

THERMO FISHER FRANKLIN CANOPY PV SYSTEM

667.20 KW-DC SOLAR PV SYSTEM
27 FORGE PARKWAY
FRANKLIN, MASSACHUSETTS 02038

SCOPE OF WORK:

TO INSTALL A PARKING CANOPY MOUNTED SOLAR PHOTOVOLTAIC (PV) SYSTEM. THE POWER GENERATED BY THE PV SYSTEM WILL BE INTERCONNECTED WITH THE UTILITY GRID

THE PV SYSTEM DOES NOT INCLUDE STORAGE BATTERIES

CODES & STANDARDS:

2020 NATIONAL ELECTRICAL CODE
2015 INTERNATIONAL BUILDING CODE
2015 MASSACHUSETTS FIRE CODE
UL 1741

LOT INFORMATION:

18.63 ACRES
PARCEL ID# 275-013-000
ZONING DISTRICT - INDUSTRIAL

RECORD OWNER:

27 FORGE PARKWAY, LLC
600 BUISNESS CENTER DRIVE
PITTSBURGH, PENNSYLVANIA 15205

RECORD APPPLICANT:

ECOGY MA VI LLC
315 FLATBUSH AVENUE #393
BROOKLYN, NEW YORK 11217

SYSTEM SUMMARY:

667.2 kW DC
399.9 kW-AC

TILT ANGLE = XX °
AZIMUTH = 79° & 259°

EQUIPMENT:

MODULE:
(1668) TALESUN TDG72M 400W MODULE

INVERTER:
(3) SOLAREEDGE 66.6K-US INVERTER

RACKING:
RBI RACKING

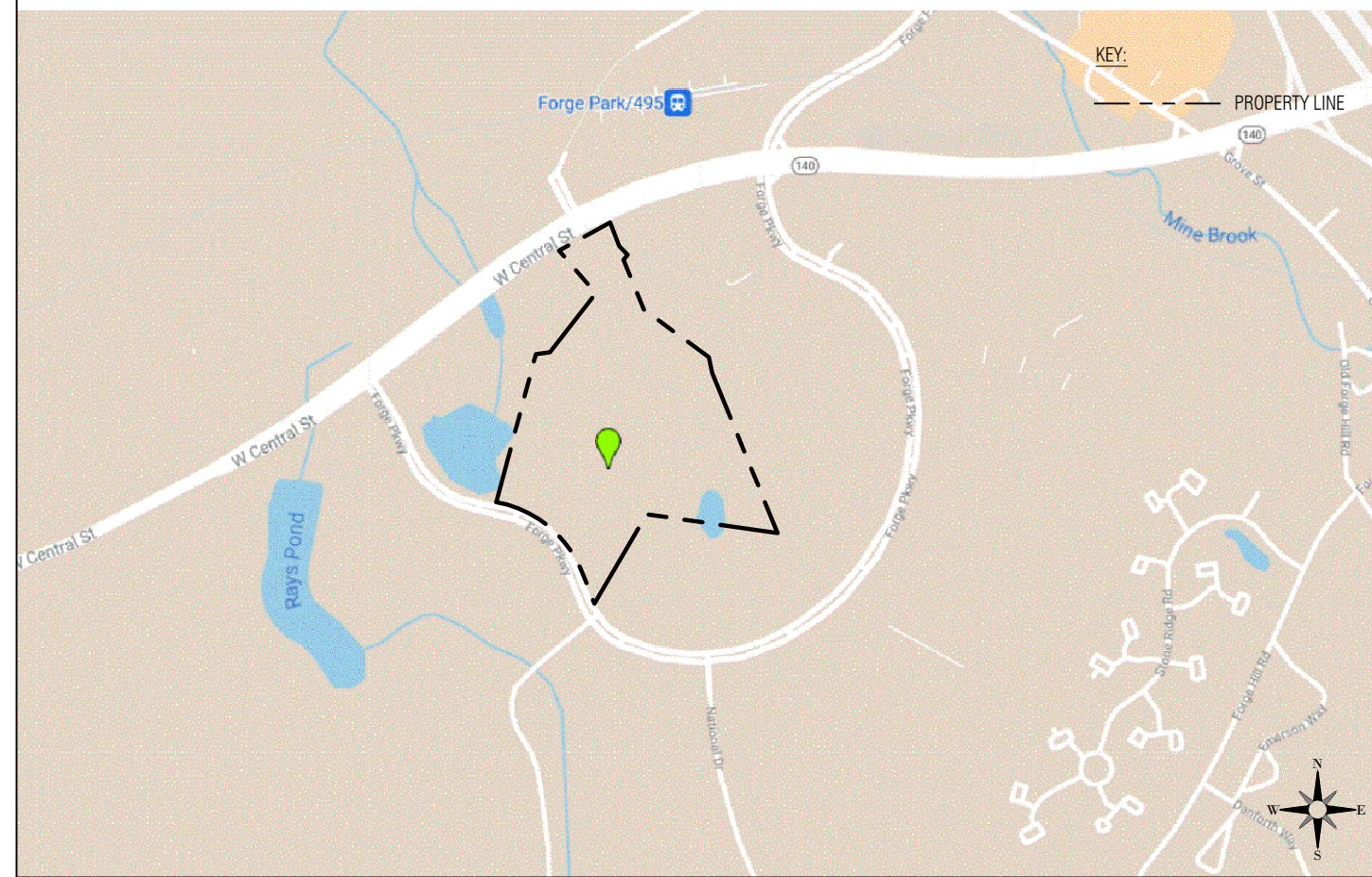
DAS:
ECOGY ECONODE

UTILITY:

NATIONAL GRID

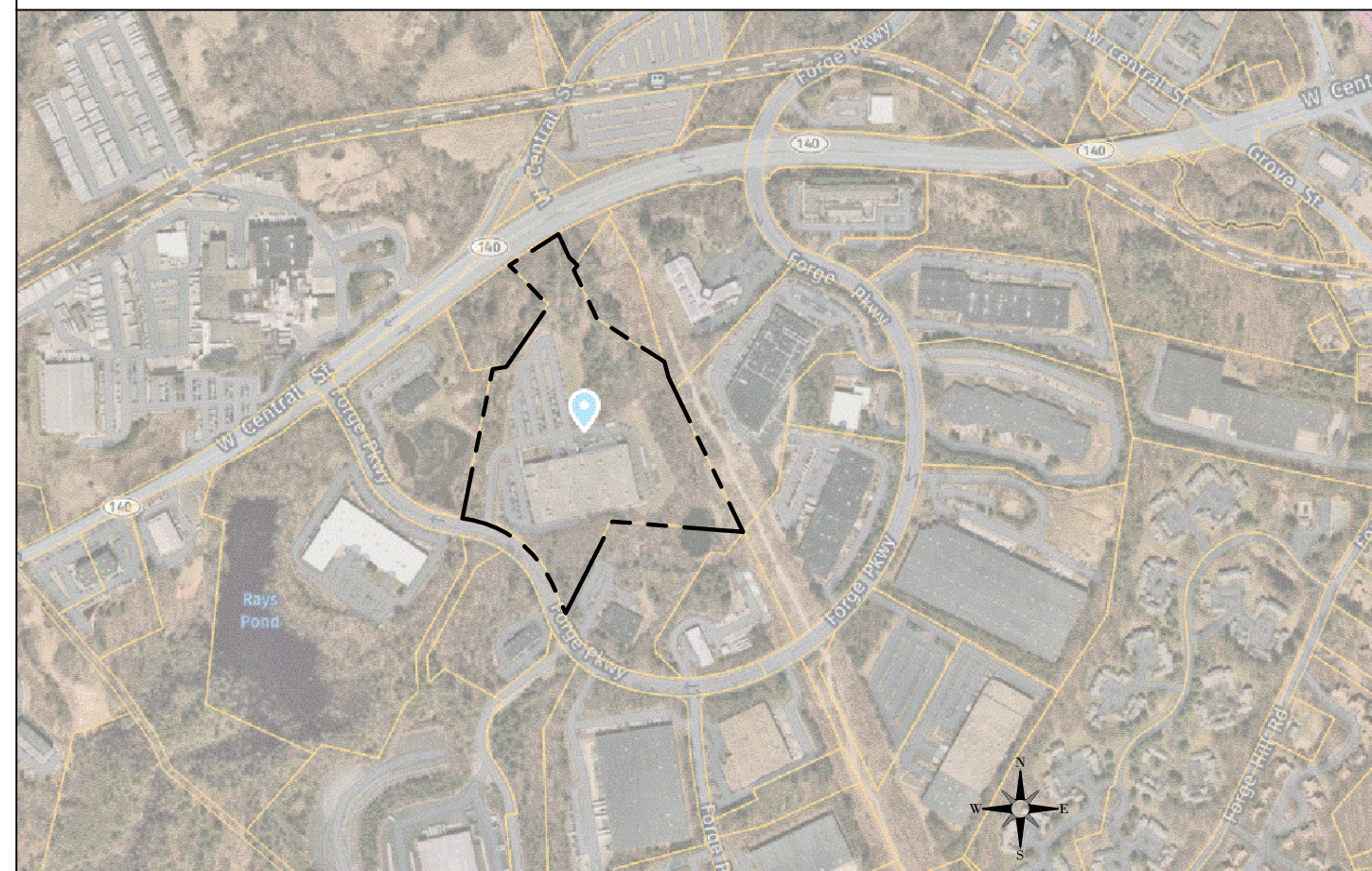
LOCATION MAP

SCALE: NTS



SATELLITE MAP

SCALE: NTS



ECOGY ENERGY
315 FLATBUSH AVENUE, #393
BROOKLYN, NY 11217
projectmanagement@ecogyenergy.com
(718)-304-0945

Ecogy MA VI LLC

Project Name:
**THERMO FISHER
FRANKLIN
667.2 kW-DC PV SYSTEM**

Project Site:
**27 FORGE PARKWAY
FRANKLIN, MA 02038**



Tectonic Engineering & Surveying Consultants P.C.
70 Pleasant Hill Road Phone: (845) 534-5998
P.O. Box 37 Phone: (800) 828-8531
Monticello, NY 10953 www.tectonicengineering.com
Project Contact info
1279 Route 300
Newburgh, NY 12550 Phone: (845) 567-8686

| NO. | DATE | BY | REVISION DESCRIPTION |
|-----|-----------|-----|----------------------|
| 1 | 3/22/2022 | DQP | RPS REISSUED |

Professional Stamp



SHEET NAME:

TITLE SHEET

PROJECT NUMBER: --- DRAWN BY: DQP CHECKED BY: ---
DATE: 07/19/2021 DWG. NUMBER:
SHEET NUMBER: - of - **G-001**

| DRAWING LIST | | FRANKLIN PLANNING BOARD |
|--------------|---------------------|-------------------------|
| DWG. NO. | DRAWING TITLE | APPROVED DATE |
| G-001 | TITLE SHEET | _____ |
| G-002 | CERTIFICATE OF VOTE | _____ |
| PV-100 | SITE PLAN | _____ |
| PV-100.1 | PARTIAL SITE PLAN | _____ |
| PV-125 | LIGHTING PLAN | _____ |
| PV-102 | ARRAY LAYOUT | _____ |
| PV-200 | CANOPY ELEVATION | _____ |
| PV-200.1 | CANOPY ELEVATION | _____ |
| PV-200.2 | CANOPY ELEVATION | _____ |
| L-100 | PLANTING PLAN | _____ |
| | | DATE |

REVIEW PLAN SET
ISSUE DATE: 03/22/2022



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| # | REVISION DESCRIPTION | DATE | BY |
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Professional Stamp



FRANKLIN PLANNING BOARD

APPROVED DATE _____

DATE

SHEET NAME:
**CERTIFICATE
 OF VOTE**

| | | |
|-------------------------|-----------------------|--------------------|
| PROJECT NUMBER: --- | DRAWN BY: DQP | CHECKED BY: --- |
| DATE: 02/04/2022 | DWG. NUMBER: G-002 | |
| SHEET NUMBER: - of - | | |

Tel: (508) 520-4907 Fax: (508) 520 4906

CERTIFICATE OF VOTE
 Site Plan Modification
 Solar Canopies
 27 Forge Parkway

- The Planning Board will use outside consultant services to complete construction inspections upon the commencement of construction. The Franklin Department of Public Works Director, directly and through employees of the Department of Public Works and outside consultant services shall act as the Planning Board's inspector to assist the Board with inspections necessary to ensure compliance with all relevant laws, regulations and Planning Board approved plan specifications. Such consultants shall be selected and retained upon a majority vote of the Board.
- Actual and reasonable costs of inspection consulting services shall be paid by the owner/applicant before or at the time of the pre-construction meeting. Should additional inspections be required beyond the original scope of work, the owner/applicant shall be required to submit fees prior to the issuance of a Final Certificate of Completion by the Planning Board (Form H). Said inspection is further outlined in condition #1.
- No alteration of these plans shall be made or affected other than by an affirmative vote of the members of the Board at a duly posted meeting and upon the issuance of a written amended decision.
- All applicable laws, by-laws, rules, regulations, and codes shall be complied with, and all necessary licenses, permits and approvals shall be obtained by the owner/applicant.
- Prior to the endorsement of the site plan, the following shall be done:
 - The owner/applicant shall make a notation on the plan that references the conditions and dates of this Certificate of Vote.
 - A notation shall be made on the plans that all erosion mitigation measures shall be in place prior to major construction or soil disturbance commencing on the site.
 - All outstanding invoices for services rendered by the Town's Engineers and other reviewing Departments of the Town relative to their review of the owner/applicant's application and plans shall have been paid in full.
 - The owner/applicant shall submit a minimum of six copies of the approved version of the plan.
- All required improvements specified in this Certificate of Vote shall be constructed within a one-year period unless the Board grants an extension. No final Certificate of Occupancy shall be issued until all requirements of the approved plan have been completed to the satisfaction of the Board unless the applicant has submitted a Partial Certificate of Completion for the remainder of the required improvements. The applicant's engineer or surveyor, upon completion of all required improvements, shall submit a Certificate of Completion. The Board or its agent(s) shall complete a final inspection of the site upon filing of the Certificate of Completion by the applicant. Said inspection is further outlined in condition #1.
- Prior to any work commencing on the subject property, the owner/applicant shall provide plans to limit construction debris and materials on the site. In the event that debris is carried onto any public way, the owner/applicant and his assigns shall be responsible for all cleanup of the roadway. All cleanups shall occur within twenty-four (24) hours after first written notification to the owner/applicant by the Board or its designee. Failure to complete such cleanup may result in suspension of construction of the site until such public way is clear of debris.
- The owner/applicant shall install erosion control devices as necessary and as directed by the Town's Construction Inspector.
- Maintenance and repair of the parking area, water supply system, sewer pipes, electric distribution

Tel: (508) 520-4907 Fax: (508) 520 4906



August 10, 2021
 Nancy Danello, Town Clerk
 Town of Franklin
 355 East Central Street
 Franklin, MA 02038

CERTIFICATE OF VOTE
 Site Plan Modification
 Solar Canopies
 27 Forge Parkway

Site Plan: "Thermo Fisher Site Plan Modification"

Owner: 27 Forge Parkway LLC
 600 Business Center Drive
 Pittsburgh, PA,

Applicant: Ecogy MA IV
 315 Flatbush Ave
 Brooklyn, MA

Prepared By:
 Surveyor/ Engineer: Tectonic, 1279 Route 300, Newburgh, New York, 12550

Dated: 06/30/2021
 Property Location: 27 Forge Parkway
 Map 275, Lot 101

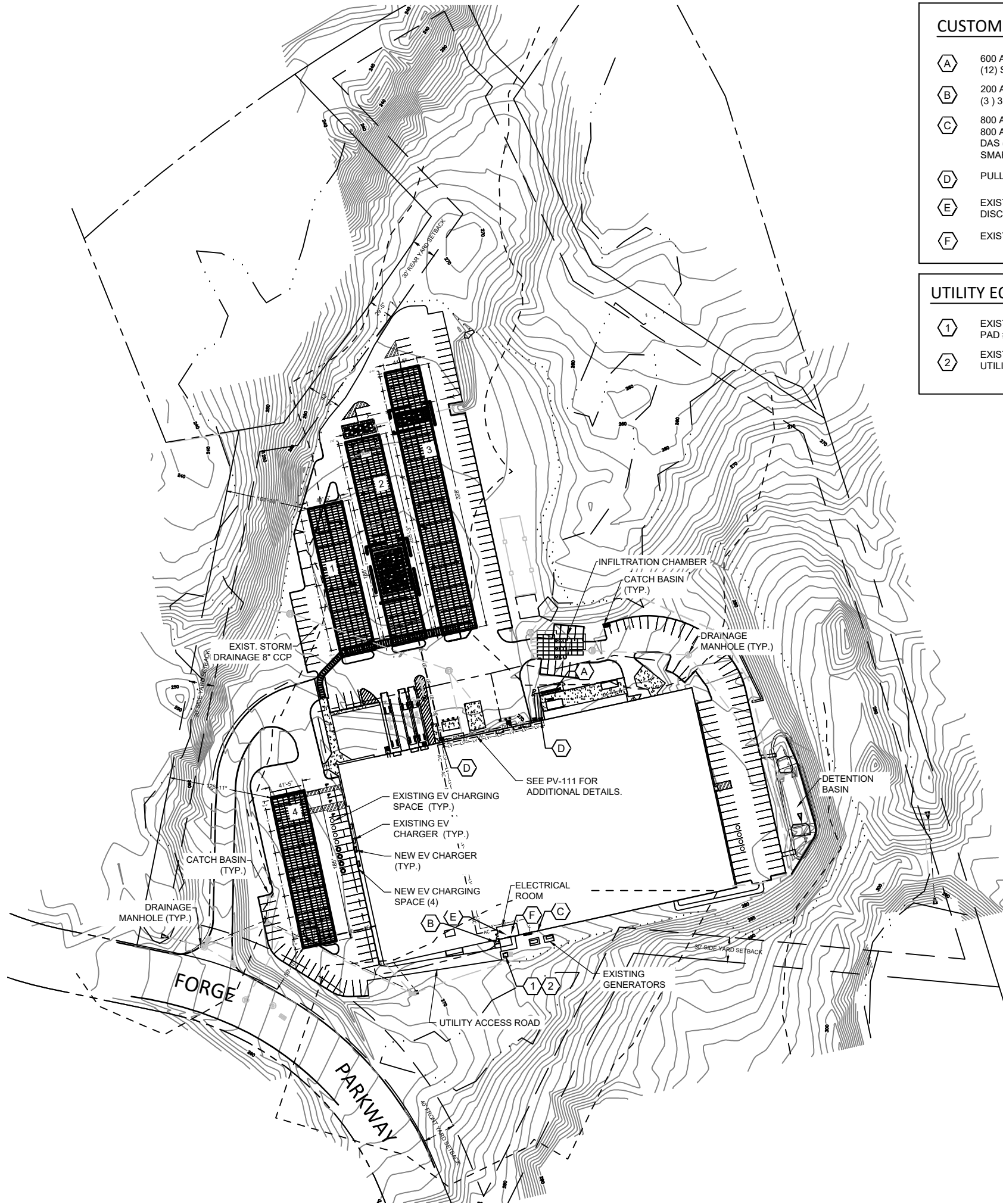
Dear Mrs. Danello:

Please be advised that at its meeting on Monday, August 9, 2021 the Planning Board voted (4-0), upon motion duly made and seconded to **APPROVE, with conditions**, the above referenced Site Plan Modification for solar canopies to be installed in the parking area. The Conditions of Approval are listed on page 2-3, attached hereto. **Both the Certificate of Vote as well as the conditions of approval shall be referenced on the site plan.**

Sincerely,

 Anthony Padula, Chairman
 Franklin Planning Board

| ARRAY LEGEND | | | |
|----------------------|--------|--------------|---------------|
| ARRAY | CONFIG | MODULE COUNT | SIZE KW-DC |
| 1 | 6 X 55 | 330 | 132.00 |
| 2 | 6 X 72 | 432 | 172.80 |
| 3 | 6 X 96 | 576 | 230.40 |
| 4 | 6 X 55 | 330 | 132.00 |
| TOTAL | | 1668 | 667.20 |
| TALESON TD6G72M 400W | | | |



CUSTOMER EQUIPMENT KEY:

| | |
|-----|---|
| (A) | 600 A LOAD CENTER (12) SE33.3KW SOLAREEDGE INVERTERS |
| (B) | 200 A LOAD CENTER (3) 33.3KW SOLAREEDGE INVERTER |
| (C) | 800 A PV AC MAIN DISCONNECT (UTILITY ACCESSIBLE 24/ 7) 800 A LOAD CENTER DAS (ECONODE) SMART METER |
| (D) | PULL BOX (4 TOTAL) |
| (E) | EXISTING 2000A SWITCHBOARD WITH 2000A MAIN DISCONNECT #1 FOR BUILDING SERVICE |
| (F) | EXISTING 800AMP ATS WITH 800A MAIN DISCONNECT #2 |

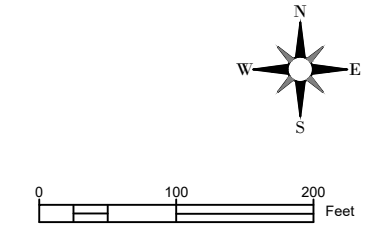
UTILITY EQUIPMENT KEY:

| | |
|-----|--|
| (1) | EXISTING TXFRMR 1000kVA, PAD MOUNTED PAD #21-95 (PCC) |
| (2) | EXISTING BUILDING SERVICE UTILITY METER AND UTILITY OWNED SERVICE |

GENERAL NOTES:
 1. EXISTING ACCESS ROAD FOR UTILITY TRANSFORMER IS 13' WIDE.

LINETYPE LEGEND:

| | |
|------------|----------------------------------|
| --- | APPROXIMATE PROPERTY LINE |
| - - - - | PROPERTY LINE SETBACK |
| - . . . - | APPROXIMATE WETLAND BOUNDARY GIS |
| - - - - - | WETLAND 100' BUFFER |
| -UE-UE-UE- | UNDERGROUND ELECTRIC CABLING |
| -DC-DC-DC- | ELECTRIC DC CABLING |
| -AC-AC-AC- | ELECTRIC AC CABLING |
| -LV-LV-LV- | ELECTRIC LOW VOLTAGE CABLING |
| -X-X-X- | CHAINLINK FENCE |



FRANKLIN PLANNING BOARD

APPROVED DATE _____

DATE _____



ECOGY ENERGY
 315 FLATBUSH AVENUE, #393
 BROOKLYN, NY 11217
 projectmanagement@ecogyenergy.com
 (718)-304-0945

Ecogy MA VI LLC
 Project Name:
**THERMO FISHER
 FRANKLIN
 667.2 kW-DC PV SYSTEM**
 Project Site:
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 FRANKLIN, MA 02038**

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 PRACTICAL SOLUTIONS. INSPIRATIONAL SERVICES.
 Tectonic Engineering & Surveying Consultants P.C.
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 P.O. Box 37 Phone: (800) 828-8531
 Mountville, NY 10953 www.tectoniceengineering.com
 Project Contact Info
 1279 Route 300
 Newburgh, NY 12550 Phone: (845) 567-8686

| # | REVISION DESCRIPTION | DATE | BY |
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SHEET NAME:
SITE PLAN

PROJECT NUMBER: --- DRAWN BY: SCG CHECKED BY: ---
 DATE: --- DWG. NUMBER: ---

SHEET NUMBER: PV-100
 - of -

CUSTOMER EQUIPMENT KEY:

- A** 600 A LOAD CENTER (12) SE33.3KUS SOLAREEDGE INVERTERS
- B** (3) 33.3kW SOLAREEDGE INVERTER
- C** 800 A PV AC MAIN DISCONNECT (UTILITY ACCESSIBLE 24/ 7)
800 A LOAD CENTER
DAS (ECONODE)
SMART METER
- D** PULL BOX (4 TOTAL)
- E** EXISTING 2000A SWITCHBOARD WITH 2000A MAIN DISCONNECT #1 FOR BUILDING SERVICE
- F** EXISTING 800 AMP ATS WITH 800A MAIN DISCONNECT #2

UTILITY EQUIPMENT KEY:

- 1** EXISTING TXFRMR 1000kVA, PAD MOUNTED PAD #21-95 (PCC)
- 2** EXISTING BUILDING SERVICE UTILITY METER AND UTILITY OWNED SERVICE

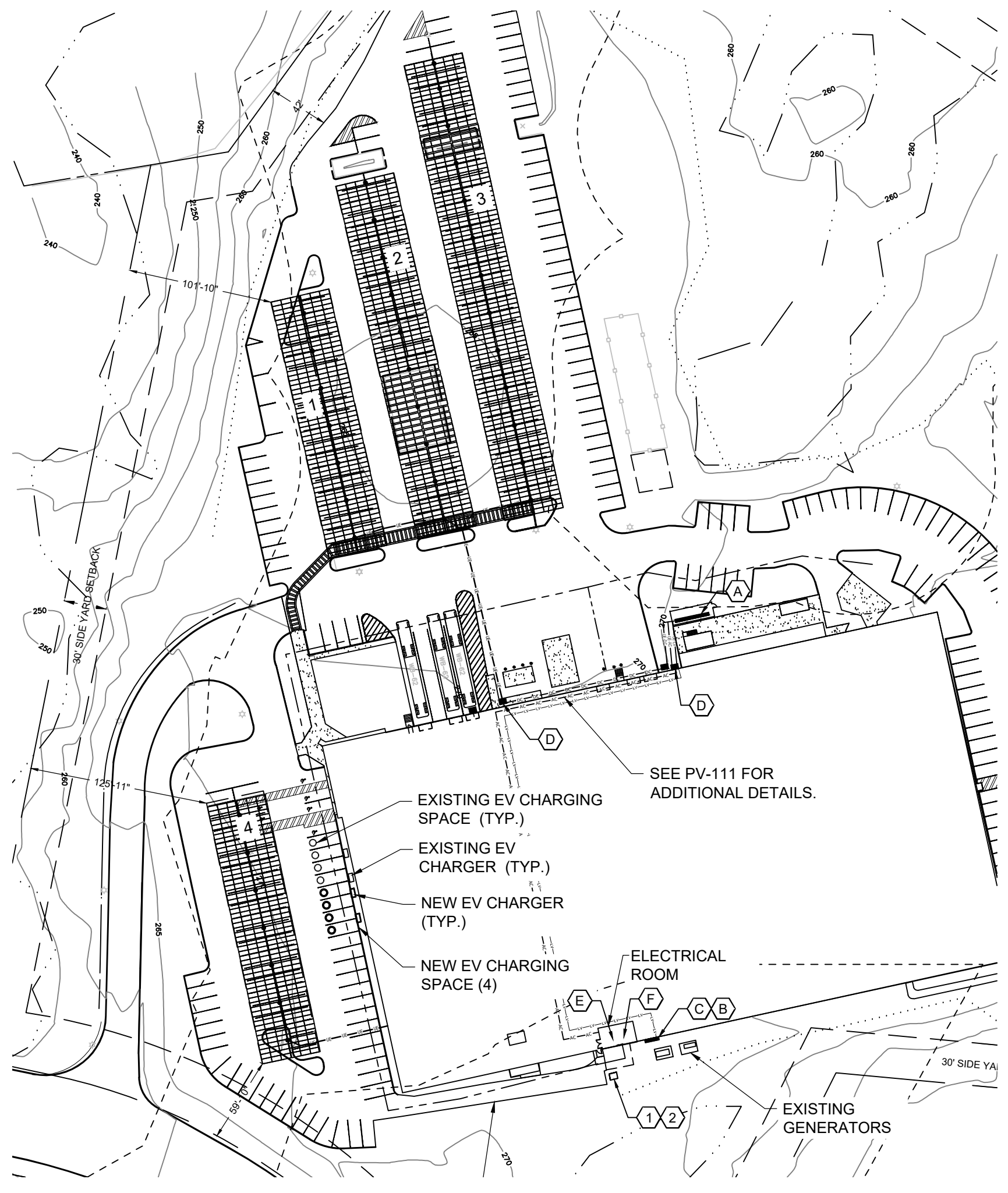
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GENERAL NOTES:
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| | |
|------------|----------------------------------|
| --- | APPROXIMATE PROPERTY LINE |
| - - - | PROPERTY LINE SETBACK |
| | APPROXIMATE WETLAND BOUNDARY GIS |
| - - - - - | WETLAND 100' BUFFER |
| —UE—UE—UE— | UNDERGROUND ELECTRIC CABLING |
| —DC—DC—DC— | ELECTRIC DC CABLING |
| —AC—AC—AC— | ELECTRIC AC CABLING |
| —LV—LV—LV— | ELECTRIC LOW VOLTAGE CABLING |
| —X—X—X— | CHAINLINK FENCE |



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 Newburgh, NY 12550 Phone: (845) 567-8686

| # | REVISION DESCRIPTION | DATE | BY |
|---|----------------------|------|----|
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Professional Stamp

STEVEN J. MATTHEWS
 No. 17681
 PROFESSIONAL ENGINEER

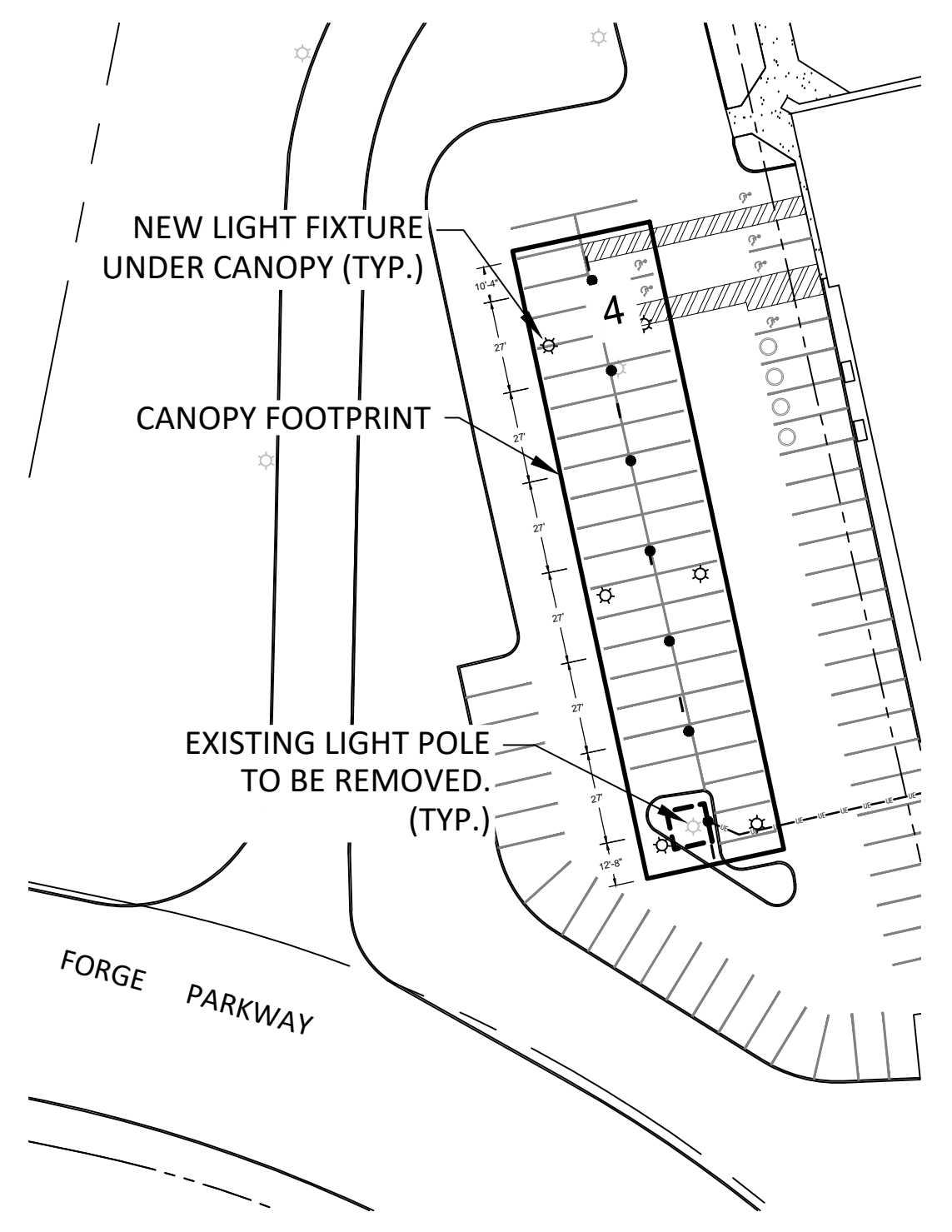
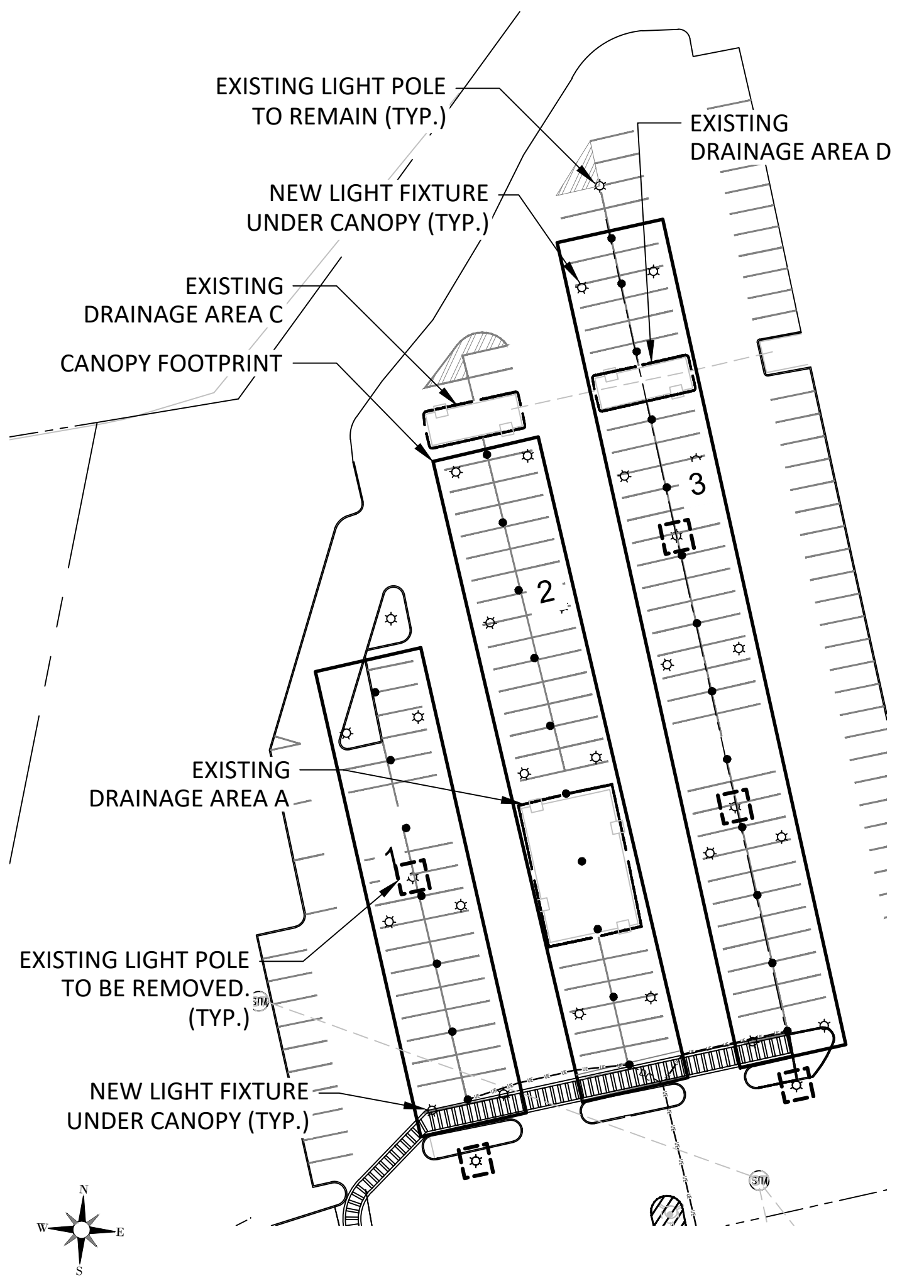
FRANKLIN PLANNING BOARD

APPROVED DATE _____

DATE _____

SHEET NAME:
**PARTIAL SITE
 PLAN**

PROJECT NUMBER: --- DRAWN BY: SCG CHECKED BY: ---
 DATE: 07/19/2021 DWG. NUMBER: ---
 SHEET NUMBER: - of - **PV-100.1**



NOTE:
 EXISTING LIGHT POLES TO BE REMOVED = 6
 PROPOSED LIGHT FIXTURES TO BE INSTALLED = APPROX. 30

FINAL LIGHTING PLAN TO BE DETERMINED

FRANKLIN PLANNING BOARD

APPROVED DATE _____

DATE _____



ECOGY ENERGY
 315 FLATBUSH AVENUE, #393
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 projectmanagement@ecogyenergy.com
 (718)-304-0945

Ecogy MA VI LLC
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Professional Stamp

SHEET NAME:
LIGHTING PLAN

PROJECT NUMBER: --- DRAWN BY: DQP CHECKED BY: ---
 DATE: 07/19/2021 DWG. NUMBER:
 SHEET NUMBER: X of X **PV-125**



ECOGY ENERGY
 315 FLATBUSH AVENUE, #393
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 70 Pleasant Hill Road Phone: (845) 834-3888
 P.O. Box 37 Phone: (800) 828-8531
 Mountville, NY 10953 www.tectoniceengineering.com
 Project Contact Info
 1279 Route 300 Phone: (845) 867-8888
 Newburgh, NY 12550

| # | REVISION DESCRIPTION | DATE | BY |
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| 1 <td>REVISED TAPED BEAM TO STRAIGHT BEAM <td>3/3/2022 <td>DOP </td></td></td> | REVISED TAPED BEAM TO STRAIGHT BEAM <td>3/3/2022 <td>DOP </td></td> | 3/3/2022 <td>DOP </td> | DOP |



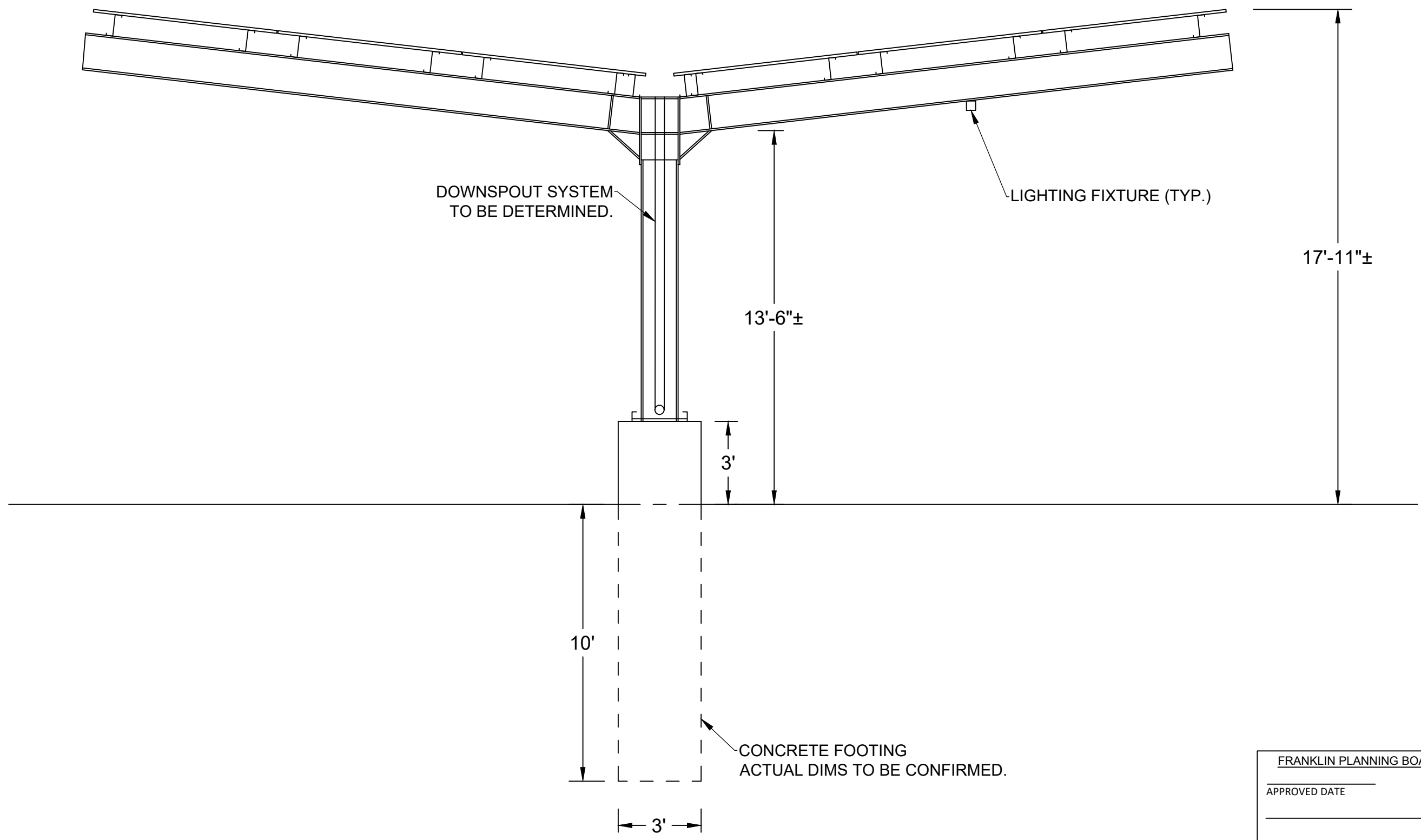
FRANKLIN PLANNING BOARD

APPROVED DATE _____

DATE _____

SHEET NAME:
**CANOPY
 ELEVATION**

PROJECT NUMBER: --- DRAWN BY: SCG CHECKED BY: ---
 DATE: 07/19/2021 DWG. NUMBER:
 SHEET NUMBER: - of - **PV-200**



NOTE:
 MAX. ALLOWABLE ELEVATION 20 FEET.



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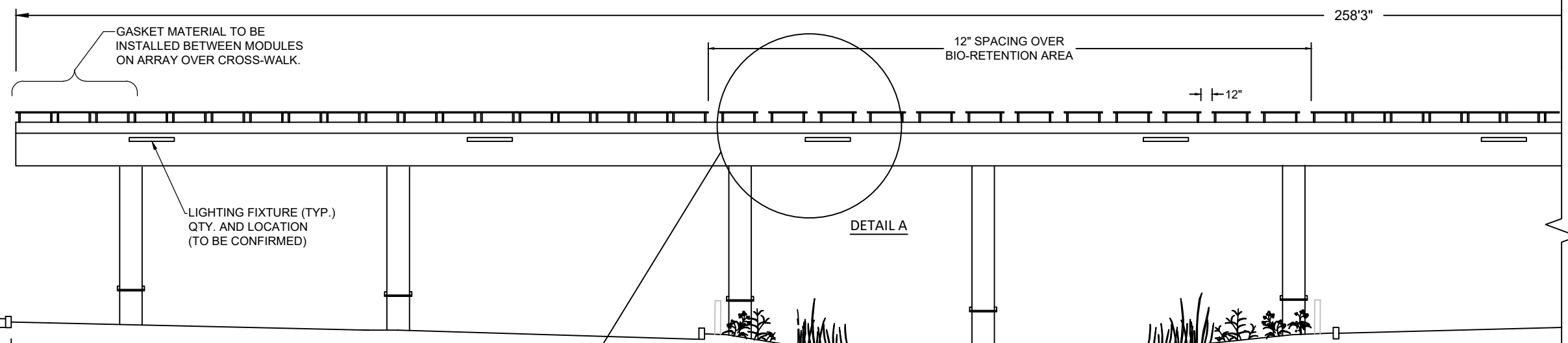
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 Newburgh, NY 12550 Phone: (845) 567-8888

| FRANKLIN PLANNING BOARD | | BY | DATE | REVISION DESCRIPTION | # |
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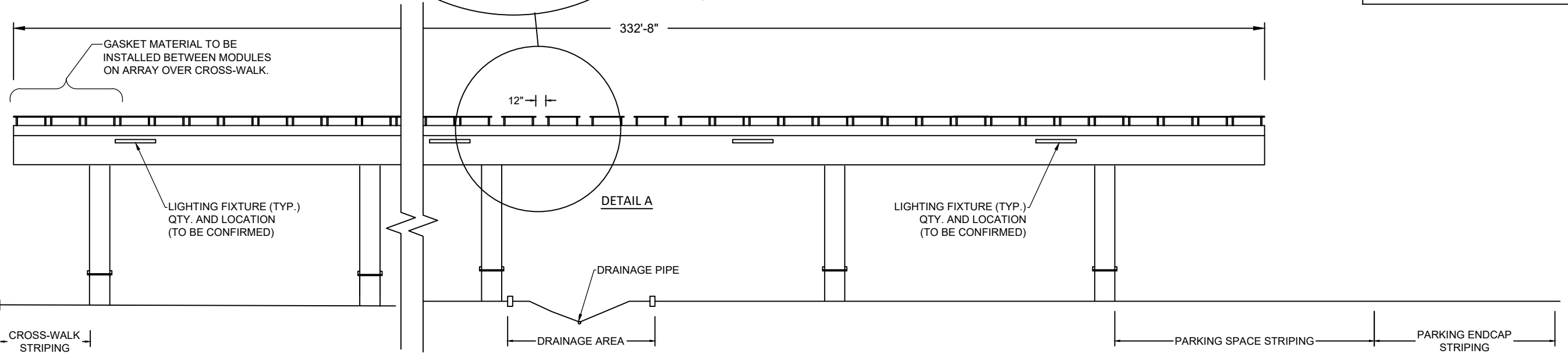
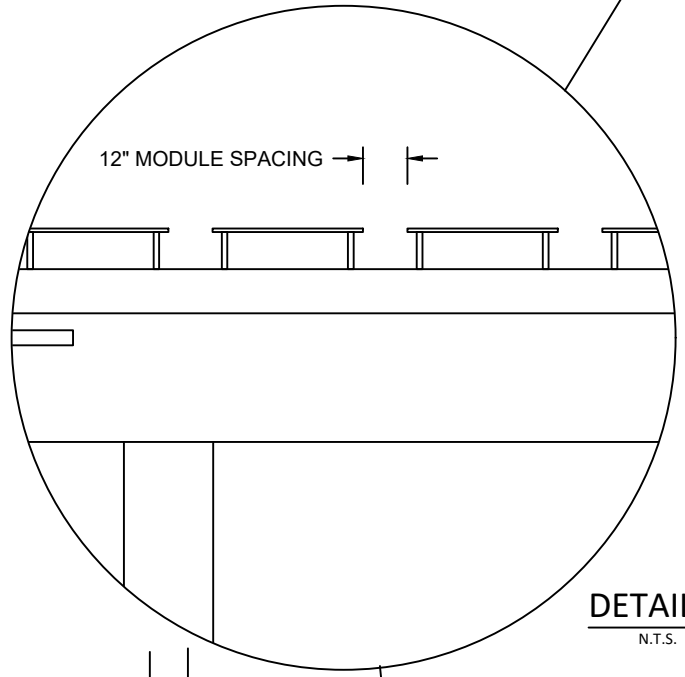


SHEET NAME:
**CANOPY
 ELEVATION**

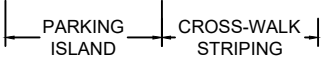
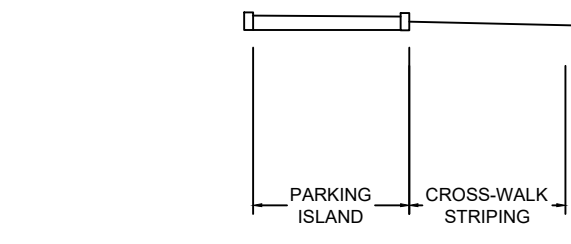
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| PROJECT NUMBER: --- | DRAWN BY: DQP | CHECKED BY: --- |
| DATE: 07/19/2021 | DWG. NUMBER: PV-200.1 | |
| SHEET NUMBER: - of - | | |











ARRAY #2 - EAST ELEVATION
 N.T.S.




ARRAY #3 - EAST ELEVATION
 N.T.S.

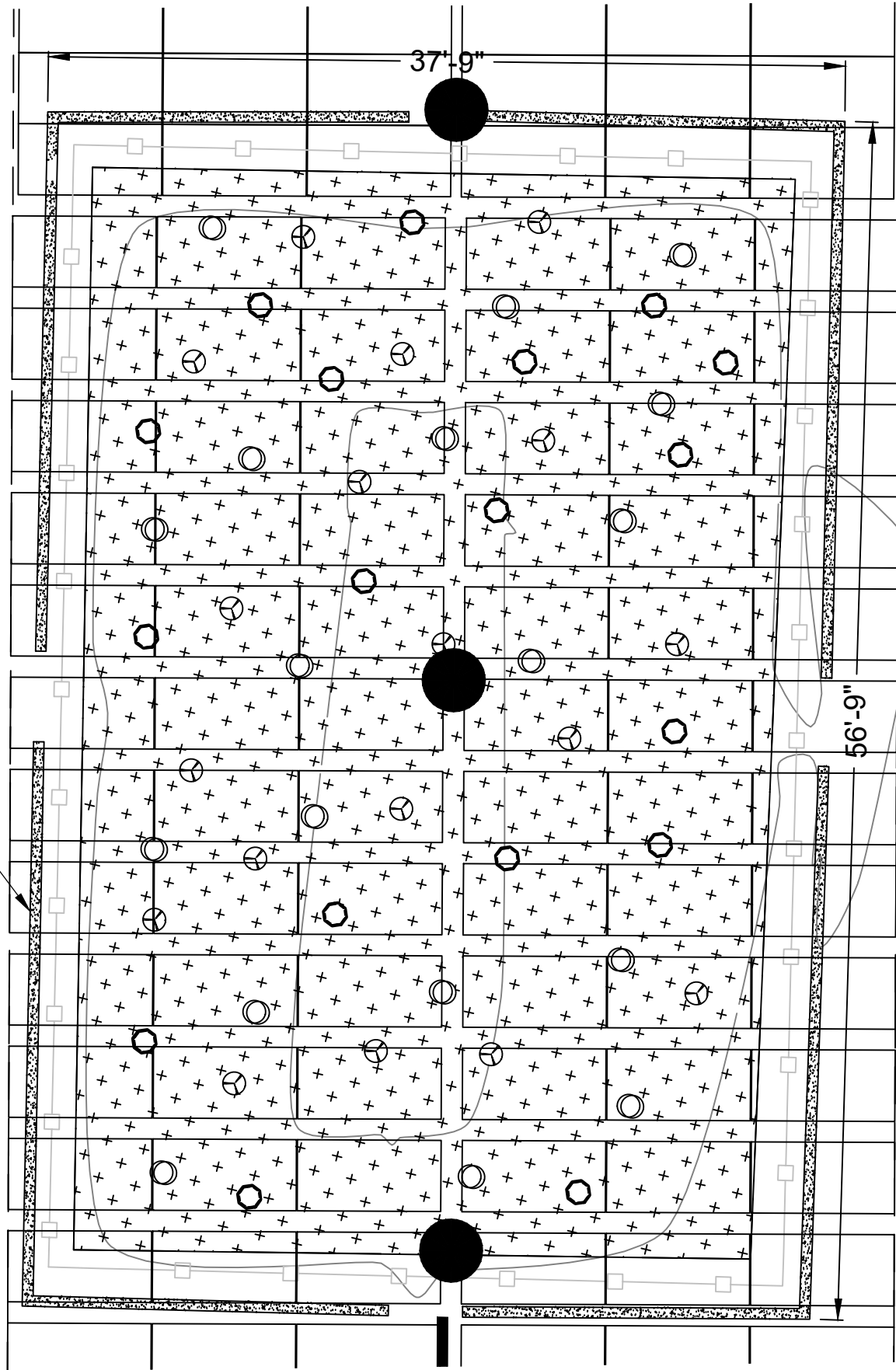


NEW PLANTING KEY:

-  CORNUS AMOMUM
-  CORNUS RACEMOSA
-  CLETHRA ALNIFOLIA
-  ELYMUS RIPARIUS
-  EUPATORIUM MACALATUM
-  LOBELIA CADINALIS
-  LOBELIA SIPHILITICA
-  SYMPHYOTRICHUM NOVAE-ANGLIAE

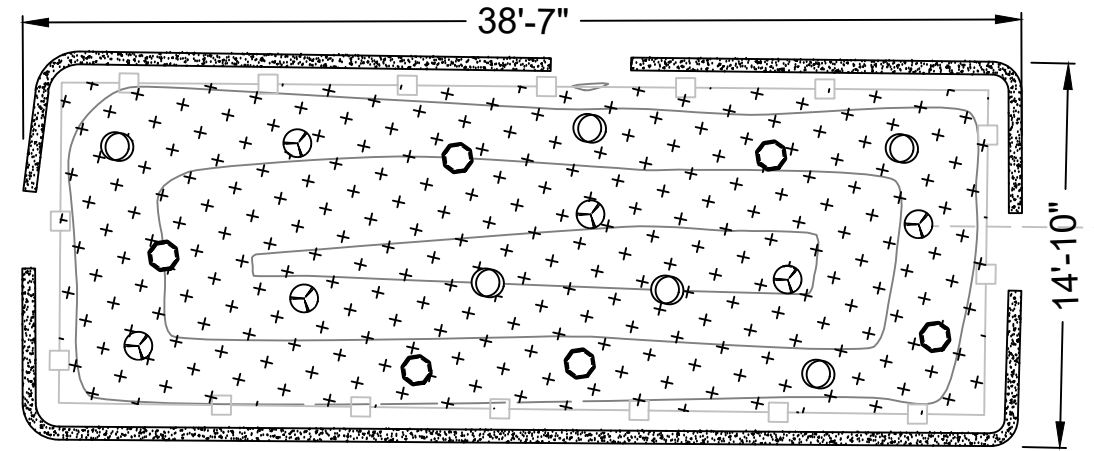
LEGEND:

 2' HIGH FENCE



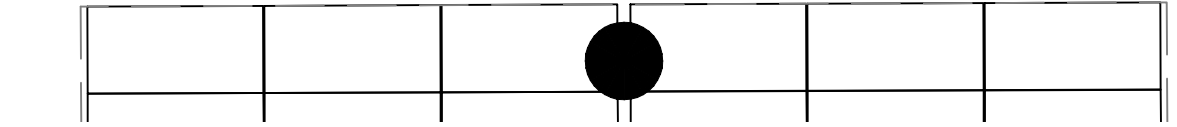
DRAINAGE AREA A

N.T.S.



DRAINAGE AREA C

N.T.S.



NEW COLUMN
(TYP.)

DRAINAGE AREA D

N.T.S.



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| | | | |

Professional Stamp



FRANKLIN PLANNING BOARD

APPROVED DATE _____

DATE _____

SHEET NAME:
**PLANTING
PLAN**

PROJECT NUMBER: --- DRAWN BY: KT CHECKED BY: ---
DATE: 11/05/2021 DWG. NUMBER:
SHEET NUMBER: - of - **L-100**