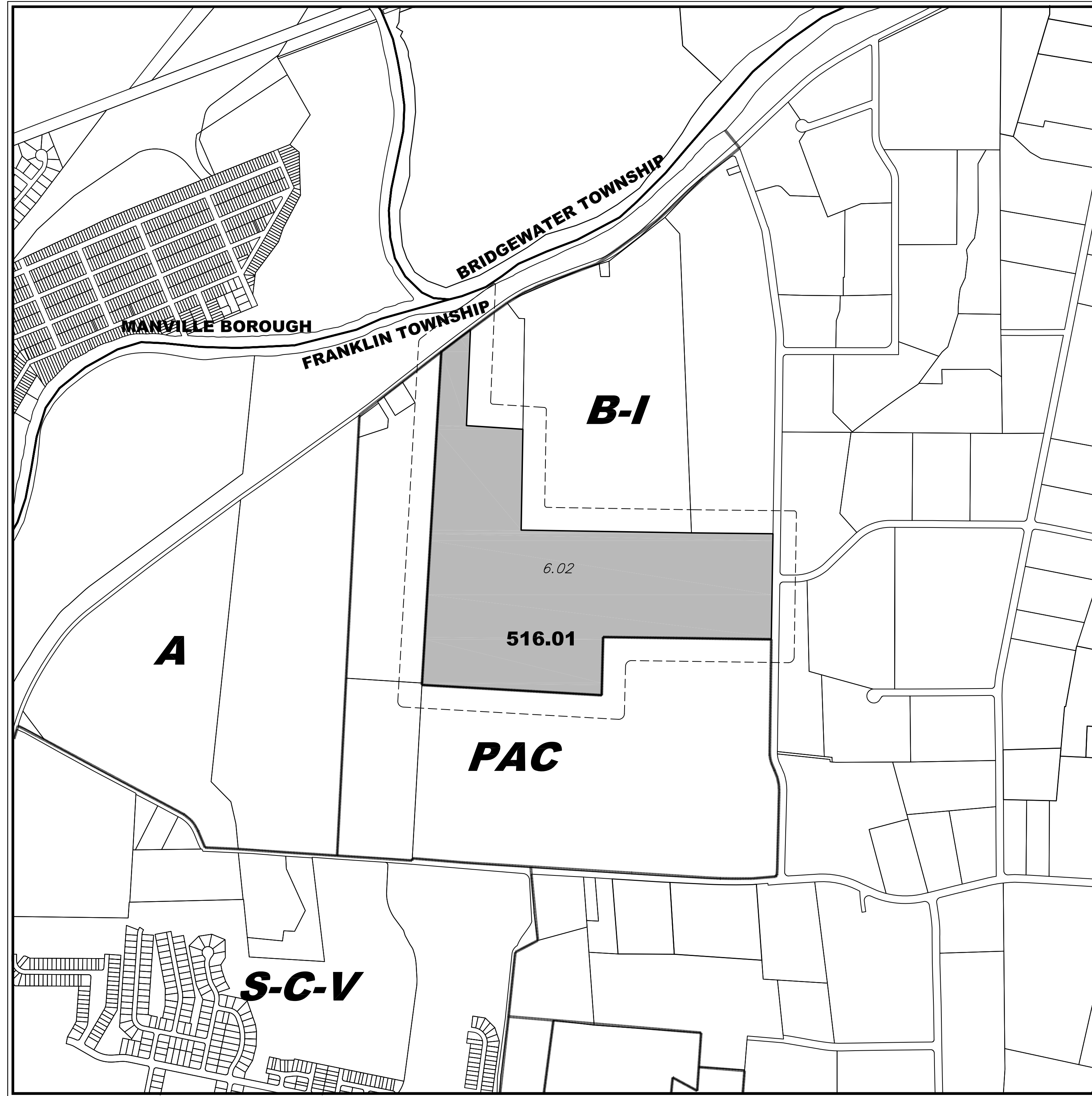


# NEW JERSEY AMERICAN WATER SOLAR ARRAY PROJECT PRELIMINARY & FINAL SITE PLAN 701 RANDOLPH ROAD LOT 6.02 BLOCK 516.01

FRANKLIN TOWNSHIP SOMERSET COUNTY NEW JERSEY



SUBJECT PREMISES AS SHOWN ON FRANKLIN TOWNSHIP TAX MAP SHEET 91

**KEY MAP**  
Scale 1" = 600'

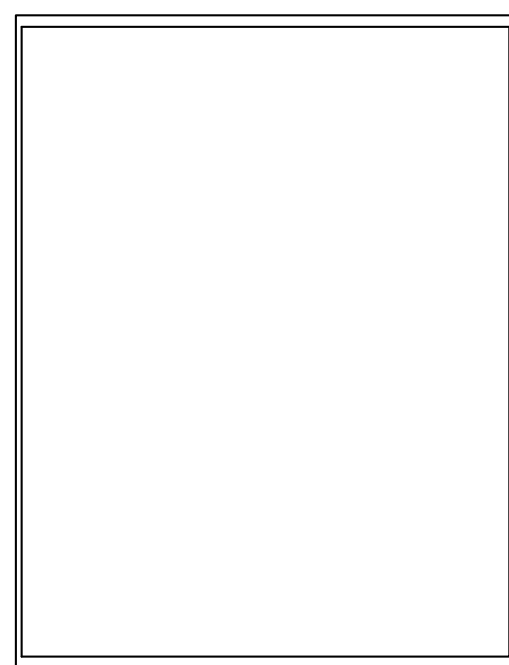
**CERTIFIED LIST OF PROPERTY OWNERS  
WITHIN 200' OF SITE**

| LOT  | BLOCK  | PROPERTY LOCATION     | OWNERS NAME & ADDRESS   |
|------|--------|-----------------------|---|
| 30   | 516.02 | 59 WILLOCKS DRIVE     | SUMMER FIELDS @ FRANKLIN, LLC<br>929 ROUTE 202<br>RARITAN, NJ 08869                                 |
| 7.07 | 516.01 | 601 RANDOLPH ROAD     | BRIDGE POINT SOMERSET, LLC<br>ONE CATHAL DRIVE SUITE 201<br>PARSIPPANY, NJ 07054                    |
| 2.01 | 517.01 | 650 RANDOLPH ROAD     | CITICORP REALTY, LLC<br>2 TOWER CENTER BOULEVARD SUITE 1101<br>EAST BRUNSWICK, NJ 08816             |
| 6.05 | 516.01 | 801 RANDOLPH ROAD     | HOUSE FOODS HOLDING USA INC<br>7301 ORANGEWOOD AVENUE<br>GARDEN GROVE, CA 92841                     |
| 2.13 | 517.04 | 850 RANDOLPH ROAD     | H2G MANAGEMENT LLC<br>850 RANDOLPH ROAD<br>SOMERSET, NJ 08873                                       |
| 29   | 516.02 | 57 WILLOCKS CIRCLE    | JENKINS, LESTER JR. & MELISSA<br>57 WILLOCKS CIRCLE<br>SOMERSET, NJ 08873                           |
| 4.16 | 516.01 | RUTGERS BOULEVARD     | SUMMERFIELDS 360 LLC<br>929 ROUTE 202<br>RARITAN, NJ 08869  |
| 4    | 515    | 550 WESTON CANAL ROAD | STATE OF NJ DEPARTMENT OF NJ STATE PARK SERVICE<br>800 404-501 E. STATE STREET<br>TRENTON, NJ 08625 |
| 6.01 | 516.01 | WESTON CANAL ROAD     | PILLAR OF FIRE<br>WESTON CANAL ROAD<br>ZAREPHATH, NJ 08890  |
| 16   | 516.02 | 31 WILLOCKS CIRCLE    | AWANA, VIVEK & RADHA<br>31 WILLOCKS CIRCLE<br>SOMERSET, NJ 08873                                    |
| 17   | 516.02 | 33 WILLOCKS CIRCLE    | GAUREL, CHRISTOPHE & SO, JOANNA<br>33 WILLOCKS CIRCLE<br>SOMERSET, NJ 08873                         |
| 20   | 516.02 | 39 WILLOCKS CIRCLE    | AGRAWAL, MANOJKUMAR<br>39 WILLOCKS CIRCLE<br>SOMERSET, NJ 08873                                     |
| 18   | 516.02 | 35 WILLOCKS CIRCLE    | AMIN, SHITAL A. & AMISH V.<br>35 WILLOCKS DRIVE<br>SOMERSET, NJ 08873                               |
| 21   | 516.02 | 41 WILLOCKS CIRCLE    | LEE, CHU-CHAN & AMY C & LEE J<br>41 WILLOCKS CIRCLE<br>SOMERSET, NJ 08873                           |
| 26   | 516.02 | 51 WILLOCKS CIRCLE    | YADAV, SATYA & KUSUM<br>51 WILLOCKS CIRCLE<br>SOMERSET, NJ 08873                                    |
| 23   | 516.02 | 45 WILLOCKS CIRCLE    | MAJUMDER, AHIRBAN<br>45 WILLOCKS CIRCLE<br>SOMERSET, NJ 08873                                       |
| 25   | 516.02 | 49 WILLOCKS CIRCLE    | GARG, ANKUR & SHIKHA<br>49 WILLOCKS CIRCLE<br>SOMERSET, NJ 08873                                    |
| 24   | 516.02 | 47 WILLOCKS CIRCLE    | JOHNSON, DAVID & ANTONINA NOVKOVA<br>47 WILLOCKS DRIVE<br>SOMERSET, NJ 08873                        |
| 27   | 516.02 | 53 WILLOCKS CIRCLE    | CHUNG, WEN- & KUEICHERN<br>53 WILLOCKS CIRCLE<br>SOMERSET, NJ 08873                                 |
| 4.09 | 516.01 | 43 SCHOOL HOUSE ROAD  | SUMMERFIELDS AT FRANKLIN LLC<br>929 ROUTE 202<br>RARITAN, NJ 08869                                  |
| 19   | 516.02 | 37 WILLOCKS CIRCLE    | SAINI, SUPREET S & BEDI, SUKHEEN<br>37 WILLOCKS CIRCLE<br>SOMERSET, NJ 08873                        |
| 4.14 | 516.01 | RUTGERS BOULEVARD     | SUMMERFIELDS AT FRANKLIN LLC<br>929 ROUTE 202<br>RARITAN, NJ 08869                                  |
| 28   | 516.02 | 55 WILLOCKS CIRCLE    | PATEL, THAKORBHAI D. & URMALABEN<br>55 WILLOCKS CIRCLE<br>SOMERSET, NJ 08873                        |
| 22   | 516.02 | 43 WILLOCKS CIRCLE    | DENNE, JUSTIN<br>43 WILLOCKS CIRCLE<br>SOMERSET, NJ 08873   |
| 4.03 | 516.01 | 545 WESTON CANAL ROAD | SELODY, KENNETH & LUBA<br>545 WESTON CANAL ROAD<br>SOMERSET, NJ 08873                               |
| 4.17 | 516.01 | WESTON CANAL ROAD     | TOWNSHIP OF FRANKLIN<br>475 DEMOTT LA<br>SOMERSET, NJ 08873   |
| 6.01 | 516.01 | WESTON CANAL ROAD     | PILLAR OF FIRE<br>WESTON CANAL ROAD<br>ZAREPHATH, NJ 08890  |
| 4.03 | 516.01 | 545 WESTON CANAL ROAD | SELODY, KENNETH & LUBA<br>545 WESTON CANAL ROAD<br>SOMERSET, NJ 08873                               |

**CERTIFIED LIST OF UTILITY CONTACTS**

|  |   |
|--|---|
| County of Somerset, County Clerk<br>20 Grove Street, P.O. Box 3000<br>Somerville, NJ 08876                                 | Public Service Electric & Gas<br>80 Park Plaza, 18th<br>Newark, NJ 07102                |
| Cablevision<br>Marguerite Pranderville—Construction Department<br>275 Centennial Avenue<br>CN 6905<br>PISCATAWAY, NJ 08854 | Sunoco Pipeline LP/Right of Way Dept.<br>525 Fritztown Road<br>Sinking Spring, PA 19608 |
| NJ-American Water Company INC.<br>Dennis Short, GIS Supervisor<br>1025 Laurel Oak Road<br>Voorhees, NJ 08043               | Delaware & Raritan Canal Commission<br>P.O. Box 539<br>Stockton, NJ 08559-0539          |
| Township of Franklin, Township Clerk<br>429 Demott Lane<br>Somerset, NJ 08873  | Borough of Bound Brook, Borough Clerk<br>230 Franklin Street<br>Bound Brook, NJ 08805   |
| Township of Piscataway, Township Clerk<br>453 Hoess Lane<br>Piscataway, NJ 08854   | Borough of Middlesex, Borough Clerk<br>1200 Mountain Avenue<br>Middlesex, NJ 08846      |

SOMERSET COUNTY  
ACCEPTANCE STAMP



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

**DRAWING LIST**

| SHTS. | DESCRIPTION                  |
|-------|------------------------------|
| 1     | COVER SHEET                  |
| 2     | TOPOGRAPHIC SURVEY-NW        |
| 3     | TOPOGRAPHIC SURVEY-SW        |
| 4     | TOPOGRAPHIC SURVEY-EAST      |
| 5     | HORIZONTAL CONTROL PLAN-NW   |
| 6     | HORIZONTAL CONTROL PLAN-SW   |
| 7     | HORIZONTAL CONTROL PLAN-EAST |
| 8     | CONSTRUCTION DETAILS         |
| 9     | CONSTRUCTION DETAILS         |

**ZONE DATA**

ZONE "B-1" BUSINESS AND INDUSTRY DISTRICT  
EXISTING USE: WATER TREATMENT FACILITY  
PROPOSED USE: WATER TREATMENT FACILITY  
TOTAL TRACT AREA LOT 6.02 BLOCK 516.01 = 4,298,188 S.F. OR 98.673 ACRES

| DESCRIPTION               | SCHEDULE OF BULK REQUIREMENTS |              |              |
|---------------------------|-------------------------------|--------------|--------------|
|                           | REQUIRED                      | EXISTING     | PROPOSED     |
| <b>INTERIOR LOT</b>       |                               |              |              |
| MIN. LOT AREA             | 2 ACRES                       | 98.673 ACRES | 98.673 ACRES |
| MIN. LOT FRONTAGE         | 150 Ft                        | 321.62 Ft    | 321.62 Ft    |
| <b>PRIMARY STRUCTURE</b>  |                               |              |              |
| MIN. FRONT YARD SETBACK   | 50 Ft                         | 76.3 FT      | 76.3 FT      |
| MIN. SIDE YARD SETBACK    | 10 Ft                         | 71.03 FT     | 71.03 FT     |
| MIN. TOTAL 2 SIDE YARDS   | 50 Ft                         | 645 FT       | 645 FT       |
| MIN. REAR YARD SETBACK    | 25 Ft                         | 767 FT       | 767 FT       |
| MAX BUILDING HEIGHT       | 5 STORIES or 65 FT            | <65 FT       | <65 FT       |
| MAX. LOT COVERAGE         | 50%                           | 6.0%         | 6.0%         |
| MAX. IMPERVIOUS COVERAGE  | 60%                           | 12.7%        | 12.7%        |
| MAX. FLOOR AREA RATIO     | 0.5                           | 0.06         | 0.06         |
| <b>ACCESSORY BUILDING</b> |                               |              |              |
| MIN. SIDE YARD            | 20 Ft                         | 52.70 Ft     | 52.70 Ft     |
| MIN. REAR YARD            | 25 Ft                         | 219 Ft       | 51.8 Ft      |

**OWNER**

Elizabethtown Water-Attn Tax Dept.  
P.O. Box 2738  
Camden, N.J. 08101

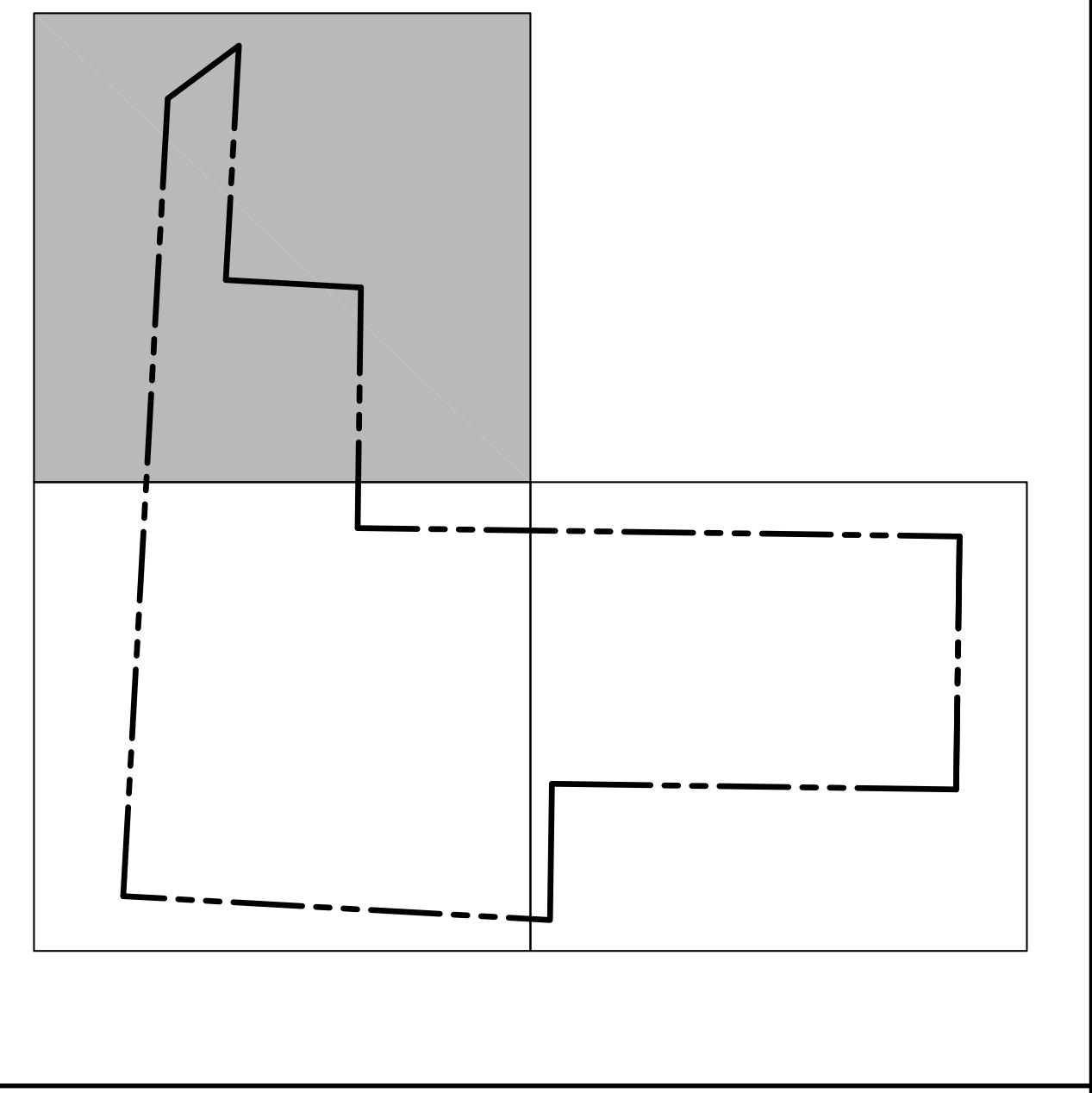
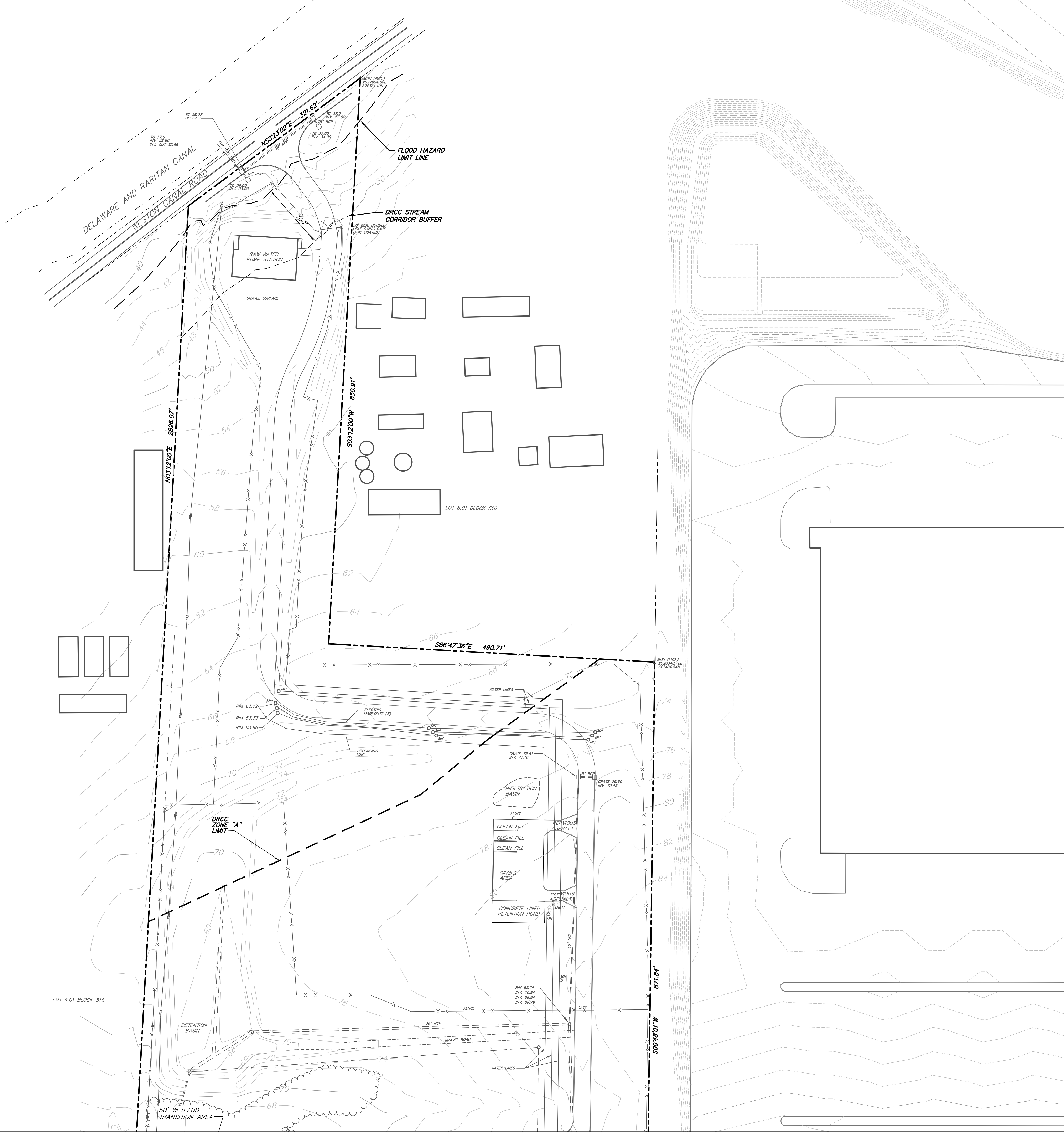
**APPLICANT**

CANAL ROAD SOLAR PARTNERS, LLC  
4500 Lena Drive  
Mechanicsburg, PA 17055

**COVERSHEET**

|  |          |   |  |
|--|----------|---|--|
| NEW JERSEY AMERICAN WATER SOLAR ARRAY PROJECT<br>LOT 6.02 BLOCK 516.01   |          |   |  |
| FRANKLIN TOWNSHIP<br>SOMERSET COUNTY   |          | NEW JERSEY                              |  |
| <b>STIRES ASSOCIATES, P.A.</b><br>ENGINEERS, SURVEYORS & ENVIRONMENTAL CONSULTANTS<br>43 West High Street, Somerville, New Jersey 08876<br>Phone (908) 725-0230 Fax (908) 707-0831 |          |   |  |
| <b>CRAIG W. STIRES</b><br>PROFESSIONAL ENGINEER  |          | N.J. LICENSE No. 39078<br>DATE 08/18/21 | DESIGNED BY: CWS<br>DRAWN BY: RSM<br>CHECKED BY: CWS<br>SHEET NUMBER<br>1 OF 9 |
| SCALE: NTS   |          | PROJECT No. 21217                       |  |
| DATE   | REVISION | BY                                      |  |

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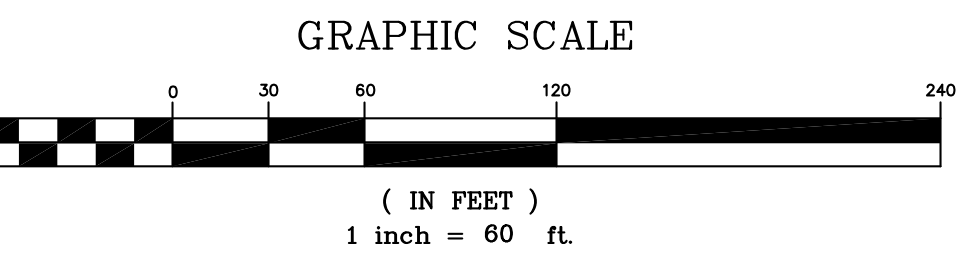
LOCATION MAP

SYMBOL LEGEND

- MONITORING WELL
- ▲ GUARD POST
- ⊕ IRRIGATION VALVE
- ⊕ GAS VALVE
- ⊕ WATER VALVE
- ⊕ CLEAN OUT
- UTILITY MANHOLE
- ⊕ LIGHT POLE
- ⊕ FOOT LIGHT
- ⊕ HANDICAP SPACE
- ⊕ HYDRANT
- ⊕ SIGN (ROAD)
- ⊕ SIGN (PRIVATE)
- ⊕ UTILITY POLE
- ⊕ GUY ANCHOR
- ⊕ INLET
- ⊕ ELECTRIC JUNCTION BOX
- FENCE
- ELECTRIC/TELEPHONE CABLES
- GAS MAIN
- WATER MAIN
- STORM SEWER PIPE
- SANITARY SEWER PIPE
- N NORTH
- S SOUTH
- E EAST
- W WEST
- ANGULAR DEGREES
- ANGULAR MINUTES
- ANGULAR SECONDS
- Δ CENTRAL ANGLE
- R RADIUS
- L LENGTH
- C CHORD
- BRG CHORD BEARING
- CONCRETE

NOTES:

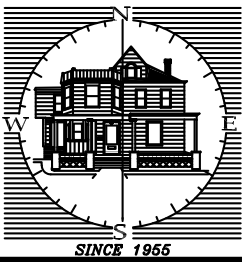
HORIZONTAL DATUM FOR PLANS IS NAD 1983  
 WETLANDS BOUNDARY AND ASSOCIATED BUFFER HAS BEEN TAKEN FROM A REPORT PREPARED BY RETEW ENTITLED "AQUATIC RESOURCE INVESTIGATION, PREPARED FOR CANAL ROAD SOLAR PARTNERS, LLC, DATED JULY 2021.



**BOUNDARY & TOPOGRAPHIC SURVEY – NORTHWEST**

**NEW JERSEY AMERICAN WATER SOLAR ARRAY PROJECT**  
 LOT 6.02 BLOCK 516.01

FRANKLIN TOWNSHIP SOMERSET COUNTY NEW JERSEY



**STIRES ASSOCIATES, P.A.**  
 ENGINEERS, SURVEYORS & ENVIRONMENTAL CONSULTANTS  
 43 West High Street, Somerville, New Jersey 08876  
 Phone (908) 725-0230 Fax (908) 707-0231

DESIGNED BY: CWS  
 DRAWN BY: RNM  
 CHECKED BY: CWS

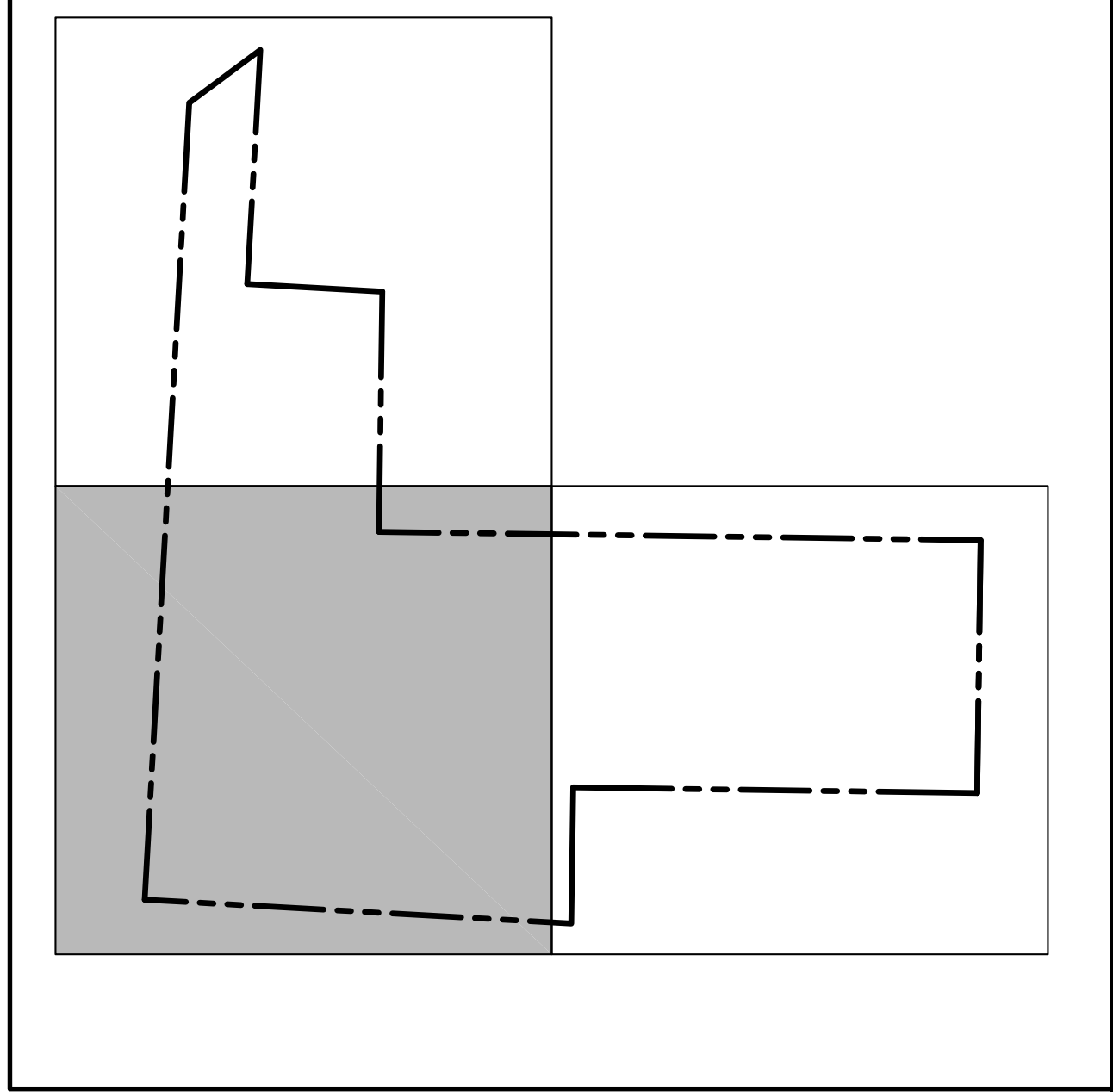
**RICHARD C. MATHEWS**  
 PROFESSIONAL LAND SURVEYOR  
 N.J. LICENSE No. 29353

DATE: 07/15/21

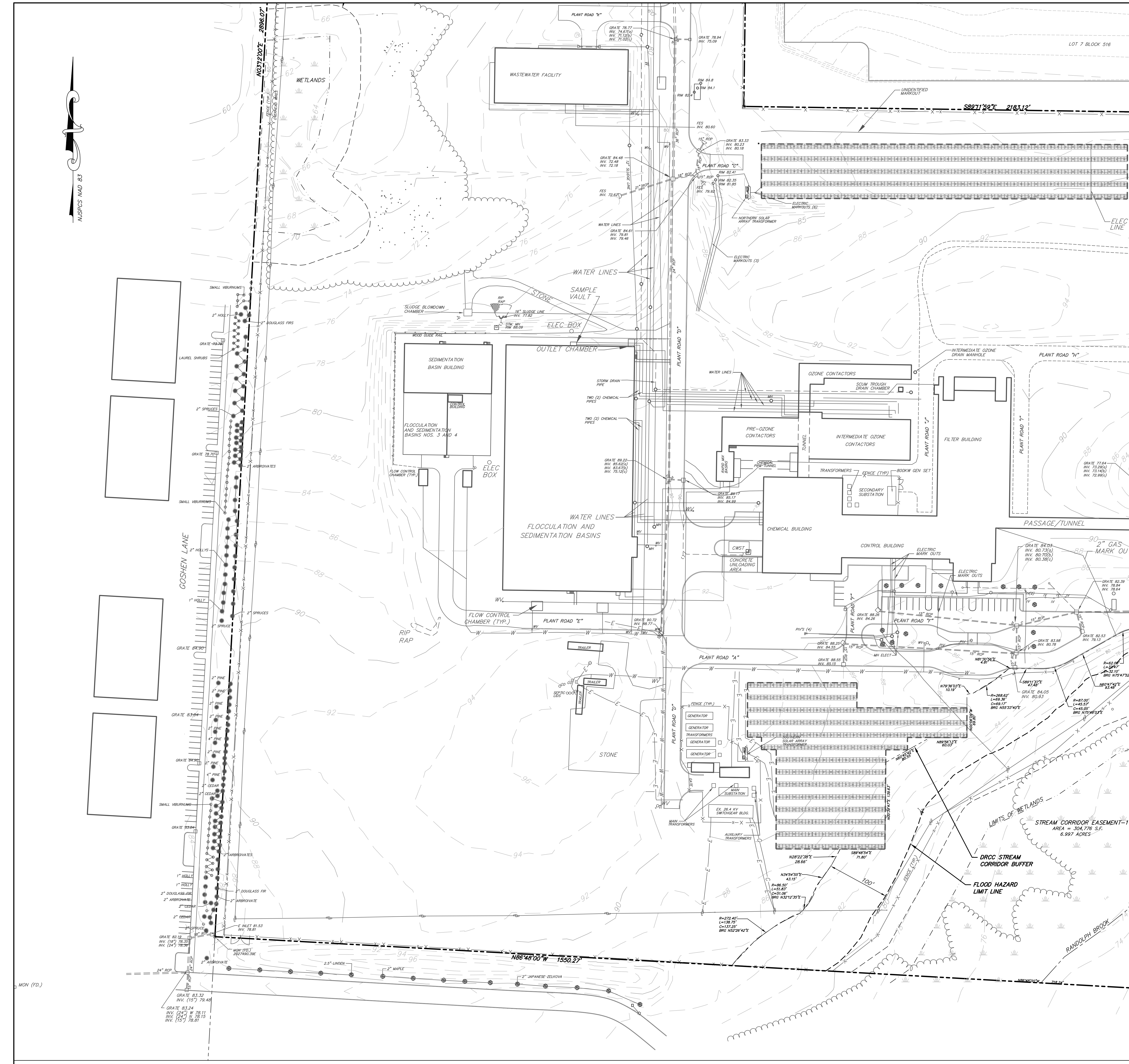
SCALE: 1" = 60'  
 PROJECT NO. 21217

SHEET NUMBER  
**2 OF 9**

| DATE | REVISION | BY |
|------|----------|----|
|      |          |    |



LOCATION MAP



- SYMBOL LEGEND**
- MONITORING WELL
  - ▲ GUARD POST
  - ⊕ IRRIGATION VALVE
  - ⊕ GAS VALVE
  - ⊕ WATER VALVE
  - ⊕ CLEAN OUT
  - UTILITY MANHOLE
  - ⊕ LIGHT POLE
  - ⊕ FOOT LIGHT
  - ⊕ HANDICAP SPACE
  - ⊕ HYDRANT
  - ⊕ SIGN (ROAD)
  - ⊕ SIGN (PRIVATE)
  - ⊕ UTILITY POLE
  - ⊕ GUY ANCHOR
  - ⊕ INLET
  - ⊕ ELECTRIC JUNCTION BOX
  - FENCE
  - ELECTRIC/TELEPHONE CABLES
  - GAS MAIN
  - WATER MAIN
  - STORM SEWER PIPE
  - SANITARY SEWER PIPE
- COMPOUND SYMBOLS**
- N NORTH
  - S SOUTH
  - E EAST
  - W WEST
  - ⊕ ANGULAR DEGREES
  - ⊕ ANGULAR MINUTES
  - ⊕ ANGULAR SECONDS
  - ⊕ CENTRAL ANGLE
  - R RADIUS
  - L LENGTH
  - C CHORD
  - BRG CHORD BEARING
  - CONCRETE

**NOTES:**

HORIZONTAL DATUM FOR PLANS IS NAD 1983

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**GRAPHIC SCALE**

0 30 60 90 120 150 180 210 240

( IN FEET )

1 inch = 60 ft.

**BOUNDARY & TOPOGRAPHIC SURVEY – SOUTHWEST**

**NEW JERSEY AMERICAN WATER SOLAR ARRAY PROJECT**  
LOT 6.02 BLOCK 516.01

FRANKLIN TOWNSHIP SOMERSET COUNTY NEW JERSEY

**STIRES ASSOCIATES, P.A.**  
ENGINEERS, SURVEYORS & ENVIRONMENTAL CONSULTANTS  
43 West High Street, Somerville, New Jersey, 08876  
Phone (908) 725-0230 Fax (908) 707-0831

**RICHARD C. MATHEWS**  
REGISTERED LAND SURVEYOR  
N.J. LICENSE No. 29353

DESIGNED BY: CWS  
DRAWN BY: RNM  
CHECKED BY: CWS

DATE: 08/18/21

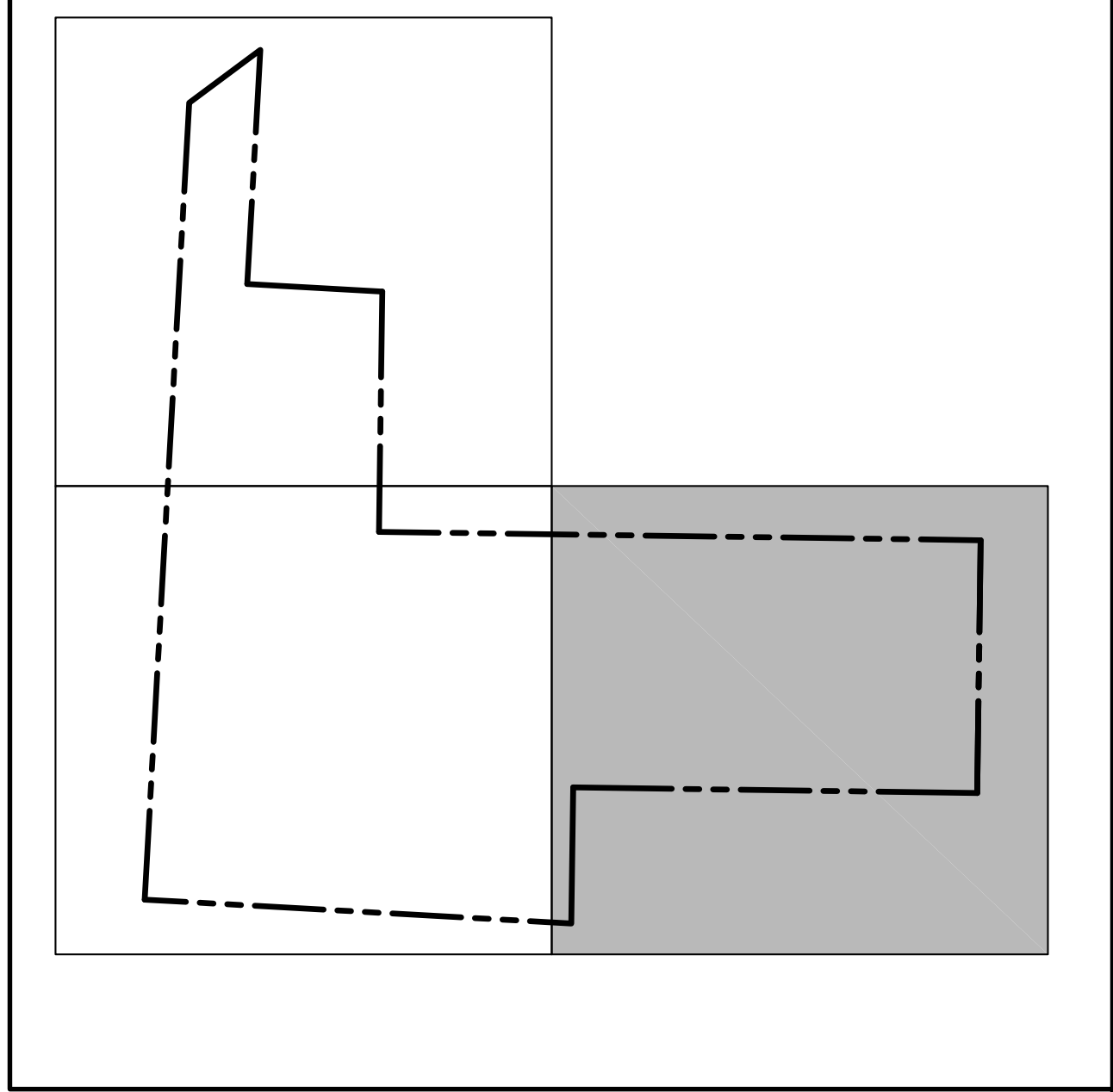
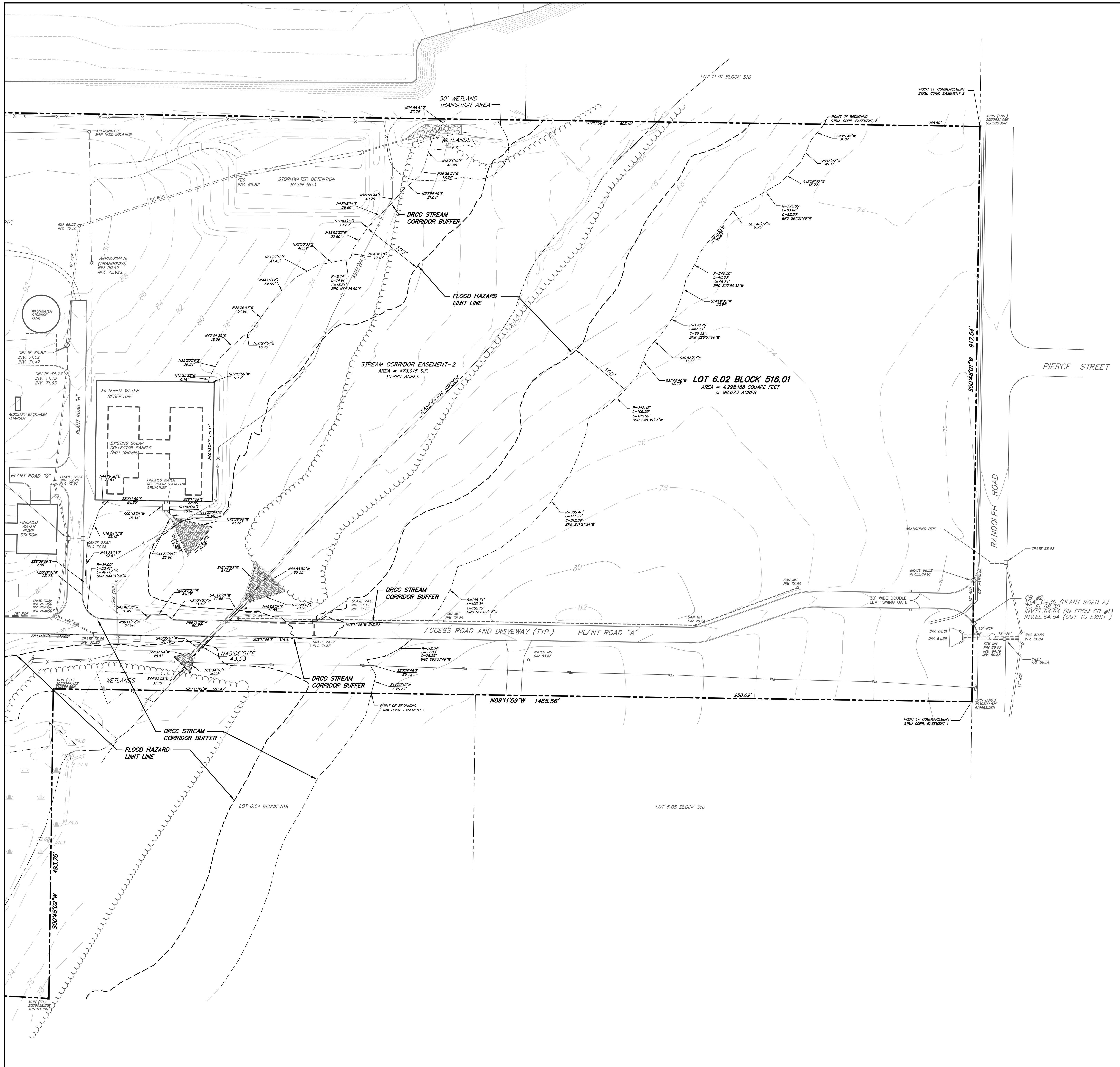
SCALE: 1" = 60'

SHEET NUMBER: 3 OF 9

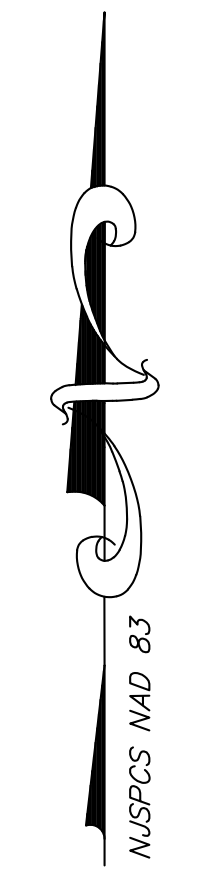
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PROJECT No. 21217

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LOCATION MAP

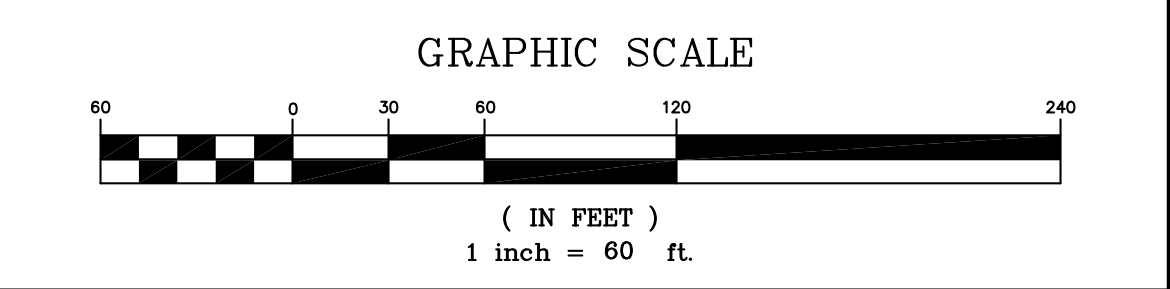


SYMBOL LEGEND

- MONITORING WELL
- ▲ GUARD POST
- ▲ IRRIGATION VALVE
- ▲ GAS VALVE
- ▲ WATER VALVE
- CLEAN OUT
- UTILITY MANHOLE
- LIGHT POLE
- FOOT LIGHT
- HANDCAP SPACE
- HYDRANT
- SIGN (ROAD)
- SIGN (PRIVATE)
- UTILITY POLE
- GUY ANCHOR
- INLET
- ELECTRIC JUNCTION BOX
- FENCE
- ELECTRIC/TELEPHONE CABLES
- GAS MAIN
- WATER MAIN
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- SANITARY SEWER PIPE
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- S SOUTH
- E EAST
- W WEST
- ANGULAR DEGREES
- ANGULAR MINUTES
- ANGULAR SECONDS
- Δ CENTRAL ANGLE
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- L LENGTH
- C CHORD
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**BOUNDARY & TOPOGRAPHIC SURVEY – EAST**

**NEW JERSEY AMERICAN WATER SOLAR ARRAY PROJECT**  
 LOT 6.02 BLOCK 516.01

FRANKLIN TOWNSHIP SOMERSET COUNTY NEW JERSEY

**STIRES ASSOCIATES, P.A.**  
 ENGINEERS, SURVEYORS & ENVIRONMENTAL CONSULTANTS  
 43 West High Street, Somerville, New Jersey 08876  
 Phone (908) 723-0230 Fax (908) 707-0261

DESIGNED BY: CWS  
 DRAWN BY: RNM  
 CHECKED BY: CWS

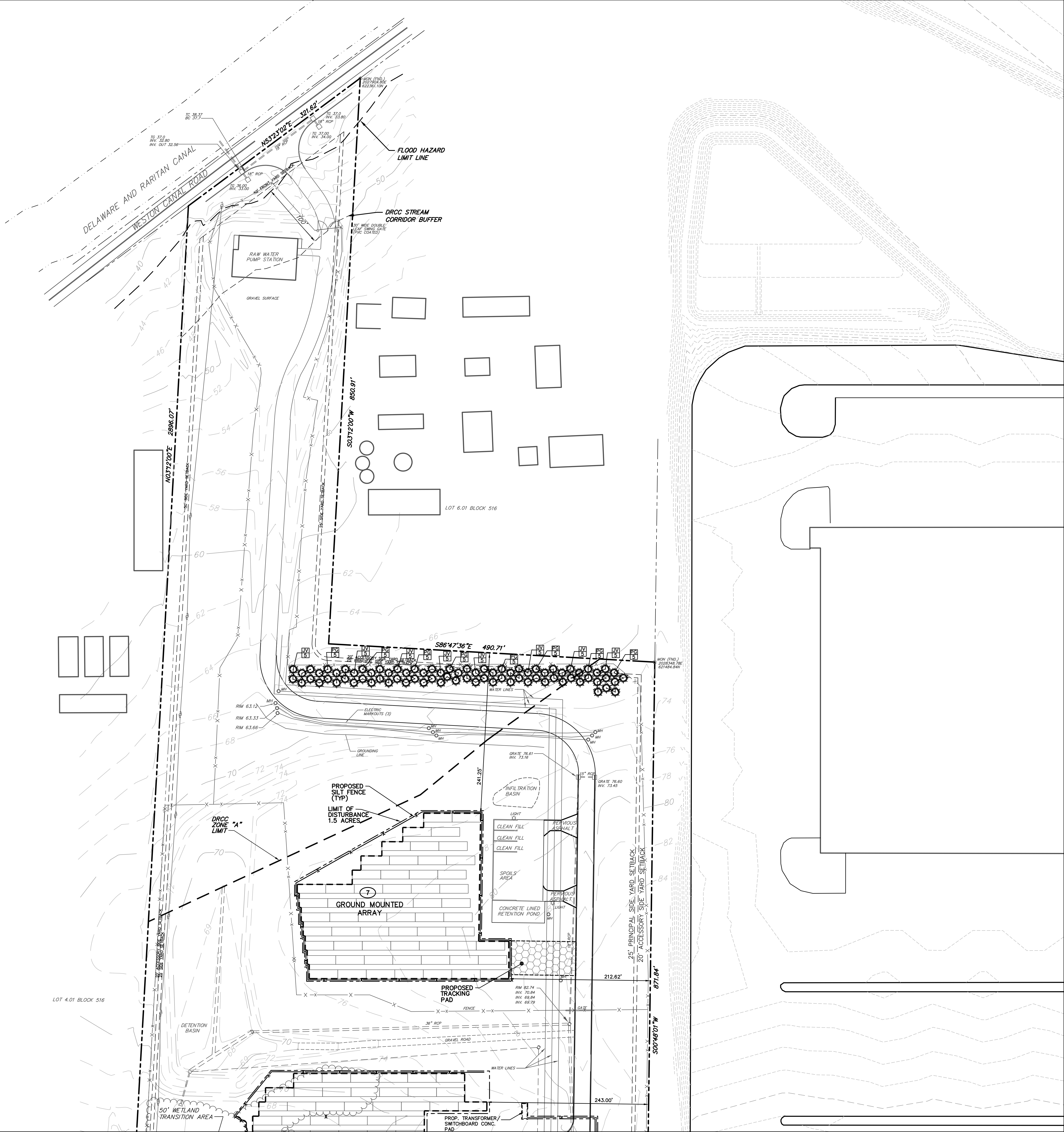
**RICHARD C. MATHEWS**  
 PROFESSIONAL LAND SURVEYOR  
 N.J. LICENSE No. 29353

DATE: 08/18/21

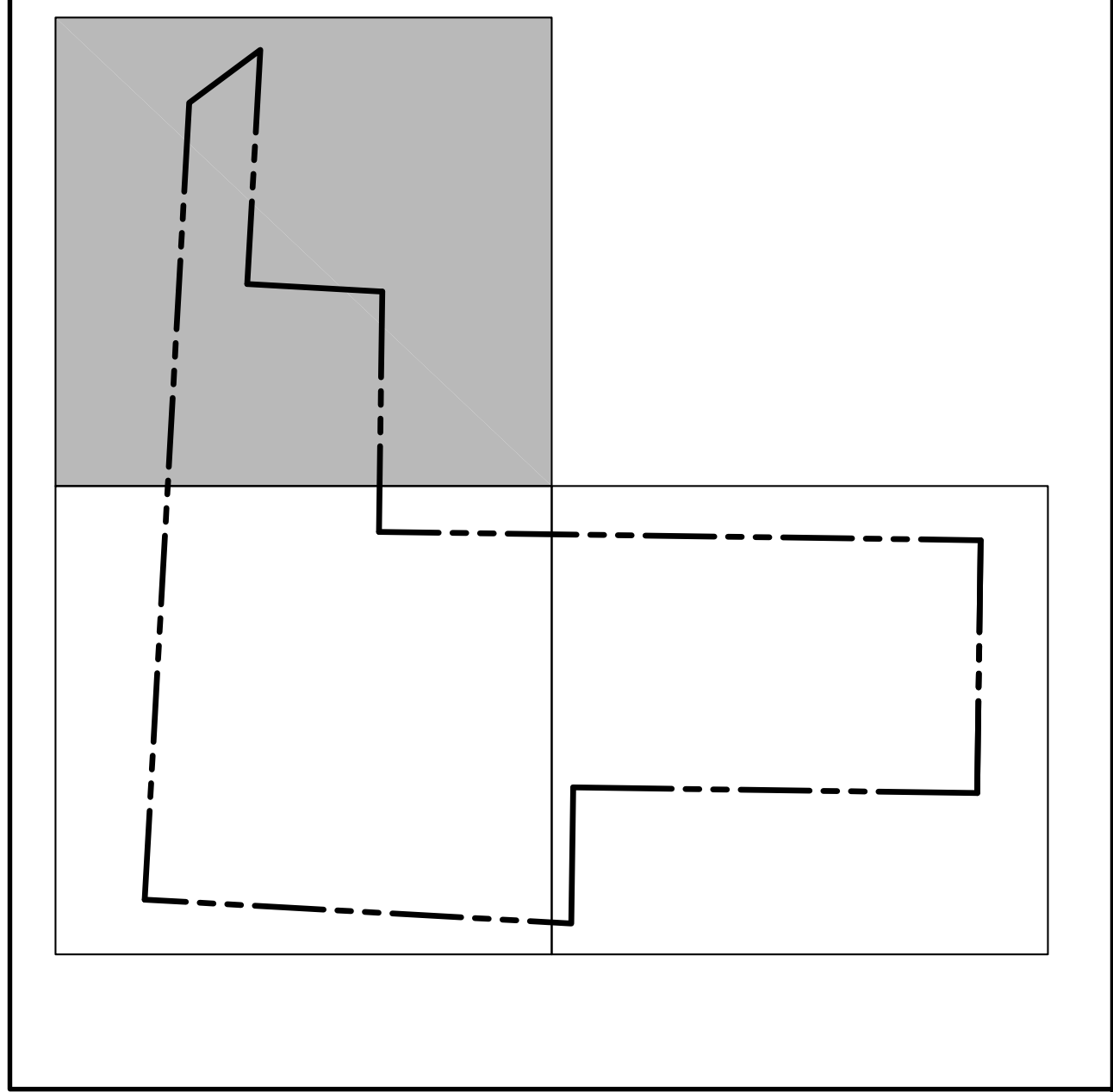
SCALE: 1" = 60'  
 PROJECT No. 21217

SHEET NUMBER  
**4** OF **9**

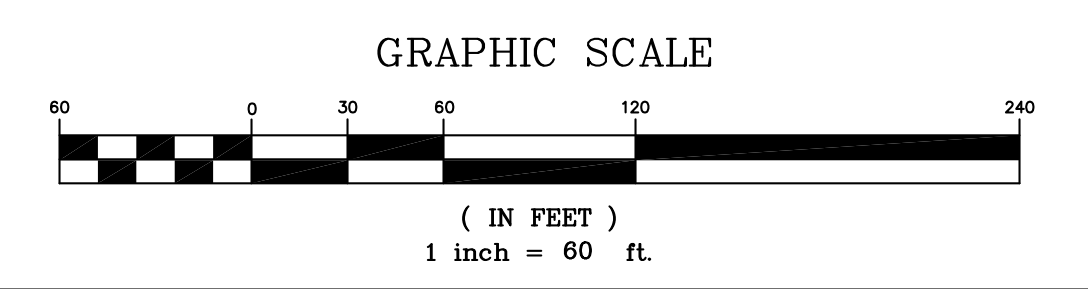
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- SYMBOL LEGEND**
- MONITORING WELL
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  - ⊕ IRRIGATION VALVE
  - ⊕ GAS VALVE
  - ⊕ WATER VALVE
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  - HANDICAP SPACE
  - ⊕ HYDRANT
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  - GAS MAIN
  - WATER MAIN
  - STORM SEWER PIPE
  - SANITARY SEWER PIPE
  - N NORTH
  - S SOUTH
  - E EAST
  - W WEST
  - ANGULAR DEGREES
  - ANGULAR MINUTES
  - ANGULAR SECONDS
  - Δ CENTRAL ANGLE
  - R RADIUS
  - L LENGTH
  - C CHORD
  - BRG CHORD BEARING
  - CONCRETE



LOCATION MAP



**SITE PLAN - NORTHWEST**

NEW JERSEY AMERICAN WATER SOLAR ARRAY PROJECT  
LOT 6.02 BLOCK 516.01

FRANKLIN TOWNSHIP SOMERSET COUNTY NEW JERSEY

**STIRES ASSOCIATES, P.A.**  
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43 West High Street, Somerville, New Jersey, 08876  
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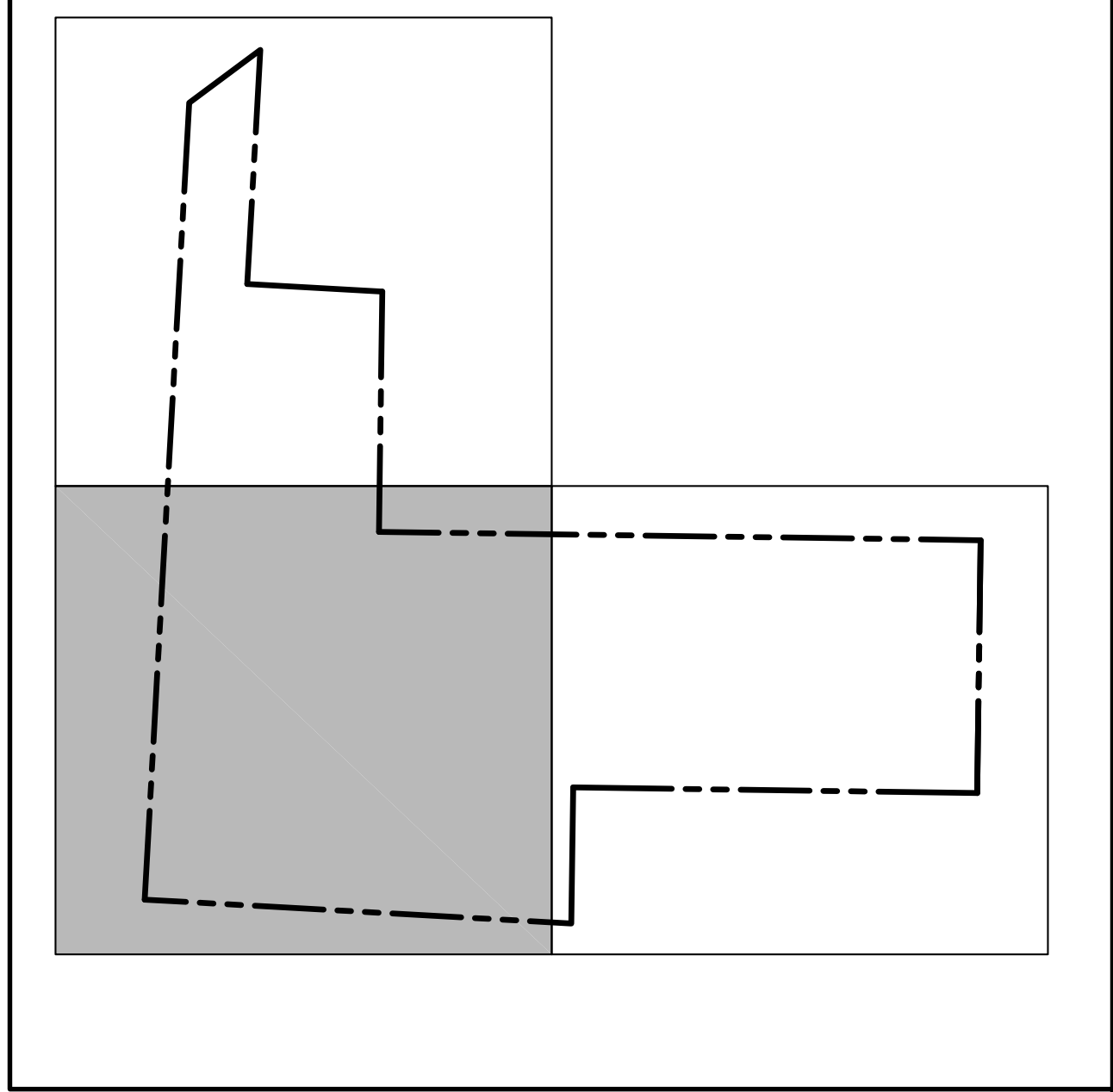
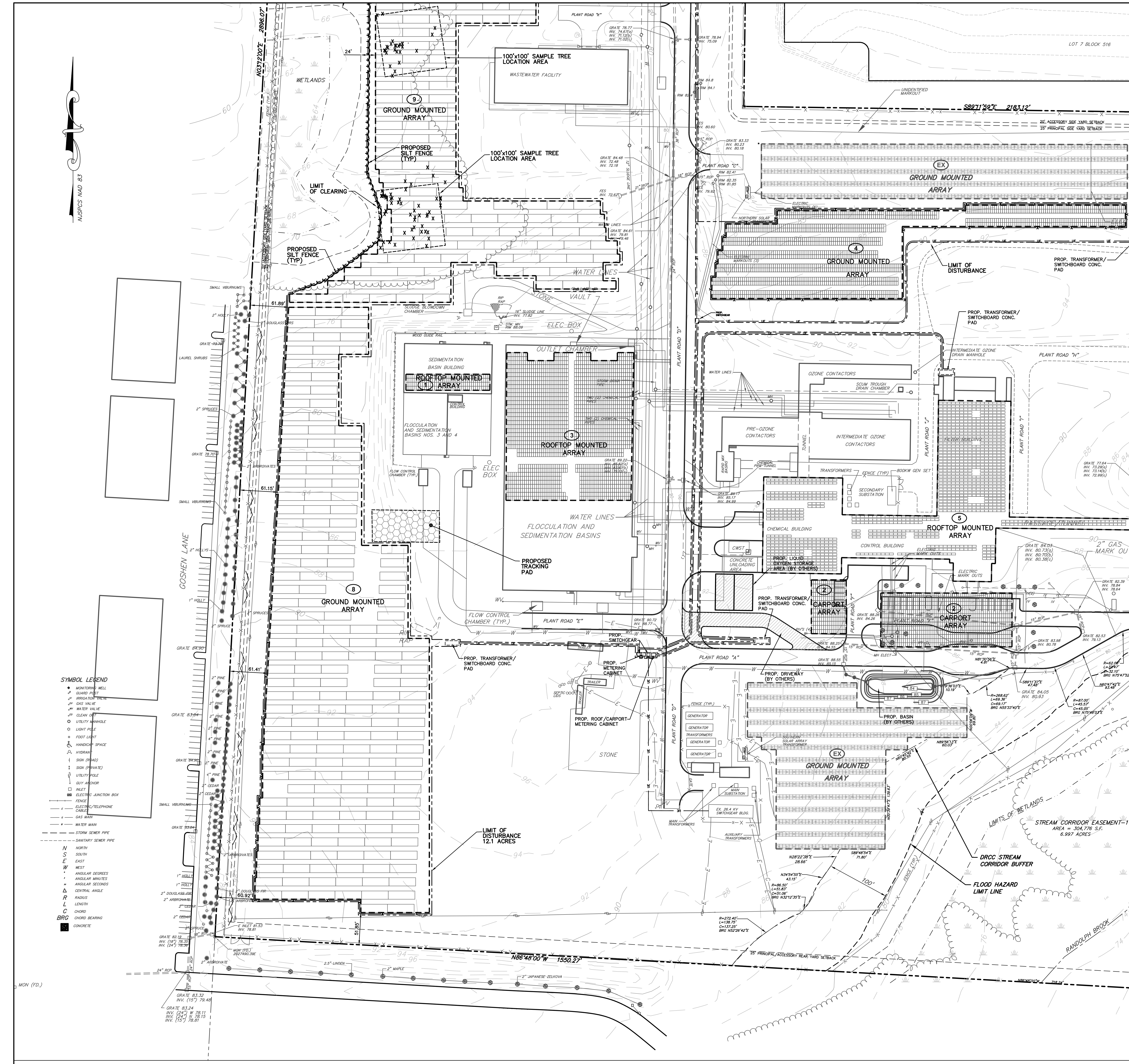
**CRAIG W. STIRES**  
PROFESSIONAL ENGINEER  
N.J. LICENSE No. 39078  
DATE: 08/18/21

SCALE: 1" = 60'  
PROJECT No. 21217

SHEET NUMBER  
**5** OF **9**

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| DATE | REVISION | BY |
|------|----------|----|
|      |          |    |



LOCATION MAP

**Tree Removal Chart for Trees less than 10" DBH**

| Quantity | Common Name       | Scientific Name               | Size (DBH inches) | Northing  | Easting   |
|----------|-------------------|-------------------------------|-------------------|-----------|-----------|
| 1        | Green Ash         | <i>Fraxinus pennsylvanica</i> | 7                 | 62043.131 | 47373.352 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 11                | 62040.614 | 47369.489 |
| 1        | Southern Catalpa  | <i>Catalpa bignonioides</i>   | 11                | 62046.03  | 47363.565 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 7                 | 62049.23  | 47365.763 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 7                 | 62047.935 | 47368.66  |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 6                 | 62046.651 | 47374.193 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 4                 | 62049.792 | 47375.729 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 11                | 62045.826 | 47369.475 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 13                | 62042.378 | 47368.538 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 4                 | 62044.833 | 47378.172 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 7                 | 62041.21  | 47384.716 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 8                 | 62040.467 | 47370.353 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 11                | 62040.654 | 47367.846 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 9                 | 62042.095 | 47365.656 |
| 1        | Southern Catalpa  | <i>Catalpa bignonioides</i>   | 13                | 62042.807 | 47370.52  |
| 1        | Southern Catalpa  | <i>Catalpa bignonioides</i>   | 12                | 62046.442 | 47376.179 |
| 1        | Southern Catalpa  | <i>Catalpa bignonioides</i>   | 15                | 62046.217 | 47376.648 |
| 1        | Southern Catalpa  | <i>Catalpa bignonioides</i>   | 15                | 62049.211 | 47375.05  |
| 1        | Southern Catalpa  | <i>Catalpa bignonioides</i>   | 9                 | 62046.283 | 47372.281 |
| 1        | Eastern Red Cedar | <i>Juniperus virginiana</i>   | 5                 | 62047.674 | 47373.188 |
| 1        | Eastern Red Cedar | <i>Juniperus virginiana</i>   | 9                 | 62049.296 | 47373.829 |
| 1        | Eastern Red Cedar | <i>Juniperus virginiana</i>   | 5                 | 62047.337 | 47373.448 |
| 1        | Green Ash         | <i>Fraxinus pennsylvanica</i> | 5                 | 62046.489 | 47374.512 |
| 1        | Slippery Elm      | <i>Ulmus rubra</i>            | 5                 | 62043.669 | 47374.877 |
| 1        | Slippery Elm      | <i>Ulmus rubra</i>            | 6                 | 62040.436 | 47374.591 |
| 1        | Slippery Elm      | <i>Ulmus rubra</i>            | 7                 | 62046.715 | 47378.363 |
| 1        | Slippery Elm      | <i>Ulmus rubra</i>            | 4                 | 62049.022 | 47371.318 |
| 1        | Green Ash         | <i>Fraxinus pennsylvanica</i> | 10                | 62042.588 | 47375.046 |
| 1        | Green Ash         | <i>Fraxinus pennsylvanica</i> | 5                 | 62041.364 | 47379.672 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 12                | 62046.587 | 47377.446 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 8                 | 62048.453 | 47375.259 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 5                 | 62047.1   | 47376.247 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 10                | 62049.368 | 47373.657 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 9                 | 62042.858 | 47367.589 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 11                | 62046.547 | 47369.188 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 7                 | 62049.935 | 47367.862 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 7                 | 62044.67  | 47369.686 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 14                | 62047.404 | 47364.712 |
| 1        | Southern Catalpa  | <i>Catalpa bignonioides</i>   | 4                 | 62041.683 | 47373.312 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 4                 | 62039.227 | 47367.163 |
| 1        | Southern Catalpa  | <i>Catalpa bignonioides</i>   | 12                | 62038.37  | 47372.21  |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 13                | 62046.471 | 47373.857 |
| 1        | Southern Catalpa  | <i>Catalpa bignonioides</i>   | 12                | 62044.963 | 47369.313 |
| 1        | Red Maple         | <i>Acer rubrum</i>            | 6                 | 62048.439 | 47372.171 |
| 1        | Green Ash         | <i>Fraxinus pennsylvanica</i> | 5                 | 62049.328 | 47374.971 |
| 1        | Green Ash         | <i>Fraxinus pennsylvanica</i> | 6                 | 62044.091 | 47374.672 |
| 1        | Slippery Elm      | <i>Ulmus rubra</i>            | 5                 | 62049.368 | 47373.657 |
| 1        | Slippery Elm      | <i>Ulmus rubra</i>            | 11                | 62041.989 | 47374.011 |
| 1        | Green Ash         | <i>Fraxinus pennsylvanica</i> | 6                 | 62045.297 | 47379.233 |
| 1        | Green Ash         | <i>Fraxinus pennsylvanica</i> | 6                 | 62044.358 | 47372.188 |
| 1        | Green Ash         | <i>Fraxinus pennsylvanica</i> | 5                 | 62048.323 | 47377.558 |
| 1        | Green Ash         | <i>Fraxinus pennsylvanica</i> | 7                 | 62044.194 | 47373.718 |
| 1        | Green Ash         | <i>Fraxinus pennsylvanica</i> | 7                 | 62043.55  | 47372.466 |
| 1        | Green Ash         | <i>Fraxinus pennsylvanica</i> | 5                 | 62044.098 | 47374.249 |
| 1        | Green Ash         | <i>Fraxinus pennsylvanica</i> | 5                 | 62046.386 | 47375.421 |

**Sample Area B2**

|   |                   |                             |    |           |           |
|---|-------------------|-----------------------------|----|-----------|-----------|
| 1 | Ash-leaf Maple    | <i>Acer negundo</i>         | 13 | 62073.067 | 47361.596 |
| 1 | Ash-leaf Maple    | <i>Acer negundo</i>         | 12 | 62075.327 | 47370.287 |
| 1 | Ash-leaf Maple    | <i>Acer negundo</i>         | 9  | 62070.589 | 47360.809 |
| 1 | Red Maple         | <i>Acer rubrum</i>          | 6  | 62066.446 | 47373.942 |
| 1 | Red Maple         | <i>Acer rubrum</i>          | 4  | 62070.19  | 47378.829 |
| 1 | Red Maple         | <i>Acer rubrum</i>          | 7  | 62070.265 | 47377.215 |
| 1 | Red Maple         | <i>Acer rubrum</i>          | 10 | 62076.895 | 47363.954 |
| 1 | Red Maple         | <i>Acer rubrum</i>          | 5  | 62062.897 | 47376.418 |
| 1 | Red Maple         | <i>Acer rubrum</i>          | 7  | 62065.892 | 47374.803 |
| 1 | Eastern Red Cedar | <i>Juniperus virginiana</i> | 6  | 62065.763 | 47368.381 |
| 1 | Eastern Red Cedar | <i>Juniperus virginiana</i> | 7  | 62062.794 | 47369.194 |
| 1 | Southern Catalpa  | <i>Catalpa bignonioides</i> | 8  | 62061.055 | 47362.445 |
| 1 | Eastern Red Cedar | <i>Juniperus virginiana</i> | 9  | 62067.705 | 47369.094 |
| 1 | Southern Catalpa  | <i>Catalpa bignonioides</i> | 9  | 62067.534 | 47369.012 |
| 1 | Slippery Elm      | <i>Ulmus rubra</i>          | 5  | 62069.17  | 47363.286 |
| 1 | Red Maple         | <i>Acer rubrum</i>          | 4  | 62074.547 | 47361.844 |
| 1 | Red Maple         | <i>Acer rubrum</i>          | 4  | 62073.649 | 47369.503 |
| 1 | Red Maple         | <i>Acer rubrum</i>          | 6  | 62071.103 | 47368.456 |
| 1 | Red Maple         | <i>Acer rubrum</i>          | 6  | 62073.737 | 47368.107 |
| 1 | Red Maple         | <i>Acer rubrum</i>          | 5  | 62069.897 | 47368.448 |
| 1 | Red Maple         | <i>Acer rubrum</i>          | 11 | 62070.631 | 47370.862 |
| 1 | Red Maple         | <i>Acer rubrum</i>          | 6  | 62070.513 | 47370.257 |
| 1 | Red Maple         | <i>Acer rubrum</i>          | 11 | 62070.207 | 47370.844 |
| 1 | Slippery Elm      | <i>Ulmus rubra</i>          | 11 | 62078.218 | 47371.728 |
| 1 | Eastern Red Cedar | <i>Juniperus virginiana</i> | 5  | 62069.856 | 47375.093 |
| 1 | Eastern Red Cedar | <i>Juniperus virginiana</i> | 6  | 62070.7   | 47375.162 |
| 1 | Ash-leaf Maple    | <i>Acer negundo</i>         | 6  | 62072.509 | 47374.506 |

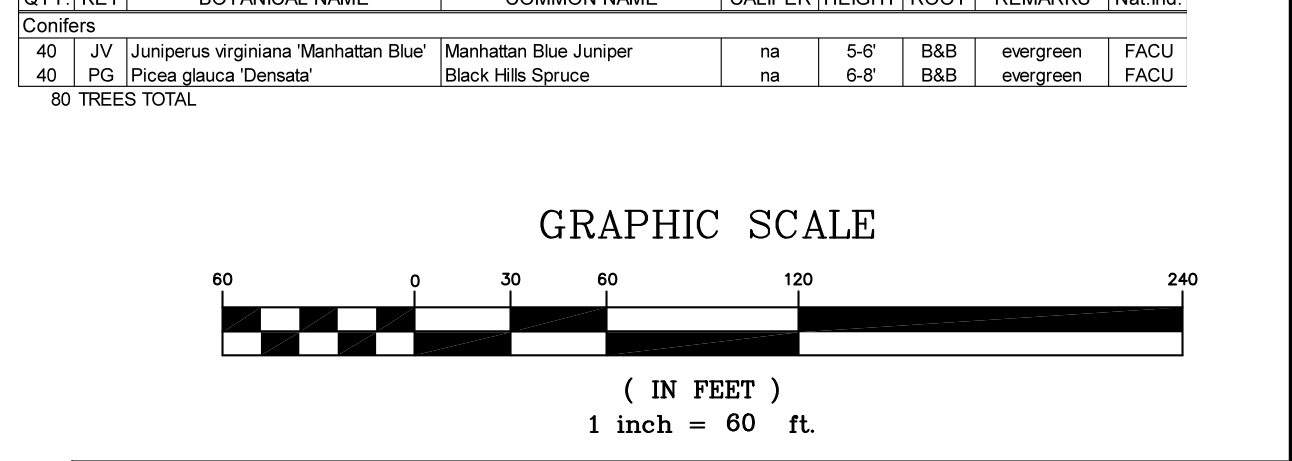
**82 Total Trees to be Removed**

**66 Total Trees to be Replaced - 80% of Trees to be Removed**

| Quantity | Common Name      | Scientific Name               | Size (DBH inches) | Northing  | Easting   | Req. Replacement |
|----------|------------------|-------------------------------|-------------------|-----------|-----------|------------------|
| 1        | Green Ash        | <i>Fraxinus pennsylvanica</i> | 17                | 62043.259 | 47370.682 | 3                |
| 1        | Southern Catalpa | <i>Catalpa bignonioides</i>   | 17                | 62044.484 | 47370.388 | 3                |
| 1        | Slippery Elm     | <i>Ulmus rubra</i>            | 17                | 62058.515 | 47372.512 | 3                |
| 1        | Slippery Elm     | <i>Ulmus rubra</i>            | 17                | 62075.827 | 47369.213 | 3                |

**PLANTING SCHEDULE**

| QTY KEY | BOTANICAL NAME              | COMMON NAME        | CALIPER | HEIGHT | ROOT | REMARKS | Inst. No. |
|---------|-----------------------------|--------------------|---------|--------|------|---------|-----------|
| 40 JV   | <i>Juniperus virginiana</i> | Maritima Blue      | 1/2"    | na     | na   | na      | na        |
| 42      | <i>Juniperus virginiana</i> | Black Hills Spruce | 1/2"    | na     | na   | na      | na        |
| 80      | TOTAL                       |                    |         |        |      |         |           |



**SITE PLAN - SOUTHWEST**

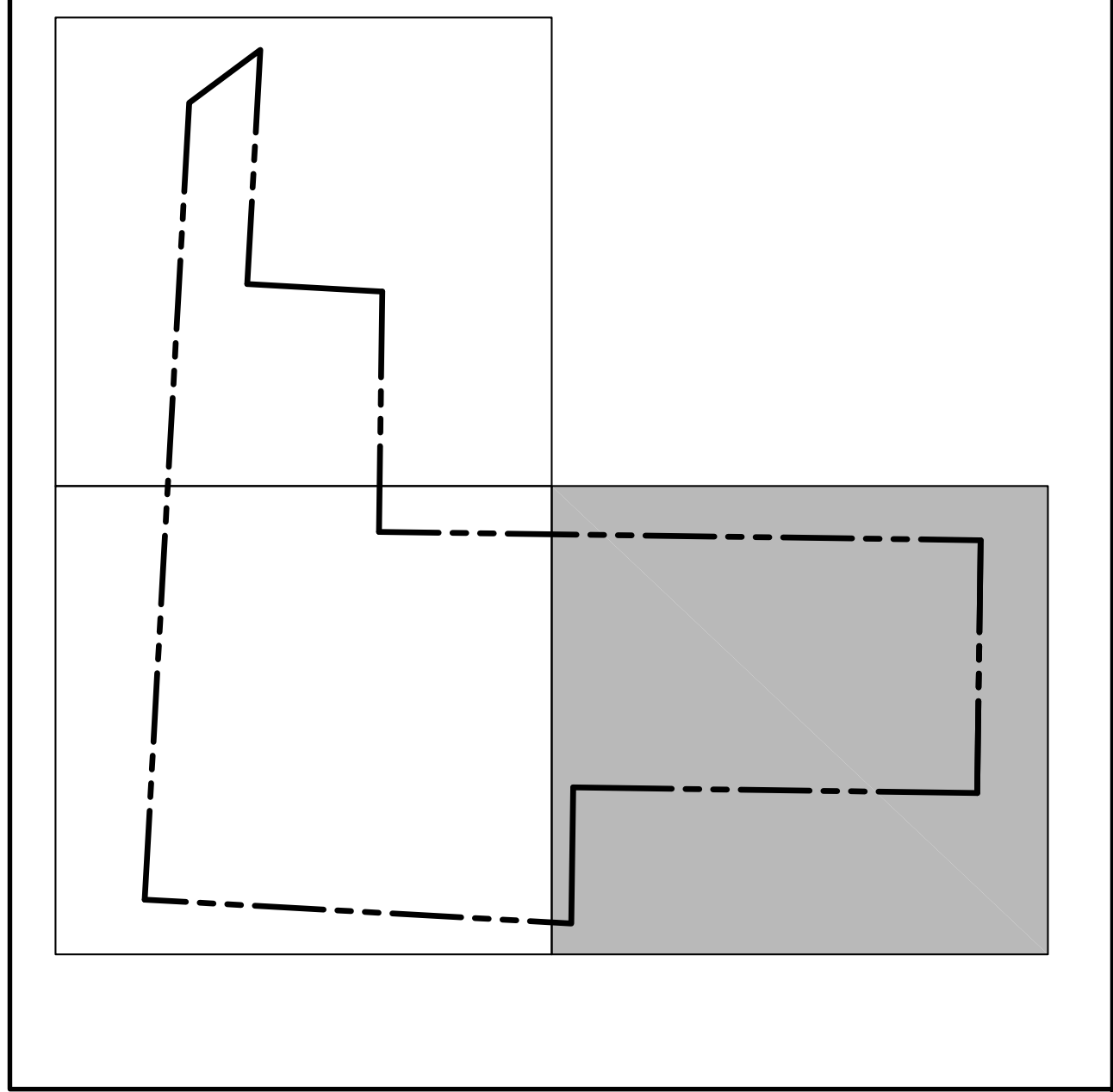
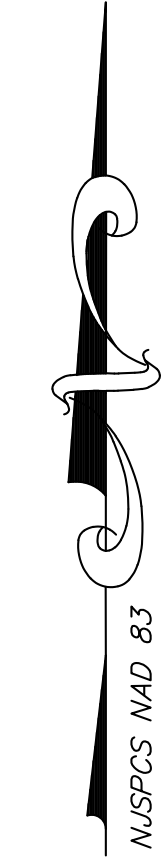
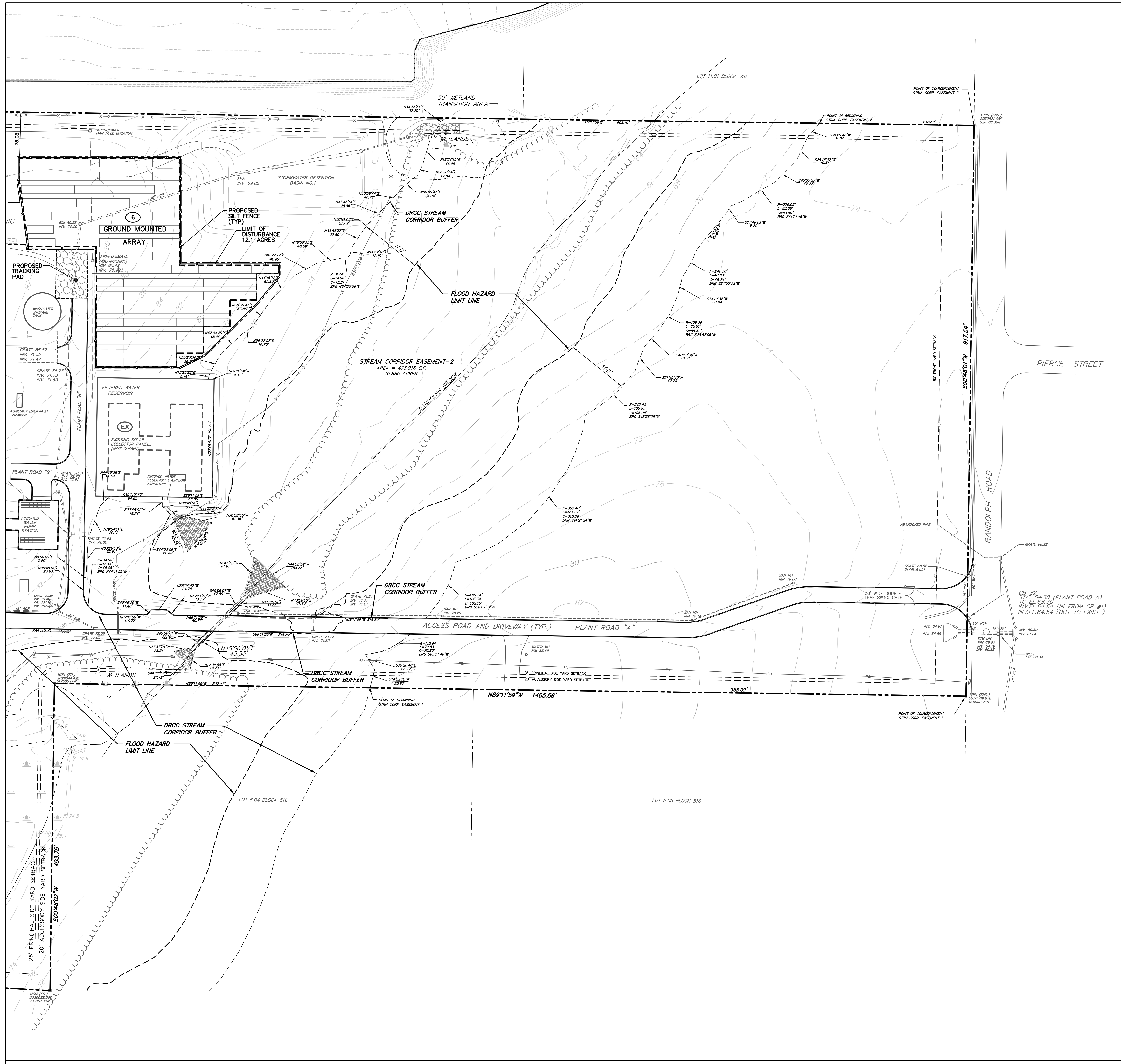
**NEW JERSEY AMERICAN WATER SOLAR ARRAY PROJECT**  
LOT 6.02 BLOCK 516.01

FRANKLIN TOWNSHIP SOMERSET COUNTY NEW JERSEY

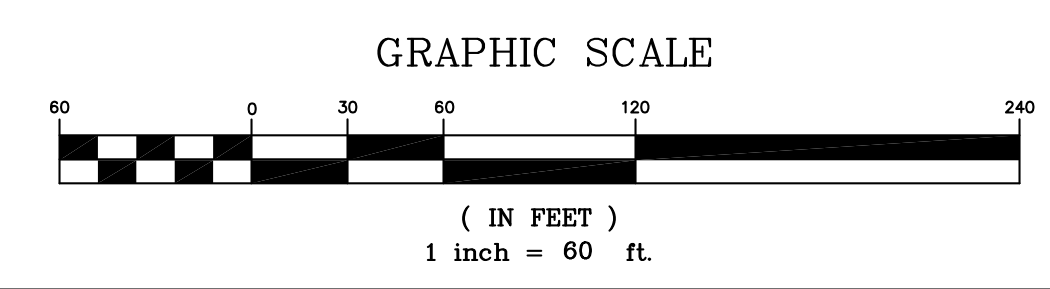
**STIRES ASSOCIATES, P.A.**  
ENGINEERS, SURVEYORS & ENVIRONMENTAL CONSULTANTS  
43 West High Street, Somerville, New Jersey 08876  
Phone (908) 725-0230 Fax (908) 707-0831

**CRAIG W. STIRES**  
PROFESSIONAL ENGINEER N.J. LICENSE No. 39078  
DESIGNED BY: CWS  
DRAWN BY: RNM  
CHECKED BY: CWS  
DATE: 08/18/21  
SHEET NUMBER: 6 OF 9

SCALE: 1" = 60'  
PROJECT No. 21217

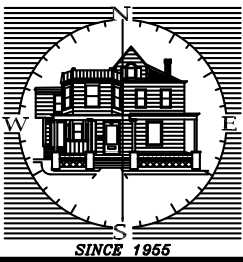


LOCATION MAP



**SITE PLAN - EAST**

**NEW JERSEY AMERICAN WATER SOLAR ARRAY PROJECT**  
 LOT 6.02 BLOCK 516.01  
 FRANKLIN TOWNSHIP SOMERSET COUNTY NEW JERSEY



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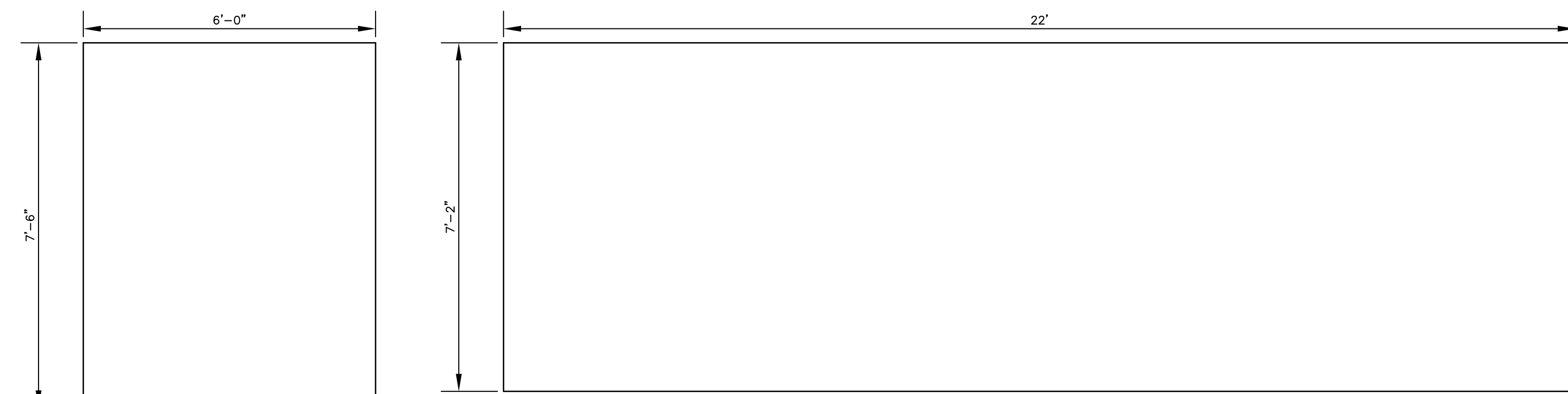
DESIGNED BY: CWS  
 DRAWN BY: RNM  
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**CRAIG W. STIRES**  
 PROFESSIONAL ENGINEER  
 N.J. LICENSE No. 39078  
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SCALE: 1" = 60'  
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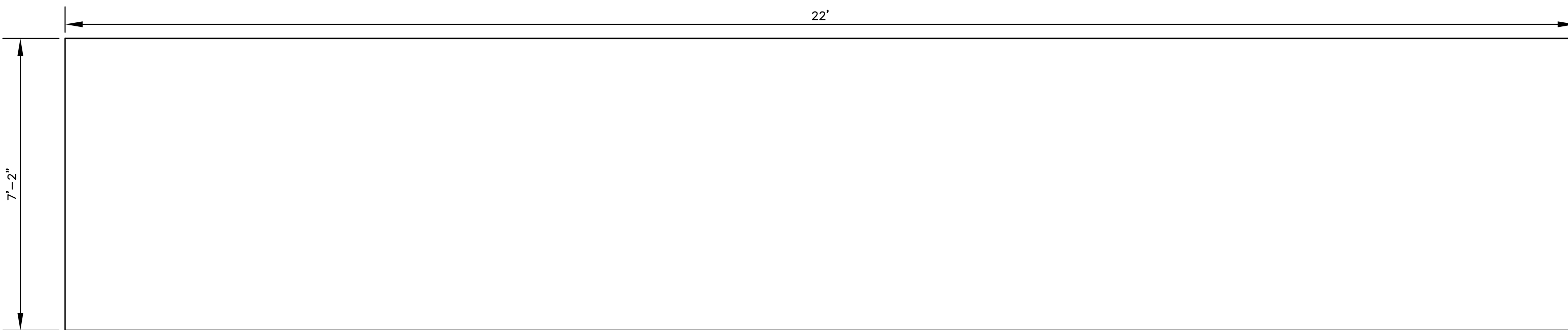
SHEET NUMBER  
**7** OF **9**

| DATE | REVISION | BY |
|------|----------|----|
|      |          |    |

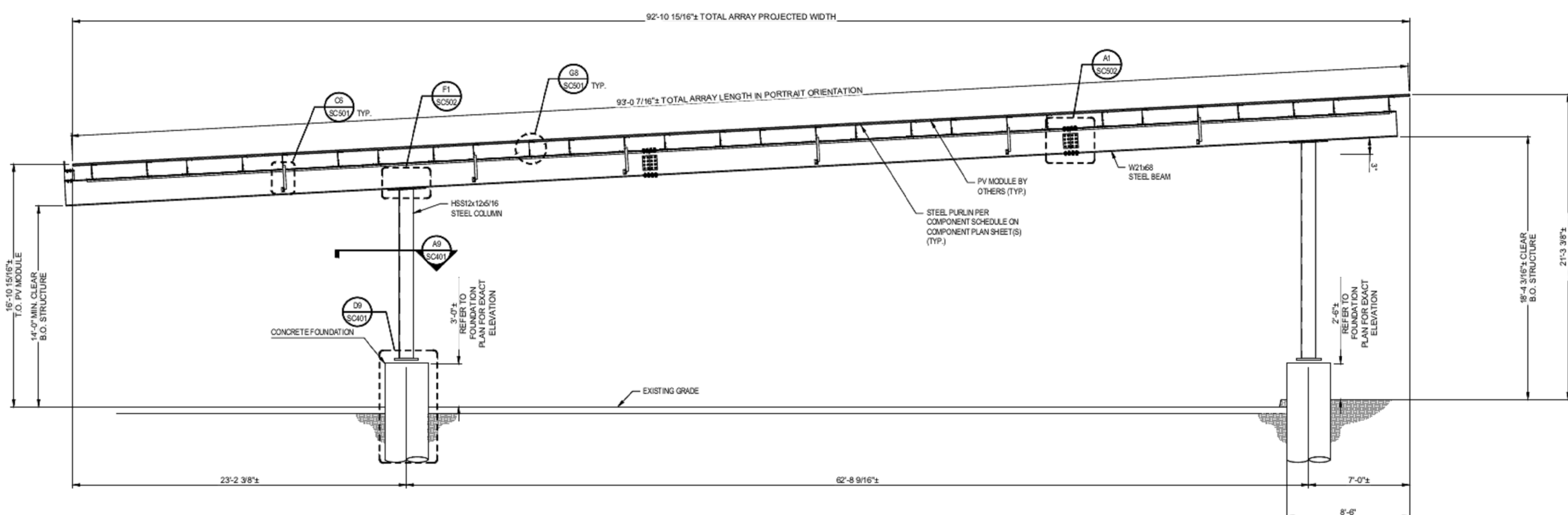


**CONCRETE PAD DETAIL FOR SWITCHGEAR PAD**  
NOT TO SCALE

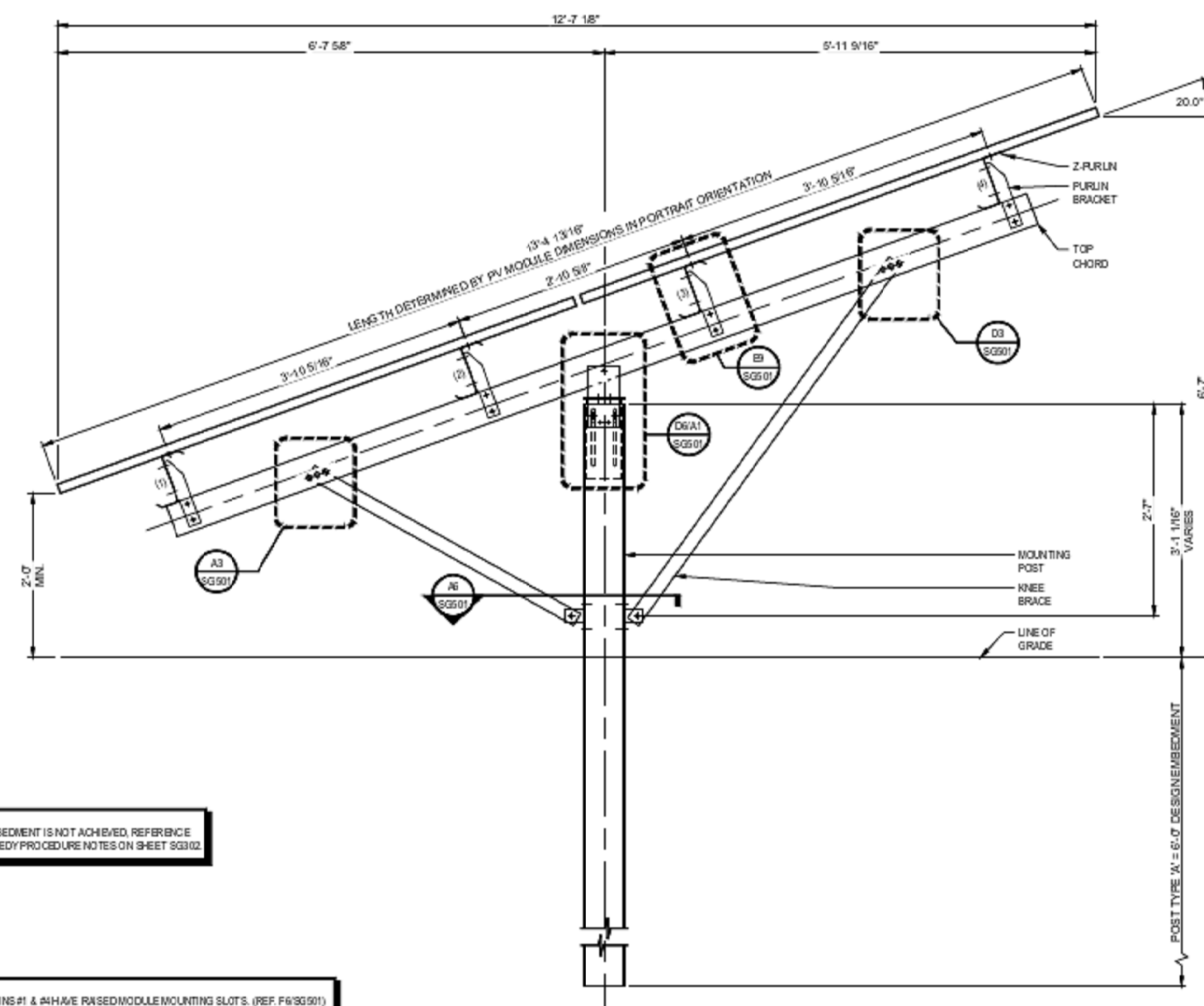
**TYPICAL CONCRETE PAD DETAILS FOR SOLAR EQUIPMENT**  
NOT TO SCALE



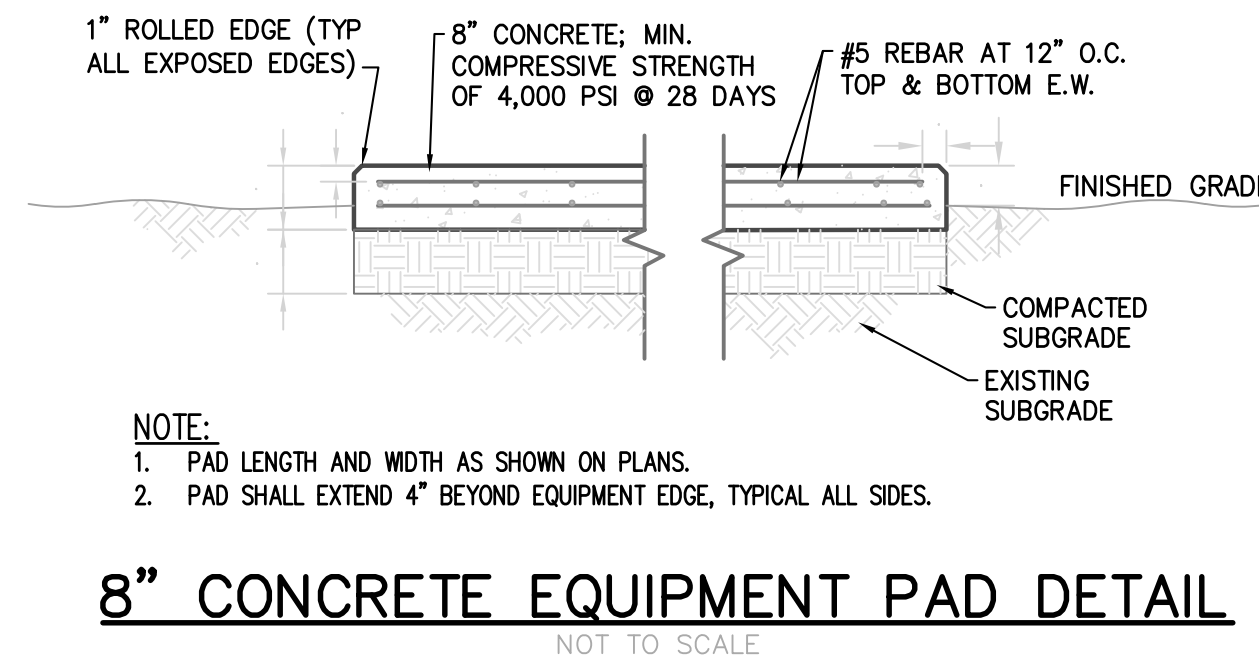
**CONCRETE PAD FOR SWITCHGEAR CABINET**  
NOT TO SCALE



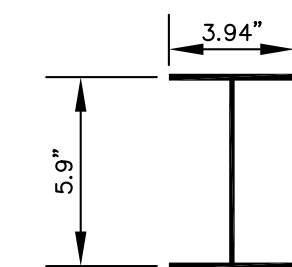
**CARPORIT DETAIL**  
NOT TO SCALE



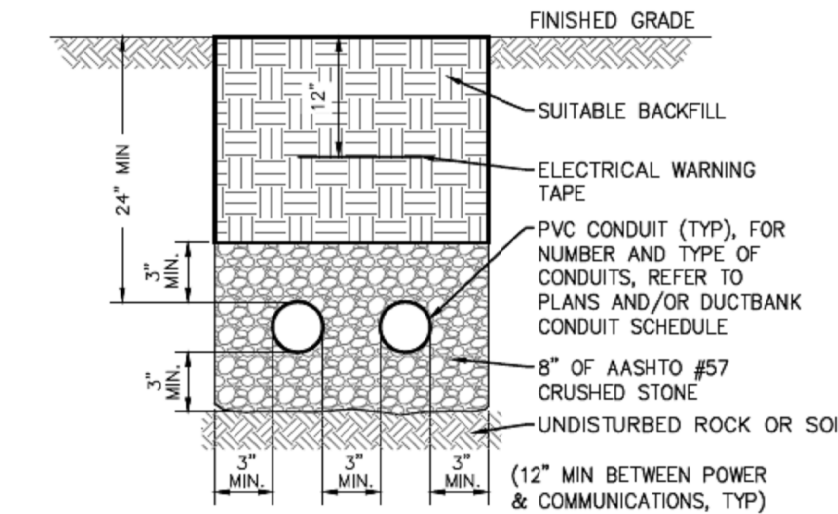
**GROUND MOUNTED PANEL DETAIL**  
NOT TO SCALE



**8" CONCRETE EQUIPMENT PAD DETAIL**  
NOT TO SCALE



**TYPICAL RACKING POST DETAIL**  
NOT TO SCALE



**TYPICAL DIRECT BURIED ELECTRICAL TRENCH DETAIL**  
NOT TO SCALE

**COLD WEATHER CONCRETE RESTRICTIONS**

DURING THE COLD WEATHER MONTHS FRANKLIN TOWNSHIP ENGINEERING WILL ENFORCE THE FOLLOWING REGULATIONS TAKEN FROM ACI, PCA AND N.J. STATE STANDARDS.

- NO CONCRETE SHALL BE PLACED UNLESS THE AMBIENT TEMPERATURE IS 40 DEGREES F. ON A RISING THERMOMETER OR IF THE INTERIOR OF THE FORMS AND ANY SURFACE ADJACENT TO THE NEW CONCRETE ARE PREHEATED TO THAT TEMPERATURE OR HIGHER.
- HEATING OF FORMS SHALL BE BY FORCED AIR OR RADIATION. NO OPEN FLAME HEATING WILL BE ALLOWED.
- THE MINIMUM TEMPERATURE OF FRESH CONCRETE AS PLACED AND MAINTAINED SHALL BE 55 DEGREES F.
- THE DURATION OF RECOMMENDED CONCRETE TEMPERATURES SHALL BE SIX (6) DAYS FOR CONVENTIONAL CONCRETE AND THREE (3) DAYS FOR HIGH-EARLY-STRENGTH CONCRETE.
- CALCIUM CHLORIDE IS NOT ALLOWED AS A CONCRETE ACCELERATOR. ACCEL-GUARD 80 IS ACCEPTABLE.
- ADEQUATE ACCEPTABLE INSULATING MATERIALS SHALL BE PROVIDED TO MAINTAIN THE RECOMMENDED TEMPERATURE. BLANKETS, OR DRY SALT HAY COVERED WITH TARPAULINS OR POLYETHYLENE FILM ARE ACCEPTABLE.

**COLD WEATHER PAVING RESTRICTIONS**

DURING THE COLD WEATHER MONTHS FRANKLIN TOWNSHIP ENGINEERING WILL ENFORCE THE FOLLOWING REGULATIONS TAKEN FROM N.J. STATE STANDARDS.

- THE SURFACE UPON WHICH THE BITUMINOUS CONCRETE IS TO BE PLACED SHALL BE CLEAN OF ALL FOREIGN AND LOOSE MATERIAL, DRY AND FREE FROM ICE WHEN THE PAVING OPERATIONS ARE ABOUT TO START AND SHALL BE MAINTAINED IN THAT CONDITION.
  - BITUMINOUS CONCRETE MIXTURES SHALL BE PLACED WHEN THE COMBINATIONS OF LAYDOWN AND BASE SURFACE TEMPERATURES ARE WITHIN THE LIMITS SHOWN IN THE TABLE BELOW, WHEN THE WEATHER IS NOT RAINY, AND WHEN THE ROADBED IS IN SATISFACTORY CONDITION.
  - TEMPERATURE TESTING EQUIPMENT SHALL BE SUPPLIED BY THE CONTRACTOR. LAYDOWN TEMPERATURE WILL BE MEASURED IN THE RECEIVING HOPPER OF THE PAVER.
  - MINIMUM LAYDOWN TEMPERATURE (DEGREES F), PAVEMENT THICKNESS (INCHES).
- | BASE TEMP   | 1/2" | 1/4" | 1"  | 1-1/2" | 2"  | OR MORE |
|-------------|------|------|-----|--------|-----|---------|
| 20-30       | (1)  | (1)  | (1) | 310    | 300 | 285     |
| 31-40       | (1)  | (1)  | (1) | 305    | 295 | 280     |
| 41-50       | (1)  | (1)  | 310 | 300    | 285 | 275     |
| 51-60       | (1)  | 310  | 300 | 295    | 280 | 270     |
| 61-70       | 310  | 300  | 290 | 285    | 275 | 265     |
| 71-80       | 300  | 290  | 285 | 280    | 270 | 265     |
| 81-90       | 280  | 275  | 270 | 265    | 260 | 255     |
| 91 AND OVER | 280  | 275  | 270 | 265    | 260 | 255     |
- (1) - NO PAVING PERMITTED

**TRENCH NOTES**

- ALL TRENCHES OR DITCHES WHICH CROSS EXISTING STREET OR WHICH ARE DUG FOR SEWERS, WATER MAINS, GAS MAINS OR OTHER UTILITIES, INCLUDING THE SERVICE CONNECTIONS FOR THESE UTILITIES, SHALL BE FILLED WITH QUARRY PROCESS STONE. THE STONE SHALL BE PLACED IN LAYERS NOT EXCEEDING TWELVE (12) INCHES IN DEPTH AND SHALL BE WITH WATER AND MECHANICALLY COMPACTED. ALL SOFT SPOTS AND DEPRESSIONS IN THE SURFACE, WHICH HAS BEEN GRADED, WILL BE REMOVED AND FILLED WITH STONE OF A SIZE TO BE DETERMINED BY THE TOWNSHIP ENGINEER. ALL TRENCHES WHICH ARE DUG IN A FUTURE STREET OR EXISTING R.O.W., ON WHICH NO SUBBASE OR PAVEMENT HAS BEEN CONSTRUCTED SHALL BE BACKFILLED AS INDICATED ABOVE OR MAY BE BACKFILLED WITH SUITABLE ON-SITE EXCAVATED MATERIALS OR IMPORTED FILL.
- PRIOR TO USING ANY ON-SITE AND/OR IMPORTED SOIL MATERIALS THE CONTRACTOR OR ANY INDIVIDUAL OR FIRM SHALL EMPLOY A RECOGNIZED SOILS LABORATORY TO SECURE SOIL SAMPLES, PERFORM NECESSARY LABORATORY ANALYSIS AND ESTABLISH THE COMPACTION AND OTHER CRITERIA NECESSARY FOR THE PROPER PLACEMENT OF THE BACKFILL. A REPORT OF LABORATORY FINDINGS, INCLUDING THE COMPACTION SPECIFICATIONS, SHALL BE SUBMITTED TO THE TOWNSHIP ENGINEER FOR REVIEW AND APPROVAL PRIOR TO COMMENCING ANY BACKFILL OPERATIONS USING ON-SITE AND/OR IMPORTED SOIL MATERIALS.
- DURING THE BACKFILLING OPERATIONS, THE CONTRACTOR OR ANY INDIVIDUAL OR FIRM ENGAGED IN BACKFILLING OPERATIONS SHALL EMPLOY A PROFESSIONAL ENGINEER, LICENSED IN THE STATE OF NEW JERSEY, OR HIS REPRESENTATIVE, WHO IS REGULARLY ENGAGED IN THE PRACTICE OF GEOTECHNICAL ENGINEERING AND WHO IS TRAINED IN SOIL MECHANICS, TO OBSERVE THE PLACEMENT OF THE BACKFILL. THE SOILS ENGINEER SHALL FILE DAILY REPORTS WITH THE TOWNSHIP ENGINEER INDICATING THE RESULTS OF THE COMPACTION AND UPON THE CONCLUSION OF THE PROJECT FILE A FINAL CERTIFICATION INDICATING THAT THE BACKFILL MATERIAL HAS BEEN PLACED AND COMPACTED IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE APPROVED LABORATORY REPORT.
- BACKFILL IN TRENCHES IN FIELD OR LAWN AREAS SHALL COMPLY WITH THE REQUIREMENTS FOR ON-SITE OR IMPORTED SOIL MATERIALS, AS INDICATED ABOVE.

**FRANKLIN TOWNSHIP ENGINEERING DEPARTMENT STANDARD NOTES**

ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION FOR SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH THE FOLLOWING, AS APPLICABLE:

- NEW JERSEY DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".
- CURRENT PREVAILING MUNICIPAL AND/OR COUNTY SPECIFICATIONS, STANDARDS AND REQUIREMENTS.
- CURRENT PREVAILING UTILITY COMPANY/AUTHORITY SPECIFICATIONS, STANDARDS AND REQUIREMENTS.
- STATE OF NEW JERSEY B.O.C.A. CODE AND BARRIER-FREE DESIGN REGULATIONS AS CURRENTLY AMENDED.
- CURRENT ANSI/AWWA STANDARDS, SPECIFICATIONS AND REQUIREMENTS FOR THE WATER SUPPLY SYSTEM.
- NFPA 24-92 FOR FIRE SPRINKLER LINES THAT APPLY FOR INSTALLATION AND TESTING.

**GENERAL NOTES**

- AS-BUILT PLANS OF THE ENTIRE SITE, PREPARED BY A NEW JERSEY LICENSED LAND SURVEYOR IN ACCORDANCE WITH TOWNSHIP REQUIREMENTS, ARE TO BE PROVIDED TO THE TOWNSHIP PRIOR TO RELEASE OF THE PERFORMANCE BOND.
- NO SOIL CAN BE IMPORTED TO OR REMOVED FROM THE SITE UNTIL A SOIL IMPORTATION OR EXPORTATION PERMIT IS OBTAINED FROM THE ENGINEERING DEPARTMENT.
- THE SUBGRADE OF ALL STREETS AND PARKING AREAS MUST BE PROOF-ROLLED USING A TRI-AXLE TANDUM DRUM TRUCK WITH A MINIMUM CERTIFIED WEIGHT OF 70,000 LBS. FULLY LOADED. THE PROOF ROLL IS TO BE CONDUCTED UNDER THE DIRECT SUPERVISION OF THE TOWNSHIP ENGINEER OR HIS REPRESENTATIVE.
- CONSTRUCTION CASTINGS SHALL BE OF UNITED STATES MANUFACTURE AND NOT APPROVED, IF OTHER THAN CAMPBELL, NENAH, BRIDGESTONE, IMPERIA, GUMPH OR EAST JORDAN IRONWORKS. CASTINGS ARE PLANNED TO BE USED, COMPLETE DATA MUST BE SUBMITTED INCLUDING, BUT NOT LIMITED TO, AN AFFIDAVIT CERTIFYING THAT THE CASTINGS WERE MADE IN THE U.S.; LOAD CAPACITY BASED ON THE STANDARD HIGHWAY LOADINGS; WEIGHTS AND CONFIGURATIONS OF THE CASTINGS AND METALLURGICAL ANALYSIS. ALL GRATES ARE TO BE "BICYCLE SAFE".

**CONSTRUCTION DETAILS**

**NEW JERSEY AMERICAN WATER SOLAR ARRAY PROJECT**  
LOT 6.02 BLOCK 516.01

FRANKLIN TOWNSHIP SOMERSET COUNTY NEW JERSEY

**STIRES ASSOCIATES, P.A.**  
ENGINEERS, SURVEYORS & ENVIRONMENTAL CONSULTANTS

43 West High Street, Somerville, New Jersey 08876  
Phone (908) 725-0230 Fax (908) 707-0831

|   |                        |                      |
|---|------------------------|----------------------|
| <b>CRAIG W. STIRES</b><br>PROFESSIONAL ENGINEER | N.J. LICENSE No. 39078 | DESIGNED BY: CWS     |
| <i>Craig W. Stires</i>                          | DATE: 08/18/21         | DRAWN BY: RSM        |
|   | SCALE: NTS             | CHECKED BY: CWS      |
|   | PROJECT No. 21217      | SHEET NUMBER         |
|   |                        | <b>8</b> OF <b>9</b> |

NOTE: If this document does not contain the raised signature and the professional's seal, it is not an authorized original document and may have been altered.

| DATE | REVISION | BY |
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|      |          |    |



