

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR, LLC

PROPOSED
SOLAR FARM

LOCATION OF SITE:
 160 MAPLE STREET, TOWN OF BELLINGHAM & FRANKLIN
 NORFOLK COUNTY, MASSACHUSETTS
 LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION
 OF D 239-010, & 32-0009 (BELLINGHAM)

REFERENCES

EXISTING CONDITIONS SURVEY:
 FELDMAN GEOSPATIAL
 152 HAMPDEN STREET, BOSTON, MA 01608
 DATE: 05/09/2022

ANR SURVEY:
 FELDMAN GEOSPATIAL
 152 HAMPDEN STREET, BOSTON, MA 01608
 DATE: 08/05/2022

* THE ABOVE REFERENCED DOCUMENTS ARE INCORPORATED BY REFERENCE AS PART OF THESE PLANS. HOWEVER, BOHLER ENGINEERING DOES NOT CERTIFY THE ACCURACY OF THE WORK REFERENCED OR DERIVED FROM THESE DOCUMENTS, BY OTHERS.

REVISIONS

REV	DATE	COMMENT	DRAWN BY



Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OGR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD I.D.: W201257-SPPO-08

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER //

352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900

www.BohlerEngineering.com



SHEET TITLE:

COVER SHEET

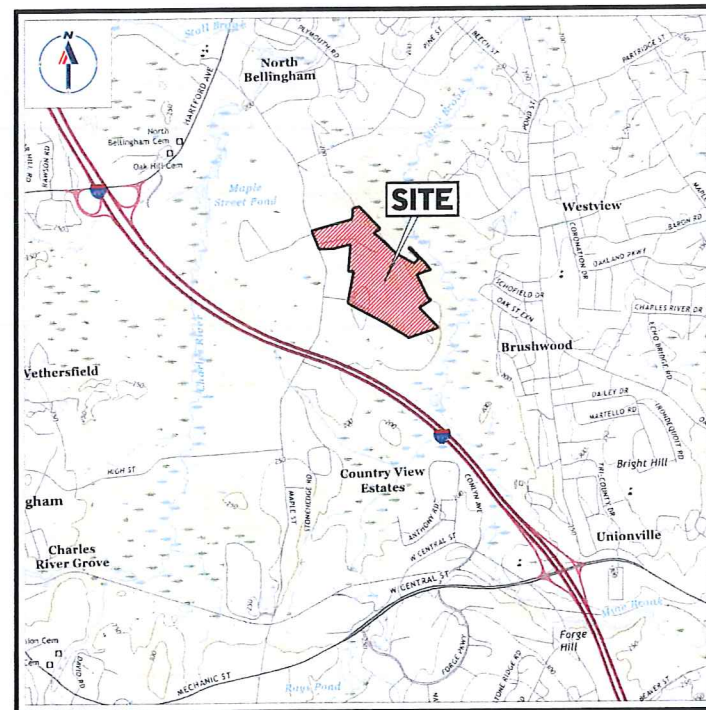
SHEET NUMBER:

C-101

ORG. DATE - 07/20/2023

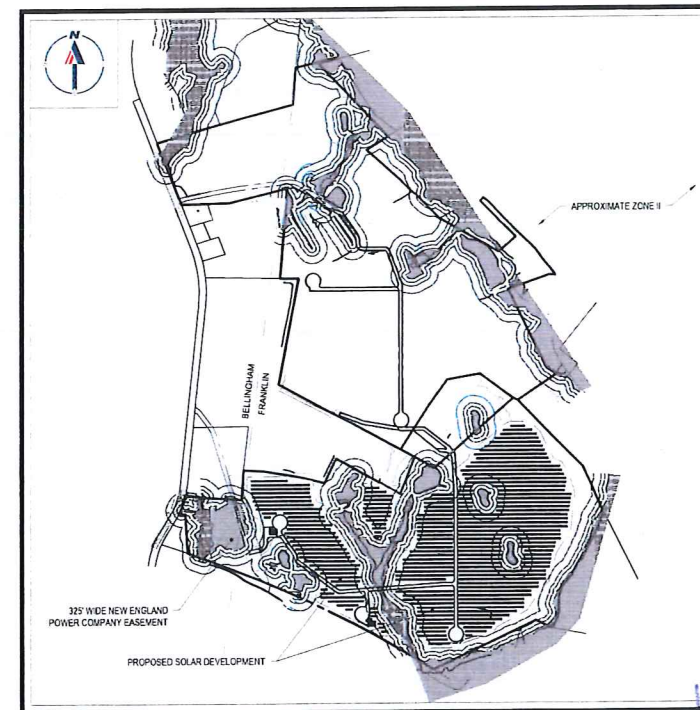
DRAWING SHEET INDEX

SHEET TITLE	SHEET NUMBER
COVER SHEET	C-101
GENERAL NOTES SHEET	C-102
OVERALL DEMOLITION PLAN	C-201
DEMOLITION PLAN (A-F)	C-202 - C-207
OVERALL SITE LAYOUT PLAN	C-301
SITE LAYOUT PLAN (A - F)	C-302 - C-307
OVERALL GRADING PLAN	C-401
GRADING PLAN (A - F)	C-402 - C-407
OVERALL EROSION & SEDIMENT CONTROL PLAN	C-601
EROSION & SEDIMENT CONTROL PLAN (A - F)	C-602 - C-607
EROSION & SEDIMENT CONTROL NOTES & DETAILS	C-608 - C-609
DETAIL SHEETS	C-901 - C-906
FIRE TRUCK CIRCULATION PLAN	1 OF 1
EXISTING CONDITIONS PLAN (BY FELDMAN GEOSPATIAL)	8 SHEETS



USGS MAP

SCALE: 1" = 2,000'
 SOURCE: FRANKLIN MASSACHUSETTS USGS QUADRANGLE



SITE MAP

SCALE: 1" = 600'
 SOURCE: GOOGLE AERIAL

PREPARED BY

BOHLER //

RECEIVED
 2023 JUL 21 A 9:29
 TOWN OF FRANKLIN
 TOWN CLERK



MAPLE STREET
1600' COUNTY LAYOUT
(PUBLIC - 50' WIDE)

MAPLE STREET
1600' COUNTY LAYOUT
(PUBLIC - 50' WIDE)

INTERSTATE ROUTE 495
(PLAN D - 600' & PLAN E - 500')
(PUBLIC - 20' WIDE)



TOTAL BUFFER DISTURBANCE CHART

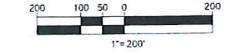
AREA	HATCH	DESCRIPTION
1,548± sf		25' Proposed Buffer Disturbance
6,692± sf		25' Existing Buffer Disturbance
23,296± sf		50' Proposed Buffer Disturbance
58,106± sf		50' Existing Buffer Disturbance
81,001± sf		100' Proposed Buffer Disturbance
143,535± sf		100' Existing Buffer Disturbance
1,481± sf		Proposed Wetland Disturbance
308,802± sf	N/A	Total Existing Disturbance
87,096± sf	N/A	Total Proposed Disturbance

ALL VEGETATION WITHIN THE LIMIT OF WORK LINE TBR. (TYP.)

REFER TO GENERAL NOTES SHEET FOR DEMOLITION NOTES

THIS PLAN TO BE UTILIZED FOR DEMOLITION/ REMOVAL PURPOSES ONLY

TBR. = TO BE REMOVED



REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY



ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/or AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
DRAWN BY: CMC / OGR / GD
CHECKED BY:
DATE: 07/20/2023
CAD ID.: W201257-DEMO-08

PROPOSED SITE PLAN DOCUMENTS

FOR MAPLE STREET SOLAR LLC PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET
TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com

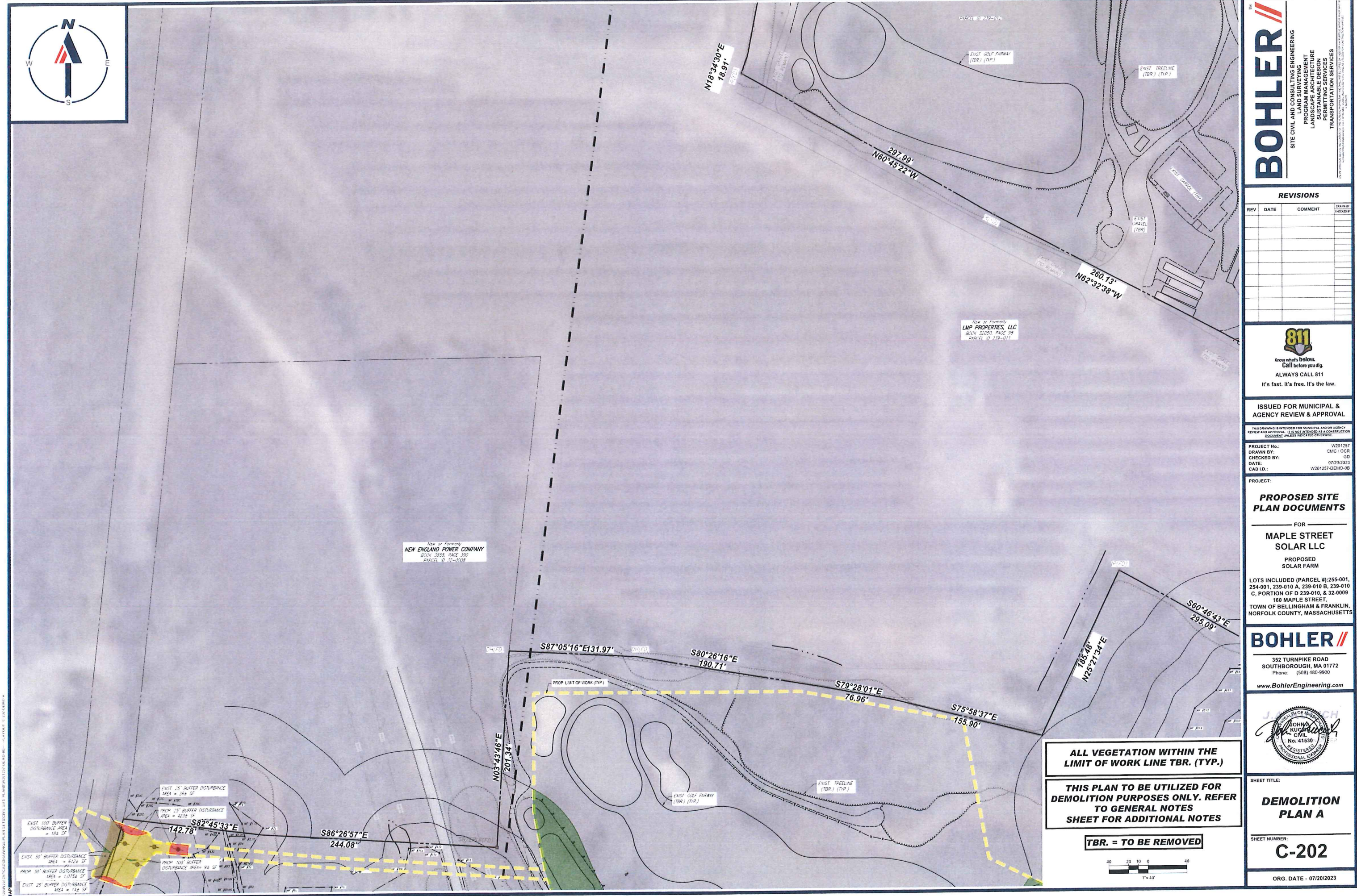


SHEET TITLE:

OVERALL DEMOLITION PLAN

SHEET NUMBER:
C-201

ORG. DATE - 07/20/2023



BOHLER
THE
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
DESIGNING SERVICES
TRANSPORTATION SERVICES

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
DRAWN BY: CMG / OGR
CHECKED BY: SD
DATE: 07/20/2023
CAD I.D.: W201257-DEMO-08

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET,
TOWN OF BELLINGHAM & FRANKLIN,
NORFOLK COUNTY, MASSACHUSETTS

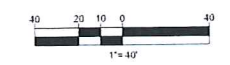
BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com



ALL VEGETATION WITHIN THE LIMIT OF WORK LINE TBR. (TYP.)

THIS PLAN TO BE UTILIZED FOR DEMOLITION PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES

TBR. = TO BE REMOVED



SHEET TITLE:

DEMOLITION PLAN A

SHEET NUMBER:
C-202

ORG. DATE - 07/20/2023

© 2023 BOHLER ENGINEERING, INC. ALL RIGHTS RESERVED. THIS DRAWING IS THE PROPERTY OF BOHLER ENGINEERING, INC. AND IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF BOHLER ENGINEERING, INC.



Now or Formerly
LMP PROPERTIES, LLC
80,000 SQ. FT. PAVE 38
PARCEL ID: 235-011

260.13'
N62°32'38"W

N61°40'39"W
500.46'

S60°46'13"E
295.09'

785.48'
N23°21'34"E

S75°58'37"E
155.90'

S61°21'56"E
209.84'

N21°51'53"E
270.37'

EXIST 100' BUFFER DISTURBANCE AREA = 26,315± SF

EXIST 50' BUFFER DISTURBANCE AREA = 4574± SF

PROP 50' BUFFER DISTURBANCE AREA = 1,792± SF

PROP 100' BUFFER DISTURBANCE AREA = 4,207± SF

EXIST 100' BUFFER DISTURBANCE AREA = 22,547± SF

EXIST 50' BUFFER DISTURBANCE AREA = 3712± SF

PROP 50' BUFFER DISTURBANCE AREA = 563± SF

EXIST 50' BUFFER DISTURBANCE AREA = 448± SF

EXIST 100' BUFFER DISTURBANCE AREA = 1,431± SF

PROP 50' BUFFER DISTURBANCE AREA = 476± SF

EXIST 50' BUFFER DISTURBANCE AREA = 2,052± SF

PROP 100' BUFFER DISTURBANCE AREA = 592± SF

EXIST 100' BUFFER DISTURBANCE AREA = 1,394± SF

PROP 25' BUFFER DISTURBANCE AREA = 314± SF

EXIST 50' BUFFER DISTURBANCE AREA = 672± SF

PROP 100' BUFFER DISTURBANCE AREA = 9,502± SF

EXIST 100' BUFFER DISTURBANCE AREA = 2,731± SF

EXIST 50' BUFFER DISTURBANCE AREA = 804± SF

PROP 50' BUFFER DISTURBANCE AREA = 46± SF

EXIST 50' BUFFER DISTURBANCE AREA = 7,082± SF

EXIST 100' BUFFER DISTURBANCE AREA = 1,924± SF

PROP 25' BUFFER DISTURBANCE AREA = 104± SF

EXIST 50' BUFFER DISTURBANCE AREA = 190± SF

PROP 50' BUFFER DISTURBANCE AREA = 46± SF

EXIST 100' BUFFER DISTURBANCE AREA = 24,249± SF

EXIST 25' BUFFER DISTURBANCE AREA = 4,351± SF

EXIST 50' BUFFER DISTURBANCE AREA = 7,824± SF

EXIST 100' BUFFER DISTURBANCE AREA = 4,166± SF

PROP 100' BUFFER DISTURBANCE AREA = 434± SF

EXIST 100' BUFFER DISTURBANCE AREA = 17± SF

EXIST 100' BUFFER DISTURBANCE AREA = 272± SF

EXIST 100' BUFFER DISTURBANCE AREA = 1,722± SF

PROP 50' BUFFER DISTURBANCE AREA = 1,114± SF

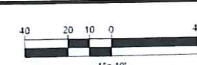
EXIST 100' BUFFER DISTURBANCE AREA = 1,033± SF

EXIST 50' BUFFER DISTURBANCE AREA = 1,033± SF

ALL VEGETATION WITHIN THE LIMIT OF WORK LINE TBR. (TYP.)

THIS PLAN TO BE UTILIZED FOR DEMOLITION PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES

TBR. = TO BE REMOVED



BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LAND ACQUISITION
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT MEANT TO BE A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT NO.: W201257
DRAWN BY: CMC / OCR
CHECKED BY: GD
DATE: 07/20/2023
CAD ID.: W201257-02M0-08

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET,
TOWN OF BELLINGHAM & FRANKLIN,
NORFOLK COUNTY, MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com

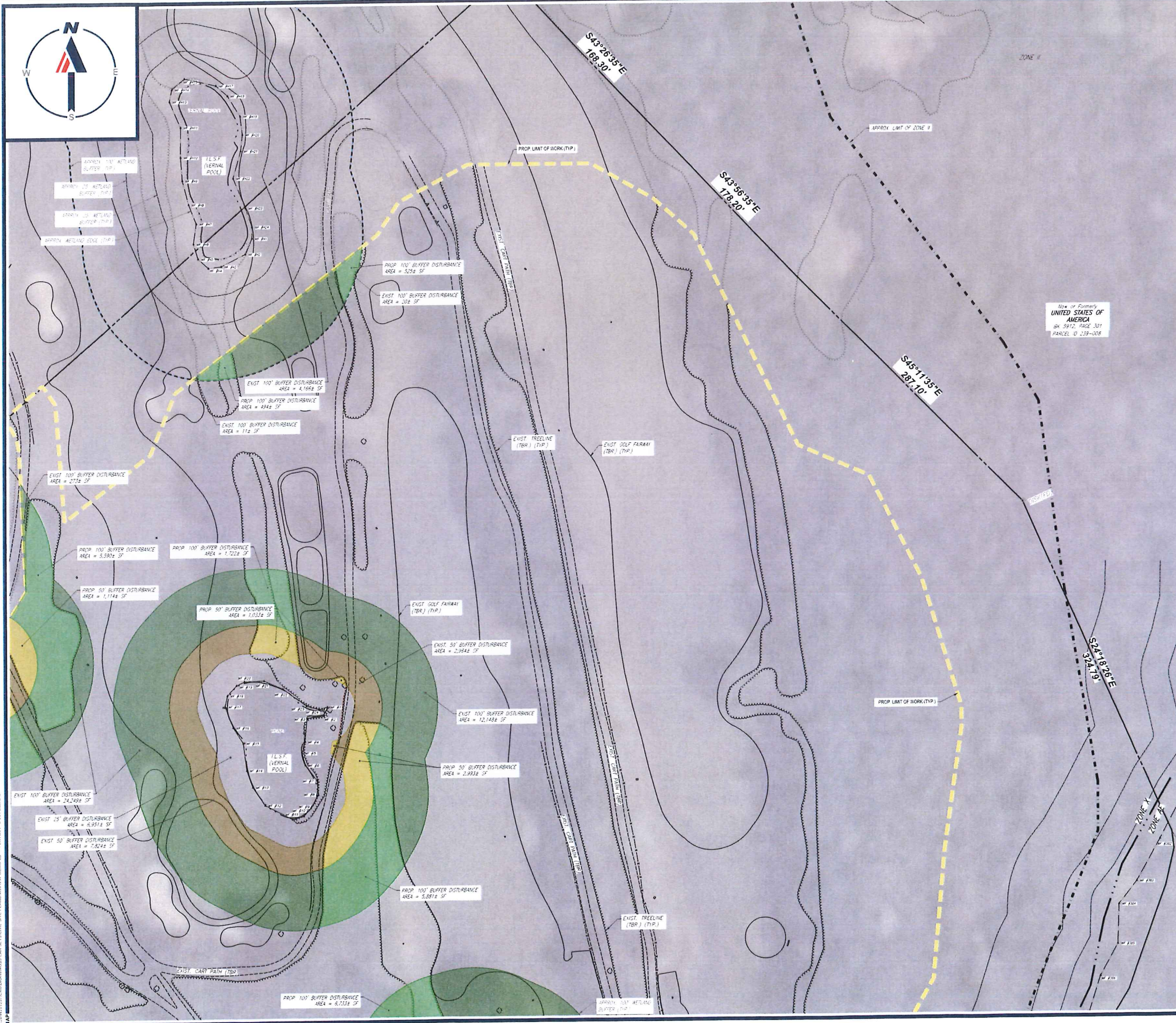
JOHN A. LUIGI
REGISTERED PROFESSIONAL ENGINEER
No. 41530

SHEET TITLE:
DEMOLITION PLAN B

SHEET NUMBER:
C-203

ORG. DATE - 07/20/2023

P:\DRAWINGS\2023\DEMOLITION\DEMOLITION PLAN B\DEMOLITION PLAN B.dwg - 07/20/2023 - 11:45:00 AM - CMC

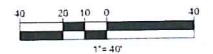


Site of Formerly
UNITED STATES OF AMERICA
 Bk 3912, PAGE 301
 PARCEL ID 239-0018

**ALL VEGETATION WITHIN THE
 LIMIT OF WORK LINE TBR. (TYP.)**

**THIS PLAN TO BE UTILIZED FOR
 DEMOLITION PURPOSES ONLY. REFER
 TO GENERAL NOTES
 SHEET FOR ADDITIONAL NOTES**

TBR. = TO BE REMOVED



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 LAND SURVEYING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

**ISSUED FOR MUNICIPAL &
 AGENCY REVIEW & APPROVAL**

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMG / OGR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD I.D.: W201257-DEMO-08

**PROPOSED SITE
 PLAN DOCUMENTS**

FOR
**MAPLE STREET
 SOLAR LLC**
 PROPOSED
 SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001,
 254-001, 239-010 A, 239-010 B, 239-010
 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER
 352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9500
 www.BohlerEngineering.com

Professional Engineer Seal for John A. Kucera, No. 41530, State of Massachusetts.

SHEET TITLE:
**DEMOLITION
 PLAN C**

SHEET NUMBER:
C-204

ORG. DATE - 07/20/2023



BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS			
REV	DATE	COMMENT	DRAWN BY / CHECKED BY

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT NO.:	W201257
DRAWN BY:	CMC / OCR
CHECKED BY:	GD
DATE:	07/20/2023
CAD FILE:	W201257-DEMO-08

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
PROPOSED SOLAR FARM
LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET,
TOWN OF BELLINGHAM & FRANKLIN,
NORFOLK COUNTY, MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com



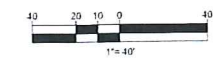
SHEET TITLE:
DEMOLITION PLAN D
SHEET NUMBER:
C-205
ORG. DATE - 07/20/2023



ALL VEGETATION WITHIN THE LIMIT OF WORK LINE TBR. (TYP.)

THIS PLAN TO BE UTILIZED FOR DEMOLITION PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES

TBR. = TO BE REMOVED

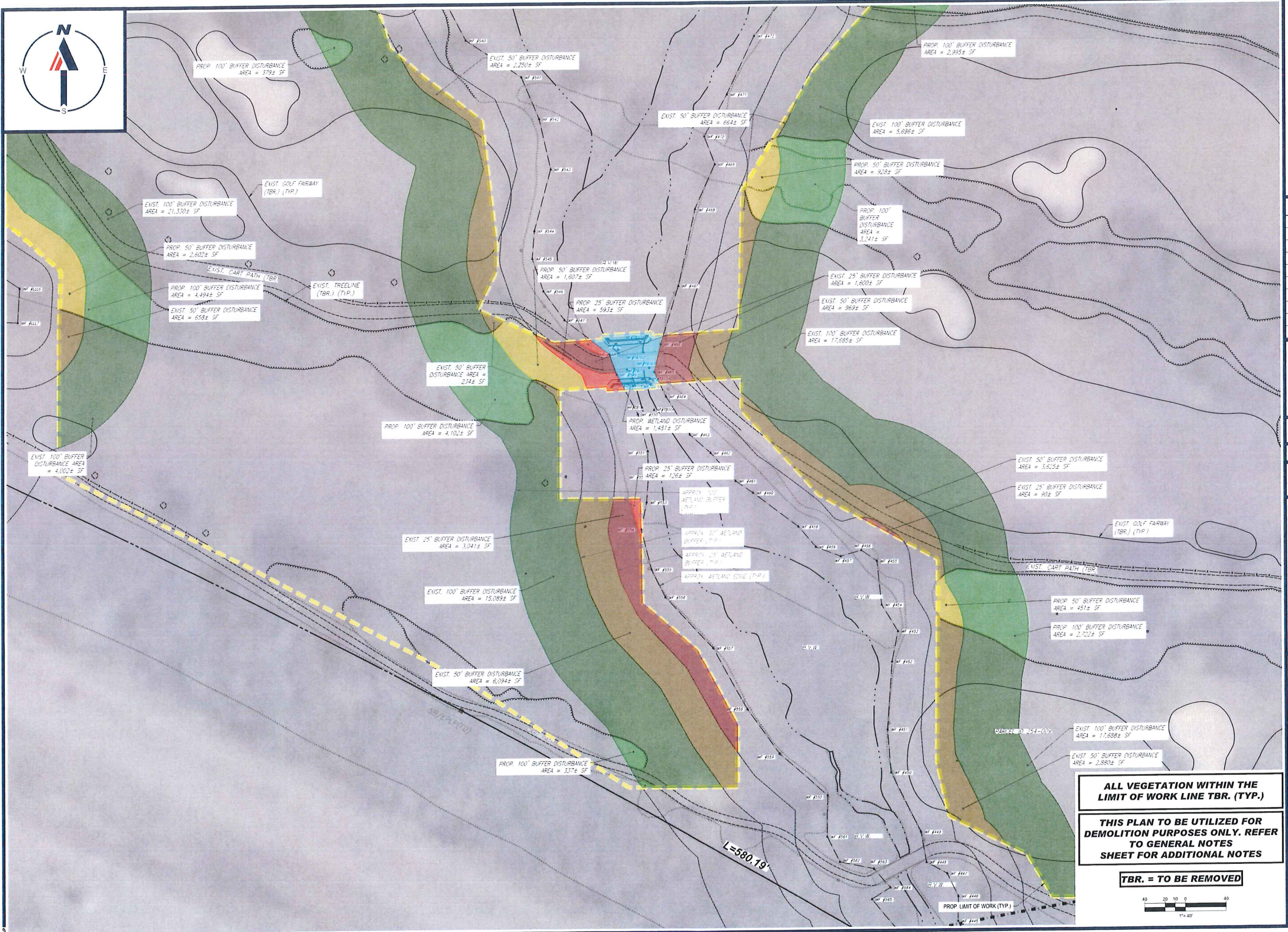


L=1867.06'
R=8125.00'
Δ=13°09'58"
CHB=N64°22'53"W
CHD=1862.95'

INTERSTATE ROUTE 495
PUBLIC-USE ROAD

View of Formerly
SCOTT A. & KAREN L. RHODES
BOOK 22974, PAGE 279
PARCEL D 12-0170

View of Formerly
MAPLEGATE REALTY TRUST
BOOK 3626, PAGE 39
PARCEL D 12-0019



BOHLER
 CIVIL AND CONSULTING ENGINEERING
 LAND SURVEYING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 ENVIRONMENTAL SCIENCE
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMG / OGR
 CHECKED BY: QSD
 DATE: 07/20/2023
 CAD D.L.D.: W201257-DEMO-08

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MAPLE STREET SOLAR LLC

PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009 160 MAPLE STREET, TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

BOHLER

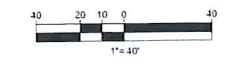
352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
 www.BohlerEngineering.com



ALL VEGETATION WITHIN THE LIMIT OF WORK LINE TBR. (TYP.)

THIS PLAN TO BE UTILIZED FOR DEMOLITION PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES

TBR. = TO BE REMOVED



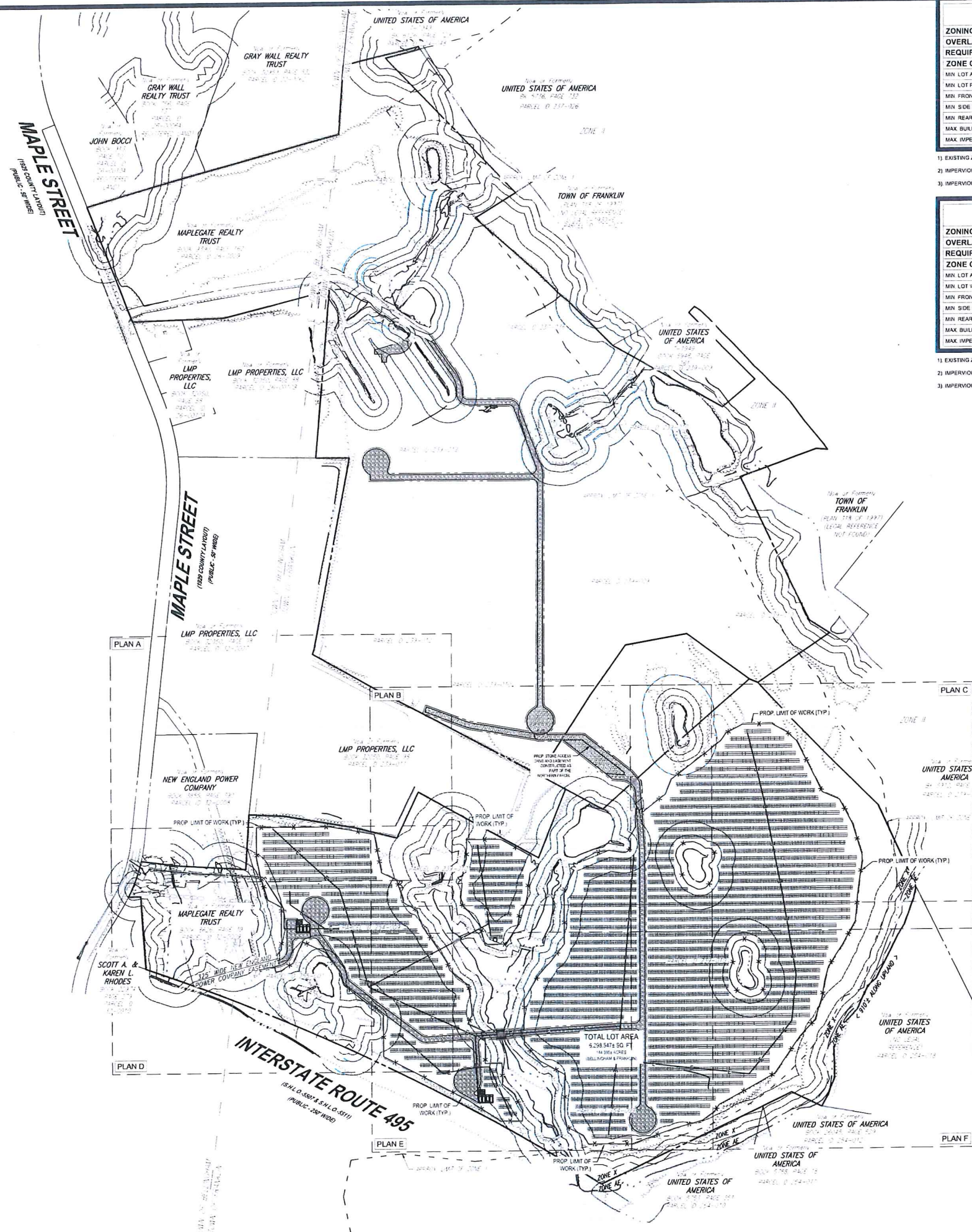
SHEET TITLE:

DEMOLITION PLAN E

SHEET NUMBER:

C-206

ORG. DATE - 07/20/2023



BELLINGHAM ZONING ANALYSIS TABLE

ZONING DISTRICT	OVERLAY DISTRICT	REQUIRED PERMIT	ZONE CRITERIA	REQUIRED	EXISTING ¹	PROPOSED PARCEL 1
SUBURBAN	NONE	TBD	MIN LOT AREA	0.92 ACRES	±65.16 ACRES	±65.16 ACRES
			MIN LOT FRONTAGE	150 FT	138 FT	138 FT
			MIN FRONT SETBACK	37	N/A	N/A
			MIN SIDE SETBACK	15	N/A	N/A
			MIN REAR SETBACK	20	N/A	N/A
			MAX BUILDING HEIGHT	35	N/A	N/A
			MAX IMPER. COVERAGE	80 %	±2.5% ²	2.6 % ³

- 1) EXISTING ZONING CRITERIA INCLUDES PARCELS A,B,C,D.
- 2) IMPERVIOUS COVERAGE PERCENTAGE INCLUDES 0.204 ACRES OF GRAVEL.
- 3) IMPERVIOUS COVERAGE PERCENTAGE INCLUDES 2.516 ACRES OF GRAVEL.

FRANKLIN ZONING ANALYSIS TABLE

ZONING DISTRICT	OVERLAY DISTRICT	REQUIRED PERMIT	ZONE CRITERIA	REQUIRED	EXISTING ¹	PROPOSED PARCEL 1
INDUSTRIAL	NONE	TBD	MIN LOT AREA	0.9 ACRES	±65.16 ACRES	±65.16 ACRES
			MIN LOT WIDTH	157 FT	393 FT±	2272 FT
			MIN FRONT SETBACK	47	N/A	16A
			MIN SIDE SETBACK	37	N/A	33 FT
			MIN REAR SETBACK	37	N/A	445 FT
			MAX BUILDING HEIGHT	3 STORES	±3 STORES	±3 STORES
			MAX IMPER. COVERAGE	80 %	±2.5% ²	2.6 % ³

- 1) EXISTING ZONING CRITERIA INCLUDES PARCELS A,B,C,D.
- 2) IMPERVIOUS COVERAGE PERCENTAGE INCLUDES 0.204 ACRES OF GRAVEL.
- 3) IMPERVIOUS COVERAGE PERCENTAGE INCLUDES 2.516 ACRES OF GRAVEL.

N/A - NOT APPLICABLE
 NS - NOT SPECIFIED
 (V) - VARIANCE REQUESTED
 (W) - WAIVER REQUESTED
 (E) - EXIST. NON-CONFORMANCE

N/A - NOT APPLICABLE
 NS - NOT SPECIFIED
 (V) - VARIANCE REQUESTED
 (W) - WAIVER REQUESTED
 (E) - EXIST. NON-CONFORMANCE

BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 LAND SURVEYING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 TRANSPORTATION SERVICES
 PERMITTING SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY
			DCR/BJR

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

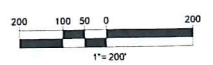
ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL
 THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.
 PROJECT No.: W201257
 DRAWN BY: CMC / DCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD LD.: W201257-SPPD-08

PROPOSED SITE PLAN DOCUMENTS
 FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM
 LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET, TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

BOHLER
 352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9500
 www.BohlerEngineering.com

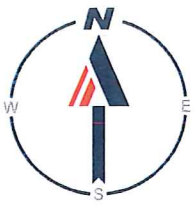
JOHN KUCIAPSKI
 CIVIL ENGINEER
 No. 41530
 REGISTERED PROFESSIONAL ENGINEER

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES



SHEET TITLE:
OVERALL SITE LAYOUT PLAN
 SHEET NUMBER:
C-301
 ORG. DATE - 07/20/2023

P:\2023\PROJECTS\LAND DRAWINGS\PLAN\MA 15.001 - SITE PLAN\W201257-SPD-08.dwg 11/17/23 11:40 AM C:\BPT\BOHLER.DWG



MAPLE STREET
(1929 COUNTY LAYOUT)
(PUBLIC - 80' WIDE)

LMP PROPERTIES, LLC

NEW ENGLAND POWER COMPANY

N18°34'30"E
18.91'

297.99'
N60°45'22"W

260.13'
N62°32'38"W

S87°05'16"E 131.97'

S80°26'16"E
190.71'

S79°28'01"E
76.96'

S75°58'37"E
155.90'

S60°46'43"E
295.09'

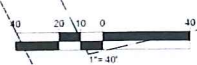
S82°45'33"E
142.78'

S86°26'57"E
244.08'

N03°43'46"E
201.34'

S76°58'48"E
N25°21'34"E

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES



BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
UTILITY DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
DRAWN BY: CMG / OCR
CHECKED BY: GD
DATE: 07/20/2023
CAD LD.: W201257-SPPD-08

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET
TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

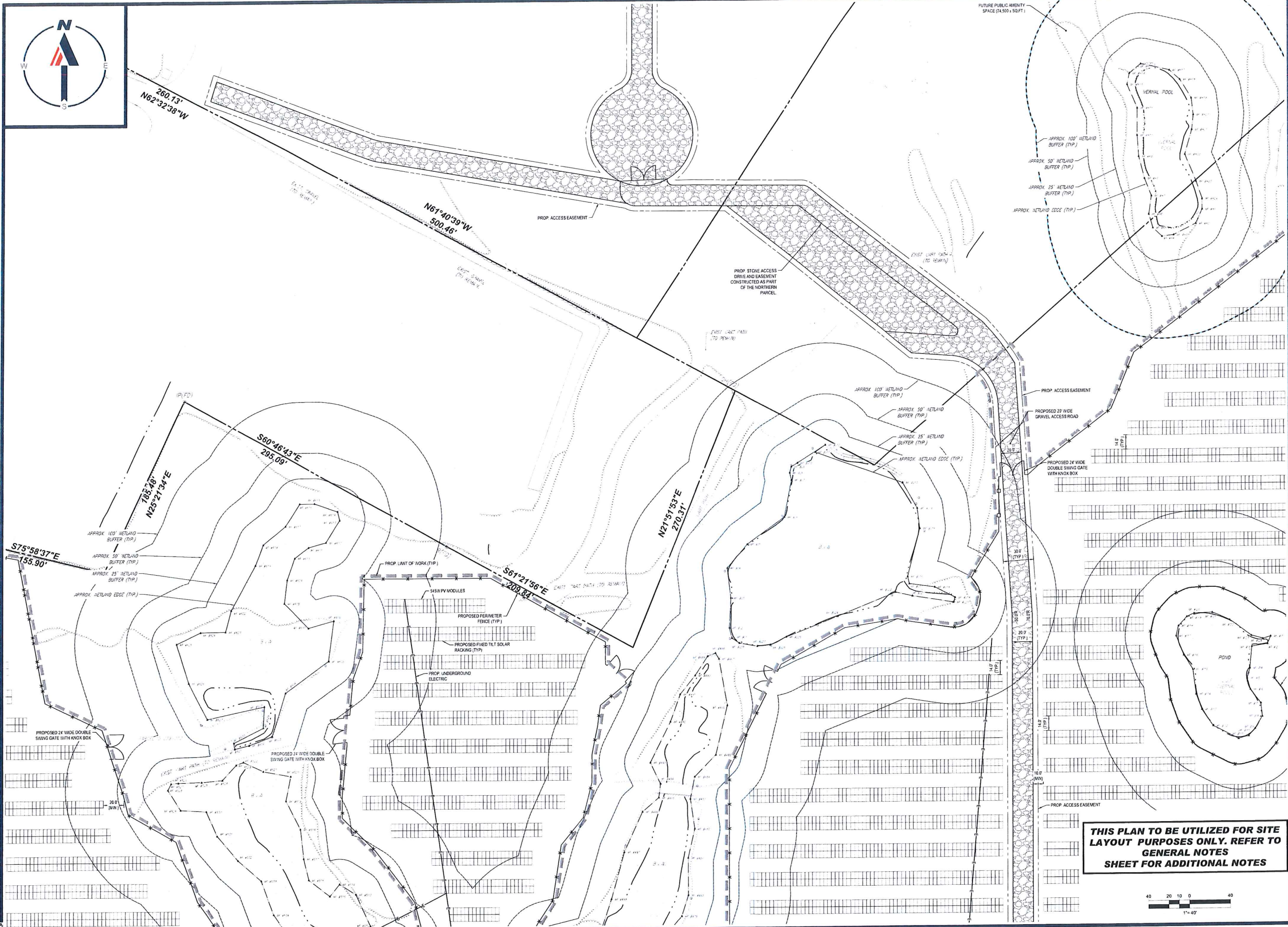
BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com



SHEET TITLE:
SITE LAYOUT PLAN A

SHEET NUMBER:
C-302

ORG. DATE - 07/20/2023



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROJECT MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMG / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD LD.: W201257-SPPD-08

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
www.BohlerEngineering.com

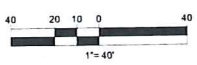


THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES

SHEET TITLE:
SITE LAYOUT PLAN B

SHEET NUMBER:
C-303

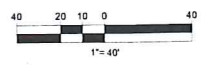
ORG. DATE - 07/20/2023





UNITED STATES OF AMERICA

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 LAND SURVEYING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 PLANNING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / DCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD I.D.: W201257-SPPD-08

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

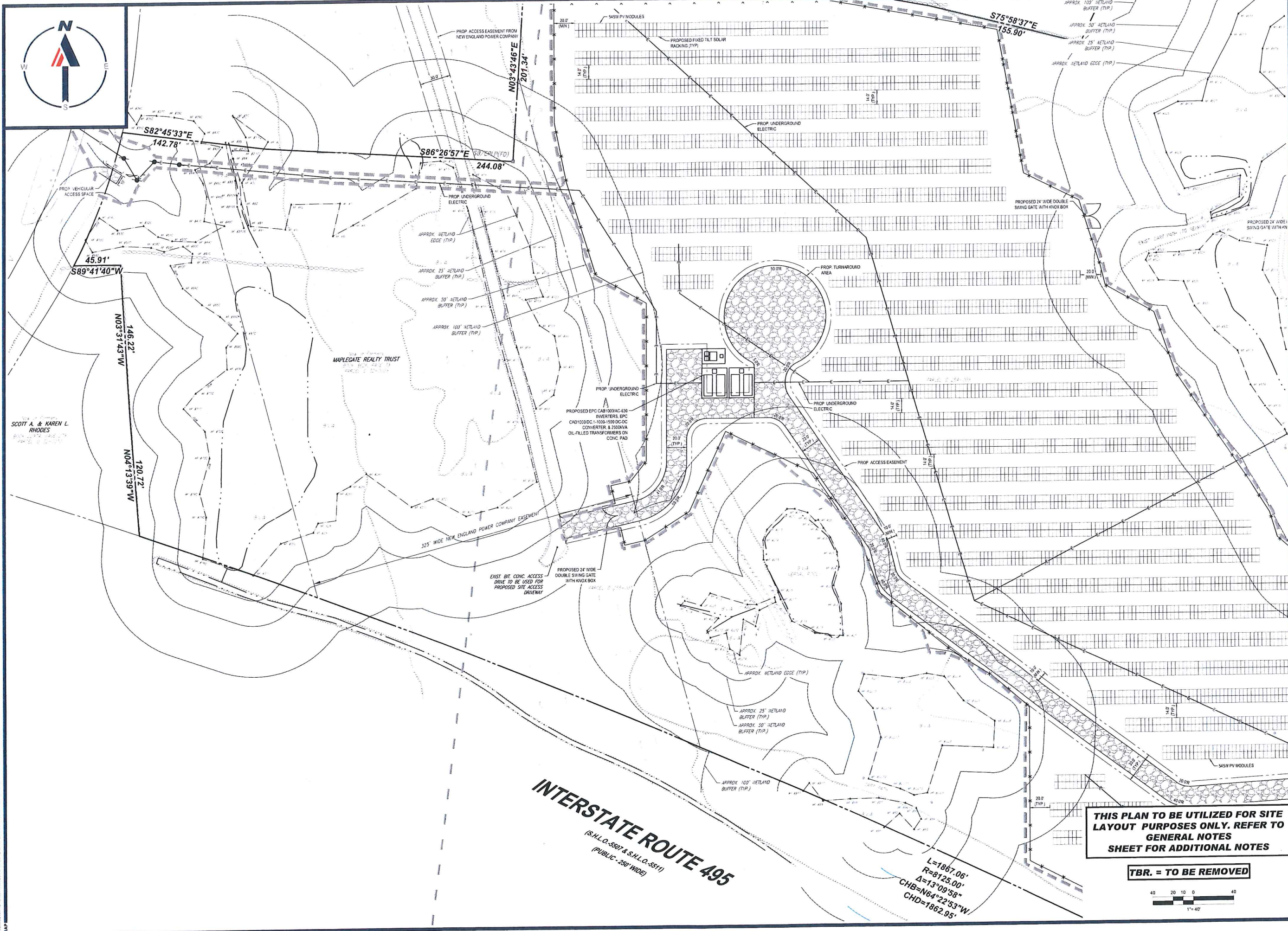
BOHLER
 352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
 www.BohlerEngineering.com



SHEET TITLE:
SITE LAYOUT PLAN C

SHEET NUMBER:
C-304

ORG. DATE - 07/20/2023



SCOTT A. & KAREN L. RHODES

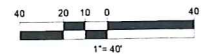
MAPLEGATE REALTY TRUST

INTERSTATE ROUTE 495
(S.H.L.O.-5507 & S.H.L.O.-5511)
(PUBLIC - 200' WIDE)

L=1867.06'
R=8125.00'
Δ=13°09'58"
CHB=N64°22'53"W
CHD=1862.95'

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES

TBR. = TO BE REMOVED



BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROPOSED SITE LAYOUT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS			
REV	DATE	COMMENT	DRAWN BY

811

Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
DRAWN BY: CMG / OCR
CHECKED BY: GD
DATE: 07/20/2023
CAD LD.: W201257-SPPD-08

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010 & 32-0009
160 MAPLE STREET,
TOWN OF BELLINGHAM & FRANKLIN,
NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com

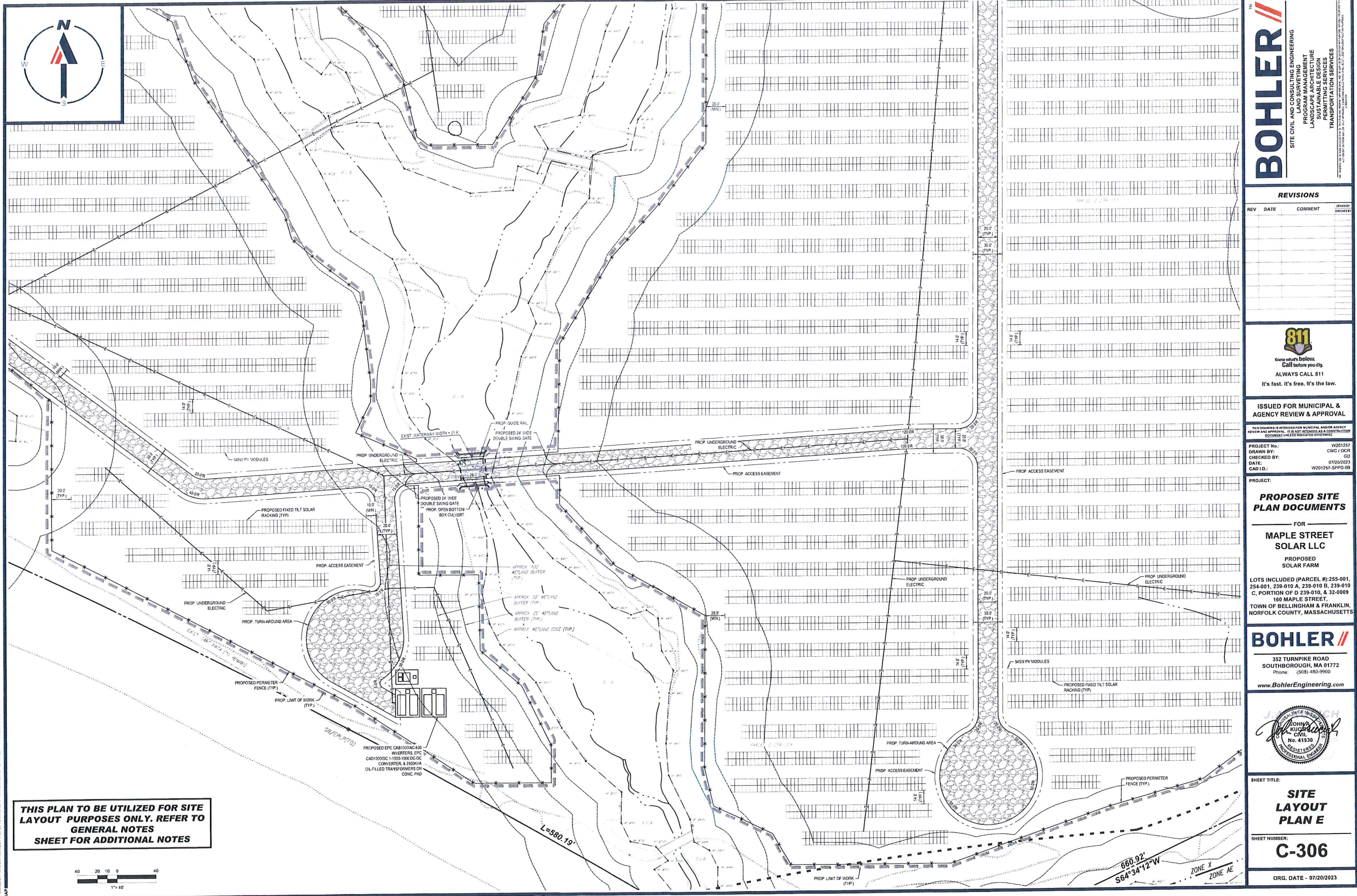


SHEET TITLE:
SITE LAYOUT PLAN D

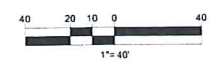
SHEET NUMBER:
C-305

ORG. DATE - 07/20/2023

P:\2023\23-0720\23-0720\23-0720-01.dwg (SPPD) - 07/20/2023 10:45:00 AM



THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES



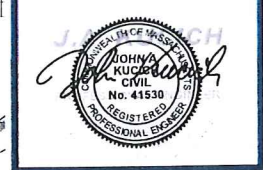
REVISIONS			
REV	DATE	COMMENT	DRAWN BY / CHECKED BY

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL
THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

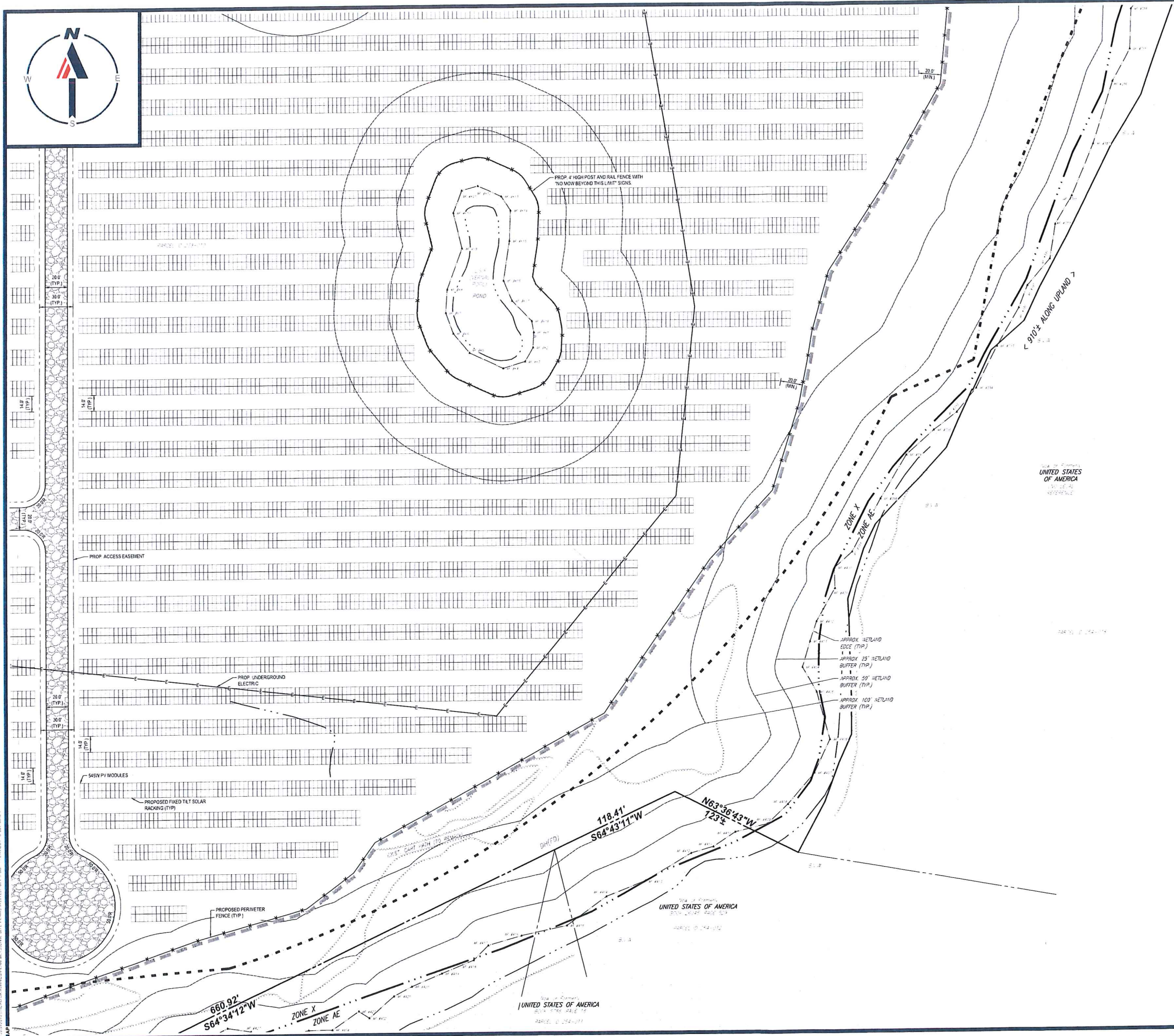
PROJECT No.: W201257
DRAWN BY: CMC / OCR
CHECKED BY: GSD
DATE: 07/20/2023
CAD I.D.: W201257-SPD-08

PROJECT: **PROPOSED SITE PLAN DOCUMENTS**
FOR
MAPLE STREET SOLAR LLC
PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET
TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS



SHEET TITLE: **SITE LAYOUT PLAN E**
SHEET NUMBER: **C-306**
ORG. DATE - 07/20/2023



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 LAND SURVEYING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMG / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD LD.: W201257-SPPD-08

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET
 TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

BOHLER
 352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
 www.BohlerEngineering.com

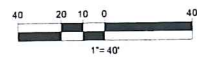


SHEET TITLE:
SITE LAYOUT PLAN F

SHEET NUMBER:
C-307

ORG. DATE - 07/20/2023

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES





MAPLE STREET
(1825 COUNTY LAYOUT)
(PUBLIC - 50' WIDE)

MAPLE STREET
(1825 COUNTY LAYOUT)
(PUBLIC - 50' WIDE)

MAPLE STREET
(1825 COUNTY LAYOUT)
(PUBLIC - 50' WIDE)

PLAN A

PLAN B

PLAN C

PLAN D

PLAN E

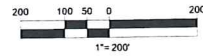
PLAN F



STATE WIDE NEW ENGLAND
POWER COMPANY CASSEMENT

INTERSTATE ROUTE 495
(R.H.L.O. 5501 & 4-N.H.L.O. 4011)
(PUBLIC - 200' WIDE)

**THIS PLAN TO BE UTILIZED FOR SITE
GRADING PURPOSES ONLY. REFER TO
GENERAL NOTES SHEET
FOR ADDITIONAL GRADING & UTILITY
NOTES**



BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
PROJECT MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY



Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

**ISSUED FOR MUNICIPAL &
AGENCY REVIEW & APPROVAL**

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY
REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION
DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT NO.: W201257
DRAWN BY: CMC / OCR
CHECKED BY: GD
DATE: 07/20/2023
CAD I.D.: W201257-GRAD-08

**PROPOSED SITE
PLAN DOCUMENTS**

FOR
**MAPLE STREET
SOLAR LLC**
PROPOSED
SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001,
254-001, 239-010 A, 239-010 B, 239-010
C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET,
TOWN OF BELLINGHAM & FRANKLIN,
NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900

www.BohlerEngineering.com



SHEET TITLE:
**OVERALL
GRADING
PLAN**

SHEET NUMBER:
C-401

ORG. DATE - 07/20/2023



MAPLE STREET
(1929 COUNTY LAYOUT)
(PUBLIC - 50' WIDE)

ALL RED SHADED AREAS, WITHIN LIMIT
OF WORK WILL HAVE EXTENDED STAKE
POSTS TO ACCOMMODATE THE STEEP
SLOPES

PROP. LIMIT OF WORK (TYP.)

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LAND ACQUISITION
SUSTAINABLE DESIGN
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

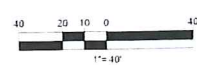
PROJECT No.: W201257
DRAWN BY: CMC / OCR
CHECKED BY: GD
DATE: 07/20/2023
CAD I.D.: W201257-GRAD-03

PROJECT:
PROPOSED SITE PLAN DOCUMENTS
FOR
MAPLE STREET SOLAR LLC
PROPOSED SOLAR FARM
LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET,
TOWN OF BELLINGHAM & FRANKLIN,
NORFOLK COUNTY, MASSACHUSETTS

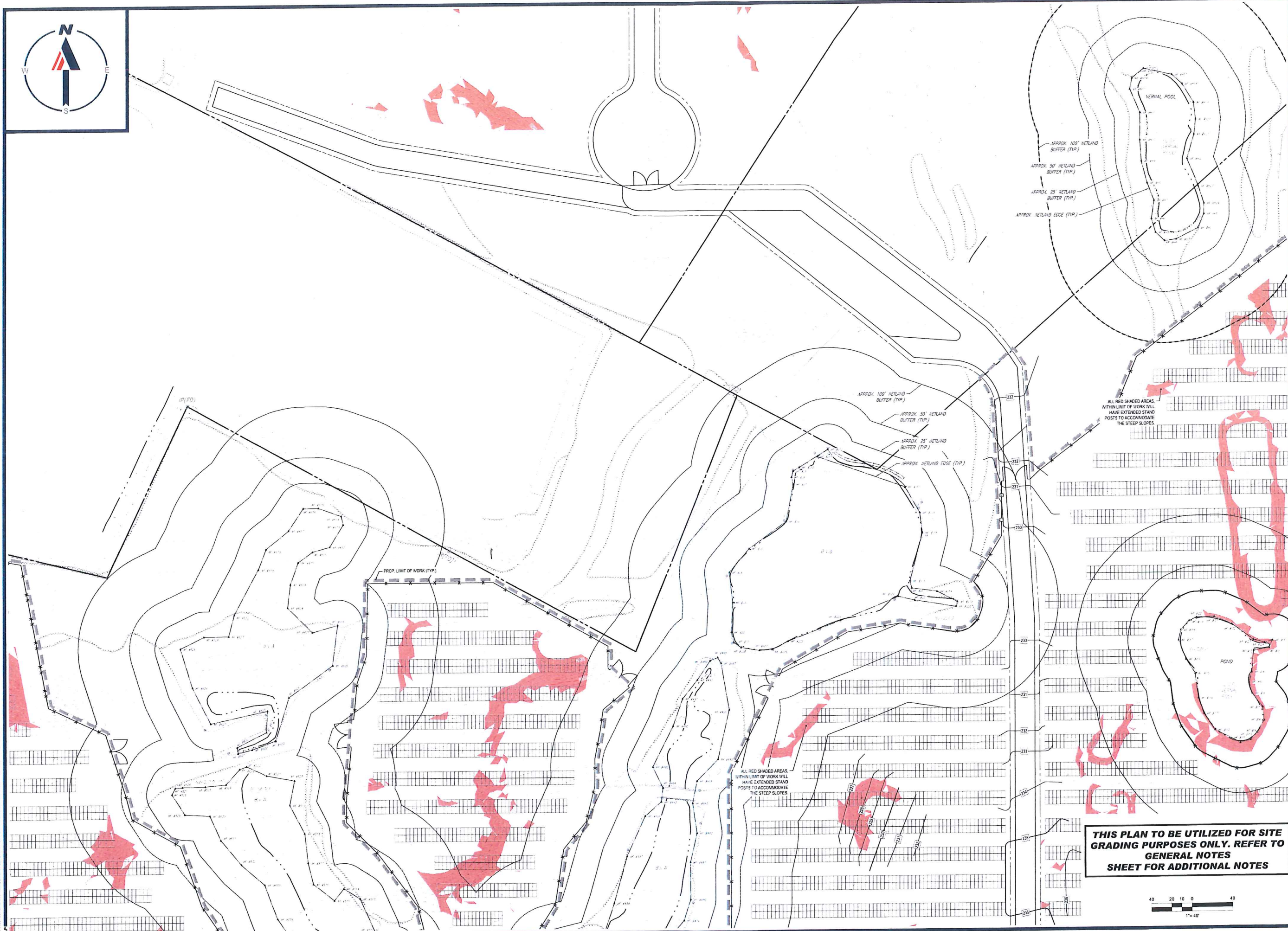
BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com



THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES



SHEET TITLE:
GRADING PLAN A
SHEET NUMBER:
C-402
ORG. DATE - 07/20/2023



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 LAND SURVEYING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 CONSTRUCTION MANAGEMENT
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMG / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD I.D.: W201257-GRAD-08

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009 160 MAPLE STREET, TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

BOHLER
 352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
www.BohlerEngineering.com



SHEET TITLE:

GRADING PLAN B

SHEET NUMBER:
C-403

ORG. DATE - 07/20/2023

THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES



APPROX. 100' WETLAND BUFFER (TYP.)
 APPROX. 50' WETLAND BUFFER (TYP.)
 APPROX. 25' WETLAND BUFFER (TYP.)
 APPROX. WETLAND EDGE (TYP.)

VERNAL POOL

PROP. LIMIT OF WORK (TYP.)

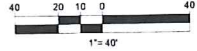
ALL RED SHADED AREAS WITHIN LIMIT OF WORK WILL HAVE EXTENDED STAND POSTS TO ACCOMMODATE THE STEEP SLOPES

PROP. LIMIT OF WORK (TYP.)

POND

ALL RED SHADED AREAS WITHIN LIMIT OF WORK WILL HAVE EXTENDED STAND POSTS TO ACCOMMODATE THE STEEP SLOPES

THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 LAND SURVEYING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY



ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID.: W201257-GRAD-08

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900

www.BohlerEngineering.com



SHEET TITLE:
GRADING PLAN C

SHEET NUMBER:
C-404

ORG. DATE - 07/20/2023



INTERSTATE ROUTE 495
RSTA

THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
DRAWN BY: CMC / OCR
CHECKED BY: GD
DATE: 07/20/2023
CAD I.D.: W201257-GRAD-08

PROJECT:
PROPOSED SITE PLAN DOCUMENTS
FOR
MAPLE STREET SOLAR LLC
PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET
TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

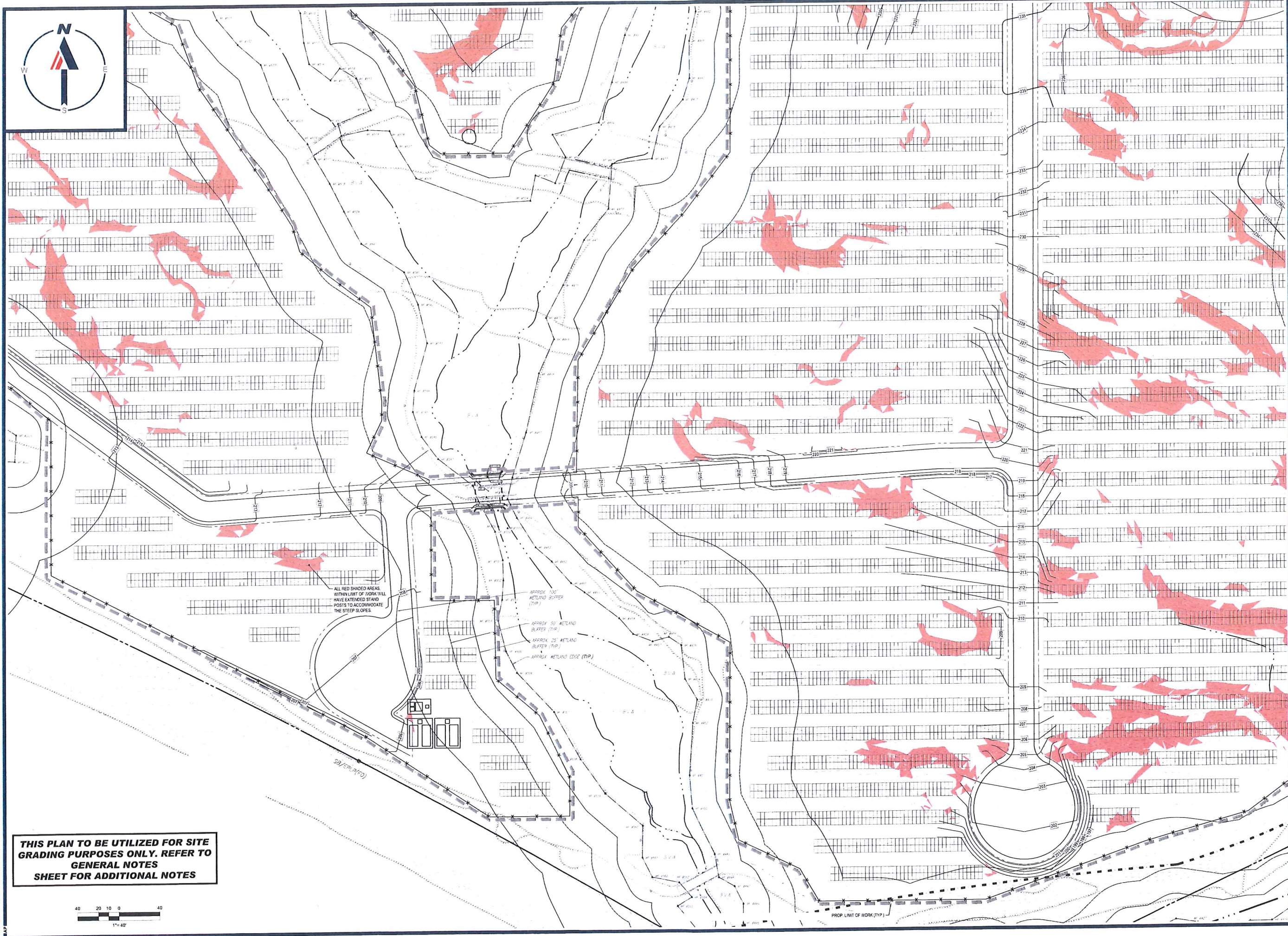
BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com



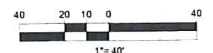
SHEET TITLE:
GRADING PLAN D

SHEET NUMBER:
C-405

ORG. DATE - 07/20/2023



THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 LAND SURVEYING
 PROJECT MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL
THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

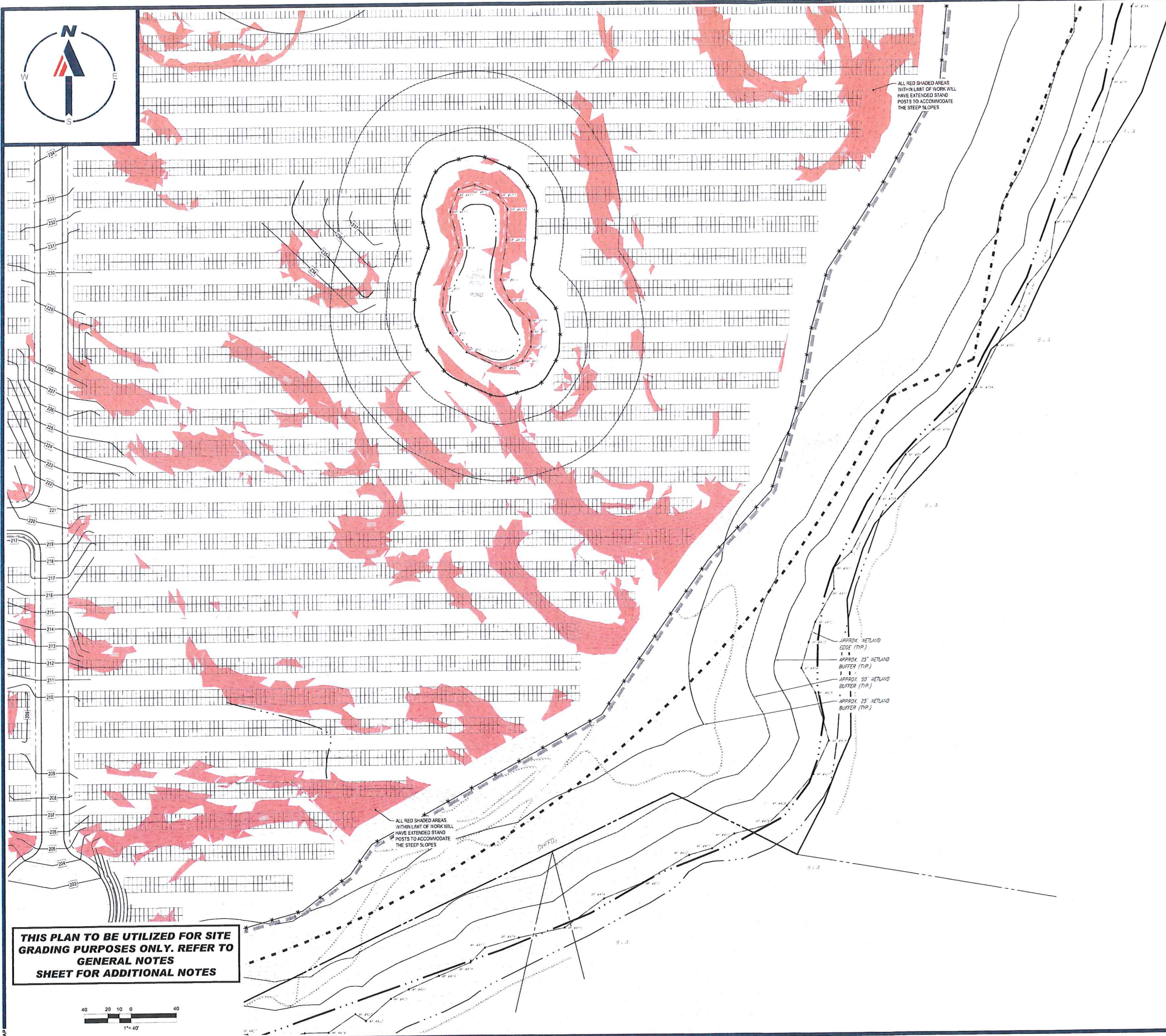
PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD ID.: W201257-GRAD-08

PROPOSED SITE PLAN DOCUMENTS
 FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM
 LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET, TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

BOHLER
 352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
www.BohlerEngineering.com



SHEET TITLE:
GRADING PLAN E
 SHEET NUMBER:
C-406
 ORG. DATE - 07/20/2023



THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY. REFER TO GENERAL NOTES SHEET FOR ADDITIONAL NOTES



BOHLER //

SITE CIVIL AND CONSULTING ENGINEERING
 LAND SURVEYING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 ENVIRONMENTAL SERVICES
 TRANSPORTATION SERVICES

STATE OF MASSACHUSETTS
 REGISTERED PROFESSIONAL ENGINEER
 LICENSE NO. 81530

REVISIONS

REV	DATE	COMMENT	DESIGNED BY	CHECKED BY

811

Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCB
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD L.D.: W201257-GRAD-08

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER //

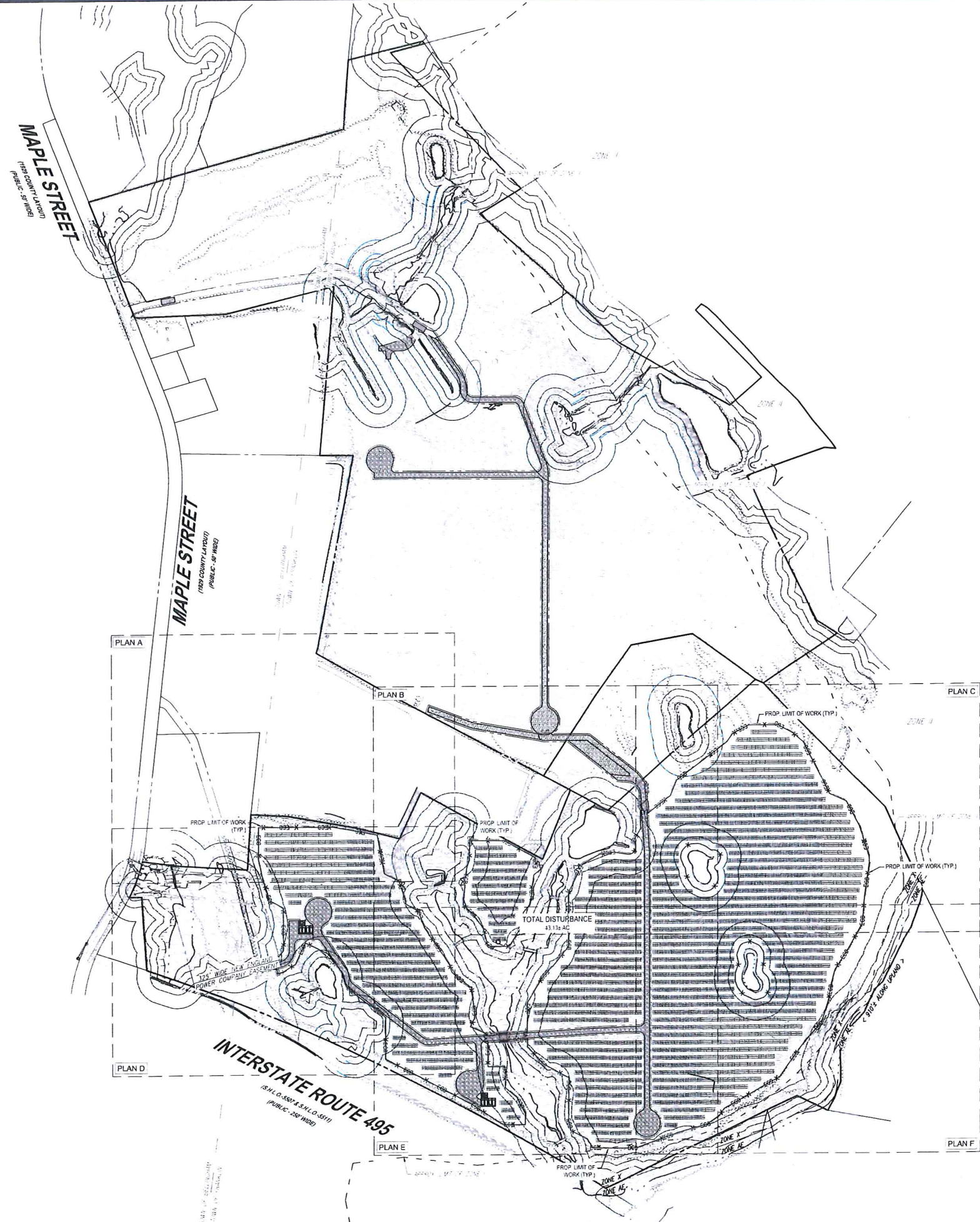
352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
www.BohlerEngineering.com



SHEET TITLE:
GRADING PLAN F

SHEET NUMBER:
C-407

ORG. DATE - 07/20/2023

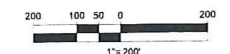


THIS PLAN TO BE UTILIZED FOR SITE SOIL AND EROSION CONTROL PURPOSES ONLY

MEADOW SEED MIX SHALL BE INSTALLED WITHIN ALL LANDSCAPE AREAS DELINEATED BY THE LIMIT OF WORK

REFER TO SOIL EROSION CONTROL NOTES & DETAIL SHEET FOR EROSION NOTES AND DETAILS

EROSION CONTROL BARRIER SHALL CONSIST OF BOTH COMPOST SOCK AND SIT FENCE UNLESS OTHERWISE NOTED. SEE DETAILS FOR MORE INFORMATION.



BOHLER ENGINEERING
 SITE CIVIL AND CONSULTING ENGINEERING
 LAND SURVEYING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PLANNING
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY



ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD I.D.: W201257-EROS-08

PROPOSED SITE PLAN DOCUMENTS
 FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET
 TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

BOHLER ENGINEERING
 352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
www.BohlerEngineering.com



SHEET TITLE:
OVERALL EROSION & SEDIMENT CONTROL PLAN
 SHEET NUMBER:
C-601

ORG. DATE - 07/20/2023

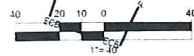


THIS PLAN TO BE UTILIZED FOR SITE SOIL AND EROSION CONTROL PURPOSES ONLY

MEADOW SEED MIX SHALL BE INSTALLED WITHIN ALL LANDSCAPE AREAS DELINEATED BY THE LIMIT OF WORK

REFER TO SOIL EROSION CONTROL NOTES & DETAIL SHEET FOR EROSION NOTES AND DETAILS

EROSION CONTROL BARRIER SHALL CONSIST OF BOTH COMPOST SOCK AND SIT FENCE UNLESS OTHERWISE NOTED. SEE DETAILS FOR MORE INFORMATION.



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS SO INDICATED OTHERWISE.

PROJECT No.: W201251
 DRAWN BY: CMC / OCR
 CHECKED BY: GO
 DATE: 07/20/2023
 CAD I.D.: W201251-EROS-08

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER
 352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
 www.BohlerEngineering.com

SHEET TITLE:
EROSION & SEDIMENT CONTROL PLAN A

SHEET NUMBER:
C-602

ORG. DATE - 07/20/2023



260.73'
N62°32'38"W

N61°40'39"W
500.46'

785.48'
N25°21'34"E

S60°46'43"E
295.09'

N21°51'53"E
270.31'

S61°21'56"E
209.84'

APPROX 100' WETLAND
BUFFER (TYP.)
APPROX 25' WETLAND
BUFFER (TYP.)
APPROX 25' WETLAND
BUFFER (TYP.)
APPROX WETLAND EDGE (TYP.)

APPROX 100' WETLAND
BUFFER (TYP.)
APPROX 50' WETLAND
BUFFER (TYP.)
APPROX 25' WETLAND
BUFFER (TYP.)
APPROX WETLAND EDGE (TYP.)

PROP. EROSION CONTROL
BARRIER OFFSET SHOWN FOR
GRAPHICAL PURPOSES ONLY.
ECB TO BE PLACED ON THE
LIMIT OF WORK.

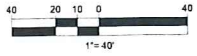
PROP. EROSION CONTROL
BARRIER OFFSET SHOWN FOR
GRAPHICAL PURPOSES ONLY.
ECB TO BE PLACED ON THE
LIMIT OF WORK.

**THIS PLAN TO BE UTILIZED FOR SITE
SOIL AND EROSION CONTROL
PURPOSES ONLY**

**MEADOW SEED MIX SHALL BE
INSTALLED WITHIN ALL LANDSCAPE
AREAS DELINEATED BY THE LIMIT OF
WORK**

**REFER TO SOIL EROSION CONTROL
NOTES & DETAIL SHEET FOR EROSION
NOTES AND DETAILS**

**EROSION CONTROL BARRIER SHALL
CONSIST OF BOTH COMPOST SOCK
AND SIT FENCE UNLESS OTHERWISE
NOTED. SEE DETAILS FOR MORE
INFORMATION.**



BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
DRAWN BY: CMC / ODR
CHECKED BY: GD
DATE: 07/20/2023
CAD LD.: W201257-EROS-08

PROJECT:

**PROPOSED SITE
PLAN DOCUMENTS**

FOR
**MAPLE STREET
SOLAR LLC**
PROPOSED
SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009 160 MAPLE STREET TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com



SHEET TITLE:
**EROSION &
SEDIMENT
CONTROL
PLAN B**

SHEET NUMBER:
C-603

ORG. DATE - 07/20/2023



APPROX 100' WETLAND BUFFER (TYP.)
 APPROX 25' WETLAND BUFFER (TYP.)
 APPROX 25' WETLAND BUFFER (TYP.)
 APPROX WETLAND EDGE (TYP.)

PROP EROSION CONTROL BARRIER, OFFSET SHOWN FOR GRAPHICAL PURPOSES ONLY. ECB TO BE PLACED ON THE LIMIT OF WORK.

PROP EROSION CONTROL BARRIER, OFFSET SHOWN FOR GRAPHICAL PURPOSES ONLY. ECB TO BE PLACED ON THE LIMIT OF WORK.

PROP EROSION CONTROL BARRIER, OFFSET SHOWN FOR GRAPHICAL PURPOSES ONLY. ECB TO BE PLACED ON THE LIMIT OF WORK.

PROP LIMIT OF WORK (TYP)

S43°26'35"E
168.30'

S43°56'35"E
178.20'

S45°11'35"E
287.10'

S22°18'16"E
324.79'

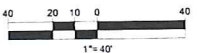
UNITED STATES OF AMERICA

THIS PLAN TO BE UTILIZED FOR SITE SOIL AND EROSION CONTROL PURPOSES ONLY

MEADOW SEED MIX SHALL BE INSTALLED WITHIN ALL LANDSCAPE AREAS DELINEATED BY THE LIMIT OF WORK

REFER TO SOIL EROSION CONTROL NOTES & DETAIL SHEET FOR EROSION NOTES AND DETAILS

EROSION CONTROL BARRIER SHALL CONSIST OF BOTH COMPOST SOCK AND SIT FENCE UNLESS OTHERWISE NOTED. SEE DETAILS FOR MORE INFORMATION.



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 PROJECT MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY
			DCD231

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT NO.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD I.D.: W201257-EROS-08

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

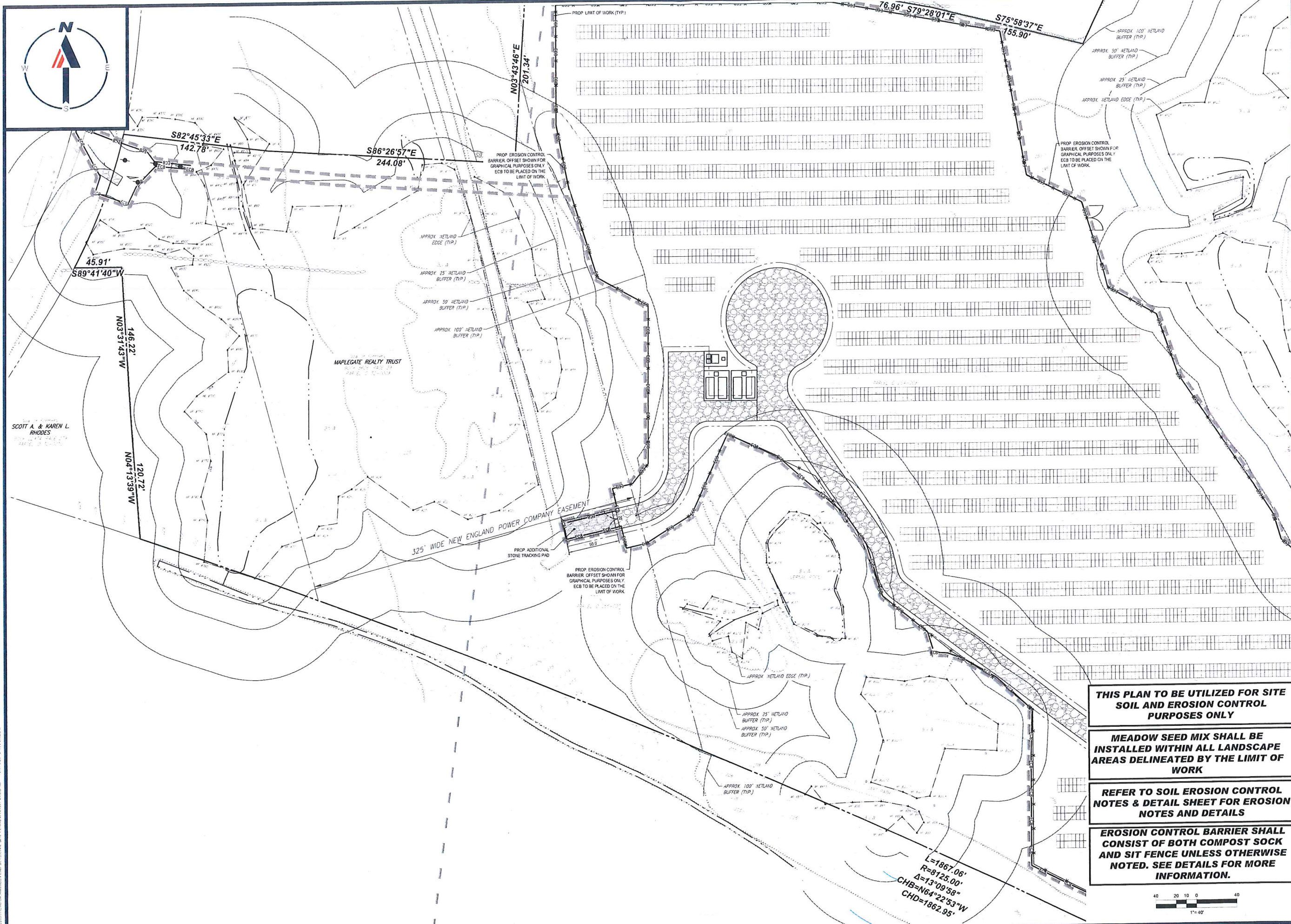
BOHLER
 352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
www.BohlerEngineering.com



SHEET TITLE:
EROSION & SEDIMENT CONTROL PLAN C

SHEET NUMBER:
C-604

ORG. DATE - 07/20/2023



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 LAND SURVEYING
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL
THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD I.D.: W201257-EROS-08

PROPOSED SITE PLAN DOCUMENTS
 FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER
 352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 430-9900
www.BohlerEngineering.com



SHEET TITLE:
EROSION & SEDIMENT CONTROL PLAN D

SHEET NUMBER:
C-605

ORG. DATE - 07/20/2023

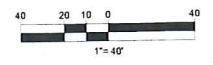
THIS PLAN TO BE UTILIZED FOR SITE SOIL AND EROSION CONTROL PURPOSES ONLY

MEADOW SEED MIX SHALL BE INSTALLED WITHIN ALL LANDSCAPE AREAS DELINEATED BY THE LIMIT OF WORK

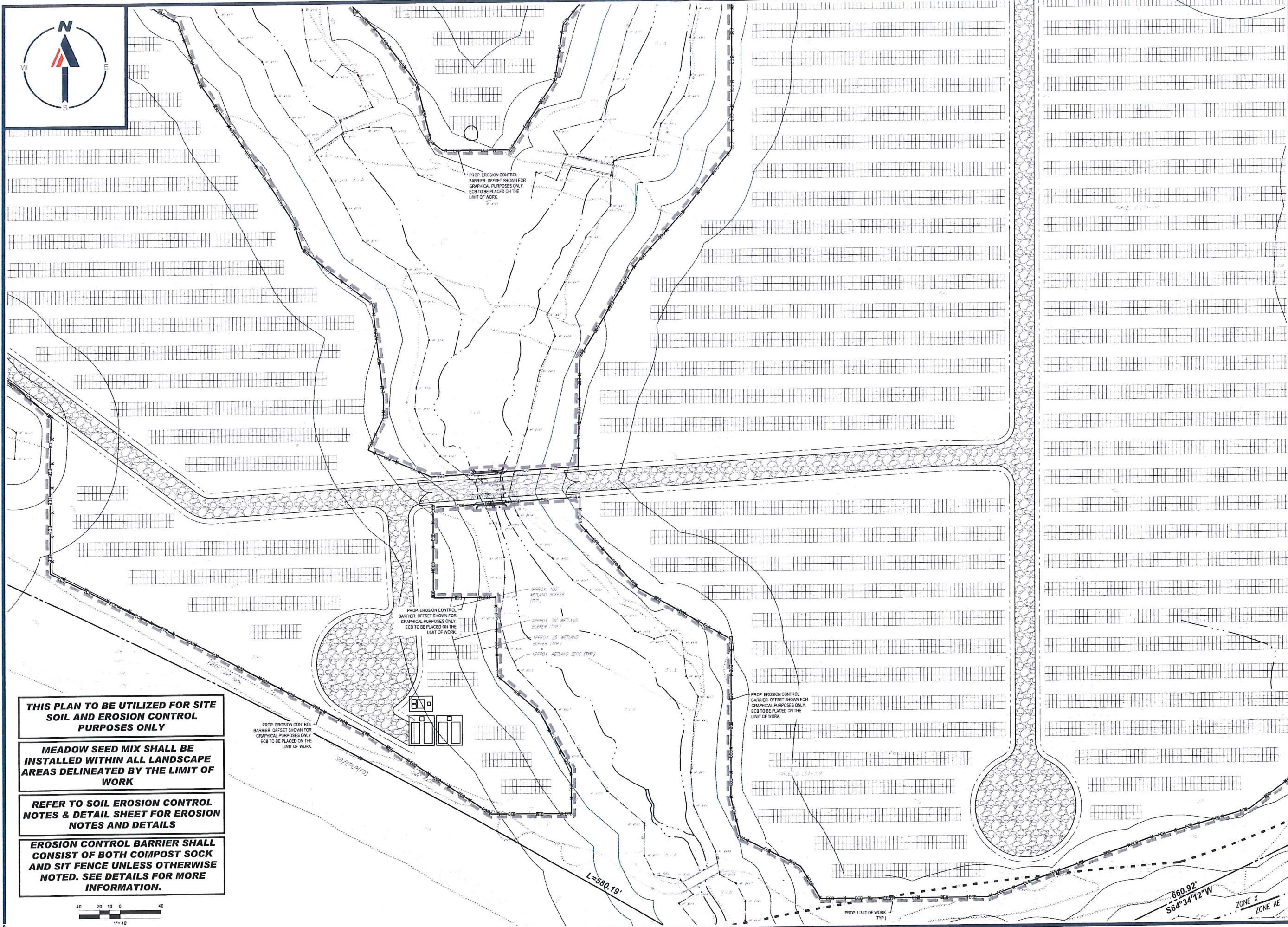
REFER TO SOIL EROSION CONTROL NOTES & DETAIL SHEET FOR EROSION NOTES AND DETAILS

EROSION CONTROL BARRIER SHALL CONSIST OF BOTH COMPOST SOCK AND SIT FENCE UNLESS OTHERWISE NOTED. SEE DETAILS FOR MORE INFORMATION.

L=1867.06'
 R=8125.00'
 Δ=13°09'58"
 CHB=N64°22'53"W
 CHD=1862.95'



THIS DRAWING IS THE PROPERTY OF BOHLER ENGINEERING. IT IS NOT TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF BOHLER ENGINEERING.



THIS PLAN TO BE UTILIZED FOR SITE SOIL AND EROSION CONTROL PURPOSES ONLY

MEADOW SEED MIX SHALL BE INSTALLED WITHIN ALL LANDSCAPE AREAS DELINEATED BY THE LIMIT OF WORK

REFER TO SOIL EROSION CONTROL NOTES & DETAIL SHEET FOR EROSION NOTES AND DETAILS

EROSION CONTROL BARRIER SHALL CONSIST OF BOTH COMPOST SOCK AND SIT FENCE UNLESS OTHERWISE NOTED. SEE DETAILS FOR MORE INFORMATION.

BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 LAND SURVEYING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PERMITTING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY
			DEC2023

811
 Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT NO.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD L.D.: W201257-EROS-08

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC

PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER

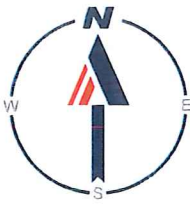
352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 480-9900
www.BohlerEngineering.com



SHEET TITLE:
EROSION & SEDIMENT CONTROL PLAN E

SHEET NUMBER:
C-606

ORG. DATE - 07/20/2023



REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY



ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.:	W201257
DRAWN BY:	CMC / OCR
CHECKED BY:	GD
DATE:	07/20/2023
CAD I.D.:	W201257-EROS-08

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET, TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

BOHLER

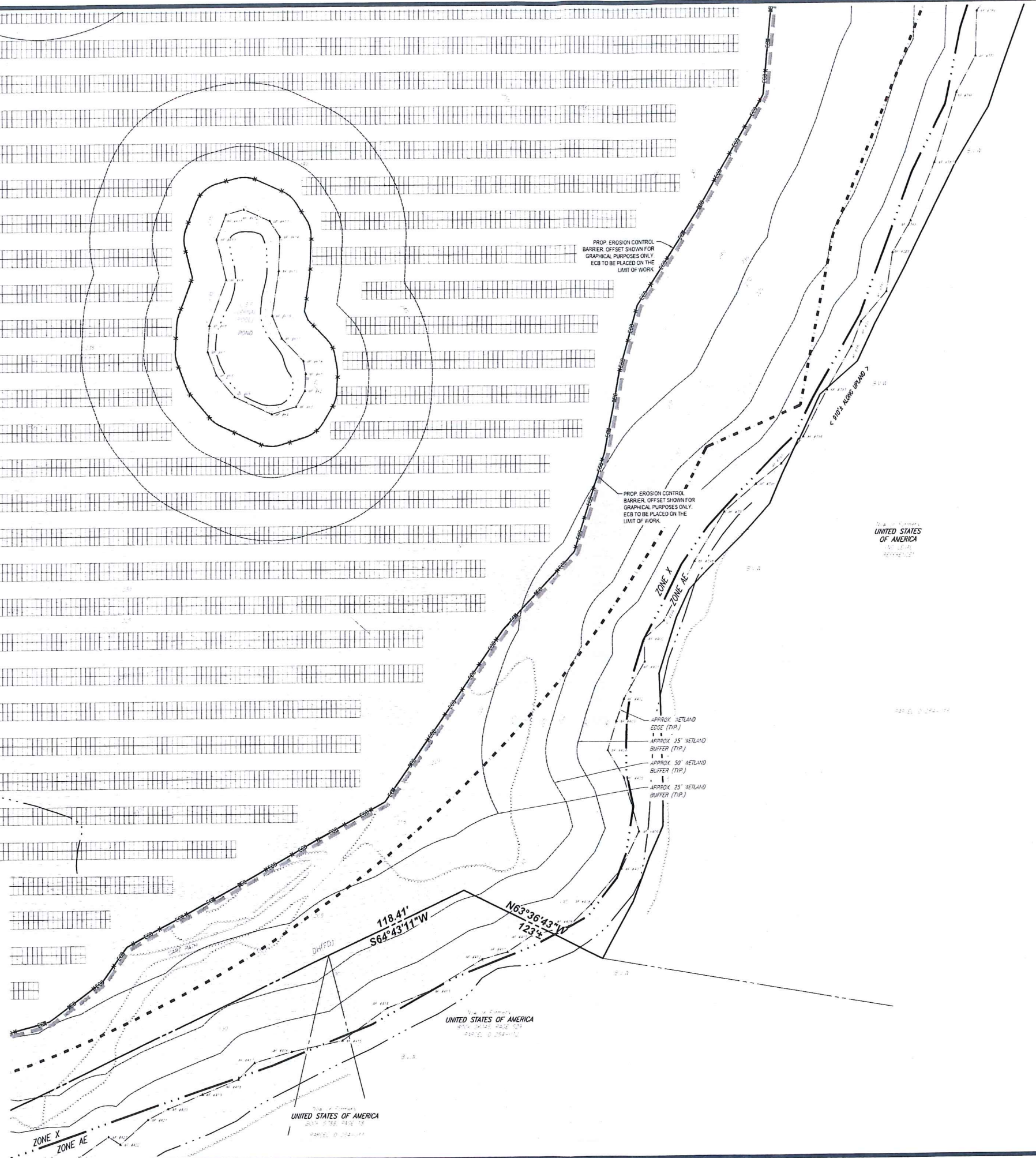
352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 430-9900
www.BohlerEngineering.com



SHEET TITLE:
EROSION & SEDIMENT CONTROL PLAN F

SHEET NUMBER:
C-607

ORG. DATE - 07/20/2023

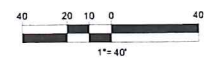


THIS PLAN TO BE UTILIZED FOR SITE SOIL AND EROSION CONTROL PURPOSES ONLY

MEADOW SEED MIX SHALL BE INSTALLED WITHIN ALL LANDSCAPE AREAS DELINEATED BY THE LIMIT OF WORK

REFER TO SOIL EROSION CONTROL NOTES & DETAIL SHEET FOR EROSION NOTES AND DETAILS

EROSION CONTROL BARRIER SHALL CONSIST OF BOTH COMPOST SOCK AND SIT FENCE UNLESS OTHERWISE NOTED. SEE DETAILS FOR MORE INFORMATION.



P:\2023\157\SCH\EROSION\EROSION PLAN.dwg, JLT, P, 07/20/2023 11:27:07, 11/15/2023 11:00:00

EROSION AND SEDIMENT CONTROL NOTES

- 1. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL BE DONE AS SET FORTH IN THE MOST CURRENT STATE SEDIMENT AND EROSION CONTROL MANUAL.
2. THOSE AREAS UNDERGOING ACTUAL CONSTRUCTION WILL BE LEFT IN AN UNTREATED OR UNVEGETATED CONDITION FOR A MINIMUM TIME PERIOD...
3. SEDIMENT BARRIERS (SILT FENCE, STRAW BARRIERS, ETC.) SHOULD BE INSTALLED PRIOR TO ANY SOIL DISTURBANCE...
4. INSTALL SILTATION BARRIER AT TOE OF SLOPE TO FILTER SILT FROM RUNOFF...
5. ALL EROSION CONTROL STRUCTURES WILL BE INSPECTED, REPLACED AND/OR REPAIRED EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL...
6. NO SLOPES, EITHER PERMANENT OR TEMPORARY, SHALL BE STEEPER THAN TWO TO ONE (2:1) UNLESS OTHERWISE INDICATED...
7. IF FINAL SEEDING OF THE DISTURBED AREAS IS NOT COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST...
8. TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINAL GRADED SHALL BE COMPLETED 45 DAYS PRIOR TO THE FIRST KILLING FROST...
9. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL STANDARDS.
10. REVEGETATION MEASURES WILL COMMENCE UPON COMPLETION OF CONSTRUCTION EXCEPT AS NOTED ABOVE...
11. ALL TEMPORARY EROSION CONTROL MEASURES SHALL BE REMOVED ONCE THE SITE IS 70% STABILIZED...
12. WETLANDS WILL BE PROTECTED WITH BARRIERS CONSISTING OF STRAW BALES, COMPOST TUBES, SILT FENCE OR A COMBINATION THEREOF.
13. ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL HAVE AN EXPOSURE WINDOW OF NOT MORE THAN 7 DAYS.
14. ALL AREAS WITHIN 100 FEET OF A FLAGGED WETLAND OR STREAM SHALL FOLLOW APPROPRIATE EROSION CONTROL MEASURES PRIOR TO EACH STORM IF NOT BEING ACTIVELY WORKED.

Table with 4 columns: LOCATION PROTECTED AREA, MULCH, MULCH RATE (1000 SF), and MULCH RATE (1000 SF). Rows include WINDY AREA, MODERATE TO HIGH VELOCITY AREAS, and GREATER THAN 3:1.

* A HYDRO-APPLICATION OF WOOD OR PAPER FIBER MAY BE APPLIED FOLLOWING SEEDING...
* MULCH ANCHORING: ANCHOR MULCH WITH PEG AND TWINE (1/2" SQ. YD/BLOCK)...

- 15. PROPOSED LOCATIONS OF SURFACE STORMWATER MANAGEMENT BASINS CAN BE UTILIZED AS A TEMPORARY SEDIMENT TRAP DURING CONSTRUCTION...
15.1. TEMPORARY SEDIMENT TRAPS SHALL BE SIZED PER THE CURRENT EDITION OF THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES...
16. STOCKPILING OF MATERIALS (DIRT, WOOD, CONSTRUCTION MATERIALS, ETC.) MUST REMAIN COVERED AT ALL TIMES TO MINIMIZE ANY DUST PROBLEMS...
17. EXISTING CATCH BASIN STRUCTURES SHALL BE PROTECTED UNTIL SUCH TIME AS THEY ARE REMOVED.
18. THE CONTRACTOR MUST PERFORM DEWATERING (IF REQUIRED), IN ACCORDANCE WITH STATE AND LOCAL REGULATIONS...
19. THE CONTRACTOR MUST LOCATE CONSTRUCTION WASTE MATERIAL STORAGE AREAS TO MINIMIZE EXPOSURE TO STORMWATER...
20. EROSION CONTROL NOTES DURING WINTER CONSTRUCTION
21. WINTER CONSTRUCTION PERIOD: NOVEMBER 1 THROUGH APRIL 15.
22. WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT THE AMOUNT OF AREA OPEN AT ONE TIME IS MINIMIZED...
23. CONTINUATION OF EARTHWORK OPERATION ON ADDITIONAL AREAS SHALL NOT BEGIN UNTIL THE EXPOSED SOIL SURFACE ON THE AREA BEING WORKED HAS BEEN STABILIZED...
24. AN AREA SHALL BE CONSIDERED TO HAVE BEEN TEMPORARILY STABILIZED WHEN EXPOSED SURFACES HAVE BEEN EITHER MULCHED WITH STRAW OR STRAW AT A RATE OF 100 LB PER 1,000 SQUARE FEET...
25. FOR AREAS WHERE CONSTRUCTION ACTIVITIES HAVE CEASED FOR A PERIOD EXCEEDING 14 DAYS BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH...
26. MULCHING REQUIREMENTS:
26.1. BETWEEN THE DATES OF NOVEMBER 1ST AND APRIL 15TH ALL MULCH SHALL BE ANCHORED BY EITHER PEG LINE, MULCH NETTING OR WOOD CELLULOSE FIBER.
26.2. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL DRAINAGE WAYS WITH A SLOPE GREATER THAN 3% FOR SLOPE EXPOSED TO DIRECT WINDS AND FOR ALL OTHER AREAS WITH SLOPES GREATER THAN 8%.
26.3. MULCH NETTING SHALL BE USED TO ANCHOR MULCH IN ALL AREAS WITH SLOPES GREATER THAN 15% AFTER OCTOBER 1ST...
27. ALL DISTURBED AREAS SHALL BE STABILIZED IN ACCORDANCE WITH THE STORMWATER PREVENTION PLAN.
28. DURING THE WINTER CONSTRUCTION PERIOD ALL SNOW SHALL BE REMOVED FROM AREAS OF SEEDING AND MULCHING PRIOR TO PLACEMENT.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

- 1. THE GENERAL NOTES MUST BE INCLUDED AS PART OF THIS ENTIRE DOCUMENT PACKAGE AND ARE PART OF THE CONTRACT DOCUMENTS...
2. EROSION CONTROL MEASURES MUST CONFORM TO THE STATE, LOCAL, AND FEDERAL GUIDELINES FOR URBAN EROSION AND SEDIMENT CONTROL...
3. THE DISTURBED LAND AREA OF THIS SITE IS APPROXIMATELY 44,133 ACRES.
4. THE FOLLOWING EROSION CONTROL MEASURES ARE PROPOSED FOR THIS SITE:
4.1. STABILIZED CONSTRUCTION ENTRANCE/EXIT - A TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT IS TO BE INSTALLED AT THE DESIGNATED LOCATION...
4.2. SEDIMENT FENCE - INSTALL SILT FENCE(S) AND/OR SILT SOCK AROUND ALL OF THE DOWNSLOPE PERIMETERS OF THE SITE...
4.3. INSTALL FILTER FABRIC DROP INLET PROTECTION AROUND EACH DRAINAGE INLET AS DRAINAGE STRUCTURES ARE INSTALLED...
5. INSTALLATION OF EROSION CONTROL DEVICES MUST BE IN ACCORDANCE WITH ALL OF THE MANUFACTURER'S RECOMMENDATIONS.
6. THE CONTRACTOR MUST INSPECT EROSION CONTROL MEASURES WEEKLY...
7. THE CONTRACTOR MUST APPLY TEMPORARY SEED AND MULCH TO ALL DISTURBED AREAS...
8. THE CONTRACTOR MUST INSTALL ADDITIONAL EROSION CONTROL MEASURES IF ENGINEER SO REQUIRES...
9. THE CONTRACTOR MUST BE RESPONSIBLE FOR INSPECTING AND MAINTAINING ALL EROSION CONTROL MEASURES...
10. THE CONTRACTOR MUST CONTINUE TO MAINTAIN ALL EROSION CONTROL MEASURES UNTIL THE COMPLETION OF CONSTRUCTION...
11. THE CONTRACTOR MUST REMOVE EROSION CONTROL MEASURES, SILT AND DEBRIS AFTER ESTABLISHING PERMANENT VEGETATION COVER...
12. THIS PLAN REPRESENTS THE MINIMUM LEVEL OF IMPLEMENTATION OF TEMPORARY EROSION AND SEDIMENTATION CONTROL...
13. THE CONTRACTOR MUST PROTECT ALL EXISTING TREES AND SHRUBS...
14. THE CONTRACTOR MUST REFER TO GRADING PLANS FOR ADDITIONAL INFORMATION.
15. THE CONTRACTOR MUST CLEAN EXISTING AND PROPOSED DRAINAGE STRUCTURES AND INTERCONNECTING PIPES...
16. SOIL EROSION CONTROL MEASURES MUST BE ADJUSTED OR RELOCATED BY THE CONTRACTOR AS IDENTIFIED DURING SITE OBSERVATION...
17. THE CONTRACTOR MUST IDENTIFY ON THE PLAN, THE LOCATION OF WASTE CONTAINERS, FUEL STORAGE TANKS, CONCRETE WASHOUT AREAS AND ANY OTHER LOCATIONS WHERE HAZARDOUS MATERIALS ARE STORED.

RECOMMENDED CONSTRUCTION SEQUENCE

N.T.S.

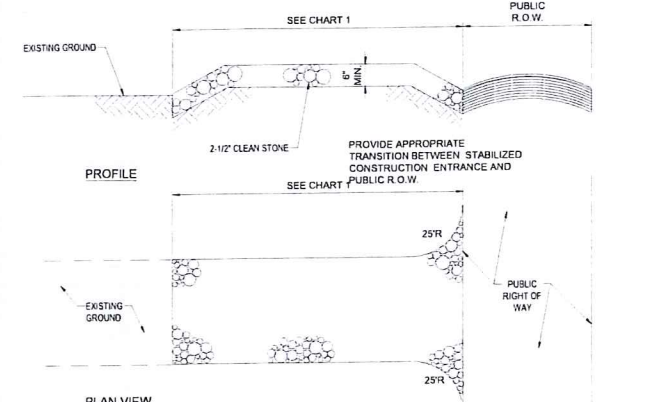
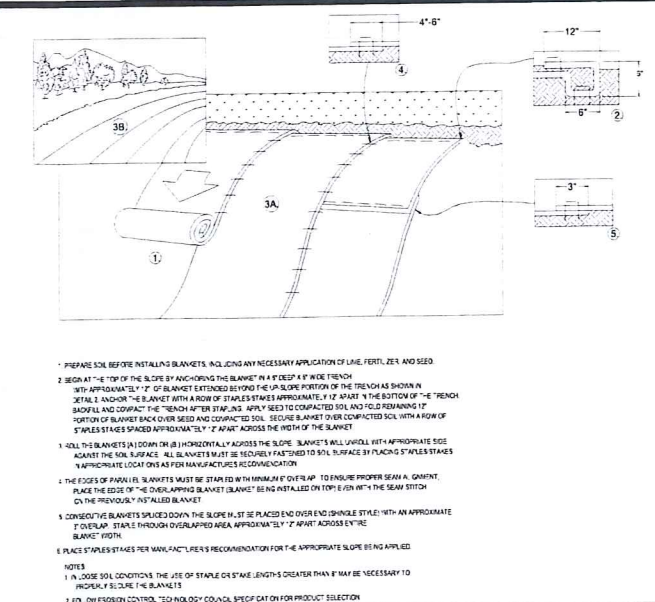


Table with 2 columns: PERCENT SLOPE OF ROADWAY and LENGTH OF STONE REQUIRED. Rows include 0 to 2%, 2% to 5%, and >5%.

STABILIZED CONSTRUCTION ENTRANCE

N.T.S.

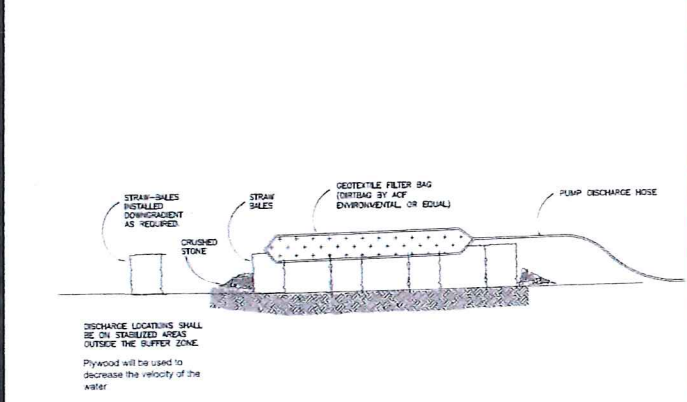


EROSION CONTROL BLANKET 2:1 SLOPES (SLOPE INSTALLATION)

N.T.S.

TREE PROTECTION DURING SITE CONSTRUCTION

N.T.S.



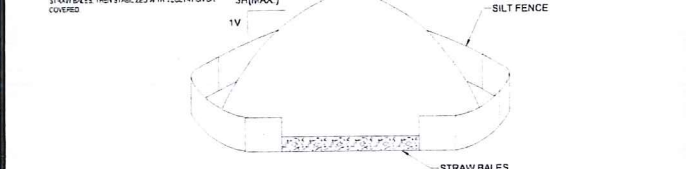
DEWATERING GEOTEXTILE FILTER BAG DETAIL

N.T.S.

Table with 2 columns: PROPERTIES and TEST METHOD. Rows include GRAB TENSILE STRENGTH, GRAB TENSILE ELONGATION, PUNCTURE, MULLEN BURST, TRAPEZOID TEAR, UV RESISTANCE, APPARENT OPENING SIZE, FLOW RATE, PERMITTIVITY, and MODERATE TO HIGH FLOW GEOTEXTILE FABRIC SPECIFICATION TABLE.

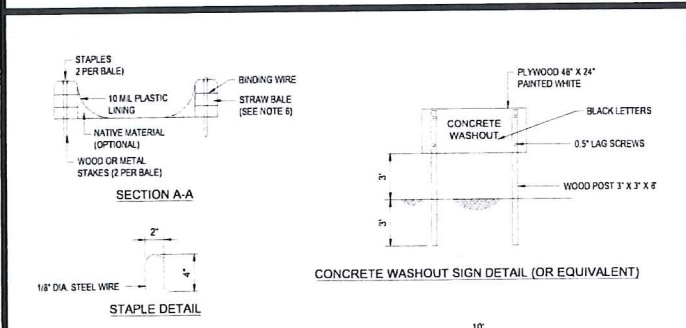
FILTER SACS (GRATED INLETS)

N.T.S.



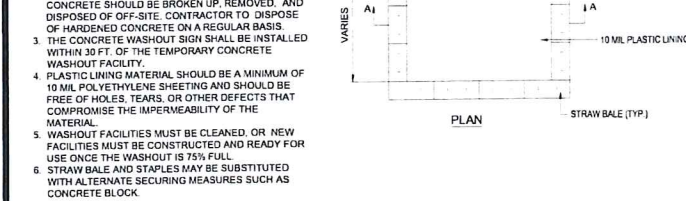
TEMPORARY STOCKPILE

N.T.S.



CONCRETE WASTE MANAGEMENT AREA

N.T.S.



CONCRETE WASTE MANAGEMENT AREA

N.T.S.

VERTICAL text on the left margin: PROJECT NO. 2021-001, DATE: 07/20/2023, DRAWN BY: J. BOHLER, CHECKED BY: J. BOHLER, DATE: 07/20/2023, CAD FILE: W201257-EROS.DWG

BOHLER SITE CIVIL AND CONSULTING ENGINEERING. LAND SURVEYING. PROGRAM MANAGEMENT. LANDSCAPE ARCHITECTURE. SUSTAINABLE DESIGN. PERMITTING SERVICES. TRANSPORTATION SERVICES.

Table with 4 columns: REV, DATE, COMMENT, DRAWN BY. Includes a 'REVISIONS' header.

811 Know what's below. Call before you dig. ALWAYS CALL 811. It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

PROJECT No.: W201257. CMC / OCR. DRAWN BY: GD. CHECKED BY: GD. DATE: 07/20/2023. CAD FILE: W201257-EROS.DWG.

PROPOSED SITE PLAN DOCUMENTS

FOR MAPLE STREET SOLAR LLC PROPOSED SOLAR FARM. LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009 160 MAPLE STREET, TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS.

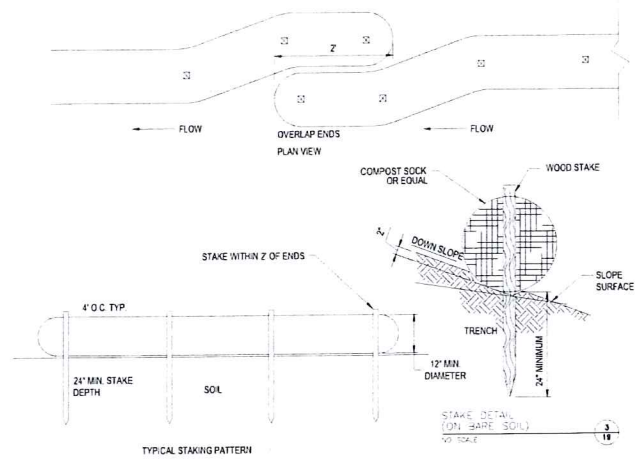
BOHLER 352 TURNPIKE ROAD SOUTHBOROUGH, MA 01772. Phone: (508) 430-9900. www.BohlerEngineering.com

Professional Engineer seal for John A. Bohler, No. 41530, State of Massachusetts.

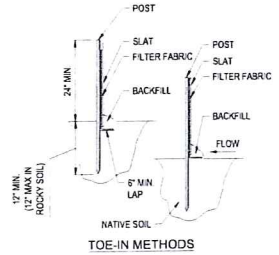
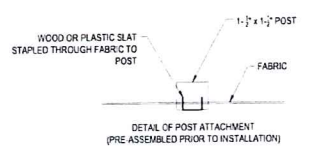
EROSION & SEDIMENT CONTROL NOTES & DETAILS

SHEET TITLE: EROSION & SEDIMENT CONTROL NOTES & DETAILS. SHEET NUMBER: C-607. ORG. DATE - 07/20/2023.

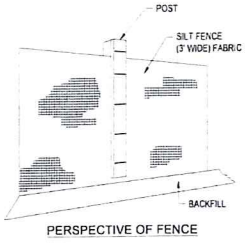
EROSION CONTROL BARRIER SHALL CONSIST OF BOTH COMPOST SOCK AND SILT FENCE UNLESS OTHERWISE NOTED



COMPOST SOCK



SILT FENCE



- INSTALLATION
1. EXCAVATE A 6"x6" TRENCH ALONG THE LINE OF EROSION CONTROL OF THE SITE.
 2. UNROLL SILTATION FENCE AND POSITION THE POSTS AGAINST THE BACK (DOWNSTREAM) WALL OF THE TRENCH (NET SIDE AWAY FROM FLOW DIRECTION).
 3. DRIVE THE POST INTO THE GROUND UNTIL THE NETTING IS LAYING ACROSS THE TRENCH BOTTOM.
 4. LAY THE TOE-IN FLAP OF THE FABRIC ONTO THE UNDISTURBED BOTTOM OF THE TRENCH. BACKFILL THE TRENCH AND TAMP THE SOIL. TOE-IN CAN ALSO BE ACCOMPLISHED BY LAYING FABRIC FLAP ON UNDISTURBED GROUND AND PILING & TAMPING FILL AT THE BASE.
 5. COMBINATION OF COMPOST SOCK AND SILT FENCE SHALL BE USED AS NOTED ON THE PLAN.
 6. WIRE BACK SILT FENCE TO BE USED IN AREAS WITHIN 50 FOOT WETLAND BUFFER. SEE DETAIL (THIS SHEET).

EROSION CONTROL BARRIER (ECB) DETAIL

N.T.S.

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY



Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GJ
 DATE: 07/20/2023
 CAD I.D.: W201257-EROS-08

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 450-9900
 www.BohlerEngineering.com

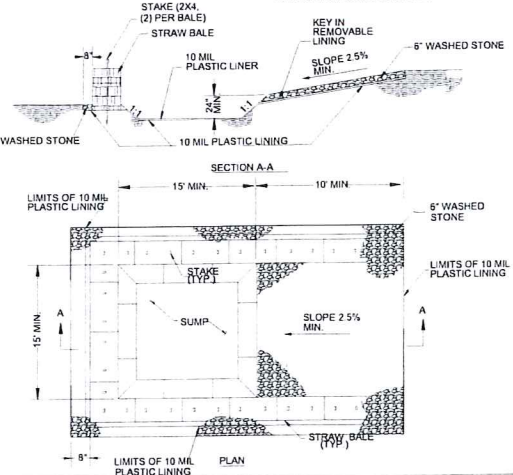


SHEET TITLE:
EROSION & SEDIMENT CONTROL NOTES & DETAILS

SHEET NUMBER:
C-609

ORG. DATE - 07/20/2023

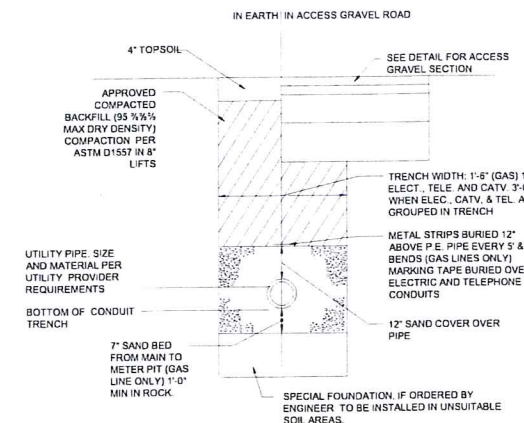
- NOTES
- PIT IS SPECIFICALLY DESIGNED, DIKED AND IMPROVED FACILITY SHALL NOT BE FILLED BEYOND 95% CAPACITY CONTAINED TO PREVENT CONTACT BETWEEN CONCRETE UNLESS A NEW FACILITY IS CONSTRUCTED.
 - WASH WATER SHALL NOT BE ALLOWED TO FLOW TO SURFACE & GRINDING TO BE DISPOSED OF IN THE PIT WATER.
 - FACILITY MUST HOLD SUFFICIENT VOLUME TO CONTAIN 100% OF WASH WATER. CONCRETE WASTE WITH A MINIMUM FREEBOARD OF 12".
 - SAW CUT PORTLAND CEMENT CONCRETE RESIDUE FROM WASH AND STORMWATER.
 - DEBRIS FROM THE VEHICLE WASH AREA SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL DEBRIS SHALL BE REMOVED FROM THE SITE WHEN 95% FULL CAPACITY.
 - MANUFACTURED CONCRETE WASHOUT DEVICES MAY BE USED IF REMOVED FROM THE SITE WHEN 95% FULL CAPACITY.
 - CONCRETE WASTE WITH A MINIMUM FREEBOARD OF 12".



CONCRETE WASHOUT DETAIL

N.T.S.

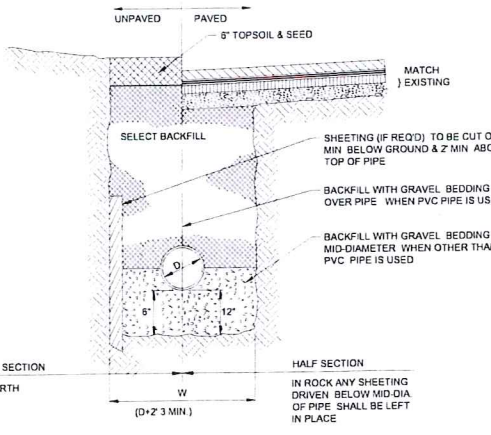
NOTE: THE CONTRACTOR IS DIRECTED AND RESPONSIBLE TO SLOPE AND/OR SHIELD THE TRENCH EXCAVATION IN ACCORDANCE WITH ALL APPLICABLE OSHA REGULATIONS.



ALTERNATIVE ELECTRICAL TRENCH DETAIL

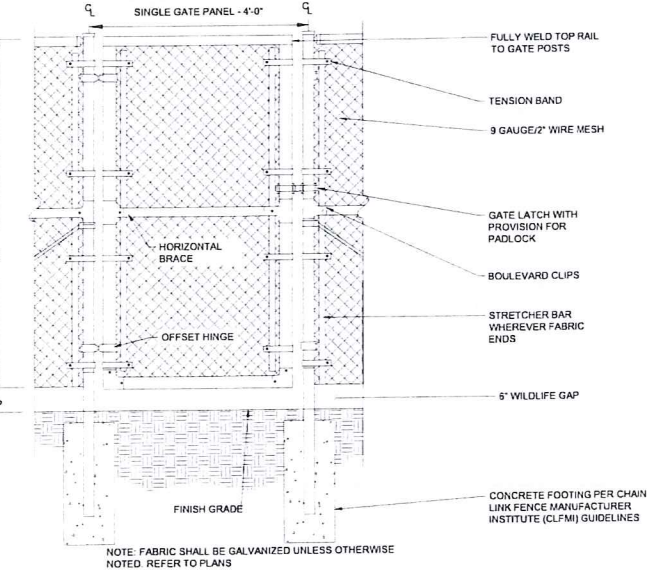
N.T.S.

NOTE: ALL PROPOSED UNDERGROUND UTILITIES THAT FALL WITHIN THE EXISTING ELECTRIC EASEMENTS SHALL BE AASHTO HS-25 RATED.



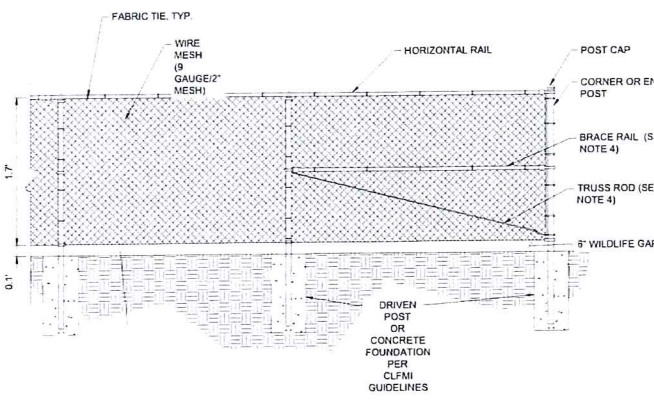
TYPICAL UTILITY TRENCH

N.T.S.



7' ACCESS GATE WITH WILDLIFE GAP

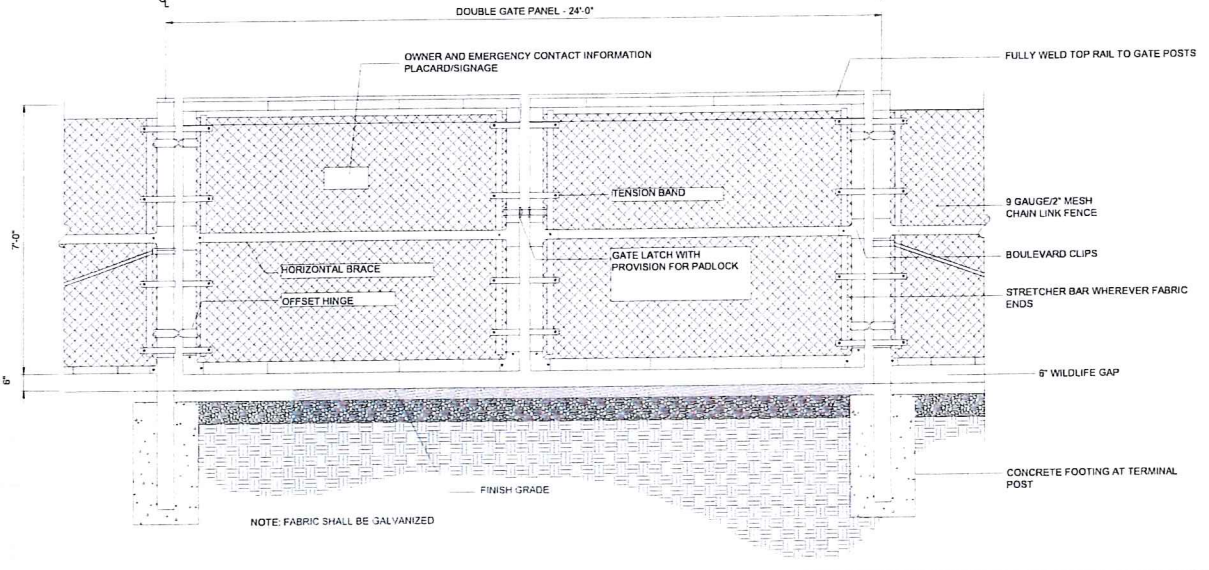
N.T.S.



7' CHAIN LINK FENCE WITH WILDLIFE GAP

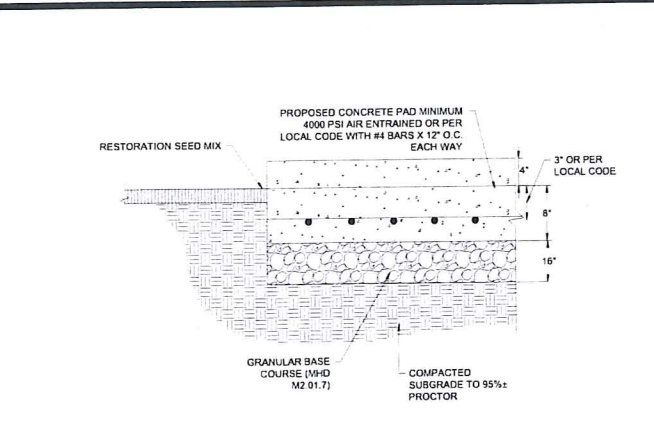
N.T.S.

- NOTES
- THE FENCE SHALL MEET OR EXCEED THE CHAIN LINK FENCE MANUFACTURER INSTITUTE (CLFMI) GUIDELINES AND RELATED FEDERAL SPECIFICATIONS FOR SECURITY CHAIN LINK FENCE MATERIALS AND INSTALLATION.
 - FENCE MATERIAL AND COMPONENTS SHALL BE GALVANIZED UNLESS OTHERWISE NOTED.
 - THIS DETAIL NOT APPLICABLE FOR PRIVACY FENCE OR FENCE WITH SLATS.
 - ADJUSTABLE TRUSS ROD AND BRACE RAIL AT CORNER OR END POSTS ONLY. IF REQUIRED BY CLFMI GUIDELINES.



24' WIDE DOUBLE SWING GATE WITH WILDLIFE GAP

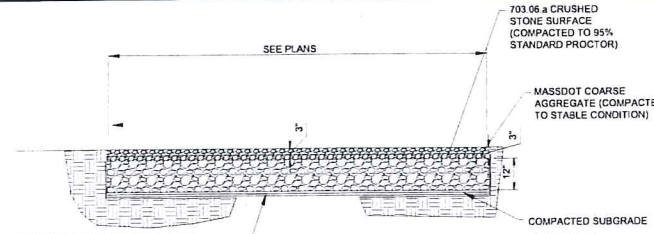
N.T.S.



CONCRETE PAD FOR EQUIPMENT

N.T.S.

- NOTES
- SEE SITE PLAN FOR WIDTH AND GRADES
 - PROVIDE MINIMUM 18" FT CROSS-SLOPE
 - PROVIDE CONTROL JOINTS 10'-0" O.C. MIN.
 - PROVIDE EXPANSION JOINTS 20'-0" O.C. MIN.

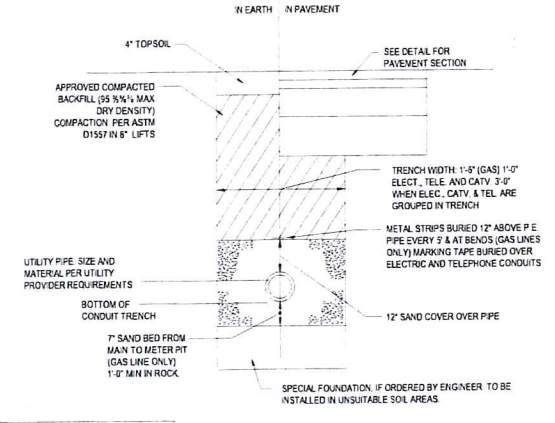


ACCESS GRAVEL ROAD

N.T.S.

- NOTES
- SUBCONTRACTOR SHALL EXCAVATE TO SUITABLE MATERIAL FOR SUBGRADE.
 - SUBCONTRACTOR SHALL COMPACT SUBGRADE TO PROVIDE SUITABLE SURFACE TO PLACE ROAD (95% MODIFIED PROCTOR). 3RD PARTY COMPACTION TESTING IS REQUIRED AT GRAVEL ACCESS ROAD AS FURTHER NOTED PER 'ADDITIONAL NOTE 13 Z' ON SHEET C-0-0. REFER TO GEOTECHNICAL REPORT FOR SUBGRADE PREPARATION CRITERIA.
 - SUBCONTRACTOR SHALL FOLLOW MANUFACTURER INSTALLATION PROCEDURES.
 - WHERE OVERLAPPING OF GEOTEXTILE FABRIC IS REQUIRED, SUBCONTRACTOR SHALL OVERLAP A MINIMUM OF 24".
 - SUBCONTRACTOR SHALL REMOVE TEMPORARY CONSTRUCTION ACCESS ROADS, AND RESTORE TO PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE CEOR AND THE GOVERNING AGENCIES.
 - SUBCONTRACTOR SHALL INSTALL CONDUITS FOR ALL ELECTRICAL CONDUIT CROSSINGS PRIOR TO INSTALLATION OF THE GEOTEXTILE MATERIAL. THE GEOTEXTILE SHALL NOT BE HORIZONTALLY CUT ONCE INSTALLED.
 - THE PROPOSED ACCESS ROAD SHALL HAVE A MAXIMUM RUNNING SLOPE OF 10%. PLEASE REFER TO THE GRADING PLAN FOR MORE INFORMATION.

NOTE: THE CONTRACTOR IS DIRECTED AND RESPONSIBLE TO SLOPE AND/OR SHIELD THE TRENCH EXCAVATION IN ACCORDANCE WITH ALL APPLICABLE OSHA REGULATIONS.



PRIMARY ELECTRICAL TRENCH DETAIL

N.T.S.

NOTE: ALL PROPOSED UNDERGROUND UTILITIES THAT FALL WITHIN THE EXISTING ELECTRIC EASEMENTS SHALL BE AASHTO HS-25 RATED.

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
SUSTAINABLE DESIGN
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT DESIGNED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
DRAWN BY: CMC / OCR
CHECKED BY: GD
DATE: 07/20/2023
CAD ID: W201257-DET-08

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET,
TOWN OF BELLINGHAM & FRANKLIN,
NORFOLK COUNTY, MASSACHUSETTS

BOHLER
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com

Professional Engineer Seal for **JOHN A. KUCHARSKY**, No. 41530, Registered Professional Engineer.

SHEET TITLE:
DETAIL SHEET

SHEET NUMBER:
C-901

ORG. DATE - 07/20/2023

REVISIONS

REV	DATE	COMMENT	DESIGNED BY
			04/20/23



Know what's below.
 Call before you dig.
 ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT NO.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GD
 DATE: 07/20/2023
 CAD I.D.: W201257-DET1-08

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM
 LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET,
 TOWN OF BELLINGHAM & FRANKLIN,
 NORFOLK COUNTY, MASSACHUSETTS

BOHLER //

352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone (508) 480-9900
www.BohlerEngineering.com



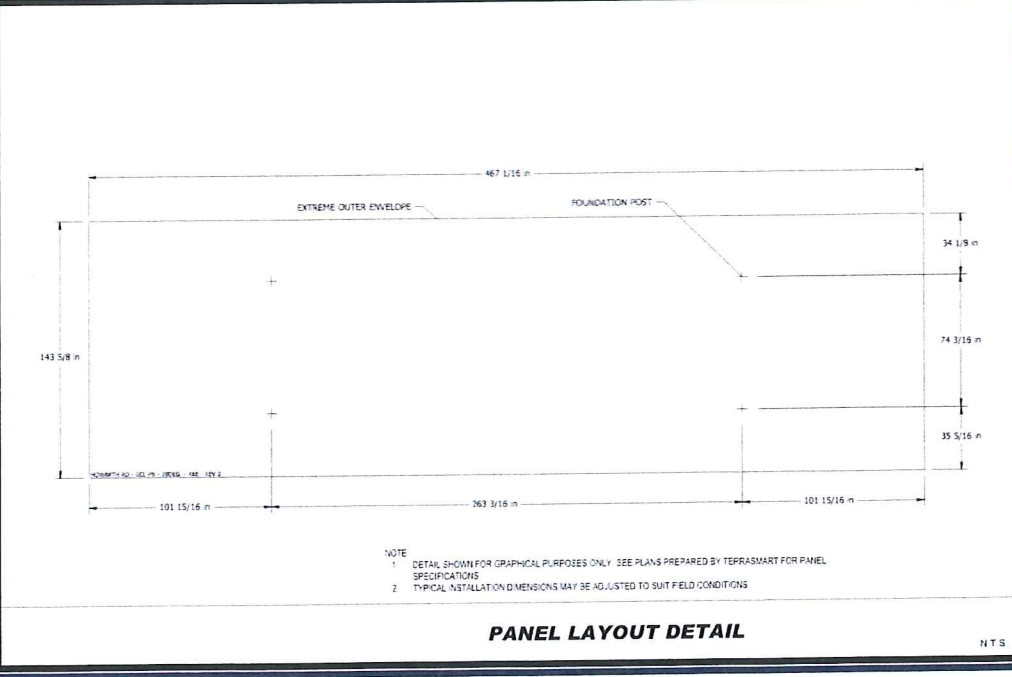
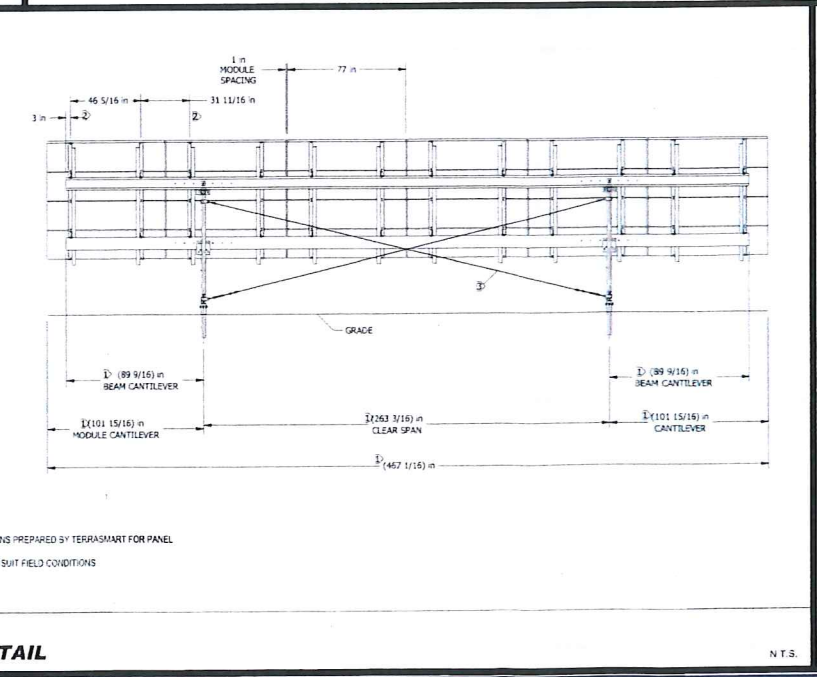
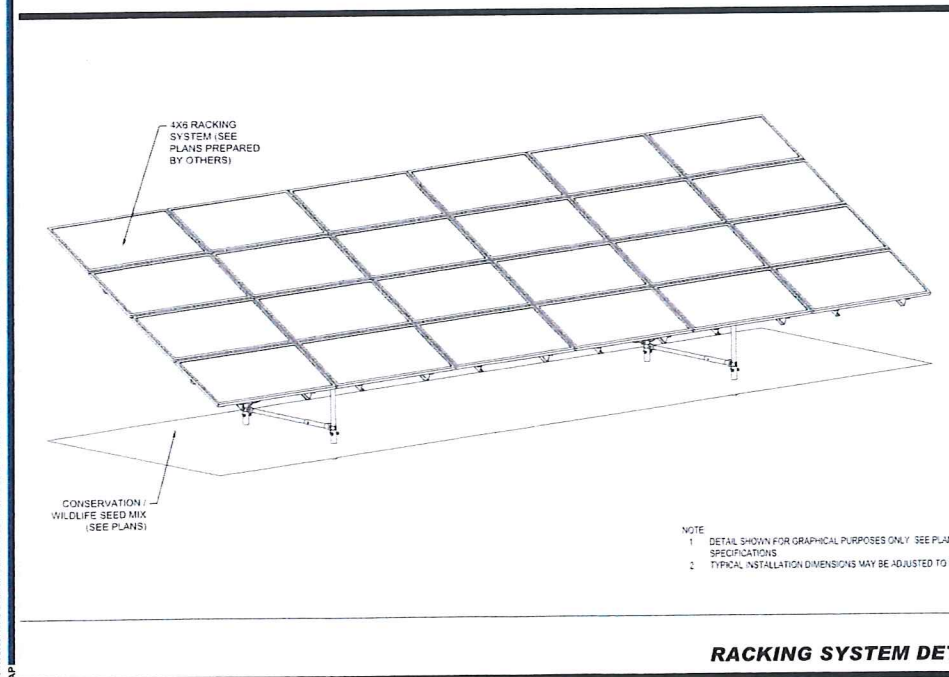
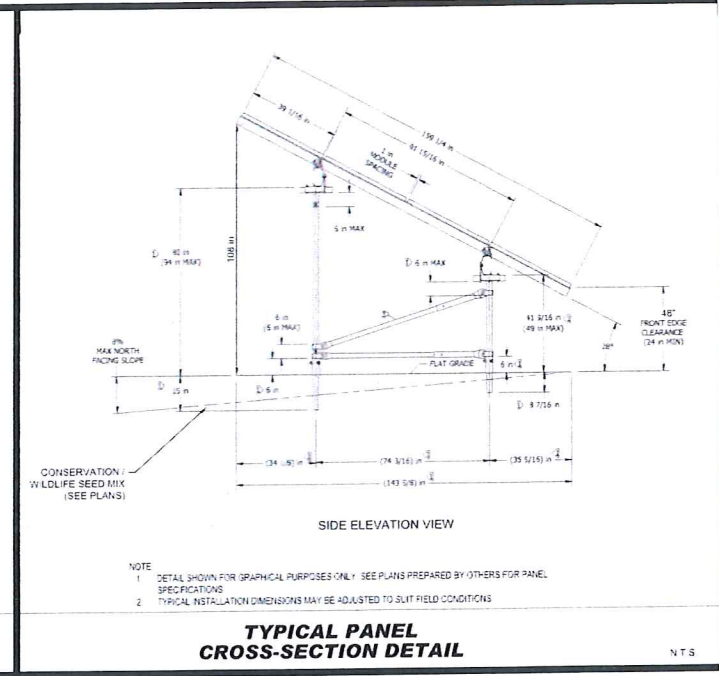
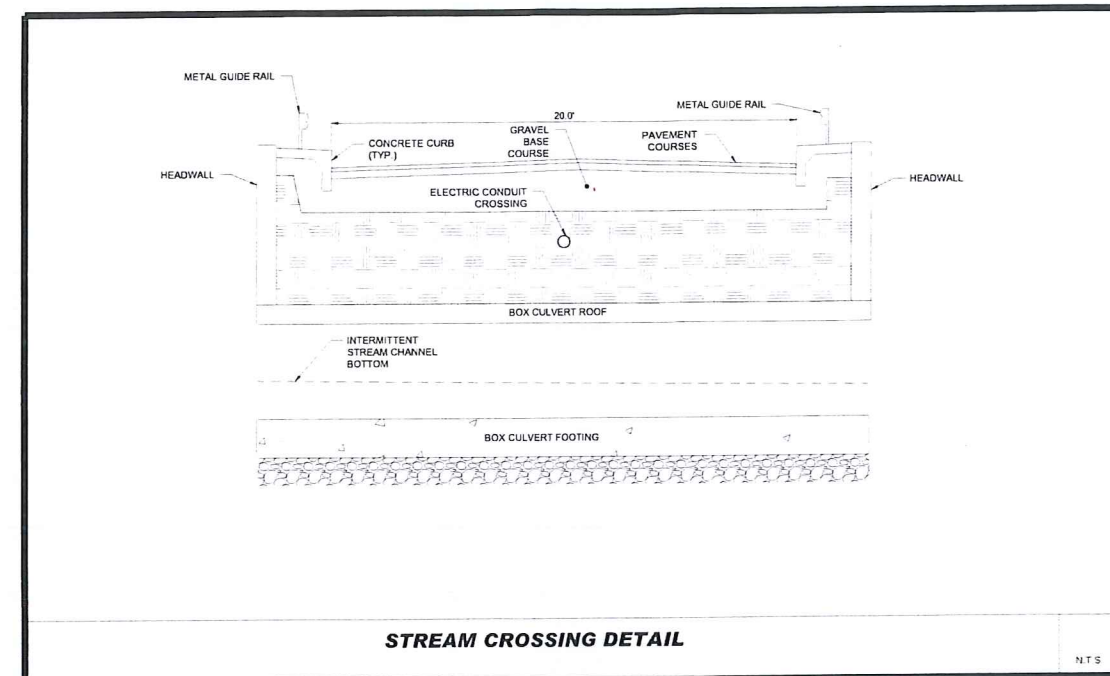
SHEET TITLE:

DETAIL SHEET

SHEET NUMBER:

C-902

ORG. DATE - 07/20/2023



NOTE
 1. DETAIL SHOWN FOR GRAPHICAL PURPOSES ONLY. SEE PLANS PREPARED BY TERRASMAST FOR PANEL SPECIFICATIONS
 2. TYPICAL INSTALLATION DIMENSIONS MAY BE ADJUSTED TO SUIT FIELD CONDITIONS

NOTE
 1. DETAIL SHOWN FOR GRAPHICAL PURPOSES ONLY. SEE PLANS PREPARED BY TERRASMAST FOR PANEL SPECIFICATIONS
 2. TYPICAL INSTALLATION DIMENSIONS MAY BE ADJUSTED TO SUIT FIELD CONDITIONS

P:\1222\AUTOMATIC DRAWINGS\PLAN SET\1222\W201257-DRAWING-DETAILS.DWG

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
PERMITTING SERVICES
TRANSPORTATION SERVICES

WE HOLD OUR LICENSES IN THE STATES OF MASSACHUSETTS, NEW HAMPSHIRE, VERMONT, NEW YORK, CONNECTICUT, AND RHODE ISLAND. WE ARE NOT LICENSED IN ANY OTHER STATES.

REVISIONS

REV	DATE	COMMENT	DRAWN BY
			082423/BJ



Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
DRAWN BY: CMC / DCR
CHECKED BY: GD
DATE: 07/20/2023
CAD I.D.: W201257-D01L_001

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR

MAPLE STREET SOLAR LLC

PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
180 MAPLE STREET,
TOWN OF BELLINGHAM & FRANKLIN,
NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900

www.BohlerEngineering.com



SHEET TITLE:

DETAIL SHEET

SHEET NUMBER:

C-903

ORG. DATE - 07/20/2023

2000kVA 12470Y TRANSFORMER DETAILS

N.T.S.

Three-Phase Transformers
CA202003EN
Effective April 2016
Supersedes 2/10/12 July 2015

COOPER POWER SERIES

Three-phase pad-mounted compartmental type transformer



General

At Eaton, we are constantly striving to introduce new innovations to the transformer industry, bringing you the highest quality, most reliable transformers. Eaton's Cooper Power Series Transformer Products are ISO 9001 compliant, emphasizing process improvement in all phases of design, manufacture, and testing in order to drive the provision of the best product, both time and money. In the Thomas A. Eaton Technical Center, our premier research facility in Franklin, Wisconsin, such revolutionary products as distribution-class UltraSIL™ Polymer-Insulated Evolution™ surge arresters and Evolver™ FR3™ fluid have been developed at our Franklin lab.

With transformer sizes ranging from 48 kVA to 12 MVA and high voltages ranging from 2400 V to 46 kV, Eaton has you covered. From fabrication of the tanks and cabinets to winding of the cores and coils, to production of arresters, switches, tap changers, expulsion fuses, current limit fuses, bushings (live and dead) and molded paper goods, Eaton does it all. Eaton's Cooper Power Series transformers are available with electrical grade mineral oil or Envirotemp™ FR3™ fluid, a non-flammable and non-separable fluid. Electrical codes recognize the advantages of using Envirotemp™ FR3™ fluid both inside and outside for the services applications. The non-toxic fluid meets Occupational Safety and Health Administration (OSHA) and Section 490.23 NEC requirements.



Three-phase pad-mounted compartmental type transformer Catalog Data CA202003EN
Effective April 2016

Table 2. Three-Phase Ratings

Three-Phase 50 or 60 Hz
kVA Available
48, 75, 112.5, 150, 225, 300, 500, 750, 1000, 1500, 2000, 2500, 3000, 3750, 5000, 7500, 10000

Table 3. Impedance Voltage

Rating (kVA)	Low-voltage rating		
	0-600 V	2400 Δ through 4600 Δ	5000 Δ through 13800Y/7870 or 13800 Δ
48-75	2.75-3.75	2.75-3.75	2.75-3.75
112.5-300	1.15-1.75	1.15-1.75	1.15-1.75
300	4.35-5.75	4.35-5.75	4.35-5.75
750-2500	3.75	3.75	3.75
3750	3.75	3.75	3.30
5000	3.00	3.00	3.30

Note: The standard tolerance is ± 15%.

Table 4. Audible Sound Levels

Self-Cooled, Two Winding kVA Rating	NEMA™ TR-1 Average Decibels (dB)
45-750	55
501-750	57
751-1000	58
1001-1500	58
1501-2000	57
2001-2500	57
2501-3000	57
3001-4000	57
4001-5000	56
5001-6000	56
6001-7500	57
7501-10000	58

Table 5. Insulation Test Levels

kV Class	Insulated Test 100 or 400 Hz 7200 Cycles	LV BIL Distribution	Applied Test 60 Hz (kV)
1.2		30	10
2.5		45	15
5		60	18
3.7	Twice Rated Voltage	75	28
15		90	34
25		125	40
34.5		150	50

Table 6. Temperature Rise Ratings 0-3300 Feet (0-1000 meters)

Unit Rating (Temperature Rise Windings)	Standard	Optional
Ambient Temperature Max	40 °C	50 °C
Ambient Temperature 24 Hour Average	30 °C	40 °C
Temperature Rise Hotspot	40 °C	55 °C

www.eaton.com/cooperpowerseries

THREE-PHASE PAD-MOUNTED COMPARTMENTAL TYPE TRANSFORMER

Catalog Data CA202003EN
Effective April 2016

Three-phase pad-mounted compartmental type transformer

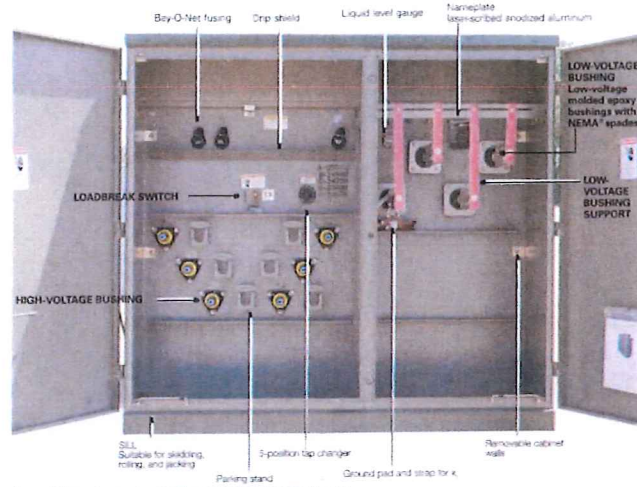


Figure 1. Three-phase pad-mounted compartmental type transformer.

Table 1. Product Scope

Type	Three-Phase 50 or 60 Hz, 0.5 Rise
Fluid Type	Mineral Oil or Envirotemp™ FR3™ fluid
Cell Configuration	2-winding or 3-winding or 2-winding 3-winding 3-winding Low/High/Low
Size	45 - 10,000 kVA
Primary Voltage	2,400 - 46,000 V
Secondary Voltage	100V/120 V to 14,400 V
Specialty Designs	Inverter/Rectifier Bridge 4:1 Factor Tap to 4:1 Vacuum Fused Transformer (VFT) 3.5" Terminal Spacing and Configured Factory Mutual PFM Approved Solar/Wind Designs Distributed Generation Special Applications including DG/PE Hardened Data Center

www.eaton.com/cooperpowerseries

Catalog Data CA202003EN
Effective April 2016

Three-phase pad-mounted compartmental type transformer

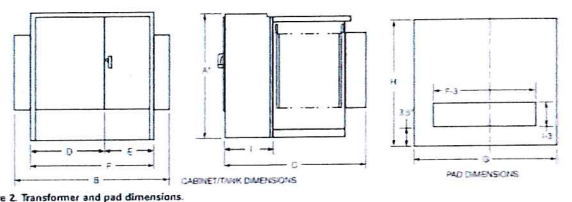


Figure 2. Transformer and pad dimensions.

Table 7. Fluid-filled - aluminum windings 55/65 °C Rise*

kVA Rating	OUTLINE DIMENSIONS (in.)									Gallons of Fluid	Approx. Total Weight (lbs.)
	A	B	C	D	E	F	G	H	I		
45	30	38	25	12	20	50	12	4	10	15	3.20
75	30	48	35	12	25	60	12	4	15	20	4.20
112.5	30	58	40	12	30	70	12	4	20	25	5.20
150	30	68	45	12	35	80	12	4	25	30	6.20
225	30	78	50	12	40	90	12	4	30	35	7.20
300	30	88	55	12	45	100	12	4	35	40	8.20
375	30	98	60	12	50	110	12	4	40	45	9.20
500	30	108	65	12	55	120	12	4	45	50	10.20
750	30	118	70	12	60	130	12	4	50	55	11.20
1000	30	128	75	12	65	140	12	4	55	60	12.20
1500	30	138	80	12	70	150	12	4	60	65	13.20
2000	30	148	85	12	75	160	12	4	65	70	14.20
2500	30	158	90	12	80	170	12	4	70	75	15.20
3000	30	168	95	12	85	180	12	4	75	80	16.20
3750	30	178	100	12	90	190	12	4	80	85	17.20
5000	30	188	105	12	95	200	12	4	85	90	18.20
7500	30	198	110	12	100	210	12	4	90	95	19.20

Table 8. Fluid-filled - Copper Windings 55/65 °C Rise*

kVA Rating	OUTLINE DIMENSIONS (in.)									Gallons of Fluid	Approx. Total Weight (lbs.)
	A	B	C	D	E	F	G	H	I		
45	30	34	22	12	18	45	12	3	10	15	3.20
75	30	44	27	12	22	55	12	3	15	20	4.20
112.5	30	54	32	12	27	65	12	3	20	25	5.20
150	30	64	37	12	32	75	12	3	25	30	6.20
225	30	74	42	12	37	85	12	3	30	35	7.20
300	30	84	47	12	42	95	12	3	35	40	8.20
375	30	94	52	12	47	105	12	3	40	45	9.20
500	30	104	57	12	52	115	12	3	45	50	10.20
750	30	114	62	12	57	125	12	3	50	55	11.20
1000	30	124	67	12	62	135	12	3	55	60	12.20
1500	30	134	72	12	67	145	12	3	60	65	13.20
2000	30	144	77	12	72	155	12	3	65	70	14.20
2500	30	154	82	12	77	165	12	3	70	75	15.20
3000	30	164	87	12	82	175	12	3	75	80	16.20
3750	30	174	92	12	87	185	12	3	80	85	17.20
5000	30	184	97	12	92	195	12	3	85	90	18.20
7500	30	194	102	12	97	205	12	3	90	95	19.20

* Weights, gallons of fluid, and dimensions are for reference only and not for construction. Please contact Eaton for exact dimensions.

† All in for Bay-O-Net Wiring.

www.eaton.com/cooperpowerseries

BOHLER
SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT NO.:	W201257
DRAWN BY:	CMC / OCR
CHECKED BY:	GD
DATE:	07/20/2023
CAD L.D.:	W201257-OETL-08

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC

PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009

BOHLER

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900

Professional Engineer Seal for John A. Kucera, No. 41530, State of Massachusetts.

SHEET TITLE:

DETAIL SHEET

SHEET NUMBER: C-904

ORG. DATE - 07/20/2023

AstroTwins™

Enjoy the Energy of the Universe

400W~415W

P-type Monocrystalline PV Module
CHSM72M(DG)/F-BH Series (158.75)

CHSM72M(DG)/F-BH is efficient module with silver-glazed glass.

96.00% 12-year Warranty for Maximum and Processing
30-year Warranty for Extra Linear Power Output

KEY FEATURES

- 5W OUTPUT POSITIVE TOLERANCE**
Guarantees 5~10W positive tolerance power output reliability
- EXCELLENT WEATHER RESISTANCE**
Reduces the risk of micro-crack and scratched product warranty
- BIFACIAL POWER**
The backside makes use of the reflected and scattered light from the surroundings. The module can yield up to 3%~35% power more depending on the albedo.
- REDUCE INTERNAL MISMATCH LOSS**
Repeat mismatch loss and improve output.
- APPLICABLE FOR MULTI DIFFERENT ENVIRONMENTS**
The wide range of applications such as 3-PTV, vertical installation, snow area, high humidity area and strong ultraviolet rays etc.
- SMALL TRAIL RESISTANCE**
Reduces the probability of soil trails with wind-water-solar combination.

COMPREHENSIVE CERTIFICATES

Find solar company which passed the TOP
NREL IECIS 15941 certification audit.

For Global Market

ASTROENERGY
A GREE COMPANY

ELECTRICAL SPECIFICATIONS

Power rating (Watt)	400 Wp	405 Wp	410 Wp	415 Wp
String Capacity	Front: 292	Back: 295	Front: 295	Back: 292
STC rated output (P _{max})	400	405	410	415
Rated voltage (V _{MPP}) at STC	40.67	40.89	41.10	41.31
Rated current (I _{MPP}) at STC	9.84	9.91	9.98	10.05
Open circuit voltage (V _{OC}) at STC	48.34	48.52	48.69	48.87
Short circuit current (I _{SC}) at STC	10.30	10.38	10.44	10.54
Module efficiency	19.8%	19.7%	19.8%	19.9%
Temperature coefficient (P _{max})	-0.26%/°C	-0.26%/°C	-0.26%/°C	-0.26%/°C
Temperature coefficient (V _{OC})	-0.28%/°C	-0.28%/°C	-0.28%/°C	-0.28%/°C
Temperature coefficient (I _{SC})	0.05%/°C	0.05%/°C	0.05%/°C	0.05%/°C
Maximum system voltage (V _{DCmax})	1500V	1500V	1500V	1500V
Number of diodes	9	9	9	9
Auxiliary box IP rating	IP 65	IP 65	IP 65	IP 65
Maximum system fuse rating	25 A	25 A	25 A	25 A

MECHANICAL SPECIFICATIONS

Parameter	Value
Outer dimensions (L x W x H)	2018 x 1010 x 30 mm
Frame technology	Aluminum, silver anodized
Glass Thickness	2.0 mm
Cable length (RECU/L)	700mm / 300 mm
Cable diameter (RECU/L)	4mm / 12 AWG
Maximum mechanical test load	5400 Pa (Static) / 2400 Pa (Dynamic)
Connector type (RECU/L)	MCC compatible

MODULE DIMENSION DETAILS

CONNECTPV

Simplifying Solar PV

1500V Disconnect Combiners

ConnectPV Disconnect Combiner products are based on a core product architecture optimized for commercial and utility scale solar projects, simplifying design and specification. Options and accessories allow the designer to optimize the products for each project - reducing installation labor costs.

ConnectPV products incorporate "best-in-class" components combined with rugged mechanical designs to maximize reliability over the projected life of the project.

Compatible with grounded systems - negatively or positively grounded with fuses on the ungrounded string input conductor's, or ungrounded systems with fuses on both string input conductors.

Standard Product Features

- 250A, 320A, and 400A UL988 Certified Manual Disconnects
- Lock Out/Tag-Out on Disconnect Handle
- 8-32 Fused Inputs, #14-#6 AWG Wire Range
- Touch Safe Fuse holders
- 15A Fuse Typical, 30A Maximum - user specified
- M10 or M12 Studs provided for single or double hole lugs
- Accommodates 90C Cu/Al Mechanical or Compression Lugs
- Internal Safety Cover over all live components
- NEMA 3R, 4, and 4X Enclosures
- Padlock Latch for Door
- Unique Serial number per unit
- Labeling to meet NEC Requirements
- 5 Year Warranty

Product Options

- Class 2 40KA Surge Protective Device
- Mechanical Lugs Installed or Compression Lugs included
- Breather Vents for High Humidity Locations
- H4 or MC4 Bulkhead or Whip Connectors Installed
- Upsized Enclosures for Larger Output Wires
- Mounting Brackets installed
- Extended Warranty

Model Numbers are derived from the following template: CBX150V-##(DC)-FFAA-EE

VV	T	Disconnector Rating	FF	AA	EE
15 = 1500V	G = Grounded F = Floating	250A, 320A or 400A	08-32 2 string terminals	02-30 15A Typical	N4 = Carbon Steel 4X = Fiberglass*

ABOUT CONNECTPV INC.

Based in San Diego, CA, ConnectPV Inc. delivers expertise and experience. We bring over 10 years of Solar PV industry experience in electrical Balance of System products coupled with more than 25 years of high quality ISO 9001:2008 certified manufacturing experience. We actively work with our customers to deliver innovative, high quality, and cost effective solutions.

Additional Options and Accessories Available

Shadows Not Available

Contact Toll Free: (844)-246-6140
Local: (658) 246-6140

www.connectpv.com
sales@connectpv.com

San Diego, CA
CBX15 Rev. 3.0

CONNECTPV

Simplifying Solar PV

ConnectPV reduces electrical BOS project costs by simplifying:

Configuration
Design Engineers quickly review and approve our products to meet the project requirements. Simplifying design and specification.

Installation
Field installers quickly install our products because they provide ample wiring room. Reducing installation time and labor cost.

Regulation
Any inspectors quickly review and approve our products because we have designed for 100% compliance with the NEC and UL Standards. Reducing project suspension and rework time.

Operation
O&M Personnel reduce field service time because our products use high quality components and are designed for a 10 year life expectancy. Maximizing system revenue production.

Typical Input Characteristics		Grounded Systems		Floating Systems	
Input Circuits	Standard Disconnect Ampacity	Input Wire Size	Output Type	NEMA 4X 4 Steel (inches)	NEMA 4X 4 Steel Fiberglass (inches)
15	250	M10 Stud	24x24x8	24x30x8	24x30x8
20	320	#14-#6 AWG	24x24x8	24x30x8	24x30x8
24	320	Copper	30x24x8	30x30x8	30x30x8*
28	400	Copper	30x30x8	36x30x8	36x36x8*
32	400	Copper	30x30x8	36x36x8	36x36x8*

* Fiberglass Enclosure Steel NEMA 4X
Standard Disconnects used are 125% Compliant per UL 1741
Special Disconnects available for 150A (available for 0230 configuration)

High Ampacity Input Wires available:
e.g. 12 input 400A with 15A fuses
See Specimen Subject to Change

Model Numbers are derived from the following template: CBX150V-##(DC)-FFAA-EE

VV	T	Disconnector Rating	FF	AA	EE
15 = 1500V	G = Grounded F = Floating	250A, 320A or 400A	08-32 2 string terminals	02-30 15A Typical	N4 = Carbon Steel 4X = Fiberglass*

Additional Options and Accessories Available

Shadows Not Available

Contact Toll Free: (844)-246-6140
Local: (658) 246-6140

www.connectpv.com
sales@connectpv.com

San Diego, CA
CBX15 Rev. 3.0

CAB1000/AC

Up to 1500 VDC
Utility-grade energy storage inverter.
Scalable to 4 MW

Return on Investment

- Low maintenance
- Low charging and discharging rate
- Modular 1 MW blocks
- Highest energy storage performance

Modular / Flexible configuration

- 1 MW blocks, 1000 VDC
- 1 MW blocks, 1500 VDC
- 1 MW blocks, 1500 VDC, 1500 VDC
- 1 MW blocks, 1500 VDC, 1500 VDC, 1500 VDC

Simple O&M

- Modular design with low component count
- Fielded assembly solution

Easily Transportable

- Fielded assembly solution
- Compatible with pallet jack or standard forklift
- No crane required
- Top integrated busbar blocks

Advanced Technology

- Fully semiconductor grade silicon
- Fielded assembly solution
- 1500 VDC, 1500 VDC, 1500 VDC

The CAB1000 scalable platform was specifically developed to offer a straightforward and simple solution to developers of utility grade energy storage systems. In 1 MW blocks, the CAB1000 platform offers a single modular system which is factory pre-assembled and ready to go. The inverter power conversion system also boasts high performance components and system redundancy.

With world class power density and an easy to install design your energy storage system will be commissioned quickly and easily. This energy storage PCS has never been more flexible or straightforward.

epcpower

PRELIMINARY - EPC Power Corporation 70100022 August 2019

CAB1000/DC

DC coupled solar + storage

Bidirectional 1500 V DC-DC conversion

With a power rating of up to 3000 kW, EPC's DC-DC outdoor cabinet is designed to seamlessly integrate energy storage into 1000 V or 1500 V PV systems.

1500 V DC-DC Any DC source Wide DC voltage range

Our DC-DC converters are compatible with a wide range of DC sources. Whether you have 1000 V class lithium battery banks, DC generators, ultra-capacitors, other battery chemistries (lead-acid, flow, etc.), or even fuel cells, our DC-DC converters have your needs covered. By connecting a wide range of DC voltage levels, EPC's DC-DC solutions enable highly scalable power conversion in your application.

The CAB1000/DC is designed from the ground up with simplicity, reliability, and scalability in mind.

Key benefits:

- 4-quadrant (bidirectional bulk or boost)
- DC coupled solar
- Power flow in either direction regardless of voltages
- Wide DC range
- Optimized for energy storage

epcpower

PRELIMINARY - EPC Power Corporation 70100022 August 2019

CAB1000/DC

Bidirectional DC-DC

Use Case 1:

Use Case 2:

Model	CAB1000/DC 1000-1000	CAB1000/DC 2000-1000	CAB1000/DC 3000-1000
DC Voltage Range	1000 VDC - 1500 VDC	1000 VDC - 1500 VDC	1000 VDC - 1500 VDC
Power Rating	3000 kW	3000 kW	3000 kW
Efficiency	> 98%	> 98%	> 98%
Temperature Range	-40°C to 60°C	-40°C to 60°C	-40°C to 60°C
Dimensions (H x W x D)	1215 x 1004 x 1200 mm	1215 x 1004 x 1200 mm	1215 x 1004 x 1200 mm
Weight (kg)	1045 kg (2300 lb)	1045 kg (2300 lb)	1045 kg (2300 lb)

Proven products. Limitless possibilities.

epcpower

13025 Danielson St., Suite 112 | Poway, CA 92064 | 1.858.748.5990 | epcpower.com

BOHLER

SITE CIVIL AND CONSULTING ENGINEERING
LAND SURVEYING
PROGRAM MANAGEMENT
LANDSCAPE ARCHITECTURE
CONSTRUCTION MANAGEMENT
PERMITTING SERVICES
TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

811
Know what's below.
Call before you dig.
ALWAYS CALL 811
It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS NOTICED OTHERWISE.

PROJECT No.: W201257
DRAWN BY: GAO, ODR
CHECKED BY: GAO
DATE: 07/20/2023
CAD ID.: W201257-02TL-08

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
160 MAPLE STREET,
TOWN OF BELLINGHAM & FRANKLIN,
NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
www.BohlerEngineering.com

JOHN A. BOHLER
REGISTERED PROFESSIONAL ENGINEER
No. 41530

DETAIL SHEET

C-905

SHEET NUMBER:
ORG. DATE - 07/20/2023

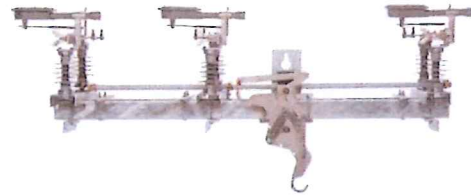
PHOTOVOLTAIC PANEL SPECIFICATIONS

Switches and Disconnects
CA008004EN

Effective January 2018
Supersedes June 2015

COOPER POWER SERIES

M-Force™ three-phase switch



Description

Eaton's Cooper Power™ series M-Force™ switch is a distribution-class, gang-operated, factory-wired three-phase overhead loadbreak switch. The M-Force switch is offered in distribution voltage class options of 15 kV, 27 kV, and 38 kV. The M-Force switch may be used for line sectionalizing, loadbreaking, loadswitching, or isolating. M-Force stands for "Magnetic Force". Eaton has the only reverse loop contacts found on distribution-class airbreak switches, a contact assembly reserved for higher priced transmission switches. The reverse loop contacts allow high current magnetic forces for added stability. The reverse loop design allows for high contact pressure to be maintained during fault conditions. This feature prevents prying and distorting of the switch blade and contacts even under severe momentary overload.



Catalog Data CA008004EN
Effective January 2018

Basic concept

Current-carrying conductors that are parallel to each other and have current flowing in the same direction, attract each other due to the magnetic forces acting on them (See Figure 1A). Current-carrying conductors that are parallel to each other and have current flowing in the opposite direction, repel due to the magnetic forces acting on them (See Figure 1B).

Current flows through the two parallel "inner" segments of the reverse loop contacts in the same direction, thus these two segments attract each other, increasing contact pressure. Current flow through the outer segments and the outer segment is in opposite directions, which causes a repelling force that opposes the contact pressure.

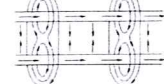


Figure 1A. Current flowing in same direction

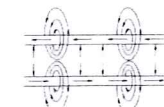


Figure 1B. Current flowing in opposite direction

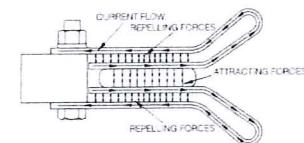


Figure 2. Magnetic forces acting on contacts

Design features

Reverse loop contacts

The reverse loop contacts utilize high current magnetic forces for added stability. The reverse loop contacts were adapted from Eaton's Cooper Power series air break switches and have been field proven for over 80 years. The reverse loop design allows for high contact pressure to be maintained during fault conditions. This feature prevents prying and distorting of the switch blade and contacts even under severe momentary overload. These contacts are originally designed for high voltage breakers which also maintains extremely good temperatures even under the most full load. The max temperature rise allowed per IEEE Std 1201™-2005 (members for the blade and contact area is 95 °C). The max temperature rise observed on the reverse loop contact area was 38 °C, less than half of the allowed temperature. These types of test results, along with the proven field performance, undoubtedly make the Reverse Loop Contacts found in the M-Force switch the premiere choice in the industry.

Insulators

The M-Force switch comes standard with polymer silicone rubber insulators. These non-porous insulators offer exceptional dielectric and mechanical characteristics leading to the reliability of the M-Force switch, while lowering the weight. The M-Force switch can be provided in cycloaliphatic epoxy and porcelain housings. Insulators are standard with 2.25" bolt circles at 15 and 23 kV. Insulators require a 3.00" bolt circle at 38 kV.

Extended bearing assembly

The stainless steel shaft on the rotating insulator bearing assembly has been extended to four inches. This extra length will prevent horizontal movement of the rotating insulator during operation, which ensures proper dead-end alignment, which is essential for smooth operation. Another feature of the bearing assembly is the oil-impregnated bushings that provide maintenance-free operation for the life of the switch.

Insulated Reliabreak™ arm

The Reliabreak™ Pop-up Arm on the M-Force switch is insulated on one side, which isolates the operator from the current path during a close operation. This feature allows for a wide range of adjustment between the Reliabreak arm and the blade card finger. The insulated Reliabreak arm provides the possibility of misalignment during operation which remains proper load interruption.

Positive locking dead-end brackets

The dead-end brackets on the M-Force switch are of a positive locking design. This design allows for dead-ending at an angle without any disassembly of the brackets. This allows for a more flexible switch that can be used in a wider variety of installation environments.

New inter-phase clamps

The inter-phase control rod clamps on the M-Force switch are designed with a jam nut through the side of the casting which locks the clamps after factory alignment. This feature eliminates any possibility of accidental release of the control mechanism which ensures proper operation even under icy conditions.

Optional ice shields

The standard M-Force switch is capable of operating under a 3.5" ice build-up. With the optional ice shields the M-Force switch is capable of opening and closing with a 3.5" ice build-up. The unique shields are designed to prevent ice from building up between the contact clips as well as venting the ice from the blade during the closing operation. The IEEE Std C37.04™-1994, a tripping action is allowed during the close operation to break the ice. Due to the shearing action of the M-Force Switch, the closing operation can be accomplished with one action. No tripping is needed.

Catalog Data CA008004EN
Effective January 2018

M-Force three-phase switch

Table 7. M-Force Three-Phase Switch Catalog Number Configuration

Voltage Class		Options (See Page 9 for details)	
1 - 15 kV (10/15 kV 3L)	2 - 27 kV (10/27 kV 3L)	1 - Latching Handle (M) - 27 kV only	2 - Power for Control Support Busbar
3 - 38 kV (10/38 kV 3L)	4 - 38 kV (10/38 kV 3L)	3 - Latching Handle (M) - 27 kV only	3 - Power for Control Support Busbar
Mounting Configuration		Append codes in alphanumeric order.	
1 - Horizontal Pole Top	2 - Phase over Phase	A - Latching Handle (M) - 27 kV only	B - Power for Control Support Busbar
3 - Vertical Pole (IGSS Sealing)	4 - Vertical Pole (IGSS Sealing)	C - Latching Handle (M) - 27 kV only	D - Power for Control Support Busbar
5 - Vertical Pole (IGSS Sealing)	6 - Vertical Pole (IGSS Sealing)	E - Latching Handle (M) - 27 kV only	F - Power for Control Support Busbar
7 - Vertical Pole (IGSS Sealing)	8 - Vertical Pole (IGSS Sealing)	G - Latching Handle (M) - 27 kV only	H - Power for Control Support Busbar
9 - Vertical Pole (IGSS Sealing)	10 - Vertical Pole (IGSS Sealing)	I - Latching Handle (M) - 27 kV only	J - Power for Control Support Busbar
11 - Vertical Pole (IGSS Sealing)	12 - Vertical Pole (IGSS Sealing)	K - Latching Handle (M) - 27 kV only	L - Power for Control Support Busbar
13 - Vertical Pole (IGSS Sealing)	14 - Vertical Pole (IGSS Sealing)	M - Latching Handle (M) - 27 kV only	N - Power for Control Support Busbar
15 - Vertical Pole (IGSS Sealing)	16 - Vertical Pole (IGSS Sealing)	O - Latching Handle (M) - 27 kV only	P - Power for Control Support Busbar
17 - Vertical Pole (IGSS Sealing)	18 - Vertical Pole (IGSS Sealing)	Q - Latching Handle (M) - 27 kV only	R - Power for Control Support Busbar
19 - Vertical Pole (IGSS Sealing)	20 - Vertical Pole (IGSS Sealing)	S - Latching Handle (M) - 27 kV only	T - Power for Control Support Busbar
21 - Vertical Pole (IGSS Sealing)	22 - Vertical Pole (IGSS Sealing)	U - Latching Handle (M) - 27 kV only	V - Power for Control Support Busbar
23 - Vertical Pole (IGSS Sealing)	24 - Vertical Pole (IGSS Sealing)	W - Latching Handle (M) - 27 kV only	X - Power for Control Support Busbar
25 - Vertical Pole (IGSS Sealing)	26 - Vertical Pole (IGSS Sealing)	Y - Latching Handle (M) - 27 kV only	Z - Power for Control Support Busbar
27 - Vertical Pole (IGSS Sealing)	28 - Vertical Pole (IGSS Sealing)	AA - Latching Handle (M) - 27 kV only	AB - Power for Control Support Busbar
29 - Vertical Pole (IGSS Sealing)	30 - Vertical Pole (IGSS Sealing)	AC - Latching Handle (M) - 27 kV only	AD - Power for Control Support Busbar
31 - Vertical Pole (IGSS Sealing)	32 - Vertical Pole (IGSS Sealing)	AE - Latching Handle (M) - 27 kV only	AF - Power for Control Support Busbar
33 - Vertical Pole (IGSS Sealing)	34 - Vertical Pole (IGSS Sealing)	AG - Latching Handle (M) - 27 kV only	AH - Power for Control Support Busbar
35 - Vertical Pole (IGSS Sealing)	36 - Vertical Pole (IGSS Sealing)	AI - Latching Handle (M) - 27 kV only	AJ - Power for Control Support Busbar
37 - Vertical Pole (IGSS Sealing)	38 - Vertical Pole (IGSS Sealing)	AK - Latching Handle (M) - 27 kV only	AL - Power for Control Support Busbar
39 - Vertical Pole (IGSS Sealing)	40 - Vertical Pole (IGSS Sealing)	AM - Latching Handle (M) - 27 kV only	AN - Power for Control Support Busbar
41 - Vertical Pole (IGSS Sealing)	42 - Vertical Pole (IGSS Sealing)	AO - Latching Handle (M) - 27 kV only	AP - Power for Control Support Busbar
43 - Vertical Pole (IGSS Sealing)	44 - Vertical Pole (IGSS Sealing)	AQ - Latching Handle (M) - 27 kV only	AR - Power for Control Support Busbar
45 - Vertical Pole (IGSS Sealing)	46 - Vertical Pole (IGSS Sealing)	AS - Latching Handle (M) - 27 kV only	AT - Power for Control Support Busbar
47 - Vertical Pole (IGSS Sealing)	48 - Vertical Pole (IGSS Sealing)	AU - Latching Handle (M) - 27 kV only	AV - Power for Control Support Busbar
49 - Vertical Pole (IGSS Sealing)	50 - Vertical Pole (IGSS Sealing)	AW - Latching Handle (M) - 27 kV only	AX - Power for Control Support Busbar
51 - Vertical Pole (IGSS Sealing)	52 - Vertical Pole (IGSS Sealing)	AY - Latching Handle (M) - 27 kV only	AZ - Power for Control Support Busbar
53 - Vertical Pole (IGSS Sealing)	54 - Vertical Pole (IGSS Sealing)	BA - Latching Handle (M) - 27 kV only	BB - Power for Control Support Busbar
55 - Vertical Pole (IGSS Sealing)	56 - Vertical Pole (IGSS Sealing)	BC - Latching Handle (M) - 27 kV only	BD - Power for Control Support Busbar
57 - Vertical Pole (IGSS Sealing)	58 - Vertical Pole (IGSS Sealing)	BE - Latching Handle (M) - 27 kV only	BF - Power for Control Support Busbar
59 - Vertical Pole (IGSS Sealing)	60 - Vertical Pole (IGSS Sealing)	BG - Latching Handle (M) - 27 kV only	BH - Power for Control Support Busbar
61 - Vertical Pole (IGSS Sealing)	62 - Vertical Pole (IGSS Sealing)	BI - Latching Handle (M) - 27 kV only	BJ - Power for Control Support Busbar
63 - Vertical Pole (IGSS Sealing)	64 - Vertical Pole (IGSS Sealing)	BK - Latching Handle (M) - 27 kV only	BL - Power for Control Support Busbar
65 - Vertical Pole (IGSS Sealing)	66 - Vertical Pole (IGSS Sealing)	BM - Latching Handle (M) - 27 kV only	BN - Power for Control Support Busbar
67 - Vertical Pole (IGSS Sealing)	68 - Vertical Pole (IGSS Sealing)	BO - Latching Handle (M) - 27 kV only	BP - Power for Control Support Busbar
69 - Vertical Pole (IGSS Sealing)	70 - Vertical Pole (IGSS Sealing)	BQ - Latching Handle (M) - 27 kV only	BR - Power for Control Support Busbar
71 - Vertical Pole (IGSS Sealing)	72 - Vertical Pole (IGSS Sealing)	BS - Latching Handle (M) - 27 kV only	BT - Power for Control Support Busbar
73 - Vertical Pole (IGSS Sealing)	74 - Vertical Pole (IGSS Sealing)	BU - Latching Handle (M) - 27 kV only	BV - Power for Control Support Busbar
75 - Vertical Pole (IGSS Sealing)	76 - Vertical Pole (IGSS Sealing)	BW - Latching Handle (M) - 27 kV only	BX - Power for Control Support Busbar
77 - Vertical Pole (IGSS Sealing)	78 - Vertical Pole (IGSS Sealing)	BY - Latching Handle (M) - 27 kV only	BZ - Power for Control Support Busbar
79 - Vertical Pole (IGSS Sealing)	80 - Vertical Pole (IGSS Sealing)	CA - Latching Handle (M) - 27 kV only	CB - Power for Control Support Busbar
81 - Vertical Pole (IGSS Sealing)	82 - Vertical Pole (IGSS Sealing)	CC - Latching Handle (M) - 27 kV only	CD - Power for Control Support Busbar
83 - Vertical Pole (IGSS Sealing)	84 - Vertical Pole (IGSS Sealing)	CE - Latching Handle (M) - 27 kV only	CE - Power for Control Support Busbar
85 - Vertical Pole (IGSS Sealing)	86 - Vertical Pole (IGSS Sealing)	CF - Latching Handle (M) - 27 kV only	CF - Power for Control Support Busbar
87 - Vertical Pole (IGSS Sealing)	88 - Vertical Pole (IGSS Sealing)	CG - Latching Handle (M) - 27 kV only	CG - Power for Control Support Busbar
89 - Vertical Pole (IGSS Sealing)	90 - Vertical Pole (IGSS Sealing)	CH - Latching Handle (M) - 27 kV only	CH - Power for Control Support Busbar
91 - Vertical Pole (IGSS Sealing)	92 - Vertical Pole (IGSS Sealing)	CI - Latching Handle (M) - 27 kV only	CI - Power for Control Support Busbar
93 - Vertical Pole (IGSS Sealing)	94 - Vertical Pole (IGSS Sealing)	CJ - Latching Handle (M) - 27 kV only	CJ - Power for Control Support Busbar
95 - Vertical Pole (IGSS Sealing)	96 - Vertical Pole (IGSS Sealing)	CK - Latching Handle (M) - 27 kV only	CK - Power for Control Support Busbar
97 - Vertical Pole (IGSS Sealing)	98 - Vertical Pole (IGSS Sealing)	CL - Latching Handle (M) - 27 kV only	CL - Power for Control Support Busbar
99 - Vertical Pole (IGSS Sealing)	100 - Vertical Pole (IGSS Sealing)	CM - Latching Handle (M) - 27 kV only	CM - Power for Control Support Busbar
101 - Vertical Pole (IGSS Sealing)	102 - Vertical Pole (IGSS Sealing)	CN - Latching Handle (M) - 27 kV only	CN - Power for Control Support Busbar
103 - Vertical Pole (IGSS Sealing)	104 - Vertical Pole (IGSS Sealing)	CO - Latching Handle (M) - 27 kV only	CO - Power for Control Support Busbar
105 - Vertical Pole (IGSS Sealing)	106 - Vertical Pole (IGSS Sealing)	CP - Latching Handle (M) - 27 kV only	CP - Power for Control Support Busbar
107 - Vertical Pole (IGSS Sealing)	108 - Vertical Pole (IGSS Sealing)	CQ - Latching Handle (M) - 27 kV only	CQ - Power for Control Support Busbar
109 - Vertical Pole (IGSS Sealing)	110 - Vertical Pole (IGSS Sealing)	CR - Latching Handle (M) - 27 kV only	CR - Power for Control Support Busbar
111 - Vertical Pole (IGSS Sealing)	112 - Vertical Pole (IGSS Sealing)	CS - Latching Handle (M) - 27 kV only	CS - Power for Control Support Busbar
113 - Vertical Pole (IGSS Sealing)	114 - Vertical Pole (IGSS Sealing)	CT - Latching Handle (M) - 27 kV only	CT - Power for Control Support Busbar
115 - Vertical Pole (IGSS Sealing)	116 - Vertical Pole (IGSS Sealing)	CU - Latching Handle (M) - 27 kV only	CU - Power for Control Support Busbar
117 - Vertical Pole (IGSS Sealing)	118 - Vertical Pole (IGSS Sealing)	CV - Latching Handle (M) - 27 kV only	CV - Power for Control Support Busbar
119 - Vertical Pole (IGSS Sealing)	120 - Vertical Pole (IGSS Sealing)	CW - Latching Handle (M) - 27 kV only	CW - Power for Control Support Busbar
121 - Vertical Pole (IGSS Sealing)	122 - Vertical Pole (IGSS Sealing)	CX - Latching Handle (M) - 27 kV only	CX - Power for Control Support Busbar
123 - Vertical Pole (IGSS Sealing)	124 - Vertical Pole (IGSS Sealing)	CY - Latching Handle (M) - 27 kV only	CY - Power for Control Support Busbar
125 - Vertical Pole (IGSS Sealing)	126 - Vertical Pole (IGSS Sealing)	CZ - Latching Handle (M) - 27 kV only	CZ - Power for Control Support Busbar
127 - Vertical Pole (IGSS Sealing)	128 - Vertical Pole (IGSS Sealing)	DA - Latching Handle (M) - 27 kV only	DA - Power for Control Support Busbar
129 - Vertical Pole (IGSS Sealing)	130 - Vertical Pole (IGSS Sealing)	DB - Latching Handle (M) - 27 kV only	DB - Power for Control Support Busbar
131 - Vertical Pole (IGSS Sealing)	132 - Vertical Pole (IGSS Sealing)	DC - Latching Handle (M) - 27 kV only	DC - Power for Control Support Busbar
133 - Vertical Pole (IGSS Sealing)	134 - Vertical Pole (IGSS Sealing)	DD - Latching Handle (M) - 27 kV only	DD - Power for Control Support Busbar
135 - Vertical Pole (IGSS Sealing)	136 - Vertical Pole (IGSS Sealing)	DE - Latching Handle (M) - 27 kV only	DE - Power for Control Support Busbar
137 - Vertical Pole (IGSS Sealing)	138 - Vertical Pole (IGSS Sealing)	DF - Latching Handle (M) - 27 kV only	DF - Power for Control Support Busbar
139 - Vertical Pole (IGSS Sealing)	140 - Vertical Pole (IGSS Sealing)	DG - Latching Handle (M) - 27 kV only	DG - Power for Control Support Busbar
141 - Vertical Pole (IGSS Sealing)	142 - Vertical Pole (IGSS Sealing)	DH - Latching Handle (M) - 27 kV only	DH - Power for Control Support Busbar
143 - Vertical Pole (IGSS Sealing)	144 - Vertical Pole (IGSS Sealing)	DI - Latching Handle (M) - 27 kV only	DI - Power for Control Support Busbar
145 - Vertical Pole (IGSS Sealing)	146 - Vertical Pole (IGSS Sealing)	DJ - Latching Handle (M) - 27 kV only	DJ - Power for Control Support Busbar
147 - Vertical Pole (IGSS Sealing)	148 - Vertical Pole (IGSS Sealing)	DK - Latching Handle (M) - 27 kV only	DK - Power for Control Support Busbar
149 - Vertical Pole (IGSS Sealing)	150 - Vertical Pole (IGSS Sealing)	DL - Latching Handle (M) - 27 kV only	DL - Power for Control Support Busbar
151 - Vertical Pole (IGSS Sealing)	152 - Vertical Pole (IGSS Sealing)	DM - Latching Handle (M) - 27 kV only	DM - Power for Control Support Busbar
153 - Vertical Pole (IGSS Sealing)	154 - Vertical Pole (IGSS Sealing)	DN - Latching Handle (M) - 27 kV only	DN - Power for Control Support Busbar
155 - Vertical Pole (IGSS Sealing)	156 - Vertical Pole (IGSS Sealing)	DO - Latching Handle (M) - 27 kV only	DO - Power for Control Support Busbar
157 - Vertical Pole (IGSS Sealing)	158 - Vertical Pole (IGSS Sealing)	DP - Latching Handle (M) - 27 kV only	DP - Power for Control Support Busbar
159 - Vertical Pole (IGSS Sealing)	160 - Vertical Pole (IGSS Sealing)	DQ - Latching Handle (M) - 27 kV only	DQ - Power for Control Support Busbar
161 - Vertical Pole (IGSS Sealing)	162 - Vertical Pole (IGSS Sealing)	DR - Latching Handle (M) - 27 kV only	DR - Power for Control Support Busbar
163 - Vertical Pole (IGSS Sealing)	164 - Vertical Pole (IGSS Sealing)	DS - Latching Handle (M) - 27 kV only	DS - Power for Control Support Busbar
165 - Vertical Pole (IGSS Sealing)	166 - Vertical Pole (IGSS Sealing)	DT - Latching Handle (M) - 27 kV only	DT - Power for Control Support Busbar
167 - Vertical Pole (IGSS Sealing)	168 - Vertical Pole (IGSS Sealing)	DU - Latching Handle (M) - 27 kV only	DU - Power for Control Support Busbar
169 - Vertical Pole (IGSS Sealing)	170 - Vertical Pole (IGSS Sealing)	DV - Latching Handle (M) - 27 kV only	DV - Power for Control Support Busbar
171 - Vertical Pole (IGSS Sealing)	172 - Vertical Pole (IGSS Sealing)	DW - Latching Handle (M) - 27 kV only	DW - Power for Control Support Busbar
173 - Vertical Pole (IGSS Sealing)	174 - Vertical Pole (IGSS Sealing)	DX - Latching Handle (M) - 27 kV only	DX - Power for Control Support Busbar
175 - Vertical Pole (IGSS Sealing)	176 - Vertical Pole (IGSS Sealing)	DY - Latching Handle (M) - 27 kV only	DY - Power for Control Support Busbar
177 - Vertical Pole (IGSS Sealing)	178 - Vertical Pole (IGSS Sealing)	DZ - Latching Handle (M) - 27 kV only	DZ - Power for Control Support Busbar
179 - Vertical Pole (IGSS Sealing)	180 - Vertical Pole (IGSS Sealing)	EA - Latching Handle (M) - 27 kV only	EA - Power for Control Support Busbar
181 - Vertical Pole (IGSS Sealing)	182 - Vertical Pole (IGSS Sealing)	EB - Latching Handle (M) - 27 kV only	EB - Power for Control Support Busbar
183 - Vertical Pole (IGSS Sealing)	184 - Vertical Pole (IGSS Sealing)	EC - Latching Handle (M) - 27 kV only	EC - Power for Control Support Busbar
185 - Vertical Pole (IGSS Sealing)	186 - Vertical Pole (IGSS Sealing)	ED - Latching Handle (M) - 27 kV only	ED - Power for Control Support Busbar
187 - Vertical Pole (IGSS Sealing)	188 - Vertical Pole (IGSS Sealing)	EE - Latching Handle (M) - 27 kV only	EE - Power for Control Support Busbar
189 - Vertical Pole (IGSS Sealing)	190 - Vertical Pole (IGSS Sealing)	EF - Latching Handle (M) - 27 kV only	EF - Power for Control Support Busbar
191 - Vertical Pole (IGSS Sealing)	192 - Vertical Pole (IGSS Sealing)	EG - Latching Handle (M) - 27 kV only	EG - Power for Control Support Busbar
193 - Vertical Pole (IGSS Sealing)	194 - Vertical Pole (IGSS Sealing)	EH - Latching Handle (M) - 27 kV only	EH - Power for Control Support Busbar
195 - Vertical Pole (IGSS Sealing)	196 - Vertical Pole (IGSS Sealing)	EI - Latching Handle (M) - 27 kV only	EI - Power for Control Support Busbar
197 - Vertical Pole (IGSS Sealing)	198 - Vertical Pole (IGSS Sealing)	EJ - Latching Handle (M) - 27 kV only	EJ - Power for Control Support Busbar
199 - Vertical Pole (IGSS Sealing)	200 - Vertical Pole (IGSS Sealing)	EK - Latching Handle (M) - 27 kV only	EK - Power for Control Support Busbar
201 - Vertical Pole (IGSS Sealing)	202 - Vertical Pole (IGSS Sealing)	EL - Latching Handle (M) - 27 kV only	EL - Power for Control Support Busbar
203 - Vertical Pole (IGSS Sealing)	204 - Vertical Pole (IGSS Sealing)	EM - Latching Handle (M) - 27 kV only	EM - Power for Control Support Busbar
205 - Vertical Pole (IGSS Sealing)	206 - Vertical Pole (IGSS Sealing)	EN - Latching Handle (M) - 27 kV only	EN - Power for Control Support Busbar
207 - Vertical Pole (IGSS Sealing)	208 - Vertical Pole (IGSS Sealing)	EO - Latching Handle (M) - 27 kV only	EO - Power for Control Support Busbar
209 - Vertical Pole (IGSS Sealing)	210 - Vertical Pole (IGSS Sealing)	EP - Latching Handle (M) - 27 kV only	EP - Power for Control Support Busbar
211 - Vertical Pole (IGSS Sealing)	212 - Vertical Pole (IGSS Sealing)	EQ - Latching Handle (M) - 27 kV only	EQ - Power for Control Support Busbar
213 - Vertical Pole (IGSS Sealing)	214 - Vertical Pole (IGSS Sealing)	ER - Latching Handle (M) - 27 kV only	ER - Power for Control Support Busbar
215 - Vertical Pole (IGSS Sealing)	216 - Vertical Pole (IGSS Sealing)	ES - Latching Handle (M) - 27 kV only	ES - Power for Control Support Busbar
217 - Vertical Pole (IGSS Sealing)	218 - Vertical Pole (IGSS Sealing)	ET - Latching Handle (M) - 27 kV only	ET - Power for Control Support Busbar
219 - Vertical Pole (IGSS Sealing)	220 - Vertical Pole (IGSS Sealing)	EU - Latching Handle (M) - 27 kV only	EU - Power for Control Support Busbar
221 - Vertical Pole (IGSS Sealing)	222 - Vertical Pole (IGSS Sealing)	EV - Latching Handle (M) - 27 kV only	EV - Power for Control Support Busbar
223 - Vertical Pole (IGSS Sealing)	224 - Vertical Pole (IGSS Sealing)	EW - Latching Handle (M) - 27 kV only	EW - Power for Control Support Busbar
225 - Vertical Pole (IGSS Sealing)	226 - Vertical Pole (IGSS Sealing)	EX - Latching Handle (M) - 27 kV only	EX - Power for Control Support Busbar
227 - Vertical Pole (IGSS Sealing)	228 - Vertical Pole (IGSS Sealing)	EY - Latching Handle (M) - 27 kV only	EY - Power for Control Support Busbar
229 - Vertical Pole (IGSS Sealing)	230 - Vertical Pole (IGSS Sealing)	EZ - Latching Handle (M) - 27 kV only	EZ - Power for Control Support Busbar
231 - Vertical Pole (IGSS Sealing)	232 - Vertical Pole (IGSS Sealing)	FA - Latching Handle (M) - 27 kV only	FA - Power for Control Support Busbar
233 - Vertical Pole (IGSS Sealing)	234 - Vertical Pole (IGSS Sealing)	FB - Latching Handle (M) - 27 kV only	FB - Power for Control Support Busbar
235 - Vertical Pole (IGSS Sealing)	236 - Vertical Pole (IGSS Sealing)	FC - Latching Handle (M) - 27 kV only	FC - Power for Control Support Busbar
237 - Vertical Pole (IGSS Sealing)	238 - Vertical Pole (IGSS Sealing)	FD - Latching Handle (M) - 27 kV only	FD - Power for Control Support Busbar
239 - Vertical Pole (IGSS Sealing)	240 - Vertical Pole (IGSS Sealing)	FE - Latching Handle (M) - 27 kV only	FE - Power for Control Support Busbar
241 - Vertical Pole (IGSS Sealing)	242 - Vertical Pole (IGSS Sealing)	FF - Latching Handle (M) - 27 kV only	FF - Power for Control Support Busbar
243 - Vertical Pole (IGSS Sealing)	244 - Vertical Pole (IGSS Sealing)	FG - Latching Handle (M) - 27 kV only	FG - Power for Control Support Busbar
245 - Vertical Pole (IGSS Sealing)	246 - Vertical Pole (IGSS Sealing)	FH - Latching Handle (M) - 27 kV only	FH - Power for Control Support Busbar
247 - Vertical Pole (IGSS Sealing)	248 - Vertical Pole (IGSS Sealing)	FI - Latching Handle (M) - 27 kV only	FI - Power for Control Support Busbar
249 - Vertical Pole (IGSS Sealing)	250 - Vertical Pole (IGSS Sealing)	FJ - Latching Handle (M) - 27 kV only	FJ - Power for Control Support Busbar
251 - Vertical Pole (IGSS Sealing)	252 - Vertical Pole (IGSS Sealing)	FK - Latching Handle (M) - 27 kV only	FK - Power for Control Support Busbar
253 - Vertical Pole (IGSS Sealing)	254 - Vertical Pole (IGSS Sealing)</		



BOHLER
 SITE CIVIL AND CONSULTING ENGINEERING
 LAND SURVEYING
 PROGRAM MANAGEMENT
 LANDSCAPE ARCHITECTURE
 SUSTAINABLE DESIGN
 PLANNING SERVICES
 TRANSPORTATION SERVICES

REVISIONS

REV	DATE	COMMENT	DRAWN BY	CHECKED BY

811
 Know what's below.
 Call before you dig.
ALWAYS CALL 811
 It's fast. It's free. It's the law.

ISSUED FOR MUNICIPAL & AGENCY REVIEW & APPROVAL

THIS DRAWING IS INTENDED FOR MUNICIPAL AND/OR AGENCY REVIEW AND APPROVAL. IT IS NOT INTENDED AS A CONSTRUCTION DOCUMENT UNLESS INDICATED OTHERWISE.

PROJECT No.: W201257
 DRAWN BY: CMC / OCR
 CHECKED BY: GO
 DATE: 07/20/2023
 CAD I.D.: W201257-VE-HE-08

PROJECT:

PROPOSED SITE PLAN DOCUMENTS

FOR
MAPLE STREET SOLAR LLC
 PROPOSED SOLAR FARM

LOTS INCLUDED (PARCEL #): 255-001, 254-001, 239-010 A, 239-010 B, 239-010 C, PORTION OF D 239-010, & 32-0009
 160 MAPLE STREET
 TOWN OF BELLINGHAM & FRANKLIN, NORFOLK COUNTY, MASSACHUSETTS

BOHLER

352 TURNPIKE ROAD
 SOUTHBOROUGH, MA 01772
 Phone: (508) 450-9500

www.BohlerEngineering.com



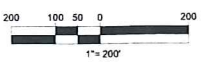
SHEET TITLE:

FIRE TRUCK CIRCULATION PLAN

SHEET NUMBER:

1 of 1

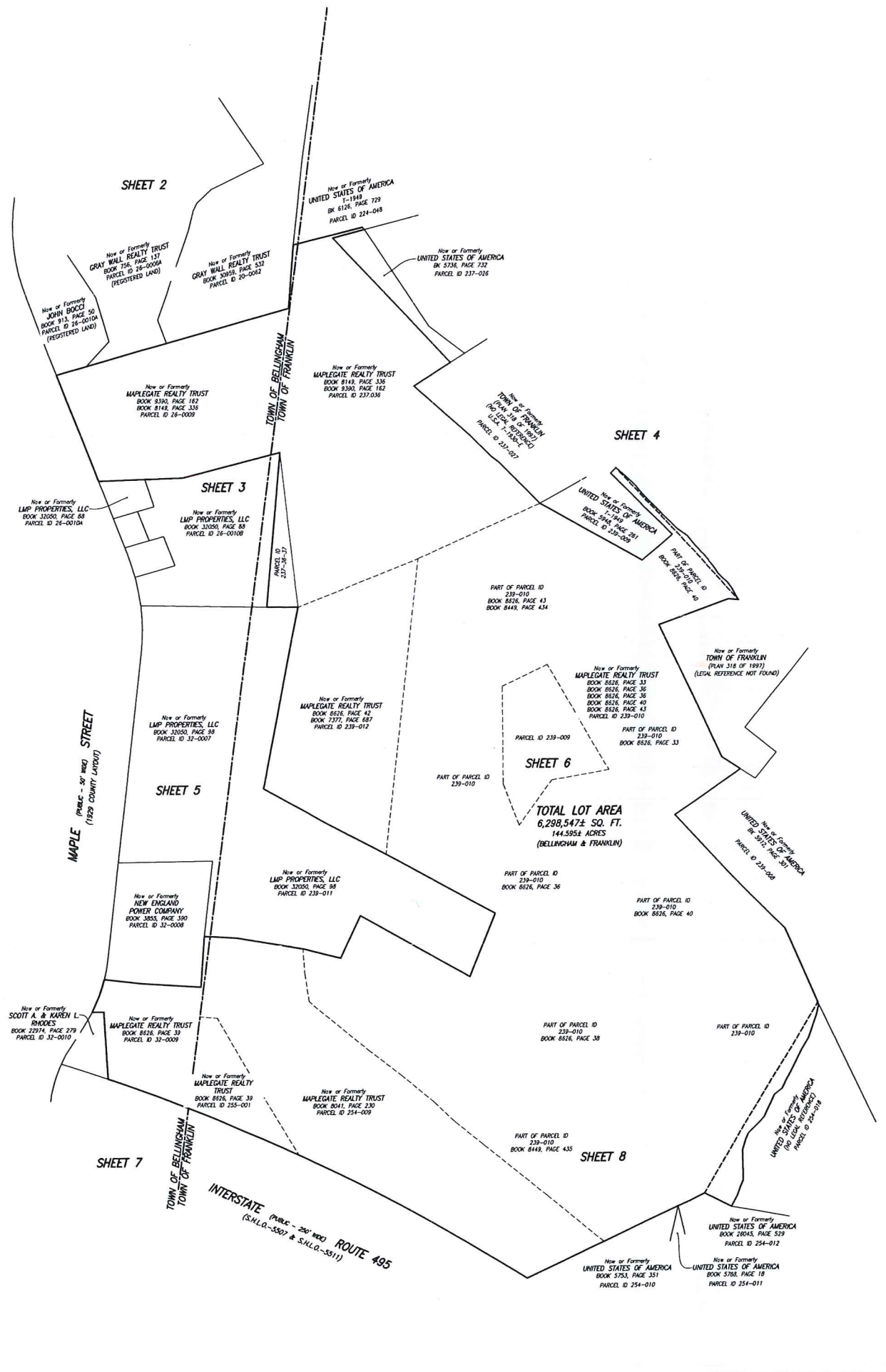
ORG. DATE - 07/20/2023



DATE PLOTTED: 07/20/2023 10:58:10 AM. PLOTTER: HP DesignJet T1200. PLOT SCALE: 1.0000. PLOT SHEET: 1 OF 1. PLOT STATUS: SUCCESS.



MASSACHUSETTS STATE
PLANE COORDINATE SYSTEM
NAD 83 (1983)



TOWN OF FRANKLIN
TOWN CLERK
2023 JUL 21 A 9:29
RECEIVED

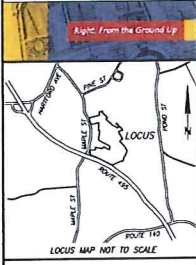
- NOTES:**
- 1) BENCH MARK INFORMATION
ELEVATIONS ESTABLISHED FROM GPS OBSERVATIONS
TEMPORARY BENCHMARKS SET
TBM-EC1: TOP OF MAG NAIL SET IN ASPHALT CURB PATH AS SHOWN HEREON (SEE SHEET 4)
ELEVATION=218.32
TBM-EC11: TOP OF MAG NAIL SET IN ASPHALT CURB PATH AS SHOWN HEREON (SEE SHEET 4)
ELEVATION=241.05
 - 2) ELEVATIONS REFER TO NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD83).
 - 3) CONTOUR INTERVAL EQUALS ONE (1) FOOT.
 - 4) BY GRAPHIC PLOTTING ONLY, THE PARCELS SHOWN HEREON ARE WITHIN A ZONE "X" (UNDERWOODS) AN AREA OUTSIDE OF THE 0.2% ANNUAL CHANCE FLOOD AND A ZONE "2" AN AREA WITHIN THE 1% CHANCE ANNUAL FLOOD WITH BASE FLOOD ELEVATIONS DETERMINED AS SHOWN ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) FOR NORFOLK COUNTY, MASSACHUSETTS (ALL JURISDICTIONS) MAP NUMBER 25021C0302E, HAVING AN EFFECTIVE DATE OF JULY 17, 2012.
 - 5) THIS DOCUMENT IS AN INSTRUMENT OF SERVICE OF FELDMAN LAND SURVEYORS ISSUED TO OUR CLIENT FOR PURPOSES RELATED DIRECTLY AND SOLELY TO FELDMAN LAND SURVEYORS' SCOPE OF SERVICES UNDER CONTRACT TO OUR CLIENT FOR THIS PROJECT. ANY USE OR REUSE OF THIS DOCUMENT FOR ANY REASON BY ANY PARTY FOR PURPOSES UNRELATED DIRECTLY AND SOLELY TO SAID CONTRACT SHALL BE AT THE USER'S SOLE AND EXCLUSIVE RISK AND LIABILITY, INCLUDING LIABILITY FOR VIOLATION OF COPYRIGHT LAWS, UNLESS WRITTEN CONSENT IS PROVIDED BY FELDMAN LAND SURVEYORS.
 - 6) UTILITY INFORMATION SHOWN IS BASED ON BOTH A FIELD SURVEY AND PLANS OF RECORD. THE LOCATIONS OF UNDERGROUND PIPES AND CONDUITS HAVE BEEN DETERMINED FROM THE APPLICABLE RECORD PLANS AND ARE APPROXIMATE ONLY. WE CANNOT ASSUME RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES THAT ARE QUOTED OR IMPLICITLY SHOWN ON SAID RECORD PLANS. SINCE SUBSURFACE UTILITIES CANNOT BE NOISED EXCEPT BEFORE PLANNING FUTURE CONNECTIONS, THE PROJECT UTILITY ENGINEERING DEPARTMENT SHOULD BE CONSULTED AND THE ACTUAL LOCATION OF SUBSURFACE UTILITIES SHOULD BE DETERMINED IN THE FIELD. CALL, TOLL FREE, THE DIG SAFE CALL CENTER AT 1-888-384-7233 SEVENTY-TWO HOURS PRIOR TO EXCAVATION.
 - 7) THE WETLAND AREAS SHOWN HEREON WERE DELINEATED BY LEC ENVIRONMENTAL DURING FEBRUARY AND MARCH OF 2022.

LEGEND

⊕	UTILITY POLE
○	LIGHT POLE
⊙	MANHOLE
⊚	HYDRANT
⊛	SIGN
⊜	BOND FOUND WITH DRILL HOLE
⊝	IRON ROD
⊞	WETLAND FLAG
⊠	DELTA ANGLE
⊡	FLAG POLE
⊢	POST
⊣	BT/BLANDUS
⊤	BORDERING VEGETATED WETLAND
⊥	INTERVENTENT LAND SUBJECT TO FLOODING
⊦	CONCRETE
⊧	DRILL HOLE
⊨	ESCUTCHEON PA/LEAD PLUG
⊩	STONE BOUND DRILL HOLE
⊪	CONC BOUND DRILL HOLE
⊫	IRON PIPE
⊬	IRON ROD
⊭	FOUND
⊮	STATE HIGHWAY LAYOUT
⊯	INVERT ELEVATION
⊰	ARC LENGTH
⊱	NO VISIBLE PIPES
⊲	RADIUS
⊳	TOE FT
⊴	CHORD BEARING
⊵	CHORD DISTANCE
⊶	GRAIN
⊷	PIPE SIZE AND MATERIAL
⊸	CAST IRON
⊹	CORRUGATED PLASTIC PIPE
⊺	CORRUGATED METAL PIPE
⊻	POLYETHYLENE GLYCOL
⊼	REINFORCED CONCRETE PIPE
⊽	HYDRANT GUY PIPE
⊾	OVERHEAD WIRES
⊿	GUARD RAIL
⋀	METAL FENCE
⋁	FENCE
⋂	STONE WALL

FELDMAN
GEOSPATIAL

BOSTON HEADQUARTERS
152 HAMPDEN STREET
BOSTON, MA 02119
WORCESTER OFFICE
27 MECHANIC STREET
WORCESTER, MA 01608
(617)357-9740
www.feldmongeo.com



I CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY AND THE LATEST PLANS AND DEEDS OF RECORD.

TAMMY R. ADURYS, PLS
(MA# 52782)
TADURYS@FELDMONGEO.COM
7-13-23
DATE



ADDRESS:
MAPLEGATE COUNTRY CLUB
BELLINGHAM, MASS.
FRANKLIN, MASS.

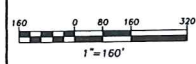
RESEARCH SPP	FIELD CHECK: EC
FIELD WORK TRA	APPROVED: TRA
CALL: SPP	CADD: SPP
FIELD CHK:	ORD FILE: 220001

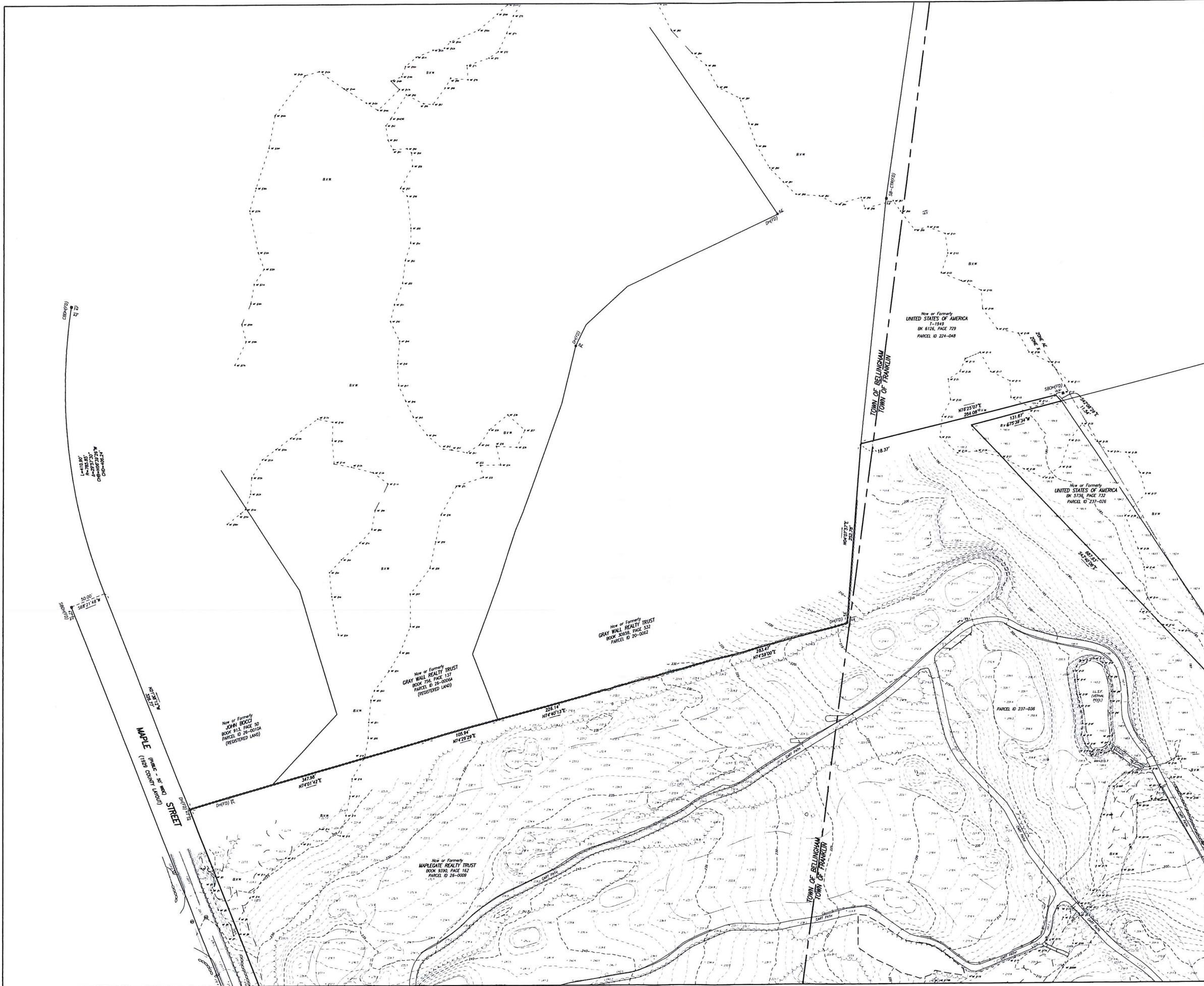
REVISIONS:

7/12/2022	REVISED WETLANDS PER LEC

DRAWING NAME:
EXISTING CONDITIONS PLAN

DATE: APRIL 11, 2022





FELDMAN
GEOSPATIAL

BOSTON HEADQUARTERS
152 HAMPDEN STREET
BOSTON, MA 02119

WORCESTER OFFICE
27 MECHANIC STREET
WORCESTER, MA 01608
(617)357-9740
www.feldmangeo.com



LOCUS MAP NOT TO SCALE

I CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY AND THE LATEST PLANS AND DEEDS OF RECORD.

7-13-23
TIMOTHY W. ACURYS, PLS. DATE
(MAP 52782)
TACURYS@FELDMANGEO.COM



ADDRESS:

MAPLEGATE COUNTRY CLUB
BELLINGHAM, MASS.
FRANKLIN, MA

RESEARCH: SPP	FIELD CHIEF: EC
PROJ. MGR: TRA	APPROVED: TRA
CALC: SPP	CAD: SPP
FIELD CHG:	CRD FILE: 220001

REVISIONS:

7/13/2023	REVISED METRANES PER LEC

DRAWING NAME:

EXISTING CONDITIONS
PLAN

DATE: APRIL 11, 2022

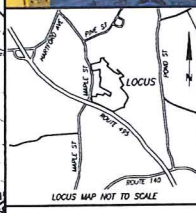




FELDMAN
GEOSPATIAL

BOSTON HEADQUARTERS
152 HAMPDEN STREET
BOSTON, MA 02119

WORCESTER OFFICE
27 MECHANIC STREET
WORCESTER, MA 01608
(617)357-9740
www.feldmongeo.com



I CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY AND THE LATEST PLANS AND DEEDS OF RECORD.

TIMOTHY R. AGURYS, PLS
(MA# 52782) DATE 7-12-23
T.A.GURYS@FELDMONGEO.COM



ADDRESS:

MAPLEGATE COUNTRY CLUB
BELLINGHAM, MASS.
FRANKLIN, MA

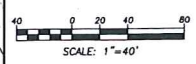
RESEARCH SPP	FIELD CHIEF: EC
PROJ. MGR: TRA	APPROVED: TRA
CALC. SPP	CADD: SPP
FIELD CHK:	ORD FILE: 220001

REVISIONS:
7/12/2023 REVISED WETLANDS PER LEC

DRAWING NAME:

EXISTING CONDITIONS PLAN

DATE: APRIL 11, 2023

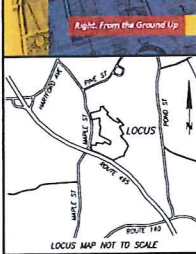


SHEET NO. 3 OF 8



BOSTON HEADQUARTERS
152 HAMPTON STREET
BOSTON, MA 02119

WORCESTER OFFICE
27 MECHANIC STREET
WORCESTER, MA 01608
(617)357-9740
www.feldmangeo.com



I CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY AND THE LATEST PLANS AND RECORDS OF RECORD.

TIMOTHY R. AGURKIS, PLS
(MA# 52782)
T.AGURKIS@FELDMANGEO.COM

DATE: 7-13-23



ADDRESS:

MAPLEGATE COUNTRY CLUB
BELLINGHAM, MASS.
FRANKLIN, MA

RESEARCH: SPP	FIELD CHECK: EC
PROJ. MGR: TRA	APPROVED: TRA
CALC: SPP	CADD: SPP
FIELD CHK:	CRD FILE: 220001

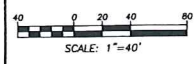
REVISIONS:

7/12/2023	REVISED METLANDS PER LEC

DRAWING NAME:

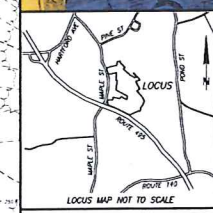
EXISTING CONDITIONS
PLAN

DATE: APRIL 11, 2022



BOSTON HEADQUARTERS
152 HAMPDEN STREET
BOSTON, MA 02119

WORCESTER OFFICE
27 MECHANIC STREET
WORCESTER, MA 01608
(617)357-9740
www.feldmangeo.com



I CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY AND THE LATEST PLANS AND DEEDS OF RECORD

7-13-23
DATE
THOMAS R. AGURYS, PLS
(MA# 52782)
T.AGURYS@FELDMANGEO.COM



ADDRESS:

MAPLEGATE COUNTRY CLUB
BELLINGHAM, MASS.
FRANKLIN, MA

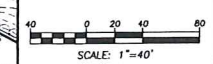
RESEARCH: SPP	FIELD CHIEF: EC
FIELD MGR: TRA	APPROVED: TRA
CALC: SPP	CADD: SPP
FIELD DRC	CRD FILE: 220001

REVISIONS:
7/12/2023 REVISED WETLANDS PER LEG

DRAWING NAME:

EXISTING CONDITIONS
PLAN

DATE: APRIL 11, 2023



SHEET NO. 5 OF 8



Now or Formerly
LMP PROPERTIES, LLC
BOOK 32050, PAGE 93
PARCEL ID 239-007

Now or Formerly
LMP PROPERTIES, LLC
BOOK 32050, PAGE 93
PARCEL ID 239-011

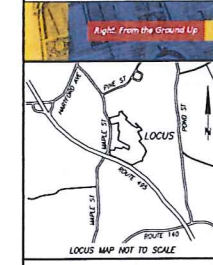
Now or Formerly
NEW ENGLAND POWER COMPANY
BOOK 3855, PAGE 300
PARCEL ID 32-0008



FELDMAN
GEOSPATIAL

BOSTON HEADQUARTERS
152 HAMPDEN STREET
BOSTON, MA 02119

WORCESTER OFFICE
27 MECHANIC STREET
WORCESTER, MA 01608
(617)357-9740
www.feldmangeo.com



I CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY AND THE LATEST PLANS AND DEEDS OF RECORD.

7-13-23 DATE
TAMMY R. AGURYS, PLS. DATE
(MAP 52782)
TAGURYS@FELDMANENGINEERING.COM



ADDRESS:

MAPLEGATE COUNTRY CLUB
BELLINGHAM, MASS.
FRANKLIN, MA

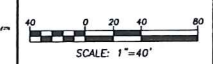
RESEARCH: SPP	FIELD CHIEF: EC
FIELD ACK: TRA	APPROVED: TRA
CALC: SPP	CADD: SPP
FIELD CHK:	ORD FILE: 220001

REVISIONS:
7/13/2023 REVISED METRANS PER LEG

DRAWING NAME:

EXISTING CONDITIONS
PLAN

DATE: APRIL 11, 2022



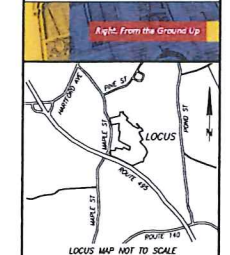
SHEET NO. 6 OF 8



FELDMAN
GEO SPATIAL

BOSTON HEADQUARTERS
152 HAMPDEN STREET
BOSTON, MA 02119

WORCESTER OFFICE
27 MECHANIC STREET
WORCESTER, MA 01608
(617)357-9740
www.feldmangeo.com



I CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL FIELD SURVEY AND THE LATEST PLANS AND DEEDS OF RECORD.

7-13-23
DATE
THOMAS R. AGUIRRE, PLS
(MAP 52782)
T.AGUIRRE@FELDMANGEO.COM



ADDRESS:

MAPLEGATE COUNTRY CLUB
BELLINGHAM, MASS.
FRANKLIN, MA

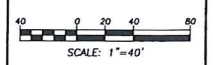
RESEARCH: SPP	FIELD CHIEF: EC
PROJ MGR: TRA	APPROVED: TRA
CALC: SPP	CADD: SPP
FIELD CHK:	CRD FILE: 220001

REVISIONS:
2/12/2023 REVISED WETLANDS PER LEC

DRAWING NAME:
DRAFT 5/09/2022

EXISTING CONDITIONS
PLAN

DATE: APRIL 11, 2022



SHEET NO. 8 OF 8