CONTRACTOR IS ADVISED TO VERIFY IN THE FIELD ALL THE FACTS CONCERNING THE LOCATION AND ELEVATION OF THESE UTILITIES OR OTHER CONSTRUCTION OBSTACLES IMPACTED BY NEW CONSTRUCTION PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER, IN WRITING. PRIOR TO CONSTRUCTION. OF ANY DISCREPANCIES WHICH MAY AFFECT THE PROJECT DESIGN.

UNLESS OTHERWISE NOTED HEREON. ALL SITE WORK SHALL BE CARRIED OUT IN CONFORMANCE WITH THE PROVISIONS OF THE "NEW JERSEY DEPARTMENT OF TRANSPORTATION (NJDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION.

a. ALL CONSTRUCTION AND DEMOLITION SHALL CONFORM WITH ANY APPLICABLE FEDERAL. STATE AND LOCAL REGULATIONS CONTRACTOR HAS SOLE RESPONSIBILITY FOR SITE SAFETY WAYS. MEANS AND METHODS OF CONSTRUCTION, AND SHALL CONFORM TO AND ABIDE BY ALL CURRENT OSHA STANDARDS OR REGULATIONS. SAFE CONSTRUCTION PRACTICES REMAIN THE OBLIGATION OF THE CONTRACTOR. THE CONTRACTOR SHALL OBTAIN ALL APPLICABLE FEDERAL, STATE AND LOCAL PERMITS PRIOR TO CONSTRUCTION.

b. THE CONTRACTOR SHALL PERFORM ALL WORK IN A FINISHED AND WORKMANLIKE MANNER TO THE ENTIRE SATISFACTION OF THE OWNER AND IN ACCORDANCE WITH THE BEST RECOGNIZED TRADE PRACTICES. c. THE CONTRACTOR SHALL PROVIDE NECESSARY BARRICADES, SUFFICIENT LIGHTS, SIGNS, AND OTHER TRAFFIC CONTROL

METHODS AS MAY BE NECESSARY WITHIN THE PROJECT FOR THE PROTECTION AND THE SAFETY OF THE PUBLIC AND MAINTAIN THROUGHOUT CONSTRUCTION

d. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SITE CLEANUP WITHIN THE CONSTRUCTION AREA AND SHALL DISPOSE OF DEBRIS IN ACCORDANCE WITH ANY LOCAL, STATE OR FEDERAL REGULATIONS.

e. ANY DAMAGE TO PUBLIC STREETS, CURBS, SIDEWALKS AND UTILITIES AS A RESULT OF SITE CONSTRUCTION ACTIVITIES SHALL BE REPAIRED BY THE CONTRACTOR.

10. <u>CONSTRUCTION PERMITS/INSPECTIONS</u>
CONTRACTOR RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS INCLUDING ROAD OPENING PERMITS, PREPARATION OF TRAFFIC CONTROL PLANS, INSTALLATION AND MAINTENANCE OF TRAFFIC CONTROL AND COORDINATION OF ALL INSPECTIONS REQUIRED BY THE BOROUGH OF HIGHLANDS, COUNTY OF MONMOUTH, TOWNSHIP OF MIDDLETOWN SA WMP SEWERAGE AUTHORITY AND ANY OTHER APPLICABLE AGENCY HAVING JURISDICTION OVER THE PROJECT

11. ADA COMPLIANCE

a. ALL SITE IMPROVEMENTS LOCATED ON THE PRIVATE PROPERTY SHALL BE IN COMPLIANCE WITH THE 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN, STANDARDS FOR PUBLIC ACCOMMODATIONS AND COMMERCIAL FACILITIES: TITLE III. b. ALL SITE IMPROVEMENTS LOCATED WITHIN PUBLIC RIGHT-OF-WAY SHALL BE IN COMPLIANCE WITH THE CURRENT PUBLIC RIGHTS-OF-WAY ACCESS ADVISORY COMMITTEE GUIDELINES.

HIS PLAN SET CONSISTS OF MULTIPLE SHEETS. INDIVIDUAL PAGES SHALL NOT BE UTILIZED FOR CONSTRUCTION ON THEIR OWN AS NOTES AND INFORMATION PROVIDED ON OTHER SHEETS MAY IMPACT WORK REQUIREMENTS. CONTRACTOR SHALL REVIEW AND UTILIZE ENTIRE PLAN SET FOR CONSTRUCTION.

13. FRESHWATER/COASTAL WETLANDS AND STREAMS
BASED UPON REVIEW OF PUBLISHED MAPPING, NO FRESHWATER/COASTAL WETLANDS OR STREAMS EXIST ON-SITE.

14. SOIL REMOVAL
ANY SOIL REMOVAL FROM THE SITE SHALL BE IN ACCORDANCE WITH BOROUGH CODE.

REGULAR MAINTENANCE OF THE PROPERTY (INCLUDING BUT NOT LIMITED TO: SNOW PLOWING, PAVEMENT / PARKING LOT REPAIRS, COMMON AREAS, REFUSE AREA, LANDSCAPING AND LIGHTING) SHALL BE THE RESPONSIBILITY OF THE PROPERTY

. IMPORTED FILL
ANY IMPORTED FILL SHALL MEET THE DEFINITION OF CLEAN FILL, PURSUANT TO THE TECHNICAL REQUIREMENTS OF SITE REMEDIATION (AS FOUND AT NJAC 7:26E-1.8).

BY THE APPLICANT.

ANY SEPTIC SYSTEMS OR UNDERGROUND STORAGE TANKS FOUND ONSITE WILL BE DECOMMISSIONED AND/OR REMOVED IN

ACCORDANCE WITH BOROUGH, COUNTY AND/OR NJDEP REQUIREMENTS.

CURBS, SIDEWALKS
APPLICANT IS RESPONSIBLE FOR ANY DAMAGES TO ANY/ALL EXISTING CURB, SIDEWALK, ROADWAY AND OTHER OFF-SITE OBJECTS MADE DURING CONSTRUCTION AND MUST BE REPAIRED AND/OR REPLACED TO THE PRE-EXISTING CONDITION/STATE

TO THE SATISFACTION OF THE BOROUGH ENGINEER. WHICH SHALL NOT UNREASONABLY BE WITHHELD. AND COAST PAID

GENERAL LANDSCAPING NOTES

AFTER ALL INSTALLATION OPERATIONS HAVE BEEN COMPLETED, REMOVE ALL RUBBISH, EXCESS SOIL, EMPTY PLANT CONTAINERS AND TRASH FROM THE SITE DAILY. ALL SCARS, RUTS AND OTHER MARKS IN THE AREA CAUSED BY THIS WORK SHALL BE REPAIRED AND THE GROUND LEFT IN A NEAT, ORDERLY CONDITION. LEAVE SITE IN BROOM-CLEAN CONDITION AT THE END OF EACH DAY.

MAINTENANCE

1. DURING INSTALLATION, THE CONTRACTOR SHALL MAINTAIN A SUFFICIENT NUMBER OF LABORERS AND ADEQUATE EQUIPMENT TO PERFORM THE WORK HEREIN SPECIFIED, PLANT MAINTENANCE SHALL CONSIST OF WATERING, WEEDING, CARING OF PLANTS, INCLUDING GROUND COVERS. SHRUBS VINES AND TREES EDGING AND MOWING LAWNS FERTILIZING CONTROL OF PESTS AND DISEASES AND MAINTAINING WALKS FREE OF DEBRIS AND DIRT, UPON COMPLETION OF EACH AREA, THE CONTRACTOR, THE UNDERSIGNED, THE OWNER, ALONG WITH THE OWNER'S MAINTENANCE REPRESENTATIVE SHALL CONDUCT AN INSPECTION OF COMPLETED AREA. AT THIS TIME, A LIST OF CORRECTIONS, IF ANY, SHALL

BE MADE. ALL CORRECTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. AFTER ALL WORK HAS BEEN COMPLETED, INSPECTED AND ACCEPTED, ALL AREAS WILL BE MAINTAINED FOR A PERIOD OF NINETY (90) CALENDAR DAYS OR AS LONG AS IS NECESSARY TO ESTABLISH THRIVING TREES, SHRUBS, TURF AND GROUND COVER WITHOUT BARE SPOTS.

KEEP ALL AREAS WEED-FREE, ADEQUATELY WATERED AND NEATLY CULTIVATED FOR THE NINETY (90) PERIOD. REMOVE ALL DEBRIS FROM SITE AND KEEP THE ENTIRE SITE BROOM-CLEAN. TURF AREAS ARE TO BE MOWED WEEKLY. RE-SEED ALL BARE SPOTS IN TURF AREAS AT TWO (2) WEEK INTERVALS AND MAINTAIN UNTIL AN EVEN STAND OF TURF IS OBTAINED. RE-SEED ALL SLOPE AREAS THAT FAIL TO GERMINATE EVENLY. REPAIR ALL ERODED SURFACES AT NO COST TO THE OWNER.

WITH TOPSOIL I EVELED AND REPLANTED 6. THE PROJECT SHALL BE SO CARED FOR THAT A NEAT, CLEAN CONDITION WILL BE PRESENTED AT ALL TIMES TO THE SATISFACTION OF THE OWNER AND THE UNDERSIGNED. THE LANDSCAPE CONTRACTOR SHALL BE EXPECTED TO MAKE A MINIMUM OF ONE (1) VISIT PER WEEK FOR MAINTENANCE PURPOSES DURING THE MAINTENANCE PERIOD (90 DAYS).

DAMAGE TO ANY PLANTED AREA SHALL BE REPAIRED IMMEDIATELY DEPRESSIONS CAUSED BY VEHICLES OR FOOT TRAFFIC SHALL BE FILLED.

AT THE END OF THE MAINTENANCE PERIOD, ALL AREAS THAT HAVE BEEN PLANTED SHALL BE FERTILIZED WITH COMMERCIAL FERTILIZER. ANALYSIS AND RATE OF APPLICATION SHALL BE PER THE SOILS REPORT THE CONTRACTOR SHALL REQUEST A FINAL SITE VISIT SEVEN (7) DAYS PRIOR TO THE END OF THE MAINTENANCE PERIOD (90 DAYS). THIS REQUEST SHALL BE WRITTEN AND DIRECTED TO THE OWNER AND THE UNDERSIGNED. UPON WRITTEN ACCEPTANCE OF THE PROJECT BY THE

OWNER AND THE UNDERSIGNED, THE CONTRACTOR SHALL BE RELIEVED OF ANY FURTHER MAINTENANCE. ALL TURF, GROUND COVER AND SHRUBS SHALL BE GUARANTEED TO LIVE AND GROW THROUGH THE FIRST GROWING SEASON. TREES SHALL BE

GUARANTEED FOR A PERIOD OF ONE (1) YEAR. THE CONTRACTOR, AT NO COST TO THE OWNER, SHALL REPLACE ANY MATERIAL THAT FAILS TO GROW THROUGH THE SPECIFIED MAINTENANCE AND GUARANTEED

DBSERVATION VISITS SPECIFIED HEREIN SHALL BE MADE BY THE UNDERSIGNED OR HIS REPRESENTATIVE. THE CONTRACTOR SHALL REQUEST OBSERVATION AT LEAST TWO (2) WORKING DAYS IN ADVANCE OF THE TIME THAT THE OBSERVATION IS REQUESTED. A 2. OBSERVATION VISITS ARE SUGGESTED FOR THE FOLLOWING PARTS OF THE WORK:

 a. UPON COMPLETION OF GRADING AND SOIL CONDITIONING PRIOR TO PLANTING h WHEN TREES ARE SPOTTED FOR PLANTING BUT PRIOR TO WHEN PLANTING HOLES ARE EXCAVATED c. WRITTEN ACCEPTANCE OF THE PROJECT TO RELEASE THE CONTRACTOR FROM FURTHER MAINTENANCE SHALL OCCUR AFTER FINAL

OBSERVATION WITH THE OWNER OR HIS REPRESENTATIVE AT THE END OF THE MAINTENANCE PERIOD.

<u>VERIFICATION OF DIMENSIONS</u>
ALL SCALED DIMENSIONS ARE APPROXIMATE. PRIOR TO PROCEEDING WITH ANY WORK, THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND QUANTITIES, AND SHALL IMMEDIATELY NOTIFY THE UNDERSIGNED OF ANY DISCREPANCY BETWEEN THE DRAWINGS AND/OR SPECIFICATIONS AND ACTUAL CONDITIONS. NO WORK SHALL BE DONE IN ANY AREA WHERE THERE IS SUCH A DISCREPANCY UNTIL APPROVAL FOR SAME HAS BEEN GIVEN BY

THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION OF ALL UNDERGROUND UTILITY LINES PRIOR TO ANY CONSTRUCTION, SO THAT PROPER PRECAUTIONS MAY BE TAKEN NOT TO DAMAGE SUCH LINES AND PLANT LOCATIONS. PROMPTLY NOTIFY THE LINDERSIGNED TO ARRANGE FOR RELOCATIONS OF UTILITIES OR PLANTING LOCATIONS. FAILURE TO FOLLOW THIS PROCEDURE PLACES UPON THE CONTRACTOR THE RESPONSIBILITY FOR. AT HIS OWN EXPENSE. MAKING ANY AND ALL REPAIRS FOR DAMAGES RESULTING FROM HIS WORK.

EXISTING TREES
CONTRACTOR IS TO TAKE CARE IN PRESERVING ANY EXISTING TREES GREATER THAN OR EQUAL TO 6" ON THE SITE. DAMAGE OR LOSS OF THESE TREES WILL RESULT IN REPLACEMENT OF EQUAL SIZE BY THE LANDSCAPE CONTRACTOR.

THIS WORK INCLUDES, BUT IS NOT LIMITED TO THE FURNISHING OF ALL LABOR, MATERIALS, EQUIPMENT, FINAL GRADING, SEEDING, SOIL AMENDMENTS, FTC AS MAY BE REQUIRED FOR A COMPLETE INSTALLATION

ALL TREE AND SHRUB MATERIAL SPECIFIED MUST MEET STANDARD INDUSTRY SPECIFICATIONS FOR THE CONTAINER SIZE INDICATED. DOWNSIZING OR SUBSTITUTION OF PLANT MATERIAL WITHOUT PRIOR APPROVAL OF UNDERSIGNED WILL NOT BE ALLOWED.

ILL LANDSCAPE AREAS SHALL BE GRADED TO A SMOOTH EVEN SURFACE PRIOR TO ANY PLANT INSTALLATION. ALL PLANT MATERIALS SHALL BE

INSTALLED USING GOOD HORTICULTURAL PRACTICES IN ACCORDANCE WITH THE PLANS AND DETAILS.

IREE PLANTINGS

1. WHENEVER FEASIBLE, TREES SHOULD BE PLANTED A MINIMUM OF TEN (10) FEET FROM ALL UNDERGROUND UTILITIES, STREETLIGHTS, HYDRANTS

TO SERVE SET UP TO SET UP AND OUT OF DRAINAGE FLOW LINES. SHOULD THIS NOT BE POSSIBLE, CONTACT THE UNDERSIGNED FOR DECISION ON PLACEMENT. ALL TREES IN TURF AREAS SHALL HAVE 12" MIN. CLR. CIRCUMFERENCE AROUND THE TRUNK BASE. PROVIDE 3" MIN. THK. MULCH AT BASE OF

<u>;ROUNDCOVER</u> 3ROUNDCOVER TYPE SHOWN SHALL BE PLANTED IN ALL SHRUB AREAS AS SPECIFIED ON PLANS. GROUNDCOVER SHALL BE PLANTED AT 18"

TURE ALL TURE AREAS ARE TO BE SODDED WITH AN APPROVED GRASS MIXTURE.

*SEE LANDSCAPING NOTES AND DETAIL SHEET FOR ADDITIONAL PLANTING NOTES

THE OWNER SHALL HAVE A SOIL ANALYSIS MADE AFTER COMPLETION OF THE ROUGH GRADING. THE CONTRACTOR SHALL INCORPORATE ALL SOIL AMENDMENTS AND FERTILIZERS DESCRIBED HEREIN. THE SOIL PREPARATION SPECIFIED BELOW SHALL BE ADJUSTED ACCORDING TO THE ANALYSIS, FOLLOWING APPROVAL FROM THE UNDERSIGNED.

ON-CENTER UNIFORM TRIANGULAR SPACING, AND SHALL BE CONTINUOUS UNDER ALL TREE AND SHRUB MASSES AS SHOWN ON PLAN.

A. WEED CONTROL FOR LAWN, SHRUB & GROUND COVER AREAS (EXCEPT SLOPES)

IRRIGATION IS TO BE INSTALLED WHERE NOTED ON PLAN ACCORDING TO SHOP DRAWINGS.

FERTILIZE ALL SHRUB/GROUND COVER AREAS. APPLY 10LBS. OF 16-20-0 COMMERCIAL FERTILIZER PER 1,000 SQ. FT. OR AS DIRECTED BY SOILS 4. WATER ALL SHRUB/GROUND COVER AREAS FOR THREE (3) WEEKS TO GERMINATE WEED SEEDS. APPLY WATER AT LOW RATE TO AVOID

5. LICENSED APPLICATOR SHALL APPLY SYSTEMIC WEED KILLER TO ALL PLANTING AREAS PER MANUFACTURER'S SPECIFICATIONS.

PSOIL MOVED DURING THE COURSE OF CONSTRUCTION SHALL BE REDISTRIBUTED ON ALL REGARDED SURFACES. AT LEAST THREE (3) INCHES OF EVEN COVER SHALL BE PROVIDED TO ALL DISTRIBUTED AREAS OF THE DEVELOPMENT AND SHALL BE STABILIZED BY SEEDING OR PLANTING. IF EXCESS TOPSOIL REMAINS, THE THICKNESS SHALL BE INCREASED. IF ADDITIONAL IS REQUIRED, THE DEVELOPER SHALL PROVIDE IT. REMOVAL OF EXCESS TOPSOIL SHALL ONLY BE PERMITTED IN ACCORDANCE WITH A PLAN APPROVED BY THE MUNICIPAL AGENCY.

SOIL PREPARATION & FINAL GRADING

1. ALL STUMPS AND OTHER TREE PARTS, LITTER, BRUSH, WEEDS, EXCESS OR SCRAP BUILDING MATERIALS, OR OTHER DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF, NO TREE STUMPS, PORTIONS OF TREE TRUNKS OR LIMBS SHALL BE BURIED ANYWHERE IN THE DEVELOPMENT. ALL DEAD OR DYING TREES, STANDING OR FALLEN, SHALL BE REMOVED FROM THE SITE

ROUGH GRADE: SITE TO BE RECEIVED BY LANDSCAPE CONTRACTOR, TO WITHIN 1/10 FOOT PLUS OR MINUS, BY OWNER BASED UPON GRADING FINAL GRADE: FINAL GRADE TO CONSIST OF GRADING, RAKING AND HAND WORK NECESSARY TO ACHIEVE DESIRED CONTOUR AND FLOW LINE PATTERNS RESULTING IN EVENLY FINISHED SURFACES FREE OF DEBRIS AND LITTER.

SPREAD OVER ALL LAWN, SHRUB AND GROUND COVER AREAS, AMENDMENTS AND FERTILIZER PRESCRIBED IN SOILS REPORT. THOROUGHLY MIX INTO SOIL TO DEPTH OF 6" OR MORE AND FINE GRADE. CONTRACTOR TO IMPORT SOIL NECESSARY TO ATTAIN DESIGN GRADES AND BERMS, ALL IMPORTED SOIL SHALL BE FREE OF WEEDS AND DEBRIS AND HAVE BALANCED PH., SMOOTH AND EVEN GRADING FOR PROPER DRAINAGE, FINAL GRADE SHALL BE 1" BELOW WALK/TOP OF CURB. REMOVE FROM THE SITE ALL STONES OVER 2" IN SIZE.

D. <u>PLANTING</u>
PLANT TREES, SHRUBS AND GROUND COVER AS CALLED FOR WHERE INDICATED ON PLANTING PLAN AND AS DETAILED ON PLANTING DETAIL SHEET. GROUND COVER - FLATS AND/OR CUTTINGS: ALL PLANT MATERIALS SPECIFIED AS PLUGS OR FLAT STOCK ON PLANTING PLAN SHALL REMAIN IN THE FLATS UNTIL TIME OF TRANSPLANTING.

THE FLAT SOIL SHALL CONTAIN SUFFICIENT MOISTURE SO THAT SOIL DOES NOT FALL APART WHEN LIFTING PLANT FROM FLAT. GROUND COVER PLANTS SHALL NOT BE ALLOWED TO DRY OUT BEFORE OR DURING PLANTING. ROOTS SHALL NOT BE EXPOSED TO THE AIR EXCEPT WHILE ACTUALLY BEING PLANTED. WILTED PLANTS WILL NOT BE ACCEPTED. AT THE TIME OF PLANTING, THE SOIL AROUND EACH PLANT SHALL BE FIRMED SUFFICIENTLY TO FORCE OUT AIR POCKETS. PLANTS TO BE PLANTED IN TRIANGULAR SPACING AS SPECIFIED O.C. (ON CENTER). ALL CUTTINGS SHALL BE MINIMUM OF 6" LONG. WATER IMMEDIATELY AFTER EACH PLANTING UNTIL ONE INCH OF WATER PENETRATION IS OBTAINED. CARE SHALL BE EXERCISED AT ALL TIMES TO PROTECT THE PLANTS AFTER PLANTING. ANY DAMAGE TO PLANTS BY TRAMPLING OR OTHER OPERATIONS OF THIS CONTRACT SHALL BE REPAIRED IMMEDIATELY.

PLANT ALL CONTAINER GROWN PLANTS IN PLANTING PITS AS DIRECTED ON TREE AND SHRUB PLANTING AND STAKING DETAIL. THOROUGHLY MIX BACKFILL ACCORDING TO TREE AND SHRUB PLANTING AND STAKING DETAIL. CONTRACTOR SHALL CONSTRUCT BASINS AROUND ALL TREES; BASINS SHALL NOT EXCEED TOP OF ROOT BALL CROWN.

ALL TREES SHALL HAVE A CALIPER OF TWO AND ONE-HALF (2 ½) INCHES OR SPECIFIED CALIPER IN PLANTING SCHEDULE AND THEY SHALL BE NURSERY GROWN, OF SUBSTANTIALLY UNIFORM SIZE AND SHAPE, AND HAVE STRAIGHT TRUNKS. TREES SHALL BE PROPERLY PLANTED AND STAKED ACCORDING TO TREE AND SHRUB PLANTING AND STAKING/EVERGREEN PLANTING & STAKING DETAIL AND PROVISION MADE BY THE APPLICANT FOR REGULAR WATERING AND MAINTENANCE UNTIL THEY ARE ESTABLISHED. THE APPLICANT SHALL REPLACE DEAD OR DYING TREES DURING THE NEXT PLANTING SEASON . TOP DRESSING

TOP DRESS ALL GROUND COVER AND SHRUB AREAS WITH 2" THICK LAYER OF OGC (ORGANIC GROUND COVER) AS SPECIFIED ON PLANTING

SOD

1. AREAS SHALL HAVE A SMOOTH CONTINUAL GRADE BETWEEN EXISTING OF FIXED CONTROLS, SUCH AS: WALKS, CURBS, CATCH BASINS. ROLL, SCARIFY, RAKE AND LEVEL AS NECESSARY TO OBTAIN TRUE, EVEN SOIL STRUCTURE.

APPLY FERTILIZERS AS SPECIFIED BY SOIL ANALYSIS TO DEPTH OF 6". SOD SHALL BE INSTALLED THE SAME DAY AS IT IS DELIVERED. SOD SHALL NOT BE LEFT ON PALLETS IN THE HOT SUN. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGE TO SOD NOT INSTALLED ON DAY OF DELIVERY 4. UNROLL SOD CAREFULLY AND PLACE IN STAGGERED PATTERN OF STRIPS. SOD SHALL BE INSTALLED AGAINST ADJACENT STRIPS TO ELIMINATE

5. FOLLOWING INSTALLATION, SOD SHALL BE IRRIGATED THOROUGHLY TO PROVIDE MOISTURE PENETRATION TO AT LEAST 6" INTO PREPARED 6. ALL SOD SHALL BE HANDLED AND LAID IN A HIGH STANDARD OF WORKMANSHIP MANNER. ALL ENDS, JOINTS, AND CUTS SHALL FIT TIGHTLY SO THAT THERE ARE NO VOIDS. THE FINAL APPEARANCE SHALL BE ONE OF A CONTINUOUS LAWN. SECTIONS OF SOD LESS THAN 18" LONG OR 9"

7. NO SOD AREA WILL BE ACCEPTED UNTIL APPROVED BY AUTHORITY HAVING JURISDICTION OR THE UNDERSIGNED, AS REQUIRED.

GRADING NOTES

ALL PROPOSED ON-SITE CURBING TO BE VERTICAL CURB WITH 6" REVEAL, UNLESS OTHERWISE STATED.

2. ALL CURBS SHALL BE DEPRESSED AT CROSSWALKS AND CONFORM TO APPLICABLE STATE AND FEDERAL BARRIER FREE DESIGN STANDARDS.

3. ALL CURB INLETS TO USE 6" CASTING. TOP OF CASTING TO FOLLOW TOP OF CURB ELEVATIONS.

FOR ALL AREAS LOCATED WITHIN THE PUBLIC RIGHT-OF-WAY, ACCESSIBILITY SHALL BE IN ACCORDANCE WITH THE CURRENT PUBLIC RIGHTS-OF-WAY ACCESS ADVISORY COMMITTEE GUIDELINE (PROWAG).

a. ALL WALKING SURFACES TO HAVE A MAXIMUM RUNNING SLOPE OF 1:20 (5%)

b. ALL WALKING SURFACES GREATER THAN 1:20 (5%) WILL REQUIRE HANDRAILS. c. RAMP RUNS SHALL HAVE A MAXIMUM CROSS SLOPE OF 1:12 (8.3%).

d. ALL WALKING SURFACES TO HAVE A MAXIMUM CROSS SLOPE OF 1:48 (2%).

e. ALL CROSSWALKS SHALL HAVE A MAXIMUM CROSS SLOPE OF 1:48 (2%).

. ALL GRADING WITHIN GRASSED AREAS TO BE A MINIMUM OF 2% AND A MAXIMUM OF 3:1 SLOPE UNLESS OTHERWISE NOTED.

6. POSITIVE DRAINAGE TO BE MAINTAINED FROM ALL BUILDINGS IN ACCORDANCE WITH APPLICABLE REGULATIONS AND BUILDING CODE. FLOOR ELEVATIONS, ADJACENT GRADE, DOORWAY LOCATIONS AND ELEVATIONS SHALL BE CONFIRMED WITH ARCHITECTURAL PLANS PRIOR TO

ALL EXCAVATED SOIL TO BE DISPOSED SHALL BE PROPERLY CLASSIFIED, HANDLED, AND DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL LOCAL,

9. ALL GRASSED AREAS TO HAVE A MINIMUM OF 4" CLEAN TOP SOIL, WHEN SOD IS BEING INSTALLED, OR 6" CLEAN TOP SOIL FOR SEEDING APPLICATIONS

DRAINAGE NOTES

1. PIPE LENGTHS INDICATED ARE MEASURED CENTER TO CENTER OF EACH STRUCTURE.

SHOP DRAWINGS AND PRODUCT CATALOG INFORMATION FOR ALL STORM DRAINAGE SEWER STRUCTURES. CONDUITS. MATERIALS, AND APPURTENANCES, TO BE PROVIDED TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PURCHASING

BUILDING ROOF LEADERS AND CLEAR WASTE FROM BUILDING TO CONNECT TO SITE STORM SEWER SYSTEM. CONNECTION POINTS WILL BE

UNLESS OTHERWISE INDICATED: a. RCP SHALL BE CLASS 3 WALL, BELL AND SPIGOT TYPE WITH O-RING GASKETS, UNLESS OTHERWISE NOTED.

b. HDPE PIPES SHALL BE ADS N-12 WITH WATER TIGHT JOINTS OR APPROVED EQUAL. c. STORM SEWER PVC PIPES SHALL BE SCHEDULE 80 WITHIN PAVED AREAS AND SCHEDULE 40 IN LANDSCAPED AREAS, UNLESS OTHERWISE

5. ALL STORM PIPE TO BE CLEANED AND TELEVISED PRIOR TO ISSUANCE OF CERTIFICATES OF OCCUPANCY

SANITARY SEWER NOTES

CONTRACTOR TO PERFORM TEST PITS TO VERIFY EXISTING UTILITY DEPTHS, SIZES AND LOCATIONS PRIOR TO CONNECTING PROPOSED SEWER TO EXISTING SEWER. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF ANY CONFLICTS SO THAT DESIGN MODIFICATIONS CAN BE MADE

2. PIPE LENGTHS INDICATED ARE MEASURED CENTER TO CENTER OF EACH STRUCTURE.

ALL SANITARY SEWER MAINS, SEWER LATERALS, AND APPURTENANCES SHALL BE CONSTRUCTED AND TESTED IN ACCORDANCE WITH TOWNSHIP OF MIDDLETOWN SEWERAGE AUTHORITY AND NJDEP REQUIREMENTS

SHOP DRAWINGS AND PRODUCT CATALOG INFORMATION FOR ALL SANITARY SEWER, CONDUITS, MATERIALS, AND APPURTENANCES, TO BE PROVIDED TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PURCHASING

ANY DAMAGE CAUSED TO THE EXISTING SANITARY SEWER SYSTEM AS A RESULT OF CONSTRUCTION ACTIVITIES (TO BE DETERMINED BY THE SEWER OWNER) SHALL BE REPAIRED BY THE CONTRACTOR. AT THE COST OF THE CONTRACTOR AND TO THE SEWER OWNER'S SATISFACTION

PRIOR TO ACCEPTANCE, AS-BUILT PLANS FOR THE SANITARY SEWER SYSTEM SHALL BE SUBMITTED AND APPROVED.

PRIOR TO ACCEPTANCE, THE SANITARY SEWER SYSTEM SHALL BE TESTED IN ACCORDANCE WITH TOWNSHIP OF MIDDLETOWN SEWAGE AUTHORITY RULES AND REGULATIONS. AND WITNESSED AND APPROVED BY THE AUTHORITY ENGINEER.

8 REFER TO TECHNICAL SPECIFICATIONS FOR SANITARY SEWER FOR MATERIAL, INSTALLATION SPECIFICATIONS AND TESTING REQUIREMENTS.

IN ACCORDANCE WITH N.J.A.C. 7:10-11.10(E)5, ALL WATER MAINS AND SANITARY SEWER LINES SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF 10 FEET. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, THE WATER AND SEWER LINES SHALL BE IN SEPARATE TRENCHES (STEP TRENCHES ARE PROHIBITED) WITH THE TOP OF THE SEWER LINE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN OR WITH SLICH OTHER SEPARATION EXPRESSLY APPROVED BY THE NJDEP. AT CROSSINGS OF SEWER LINES AND WATER MAINS, THE TOP OF THE SEWER LINES SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN (SEWER SERVICE LATERALS ARE NOT SUBJECT TO THIS REQUIREMENT). IF SUCH VERTICAL SEPARATION IS NOT POSSIBLE, THE SEWER LINE SHALL BE OF WATERTIGHT CONSTRUCTION (DUCTILE IRON), WITH WATERTIGHT JOINTS

10. UNLESS OTHERWISE INDICATED SANITARY SEWER MAINS SHALL BE PVC SDR-35

THAT ARE A MINIMUM OF 10 FEET FROM THE WATER MAIN.

MODIFICATIONS CAN BE MADE IF NECESSARY

11. A MARKER STAKE PROTRUDING A MINIMUM OF FOUR FEET ABOVE THE GROUND SURFACE SHALL BE PLACED TO INDICATE THE END OF THE CONSTRUCTION STUBS FOR BUILDING CONNECTIONS, OR STUBS SHALL BE TURNED AND EXTENDED ABOVE GRADE BY FOUR FEET AND CAPPED.

CIRCULAR HOLE SAWS WHICH ARE APPROPRIATELY SIZED OR HAND DRILLS MUST BE USED TO MAKE OPENINGS IN EXISTING SEWERS TO RECEIVE LATERALS. JACKHAMMERS, SLEDGEHAMMERS AND OTHER UNSUITABLE TOOLS OR MACHINERY WHICH MAY DAMAGE THE SEWER MAIN ARE NOT ALLOWED TO BE USED TO MAKE LATERAL OPENINGS. ALL DEBRIS MUST BE REMOVED AND NOT ALLOWED TO FALL INTO THE PIPE.

WATER NOTES CONTRACTOR TO PERFORM TEST PITS TO VERIFY EXISTING UTILITY DEPTHS, SIZES AND LOCATIONS PRIOR TO CONNECTING PROPOSED WATER MAINS TO EXISTING WATER MAINS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF ANY CONFLICTS SO THAT DESIGN

SHOP DRAWINGS AND PRODUCT CATALOG INFORMATION FOR ALL WATER, CONDUITS, MATERIALS, AND APPURTENANCES, TO BE PROVIDED TO THE PROJECT ENGINEER FOR REVIEW AND APPROVAL PRIOR TO PURCHASING

PRIOR TO ACCEPTANCE, AS-BUILT PLANS FOR THE WATER SYSTEM SHALL BE SUBMITTED AND APPROVED.

4. REFER TO TECHNICAL SPECIFICATIONS FOR WATER MATERIAL, INSTALLATION SPECIFICATIONS AND TESTING REQUIREMENTS.

5. ALL WATER MAINS, WATER SERVICES AND APPURTENANCES SHALL BE CONSTRUCTED, TESTED AND DISINFECTED IN ACCORDANCE WITH NJAW AND NJDEP REQUIREMENTS.

ALL WATER SERVICES TO BE INSTALLED IN CONFORMANCE WITH THE REQUIREMENTS OF THE PLUMBING SUBCODE PROMULGATED BY THE NEW JERSEY DEPARTMENT OF COMMUNITY AFFAIRS PURSUANT TO THE STATE UNIFORM CONSTRUCTION CODE ACT (NJAC 5:23-3.15).

ALL NEW WATER MAINS SHALL BE LAID WITH A MINIMUM OF 3.5 FEET OF COVER OVER THE PIPE TO PREVENT FREEZING.

IN ACCORDANCE WITH N.J.A.C. 7:10-11.10(E)5, ALL WATER MAINS AND SANITARY SEWER LINES SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF 10 FEET. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, THE WATER AND SEWER LINES SHALL BE IN SEPARATE TRENCHES (STEP TRENCHES ARE PROHIBITED) WITH THE TOP OF THE SEWER LINE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN OR WITH SUCH OTHER SEPARATION EXPRESSLY APPROVED BY THE NJDEP. AT CROSSINGS OF SEWER LINES AND WATER MAINS, THE TOP OF THE SEWER LINES SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN (SEWER SERVICE LATERALS ARE NOT SUBJECT TO THIS REQUIREMENT). IF SUCH VERTICAL SEPARATION IS NOT POSSIBLE, THE SEWER LINE SHALL BE OF WATERTIGHT CONSTRUCTION (DUCTILE IRON), WITH WATERTIGHT JOINTS THAT ARE A MINIMUM OF 10 FEET FROM THE WATER MAIN

UNLESS OTHERWISE INDICATED DIP WATER MAIN SHALL BE CLASS 53 CEMENT LINED DUCTILE IRON PIPE. (POLYETHYLENE ENCASEMENT)

10. A MARKER STAKE PROTRUDING A MINIMUM OF FOUR FEET ABOVE THE GROUND SURFACE SHALL BE PLACED TO INDICATE THE END OF THE

PUBLIC UTILITY NOTES . ALL PUBLIC UTILITY SERVICE CONNECTIONS TO BUILDINGS TO BE LOCATED UNDERGROUND.

STANDARDS ESTABLISHED BY THE SERVICING UTILITY COMPANY

ELECTRICAL, TELEPHONE, CATV AND ALL OTHER WIRE-SERVED UTILITY EXTENSIONS AND SERVICES SHALL BE INSTALLED UNDERGROUND WITH

GAS AND ELECTRICAL SERVICE CONDUITS AND STRUCTURES MUST BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS AND PROVIDED DESIGN BY JCP&L/NJNG. THE CONTRACTOR MUST PROVIDE RECORD "AS BUILT" PLANS OF ALL CONDUITS AND STRUCTURES TO JCP&L/NJN PROJECT ENGINEER AND THE PROJECT OWNER

TELEPHONE AND CATV SERVICE CONDUIT AND STRUCTURES MUST BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF VERIZON AND COMCAST. THE CONTRACTOR MUST PROVIDE RECORD "AS BUILT" PLANS OF ALL CONDUITS AND STRUCTURES TO VERIZON, COMCAST, PROJECT

5. CONTRACTOR SHALL MAINTAIN FIELD NOTES, PHOTOGRAPHS, AND REDLINE PLANS CLEARLY RECORDING THE LOCATION OF ALL UNDERGROUND INSTALLATIONS. THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER UPON REQUEST

SITE PREPARATION NOTES

PRIOR TO STARTING ANY DEMOLITION CONTRACTOR IS RESPONSIBLE FOR/TO:

a. ENSURE COPIES OF ALL PERMITS AND APPROVALS ARE ON SITE FOR REVIEW

b. THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO SITE DISTURBANCE. c. ALL UTILITIES AND SERVICES, INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE CABLE FIBER OPTIC CABLE FTC WITHIN THE LIMITS OF DISTURBANCE SHALL BE VERTICALLY AND HORIZONTALLY LOCATED. THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE AI

UNDERGROUND UTILITIES. d. PROTECT AND MAINTAIN IN OPERATION, ALL ACTIVE SYSTEMS THAT ARE NOT BEING REMOVED DURING ALL DEMOLITION ACTIVITIES. e. FAMILIARIZE THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENT AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR PROJECT. THE CONTRACTOR SHALL PROVIDE THE

OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY REQUIREMENTS. f. COORDINATION WITH UTILITY COMPANIES REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS MAY BE REQUIRED TO

MINIMIZE THE IMPACT ON THE AFFECTED PARTIES. g. THE FIRM OR ENGINEER OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISIONS. CONTRACTOR IS TO PROCEED WI THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLOWING ALL THE OSHA REQUIREMENTS, TO INSURE PUBLIC AND

h. THE CONTRACTOR SHALL PROVIDE ALL THE "MEANS AND METHODS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE.

IN ABSENCE OF SPECIFIC SPECIFICATION. THE CONTRACTOR SHALL PERFORM EARTH MOVEMENT ACTIVITIES. DEMOLITION AND REMOVAL O

ALL FOUNDATION WALLS. FOOTINGS, AND OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE IN ACCORDANCE WITH DIRECTION BY OWNER'S GEOTECHNICAL ENGINEER.

DEMOLITION ACTIVITIES AND EQUIPMENT SHALL NOT USE AREAS OUTSIDE THE DEFINED PROPERTY LINES, WITHOUT WRITTEN PERMISSION USE DUST CONTROL MEASURES TO LIMIT THE AMOUNT OF AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR TO WITHIN

FEDERAL, STATE, AND/OR LOCAL STANDARDS. AFTER THE DEMOLITION IS COMPLETE, ADJACENT STRUCTURES AND IMPROVEMENTS SHALL E CLEANED OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION.

CONTRACTOR IS RESPONSIBLE TO SAFEGUARD SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE UNAUTHORIZED ENTRY OF PERSONS AT ANY TIME

THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION OTHER THAN THAT ALL METHODS AND MEANS ARE TO BE IN ACCORDANCE WITH STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESS. TO PROVIDE A SAFE WORK SITE.

7. ALL UTILITY CONNECTIONS TO ADJACENT BUILDINGS MUST STAY ACTIVE DURING CONSTRUCTION.

THE CONTRACTOR IS RESPONSIBLE TO ENSURE SHUT OFF, DISCONNECT, AND/OR CAPPING OF ALL UTILITIES TO THE SITE INCLUDING, BUT NOT LIMITED TO, WATER, SEWER, ELECTRIC, CABLE, TELEPHONE, ETC. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL UTILITY SHUT OFFS AND LETTERS. OBTAINING ALL PERMITS TO COMPLETE ALL PHASES OF THE PROJECT.

ALL STREET APPURTENANCES (INCLUDING SIGNS, POLES, TREES & FENCING) WITHIN THE LIMITS SHOWN ARE TO BE REMOVED AND DISPOS OFF-SITE UNLESS OTHERWISE NOTED.

10. EXISTING LIGHTING AND UTILITY POLE REMOVALS ARE TO BE PERFORMED BY THE APPROPRIATE UTILITY COMPANY.

ALL UNDERGROUND UTILITIES, LINES, PIPING, STRUCTURES, FOUNDATIONS, VAULTS AND BUILDING FRAGMENTS ASSOCIATED WITH FORMER BUILDINGS, WITHIN THE PROJECT BOUNDARY, ARE TO BE REMOVED AND DISPOSED OFF SITE. 12. ALL STRUCTURES (CURBS, SIDEWALKS, PATIO, RETAINING WALL, FENCES, ASPHALT, CONCRETE, ETC.) WITHIN THE PROJECT'S BOUNDARY

SHALL BE REMOVED AND DISPOSED OFF-SITE AT AN APPROPRIATE FACILITY. 13. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL EXCAVATED MATERIAL AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OFFSITE I

ACCORDANCE WITH ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES, ORDINANCES, AND LAWS.

1. ALL SIGNAGE TO BE POSTED IN ACCORDANCE WITH THE UNITED STATES DEPARTMENT OF TRANSPORTATION-FEDERAL HIGHWAY ADMINISTRATION, "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS (MUTCD), LATEST EDITION.

2. ALL STOP BARS SHALL BE 24" WIDE WHITE THERMO PLASTIC STRIPE. ALL OTHER STRIPING MAY BE EPOXY

3. ALL CURB AND SIDEWALKS SHALL CONFORM TO STATE AND FEDERAL BARRIER FREE DESIGN STANDARDS.

ALL SIDEWALK RAMPS MARKED HCR TO HAVE DETECTABLE WARNING SURFACE INSTALLED IN ACCORDANCE WITH ADA REGULATIONS. ALI DETECTABLE WARNING STRIPS SHALL BE "REPLACEABLE WET-SET" OR EQUIVALENT. SURFACE MOUNT OR "STICK ON" WARNING STRIPS AR NOT PERMITTED UNLESS NOTED OTHERWISE

ALL PROPOSED ON-SITE CURBING TO BE VERTICAL CONCRETE CURBING. ALL PROPOSED CURBING WITHIN MUNICIPAL OR COUNTY

RIGHT-OF-WAYS TO BE VERTICAL CONCRETE CURBING ALL CONNECTIONS WITH EXISTING PAVEMENTS, CURBS, SIDEWALKS, ETC SHALL BE SAW CUT.

RETAINING WALLS REQUIRE STRUCTURAL DESIGN BY A LICENSED PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION

9. SEE LANDSCAPE PLANS FOR DETAILS ON HARDSCAPE AND PLANTING MATERIALS.

8. SIDEWALK/WALKWAY RISERS MUST BE GREATER THAN 4" AND LESS THAN 8".

10. SEE ARCHITECT'S PLANS FOR BUILDING ELEVATIONS AND FLOOR PLANS.

PROJECT INFORMATION

PROPOSED

BLOCK 42, LOT 1 60 BAY AVENUE BOROUGH OF HIGHLANDS. MONMOUTH COUNTY, NJ

60 BAY AVE HIGHLANDS, LLC 60 BAY AVENUE HIGHLANDS, NJ 07732

60 BAY AVE HIGHLANDS, LLC 60 BAY AVENUE HIGHLANDS, NJ 07732

APPLICANT'S PROFESSIONALS

<u>ATTORNEY:</u> DONNA M. JENNINGS ESQ WILENTZ, GOLDMAN & SPITZER, PA 90 WOODBRIDGE CENTER DRIVE, SUITE 900

SALVATORE LA FERLITA, R.A. 115 UNIVERSITY DRIVE LINCROFT, NJ 07738

WOODBRIDGE, NJ 07095

INSITE SURVEYING, LLC

WALL, NJ 07719

1955 ROUTE 37, SUITE 1A



NJ ONE CALL.....800-272-1000



CERTIFICATE OF AUTHORIZATION: 24GA28083200 1955 ROUTE 34. SUITE 1A. WALL. NJ 07719 732-531-7100 (Ph) 732-531-7344 (Fax)

InSite@InSiteEng.net www.InSiteEng.net

LICENSED IN: NEW JERSEY, NEW YORK, PENNSYLVANIA

DELAWARE, CONNECTICUT, NORTH CAROLINA COLORADO, & DISTRICT OF COLUMBIA AUTION: IF THIS DOCUMENT DOES NOT CONTAIN THE SIGNATURI AND RAISED SEAL OF THE PROFESSIONAL, IT IS NOT AN ORIGIN, AND MAY HAVE BEEN ALTERED

Dougla D allul NJ PE 24GE05331000

REVISIONS

SCALE: AS SHOWN DESIGNED BY: DDC

JOB #: 23-2237-01 CAD ID: 23-2237-01r3 NOT FOR CONSTRUCTION

DATE: **02/05/24**

FOR CONSTRUCTION PLAN INFORMATION

PRELIMINARY & FINAL

MAJOR SITE PLAN

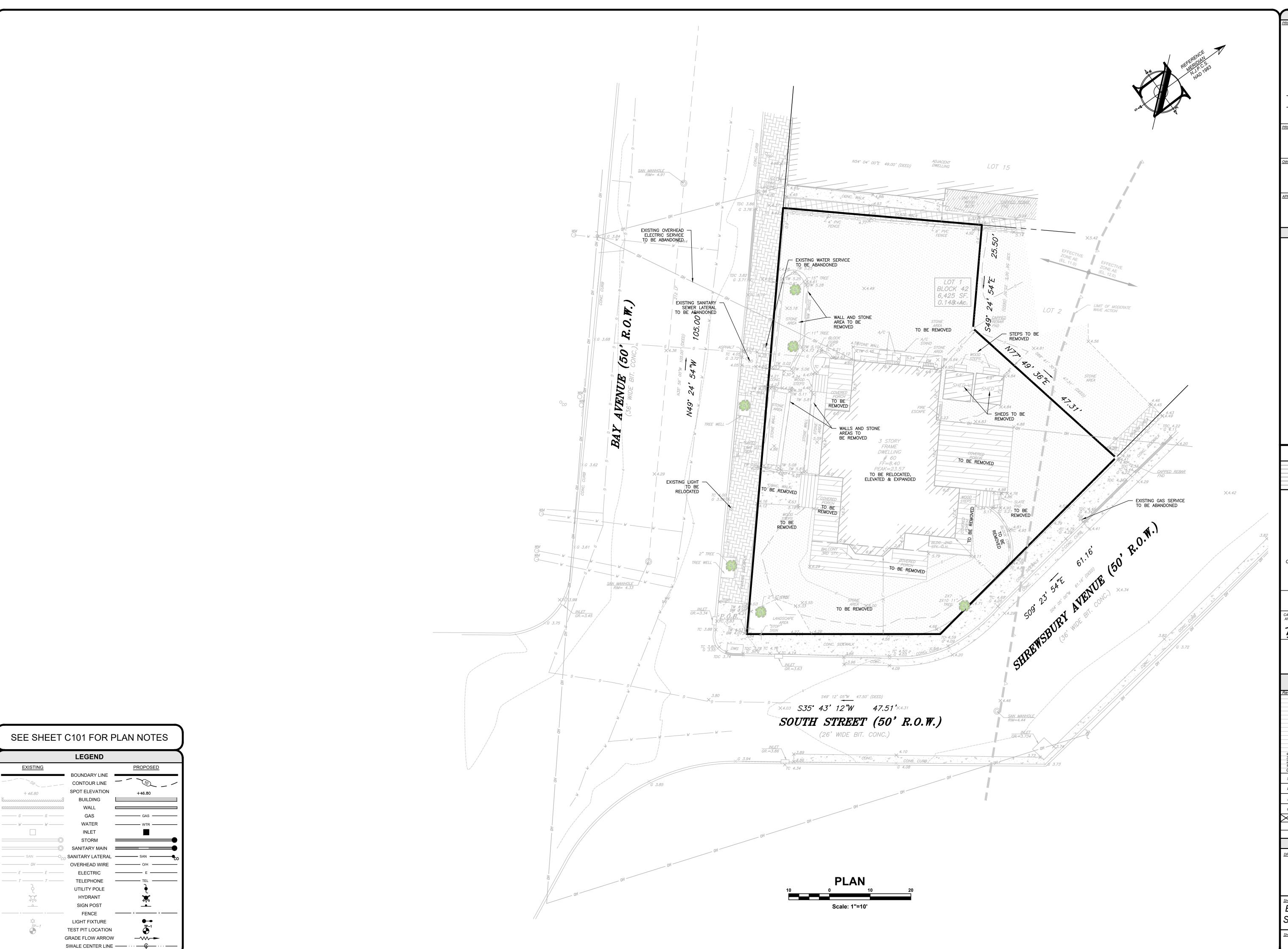
DRAWN BY: AMC

CHECKED BY: DDC

APPROVED BY

RAWING TITLE:

PLAN NOTES



PROPOSED

PROJECT INFORMATION

MULTI -FAMILY RESIDENCE

PROJECT LOCATION:

BLOCK 42, LOT 1 60 BAY AVENUE BOROUGH OF HIGHLANDS, MONMOUTH COUNTY, NJ

60 BAY AVE HIGHLANDS, LLC

60 BAY AVENUE HIGHLANDS, NJ 07732

60 BAY AVE HIGHLANDS, LLC 60 BAY AVENUE HIGHLANDS, NJ 07732

APPLICANT'S PROFESSIONALS

ATTORNEY: DONNA M. JENNINGS ESQ. WILENTZ, GOLDMAN & SPITZER, PA 90 WOODBRIDGE CENTER DRIVE, SUITE 900 WOODBRIDGE, NJ 07095

ARCHITECT: SALVATORE LA FERLITA, R.A. 115 UNIVERSITY DRIVE LINCROFT, NJ 07738

SURVEYOR: INSITE SURVEYING, LLC 1955 ROUTE 37, SUITE 1A WALL, NJ 07719



NJ ONE CALL.....800-272-1000

InSite Engineering, LLC CERTIFICATE OF AUTHORIZATION: 24GA28083200 1955 ROUTE 34, SUITE 1A, WALL, NJ 07719 732-531-7100 (Ph) 732-531-7344 (Fax)
InSite@InSiteEng.net www.InSiteEng.net

LICENSED IN: NEW JERSEY, NEW YORK, PENNSYLVANIA DELAWARE, CONNECTICUT, NORTH CAROLINA COLORADO, & DISTRICT OF COLUMBIA

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DOUGLAS D. CLELLAND, PE
PROFESSIONAL ENGINEER
NJ PE 24GE05331000

		REVIS	SIONS
Rev.#	Date	Comment	
- <u>4</u> 3	06/05/24		GH COMMENTS
2	04/09/24		
1		PER ARCHIT	ECT
0	02/05/24	INITIAL RELE	ASE
SC	ALE: 1"=1	0'	DESIGNED BY: DDC
DATE: 02/05/24		5/24	DRAWN BY: AMC
JOB#: 23-2237-01		237-01	CHECKED BY: DDC
CAL	D ID: 23-2	237-01r3	
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NOT FOR CONSTRUCTION APPROVED BY:

FOR CONSTRUCTION PLAN INFORMATION

PRELIMINARY & FINAL MAJOR SITE PLAN

EXISTING CONDITIONS & SITE PREPARATION PLAN

BUILDING HEIGHT COMPLIANCE PER MUNICIPAL ORDINANCE

	ZONING	COMPLIAN	CE CH	IART		
	CBD REDEVELOPMENT OVER	RLAY 2 ZONE	(C-R	O-2 - GATEWAY PARCE	LS)	
	RESIDENTIAL ABOVE F	IRST FLOOR	: PER	MITTED (§ 21-91A.u.)		
ORD.SECTION	STANDARD	REQUIRED)	EXISTING	PROPOSED	COMPLIES
ATT. 1	MIN. LOT AREA (SF)	-		6,425 (0.147 AC)	NO CHANGE	-
ATT. 1	MIN. LOT FRONTAGE (FT)	-		213.67	NO CHANGE	-
	PRINCIPAL BUILDING					
VII.A.	MIN. FRONT YARD SETBACK (FT)					
	BAY AVENUE (FT)	2		13.9	5.00	YES
	SOUTH STREET (FT)	2		13.3	8.30	YES
	SHREWSBURY AVENUE	2		8.3	8.05	YES
VII.A.	MIN. REAR YARD SETBACK (FT)	12		-	N/A	YES
VII.A.	MIN. SIDE YARD SETBACK	5	(1)	11.4	7.93	YES
VII.D.	MAX. BUILDING HEIGHT (FT)	40	(3)	11.6	29.33	YES
VII.B.	MAX. BUILDING COVERAGE (%)	80		31.9	54.5	YES
VII.B.	MAX. LOT COVERAGE (%)	80		37.0	71.2	YES
	ACCESSORY BUILDING					
§21-78A.2.	MAX. GROUND FLOOR AREA (%)	30	(2)	5.0	N/A	-
§21-78A.2.	MAX. COVERAGE OF REAR YARD (%)	40	(2)	N/A	N/A	-
§21-78A.3.	MIN. YARD SETBACK (FT)	3		3.6	N/A	-
	MIN. OUTDOOR LIVING SPACE (SF) 100 SF/UNIT	500		(a)	1,981	YES

(N) EXISTING NON-CONFORMITY N/A - NOT APPLICABLE (X) VARIANCE / NON-CONFORMITY ELIMINATED (E) EXISTING VARIANCE N/S - NOT SPECIFIED (V) PROPOSED VARIANCE (W) PROPOSED WAIVER

(I) IMPROVED CONDITION

(a) THIS PERTAINS TO AN EXISTING STRUCTURE WHICH WAS NOT MADE AVAILABLE TO THIS OFFICE (1) PER §VII.A SIDE YARDS. NO SIDE YARD IS REQUIRED ADJACENT TO THE PROPERTIES IN THE CBD ZONE, HOWEVER, IF ANY IS TO BE PROVIDED, IT SHALL BE AT LEAST FIVE (5) FEET. ANY SIDE YARD WHICH SERVES AS A BOUNDARY BETWEEN THAT LOT AND ANY RESIDENCE ZONE SHALL BE AT LEAST FIVE (5) FEET

ROOFS. THE AVERAGE HEIGHT IS THE MID-POINT BETWEEN THE LOWEST ROOF EAVE OF THE TOP FLOOR AND THE ROOF RIDGE. IN THE CASE OF

19,472 CF

83,591 CF

(2) NO ACCESSORY STRUCTURE(S), EXCEPT FOR SHORE FRONT PROTECTION, BULKHEADS, REVETMENTS AND OTHER SUCH STRUCTURES, SHALL HAVE AN AGGREGATE GROUND FLOOR AREA GREATER THAN THIRTY (30%) PERCENT OF THE GROUND FLOOR AREA OF THE PRINCIPAL STRUCTURE ON THE SAME LO ALL ACCESSORY STRUCTURES SHALL OCCUPY NO MORE THAN FORTY (40%) PERCENT OF THE REAR YARD AREA. (3) THE VERTICAL DISTANCE AS MEASURED FROM THE GRADE PLANE TO THE AVERAGE HEIGHT OF THE HIGHEST ROOF SURFACE. IN THE CASE OF SLOPED

A BUILDING THAT HAS MULTIPLE ROOF LEVELS, THE HIGHEST ROOF LEVELS MUST BE USED TO DETERMINE THE BUILDING HEIGHT **GRADE PLANE**: AREAS OR PORTIONS OF THE BUILDING AREA OF A LOT LOCATED WITHIN THE FLOOD HAZARD AREA: THE REFERENCE PLANE SHALL BE THE MORE RESTRICTIVE OF THE BASE FLOOD ELEVATION OR ADVISORY BASE FLOOD ELEVATION OF THE FLOOD HAZARD AREA PLUS ONE (1) FOOT.

BUILDING DATA							
AREA	EXISTING AREA	PROPOSED AREA	TOTAL AREA				
GROUND FLOOR	0	0	0				
FIRST FLOOR	1,200 SF	1,268 SF	2,468 SF				
SECOND FLOOR	900 SF	1,686 SF	2,586 SF				
THIRD FLOOR	900 SF	1,534 SF	2,434 SF				
TOTAL	3,000 SF	4,488 SF	7,488 SF				
AREA	EXISTING VOLUME	PROPOSED VOLUME	TOTAL VOLUME				
GROUND FLOOR	0	22,419 CF	22,419 CF				
FIRST FLOOR	9,600 CF	11,412 CF	21,012 CF				
SECOND FLOOR	7 200 CE	13.488 CE	20 688 CE				

12,272 CF

59,591 CF

7,200 CF

24,000 CF

THIRD FLOOR

SEE SHEET C101 FOR PLAN NOTES

	LEGEND	
EXISTING		PROPOSED
	BOUNDARY LINE •	
58	CONTOUR LINE	
+ 46.80	SPOT ELEVATION	+46.80
Kuuuuuuuuuuuu	BUILDING	
	WALL	
G G	GAS	GAS ———
——————————————————————————————————————	WATER	——— WTR ———
	INLET	
	STORM	
	SANITARY MAIN	
SANO_CO	SANITARY LATERAL	SAN ————co
——————————————————————————————————————	OVERHEAD WIRE	O/H ———
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	TELEPHONE	TEL
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<u> </u>	LIGHT FIXTURE	•-•

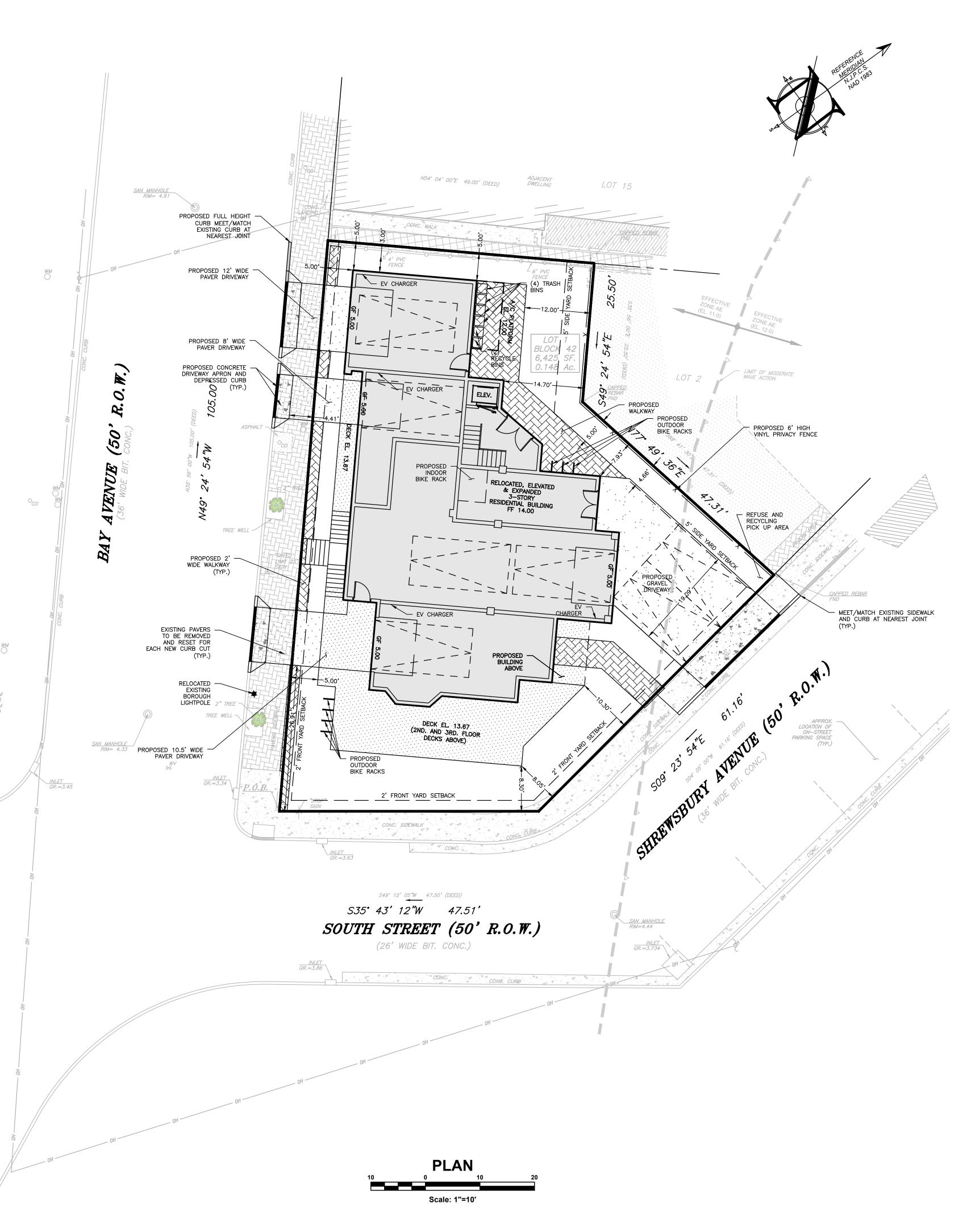
GRADE FLOW ARROW

000 0000000	PARKING, DRIVEWAY & LOADING COMPLIA		222222	001151150
ORD.SECTION	STANDARD	REQUIRED	PROPOSED	COMPLIES
§21-65.14	STALL SIZE (FT)	9 X 18	9 X 18	YES
	NUMBER OF PARKING SPACES			
RSIS TABLE 4.4	RESIDENTIAL USES (2 FAMILY & MULTIFAMILY UNITS)			
	1.8 SPACES PER (1 BR UNITS) 2.0 SPACES PER (2 BR UNITS) 2.1 SPACES PER (3 BR UNITS)			
	1ST. FLOOR - 2 UNITS 2 BEDROOMS EACH	4		
	2ND. FLOOR - 2 UNITS 2 BEDROOMS EACH	4		
	3RD. FLOOR - 1 UNIT 3 BEDROOMS	2.1		
	TOTAL PARKING SPACES (INCLUDING EV CREDIT OF 1 SPACE)	9.1	7 (1)	YES
	MAX. DRIVEWAY WIDTH AT CURB (FT)	18	19.09 (W)	NO
§21-65.5C.	MAX. DRIVEWAY WIDTH AT INTERIOR (FT)	22	17.5	YES
§21-65.5A.	MIN. DRIVEWAY DISTANCE TO STREET INTERSECTION (FT)	25	26.91	YES
(N) EXISTING NO	L I I I I I I I I I I I I I I I I I I I	N/A - N0	 OT APPLICABLE	
(V) PROPOSED V			OT SPECIFIED	

VEHICULAR PARKING: RESIDENTIAL USES ARE PERMITTED TO COUNT FIRST ANY AVAILABLE ON-STREET PARKING SPACES BEFORE DETERMINING THE NUMBER OF PARKING SPACES THAT MUST BE PROVIDED OFF-STREET. THERE ARE MORE THAN

3 EXISTING ON-STREET PARKING SPACES WITHIN THE IMMEDIATE VICINITY, THEREFORE THE PROJECT COMPLIES.

		LE PARKING SUMMARY (P.L. 1975, c. 291)	0.00.0 (4))	
	RESIDENTIAL ABOVE FIRST FLOOR /	CBD REDEVELOPMENT OVERLAY 2 ZONE (C.40:55D-6	6.20.3.a.(1))	
SECTION	STANDARD	REQUIRED	PROPOSED	COMPLIE
3.a.(1)(a)	MIN. NUMBER OF MAKE-READY (MR) PARKING SPACES	15% OF REQUIRED OFF-STREET SPACES		
		10 x 15% = 1.5 SPACES = 2	2 SPACES	YES
	MIN. # OF INSTALLED VEHICLE SUPPLY EQUIPMENT			
3.a.(1)(a)	@ INITIAL CONSTRUCTION	1/3 x MAKE-READY = 1 SPACES	1 EV SPACES	YES /
3.a.(1)(b)	@ 3 YEARS AFTER CERT. OF OCCUPANCY	$\frac{2}{3}$ x MAKE-READY = 2 SPACES	2 EV SPACES	YES
3.a.(1)(c)	@ 6 YEARS AFTER CERT. OF OCCUPANCY	₹ x MAKE-READY = 2 SPACES	2 EV SPACES	YES



PROPOSED MULTI -FAMILY RESIDENCE

PROJECT INFORMATION

ROJECT LOCATION:

BLOCK 42, LOT 1 60 BAY AVENUE BOROUGH OF HIGHLANDS. MONMOUTH COUNTY, NJ

60 BAY AVE HIGHLANDS, LLC 60 BAY AVENUE HIGHLANDS, NJ 07732

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60 BAY AVENUE HIGHLANDS, NJ 07732

APPLICANT'S PROFESSIONALS

ATTORNEY: DONNA M. JENNINGS ESQ. WILENTZ, GOLDMAN & SPITZER, PA 90 WOODBRIDGE CENTER DRIVE, SUITE 900 WOODBRIDGE, NJ 07095

ARCHITECT: SALVATORE LA FERLITA, R.A. 115 UNIVERSITY DRIVE LINCROFT, NJ 07738

SURVEYOR: INSITE SURVEYING, LLC 1955 ROUTE 37, SUITE 1A WALL, NJ 07719



NJ ONE CALL....800-272-1000

CERTIFICATE OF AUTHORIZATION: 24GA28083200 1955 ROUTE 34, SUITE 1A, WALL, NJ 07719 732-531-7100 (Ph) 732-531-7344 (Fax) InSite@InSiteEng.net www.InSiteEng.net

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DOUGLAS D. CLELLAND, PE

PROFESSIONAL ENGINEER

NJ PE 24GE05331000

REVISIONS

SCALE: 1"=10' DESIGNED BY: DDC DRAWN BY: AMC

DATE: 02/05/24 CAD ID: 23-2237-01r3

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FOR CONSTRUCTION

PLAN INFORMATION

PRELIMINARY & FINAL MAJOR SITE PLAN

SITE LAYOUT PLAN

WATER FLOW CALCULATIONS

EXISTING AVERAGE DAILY DEMAND (PER N.J.A.C. 5:21-5.2) TWO-BEDROOM APARTMENT (UNIT) = 3 UNITS

TWO-BEDROOM APARTMENT (140 GPD/UNIT: Q_{AVG.} = 140 GPD/UNIT X 3 UNITS = 420 GPD)

STUDIO-BEDROOM APARTMENT (UNIT) = 1 UNITS

STUDIO APARTMENT (120 GPD/UNIT: Q_{AVG}. = 120 GPD/UNIT X 1 UNITS = 120 GP<u>D)</u>

TOTAL EXISTING AVERAGE DAILY DEMAND: = 540 GPD ≈ 0.0005 MGD

PROPOSED AVERAGE DAILY DEMAND (PER N.J.A.C. 5:21-5.2):

TWO-BEDROOM APARTMENT (UNIT) = 4 UNITS

TWO-BEDROOM APARTMENT (140 GPD/UNIT: Q_{AVG.} = 140 GPD/UNIT X 4 UNITS = 560 GPD THREE-BEDROOM APARTMENT (UNIT) = 1 UNITS

THREE-BEDROOM APARTMENT (200 GPD/UNIT: Q_{AVG}. = 200 GPD/UNIT X 1 UNITS = 200 GPD TOTAL PROPOSED AVERAGE DAILY DEMAND: = 560 GPD + 200 GPD= 760 GPD ≈ 0.0006 MGD

SANITARY SEWER FLOW CALCULATIONS
EXISTING AVERAGE DAILY DEMAND (PER N.J.A.C. 7:14A-23.3)

TWO-BEDROOM APARTMENT (UNIT) = 3 UNITS

TWO-BEDROOM APARTMENT (225 GPD/UNIT: Q_{AVG.} = 225 GPD/UNIT X 3 UNITS = 675 GPD)

STUDIO-BEDROOM APARTMENT (UNIT) = 1 UNITS

STUDIO APARTMENT (150 GPD/UNIT: Q_{AVG}. = 150 GPD/UNIT X 1 UNITS = 150 GPD)

TOTAL EXISTING AVERAGE DAILY DEMAND: = 675 GPD + 150 GPD= 825 GPD ≈ 0.0009 MGD

PROPOSED AVERAGE DAILY DEMAND (PER N.J.A.C. 7:14A-23.3)

TWO-BEDROOM APARTMENT (UNIT) = 4 UNITS

TWO-BEDROOM APARTMENT (225 GPD/UNIT: Q_{AVG.} = 225 GPD/UNIT X 4 UNITS = 900 GPD THREE-BEDROOM APARTMENT (UNIT) = 1 UNITS

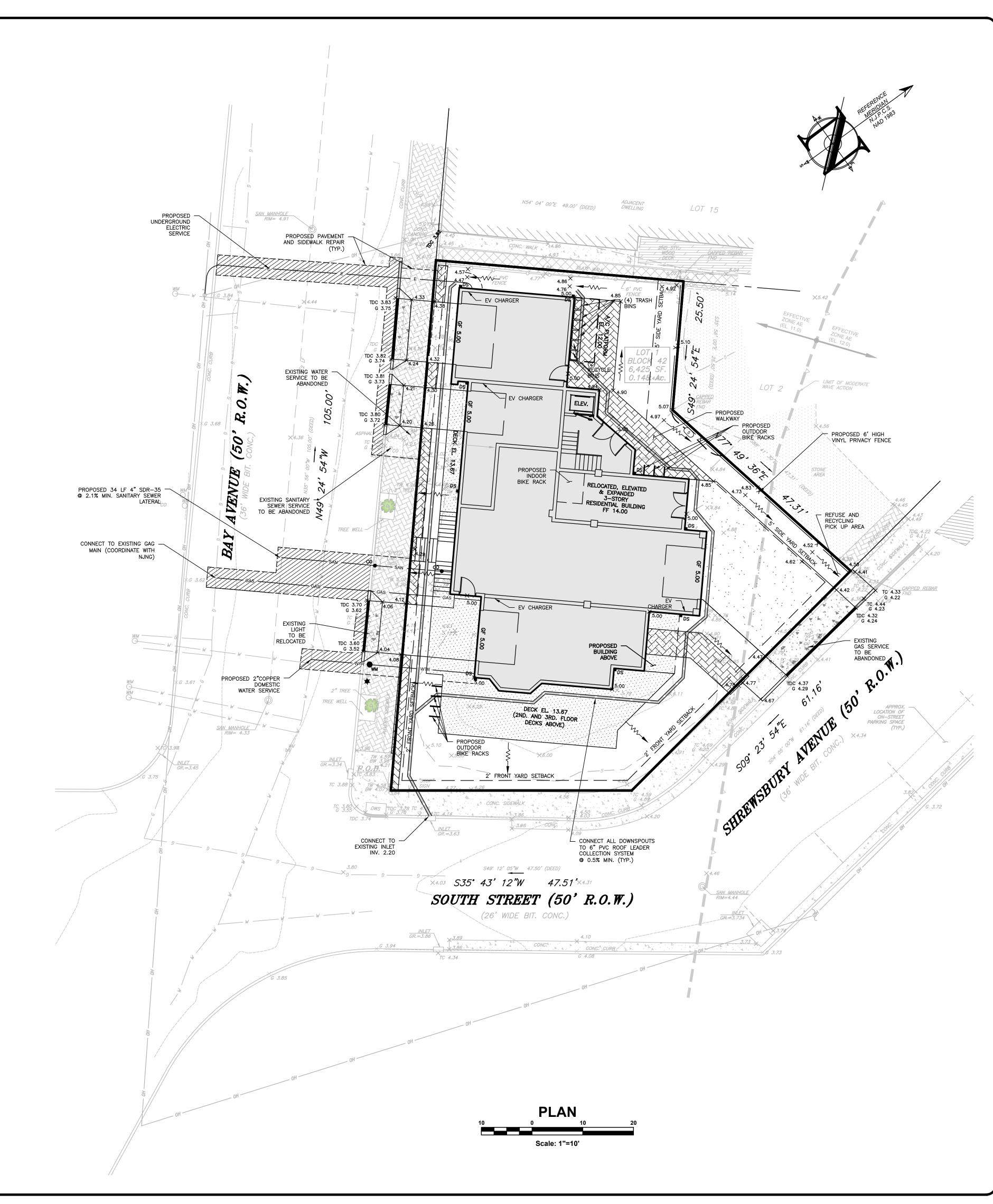
THREE-BEDROOM APARTMENT (300 GPD/UNIT: Q_{AVG}. = 300 GPD/UNIT X 1 UNITS = 300 GPD

TOTAL PROPOSED AVERAGE DAILY DEMAND: = 900 GPD + 300 GPD= 1,200 GPD ≈ 0.0012 MGD

SEE SHEET CANA EOD DI ANI NOTES

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•	TEST PIT LOCATION	6
	GRADE FLOW ARROW	-

SWALE CENTER LINE -----



PROPOSED

PROJECT INFORMATION

MULTI -FAMILY RESIDENCE

PROJECT LOCATION:

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60 BAY AVE HIGHLANDS, LLC

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APPLICANT'S PROFESSIONALS

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ARCHITECT: SALVATORE LA FERLITA, R.A. 115 UNIVERSITY DRIVE LINCROFT, NJ 07738

WOODBRIDGE, NJ 07095

SURVEYOR: INSITE SURVEYING, LLC 1955 ROUTE 37, SUITE 1A WALL, NJ 07719



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TEMP. SURVEY MARKINGS
PROPOSED EXCAVATION

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2	03/28/24	PER ATTORN		
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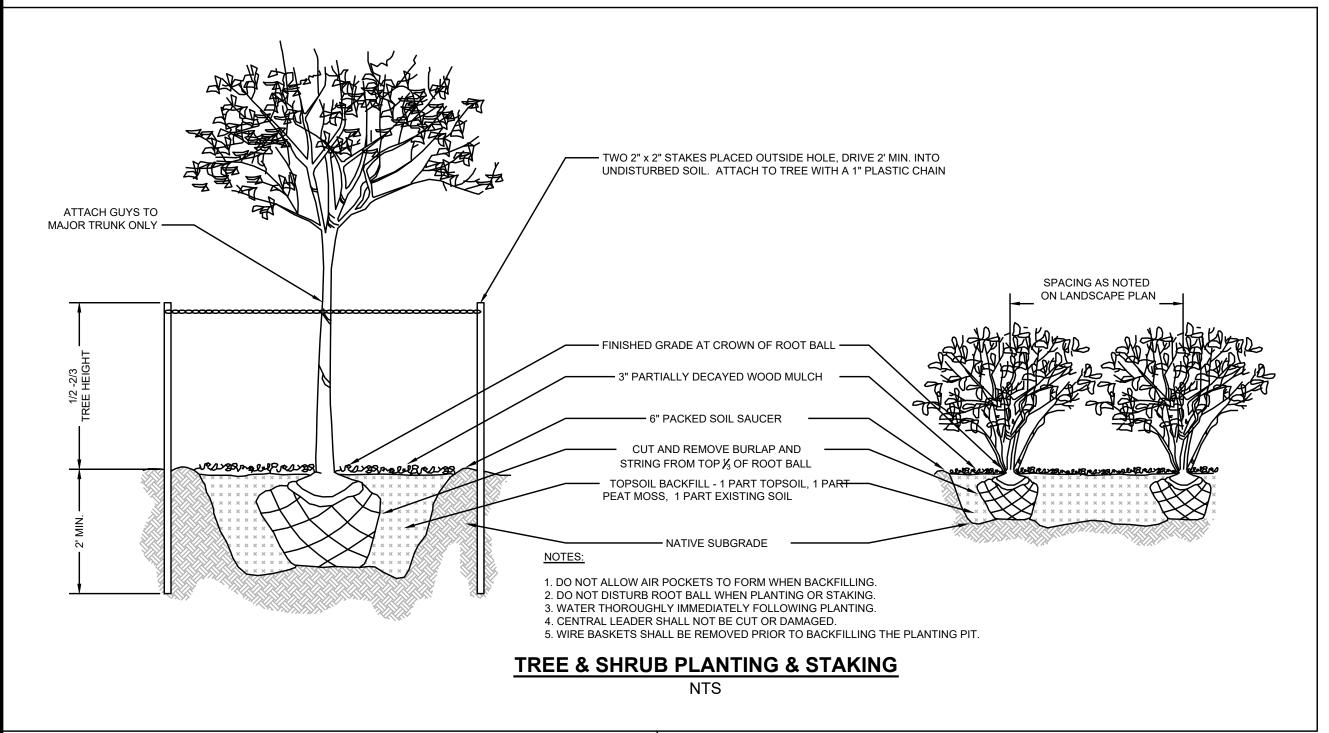
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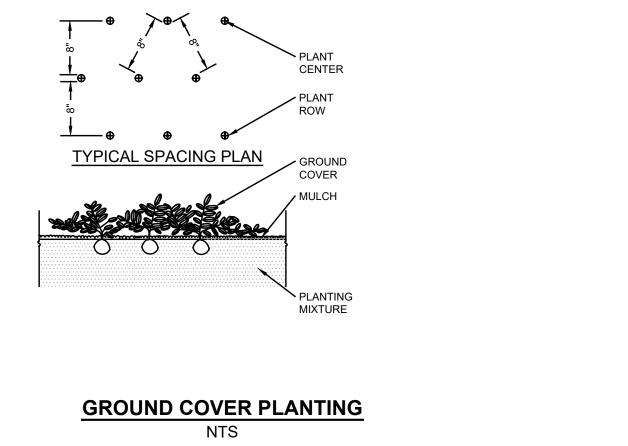
PLAN INFORMATION

PRELIMINARY & FINAL MAJOR SITE PLAN

GRADING, DRAINAGE & UTILITY PLAN

		PLANTING S	CHEDULE		
KEY	QTY.	BOTANICAL NAME	COMMON NAME	PLANTING SIZE	ROOT
		SHED AND ORNAMENTAL TREES			
TO	16	THUJA OCCIDENTALIS 'SMARAGO'	EMERALD GREEN ARBORVITAE	8-10' HT.	670 GAL.
zs	2	ZELKOVA SERRATA 'MUSASHINO'	MUSASHINO COLUMNAR ZELKOVA	7-8' HT.	(B+B)
		SHRUBS			
RR2	26	ROSA RUGOSA 'KNOCKOUT'	PINK 'KNOCKOUT' ROSE	2.5'-3 FT	#5 CONT
		GRASSES, PERENNIAL FLOWER, GROUNCOVERS			
LM	52	LIRIOPE MUSCARI	LILLYTURF	1 GAL.	(Cont.)
AX	61	AJUGA REPTANS	BUGLEWEED	3-4"	6" POT
					レノ

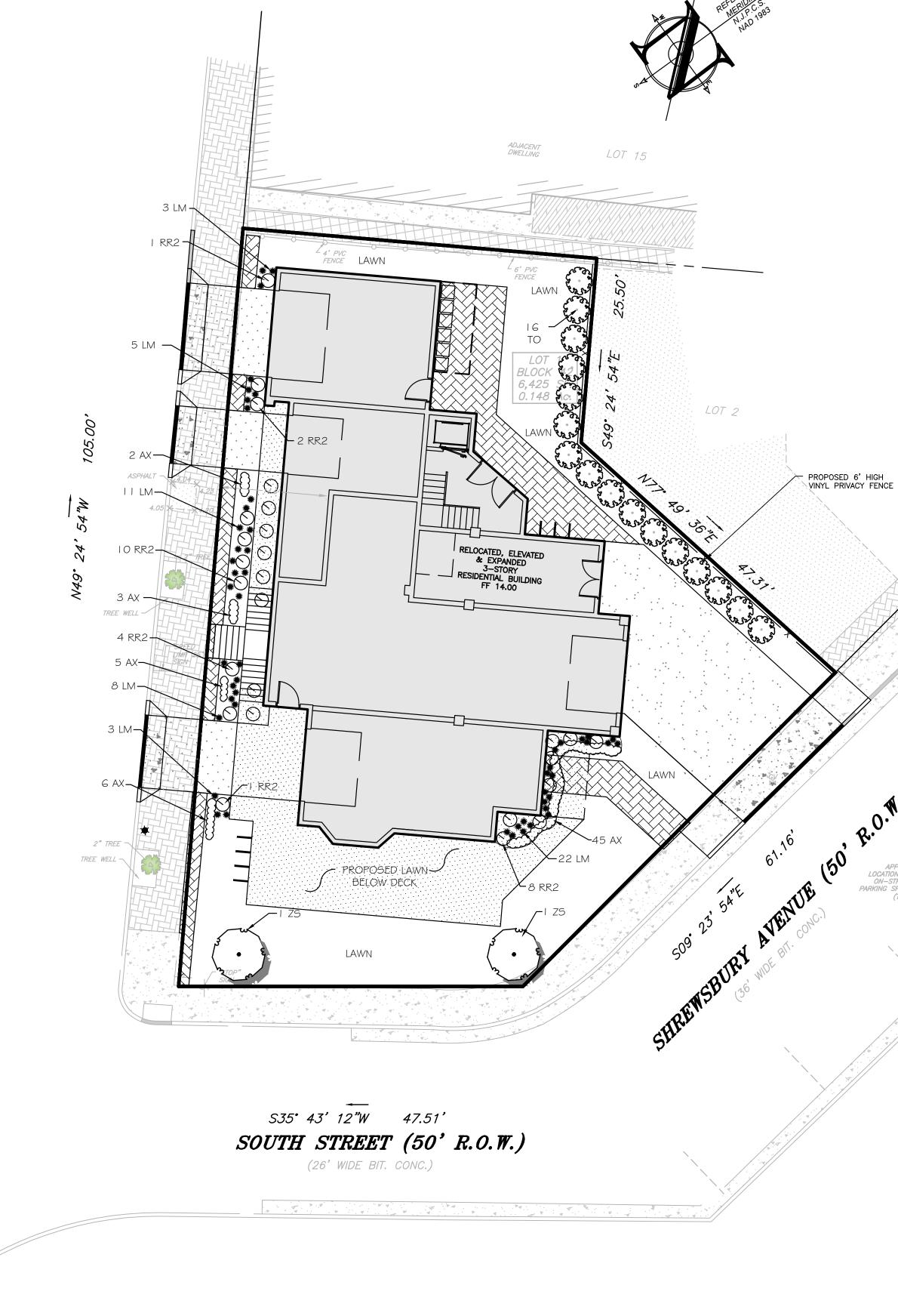




SEE SHEET C101 FOR PLAN NOTES

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ф. 70 1	LIGHT F	FIXTURE	● •
17-7	TEST PIT	LOCATION	⊕ 1
	GRADE FL	OW ARROW	- ₩ -

SWALE CENTER LINE ------



PROPOSED MULTI -FAMILY RESIDENCE

PROJECT INFORMATION

BLOCK 42, LOT 1 BOROUGH OF HIGHLANDS, MONMOUTH COUNTY, NJ

60 BAY AVE HIGHLANDS, LLC 60 BAY AVENUE HIGHLANDS, NJ 07732

60 BAY AVE HIGHLANDS, LLC

60 BAY AVENUE HIGHLANDS, NJ 07732

APPLICANT'S PROFESSIONALS

ATTORNEY: DONNA M. JENNINGS ESQ. WILENTZ, GOLDMAN & SPITZER, PA 90 WOODBRIDGE CENTER DRIVE, SUITE 900 WOODBRIDGE, NJ 07095

ARCHITECT: SALVATORE LA FERLITA, R.A. 115 UNIVERSITY DRIVE LINCROFT, NJ 07738

SURVEYOR: INSITE SURVEYING, LLC 1955 ROUTE 37, SUITE 1A WALL, NJ 07719



NJ ONE CALL.....800-272-1000

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DOUGLAS D. CLELLAND, PE

PROFESSIONAL ENGINEER

NJ PE 24GE05331000

REVISIONS

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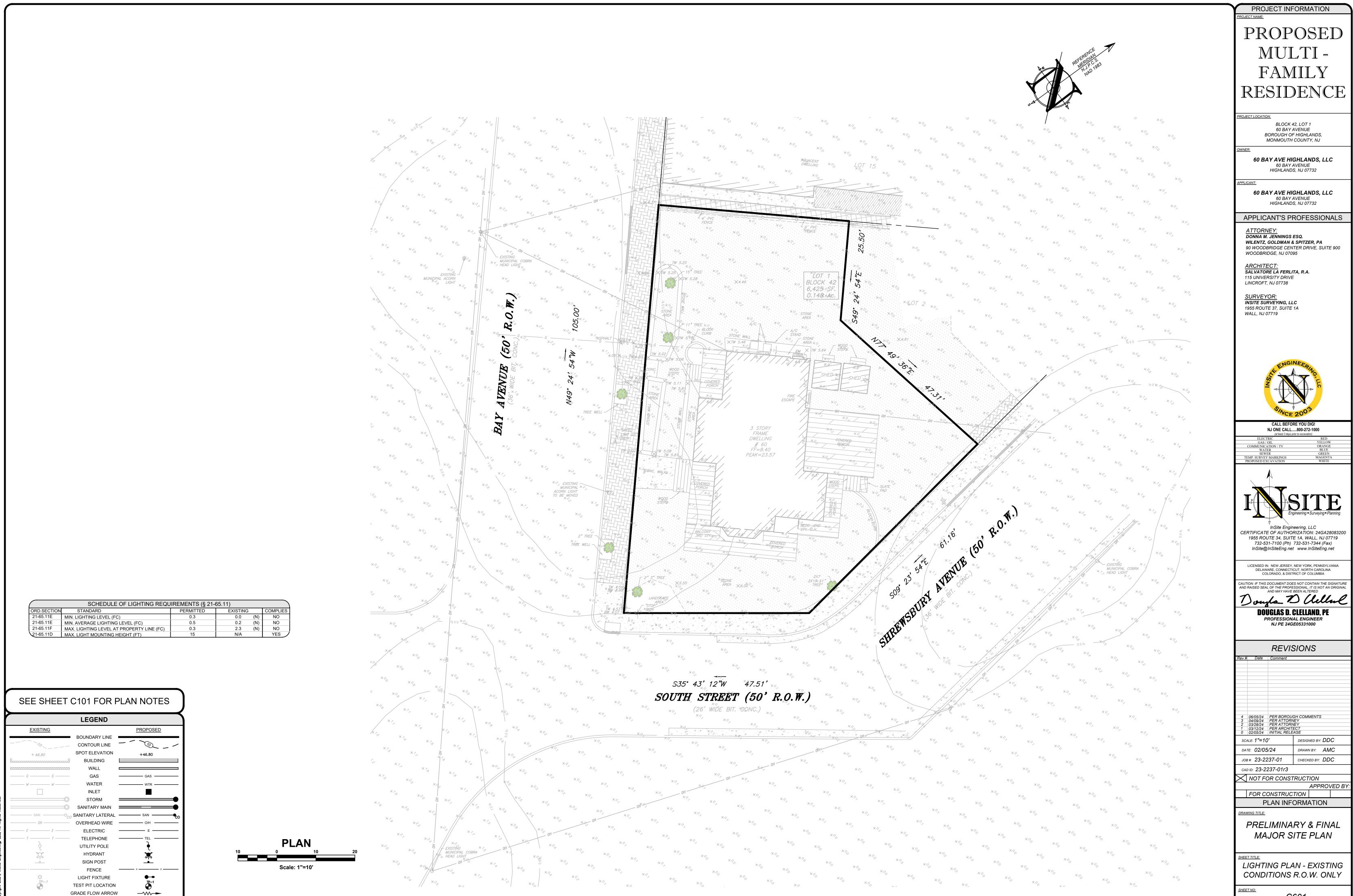
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APPROVED BY:

FOR CONSTRUCTION PLAN INFORMATION

PRELIMINARY & FINAL MAJOR SITE PLAN

LANDSCAPE PLAN



SWALE CENTER LINE -----

PROPOSED MULTI -FAMILY RESIDENCE

> BLOCK 42, LOT 1 60 BAY AVENUE BOROUGH OF HIGHLANDS, MONMOUTH COUNTY, NJ

60 BAY AVE HIGHLANDS, LLC

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APPROVED BY:

PLAN INFORMATION

PRELIMINARY & FINAL MAJOR SITE PLAN

LIGHTING PLAN - EXISTING

CONDITIONS R.O.W. ONLY



PROJECT INFORMATION ROJECT NAME:

PROPOSED MULTI -FAMILY RESIDENCE

PROJECT LOCATION:

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60 BAY AVE HIGHLANDS, LLC

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3	04/09/24	PER ATTORNEY
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1	03/12/24	PER ARCHITECT
0	02/05/24	INITIAL RELEASE

Rev.# Date Comment

SCALE: 1"=10' DESIGNED BY: DDC DATE: 02/05/24 DRAWN BY: AMC

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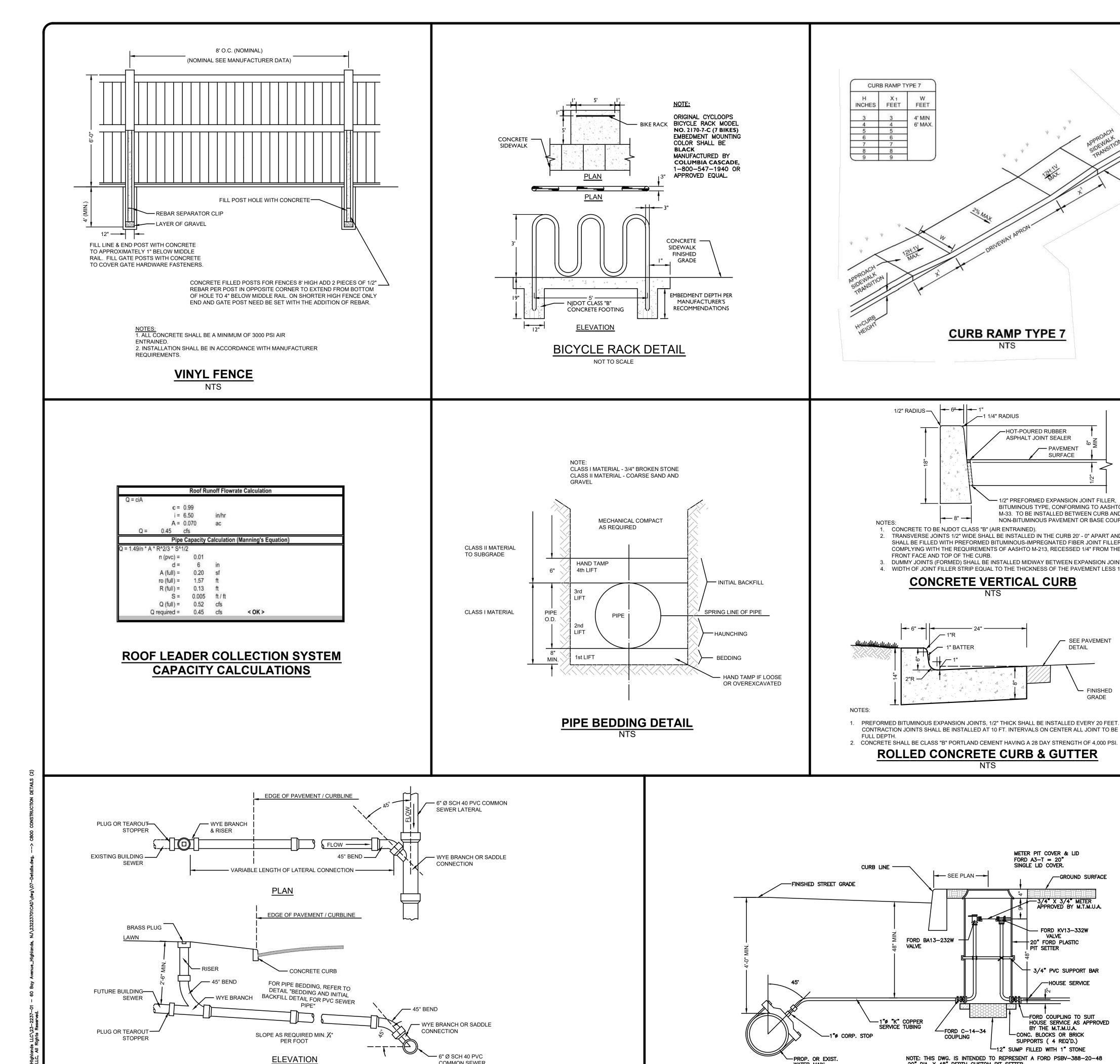
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PLAN INFORMATION

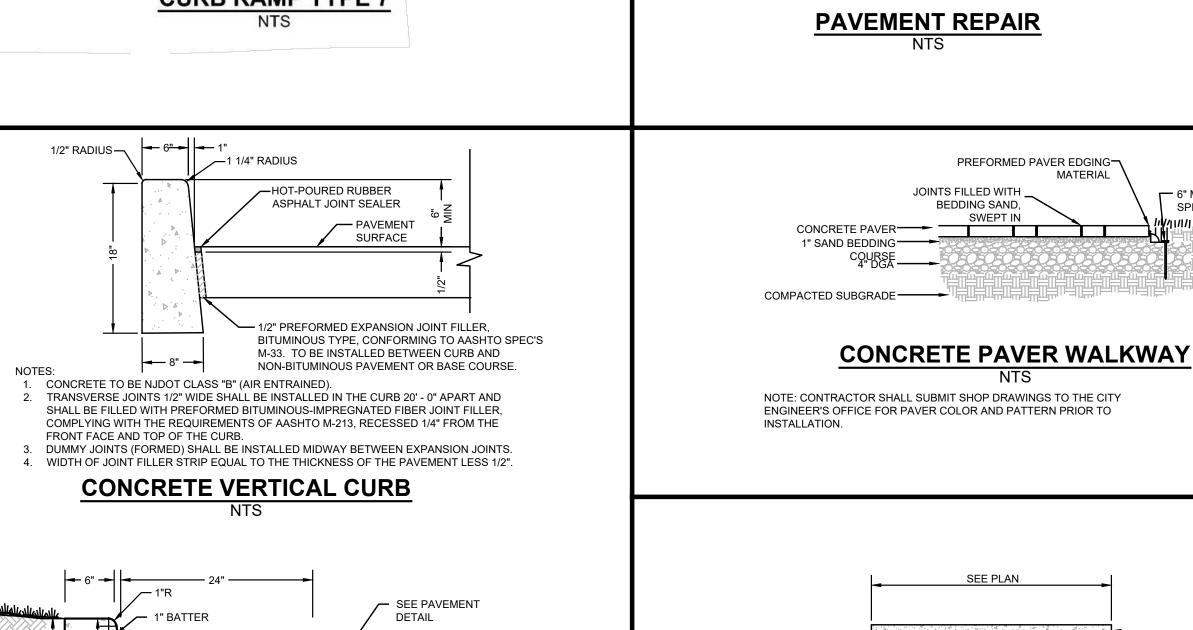
PRELIMINARY & FINAL MAJOR SITE PLAN

LIGHTING PLAN -PROPOSED CONDITIONS

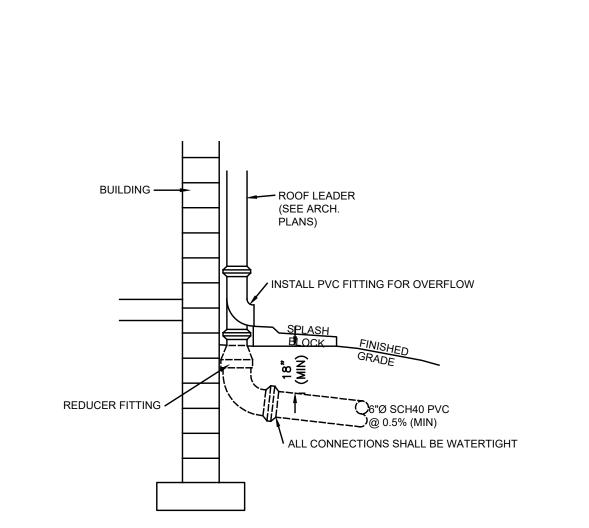
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COMMON SEWER



GRADE



PAVEMENT SECTION

(FOR AREAS MARKED "MILL AND PAVE" AS WELL AS —

IS MAINTAINED)

MATCH EXISTING GRADE

- 4" HOT MIX ASPHALT HMA 19M64 BASE

SUITABLY COMPACTED SUBGRADE

6" COMPACTED DENSE-GRADED AGGREGATE

2" HOT MIX ASPHALT HMA 9.5M64 SURFACE COURSE

─ 6" METAL TIE

- 5" BITUMINOUS STABILIZED

BASE WITH 2" FABC

-6" COMPACTED DGA

— COMPACTED SUBBASE

SPIKE TUR

OTHER AREAS THAT MAY REQUIRE RESURFACING OR

1. MILL AND EXCAVATE WHERE NOTED ON PLAN.

ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION).

3. INSTALL SURFACE COURSE OVER ENTIRE PAVED AREA AT ONE TIME.

MATERIALS FOR ASPHALT SURFACE SHALL CONFORM TO SECTION 404.02 OF

SECTIONS 301.02 AND 304.02 OF THE NJDOT STANDARD SPECIFICATIONS FOR

(LATEST EDITION). MATERIALS FOR ASPHALT BASE SHALL CONFORM TO

THE NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

2. PREPARE BASE WHERE NECESSARY.

FULL DEPTH PAVEMENT REPAIR WHERE EXISTING GRADE

EXISTING SUBGRADE

EXTERIOR DOWNSPOUT COLLECTOR

PROPOSED MULTI -FAMILY RESIDENCE

PROJECT INFORMATION

PROJECT LOCATION:

BLOCK 42, LOT 1 60 BAY AVENUE BOROUGH OF HIGHLANDS, MONMOUTH COUNTY, NJ

60 BAY AVE HIGHLANDS, LLC 60 BAY AVENUE

HIGHLANDS, NJ 07732 PPLICANT:

> 60 BAY AVE HIGHLANDS, LLC 60 BAY AVENUE

HIGHLANDS, NJ 07732

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NJ PE 24GE05331000

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		5) (6 = 1) (4)
PRE	LIMINA	RY & FINAL
1//	IODS	ITE PLAN
IVI	JUK 3	IIC CLAN

METER PIT COVER & LID FORD A3-T = 20" SINGLE LID COVER. —3/4" X 3/4" METER APPROVED BY M.T.M.U.A. - FORD KV13-332W VALVE 20" FORD PLASTIC - 3/4" PVC SUPPORT BAR HOUSE SERVICE AS APPROVED BY THE M.T.M.U.A. CONC. BLOCKS OR BRICK SUPPORTS (4 REQ'D.) -12" SUMP FILLED WITH 1" STONE NOTE: THIS DWG. IS INTENDED TO REPRESENT A FORD PSBV-388-20-48

TYPICAL SERVICE CONNECTION WITH FORD METER PIT

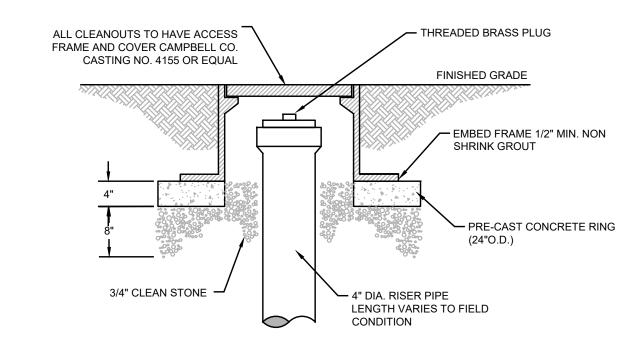
CONSTRUCTION **DETAILS**

C800

SHEET NO:

STANDARD LATERAL CONNECTION WITH CLEANOUT - SEWER DEPTH 10' OR LESS IN ACCORDANCE WITH NJAC 7:10-11.10(E)5, ALL WATER MAINS AND SANITARY LINES SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF 10 FEET. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, THE WATER AND SEWER LINES SHALL BE IN SEPARATE TRENCHES (STEP TRENCHES ARE PROHIBITED) WITH THE TOP OF THE SEWER LINE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAI (SEWER SERVICE LATERALS ARE NOT SUBJECT TO THIS REQUIREMENT). IF SUCH VERTICAL SEPARATION IS NOT POSSIBLE. THE SEWER LINE SHALL BE OF WATERTIGHT CONSTRUCTION (DUCTILE IRON), WITH WATERTIGHT JOINTS THAT ARE A MINIMUM OF 10 FEET FROM THE WATER MAIN.





SANITARY SEWER CLEANOUT FRAME AND COVER

PROJECT INFORMATION

PROPOSED MULTI -FAMILY RESIDENCE

PROJECT LOCATION:

BLOCK 42, LOT 1 60 BAY AVENUE BOROUGH OF HIGHLANDS, MONMOUTH COUNTY, NJ

60 BAY AVE HIGHLANDS, LLC

60 BAY AVENUE HIGHLANDS, NJ 07732

PPLICANT: 60 BAY AVE HIGHLANDS, LLC

60 BAY AVENUE HIGHLANDS, NJ 07732

APPLICANT'S PROFESSIONALS

ATTORNEY: DONNA M. JENNINGS ESQ. WILENTZ, GOLDMAN & SPITZER, PA 90 WOODBRIDGE CENTER DRIVE, SUITE 900 WOODBRIDGE, NJ 07095

ARCHITECT: SALVATORE LA FERLITA, R.A. 115 UNIVERSITY DRIVE LINCROFT, NJ 07738

SURVEYOR: INSITE SURVEYING, LLC 1955 ROUTE 37, SUITE 1A WALL, NJ 07719



NJ ONE CALL.....800-272-1000

CERTIFICATE OF AUTHORIZATION: 24GA28083200 1955 ROUTE 34, SUITE 1A, WALL, NJ 07719 732-531-7100 (Ph) 732-531-7344 (Fax)

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LICENSED IN: NEW JERSEY, NEW YORK, PENNSYLVANIA DELAWARE, CONNECTICUT, NORTH CAROLINA COLORADO, & DISTRICT OF COLUMBIA

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Ougle DULLL

PROFESSIONAL ENGINEER

NJ PE 24GE05331000

REVISIONS Rev.# Date Comment

SCALE: AS SHOWN DESIGNED BY: DDC DATE: 02/05/24 DRAWN BY: AMC JOB #: 23-2237-01 CHECKED BY: DDC

CAD ID: 23-2237-01r3 NOT FOR CONSTRUCTION

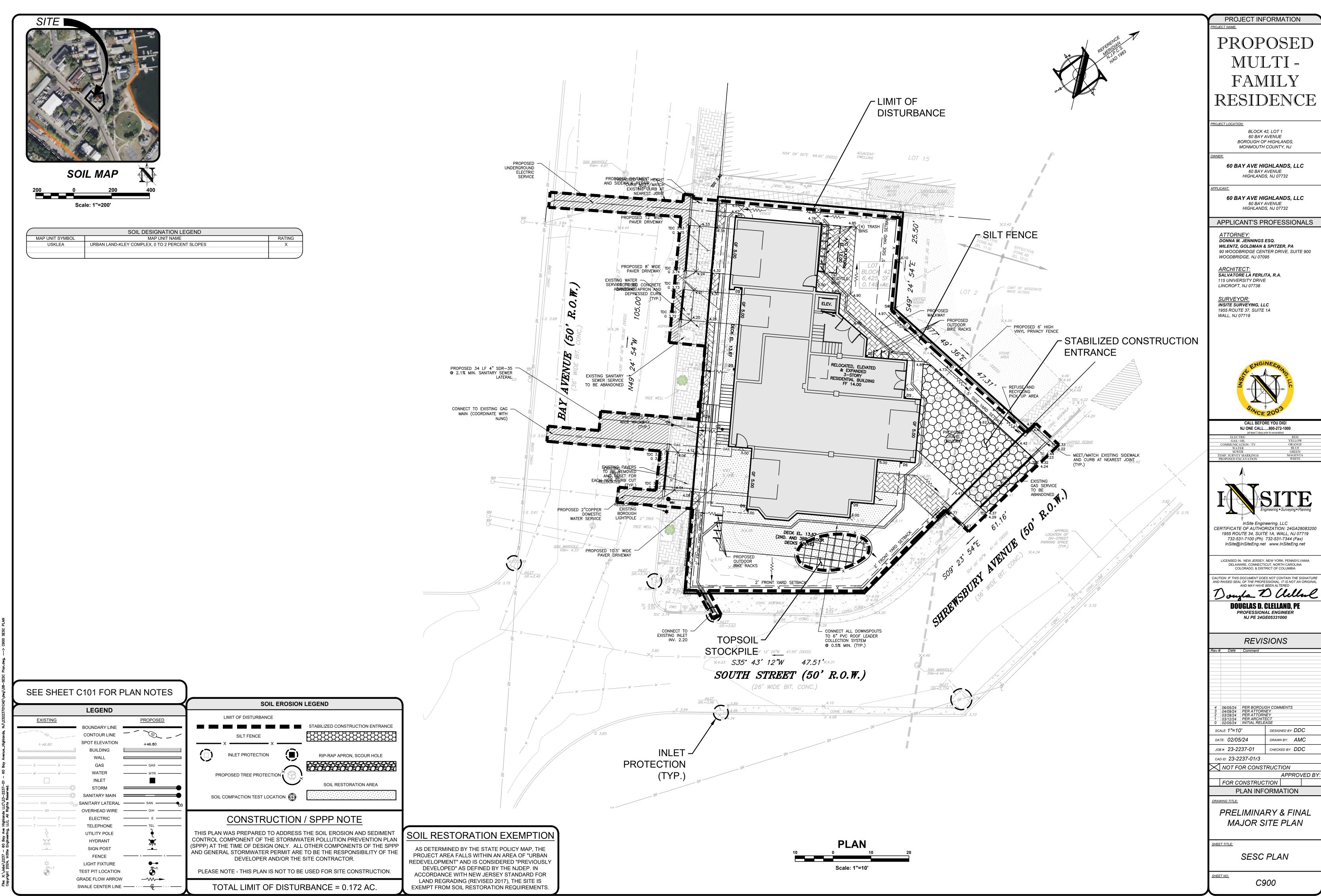
APPROVED BY:

FOR CONSTRUCTION PLAN INFORMATION

PRELIMINARY & FINAL MAJOR SITE PLAN

CONSTRUCTION DETAILS

SHEET NO:



PROPOSED MULTI -FAMILY RESIDENCE

> 60 BAY AVENUE BOROUGH OF HIGHLANDS,

60 BAY AVE HIGHLANDS, LLC 60 BAY AVENUE

60 BAY AVE HIGHLANDS, LLC

60 BAY AVENUE HIGHLANDS, NJ 07732

ATTORNEY: DONNA M. JENNINGS ESQ.



NJ ONE CALL....800-272-1000

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DELAWARE, CONNECTICUT, NORTH CAROLINA COLORADO, & DISTRICT OF COLUMBIA

REVISIONS

DESIGNED BY: DDC DRAWN BY: AMC

APPROVED BY

PLAN INFORMATION

PRELIMINARY & FINAL MAJOR SITE PLAN

SESC PLAN

- 2. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- 3. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS 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
- STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS. 4. N.J.S.A 4:24-39 ET. SEQ. REQUIRES THAT NO CERTIFICATES OF OCCUPANCY BE ISSUED BEFORE THE DISTRICT DETERMINES THAT A PROJECT OR PORTION THEREOF IS IN FULL COMPLIANCE WITH THE CERTIFIED PLAN AND STANDARDS FOR SOIL EROSION AN SEDIMENT CONTROL IN NEW JERSEY AND A REPORT OF COMPLIANCE HAS BEEN ISSUED. UPON WRITTEN REQUEST FROM THE APPLICANT. THE DISTRICT MAY ISSUE A REPORT OF COMPLIANCE WITH CONDITIONS ON A LOT-BY-LOT OR SECTION-BY-SECTION BASIS PROVIDED THAT THE PROJECT OR PORTION THEREOF IS IN SATISFACTORY COMPLIANCE WITH THE SEQUENCE OF DEVELOPMENT AND

TEMPORARY MEASURES FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN IMPLEMENTED. INCLUDING PROVISIONS FOR

- STABILIZATION AND SITE WORK. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN SIXTY (60) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF 2 TO 2 ½ TONS PER ACRE, ACCORDING TO
- STATE STANDARD FOR STABILIZATION WITH MULCH ONLY. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. STOCKPILES. STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A
- SUITABLE EQUIVALENT, AND A MULCH ANCHOR, IN ACCORDANCE WITH STATE STANDARDS. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS, AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED
- WITHIN FIFTEEN (15) DAYS OF THE PRELIMINARY GRADING. THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A PAD OF CLEAN CRUSHED STONE AT
- POINTS WHERE TRAFFIC WILL BE ACCESSING THE CONSTRUCTION SITE. AFTER INTERIOR ROADWAYS ARE PAVED, INDIVIDUAL LOTS REQUIRE A STABILIZED CONSTRUCTION ENTRANCE CONSISTING OF ONE INCH TO TWO INCH (1" - 2") STONE FOR A MINIMUM LENGTH OF TEN FEET (10') EQUAL TO THE LOT ENTRANCE WIDTH. ALL OTHER ACCESS POINTS SHALL BE BLOCKED OFF 9. ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAYS WILL BE REMOVED IMMEDIATELY.
- 10. PERMANENT VEGETATION IS TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. 11. AT THE TIME THAT 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 IT 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. 12. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS/ACRE, (OR 450 LBS/1,000 SQ FT OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12" OF SETTLED SOIL WITH A PH OF 5 OR MORE, OR 24"
- WHERE TREES OR SHRUBS ARE TO BE PLANTED 13. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL
- 14. UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO IIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH THE STANDARD FOR DEWATERING 15. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET, TEMPORARY
- VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED AS REQUIRED BY THE STANDARD FOR DUST CONTROL. 16 STOCKPILE AND STAGING LOCATIONS ESTABLISHED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN. STAGING AND STOCKPILES NOT LOCATED WITHIN THE LIMIT OF DISTURBANCE WILL REQUIRE CERTIFICATION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN. CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN MAY BE REQUIRED FOR THESE ACTIVITIES IF AN AREA GREATER THAN 5,000 SQUARE FEET IS DISTURBED.
- ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE #6. . THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT

TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

1. SITE PREPARATION

- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION. SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING, PG. 19-1.
- B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES. SEDIMENT BASINS. AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.
- C. IMMEDIATELY PRIOR TO SEEDING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).

2. SEEDBED PREPARATION

- A. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. LIMING RATES SHALL BE ESTABLISHED VIA SOIL TESTING. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND
- B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW OR OTHER SUITABLE FOUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
- C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED IN
- D. SOILS HIGH IN SULFIDES OR HAVING A PH OF 4 OR LESS REFER TO STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING

- A TEMPORARY VEGETATIVE SEEDING COVER SHALL CONSIST OF PERENNIAL RYEGRASS APPLIED LINIFORMLY AT A RATE OF 1 POUND PER 1,000 SF (100 LBS/AC) WITH AN OPTIMUM SEED DEPTH OF 0.5" (TWICE THE DEPTH IF SANDY SOILS), IN ACCORDANCE WITH TABLE 7-2, PAGE 7-3.
- *SEEDING DATES: 2/15-5/1 AND 8/15-10/15
- B. CONVENTIONAL SEEDING, APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER, EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL, TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE TEXTURED SOIL
- C. HYDROSEEDING IS A RROADCAST SEEDING METHOD LISHALLY INVOLVING A TRUCK OR TRAILER MOLINTED TANK. WITH AN AGITATION SYSTEM AND HYDRAULIC PLIMP FOR MIXING SEED. WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION IV MULCHING) HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL POOR SEED TO SOIL CONTACT OCCURS REDUCING SEED GERMINATION AND GROWTH HYDROSEEDING MAY BE USED FOR AREAS TOO STEEP FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS, STUMPS, ETC
- D. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED

- MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT.
- A. STRAW OR HAY. UNNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT). THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NO GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF
- APPLICATION. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 95% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION.
- ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE
- DONE BY ONE OF THE FOLLOWING METHODS. DEPENDING UPON THE SIZE OF THE AREA. STEEPNESS OF SLOPES, AND COSTS. 1. PEG AND TWINE. DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY
- STRETCHING TWINE BETWEEN PEGS IN A CRIS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
- 2. MULCH NETTINGS. STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE
- 3 CRIMPER (MULCH ANCHORING TOOL) A TRACTOR-DRAWN IMPLEMENT SOMEWHAT LIKE A DISC HARROW ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING
- 4. LIQUID MULCH-BINDERS. MAY BE USED TO ANCHOR HAY OR STRAW MULCH.

b. USE ONE OF THE FOLLOWING:

- a. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE.
- (1) ORGANIC AND VEGETABLE BASED BINDERS NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC EFFECT OR IMPEDE GROWTH OF TURFGRASS. USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS, MANY NEW PRODUCTS ARE AVAILABLE, SOME OF WHICH MAY NEED FURTHER EVALUATION FOR USE
- (2) SYNTHETIC BINDERS HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL
- NOTE: ALL NAMES GIVE ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A COMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.
- B WOOD-FIBER OR PAPER-FIBER MULCH, SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS. USED AT THE RATE OF 1.500 PONDS PER ACRE (OR AS RECOMMENDED BY THE PROJECT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. THIS MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL
- C. PELLETIZED MULCH. COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT. WHICH MAY CONTAIN CO-POLYMERS, TACKIFIERS, FERTILIZERS AND COLORING AGENTS, THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORMA MULCH MAT, PELLETIZED MULCH SHALL BE APPLIES IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75 LBS./1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEE FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS, SEEDED AREAS WHERE WEED-SEED FREE MULCH IS DESIRED OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE.
- APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD
- B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING
- C. 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. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER. AS NEEDED. IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.
- D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES SEDIMENT BASINS AND WATERWAYS
- A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP://NJAES.RUTGERS.EDU/COUNTY/ FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE-HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE-HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5
- B WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC SPRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
- C. HIGH ACID PRODUCING SOIL. SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDBED PREPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID-PRODUCING SOILS FOR SPECIFIC REQUIREMENTS

3. <u>SEEDING</u>

A. SEED GERMINATION SHALL HAVE BEEN TESTED WITHIN 12 MONTHS OF THE PLANTING DATE. NO SEED SHALL BE ACCEPTED WITH A GERMINATION TEST DATE MORE THAN 12 MONTHS OLD UNLESS RETESTED.

SEED MIXTURE #13 FOR LAWN AREAS HARD FESCUE AND/OR CHEWING FESCUE AND/OR STRONG CREEPING RED FESCUE 4 (175) 1 (45) PERENNIAL RYEGRASS KENTUCKY BLUEGRASS (BLEND) 1 (45)

*ACCEPTABLE SEEDING DATES: 3/1-4/30 AND 5/1-8/14** *OPTIMAL SEEDING DATES: 8/15-10/15

SEED MIXTURE #7 FOR BASIN, SIDE SLOPES, AND SWALES

**SUMMER SEEDING SHALL ONLY BE CONDUCTED WHEN SITE IS IRRIGATED

STRONG CREEPING RED FESCUE KENTUCKY BLUEGRASS PERENNIAL RYEGRASS PLUS WHITE CLOVER

*ACCEPTABLE SEEDING DATES: 3/1-4/30 AND 5/1-8/14** *OPTIMAL SEEDING DATES: 8/15-10/15 *SUMMER SEEDING SHALL ONLY BE CONDUCTED WHEN SITE IS IRRIGATED

. SEEDING RATES SPECIFIED ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN RATES MAY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO A REPORT OF COMPLIANCE INSPECTION. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVERAGE WITH THE SPECIFIED SEED MIXTURE FOR THE SEEDED AREA AND MOWED ONCE.

3 (130)

0.5 (20)

0.25 (10)

- 1. WARM-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT HIGH TEMPERATURES, GENERALLY 850 F AND ABOVE. SEE TABLE 4-3 MIXTURES 1 TO 7. PLANTING RATES FOR WARM-SEASON GRASSES SHALL BE THE AMOUNT OF PURE LIVE SEED (PLS) AS DETERMINED BY GERMINATION TESTING RESULTS.
- COOL-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT TEMPERATURES BELOW 8 MANY GRASSES BECOME ACTIVE AT 650F. SEE TABLE 4-3, MIXTURES 8-20. ADJUSTMENT OF PLANTING RATE COMPENSATE FOR THE AMOUNT OF PLS IS NOT REQUIRED FOR COOL SEASON GRASSES.
- B. CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH. BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE-TEXTURED SOIL.
- C. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR. SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED
- D. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK, OR TRAILER-MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT-FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION 4-MULCHING BELOW). HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. WHEN POOR SEED TO SOIL CONTACT OCCURS, THERE IS A REDUCED SEED GERMINATION AND GROWTH.

4. MULCHING

- MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL PROTECT AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH
- A STRAW OR HAY LINROTTED SMALL GRAIN STRAW HAY EREE OF SEEDS TO BE APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET). EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.
- APPLICATION SPREAD MUI CH UNIFORMLY BY HAND OR MECHANICALLY SO THAT AT LEAST 85% OF THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET
- SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION. ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY
- BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPES, 1. PEG AND TWINE. DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY
- STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS. 2. MULCH NETTINGS - STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE
- NETTING IN AREAS TO BE MOWED 3. CRIMPER (MULCH ANCHORING COULTER TOOL) - A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW. ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE

BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER

- ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED. 4. LIQUID MULCH-BINDERS - MAY BE USED TO ANCHOR SALT HAY, HAY OR STRAW MULCH.
- a. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH, IN VALLEYS, AND AT

CRESTS OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE b. USE ONE OF THE FOLLOWING:

- (1) ORGANIC AND VEGETABLE BASED BINDERS NATURALLY OCCURRING, POWDER-BASED, HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC EFFECT OR IMPEDE GROWTH OF TURF GRASS. USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS. MANY NEW PRODUCTS ARE AVAILABLE, SOME OF WHICH MAY NEED FURTHER EVALUATION FOR USE IN THIS STATE.
- (2) SYNTHETIC BINDERS HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND, FOLLOWING APPLICATION OF MULCH, DRYING AND CURING, SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER, BINDER SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS.
- NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A

B. WOOD-FIBER OR PAPER-FIBER MULCH - SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY JANUARY 2014GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. MULCH SHALL NOT BEMIXEDIN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS

C PELLETIZED MULCH-COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT. WHICH MAYECTL CONTAIN CO-POLYMERS, TACKIFIERS, FERTILIZERS, AND COLORING AGENTS. THE DRY PELLETS. WHEN APPLIED TO AW SEEDED AREA AND WATERED, FORM A MULCHMAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75 LBS/1,000 SQUARE FEET AND ACTIVATED WITH 0.2 TO0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS, SEEDED AREAS WHERE WEED-SEED FREE MULCH IS DESIRED, OR ON SITES WHERE STRAW MULCH AND TACKIFIERAGENT ARE NOT PRACTICAL OR DESIRABLE, APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEEDBED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE

5.IRRIGATION (WHERE FEASIBLE)

IF SOIL MOISTURE IS DEFICIENT SUPPLY NEW SEEDING WITH ADEQUATE WATER (A MINIMUM OF 1/4 INCH APPLIED UP TO TWICE A DAY UNTIL VEGETATION IS WELL ESTABLISHED). THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE IN ABNORMALLY DRY OR HOT WEATHER OR ON

6.TOP DRESSING

SINCE SOIL ORGANIC MATTER CONTENT AND SLOW RELEASE NITROGEN FERTILIZER (WATER INSOLUBLE) ARE PRESCRIBED INSECTION 2A-SEEDBED PREPARATION IN THIS STANDARD, NO FOLLOW-UP OF TOP DRESSING IS MANDATORY. AN EXCEPTION MAYBE MADE WHERE GROSS NITROGEN DEFICIENCY EXISTS IN THE SOIL TO THE EXTENT THAT TURF FAILURE MAY DEVELOP. IN THAT INSTANCE, TOP DRESS WITH 10-10-10 OR EQUIVALENT AT 300 POUNDS PER ACRE OR 7 POUNDS PER 1,000 SQUARE FEET EVERY 3 TO 5 WEEKS UNTIL THE GROSS NITROGEN DEFICIENCY IN THE TURF IS

7.ESTABLISHING PERMANENT VEGETATIVE STABILIZATION

THE QUALITY OF PERMANENT VEGETATION RESTS WITH THE CONTRACTOR. THE TIMING OF SEEDING, PREPARING THE SEEDBED, APPLYING NUTRIENTS, MULCH AND OTHER MANAGEMENT ARE ESSENTIAL. THE SEED APPLICATION RATES IN TABLE 4-3 ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN APPLICATION RATES MAY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO REQUESTING A REPORT OF COMPLIANCE FROM THE DISTRICT. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVER (OF THE SEEDED SPECIES) AND MOWED ONCE. NOTE THIS DESIGNATION OF MOWED ONCE DOES NOT GUARANTEE THE PERMANENCY OF THE TURF SHOULD OTHER MAINTENANCE FACTORS BE NEGLECTED OR OTHERWISE MISMANAGED

STANDARD FOR DUST CONTROL

<u>DEFINITION</u> THE CONTROL OF DUST ON CONSTRUCTION SITES AND ROADS.

TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCED ON-SITE AND OFF-SITE DAMAGE AND HEALTH

CONDITION WHERE PRACTICE APPLIES
THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON-SITE AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT. CONSULT WITH LOCAL MUNICIPAL ORDINANCES ON ANY RESTRICTION.

SEDIMENTS DEPOSITED AS "DUST" ARE OFTEN FINE COLLOIDAL MATERIAL WHICH IS EXTREMELY DIFFICULT TO REMOVE FROM WATER ONCE IT BECOMES SUSPENDED. USE OF THIS STANDARD WILL HELP TO CONTROL THE GENERATION OF DUST FROM CONSTRUCTION SUITES AND SUBSEQUENT BLOWING AND DEPOSITION INTO LOCAL SURFACE WATER RESOURCES.

PLANNING CRITERIA THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST:

- MULCHES SEE STANDARD OF STABILIZATION WITH MULCHES ONLY, PG 5-1

PERMANENT STABILIZATION WITH SOD. PG. 6-1

- <u>VEGETATIVE COVER</u> SEE STANDARD FOR: TEMPORARY VEGETATIVE COVER, PG. 7-1, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, PG. 4-1, AND
- SPRAY ON ADHESIVE ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS.

MATERIALS	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/ACRE
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1200
LATEX EMULSION	12.5:1	FINE SPRAY	235
RESIGN IN WATER	4:1	FINE SPRAY	300
POLYACRYLAMIDE (PAM) - SPRAY ON POLYACRYLAMIDE (PAM) - DRY SPREAD	USED AS AN ADDITIVE T	TO SEDIMENT BASINS TO	TRUCTIONS. MAY ALSO BE FLOCCULATE AND MENT BASIN STANDARD PG. 26-
ACIDULATED SOY BEAM SOAP STICK	NONE	COARSE SPRAY	1200

TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE, THIS IS A TEMPORARY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEING PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS SPACES ABOUT 12 INCHES APART AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

SPRINKLING - SITE IS SPRINKLED UNTIL THE SURFACE IS WET.

<u>BARRIERS</u> - SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING.

ORIDE - SHALL BE IN THE FORM OF LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEE THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE, IS USED ON STEEPER SLOPES THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS OR ACCLIMATION AROUND PLANTS. SLOPE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

STANDARD FOR STABILIZATION WITH MULCH ONLY

STABILIZING EXPOSED SOILS WITH NON-VEGETATIVE MATERIALS EXPOSED FOR PERIODS LONGER THAN 14 DAYS.

TO PROTECT EXPOSED SOIL SURFACES FROM EROSION DAMAGE AND TO REDUCE OFFSITE ENVIRONMENTAL DAMAGE.

CONDITION WHERE PRACTICE APPLIES
THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON-SITE AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT. CONSULT WITH LOCAL MUNICIPAL ORDINANCES ON ANY RESTRICTION.

WATER QUALITY ENHANCEMENT
PROVIDES TEMPORARY MECHANICAL PROTECTION AGAINST WIND OR RAINFALL INDUCED SOIL EROSION UNTIL PERMANENT VEGETATIVE COVER MAY BE ESTABLISHED.

HIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO EROSION, WHERE THE SEASON AND OTHER CONDITIONS MAY NOT BE SUITABLE FOR GROWING AN EROSION-RESISTANT COVER OR WHERE STABILIZATION IS NEEDED FOR A SHORT PERIOD UNTIL MORE SUITABLE PROTECTION CAN

- 1. SITE PREPARATION A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.
- PROTECTIVE MATERIALS
- A LINROTTED SMALL-GRAIN STRAW AT 2.0 TO 2.5 TONS PER ACRE IS SPREAD LINIFORMLY AT 90 TO 115 POLINDS PER 1.000 SOLIARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL. LIQUID MULCH BINDERS. OR NETTING TIE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT. THE APPROVED RATES ABOVE HAVE BEEN MET WHEN THE MULCH COVERS THE GROUND COMPLETELY UPON VISUAL INSPECTION, I.E. THE SOIL CANNOT BE SEEN BELOW THE MULCH
- C. SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED UNDER SUITABLE CONDITIONS AND IN QUANTITIES AS RECOMMENDED BY THE MANUFACTURER
- D. WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE (OR ACCORDING TO THE MANUFACTURER'S
- E. MULCH NETTING, SUCH AS PAPER JUTE, EXCELSIOR, COTTON, OR PLASTIC, MAY BE USED. WOODCHIPS APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 2 INCHES MAY BE USED. WOODCHIPS WILL NOT BE USED ON AREAS WHERE
- G. GRAVEL, CRUSHED STONE, OR SLAG AT THE RATE OF 9 CUBIC YARDS PER 1,000 SQ. FT, APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 3 INCHES MAY BE USED. SIZE 2 OR 3 (ASTM C-33) IS RECOMMENDED.
- 3. MULCH ANCHORING SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA AND STEEPNESS
- A. PEG AND TWINE DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS. B. MULCH NETTINGS - STAPLE PAPER, COTTON, OR PLASTIC NETTINGS OVER MULCH. USE DEGRADABLE NETTING IN AREAS TO BE MOWED.
- NETTING IS USUALLY AVAILABLE IN ROLLS 4 FEET WIDE AND UP TO 300 FEET LONG. C. CRIMPER MULCH ANCHORING COULTER TOOL - A TRACTOR-DRAWN IMPLEMENT ESPECIALLY DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE. THIS PRACTICE AFFORDS MAXIMUM EROSION CONTROL, BUT ITS USE IS LIMITED TO THOSE SLOPES UPON WHICH THE TRACTOR CAN OPERATE SAFELY. SOIL PENETRATION SHOULD BE ABOUT 3 TO 4 INCHES. ON SLOPING LAND, THE OPERATION SHOULD BE ON THE CONTOUR.
- 1. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND CATCHES THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. REMAINDER OF AREA SHOULD BE UNIFORM IN APPEARANCE.
- USE ONE OF THE FOLLOWING:

D. LIQUID MULCH-BINDERS

- a. ORGANIC AND VEGETABLE BASED BINDERS NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIALS THAT MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANE NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTO-TOXIC EFFECT OR IMPEDE GROWTH OF TURFGRASS, VEGETABLE BASED GELS SHALL BE APPLIED AT RATES AND WEATHER CONDITIONS RECOMMENDED BY THE MANUFACTURER.
- SYNTHETIC BINDERS HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES AND WEATHER CONDITIONS RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF

CONSTRUCTION SEQUENCE

EXACT TIMING FOR DEVELOPMENT OF THIS PROJECT IS NOT KNOWN AT THIS TIME. HOWEVER, IT IS ANTICIPATED THAT CONSTRUCTION WILL COMMENCE IN THE SUMMER OF 2024 AND WILL PROCEED IMMEDIATELY AND CONTINUOUSLY ONCE THE REQUIRED APPROVALS ARE SECURED. ITEMS AND DURATIONS OF CONSTRUCTION WILL OCCUR APPROXIMATELY AS FOLLOWS: PHASE DURATION

PH	IASE	DURATION
1.	INSTALL TEMPORARY SOIL EROSION FACILITIES (CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE, INSTALL SILT FENCE, INSTALL TREE PROTECTION FENCING)	IMMEDIATELY
2.	SITE DEMOLITION	1 WEEK
3.	ROUGH CLEARING AND GRADING (BASINS SHALL BE EXCAVATED NO FURTHER THAN 1 FOOT ABOVE FINAL GRADE)	2 WEEKS
4.	TEMPORARY SEEDING	IMMEDIATELY
5.	UTILITY INSTALLATION	2 WEEKS
6.	INSTALL INLET PROTECTION	IMMEDIATELY
7.	FINAL EXCAVATION/CONSTRUCTION OF STORMWATER BASINS	1 WEEK
8.	CURB AND SIDEWALK CONSTRUCTION	1 WEEK
9.	PAVEMENT SUB-BASE	1 WEEK
10.	CONSTRUCTION OF BUILDING(S)	9 MONTHS
11.	MAINTENANCE OF TEMPORARY EROSION CONTROL MEASURES	CONTINUOUSLY
12.	PRELIMINARY INSTALLATION OF LANDSCAPING	1 WEEK
13.	FINAL PAVEMENT COURSE	1 WEEK
14.	FINAL CONSTRUCTION/STABILIZATION OF SITE	1 WEEK

*TEMPORARY SEEDING SHALL ALSO BE PERFORMED WHEN NECESSARY IN ACCORDANCE WITH NOTE NO. 1 OF THE SOIL EROSION AND SEDIMENT

CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL PERMANENT SOIL EROSION AND SEDIMENT CONTROL MEASURES DURING CONSTRUCTION. THE PROPERTY OWNERS SHALL ASSUME THIS RESPONSIBILITY AFTER CONSTRUCTION IS COMPLETED AND CERTIFICATES OF

THE SOIL FROSION INSPECTOR MAY REQUIRE ADDITIONAL SOIL FROSION MEASURES TO BE INSTALLED. AS DIRECTED BY THE DISTRICT INSPECTOR THE CONTRACTOR IS RESPONSIBLE FOR KEEPING THE ROADWAYS CLEAN AT ALL TIMES. ANY SEDIMENT SPILLED OR TRACKED ON THE ROADWAY WILL BE CLEANED UP IMMEDIATELY, OR AT MINIMUM, BY THE END OF EACH WORK DAY.

DUST GENERATION SHALL BE CONTROLLED ON A CONSTANT BASIS BY WETTING THE SURFACE AND/OR APPLICATION OF CALCIUM CHLORIDE. STEEP SLOPES SHALL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR SUITABLE EQUAL. (SEE ANCHORING NOTES & NOTE NO. 6 OF SOIL EROSION & SEDIMENT CONTROL NOTES.)

ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON INDIVIDUAL SITES SHALL APPLY TO ANY SUBSEQUENT OWNERS

STANDARD FOR TOPSOILING

- A. TOPSOIL SHOULD BE FRIABLE1, LOAMY2, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE OR ADVERSE CHEMICAL OR PHYSICAL CONDITION THAT MAY BE HARMFUL TO PLANT GROWTH. SOLUBLE SALTS SHOULD NOT BE EXCESSIVE (CONDUCTIVITY LESS THAN 0.5 MILLIMHOS PER CENTIMETER. MORE THAN 0.5 MILLIMHOS MAY DESICCATE SEEDLINGS AND ADVERSELY IMPACT GROWTH). IMPORTED TOPSOIL SHALL HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. ORGANIC
- MATTER CONTENT MAY BE RAISED BY ADDITIVES. B. TOPSOIL SUBSTITUTE IS A SOIL MATERIAL WHICH MAY HAVE BEEN AMENDED WITH SAND, SILT, CLAY, ORGANIC MATTER, FERTILIZER OR LIME AND HAS THE APPEARANCE OF TOPSOIL. TOPSOIL SUBSTITUTES MAY BE UTILIZED ON SITES WITH INSUFFICIENT TOPSOIL FOR ESTABLISHING PERMANENT VEGETATION. ALL TOPSOIL SUBSTITUTE MATERIALS SHALL MEET THE REQUIREMENTS OF TOPSOIL NOTED ABOVE. SOIL TESTS SHALL BE PERFORMED TO DETERMINE THE COMPONENTS OF SAND, SILT, CLAY, ORGANIC MATTER, SOLUBLE SALTS
- 2. <u>STRIPPING AND STOCKPILING</u>
 A. FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER QUANTITY AND OR QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING.
- STRIPPING SHALL BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA. WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TESTS TO BRING THE SOIL PH TO
- A 4-6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL. STOCKPILES OF TOPSOIL SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF-SITE ENVIRONMENTAL
- STOCKPILES SHOULD BE VEGETATED IN ACCORDANCE WITH STANDARDS PREVIOUSLY DESCRIBED HEREIN: SEE STANDARDS FOR PERMANENT (PG. 4-1) OR TEMPORARY (PG.7-1) VEGETATIVE COVER FOR SOIL STABILIZATION. WEEDS SHOULD NOT BE ALLOWED TO
- A. GRADE AT THE ONSET OF THE OPTIMAL SEEDING PERIOD SO AS TO MINIMIZE THE DURATION AND AREA OF EXPOSURE OF DISTURBED SOIL TO EROSION. IMMEDIATELY PROCEED TO ESTABLISH VEGETATIVE COVER IN ACCORDANCE WITH THE SPECIFIED SEED MIXTURE.
- GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE. SEE THE STANDARD FOR LAND GRADING, PG. 19-1. C. AS GUIDANCE FOR IDEAL CONDITIONS, SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT. LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL TO A PH OF APPROXIMATELY 6.5 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF
- PRIOR TO TOPSOILING, THE SUBSOIL SHALL BE IN COMPLIANCE WITH THE STANDARD FOR LAND GRADING, PG. 19-1. EMPLOY NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENTATION BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.
- 4. <u>APPLYING TOPSOIL</u>
 A. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE; I.E., LESS THAN FIELD CAPACITY (SEE GLOSSARY) B. A UNIFORM APPLICATION TO AN AVERAGE DEPTH OF 5.0 INCHES, MINIMUM OF 4 INCHES, FIRMED IN PLACE IS REQUIRED. ALTERNATIVE
- COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOIL (PG. 1-1) PURSUANT TO THE REQUIREMENTS IN SECTION 7 OF THE STANDARD FOR PERMANENT VEGETATIVE STABILIZATION, THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT PERMANENT VEGETATIVE COVER BECOMES ESTABLISHED ON AT LEAST 80% OF THE SOILS TO BE STABILIZED WITH VEGETATION. FAILURE TO ACHIEVE THE MINIMUM COVERAGE MAY REQUIRE ADDITIONAL WORK TO BE PERFORMED B' THE CONTRACTOR TO INCLUDE SOME OR ALL OF THE FOLLOWING: SUPPLEMENTAL SEEDING. RE-APPLICATION OF LIME AND FERTILIZERS, AND/OR THE ADDITION OF ORGANIC MATTER (I.E. COMPOST) AS A TOP DRESSING. SUCH ADDITIONAL MEASURES SHALL BE BASED ON SOIL TESTS SUCH AS THOSE OFFERED BY RUTGERS COOPERATIVE EXTENSION SERVICE OR OTHER APPROVED LABORATORY

FACILITIES QUALIFIED TO TEST SOIL SAMPLES FOR AGRONOMIC PROPERTIES

DEPTHS MAY BE CONSIDERED WHERE SPECIAL REGULATORY AND/OR INDUSTRY DESIGN STANDARDS ARE APPROPRIATE SUCH AS ON

GOLF COURSES SPORTS FIFLDS LANDFILL CAPPING FTC. SOILS WITH A PH OF 4 0 OR LESS OR CONTAINING IRON SUI FIDE SHALL BE

PROJECT INFORMATION

ROJECT LOCATION:

BLOCK 42, LOT 1 60 BAY AVENUE BOROUGH OF HIGHLANDS, MONMOUTH COUNTY, NJ

60 BAY AVE HIGHLANDS, LLC 60 BAY AVENUE

PLICANT: 60 BAY AVE HIGHLANDS, LLC 60 BAY AVENUE

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NJ ONE CALL.....800-272-1000

CERTIFICATE OF AUTHORIZATION: 24GA28083200 1955 ROUTE 34, SUITE 1A, WALL, NJ 07719 732-531-7100 (Ph) 732-531-7344 (Fax)

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ND RAISED SEAL OF THE PROFESSIONAL IT IS NOT AN ORIGIN Dougla D allul

REVISIONS

SCALE: AS SHOWN DESIGNED BY: DDC DATE: 02/05/24 DRAWN BY: AMC

JOB #: 23-2237-01

CAD ID: 23-2237-01r3 NOT FOR CONSTRUCTION

FOR CONSTRUCTION

PRELIMINARY & FINAL

MAJOR SITE PLAN

PLAN INFORMATION

CHECKED BY: DDC

APPROVED BY

SESC NOTES

SHEET NO:

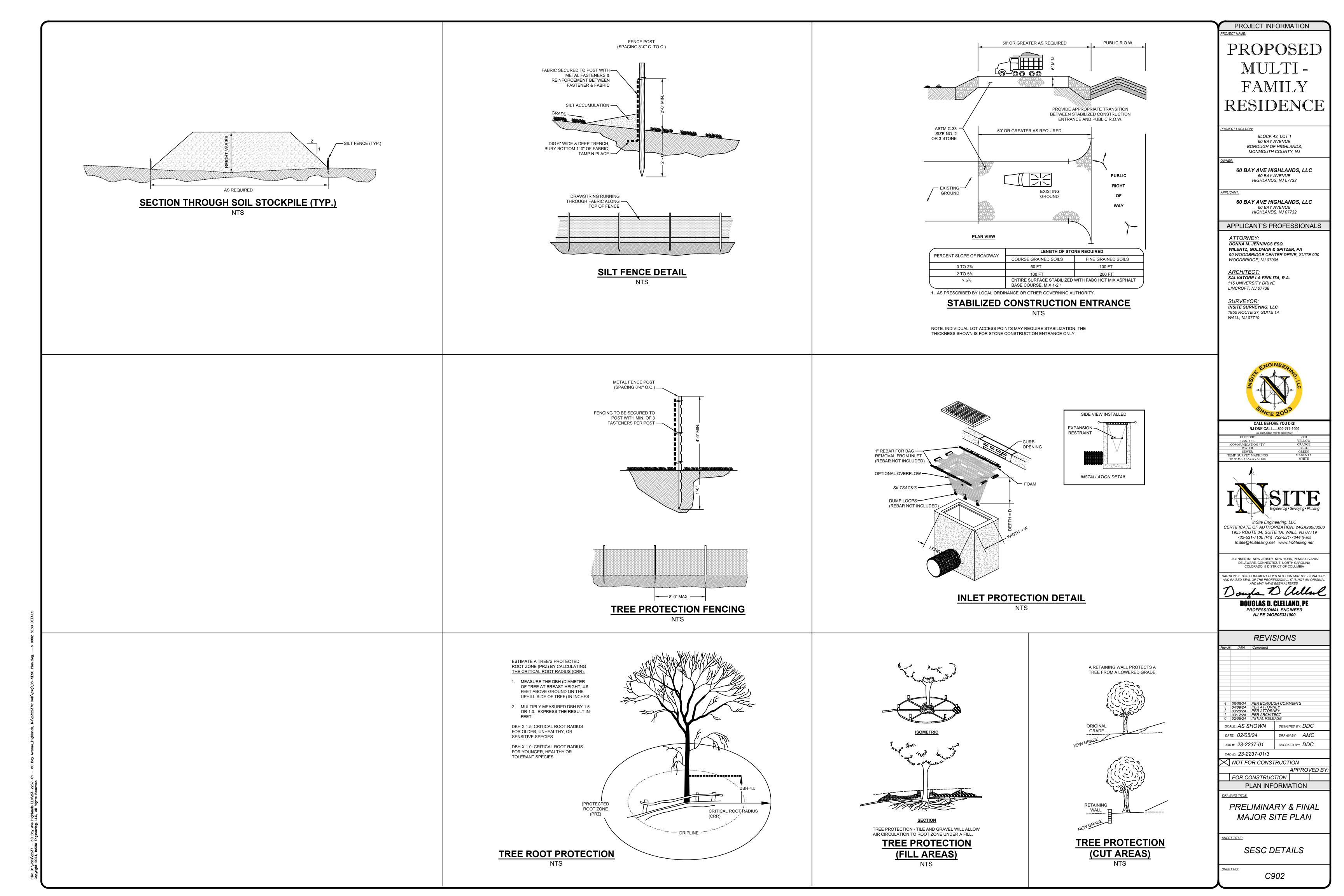
C901

HIGHLANDS, NJ 07732

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SALVATORE LA FERLITA, R.A.







APPLICABLE CODES INTERNATIONAL RESIDENTIAL CODE (N.J. EDITION)
INTERNATIONAL MECHANICAL CODE
NATIONAL STANDARD PLUMBING CODE
NATIONAL ELECTRICAL CODE 2021 2021 2020 2021 2021 INTERNATIONAL FIRE CODE INTERNATIONAL ENERGY CONSERVATION CODE

ZONING DATA			
•	ZONE: CBD	BLOCK: 42	LOT: 1
ITEM	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT AREA			6,408 S.F.
MINIMUM LOT FRONTAGE			105.00'
MINIMUM FRONT SETBACK ACCESSORY		W/K	2.001
MINIMUM SIDE SETBACK ACCESSORY	1	42. OK	5.00' / 8.00'
MINIMUM STREET SIDE SETBACK ACCESSORY	٧٥,	1/10	
MINIMUM REAR SETBACK ACCESSORY	LER LER		5.00' / 8.00'
MINIMUM REAR STREET SIDE SETBACK ACCESSORY	REFERE		
MAXIMUM BUILDING COVERAGE	E		2,681 S.F.
* MAXIMUM LOT COVERAGE			2,681 / 6,408 = .42%
MAXIMUM BUILDING HEIGHT ACCESSORY			46'-10"

BUILDING DATA				
HABITABLE AREA	EXISTING AREA	NEW AREA	TOTAL AREA	
GROUND FLOOR	0	0	0	
FIRST FLOOR	1,200 SF	1,268 SF	2,468 SF	
SECOND FLOOR	900 SF	1,686 SF	2,586 SF	
THIRD FLOOR	900 SF	1,534 SF	2,434 SF	
TOTAL	3,000 SF	4,488 SF	7,488 SF	
HABITABLE AREA	EXISTING VOLUME	NEW VOLUME	TOTAL VOLUME	
GROUND FLOOR	0	22,419 CF	22,419 CF	
FIRST FLOOR	9,600 CF	11,412 CF	21,012 CF	
SECOND FLOOR	7,200 CF	13,488 CF	20,688 CF	
THIRD FLOOR	7,200 CF	12,272 CF	19,472 CF	
TOTAL	24,000 CF	59,591 CF	83,591 CF	

UNIT	REQUIRED	PROVIDED		
APARTMENT 'A'	100 S.F.	160 S.F.		
APARTMENT 'B'	100 S.F.	678 S.F.		
APARTMENT 'C'	100 S.F.	286 S.F.		
APARTMENT 'D'	100 S.F.	154 S.F.		
APARTMENT 'E'	100 S.F.	703 S.F.		
TOTAL	600 S.F.	1,981 S.F.		

FOR ZONING REVIEW ISSUED: 6/12/2024

LEGEND

EXISTING TO BE REMOVED

NEW 2" x 6" WOOD STUD EXTERIOR WALL CONSTRUCTION

NEW CONCRETE BLOCK FOUNDATION WALL

EXISTING CMU WALL WITH NEW CMU
ON TOP

NEW TWO HOUR RATED WALL CONSTRUCTION

EXISTING INTERIOR PARTITION

NEW 2" \times 4" WOOD STUD INTERIOR WALL CONSTRUCTION

NEW 'SMART VENT' AUTOMATIC NON-POWERED, 8" × 16" FLOOD VENTS OR APPROVED EQUAL, 12" ABOVE GRADE MAX (1) PER 200 S.F. MIN.

SALVATORE LA FERLITA, R.A.
Architectural Services
Construction Management



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No.	DATE	REVISION	No.	DATE	DESCRIPTION
Client					

60 BAY AVE HIGHLAND LLC MULTI- FAMILY RESIDENCE 60 BAY AVENUE HIGHLANDS, NEW JERSEY

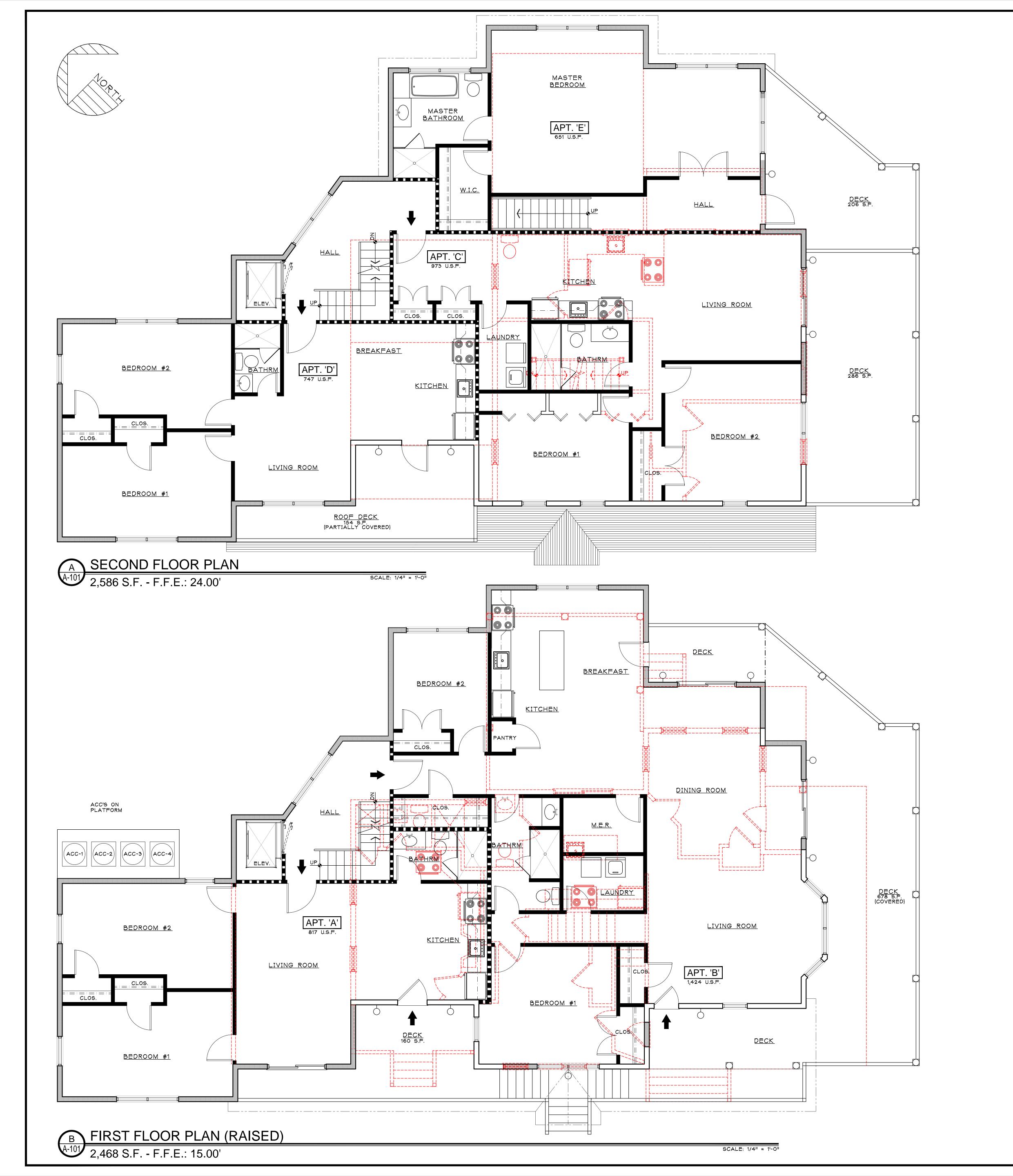
GROUND FLOOR PRELIMINARY SPACE ANALYSIS



A-100

N.J. LIC. #AI15228

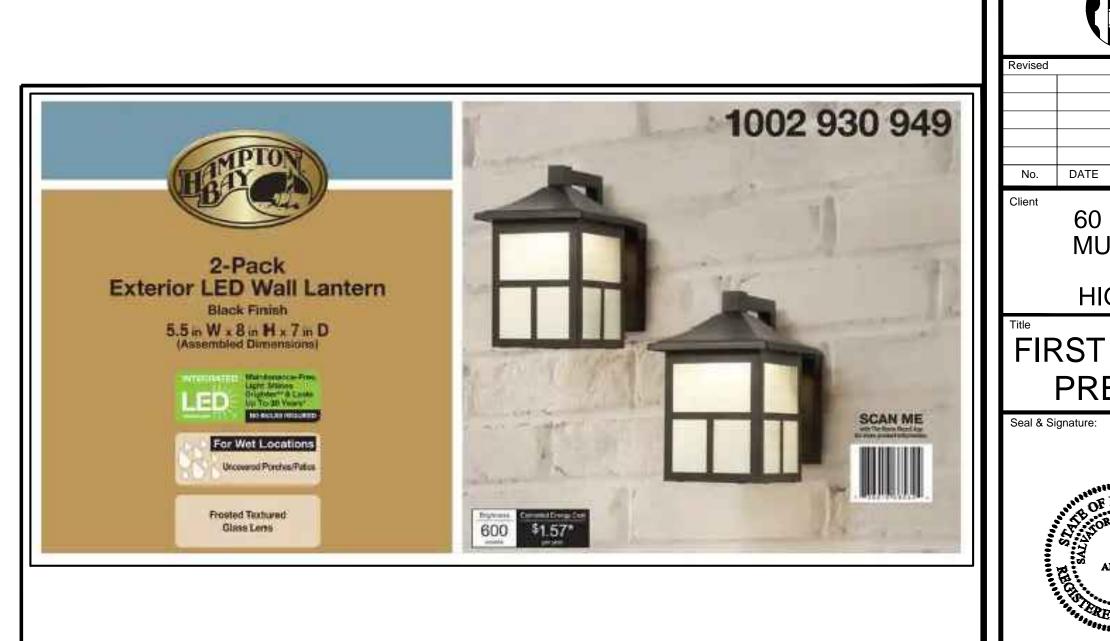
SCALE: 1/4" = 1'-0"



FOR ZONING REVIEW
ISSUED: 6/12/2024

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TYPE 'A'
WALL MOUNTED GARAGE & DECK LIGHT

