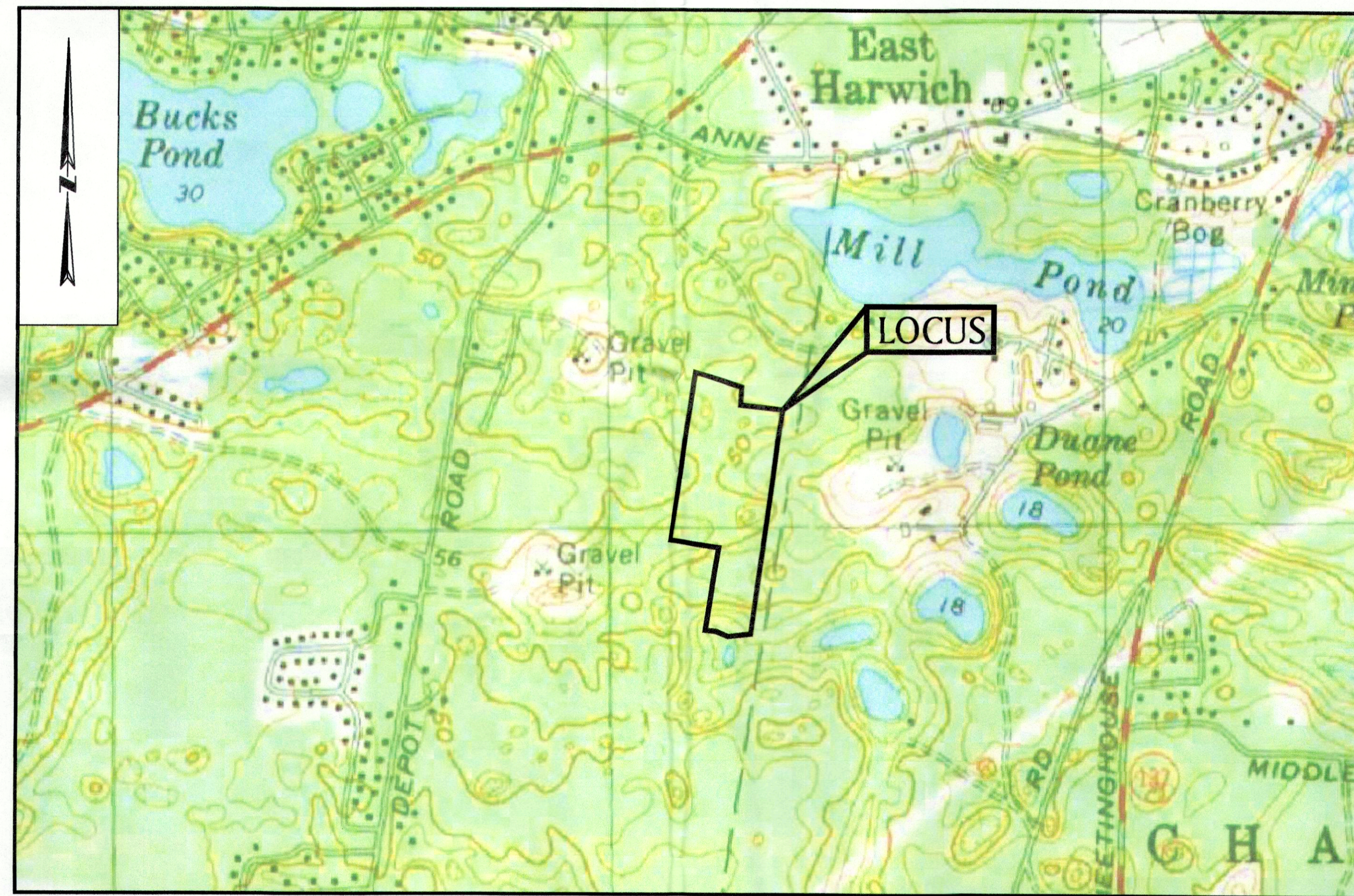


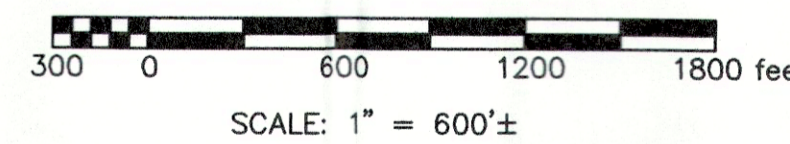
# GROUND-MOUNTED PHOTOVOLTAIC SYSTEM

0 DEPOT ROAD  
HARWICH, MASSACHUSETTS

JULY 17, 2020



LOCUS MAP

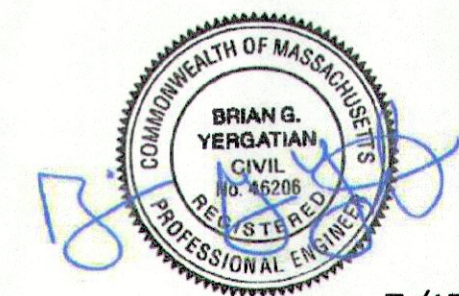


## INDEX OF DRAWINGS

- 1 TITLE SHEET
- 2 EXISTING CONDITIONS PLAN
- 3 SITE PREPARATION PLAN
- 4 LAYOUT & MATERIALS PLAN
- 5 GRADING & DRAINAGE PLAN
- 6 UTILITY PLAN
- 7 DETAIL SHEET

PREPARED FOR:

NEXTGRID, INC  
PO BOX 7775, #73069  
SAN FRANCISCO, CA 94120



7/17/20

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PREPARED BY:

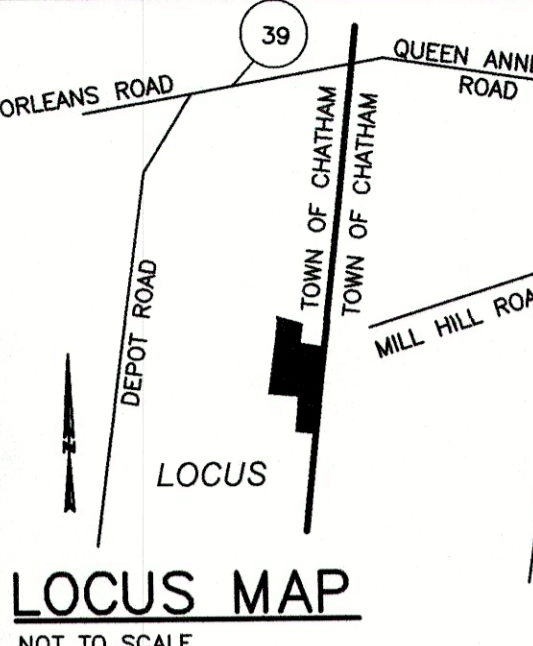
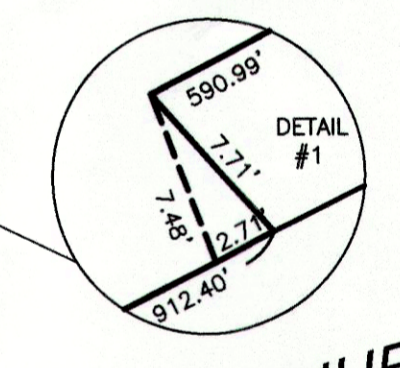
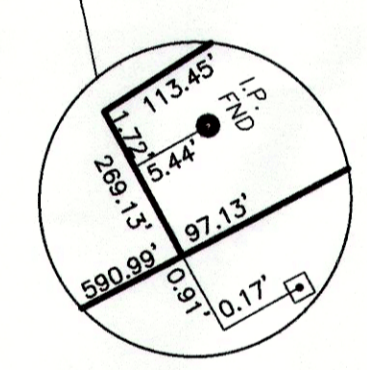
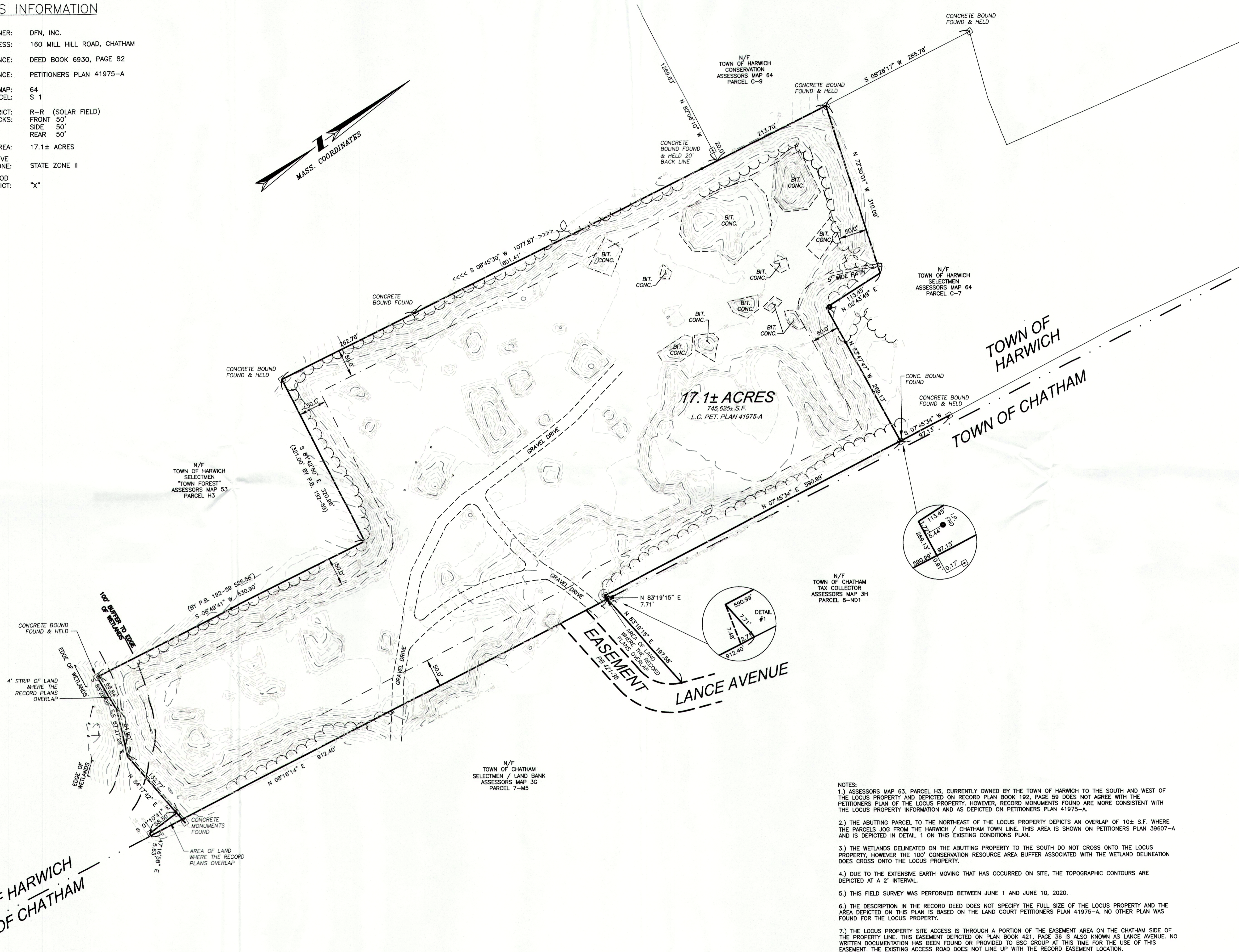
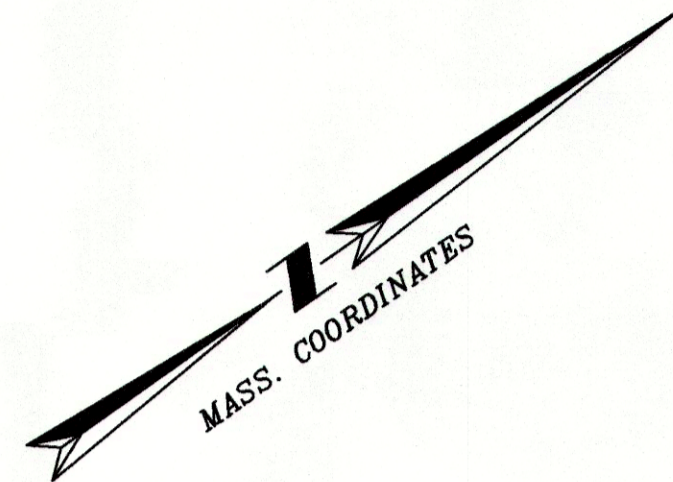


349 Main Street - Route 28  
W. Yarmouth, Massachusetts  
02673

508 778 8919

**LOCUS INFORMATION**

CURRENT OWNER: DFN, INC.  
 ADDRESS: 160 MILL HILL ROAD, CHATHAM  
 TITLE REFERENCE: DEED BOOK 6930, PAGE 82  
 PLAN REFERENCE: PETITIONERS PLAN 41975-A  
 ASSESSORS MAP: 64  
 PARCEL: S 1  
 ZONING DISTRICT: R-R (SOLAR FIELD)  
 SETBACKS: FRONT 50'  
 SIDE 50'  
 REAR 50'  
 EXISTING UPLAND LOT AREA: 17.1± ACRES  
 NITROGEN SENSITIVE ZONE: STATE ZONE II  
 FEMA FLOOD ZONE DISTRICT: "X"



KIERAN J. HEALY  
 PROFESSIONAL LAND SURVEYOR

**PLAN OF LAND**

0 DEPOT ROAD  
 IN  
 HARWICH  
 MASSACHUSETTS  
 (BARNSTABLE COUNTY)

EXISTING  
 CONDITIONS

JULY 17, 2020

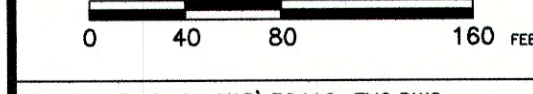
REVISIONS:

NO.	DATE	DESC.

PREPARED FOR:  
 NEXTGRID, INC  
 P.O. BOX 7775  
 SAN FRANCISCO, CA 9412

**BSC GROUP**  
 349 Route 28, Unit D  
 W. Yarmouth, Massachusetts  
 02673  
 508 778 891

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 SCALE: 1" = 80'

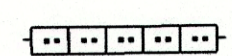

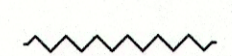



FILE: ...Projects-YAR\50416-EXC.DWG  
 DWG. NO: 6654-01 SHEET 2  
 JOB. NO: 5-0416.00

- NOTES:
- ASSESSORS MAP 63, PARCEL H3, CURRENTLY OWNED BY THE TOWN OF HARWICH TO THE SOUTH AND WEST OF THE LOCUS PROPERTY AND DEPICTED ON RECORD PLAN BOOK 192, PAGE 59 DOES NOT AGREE WITH THE PETITIONERS PLAN OF THE LOCUS PROPERTY. HOWEVER, RECORD MONUMENTS FOUND ARE MORE CONSISTENT WITH THE LOCUS PROPERTY INFORMATION AND AS DEPICTED ON PETITIONERS PLAN 41975-A.
  - THE ABUTTING PARCEL TO THE NORTHEAST OF THE LOCUS PROPERTY DEPICTS AN OVERLAP OF 10± S.F. WHERE THE PARCELS JOG FROM THE HARWICH / CHATHAM TOWN LINE. THIS AREA IS SHOWN ON PETITIONERS PLAN 39607-A AND IS DEPICTED IN DETAIL 1 ON THIS EXISTING CONDITIONS PLAN.
  - THE WETLANDS DELINEATED ON THE ABUTTING PROPERTY TO THE SOUTH DO NOT CROSS ONTO THE LOCUS PROPERTY, HOWEVER THE 100' CONSERVATION RESOURCE AREA BUFFER ASSOCIATED WITH THE WETLAND DELINEATION DOES CROSS ONTO THE LOCUS PROPERTY.
  - DUE TO THE EXTENSIVE EARTH MOVING THAT HAS OCCURRED ON SITE, THE TOPOGRAPHIC CONTOURS ARE DEPICTED AT A 2' INTERVAL.
  - THIS FIELD SURVEY WAS PERFORMED BETWEEN JUNE 1 AND JUNE 10, 2020.
  - THE DESCRIPTION IN THE RECORD DEED DOES NOT SPECIFY THE FULL SIZE OF THE LOCUS PROPERTY AND THE AREA DEPICTED ON THIS PLAN IS BASED ON THE LAND COURT PETITIONERS PLAN 41975-A. NO OTHER PLAN WAS FOUND FOR THE LOCUS PROPERTY.
  - THE LOCUS PROPERTY SITE ACCESS IS THROUGH A PORTION OF THE EASEMENT AREA ON THE CHATHAM SIDE OF THE PROPERTY LINE. THIS EASEMENT DEPICTED ON PLAN BOOK 421, PAGE 36 IS ALSO KNOWN AS LANCE AVENUE. NO WRITTEN DOCUMENTATION HAS BEEN FOUND OR PROVIDED TO BSC GROUP AT THIS TIME FOR THE USE OF THIS EASEMENT. THE EXISTING ACCESS ROAD DOES NOT LINE UP WITH THE RECORD EASEMENT LOCATION.

File Name: \\bbs001\Projects-YAR\50416-EXC.DWG - Tab: Layout1 Plotted On: July 15, 2020 10:10 AM by: YERGANIAN, BRIAN Saved on: 7/15/2020 10:09 AM by: BYERGATAN

**LEGEND**

-  SILT SOXX EROSION CONTROL BARRIER
-  REMOVE TREES, CLEAR & GRUB
-  STRUCTURE TO BE REMOVED & DEMOLISHED
-  REMOVE & DISPOSE PAVEMENT

**BEST MANAGEMENT PRACTICES (BMPs)**

- ① SILT SOXX EROSION CONTROL BARRIER
- ② CONCRETE WASH OUT AREA
- ③ TEMPORARY SEDIMENT BASIN WITH INTERCEPTOR SWALES
- ④ CONSTRUCTION ENTRANCE/EXIT
- ⑤ DEWATERING SEDIMENTATION TRAP

**EROSION AND SEDIMENT CONTROL NOTES:**

1. PRIOR TO ANY LAND DISTURBANCE ACTIVITIES COMMENCING ON THE SITE, THE DEVELOPER SHALL PHYSICALLY MARK LIMITS OF NO LAND DISTURBANCE ON THE SITE WITH TAPE, SIGNS, OR ORANGE CONSTRUCTION FENCE, SO THAT WORKERS CAN SEE THE AREAS TO BE PROTECTED. THE PHYSICAL MARKERS SHALL REMAIN IN PLACE UNTIL A CERTIFICATE OF COMPLETION HAS BEEN ISSUED.
2. APPROPRIATE EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO SOIL DISTURBANCE. MEASURES SHALL BE TAKEN TO CONTROL EROSION WITHIN THE PROJECT AREA. SEDIMENT IN RUNOFF WATER SHALL BE TRAPPED AND RETAINED WITHIN THE PROJECT AREA. WETLAND AREAS AND SURFACE WATERS SHALL BE PROTECTED FROM SEDIMENT.
3. MINIMIZE TOTAL AREA OF DISTURBANCE AND PROTECT NATURAL FEATURES AND SOIL.
4. THE CONTRACTOR SHALL SEQUENCE ALL ACTIVITIES TO MINIMIZE SIMULTANEOUS AREAS OF DISTURBANCE. MASS CLEARING AND GRADING OF THE ENTIRE SITE SHALL BE AVOIDED.
5. MINIMIZE SOIL EROSION AND CONTROL SEDIMENTATION DURING CONSTRUCTION.
6. DIVERT UNCONTAMINATED WATER AROUND DISTURBED AREAS.
7. INSTALL AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND GOOD ENGINEERING PRACTICES OR IN ACCORDANCE WITH THE 2017 EPA CONSTRUCTION GENERAL PERMIT.
8. PROTECT AND MANAGE ON AND OFF-SITE MATERIAL STORAGE AREAS (OVERBURDEN AND STOCKPILES OF DIRT, BORROW AREAS, OR OTHER AREAS USED SOLELY BY THE PERMITTED PROJECT ARE CONSIDERED A PART OF THE PROJECT).
9. COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS INCLUDING WASTE DISPOSAL, SANITARY OR SEWER REGULATIONS, AND AIR QUALITY REQUIREMENTS, INCLUDING DUST CONTROL.
10. SEDIMENT SHALL BE REMOVED ONCE THE VOLUME REACHES 1/4 TO 1/2 THE HEIGHT OF THE EROSION CONTROL DEVICE. SEDIMENT SHALL BE REMOVED FROM SILT FENCE PRIOR TO REACHING THE LOAD-BEARING CAPACITY OF THE SILT FENCE WHICH MAY BE LOWER THAN 1/4 TO 1/2 THE HEIGHT.
11. SEDIMENT FROM SEDIMENT TRAPS OR SEDIMENTATION PONDS SHALL BE REMOVED WHEN DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT.
12. BMPs TO BE USED FOR INFILTRATION AFTER CONSTRUCTION SHALL NOT BE USED AS BMPs DURING CONSTRUCTION UNLESS OTHERWISE APPROVED IN WRITING BY THE ENGINEER AND THE TOWN OF BREWSTER. MANY INFILTRATION TECHNOLOGIES ARE NOT DESIGNED TO HANDLE THE HIGH CONCENTRATIONS OF SEDIMENTS TYPICALLY FOUND IN CONSTRUCTION RUNOFF, AND THUS MUST BE PROTECTED FROM CONSTRUCTION RELATED SEDIMENT LOADINGS.
13. SOIL STOCKPILES MUST BE STABILIZED OR COVERED AT THE END OF EACH WORKDAY. STOCKPILE SIDE SLOPES SHALL NOT BE GREATER THAN 2:1 UNLESS SPECIFIED BY ENGINEER. ALL STOCKPILES SHALL BE SURROUNDED BY SEDIMENT CONTROLS.
14. FOR ACTIVE CONSTRUCTION AREAS SUCH AS BORROW OR STOCKPILE AREAS, ROADWAY IMPROVEMENTS AND AREAS WITHIN 50 FEET OF A BUILDING UNDER CONSTRUCTION, A PERIMETER SEDIMENT CONTROL SYSTEM SHALL BE INSTALLED AND MAINTAINED TO CONTAIN SOIL.
15. A TRACKING PAD OR OTHER APPROVED STABILIZATION METHOD SHALL BE CONSTRUCTED AT ALL ENTRANCE/EXIT POINTS OF THE SITE TO REDUCE THE AMOUNT OF SOIL CARRIED ONTO ROADWAYS AND OFF THE SITE.
16. ON THE CUT SIDE OF ROADS, DITCHES SHALL BE STABILIZED IMMEDIATELY WITH ROCK RIP-RAP OR OTHER NON-ERODIBLE LINERS, OR WHERE APPROPRIATE, VEGETATIVE MEASURES SUCH AS HYDROSEEDING OR JUTE MATTING.
17. PERMANENT SEEDING SHALL BE UNDERTAKEN IN THE SPRING FROM MARCH THROUGH MAY, AND IN LATE SUMMER AND EARLY FALL FROM AUGUST TO OCTOBER 15. DURING THE PEAK SUMMER MONTHS AND IN THE FALL AFTER OCTOBER 15, WHEN SEEDING IS FOUND TO BE IMPRACTICAL, APPROPRIATE TEMPORARY STABILIZATION SHALL BE APPLIED. PERMANENT SEEDING MAY BE UNDERTAKEN DURING THE SUMMER IF PLANS PROVIDE FOR ADEQUATE MULCHING AND WATERING.
18. ALL SLOPES STEEPER THAN 3:1 (H:V, 33.3%), AS WELL AS PERIMETER DIKES, SEDIMENT BASINS OR TRAPS, AND EMBANKMENTS MUST, UPON COMPLETION, BE IMMEDIATELY STABILIZED WITH SOD, SEED AND ANCHORED STRAW MULCH, OR OTHER APPROVED STABILIZATION MEASURES. AREAS OUTSIDE OF THE PERIMETER SEDIMENT CONTROL SYSTEM MUST NOT BE DISTURBED.
19. TEMPORARY SEDIMENT TRAPPING DEVICES MUST NOT BE REMOVED UNTIL PERMANENT STABILIZATION IS ESTABLISHED IN ALL CONTRIBUTORY DRAINAGE AREAS.
20. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED AFTER FINAL SITE STABILIZATION. DISTURBED SOIL AREAS RESULTING FROM THE REMOVAL OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED WITHIN 30 DAYS OF REMOVAL.
21. PROPERLY MANAGE ON-SITE CONSTRUCTION AND WASTE MATERIALS.
22. PREVENT OFF-SITE VEHICLE TRACKING OF SEDIMENTS.
23. DUST SHALL BE CONTROLLED AT THE SITE.
24. ALL PREVIOUSLY DISTURBED LAND SHALL BE STABILIZED BY APPROVED METHODS AFTER 14 DAYS IF LEFT UNDISTURBED, THIS INCLUDES STOCKPILES, CONSTRUCTION ENTRANCES, GRADED AREAS AND OTHER CONSTRUCTION ACTIVITY RELATED CLEARING.
25. IF WORK IS HALTED OVER WINTER MONTHS THE CONTRACTOR SHALL BE RESPONSIBLE FOR STABILIZING THE AREA THROUGH GROUND COVER PRACTICES.



7/17/20

BRIAN G. YERGATIAN DATE  
PROFESSIONAL ENGINEER

**GROUND-MOUNTED PHOTOVOLTAIC SYSTEM**  
0 DEPOT ROAD  
IN  
HARWICH MASSACHUSETTS  
(BARNSTABLE COUNTY)  
**SITE PREPARATION PLAN**

JULY 17, 2020

REVISIONS:

NO.	DATE	DESC.

PREPARED FOR:  
NEXTGRID, INC.  
PO BOX 7775 #73069  
SAN FRANCISCO, CA 94120

**BSC GROUP**  
349 Main Street - Route 28  
West Yarmouth, Massachusetts  
02673  
508 778 8919

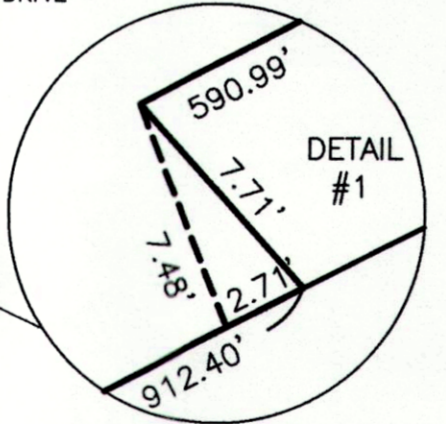
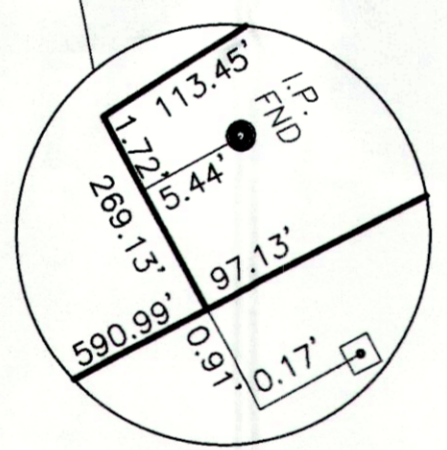
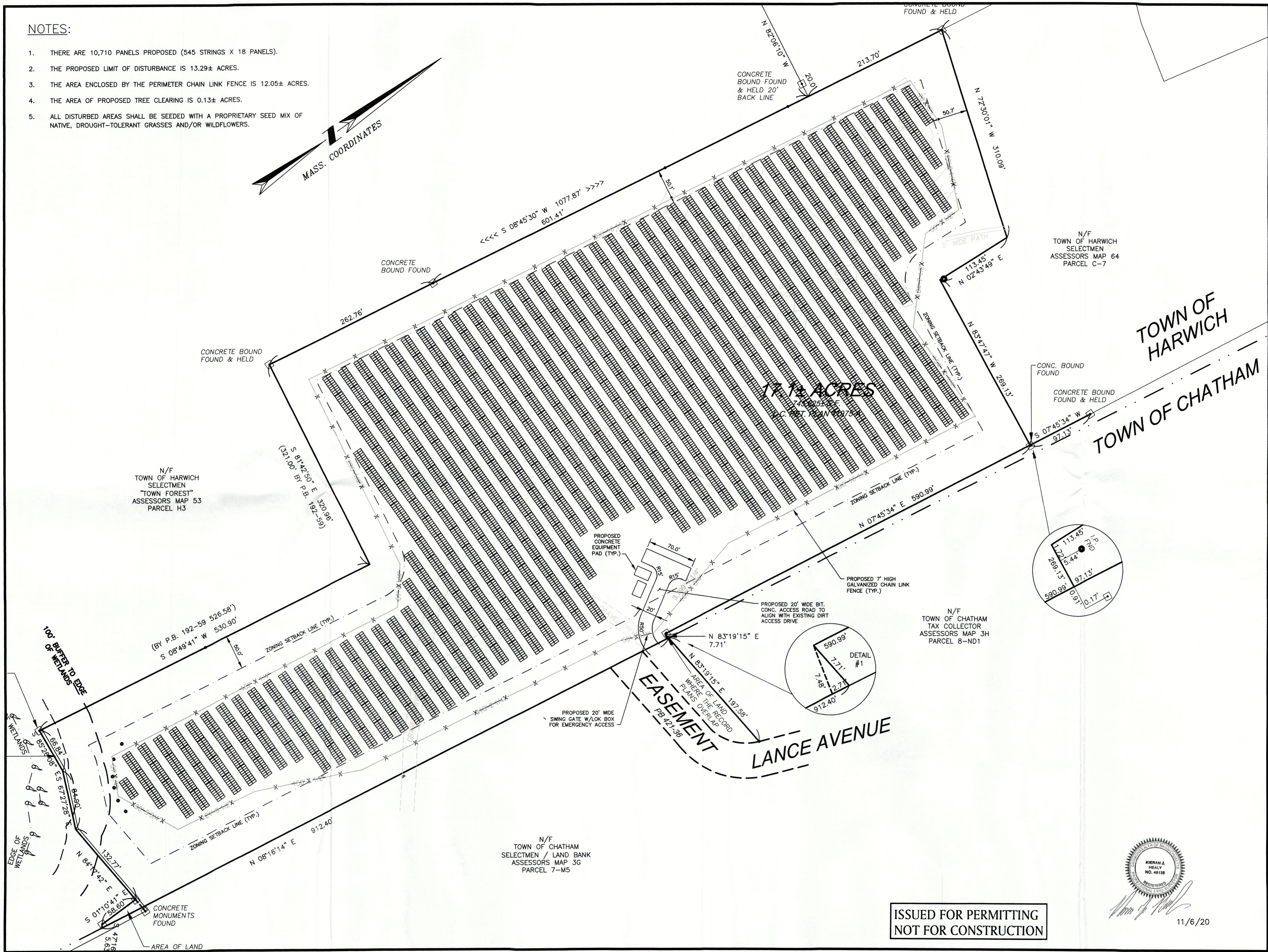
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JOB. NO: 5-0416.00 SHEET 3 OF 7

**ISSUED FOR PERMITTING  
NOT FOR CONSTRUCTION**

**NOTES:**

1. THERE ARE 10,710 PANELS PROPOSED (545 STRINGS X 18 PANELS).
2. THE PROPOSED LIMIT OF DISTURBANCE IS 13.29± ACRES.
3. THE AREA ENCLOSED BY THE PERIMETER CHAIN LINK FENCE IS 12.05± ACRES.
4. THE AREA OF PROPOSED TREE CLEARING IS 0.13± ACRES.
5. ALL DISTURBED AREAS SHALL BE SEEDED WITH A PROPRIETARY SEED MIX OF NATIVE, DROUGHT-TOLERANT GRASSES AND/OR WILDFLOWERS.



**ISSUED FOR PERMITTING  
NOT FOR CONSTRUCTION**



11/6/20



11/6/20

BRIAN G. VERGATIAN  
PROFESSIONAL ENGINEER

**GROUND-MOUNTED  
PHOTOVOLTAIC  
SYSTEM**  
0 DEPOT ROAD  
IN  
HARWICH  
MASSACHUSETTS  
(BARNSTABLE COUNTY)

**LAYOUT & MATERIALS  
PLAN**

JULY 17, 2020

REVISIONS:

NO.	DATE	DESC.
1	11/06/20	ADD PLS STAMP

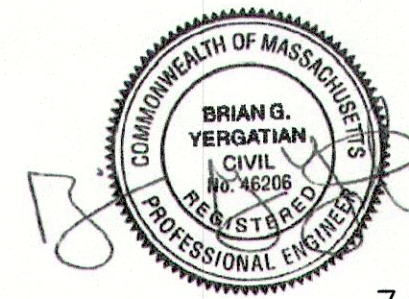
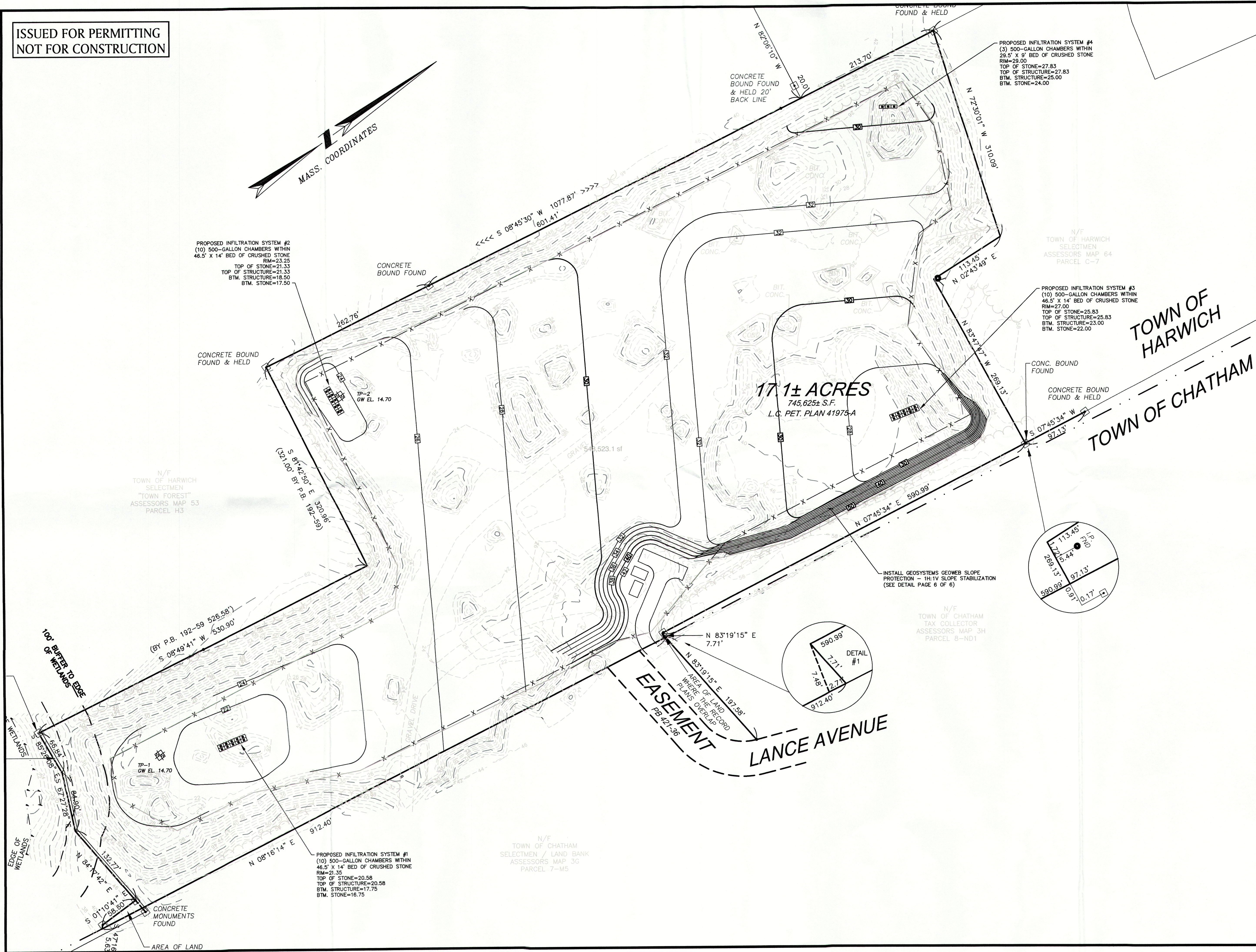
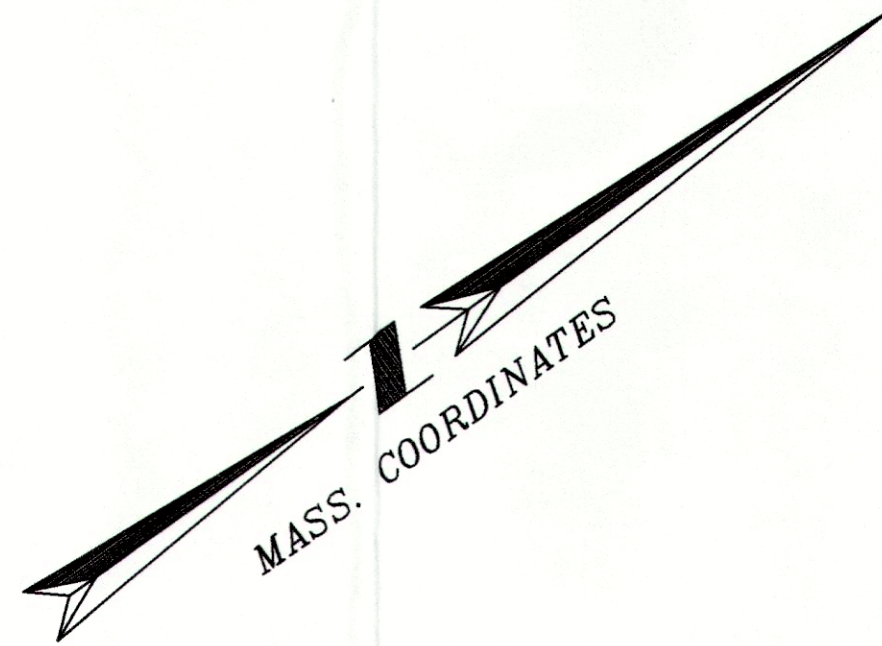
PREPARED FOR:  
NEXTGRID, INC.  
PO BOX 7775 #73069  
SAN FRANCISCO, CA 94120



349 Main Street - Route 28  
West Yarmouth, Massachusetts  
02673  
508 778 8919

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DWG.: DWG  
JOB. NO: 5-0416.00 SHEET 4 OF 7

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NOT FOR CONSTRUCTION



7/17/20

BRIAN G YERGATIAN DATE  
PROFESSIONAL ENGINEER

**GROUND-MOUNTED  
PHOTOVOLTAIC  
SYSTEM**

0 DEPOT ROAD

IN  
HARWICH  
MASSACHUSETTS  
(BARNSTABLE COUNTY)

**GRADING & DRAINAGE  
PLAN**

JULY 17, 2020

REVISIONS:

NO.	DATE	DESC.

PREPARED FOR:  
NEXTGRID, INC.  
PO BOX 7775 #73069  
SAN FRANCISCO, CA 94120

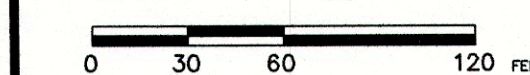


349 Main Street - Route 28  
West Yarmouth, Massachusetts  
02673

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SCALE: 1" = 60'



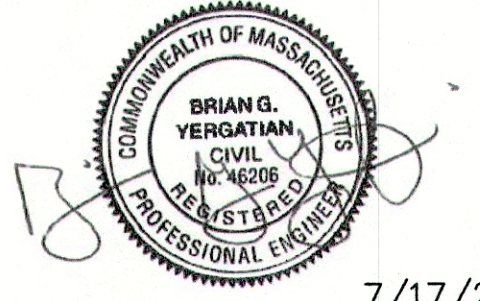
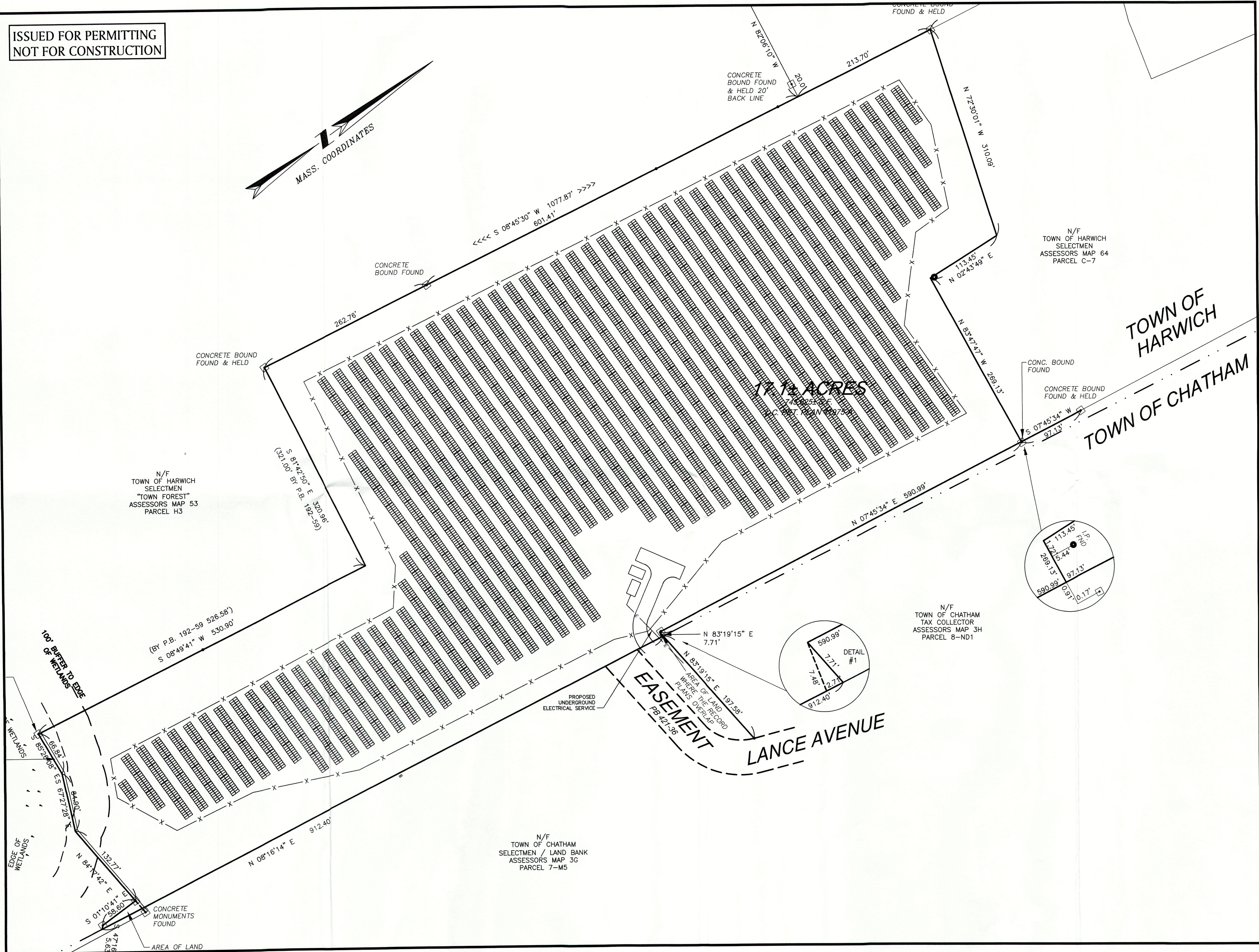
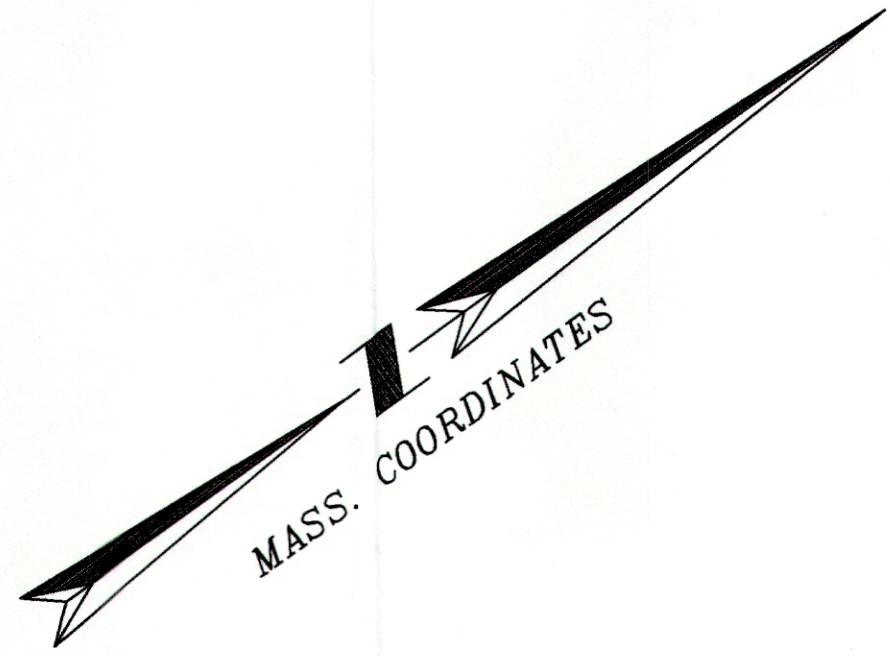
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JOB. NO: 5-0416.00

SHEET 5 OF 7

ISSUED FOR PERMITTING  
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7/17/20

BRIAN G YERGATAN DATE  
PROFESSIONAL ENGINEER

**GROUND-MOUNTED PHOTOVOLTAIC SYSTEM**  
0 DEPOT ROAD  
IN  
HARWICH MASSACHUSETTS  
(BARNSTABLE COUNTY)

UTILITY PLAN

JULY 17, 2020

REVISIONS:

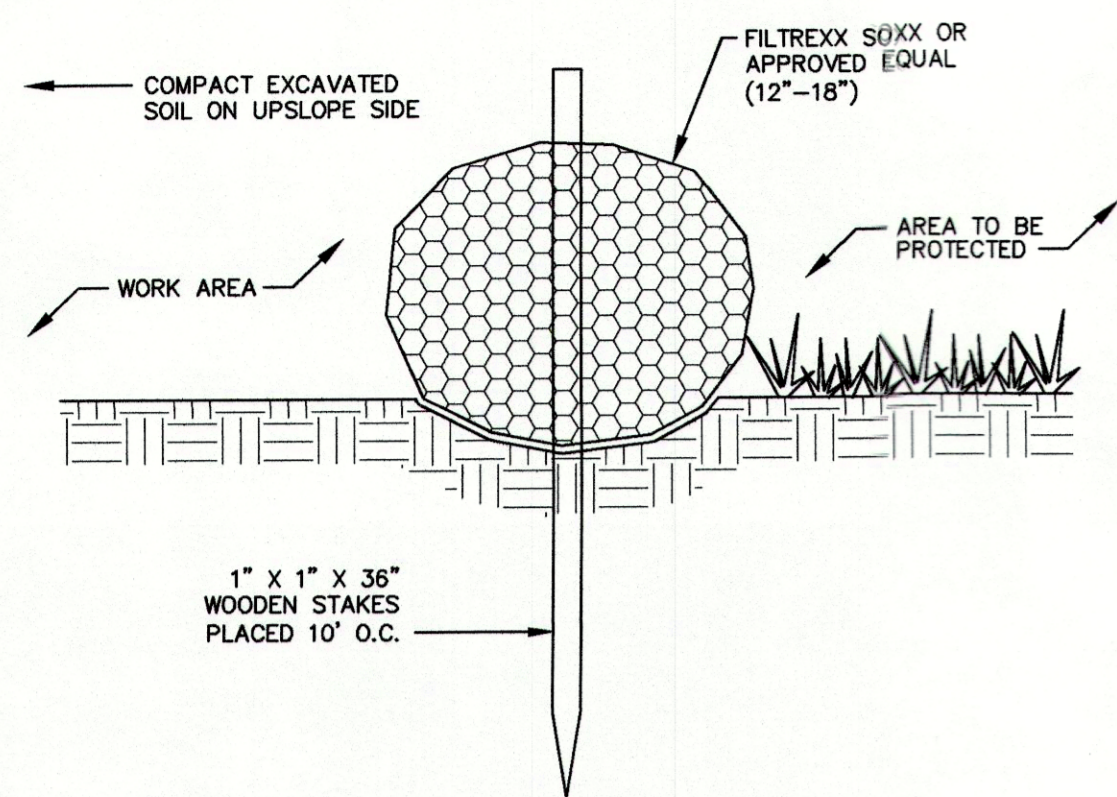
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02673  
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0 30 60 120 feet

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JOB. NO: 5-0416.00 SHEET 6 OF 7

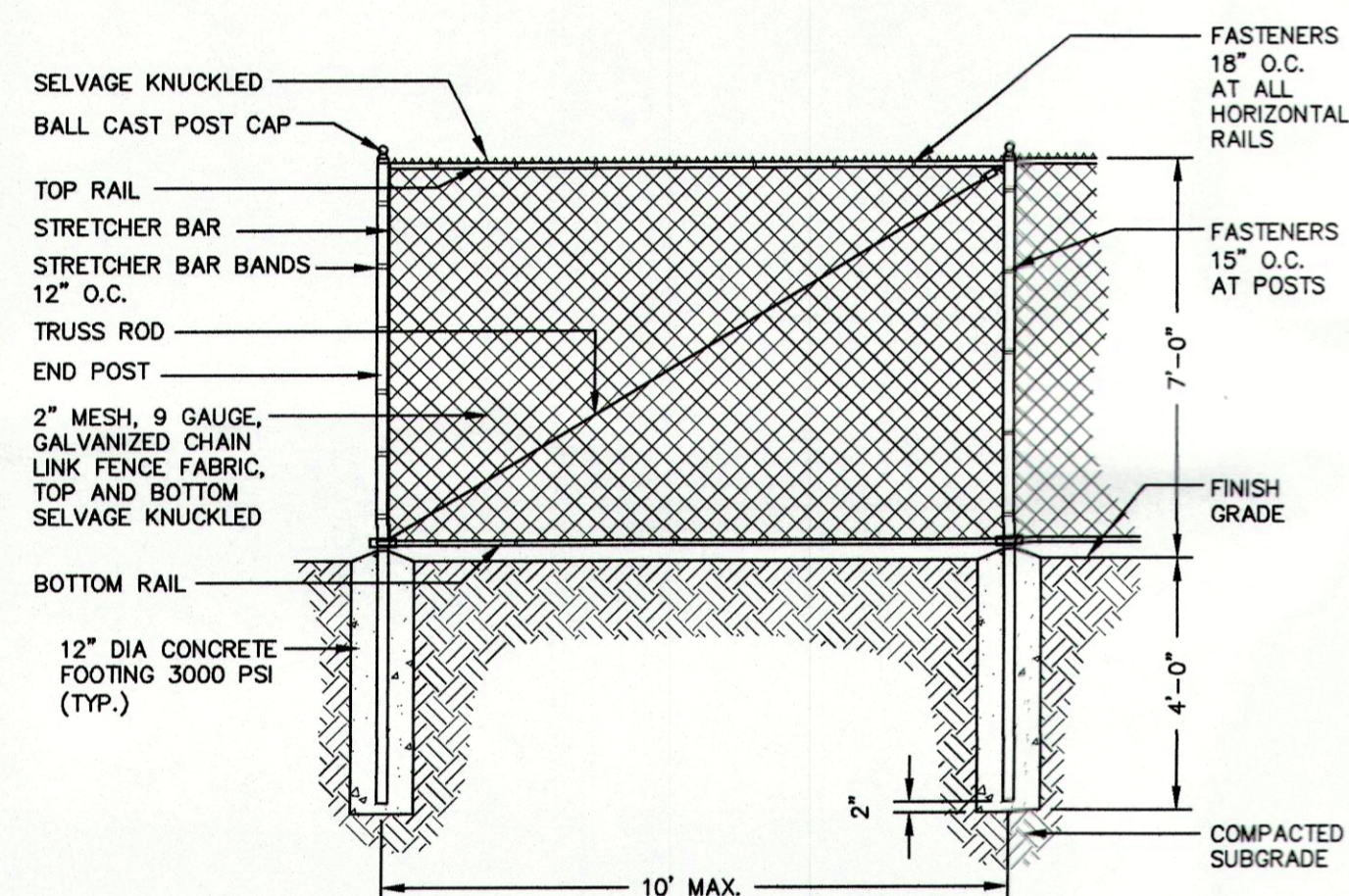


- NOTES:
1. ALL MATERIAL TO MEET FILTER SOCK SPECIFICATIONS.
  2. FILTER MEDIA FILL TO MEET APPLICATION REQUIREMENTS.
  3. COMPOST MATERIAL TO BE DISPersed ON SITE, AS DETERMINED BY THE ENGINEER.

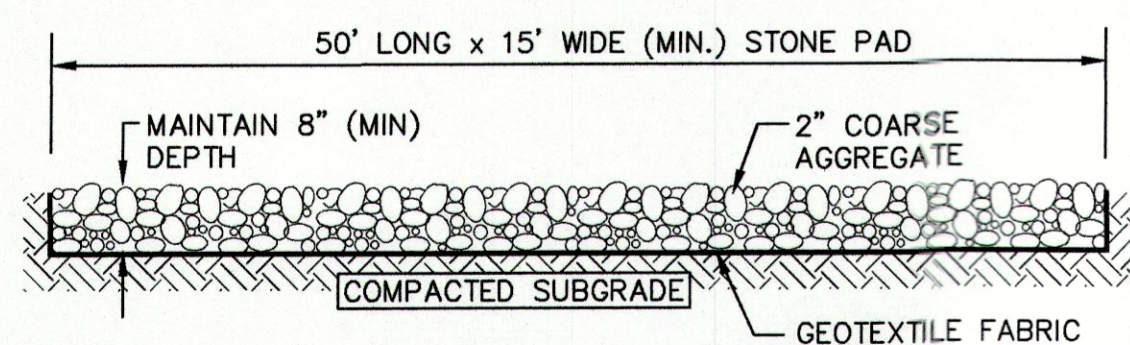
**SILT SOCK**  
SCALE: NONE

CHAIN LINK FENCE FRAMEWORK SCHEDULE

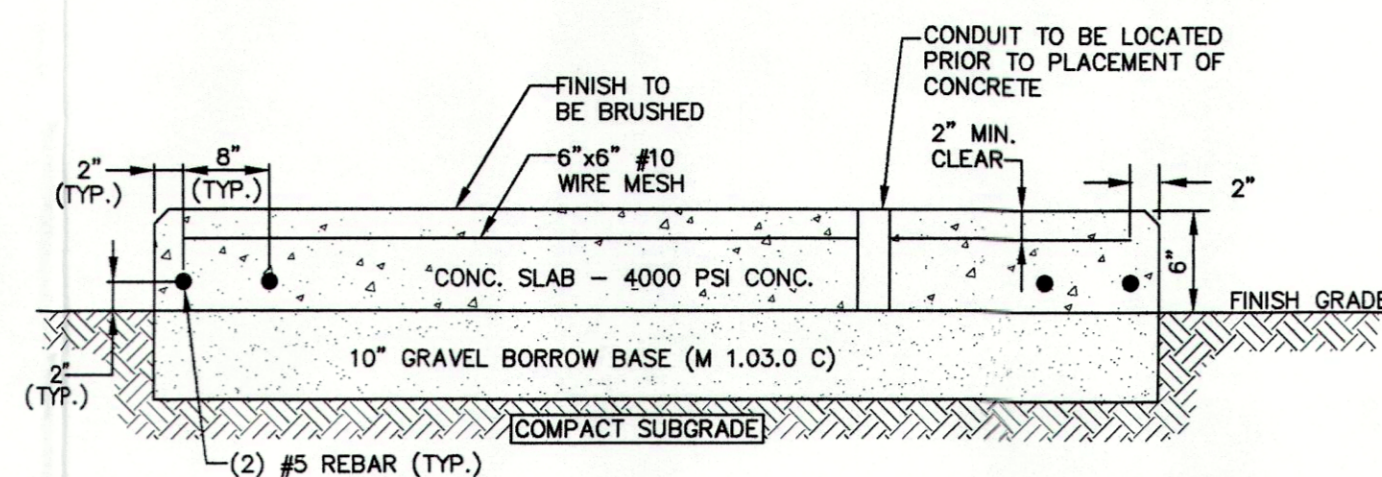
FABRIC HEIGHT	6' OR LESS	>6' - <10'	10' OR MORE
END, CORNER & PULL POST	2.375" O.D.	2.875" O.D.	4" O.D.
LINE POST	1.900" O.D.	2.375" O.D.	2.875" O.D.
TOP AND BOTTOM RAIL	1.660" O.D.	1.660" O.D.	1.660" O.D.
MIDDLE RAIL	NONE	1.660" O.D.	1.660" O.D.



**CHAIN LINK FENCE**  
SCALE: NONE

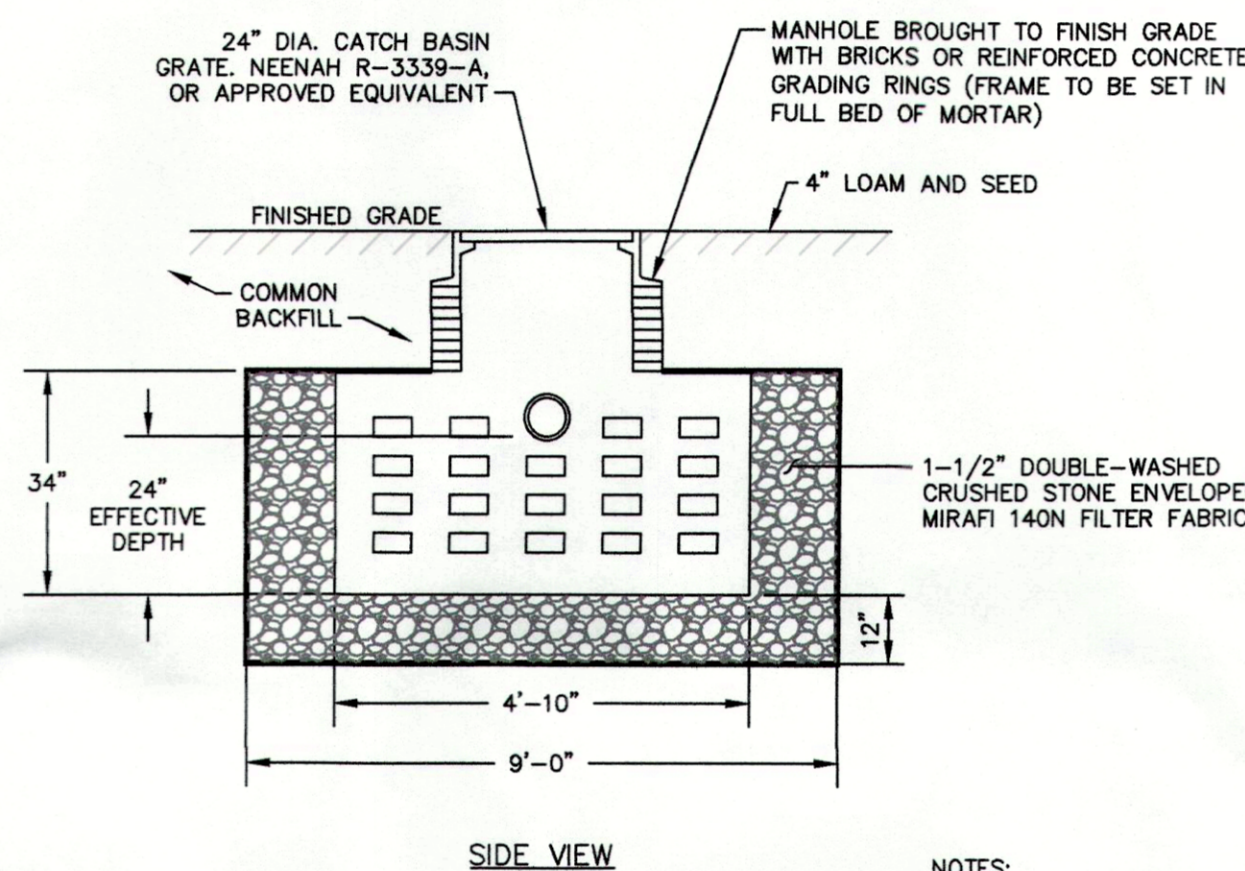


**TEMPORARY CONSTRUCTION ENTRANCE**  
SCALE: NONE



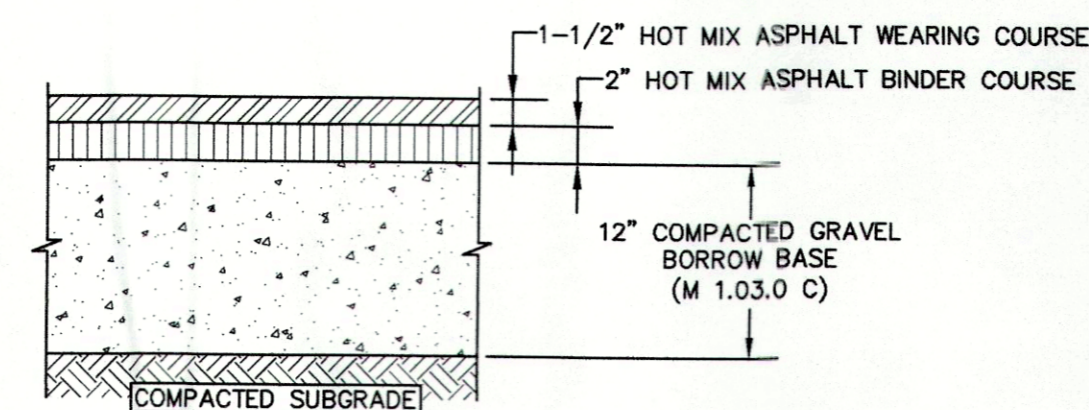
- NOTE:
1. FOR REFERENCE ONLY. FINAL TRANSFORMER PAD TO BE DESIGNED BY OTHERS.

**TRANSFORMER PAD**  
SCALE: NONE



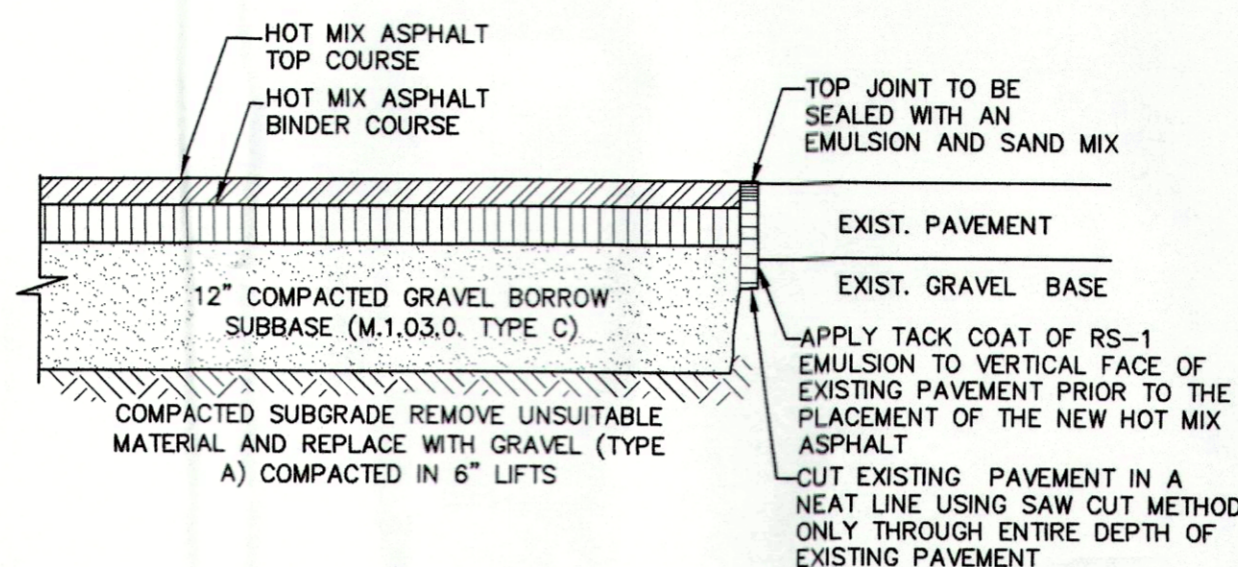
- NOTES:
1. EACH LEACHING CHAMBER PER SYSTEM SHALL HAVE A GRATED INLET RAISED TO FINISHED GRADE.
  2. COMMON BACKFILL SHALL BE FREE FROM LARGE ROCKS, DEBRIS AND OTHER OBJECTIONABLE MATERIALS.
  3. CHAMBERS SHALL BE 500 GALLON LEACHING DRYWELL, MANUFACTURED BY ACME/SHOREY OR APPROVED EQUAL.

**500 GALLON CONCRETE LEACHING CHAMBER**  
NOT TO SCALE



- NOTE:
- PAVEMENT SECTIONS ARE SUBJECT TO CHANGE AND WILL BE BASED ON THE RESULTS OF GEOTECHNICAL INVESTIGATIONS

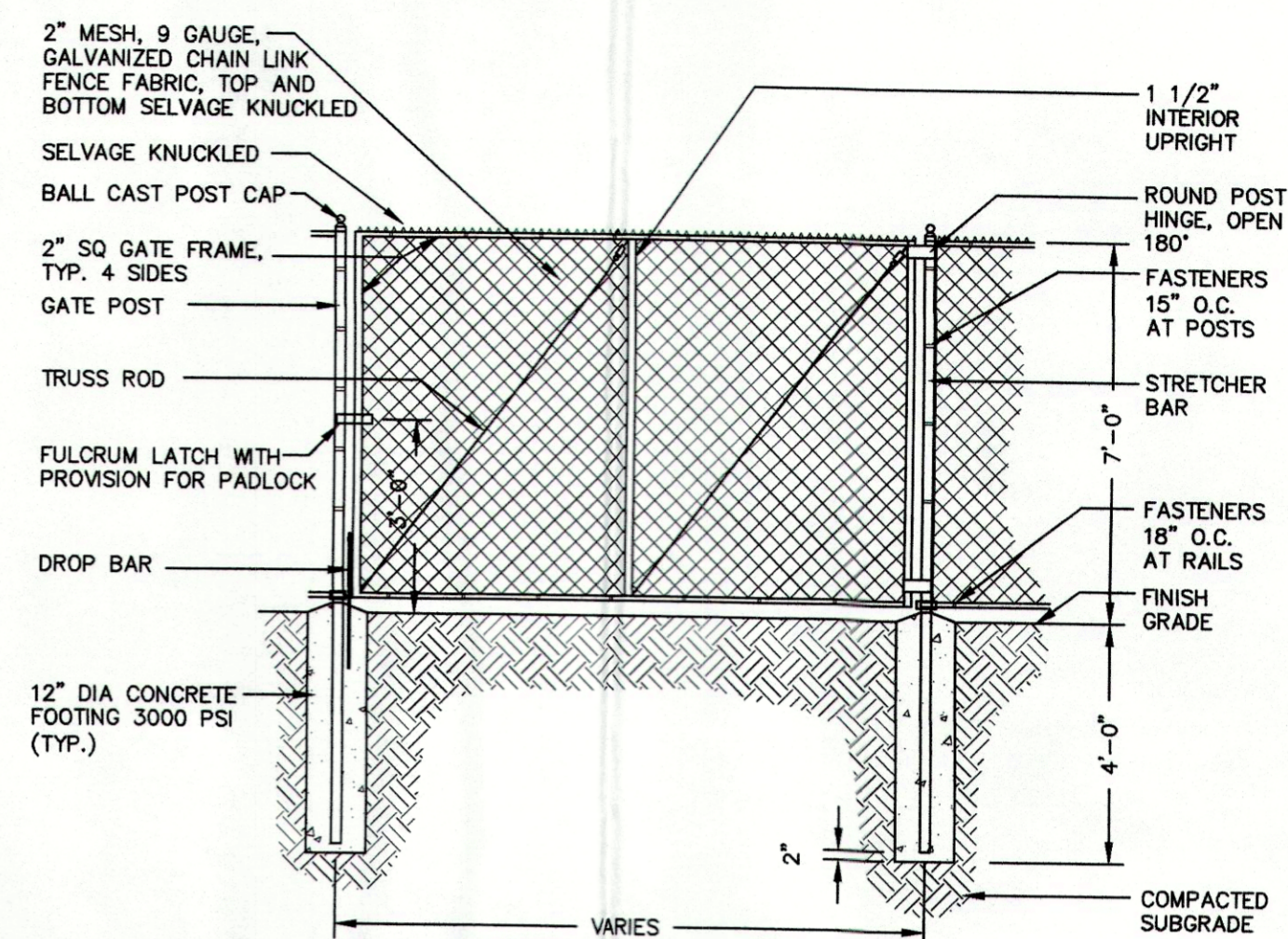
**HOT MIX ASPHALT PAVEMENT SECTIONS**  
SCALE: NONE



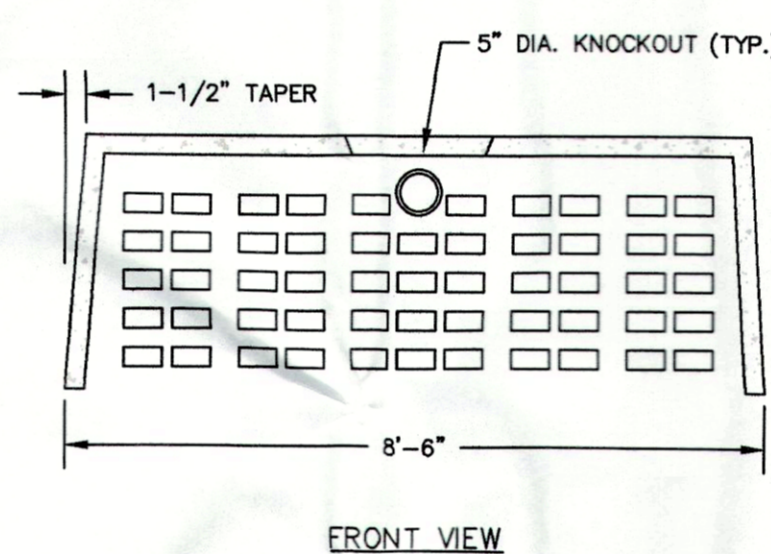
**HOT MIX ASPHALT PAVEMENT JOINTS**  
SCALE: NONE

CHAIN LINK GATE FRAMEWORK SCHEDULE

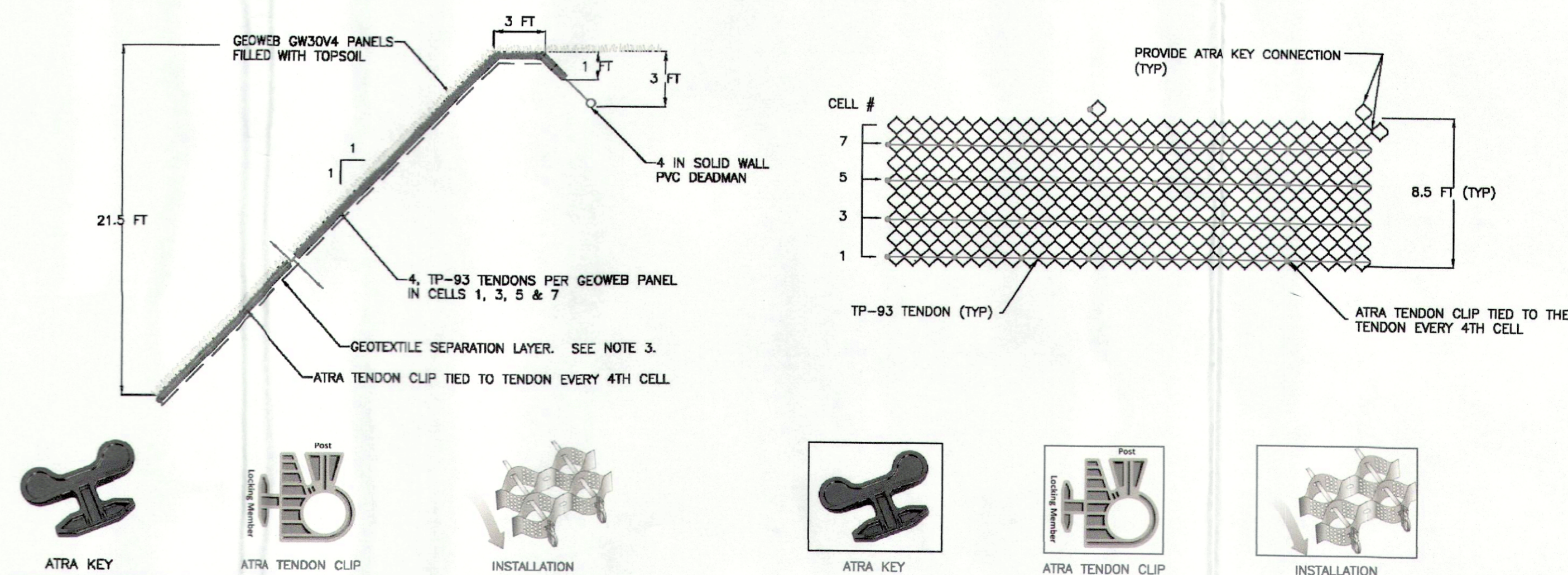
GATE LEAF SINGLE WIDTH	6' OR LESS	>6' - <12'
GATE POST	2.875" O.D.	4" O.D.
GATE FRAME (4 SIDES)	2" SQ	2" SQ
INTERIOR UPRIGHT	NONE	1 1/2" SQ



**CHAIN LINK FENCE GATE**  
SCALE: NONE

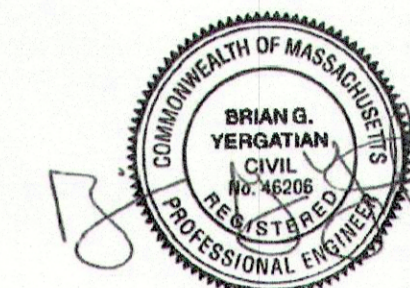


FRONT VIEW



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  2. THE EVALUATION ASSUMES THAT THE SLOPE IS GLOBALLY STABLE.
  3. IF REQUIRED, PROVIDE A NON-WOVEN GEOTEXTILE SEPARATION LAYER AND INSTALL IN ACCORDANCE WITH MANUFACTURER INSTRUCTIONS INCLUDING OVERLAPS.
  4. THE GEOWEB PANELS SHALL BE CONNECTED WITH ATRA KEYS AT EACH INTERLEAF AND END TO END CONNECTION.
  5. LIMIT THE DROP OF INFILL TO PREVENT DISTORTION OF THE CELL WALLS.
  6. PROVIDE SURFACE PROTECTION (HYDROSEED, ECB, OR TRM) SIZED FOR HYDRAULIC CONDITIONS TO PREVENT SOIL WASH-OUT PRIOR TO ESTABLISHMENT OF VEGETATION.

**GEOWEB SLOPE PROTECTION DETAIL**  
SCALE: NONE



7/17/20

BRIAN G. YERGATIAN DATE  
PROFESSIONAL ENGINEER

**GROUND-MOUNTED PHOTOVOLTAIC SYSTEM**  
0 DEPOT ROAD  
IN  
HARWICH MASSACHUSETTS  
(BARNSTABLE COUNTY)

DETAIL SHEET

JULY 17, 2020

REVISIONS:

NO.	DATE	DESC.

PREPARED FOR:  
NEXTGRID, INC.  
PO BOX 7775 #73069  
SAN FRANCISCO, CA 94120

**BSC GROUP**  
349 Main Street - Route 28  
West Yarmouth, Massachusetts  
02673

508 778 8919

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SCALE: AS NOTED

FILE: 5041600-DET  
DWG.:  
JOB. NO: 5-0416.00 SHEET 7 OF 7

ISSUED FOR PERMITTING  
NOT FOR CONSTRUCTION

