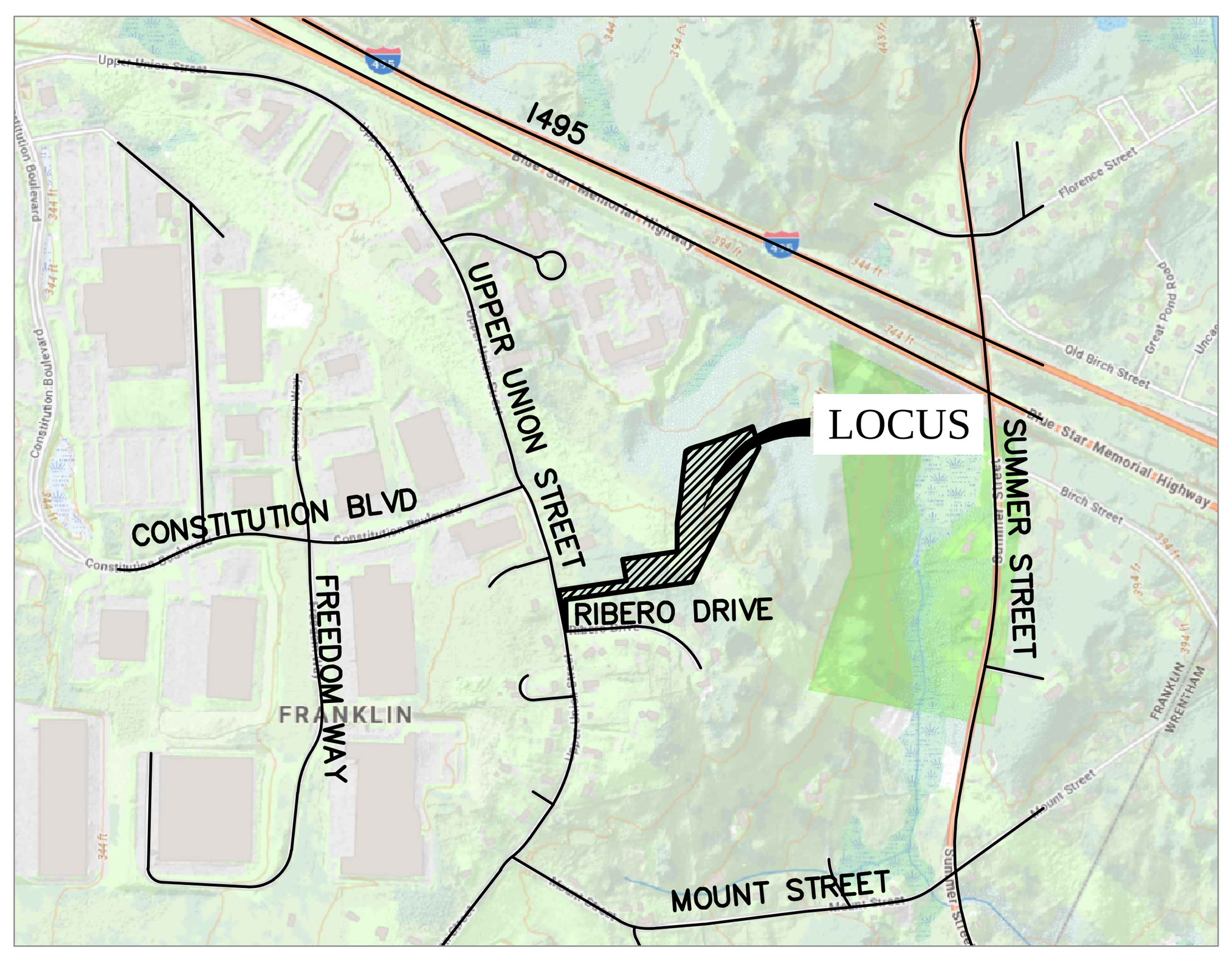
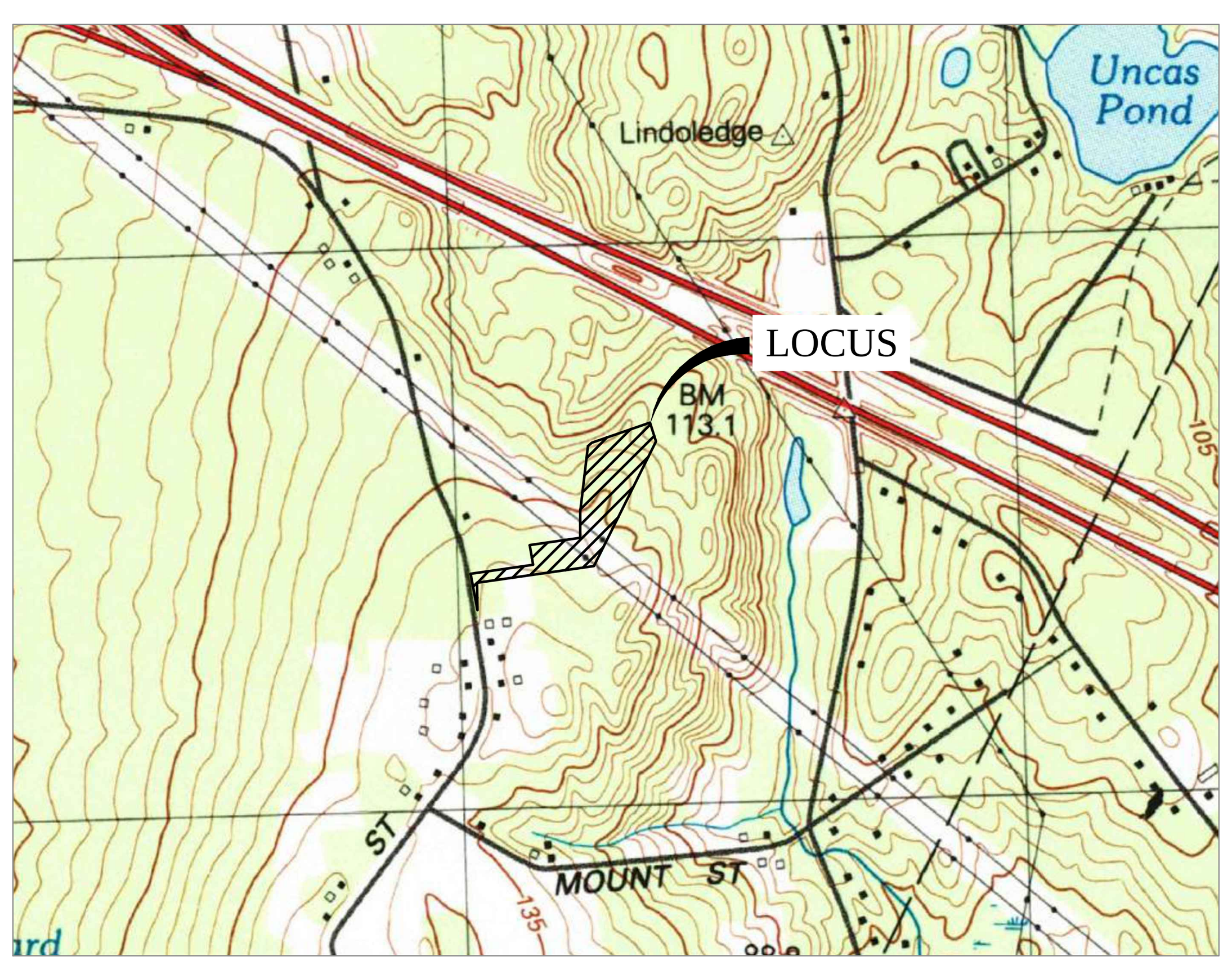
SITE DEVELOPMENT PLANS
FOR
UPPER UNION SOLAR PROJECT
FRANKLIN, MASSACHUSETTS 02038

DATE: JUNE 20, 2023

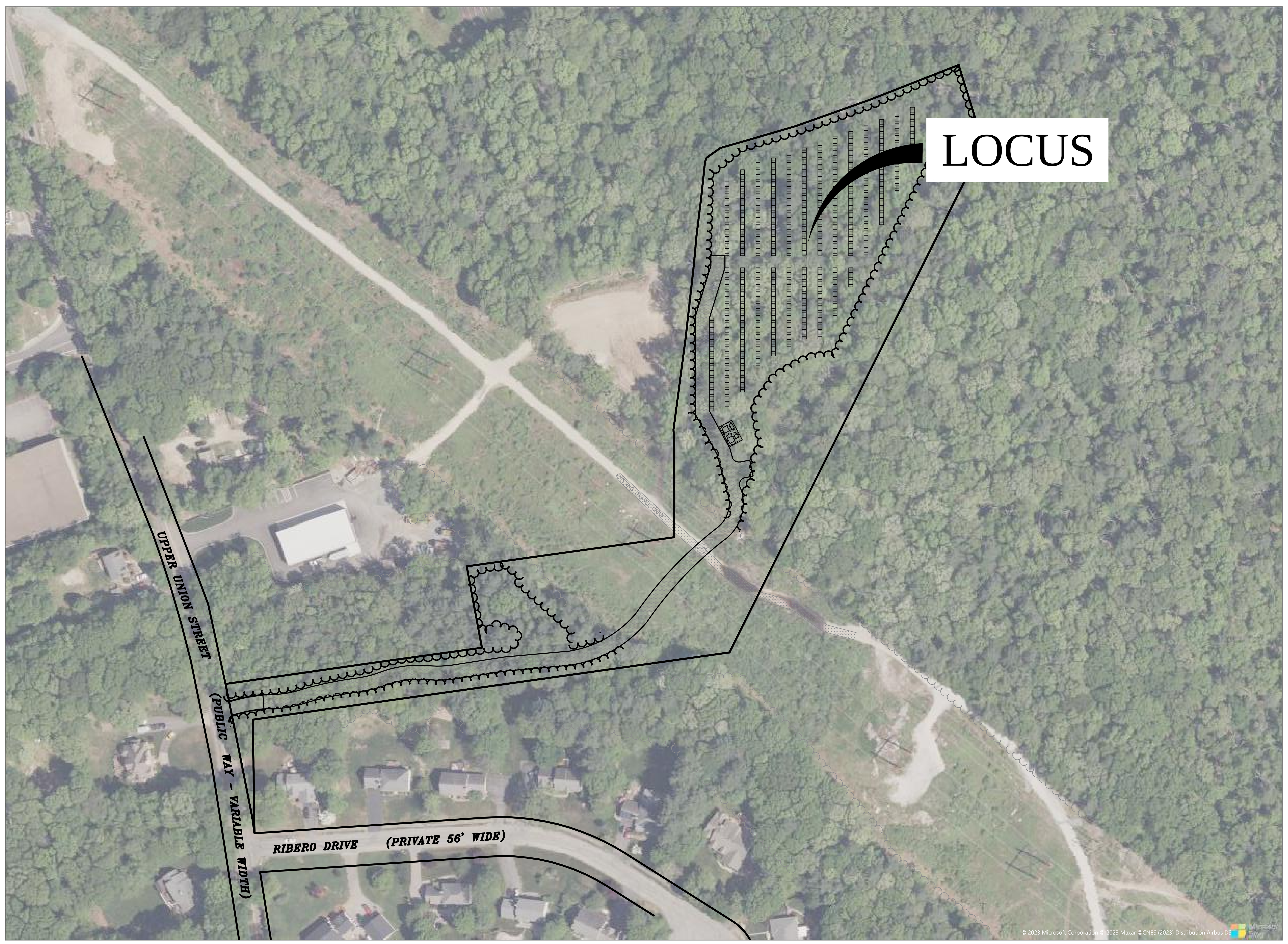
INDEX OF PLANS		
SHEET NO.	TITLE	SCALE
1	COVER SHEET	1" = 100'
2	OVERALL EXISTING CONDITIONS PLAN	1" = 60'
3	EXISTING CONDITIONS PLAN	1" = 30'
4	EXISTING CONDITIONS PLAN	1" = 30'
5	OVERALL SITE DEVELOPMENT PLAN	1" = 60'
6	SITE DEVELOPMENT PLAN	1" = 30'
7	SITE DEVELOPMENT PLAN	1" = 30'
8	DETAILS PLAN	N.T.S.
9	DETAILS PLAN	N.T.S.



VICINITY MAP
1" = 1,000'



LOCUS MAP
1" = 1,000'



OVERALL LOCATION PLAN
SCALE: 1" = 100'

MASS STATE PLANE

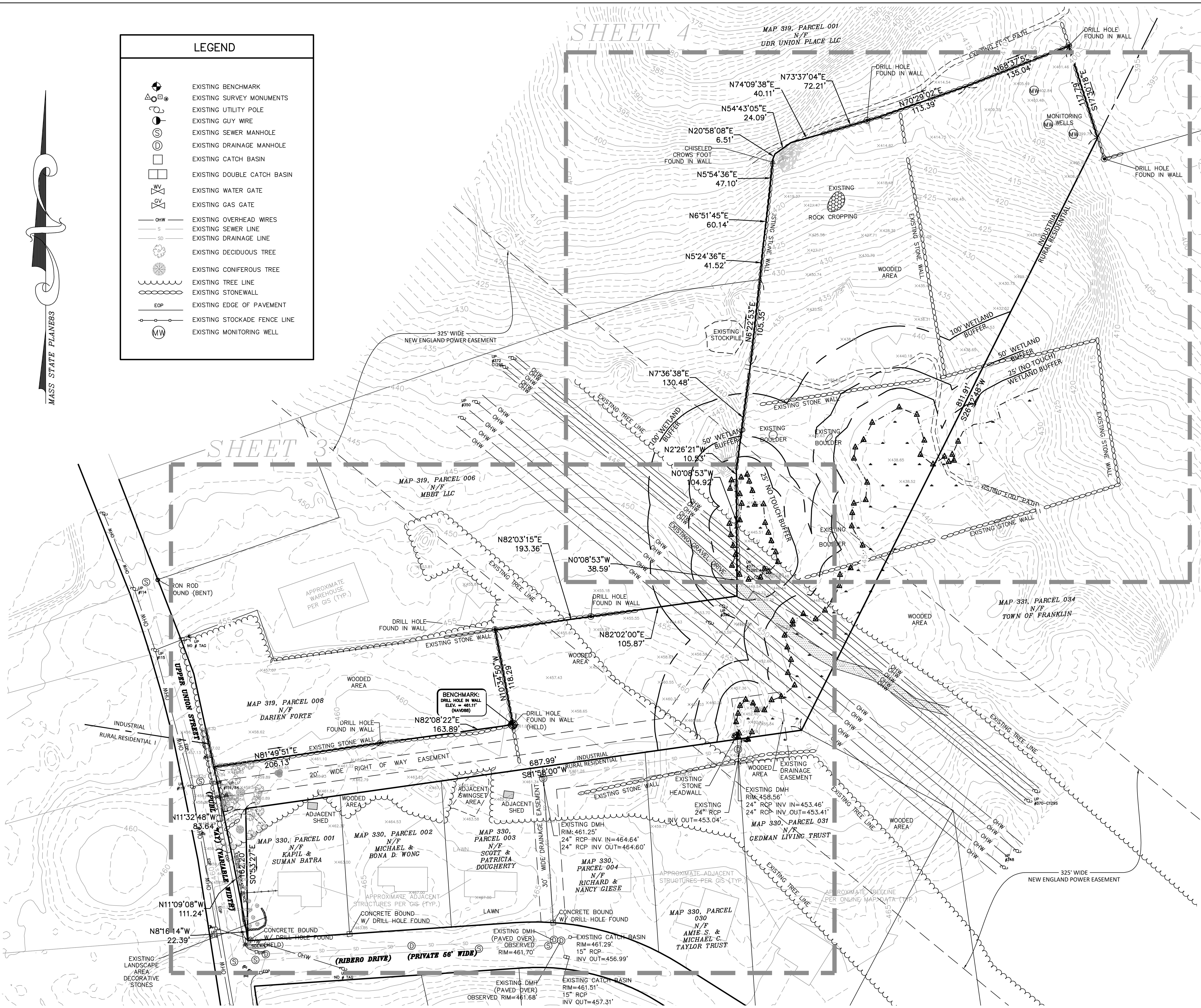
OWNER:
JOHN C. COLELLA JR.
0 UPPER UNION STREET
FRANKLIN MA, 02038

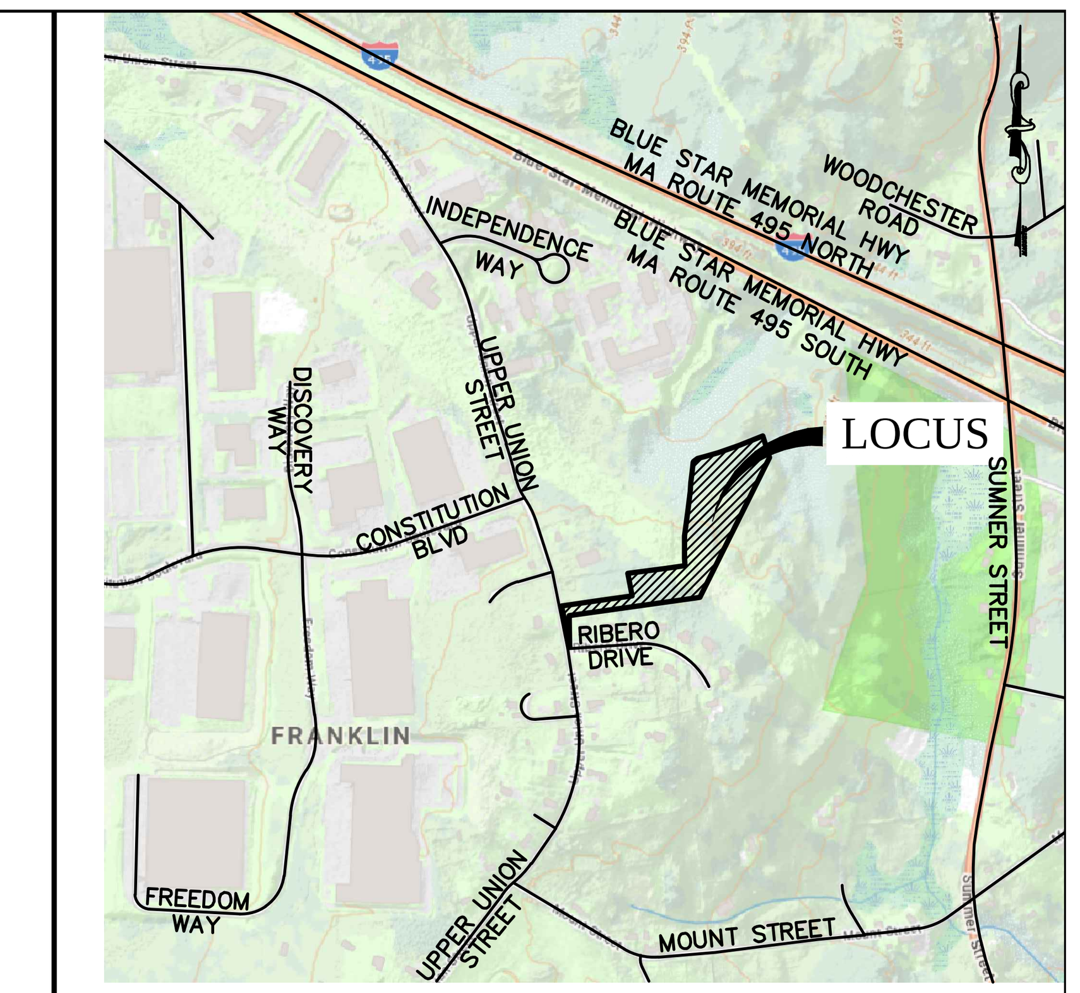
APPLICANT:
VS UNION SOLAR SMART, LLC
24942 DANA POINT HARBOR
DANA POINT, CA 92629

ENGINEER:
Atlantic®
DESIGN ENGINEERS, INC.
P.O. Box 1051, Sandwich, MA 02563
PHONE NUMBER: (508) 888-9282

FILE: 3323 SITE PLANS

Sheet	of
1	9
JOB NUMBER	
3328.00	


LEGEND
EXISTING BENCHMARK
EXISTING SURVEY MONUMENTS
EXISTING UTILITY POLE
EXISTING GUY WIRE
EXISTING SEWER MANHOLE
EXISTING DRAINAGE MANHOLE
EXISTING CATCH BASIN
EXISTING DOUBLE CATCH BASIN
EXISTING WATER GATE
EXISTING GAS GATE
EXISTING OVERHEAD WIRES
EXISTING SEWER LINE
EXISTING DRAINAGE LINE
EXISTING DECIDUOUS TREE
EXISTING CONIFEROUS TREE
EXISTING TREE LINE
EXISTING STONEWALL
EXISTING EDGE OF PAVEMENT
EXISTING STOCKADE FENCE LINE
EXISTING MONITORING WELL
MASS STATE PLANE83
SHEET 4
SHEET 3
MAP 319, PARCEL 001
N/F
UDR UNION PLACE LLC
MAP 319, PARCEL 006
N/F
MBBT LLC
MAP 319, PARCEL 008
N/F
DARIEN FORTE
MAP 331, PARCEL 034
N/F
TOWN OF FRANKLIN
MAP 330, PARCEL 001
N/F
KAPIL &
SUMAN BATRA
MAP 330, PARCEL 002
N/F
MICHAEL &
BONA D. WONG
MAP 330, PARCEL 003
N/F
SCOTT &
PATRICIA
DOUGHERTY
MAP 330, PARCEL 004
N/F
RICHARD &
NANCY GIESE
MAP 330, PARCEL 030
N/F
AMIE S. &
MICHAEL C.
TAYLOR TRUST
MAP 330, PARCEL 031
N/F
GEDMAN LIVING TRUST
UPPER UNION STREET
(PUBLIC WAY) (VARIABLE WIDTH)
(RIBERO DRIVE) (PRIVATE 56' WIDE)
325' WIDE
NEW ENGLAND POWER EASEMENT
20' WIDE RIGHT OF WAY EASEMENT
30' WIDE DRAINAGE EASEMENT
INDUSTRIAL
RURAL RESIDENTIAL I
BENCHMARK:
DRILL HOLE IN WALL
ELEV. = 461.11'
(NAVD88)
APPROXIMATE WAREHOUSE PER GIS (TYP.)
APPROXIMATE ADJACENT STRUCTURES PER GIS (TYP.)
EXISTING ROCK CROPPING
EXISTING STOCKPILE
EXISTING GRAVEL DRIVE
100' WETLAND BUFFER
50' WETLAND BUFFER
25' (NO TOUCH) WETLAND BUFFER
25' NO TOUCH BUFFER
MONITORING WELLS
WOODED AREA
N74°09'38"E
40.11'
N73°37'04"E
72.21'
N54°43'05"E
24.09'
N20°58'08"E
6.51'
N5°54'36"E
47.10'
N6°51'45"E
60.14'
N5°24'36"E
41.52'
N6°22'53"E
105.35'
N7°36'38"E
130.48'
N2°26'21"W
10.53'
N0°08'53"W
104.92'
N0°08'53"W
38.59'
N82°03'15"E
193.36'
N82°02'00"E
105.87'
N82°08'22"E
163.89'
N81°49'51"E
206.13'
S81°58'00"W
687.99'
N70°29'02"E
113.39'
N68°37'5"E
135.04'
S26°32'48"W
811.91'
N11°32'48"W
83.64'
N11°09'08"W
111.24'
N8°16'14"W
22.39'
DRILL HOLE FOUND IN WALL
CHISELED CROWS FOOT FOUND IN WALL
CONCRETE BOUND W/ DRILL HOLE FOUND
EXISTING DMH
RIM: 461.25'
24" RCP INV IN=464.64'
24" RCP INV OUT=464.60'
EXISTING DMH
RIM 458.56'
24" RCP INV IN=453.46'
24" RCP INV OUT=453.41'
EXISTING 24" RCP
INV OUT=453.04'
EXISTING CATCH BASIN
RIM=461.29'
15" RCP
INV OUT=456.99'
EXISTING CATCH BASIN
RIM=461.51'
15" RCP
INV OUT=457.31'
EXISTING LANDSCAPE AREA DECORATIVE STONES



LOCUS MAP
1" = 1,000'

GENERAL NOTES:

1. RECORD OWNER(S) PER NORFOLK COUNTY REGISTRY OF DEEDS BOOK 31678 PAGE 107:

   MAP 319 PARCEL 009 (0 UPPER UNION STREET)
   JOHN C. COLELLA JR.
   FRANKLIN, MA 02038
   AREA = ±6.21 ACRES

2. THE SUBJECT PROPERTY IS SHOWN AS PARCEL 009 ON THE TOWN OF FRANKLIN ASSESSOR'S MAP 319. TOTAL LAND AREA IS ±6.21 ACRES.
3. THE PROPERTY LIES WITHIN A INDUSTRIAL ZONING DISTRICT BASED UPON A REVIEW OF THE TOWN OF FRANKLIN ZONING MAP AND PROPERTY CARDS.
4. THE LOCUS PROPERTY LINES SHOWN HEREON, ARE COMPILED FROM THE RECORD PLAN (PARCEL A–PLAN NUMBER 624 OF 1995 IN PLAN BOOK 433) AND DEED (BOOK 31678 PAGE 107) AND ARE BASED UPON THE NORTH AMERICAN DATUM OF 1983 (NAD83) AND ARE BASED UPON A FIELD SURVEY BY ATLANTIC DESIGN ENGINEERS, INC.
5. THE PROPERTY LIES WITHIN FLOOD ZONE X, AN AREA OF MINIMAL FLOODING, BASED UPON A REVIEW OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) FLOOD INSURANCE RATE MAP (FIRM) MAP NUMBER 25021C0317E, EFFECTIVE DATE JULY 17, 2012.
6. THE LOCUS DOES NOT LIE WITHIN A ZONE II BASED UPON REVIEW OF THE MASSACHUSETTS GEOGRAPHIC INFORMATION SYSTEM AND THE TOWN OF FRANKLIN GEOGRAPHIC INFORMATION SYSTEM.
7. THE LOCUS DOES NOT LIE WITHIN THE WATER RESERVE OVERLAY DISTRICT BASED UPON REVIEW OF THE TOWN OF FRANKLIN GEOGRAPHIC INFORMATION SYSTEM AND WATER RESERVE DISTRICT MAPS.
8. THE SITE IS NOT LOCATED WITHIN AN ESTIMATED HABITAT OF RARE WILDLIFE OR A PRIORITY HABITAT OF RARE SPECIES BASED UPON A REVIEW OF THE NATURAL HERITAGE AND ENDANGERED SPECIES PROGRAM MAPS OBSERVED ON THE MASSACHUSETTS GEOGRAPHIC INFORMATION SYSTEM.
9. THE PROPERTY DOES NOT LIE WITHIN AN AREA OF CRITICAL ENVIRONMENTAL CONCERN (ACEC) BASED UPON A REVIEW OF THE MASSACHUSETTS GEOGRAPHIC INFORMATION SYSTEM.
10. THE EXISTING CONDITIONS SHOWN HEREON ARE BASED UPON A FIELD SURVEY BY ATLANTIC DESIGN ENGINEERS, INC. IN APRIL AND JUNE OF 2023 AND SUPPLEMENTED BY INFORMATION OBTAINED BY THE MASSACHUSETTS GEOGRAPHIC INFORMATION SYSTEM, THE TOWN OF FRANKLIN GEOGRAPHIC INFORMATION SYSTEM, AND INFORMATION OBTAINED FROM PUBLIC RECORDS.

Atlantic® DESIGN ENGINEERS, INC.
P.O. Box 1051, Sandwich, MA 02563 (508) 888 – 9282

Designed by :
Drawn by :
Checked by :
Survey chk. by :
Approved by :

SCALE
SCALE 1" = 60'
0 30 60 120

DATE

NO.	BY	DATE	REVISION

PREPARED FOR:
VS UNION SOLAR SMART,LLC
24941 DANA POINT HARBOR
DANA POINT, CA 92629

OVERALL EXISTING CONDITIONS PLAN
FOR
UPPER UNION SOLAR PROJECT
FRANKLIN, MA
JUNE 19, 2023

JOB NUMBER 3328.00


SEE SHEET 4
UPPER UNION STREET
(PUBLIC WAY) (VARIABLE WIDTH)
IRON ROD FOUND (BENT)
APPROXIMATE WAREHOUSE PER GIS (TYP.)
UP NO # TAG
UP #115
UP #116
UP #116/84
UP #118
UP #349
UP #371 C129S
EXISTING STONE WALL
EXISTING TREE LINE
EXISTING GRAVEL DRIVE
NO TOUCH BUFFER
EXISTING BOULDER
WOODED AREA
N82°03'15"E 193.36'
N0°08'53"W 38.59'
N0°08'53"W 104.92'
N82°02'00"E 105.87'
N10°34'50"W 118.29'
N82°08'22"E 163.89'
N81°49'51"E 206.13'
687.99' S81°58'00"W
N11°32'48"W 83.64'
N11°09'08"W 111.24'
N8°16'14"W 22.39'
162.20' S0°53'27"E
DRILL HOLE FOUND IN WALL
DRILL HOLE FOUND IN WALL (HELD)
BENCHMARK: DRILL HOLE IN WALL ELEV. = 461.11' (NAVD88)
MAP 319, PARCEL 008 N/F DARIEN FORTE
20' WIDE RIGHT OF WAY EASEMENT
INDUSTRIAL
RURAL RESIDENTIAL I
ADJACENT SHED
ADJACENT SWINGSET AREA
LAWN
MAP 330, PARCEL 001 N/F KAPIL & SUMAN BATRA
MAP 330, PARCEL 002 N/F MICHAEL & BONA D. WONG
MAP 330, PARCEL 003 N/F SCOTT & PATRICIA DOUGHERTY
MAP 330, PARCEL 004 N/F RICHARD & NANCY GIESE
MAP 330, PARCEL 030 N/F AMIE S. & MICHAEL C. TAYLOR TRUST
MAP 330, PARCEL 031 N/F GEDMAN LIVING TRUST
30' WIDE DRAINAGE EASEMENT
APPROXIMATE ADJACENT STRUCTURES PER GIS (TYP.)
EXISTING STOCKADE FENCE
EXISTING DMH RIM: 461.25' 24" RCP INV IN=464.64' 24" RCP INV OUT=464.60'
EXISTING STONE HEADWALL
EXISTING DMH RIM: 458.56' 24" RCP INV IN=453.46' 24" RCP INV OUT=453.41'
EXISTING 24" RCP INV OUT=453.04'
EXISTING DRAINAGE EASEMENT
CONCRETE BOUND W/ DRILL HOLE FOUND
CONCRETE BOUND W/ DRILL HOLE FOUND (HELD)
EXISTING DMH (PAVED OVER) OBSERVED RIM=461.70'
EXISTING CATCH BASIN RIM=461.29' 15" RCP INV OUT=456.99'
EXISTING LANDSCAPE AREA DECORATIVE STONES
SIDEWALK
(RIBERO DRIVE) (PRIVATE 56' WIDE)
MASS STATE PLANE83
SEE SHEET 2 FOR OVERALL EXISTING CONDITIONS, LEGEND AND GENERAL NOTES

FILE: 3328–EX–COND

Atlantic® DESIGN ENGINEERS, INC.
P.O. Box 1051, Sandwich, MA 02563 (508) 888 – 9282

Designed by : ________
Drawn by : ________
Checked by : ________
Survey chk. by : ________
Approved by : ________

SCALE
SCALE 1" = 30'
0 15 30 45

COMMONWEALTH OF MASSACHUSETTS RICHARD J. TABACZYNSKI CIVIL No. 33748 REGISTERED PROFESSIONAL ENGINEER

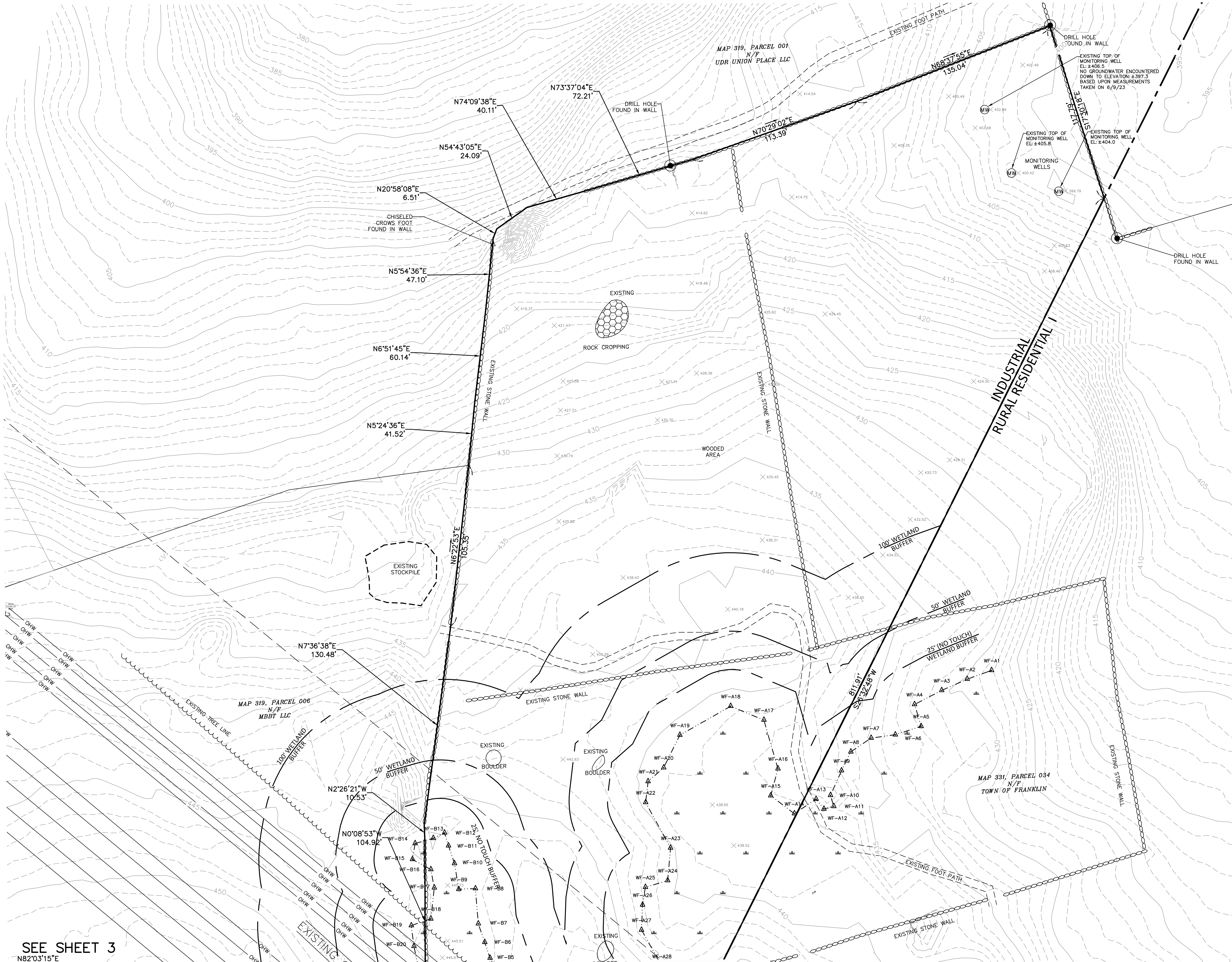
DATE

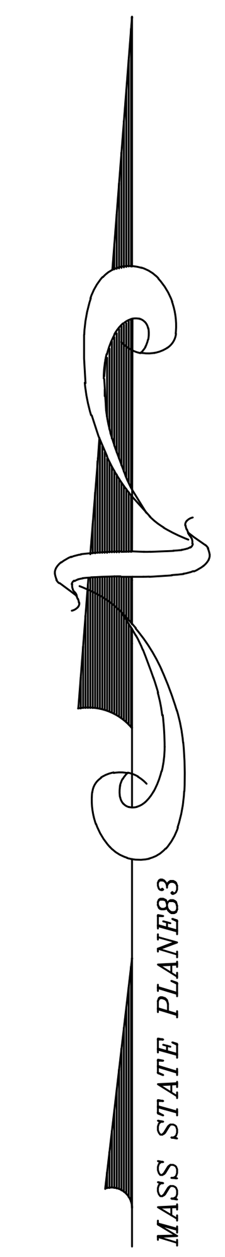
NO.	BY	DATE	REVISION

PREPARED FOR:
VS UNION SOLAR SMART, LLC
24941 DANA POINT HARBOR
DANA POINT, CA 92629

EXISTING CONDITIONS PLAN
FOR
UPPER UNION SOLAR PROJECT
FRANKLIN, MA
JUNE 19, 2023

Sheet 3 of 9
JOB NUMBER 3328.00





SEE SHEET 2 FOR
OVERALL EXISTING
CONDITIONS, LEGEND
AND GENERAL NOTES

FILE: 3328-EX-COND

Atlantic® DESIGN ENGINEERS, INC.
P.O. Box 1051, Sandwich, MA 02563 (508) 888 – 9282

Designed by :
Drawn by :
Checked by :
Survey chk. by :
Approved by :

SCALE
SCALE 1" = 30'
0 15 30 45

DATE

NO.	BY	DATE	REVISION

PREPARED FOR:
VS UNION SOLAR PROJECT, LLC
24941 DANA POINT HARBOR
DANA POINT, CA 92629

EXISTING CONDITIONS PLAN
FOR
UPPER UNION SOLAR PROJECT
FRANKLIN, MA
JUNE 19, 2023

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JOB NUMBER
3328.00

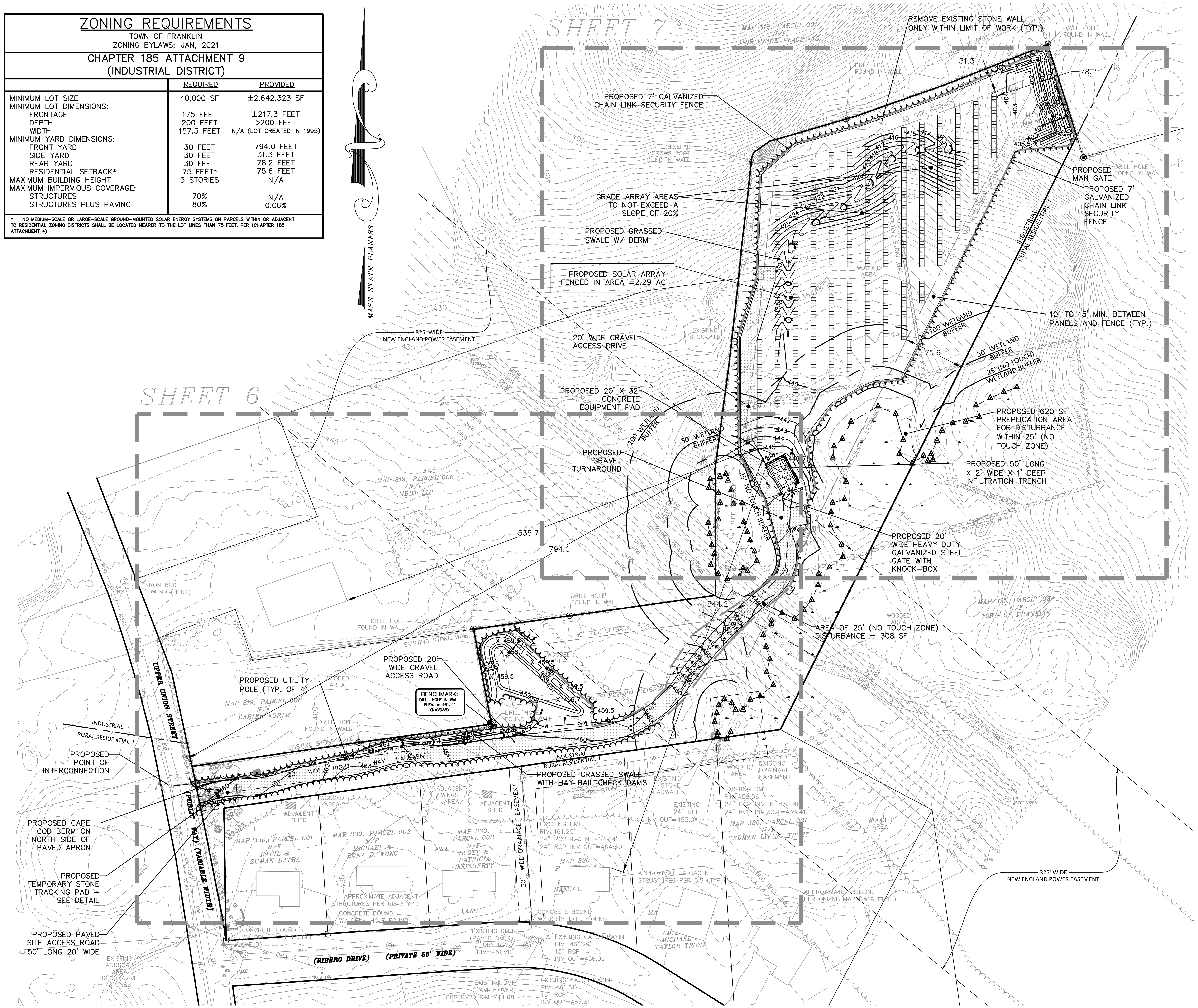
ZONING REQUIREMENTS

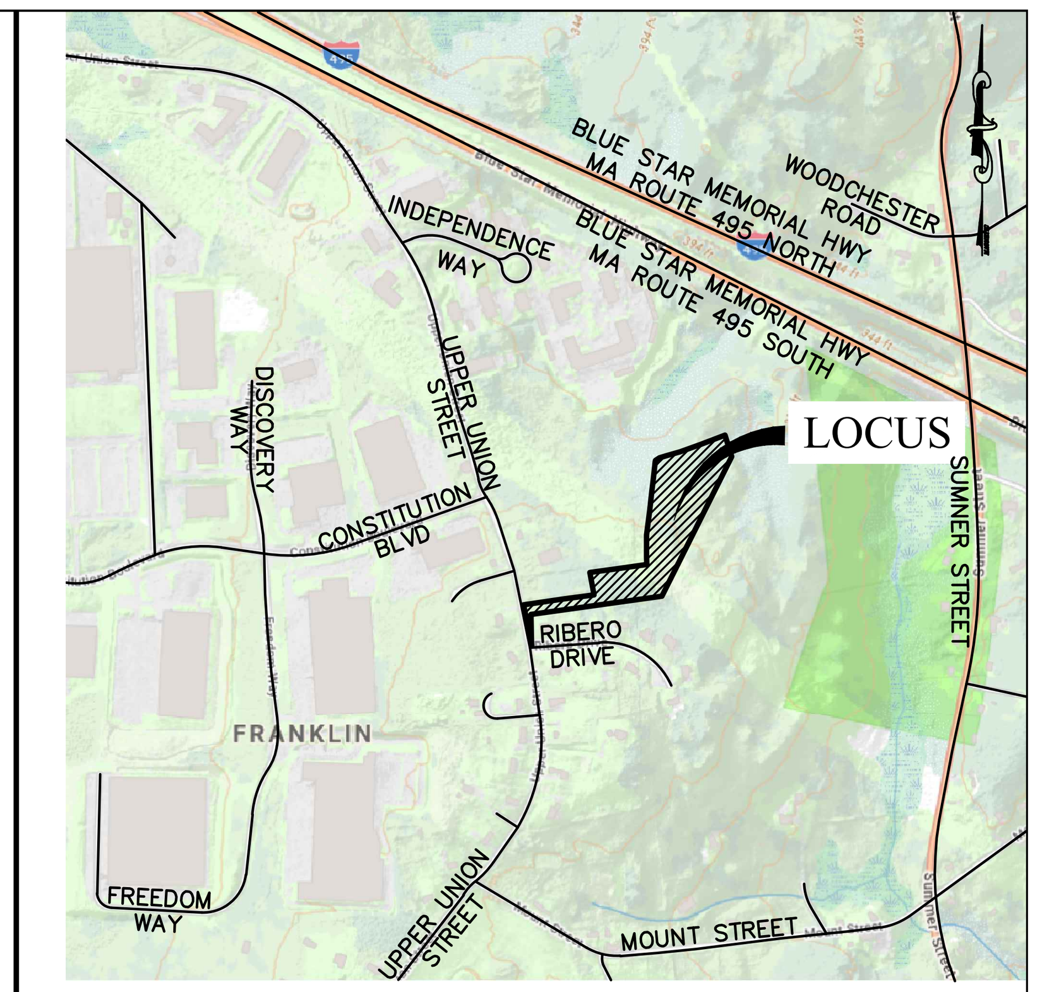
TOWN OF FRANKLIN
ZONING BYLAWS; JAN, 2021

CHAPTER 185 ATTACHMENT 9 (INDUSTRIAL DISTRICT)

	REQUIRED	PROVIDED
MINIMUM LOT SIZE	40,000 SF	±2,642,323 SF
MINIMUM LOT DIMENSIONS:		
FRONTAGE	175 FEET	±217.3 FEET
DEPTH	200 FEET	>200 FEET
WIDTH	157.5 FEET	N/A (LOT CREATED IN 1995)
MINIMUM YARD DIMENSIONS:		
FRONT YARD	30 FEET	794.0 FEET
SIDE YARD	30 FEET	31.3 FEET
REAR YARD	30 FEET	78.2 FEET
RESIDENTIAL SETBACK*	75 FEET*	75.6 FEET
MAXIMUM BUILDING HEIGHT	3 STORIES	N/A
MAXIMUM IMPERVIOUS COVERAGE:		
STRUCTURES	70%	N/A
STRUCTURES PLUS PAVING	80%	0.06%

* NO MEDIUM-SCALE OR LARGE-SCALE GROUND-MOUNTED SOLAR ENERGY SYSTEMS ON PARCELS WITHIN OR ADJACENT TO RESIDENTIAL ZONING DISTRICTS SHALL BE LOCATED NEARER TO THE LOT LINES THAN 75 FEET. PER (CHAPTER 185 ATTACHMENT 4)





LOCUS MAP
1" = 1,000'

LEGEND

- EXISTING BENCHMARK
- EXISTING SURVEY MONUMENTS
- EXISTING UTILITY POLE
- EXISTING GUY WIRE
- EXISTING SEWER MANHOLE
- EXISTING DRAINAGE MANHOLE
- EXISTING CATCH BASIN
- EXISTING DOUBLE CATCH BASIN
- EXISTING WATER GATE
- EXISTING GAS GATE
- OHW — EXISTING OVERHEAD WIRES
- S — EXISTING SEWER LINE
- SD — EXISTING DRAINAGE LINE
- EXISTING DECIDUOUS TREE
- EXISTING CONIFEROUS TREE
- EXISTING TREE LINE
- EXISTING STONEWALL
- EOP — EXISTING EDGE OF PAVEMENT
- EXISTING STOCKADE FENCE LINE
- MW — EXISTING MONITORING WELL
- PROPOSED TREELINE
- 402 — PROPOSED 1 FOOT CONTOUR
- 425 — PROPOSED 5 FOOT CONTOUR
- x — PROPOSED CHAIN LINK FENCE
- EC — PROPOSED EROSION CONTROL BARRIER
- D/EC — PROPOSED DOUBLE EROSION CONTROL
- OHW — PROPOSED OVERHEAD WIRES
- U/G — PROPOSED UNDERGROUND ELECTRIC
- PROPOSED UTILITY POLE
- SD — PROPOSED DRAINAGE LINE
- ▶ PROPOSED FLARED END SECTION
- ⇒ PROPOSED DRAINAGE FLOW ARROW
- ▨ PROPOSED RIP-RAP APRON/CHANNEL

SEE SHEET 8 FOR CONSTRUCTION NOTES

FILE: 3328 SITE PLANS

Atlantic® DESIGN ENGINEERS, INC.
P.O. Box 1051, Sandwich, MA 02563 (508) 888 – 9282

Designed by :
Drawn by :
Checked by :
Survey chk. by :
Approved by :

SCALE
SCALE 1" = 60'
0 30 60 120

DATE

COMMONWEALTH OF MASSACHUSETTS RICHARD J. TABACZYNSKI CIVIL No. 33746 REGISTERED PROFESSIONAL ENGINEER

NO.	BY	DATE	REVISION

APPLICANT:
VS UNION SOLAR SMART, LLC
24941 DANA POINT HARBOR
DANA POINT, CA 92629

OVERALL DEVELOPMENT PLAN
FOR
UPPER UNION SOLAR PROJECT
JUNE 19, 2023
FRANKLIN, MA

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5	9

JOB NUMBER
3328.00

FILE: 3328 SITE PLANS

Atlantic® DESIGN ENGINEERS, INC.
P.O. Box 1051, Sandwich, MA 02563 (508) 888 – 9282

Designed by:
Drawn by:
Checked by:
Survey chk. by:
Approved by:

SCALE
SCALE 1" = 30'
0 15 30 45

DATE

NO.	BY	DATE	REVISION

APPLICANT:
VS UNION SOLAR SMART, LLC
24941 DANA POINT HARBOR
DANA POINT, CA 92629

DEVELOPMENT PLAN
FOR
UPPER UNION SOLAR PROJECT
JUNE 19, 2023
FRANKLIN, MA

Sheet 6 of 9
JOB NUMBER 3328.00

REMOVE EXISTING STONE WALL ONLY WITHIN LIMIT OF WORK (TYP.)

PROPOSED 7' GALVANIZED CHAIN LINK SECURITY FENCE

GRADE ARRAY AREAS TO NOT EXCEED A SLOPE OF 20%

PROPOSED GRASSED SWALE W/ BERM

PROPOSED SOLAR ARRAY FENCED IN AREA =2.29 AC

20' WIDE GRAVEL ACCESS DRIVE

PROPOSED 50' LONG X 2' WIDE X 1' DEEP INFILTRATION TRENCH

PROPOSED 20' WIDE HEAVY DUTY GALVANIZED STEEL GATE WITH KNOCK-BOX

PROPOSED 20' X 32' CONCRETE EQUIPMENT PAD

PROPOSED GRAVEL TURNAROUND

TOP OF 6' WIDE BERM EL: 405.5'

PROPOSED 8' WIDE OVERFLOW SPILLWAY WITH LEVEL CURB SET AT EL=404.0'

PROPOSED 50' LONG LEVEL SPREADER WITH LEVEL CURB SET AT EL: 399.5'

PROPOSED 8" ADS @ 1% FES INV IN=401.0 FES INV OUT=400.7

PROPOSED 4' LONG RIP-RAP APRON

PROPOSED 5'X5' RIP-RAP APRON

PROPOSED 7' GALVANIZED CHAIN LINK SECURITY FENCE

PROPOSED MAN GATE

NORTH EAST BASIN (BOTTOM EL: 401.0)

PROPOSED 620 SF PREPLICATION AREA FOR DISTURBANCE WITHIN 25' (NO TOUCH ZONE)

INDUSTRIAL

RURAL RESIDENTIAL I

100' WETLAND BUFFER

50' WETLAND BUFFER

25' (NO TOUCH) WETLAND BUFFER

75' RESIDENTIAL SETBACK

30' SIDE SETBACK

25' NO TOUCH BUFFER

MASS STATE PLANE

SEE SHEET 6

SEE SHEET 5 FOR LEGEND AND SEE SHEET 8 FOR CONSTRUCTION NOTES

Atlantic® DESIGN ENGINEERS, INC.
P.O. Box 1051, Sandwich, MA 02563 (508) 888 – 9282

Designed by :
Drawn by :
Checked by :
Survey chk. by :
Approved by :

SCALE
SCALE 1" = 30'
0 15 30 45

RICHARD TARNOCZYNSKI CIVIL No. 33748 REGISTERED PROFESSIONAL ENGINEER

DATE

NO.	BY	DATE	REVISION

APPLICANT:
VS UNION SOLAR SMART, LLC
24941 DANA POINT HARBOR
DANA POINT, CA 92629

DEVELOPMENT PLAN
FOR
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JUNE 19, 2023
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FILE: 3328 SITE PLANS

Sheet	of
7	9

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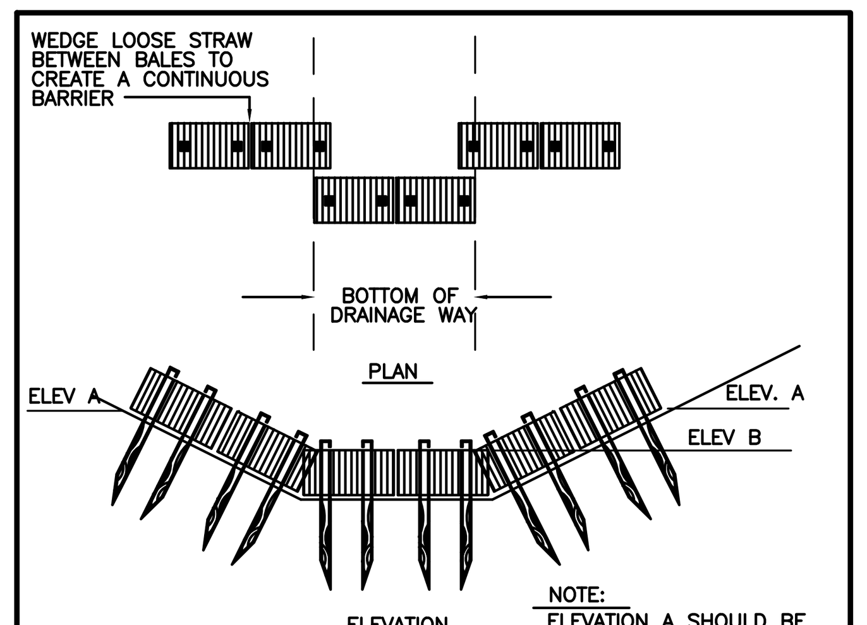
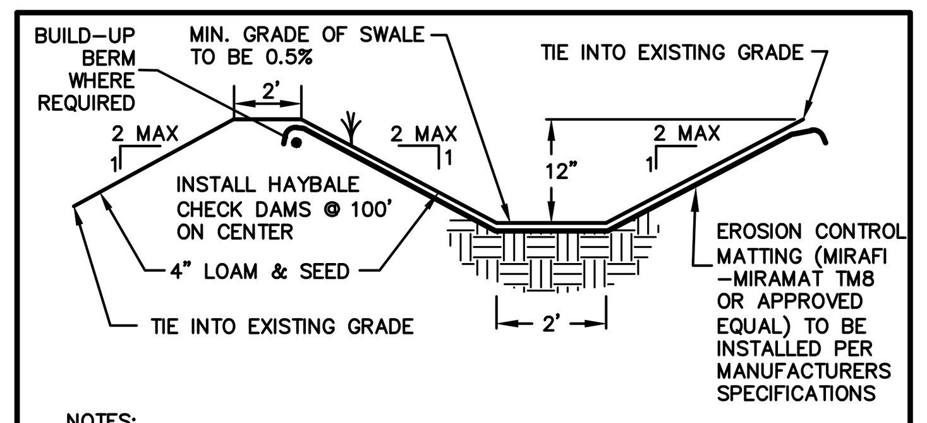
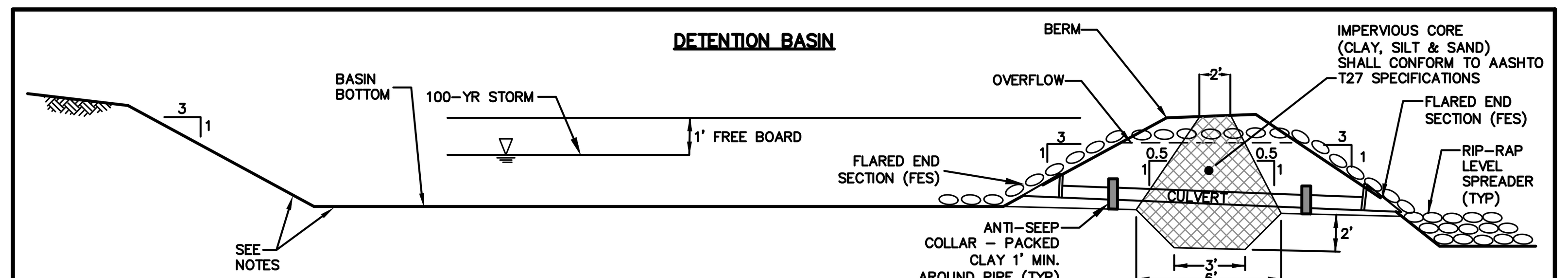


HAY BALE CHECK DAM
(NOT TO SCALE)



NOTES:
1. LOAM AND SEED AND EROSION CONTROL MEASURES TO BE INSTALLED IMMEDIATELY UPON CONSTRUCTION OF SWALE.
2. CONTRACTOR TO CHECK SWALE WEEKLY AND AFTER ALL RAIN EVENTS DURING CONSTRUCTION FOR SIGNS OF EROSION/BARE SPOTS AND RESEED IMMEDIATELY, UNTIL STABILIZED.
3. SEE STORMWATER O+M SCHEDULE FOR LONG TERM MEASURES.

GRASSED SWALE
(NOT TO SCALE)



CONSTRUCTION NOTES:
1. IF FILL MATERIAL IS REQUIRED, IT SHALL CONSIST OF COMMON FILL MATERIAL FREE OF ORGANICS, FROZEN SOIL AND ROCKS GREATER THAN 6" IN DIAMETER.
2. THE BASIN SIDESLOPES AND BOTTOM SHALL BE STABILIZED USING GRASS SEED MIXTURES CAPABLE OF RESISTING THE ANTICIPATED SHEARING FORCES ASSOCIATED WITH RUN-OFF VELOCITIES. THE SEED MIXTURES SHALL BE ABLE TO WITHSTAND PERIODIC INUNDATION UNDER WATER AND BE DROUGHT TOLERANT DURING SUMMER MONTHS. 6" MIN. LOAM REQUIRED.
3. ANY SLOPE STEEPER THAN 3:1 SHALL BE EQUIPPED WITH SLOPE STABILIZATION FABRIC OR EROSION CONTROL MATTING.

DETENTION BASIN SECTION
NOT TO SCALE

EROSION CONTROL NOTES:

1. PRIOR TO COMMENCING SITE WORK OR EARTHWORK OPERATIONS, INSTALL EROSION CONTROL BARRIERS AND MAINTAIN THROUGHOUT CONSTRUCTION.
2. ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDED IMMEDIATELY UPON COMPLETION OF CONSTRUCTION.
3. ALL MATERIALS AND STOCKPILES SHALL BE STORED ON LEVEL AREAS OUTSIDE OF ANY FLOOD ZONES, WETLANDS OR BUFFER ZONE AREAS. ALL STOCKPILES SHALL BE SURROUNDED BY HAYBALES, SHALL HAVE SIDE SLOPES NO GREATER THAN 30% AND SHALL BE SEEDED OR STABILIZED IF LEFT UNDISTURBED FOR TWO WEEKS OR MORE.
4. SEDIMENTATION CONTROL DEVICES AND EROSION CONTROL BARRIERS SHALL BE INSPECTED WEEKLY AND MAINTAINED AS NECESSARY THROUGHOUT ALL PHASES OF CONSTRUCTION AND PROMPTLY AFTER EACH RAINFALL.
5. ANY SLOPE STEEPER AND 3:1 SHALL BE EQUIPPED WITH SLOPE STABILIZATION FABRIC OR EROSION CONTROL MATTING.
6. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTITUTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER AND/OR THE TOWN.
7. THE CONTRACTOR MUST REPAIR OR RE-SEED ANY AREAS THAT DO NOT DEVELOP WITHIN A PERIOD OF ONE YEAR AT NO ADDITIONAL EXPENSE TO THE OWNER.
8. MATERIAL STOCKPILES SHALL NOT BE LOCATED WITHIN THE PATH OF EXISTING OR PROPOSED WATERCOURSES (BOTH TEMPORARY OR PERMANENT) OR THOSE AREAS SUBJECT TO STORM WATER FLOW.
9. SEDIMENT CONTROL DEVICES AND EROSION CONTROL BARRIERS MAY BE REMOVED ONLY AFTER THE SITE HAS BEEN STABILIZED.
10. ALL DISTURBED OR EXPOSED AREAS SUBJECT TO EROSION, WHICH REMAIN DISTURBED BUT INACTIVE FOR AT LEAST THIRTY DAYS, SHALL RECEIVE TEMPORARY SEEDING IN ACCORDANCE WITH THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES. IN ALL CASES, STABILIZATION MEASURES SHALL BE IMPLEMENTED AS SOON AS POSSIBLE IN ACCORDANCE WITH THE MASSACHUSETTS EROSION AND SEDIMENT CONTROL GUIDELINES.
11. EARTHWORK ACTIVITY ON THE SITE SHALL BE DONE IN A MANNER SUCH THAT RUNOFF IS DIRECTED AWAY FROM ABUTTING STRUCTURES, PROPERTY, ETC.
12. THE CONTRACTOR SHALL KEEP ON SITE AT ALL TIMES EXTRA SILTATION FENCING FOR INSTALLATION AT THE DIRECTION OF THE ENGINEERS OR THE TOWN TO MITIGATE ANY EMERGENCY CONTROL.
13. REFER TO CONSTRUCTION DETAILS FOR ADDITIONAL EROSION CONTROL MEASURES.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SITING, RELOCATION AND AUGMENTATION OF EROSION CONTROL DEVICES AS THE PROJECT PROGRESSES AND THE SITE DRAINAGE CONDITIONS CHANGE.
15. THE CONTRACTOR SHALL MINIMIZE THE AREA OF DISTURBED SOIL. EFFORTS SHALL BE MADE TO LIMIT THE TIME OF EXPOSURE OF DISTURBED AREAS.

CONSTRUCTION NOTES:

1. THE PROPERTY LINES AND EXISTING CONDITIONS SHOWN HEREON, ARE COMPILED FROM THE RECORD PLAN (PARCEL A-PLAN NUMBER 624 OF 1995 IN PLAN BOOK 433) AND DEED (NOOK 31678 PAGE 107) AND ARE BASED UPON THE NORTH AMERICAN DATUM OF 1983 (NAVD83) AND BASED UPON A FIELD SURVEY BY ATLANTIC DESIGN ENGINEERS, INC.
2. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS SHOWN AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT MAY BE FOUND IN THE PLAN.
3. CONTRACTOR SHALL VERIFY ALL CRITICAL ELEVATIONS AND INVERTS PRIOR TO CONSTRUCTION.
4. WHERE AN EXISTING PUBLIC UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED AND THE INFORMATION FURNISHED TO THE UTILITY COMPANY AND OWNER FOR RESOLUTION OF THE CONFLICT.
5. SUBSURFACE AND ENVIRONMENTAL CONDITIONS WERE NOT EXAMINED OR CONSIDERED AS PART OF THIS SURVEY. NO STATEMENT IS MADE CONCERNING THE EXISTENCE OF UNDERGROUND OR OVERHEAD CONTAINERS OR FACILITIES THAT MAY AFFECT THE USE OR DEVELOPMENT OF THIS SITE.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY DIGSAFE, THE TOWN OF FRANKLIN DEPARTMENT OF PUBLIC WORKS, AND ALL UTILITY COMPANIES A MINIMUM OF 72 HOURS PRIOR TO CONSTRUCTION ACTIVITIES FOR LOCATION OF ALL UNDERGROUND UTILITIES AND UTILITY COMPANY APPROVALS.
7. ALL BUILDINGS, SURFACE, AND SUBSURFACE IMPROVEMENTS ON AREAS ADJACENT TO THE SITE ARE NOT NECESSARILY SHOWN HEREON.
8. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVES. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UTILITIES AND RIM AND INVERTS BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES THAT MIGHT OCCUR BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
9. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENTS OF ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES WITH THE UTILITY COMPANY, IF NECESSARY. IF ANY INTERRUPTIONS IN SERVICE ARE NECESSARY TO ABUTTING PROPERTY OWNERS, A MINIMUM OF 48 HOURS NOTICE SHALL BE GIVEN.
10. THE CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL MEASURES IN ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND MASSACHUSETTS HIGHWAY DEPARTMENT REQUIREMENTS FOR ALL WORK WITHIN PUBLIC STREETS.
11. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATION SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
12. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL REQUIRED INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY COMPANIES ARE COMPLETED PRIOR TO INSTALLATION, BACKFILLING, ANNOUNCED BUILDING POSSESSION, AND THE FINAL CONNECTION OF SERVICES.
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL SURVEY CONTROL POINTS AND BENCHMARKS NECESSARY FOR THE PROPOSED WORK.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE RECORDS OF THE LOCATION AND ELEVATION OF ALL WORK INSTALLED.
15. THE CONTRACTOR SHALL INSTITUTE AND MAINTAIN ALL SAFETY MEASURES NECESSARY TO PROTECT THE PUBLIC DURING CONSTRUCTION, INCLUDING, BUT NOT LIMITED TO BARRICADES, SIGNS, FENCES, FLAGGERS, LIGHTING, POLICE DETAIL, AND ANY OTHER MEANS AS DIRECTED BY THE TOWN. NO TRENCHES ARE TO REMAIN OPEN OVERNIGHT.
16. THE CONTRACTOR SHALL KEEP THE PREMISES FREE FROM THE ACCUMULATION OF WASTE MATERIAL AND OTHER DEBRIS RESULTING FROM THE WORK. AT THE END OF CONSTRUCTION THE CONTRACTOR SHALL REMOVE ALL CONSTRUCTION DEBRIS AND SURPLUS MATERIALS FROM THE SITE. A THOROUGH INSPECTION OF THE WORK PERIMETER IS TO BE MADE AND ALL DISCARDED MATERIALS, BLOWN OR WATER CARRIED DEBRIS, SHALL BE COLLECTED AND REMOVED FROM THE SITE.
17. ALL WORK SHALL BE DONE IN STRICT COMPLIANCE WITH ALL APPROVED PERMITS AND WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES, STANDARDS, ORDINANCES, RULES AND REGULATIONS.
18. CONTRACTOR TO DESIGNATE A SPECIFIC AREA FOR COMBUSTIBLE MATERIALS, APPROVED BY THE FIRE DEPARTMENT, SO THAT COMBUSTIBLES ARE NOT SPREAD THROUGHOUT THE CONSTRUCTION SITE.

CONSTRUCTION PERIOD STORMWATER OPERATION AND MAINTENANCE:

SCHEDULE:

CONSTRUCTION ENTRANCE/TRACKING PAD:
THE CONSTRUCTION ENTRANCE TRACKING PADS SHOULD BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOW OF SEDIMENT ONTO THE PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH ADDITIONAL STONE. THE ENTRANCE PAD SHOULD BE INSPECTED WEEKLY AT A MINIMUM, AFTER MAJOR STORM EVENTS (>0.25" PER THE CGP) AND DURING PERIODS OF HEAVY USE. WHEN MUD AND SOIL PARTICLES CLOG THE VOIDS IN THE STONE, THE PAD SHOULD BE TOP DRESSED WITH NEW STONE OR REPLACED COMPLETELY.

EROSION CONTROL BARRIERS:
EROSION CONTROL BARRIERS (HAY BALES, SILT FENCE, ETC.) SHOULD BE INSPECTED IMMEDIATELY AFTER EACH RUN-OFF PRODUCING RAINFALL EVENT (>0.25 INCHES PER 2022 CGP) AND AT LEAST DAILY DURING PROLONGED RAINFALL. SEDIMENT DEPOSITS MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER. SEDIMENT SHOULD BE DISPOSED OF IN A SUITABLE AREA AND PROTECTED FROM EROSION BY EITHER STRUCTURAL OR VEGETATIVE MEANS.

GRASSED SWALES WITH CHECK-DAMS:
DURING CONSTRUCTION GRASSED LINED SWALES SHALL BE INSPECTED IMMEDIATELY AFTER MAJOR STORM EVENTS (>0.25 INCHES PER 2022 CGP) AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIR ERODED SPOTS IMMEDIATELY AFTER INSPECTION. ADDITIONAL INSPECTIONS SHOULD BE SCHEDULED DURING THE FIRST FEW MONTHS TO ENSURE THAT THE VEGETATION IN THE CHANNELS IS ESTABLISHED ADEQUATELY. ACCUMULATED SEDIMENT SHALL BE REMOVED BEFORE IT EXCEEDS 0.5' IN DEPTH. SWALES SHALL BE MOWED AS NEEDED. CLIPPINGS TO BE REMOVED FROM SWALES AND AREAS IMMEDIATELY UP-GRADIENT AND PROPERLY DISPOSED OF.

DEEP SUMP HOODED CATCH BASINS:
INSPECT MONTHLY (MINIMUM), OR AFTER MAJOR STORM EVENTS (>0.25" PER THE CGP) DURING CONSTRUCTION FOR CLOGGED GRATES OR PIPES AND EXCESSIVE ACCUMULATION OF SEDIMENT, SAND, OR TRASH. CLEAN SUMPS WHEN SEDIMENT REACHES 24". ALL CATCH BASINS SHALL BE PROVIDED WITH PRE-MANUFACTURED "SILT-BAG" CATCH BASIN INLET SEDIMENT COLLECTION SYSTEMS UNTIL BASE COURSE IS IN PLACE.

CATCH BASIN INLET PROTECTION ("SILT-SACKS"):
ALL CATCH BASINS SHALL BE PROVIDED WITH INLET PROTECTION CONSISTING OF PRE-MANUFACTURED "SILT-SACKS" CATCH BASIN INLET SEDIMENT COLLECTION SYSTEMS UNTIL PAVEMENT BASE COURSE IS IN PLACE AND THE CONTRIBUTING DRAINAGE AREA TO THE INLET IS STABILIZED. INSPECT THE INLET PROTECTION DEVICE WEEKLY AT A MINIMUM, AND AFTER MAJOR STORM EVENTS (>0.25" PER THE CGP) THROUGHOUT CONSTRUCTION. REPAIRS ARE TO BE MADE AS REQUIRED AND SEDIMENT MUST BE REMOVED WHEN THE LEVEL OF DECOMPOSITION REACHES THE REMOVAL DEPTH PER MANUFACTURER SPECIFICATIONS.

STONE INFILTRATION TRENCH:
INSPECT AFTER EVERY MAJOR STORM EVENT (0.25" PER CGP) DURING CONSTRUCTION. ONCE SITE IS STABILIZED AND RE-VEGETATED, CUT AWAY/REMOVE TEMPORARY COVER FOLD AND INSPECT TO ENSURE PROPER STABILIZATION AND FUNCTION. REMOVE ANY SEDIMENT THAT ACCUMULATED DURING CONSTRUCTION.

SUB-SURFACE INFILTRATION SYSTEM:
INSPECT AFTER EVERY MAJOR STORM EVENT (>0.25 INCHES PER 2022 CGP) DURING CONSTRUCTION TO ENSURE THE SYSTEM IS DRAINING PROPERLY. CHECK FOR ACCUMULATION OF SEDIMENT AND PONDING WATER. IF PONDING WATER IS VISIBLE INSIDE THE SYSTEM FOR SEVERAL DAYS AFTER A STORM EVENT, NOTIFY THE ENGINEER FOR POSSIBLE REMEDIAL MEASURES. REMOVE SEDIMENT AS NECESSARY DURING CONSTRUCTION, WHILE THE SYSTEM IS DRY.

DETENTION BASINS:
INSPECT AFTER EVERY MAJOR STORM EVENT (>0.25" PER 2022 GCP) DURING CONSTRUCTION TO ENSURE PROPER STABILIZATION AND FUNCTION. EXAMINE THE OUTLET STRUCTURE OR OUTLET PIPES FOR EVIDENCE OF CLOGGING OR EXCESSIVE OUTLET VELOCITIES. CHECK FOR ACCUMULATION OF SEDIMENT AND PONDING OF WATER. IF PONDING WATER ABOVE THE OUTLET PIPES IS VISIBLE INSIDE THE BASIN FOR SEVERAL DAYS AFTER A STORM EVENT, NOTIFY THE ENGINEER FOR POSSIBLE REMEDIAL MEASURES. MOW THE BERM AT THE COMPLETION OF THE CONSTRUCTION PERIOD. REMOVE SEDIMENT WHILE THE SYSTEM IS DRY.

NOTES:
1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER INSPECTION AND MAINTENANCE OF ALL STORMWATER AND EROSION CONTROL FACILITIES UNTIL THE PROJECT CONSTRUCTION IS COMPLETED. THE CONTRACTOR SHALL CLEAN ALL COMPONENTS OF THE STORMWATER MANAGEMENT SYSTEM AT THE COMPLETION OF CONSTRUCTION, IMMEDIATELY PRIOR TO TURNING OVER OPERATION AND MAINTENANCE RESPONSIBILITY TO THE PROJECT PROPONENT.
2. UPON COMPLETION OF CONSTRUCTION, THE OPERATION AND MAINTENANCE OF ALL COMPONENTS OF THE STORMWATER MANAGEMENT SYSTEM WILL BE THE RESPONSIBILITY OF THE SYSTEM OWNER:

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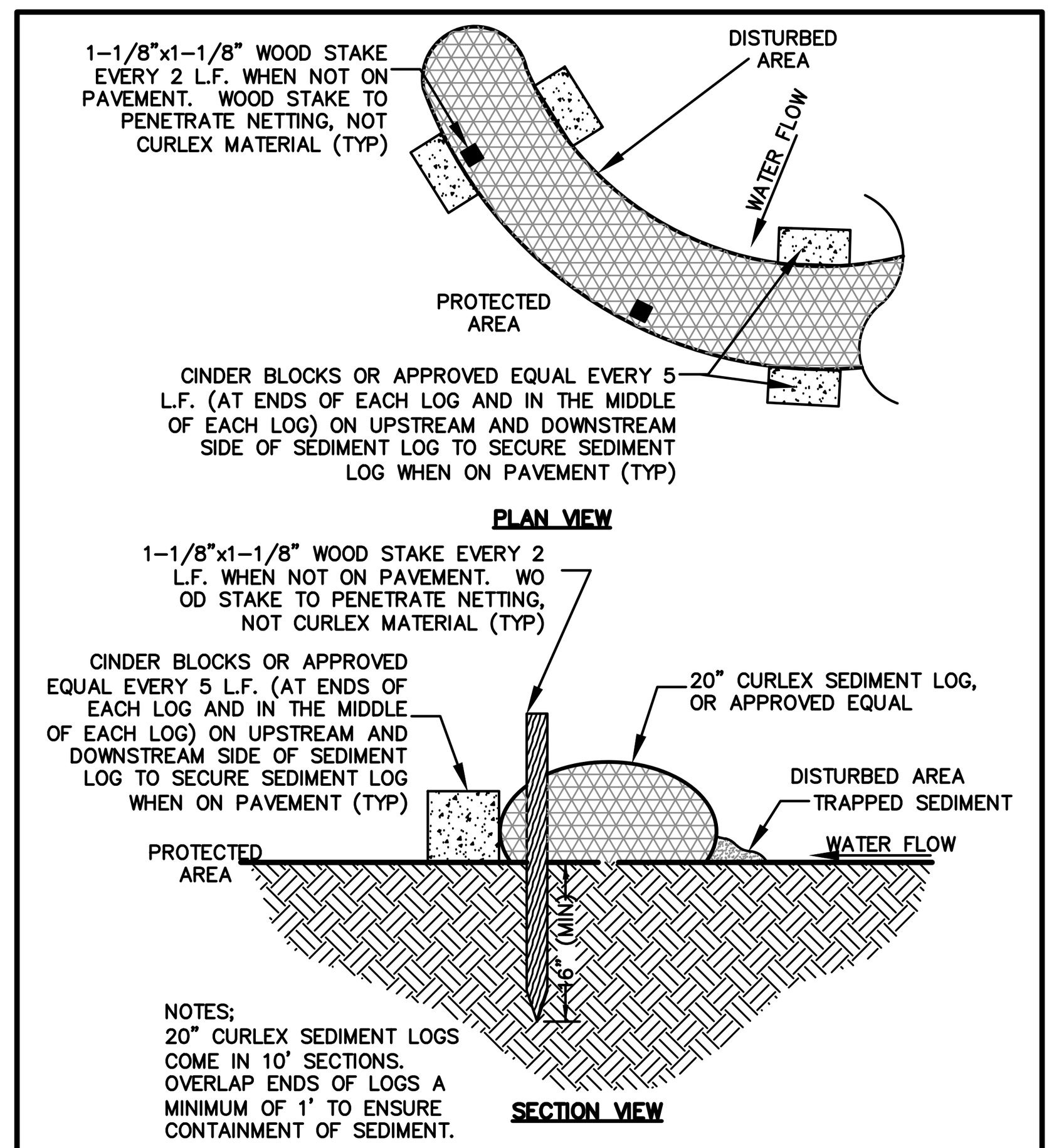
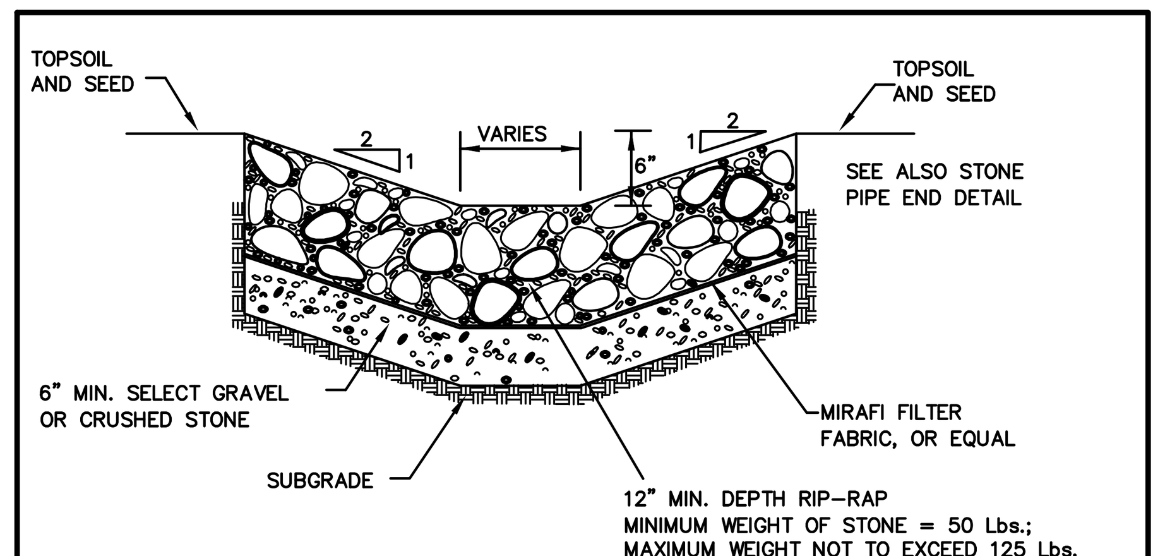
DANA POINT, CA 92629

3. DISPOSAL OF ACCUMULATED SEDIMENT AND HYDROCARBONS TO BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL GUIDELINES AND REGULATIONS.
4. THERE SHALL BE NO ILLICIT DISCHARGE OF ANY WASTE OR WASTE WATER INTO THE STORMWATER MANAGEMENT SYSTEM. THE MAINTENANCE OF THE FACILITY SHALL BE UNDERTAKEN IN SUCH A MANNER AS TO PREVENT ANY DISCHARGE OF WASTE OR WASTE WATER INTO STORMWATER MANAGEMENT SYSTEM. ANY WASTE OIL OR OTHER WASTE PRODUCTS GENERATED DURING MAINTENANCE SHALL BE PROPERLY DISPOSED OF OFF SITE.

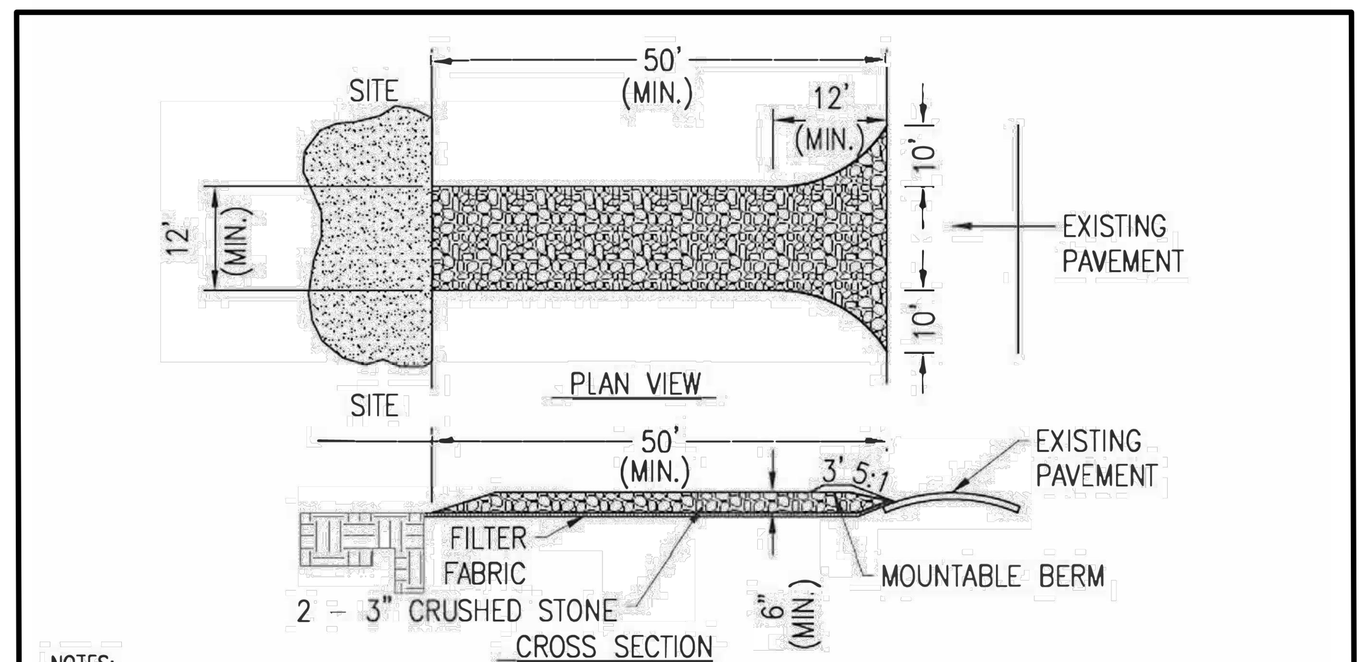


NOTES;
20" CURLEX SEDIMENT LOGS COME IN 10' SECTIONS. OVERLAP ENDS OF LOGS A MINIMUM OF 1' TO ENSURE CONTAINMENT OF SEDIMENT.

EROSION CONTROL SEDIMENT LOG DETAIL
(NOT TO SCALE)

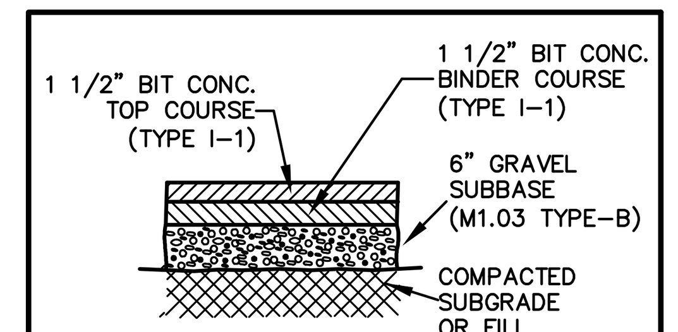


RIP-RAP APRON DETAIL
(NOT TO SCALE)

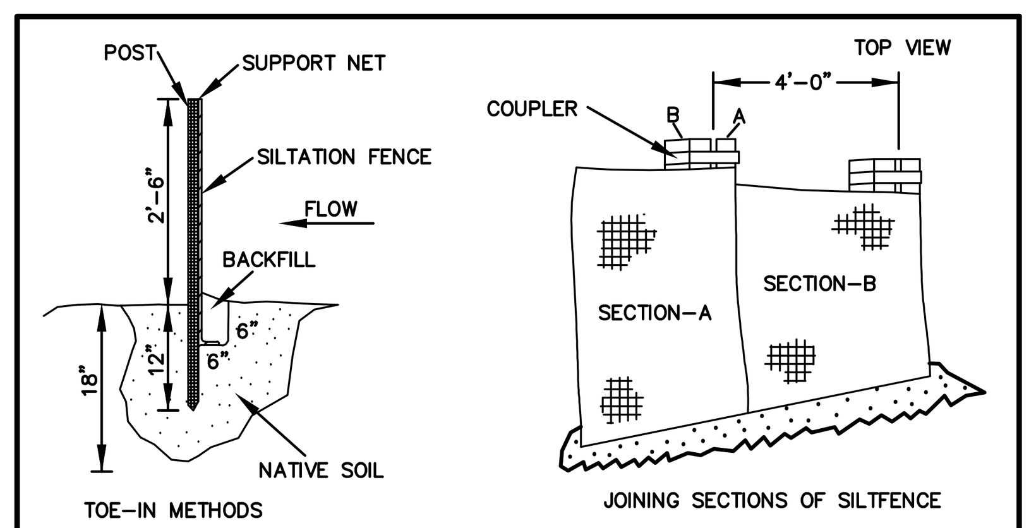


NOTES:
1. STONE SIZE – USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH- NOT LESS THAN 50 FEET.
3. THICKNESS-NOT LESS THAN 6 INCHES.
4. WIDTH-NOT LESS THAN 12 FEET WHERE MORE THAN ONE (1) ACCESS POINT TO THE SITE. WHERE ONE (1) ACCESS POINT A MINIMUM OF 24 FEET IS REQUIRED.
5. GEOTEXTILE-SHALL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER-SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCE SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5: 1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE-THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY SHALL BE REMOVED IMMEDIATELY.
8. WHEN WHEEL WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

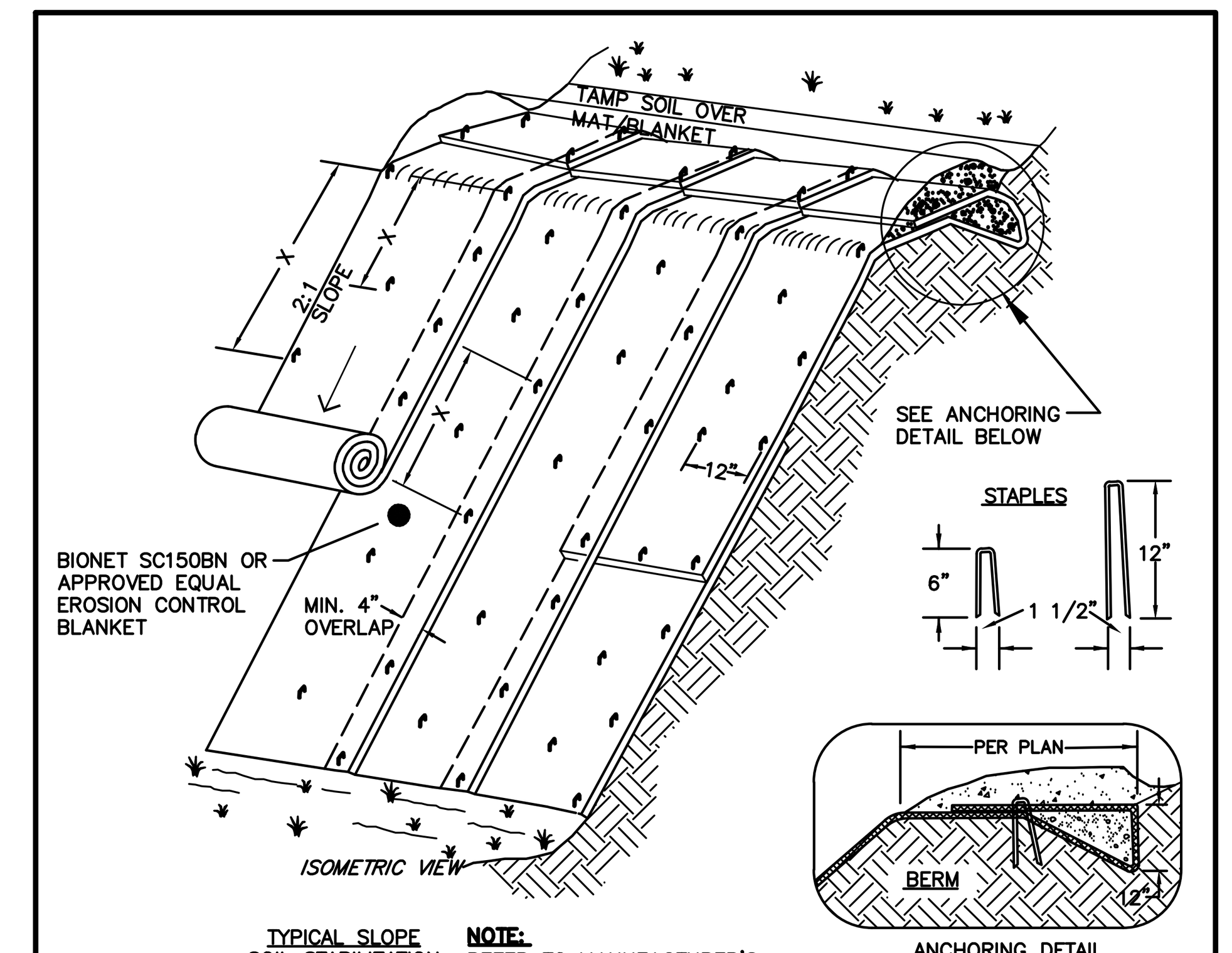
STABILIZED CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE



PAVEMENT CROSS SECTION
NOT TO SCALE

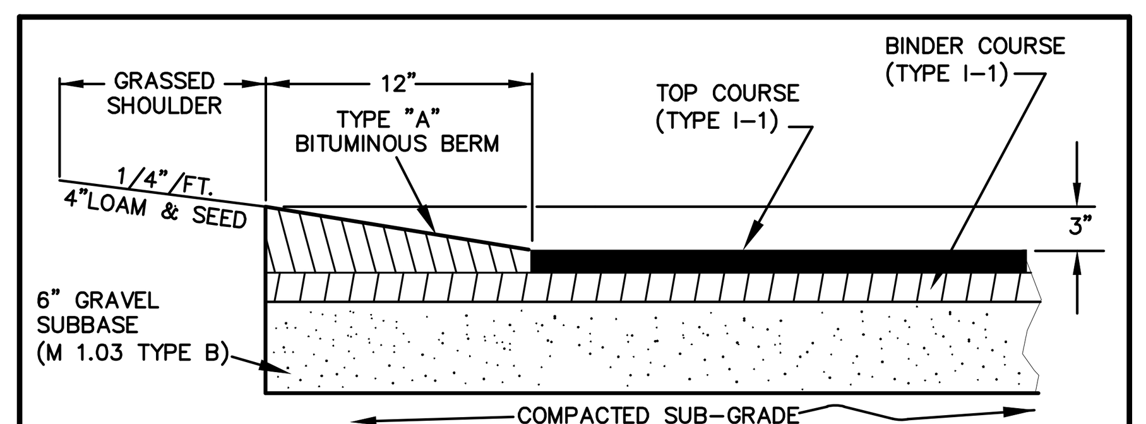


SILTATION FENCE DETAIL
(NOT TO SCALE)



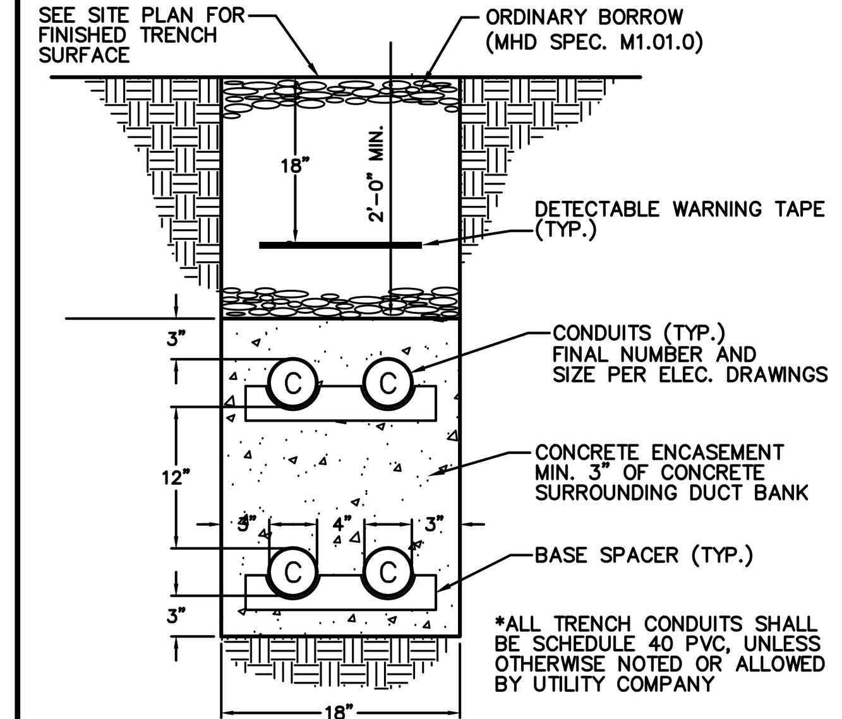
NOTE: REFER TO MANUFACTURER'S SPECIFICATIONS FOR ADDITIONAL INSTALLATION INFORMATION.

EROSION CONTROL BLANKET INSTALLATION DETAIL
(NOT TO SCALE)

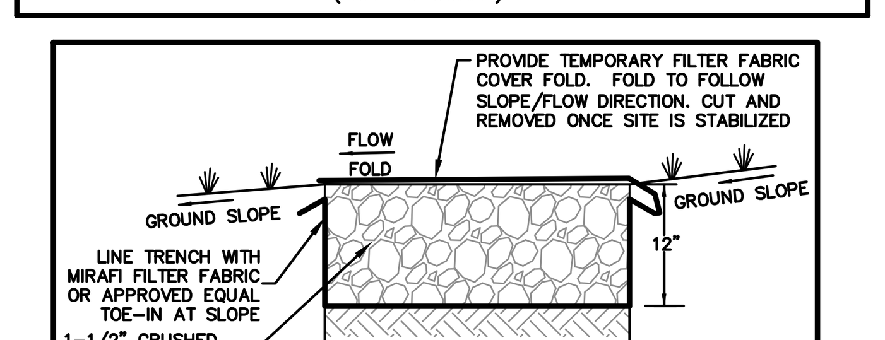


CAPE COD BERM DETAIL
(NOT TO SCALE)

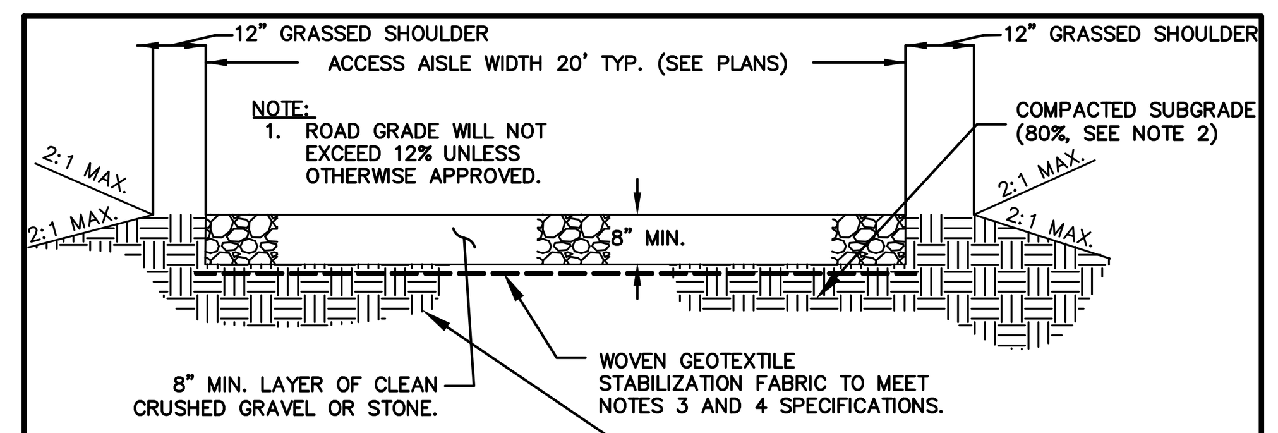
– FOR INFORMATION ONLY –
CONTACT UTILITY COMPANY AND REFER TO PLANS BY OTHERS FOR SPECIFIC DETAIL FOR THIS SITE.



TYPICAL UTILITY TRENCH DETAIL
(NOT TO SCALE)

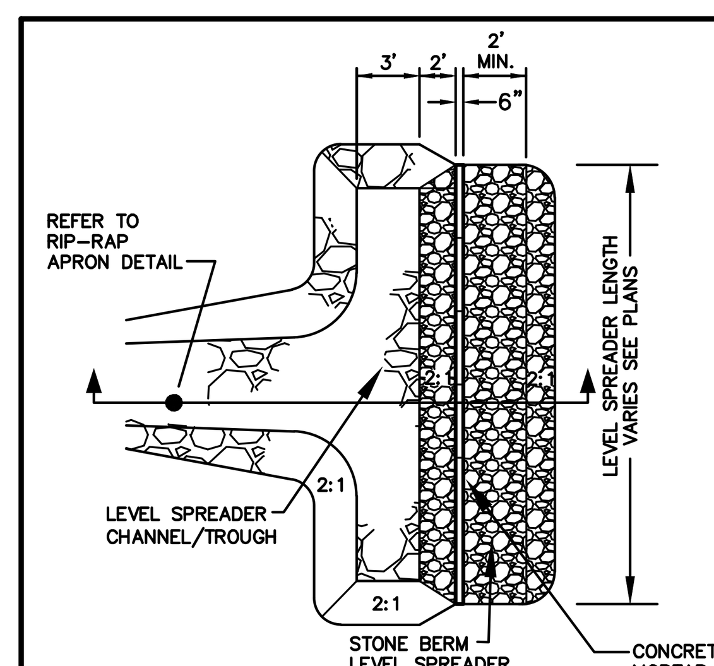


PROPOSED STONE INFILTRATION TRENCH DETAIL
(NOT TO SCALE)



NOTES:
1. SUBCONTRACTOR SHALL CLEAR AND STRIP ROADBED AND PARKING AREAS OF ALL VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL.
2. SUBCONTRACTOR SHALL COMPACT SUBGRADE TO PROVIDE SUITABLE SURFACE TO PLACE ROAD. DEPENDING ON NATIVE SOILS AND OBSERVED CONDITIONS, COMPACTION MAY BE INCREASED UP TO 95%.
3. GEOTEXTILE FABRIC SHALL MEET THE FOLLOWING REQUIREMENTS
- TENSILE STRENGTH: 56 LB MIN.
- ELONGATION: 50%
- CBR PUNCTURE: 309 LB MIN.
- MINIMUM PERMITTIVITY: 0.1 SEC-1
4. SUBCONTRACTOR SHALL FOLLOW GEOTEXTILE FABRIC MANUFACTURER INSTALLATION PROCEDURES. WHERE OVERLAPPING OF GEOTEXTILE FABRIC IS REQUIRED, SUBCONTRACTOR SHALL OVERLAP A MINIMUM OF 24".

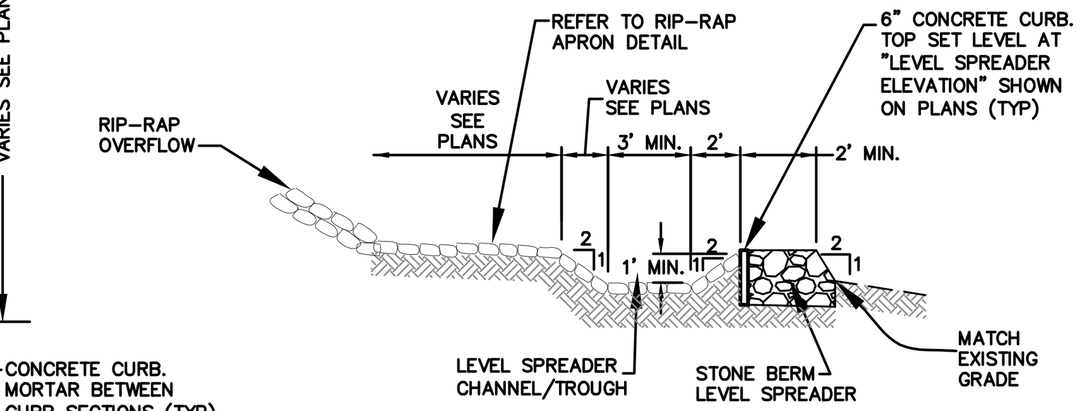
GRAVEL ACCESS ROAD
(NOT TO SCALE)



STONE FOR LEVEL SPREADER BERM SHALL MEET THE FOLLOWING GRADATION REQUIREMENT:

SIEVE DESIGNATION	PERCENT BY WEIGHT PASSING SQUARE MESH SIEVE
12-INCH	100%
6-INCH	84%-100%
3-INCH	68%-83%
1-INCH	42%-55%
NO. 4	8%-12%

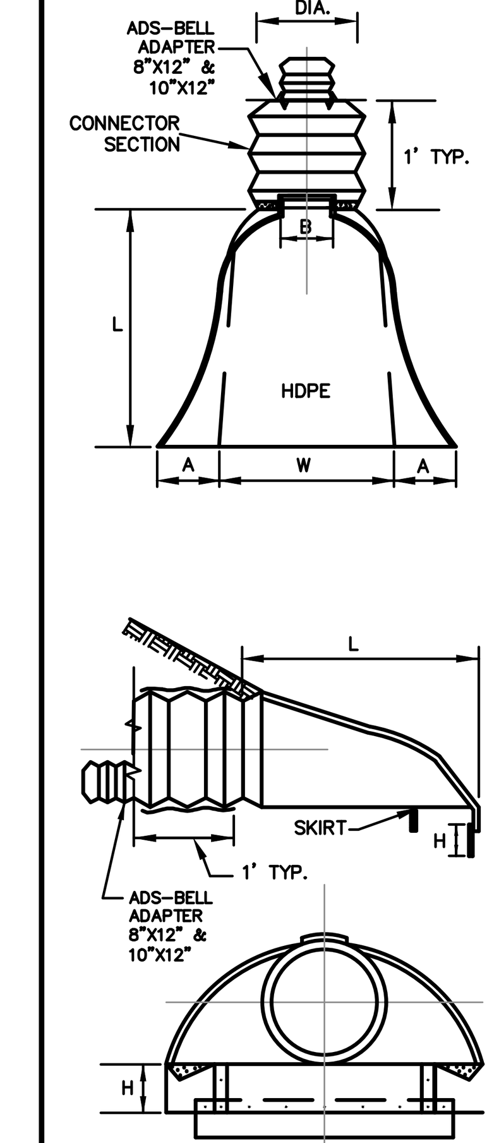
NOTES:
1. BOTTOM OF LEVEL SPREADER CHANNEL/TROUGH, AND BASE AND TOP OF BERM SHOULD BE AT 0% GRADE.



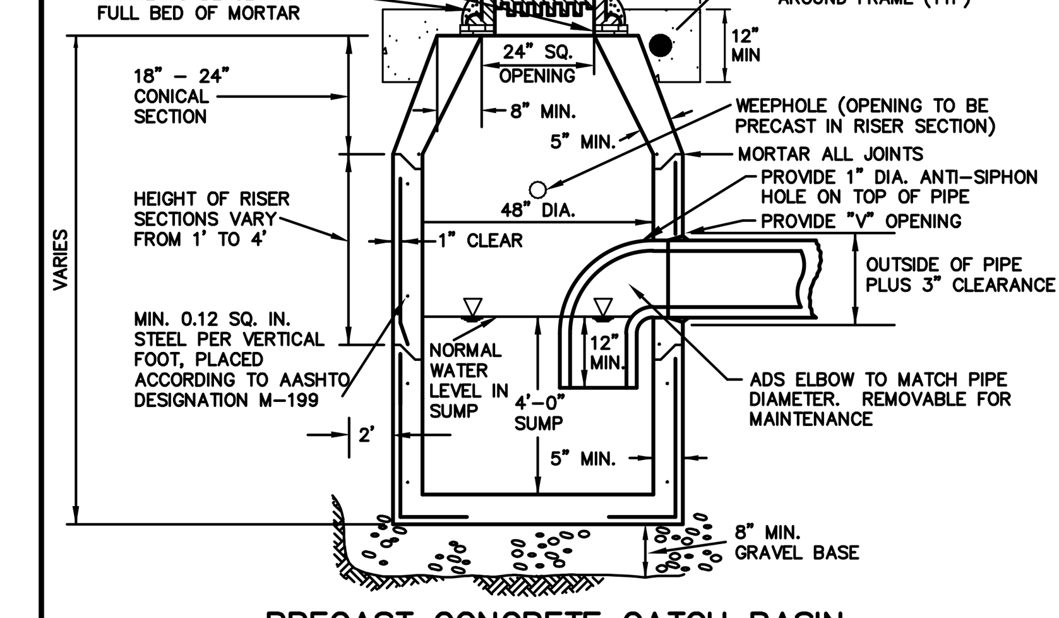
STONE BERM LEVEL SPREADER DETAIL
NOT TO SCALE

PIPE DIA. (IN.)	A ±1"	B MAX	H ±1"	L ±1 1/2"	W ±2"
8	6.5	10	6.5	25	29
10	6.5	10	6.5	25	29

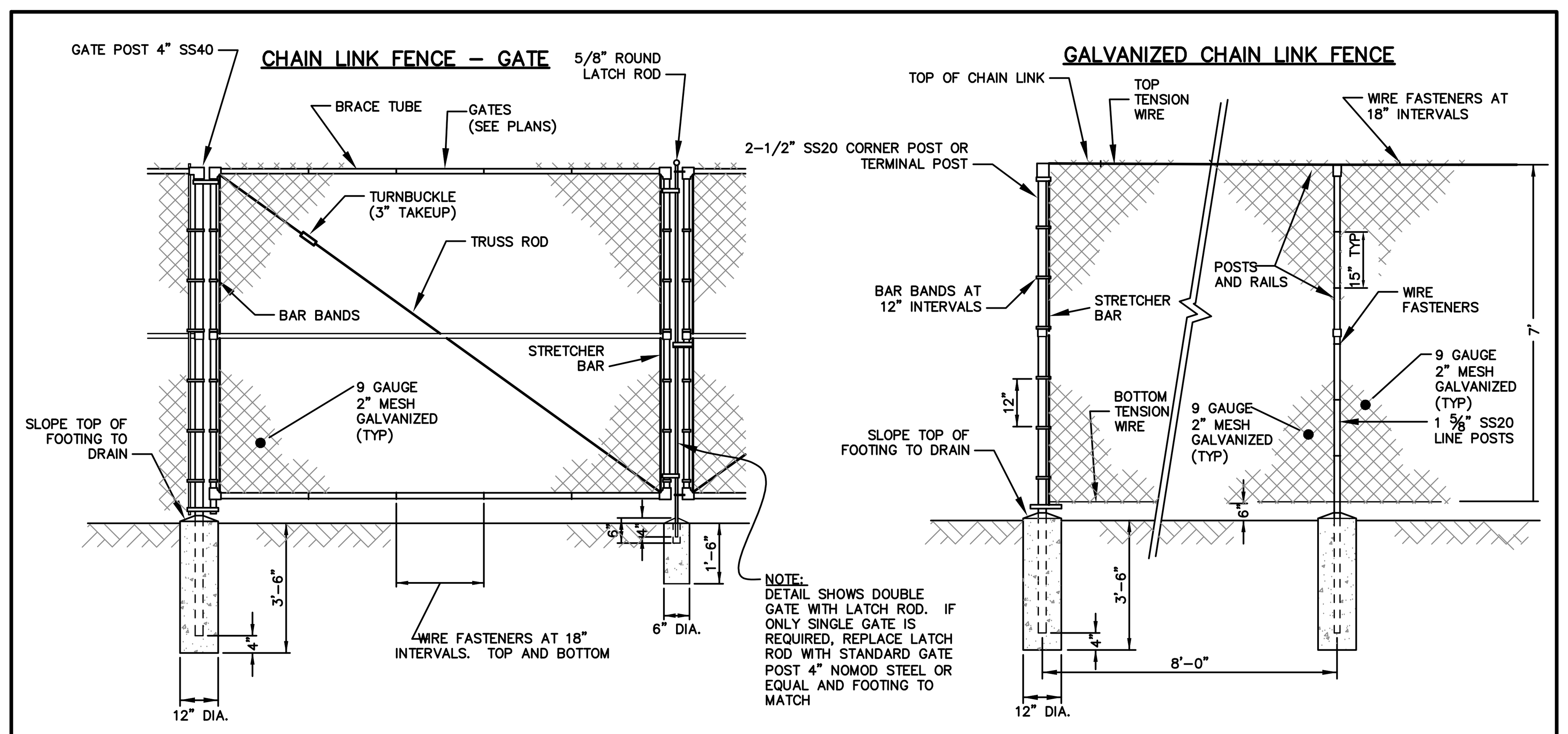
(DIMENSIONS (IN.))



ADS FLARED END DETAIL
NOT TO SCALE



PRECAST CONCRETE CATCH BASIN WITH GAS TRAP AND CLEANOUT
(NOT TO SCALE)



CHAIN LINK FENCE DETAIL (GALVANIZED)
(NOT TO SCALE)

FILE: 3328 SITE PLANS

Atlantic® DESIGN ENGINEERS, INC. P.O. Box 1051, Sandwich, MA 02563 (508) 888 – 9282	Designed by : Drawn by : Checked by : Survey chk. by : Approved by :	SCALE

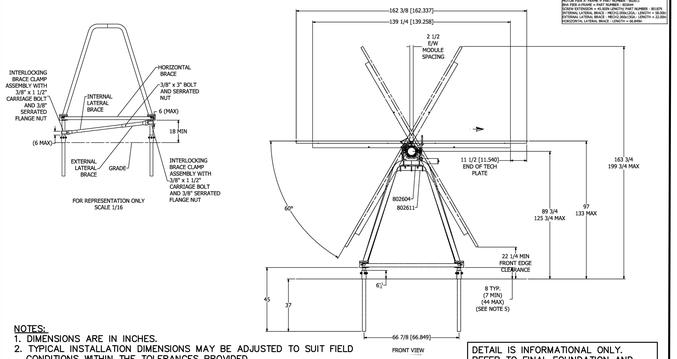
DATE

NO.	BY	DATE	REVISION

APPLICANT:
VS UNION SOLAR SMART, LLC
24941 DANA POINT HARBOR
DANA POINT, CA 92629

DETAILS
FOR
UPPER UNION SOLAR PROJECT
JUNE 19, 2023
FRANKLIN, MA

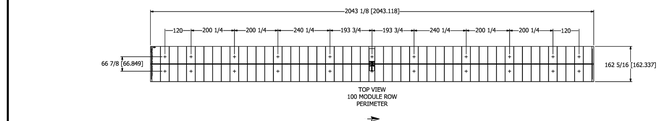
Sheet 8 of 9
JOB NUMBER 3328.00



NOTES:
1. DIMENSIONS ARE IN INCHES.
2. TYPICAL INSTALLATION DIMENSIONS MAY BE ADJUSTED TO SUIT FIELD CONDITIONS WITHIN THE TOLERANCES PROVIDED.
3. SCREW EXTENSIONS SHALL BE INSTALLED PLUMB, IF MECHANICALLY POSSIBLE MAXIMUM 3° OUT OF PLUMB.
4. LATERAL BRACES ARE DESIGNED TO ALLOW FOR 7" OF TOTAL ADJUSTMENT IN LENGTH. IF FIELD CONDITIONS REQUIRE ADDITIONAL ADJUSTMENT AND LATERAL BRACES ARE TOO LONG, THEY MAY BE CUT DOWN AND DRILLED TO FIT BY THE RACK INSTALLER. IF THEY ARE TOO SHORT, NEW LATERAL BRACES MAY BE ORDERED TO FIT AT THE PURCHASER'S EXPENSE.
5. ALL SCREW EXTENSIONS REQUIRE A MINIMUM OF 1 INCH EMBEDMENT BELOW GRADE.
6. DIAGONAL BRACING IS REQUIRED IF EITHER OF THE SCREW EXTENSIONS FOR A SINGLE FOUNDATION HAVE MORE THAN 18" OF TUBE MATERIAL ABOVE GRADE.

DETAIL IS INFORMATIONAL ONLY. REFER TO FINAL FOUNDATION AND RACKING SYSTEM DESIGN BY OTHERS.

SINGLE AXIS TRACKING PANEL DETAIL
NOT TO SCALE



DETAIL IS INFORMATIONAL ONLY. REFER TO FINAL FOUNDATION AND RACKING SYSTEM DESIGN BY OTHERS.

NOTES:
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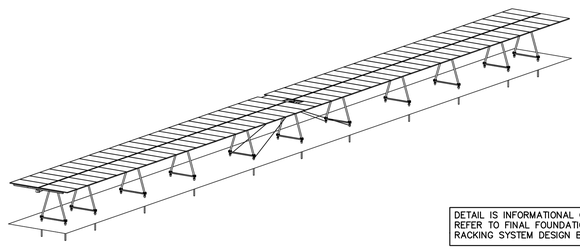
2. TYPICAL INSTALLATION DIMENSIONS MAY BE ADJUSTED TO SUIT FIELD CONDITIONS WITHIN THE TOLERANCES PROVIDED.

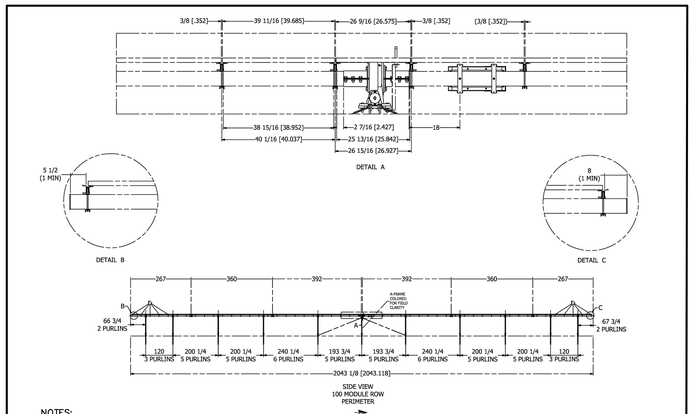
SINGLE AXIS TRACKING PANEL DETAIL
NOT TO SCALE



DETAIL IS INFORMATIONAL ONLY. REFER TO FINAL FOUNDATION AND RACKING SYSTEM DESIGN BY OTHERS.

NOTES:
1. DIMENSIONS ARE IN INCHES.
2. INTERPRET DIMENSIONS AND TOLERENCES PER ASME Y14.5-2009

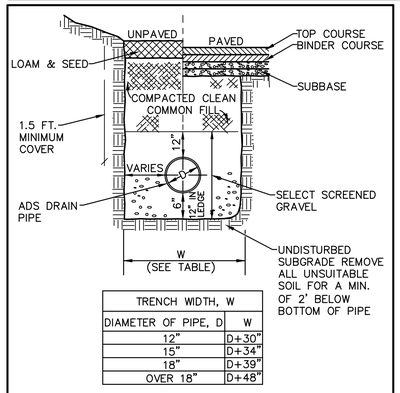
SINGLE AXIS TRACKING PANEL DETAIL
NOT TO SCALE



NOTES:
1. DIMENSIONS ARE IN INCHES.
2. PURLIN BRACES INDICATED ARE TO BE 62 INCHES LONG. ALL OTHER BRACES TO BE 14 INCHES.
3. TYPICAL INSTALLATION DIMENSIONS MAY BE ADJUSTED TO SUIT FIELD CONDITIONS WITHIN THE TOLERANCES PROVIDED.
4. INTERPRET DIMENSIONS AND TOLERANCES PER ASME Y14.5-2009.
5. CIRCLED DIMENSIONS ARE VARIABLE BASED ON PROJECT NEEDS AND ONLY REPRESENT A RANGE OF POSSIBLE VALUES.

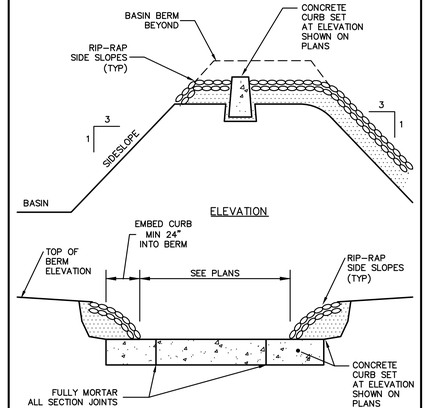
DETAIL IS INFORMATIONAL ONLY. REFER TO FINAL FOUNDATION AND RACKING SYSTEM DESIGN BY OTHERS.

SINGLE AXIS TRACKING PANEL DETAIL
NOT TO SCALE

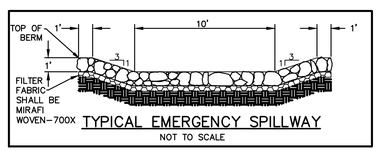


TRENCH WIDTH, W	
DIAMETER OF PIPE, D	W
12"	D+30"
15"	D+34"
18"	D+39"
OVER 18"	D+48"

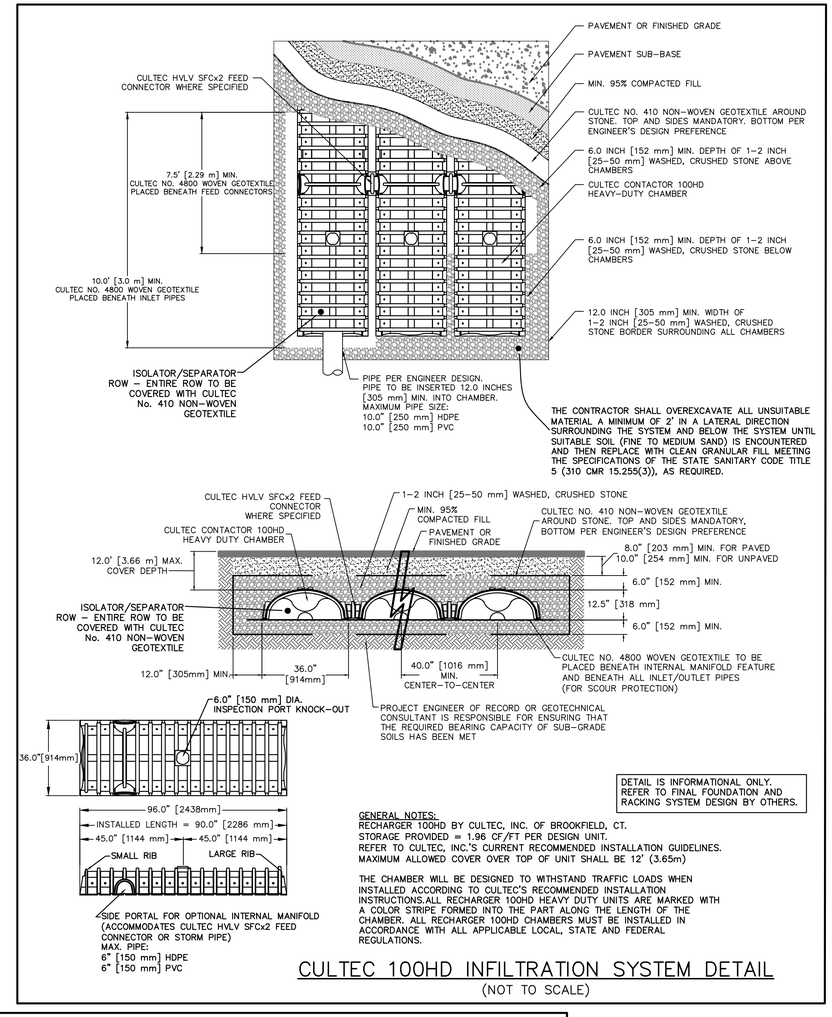
TYPICAL DRAINAGE TRENCH SECTION
NOT TO SCALE



BASIN OVERFLOW SPILLWAY DETAIL
(NOT TO SCALE)



TYPICAL EMERGENCY SPILLWAY
NOT TO SCALE

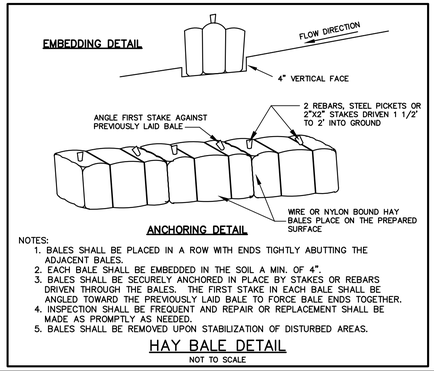


DETAIL IS INFORMATIONAL ONLY. REFER TO FINAL FOUNDATION AND RACKING SYSTEM DESIGN BY OTHERS.

GENERAL NOTES:
RECHARGER 100HD BY CULTEC, INC. OF BROOKFIELD, CT.
STORAGE PROVIDED = 1.96 CF/FT PER DESIGN UNIT.
REFER TO CULTEC, INC.'S CURRENT RECOMMENDED INSTALLATION GUIDELINES.
MAXIMUM ALLOWED COVER OVER TOP OF UNIT SHALL BE 12' (3.65m)

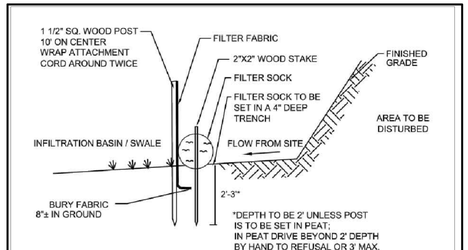
THE CHAMBER WILL BE DESIGNED TO WITHSTAND TRAFFIC LOADS WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.ALL RECHARGER 100HD HEAVY DUTY UNITS ARE MARKED WITH A COLOR STRIPE FORMED INTO THE PART ALONG THE LENGTH OF THE CHAMBER. ALL RECHARGER 100HD CHAMBERS MUST BE INSTALLED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.

CULTEC 100HD INFILTRATION SYSTEM DETAIL
(NOT TO SCALE)



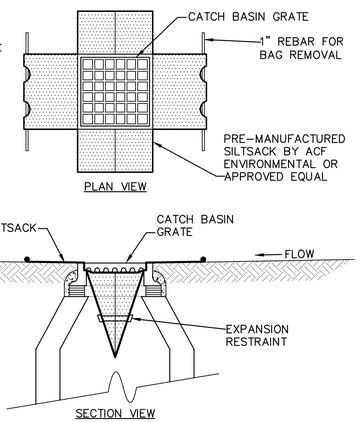
NOTES:
1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MIN. OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR REBARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD THE PREVIOUSLY LAID BALE TO FORCE BALE ENDS TOGETHER.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE AS PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED UPON STABILIZATION OF DISTURBED AREAS.

HAY BALE DETAIL
NOT TO SCALE



SILT FENCE WITH SEDIMENT LOG DETAIL (DOUBLE ROW EROSION CONTROLS)
(NOT TO SCALE)

NOTES:
1. INSTALL SILTSACK PER MANUFACTURER SPECIFICATIONS IN ALL CATCH BASINS WHERE INDICATED ON THE PLAN BEFORE COMMENCING WORK AND IN PAVED AREAS AFTER BINDER COURSE IS PLACED.
2. GRATE TO BE PLACED OVER SILTSACK.
3. SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED.



SILTSACK SEDIMENT TRAP DETAIL
(NOT TO SCALE)

Atlantic® DESIGN ENGINEERS, INC.
P.O. Box 1051, Sandwich, MA 02563 (508) 888 - 9282

Designed by : _____
Drawn by : _____
Checked by : _____
Survey chk. by : _____
Approved by : _____

SCALE

RICHARD J. TABACZYNSKI CIVIL NO. 33748 COMMONWEALTH OF MASSACHUSETTS REGISTERED PROFESSIONAL ENGINEER

DATE

NO.	BY	DATE	REVISION

APPLICANT:
VS UNION SOLAR SMART, LLC
24941 DANA POINT HARBOR
DANA POINT, CA 92629

DETAILS FOR
UPPER UNION SOLAR PROJECT
JUNE 19, 2023
FRANKLIN, MA

FILE: 3328 SITE PLANS

Sheet	of
9	9

JOB NUMBER 3328.00