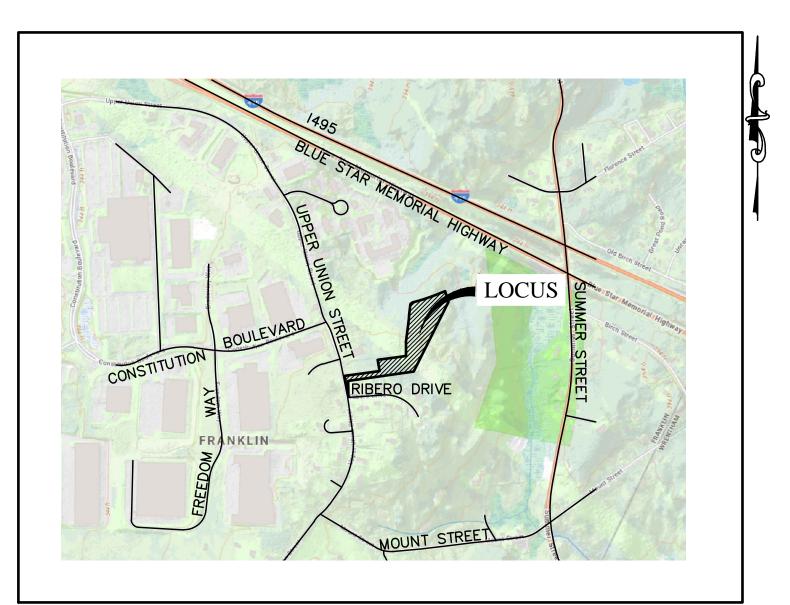
SITE DEVELOPMENT PLANS FOR UNION SOLAR PROJECT

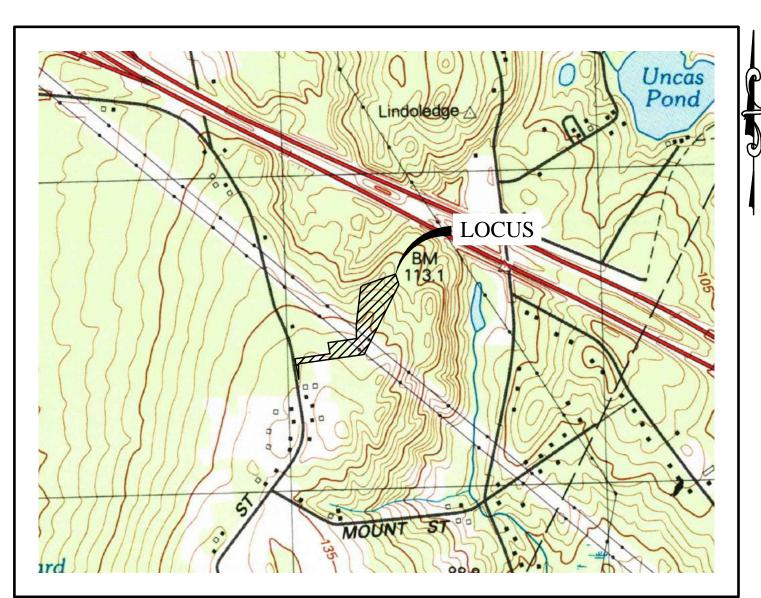
FRANKLIN, MASSACHUSETTS 02038

DATE: JUNE 19, 2023

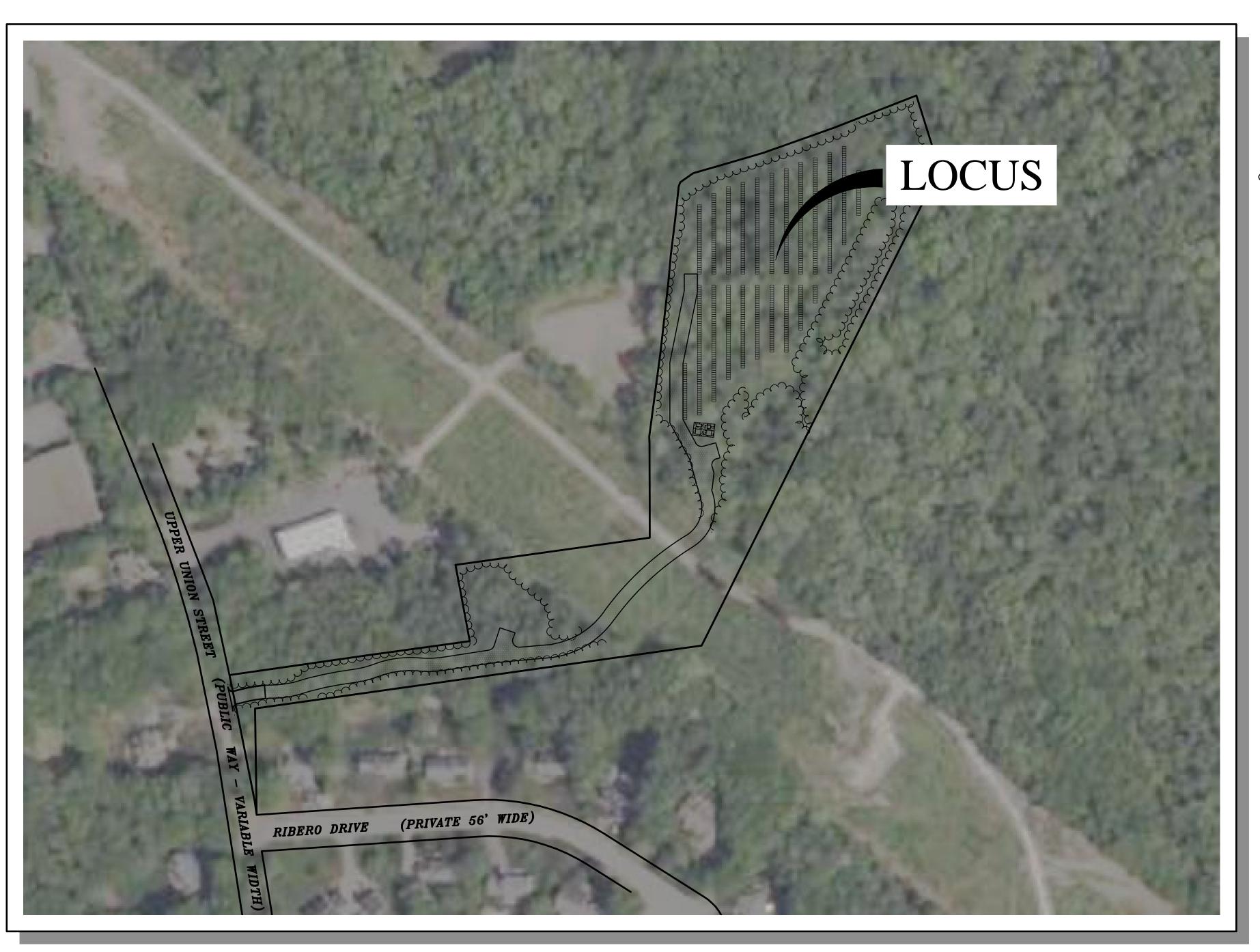
REVISION DATE: NOVEMBER 10, 2023 REVISION DATE: DECEMBER 13, 2023 REVISION DATE: JANUARY 08, 2024

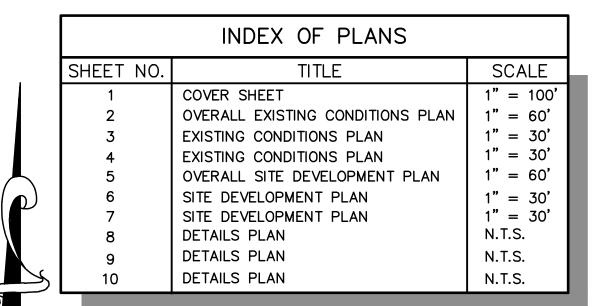


 $\frac{\text{VICINITY MAP}}{1" = 1,000'}$



 $\frac{LOCUS\ MAP}{1" = 1,000'}$





OWNER:

JOHN C. COLELLA SR. O UPPER UNION STREET FRANKLIN MA, 02038

APPLICANT:

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

ENGINEER:



P.O. Box 1051, Sandwich, MA 02563
PHONE NUMBER: (508) 888–9282

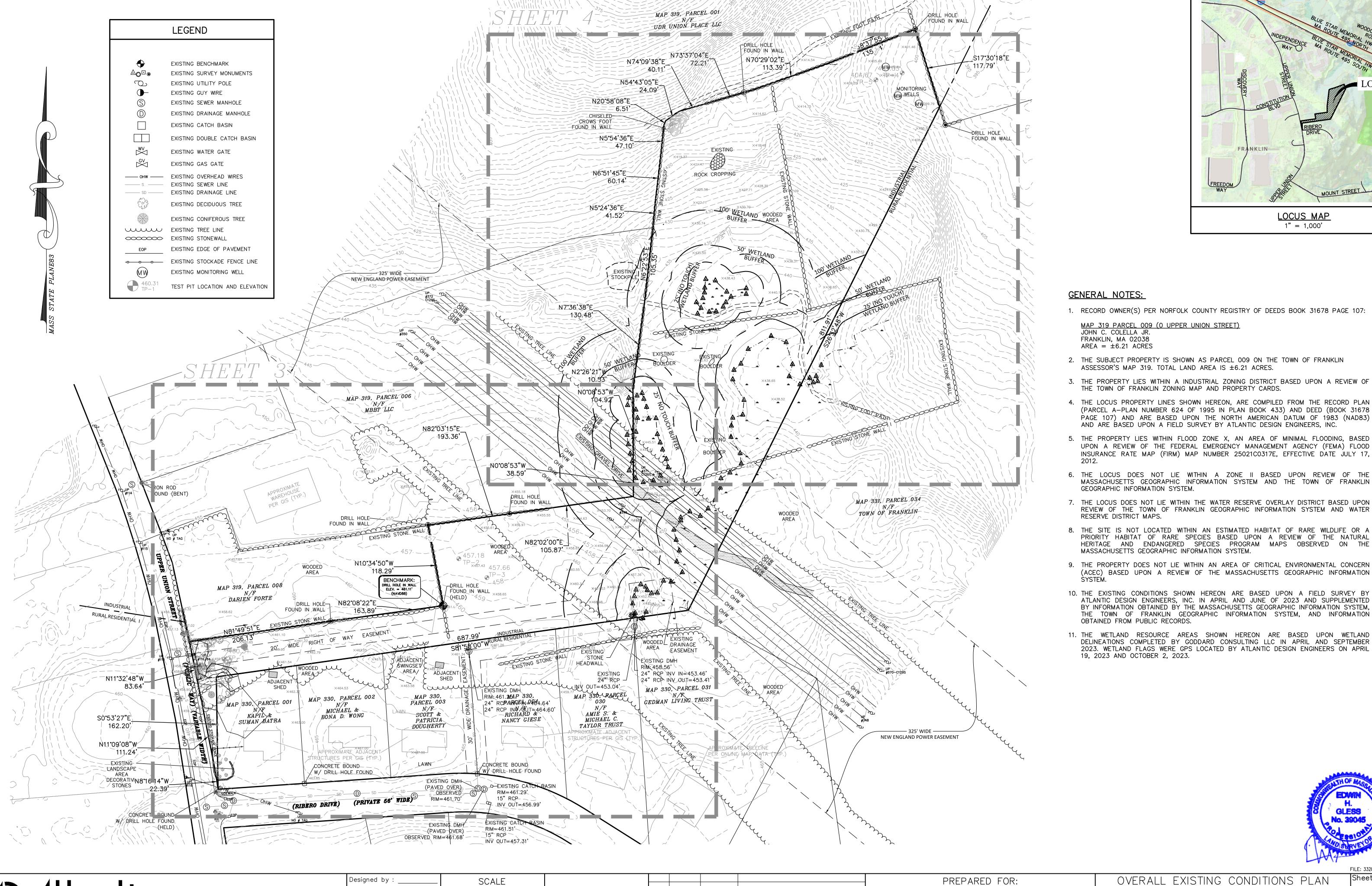


FILE: 3328—DETAIL—Sheet of

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JOB NUMBER

3328.00



Drawn by:

Checked by

Survey chk. by

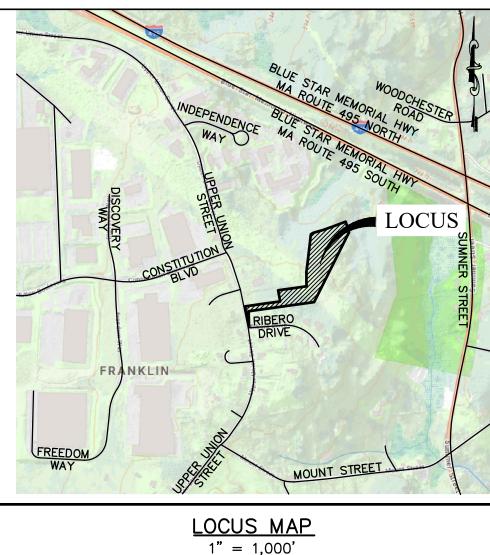
Approved by :

DESIGN ENGINEERS, INC.

P.O. Box 1051, Sandwich, MA 02563

(508) 888 - 9282

SCALE 1" = 60



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

- 2. THE SUBJECT PROPERTY IS SHOWN AS PARCEL 009 ON THE TOWN OF FRANKLIN
- 3. THE PROPERTY LIES WITHIN A INDUSTRIAL ZONING DISTRICT BASED UPON A REVIEW OF
- THE TOWN OF FRANKLIN ZONING MAP AND PROPERTY CARDS.
- 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
- 6. THE LOCUS DOES NOT LIE WITHIN A ZONE II BASED UPON REVIEW OF THE MASSACHUSETTS GEOGRAPHIC INFORMATION SYSTEM AND THE TOWN OF FRANKLIN
- 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
- 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
- 9. THE PROPERTY DOES NOT LIE WITHIN AN AREA OF CRITICAL ENVIRONMENTAL CONCERN (ACEC) BASED UPON A REVIEW OF THE MASSACHUSETTS GEOGRAPHIC INFORMATION
- 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
- 11. THE WETLAND RESOURCE AREAS SHOWN HEREON ARE BASED UPON WETLAND DELINEATIONS COMPLETED BY GODDARD CONSULTING LLC IN APRIL AND SEPTEMBER 2023. WETLAND FLAGS WERE GPS LOCATED BY ATLANTIC DESIGN ENGINEERS ON APRIL

GLESS

FILE: 3328-EX-COND-REV1 Sheet of

OVERALL EXISTING CONDITIONS PLAN

UPPER UNION SOLAR PROJECT FRANKLIN, MA JUNE 19, 2023

VS UNION SOLAR SMART, LLC

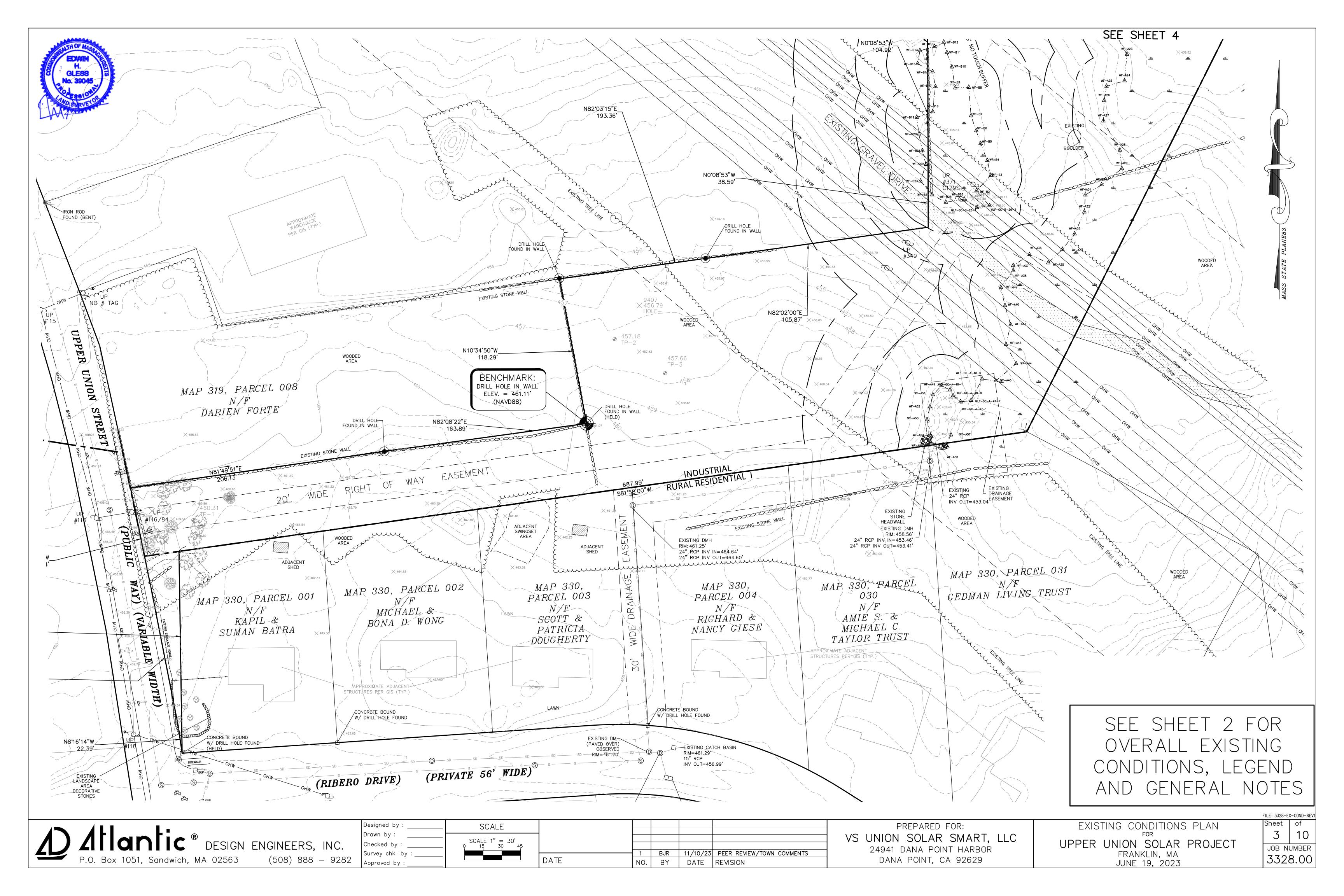
24941 DANA POINT HARBOR

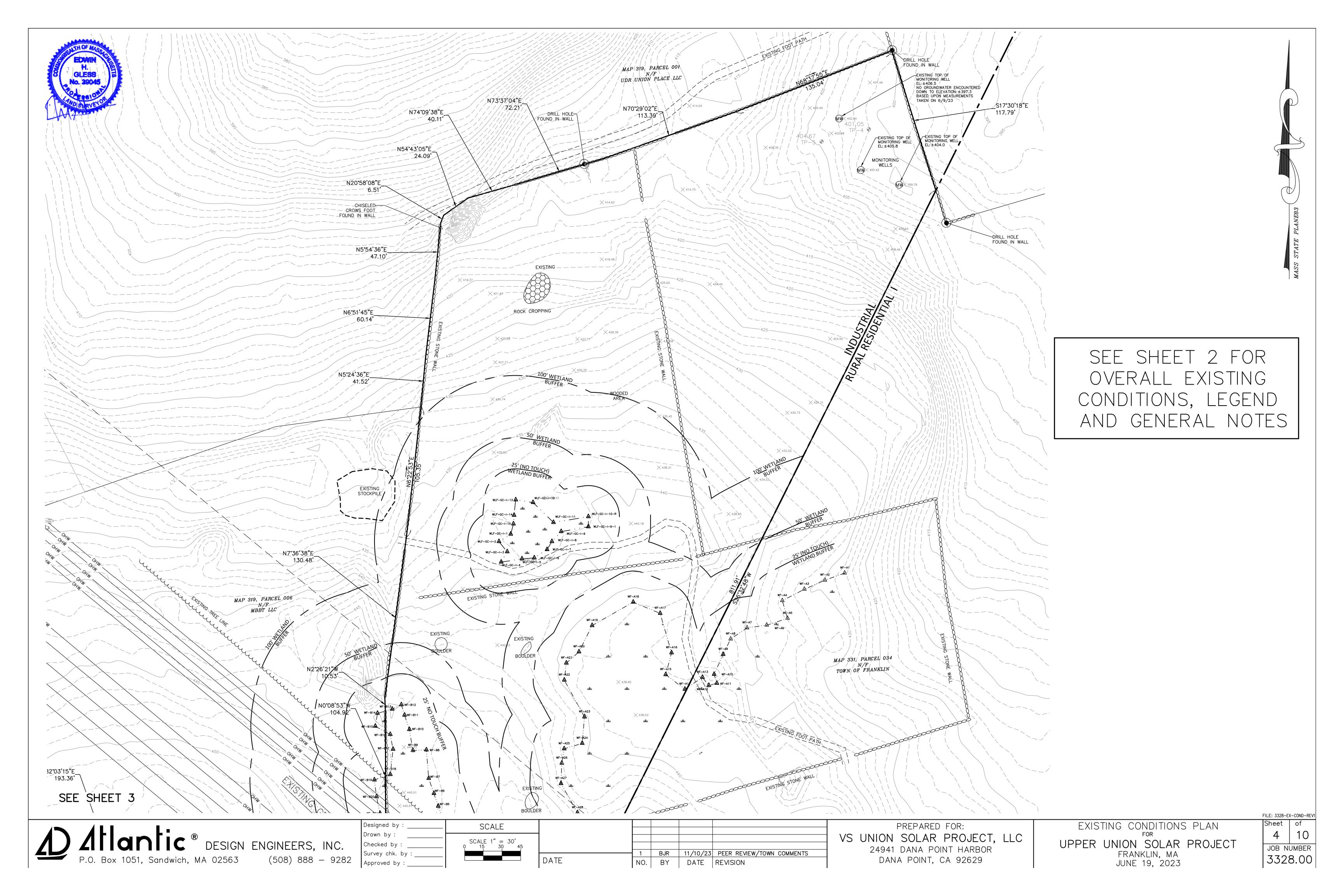
DANA POINT, CA 92629

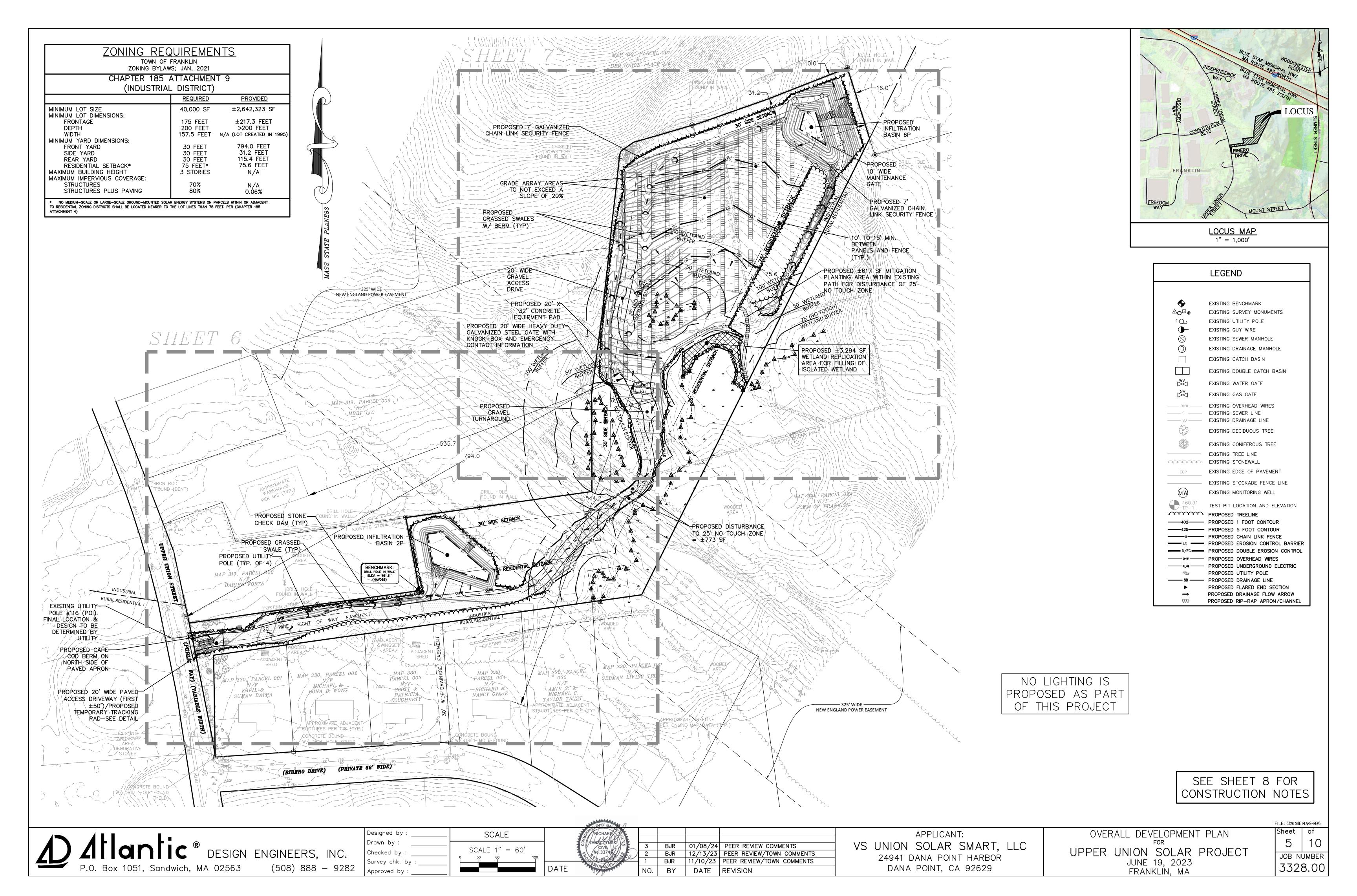
BJR | 11/10/23 | PEER REVIEW/TOWN COMMENTS

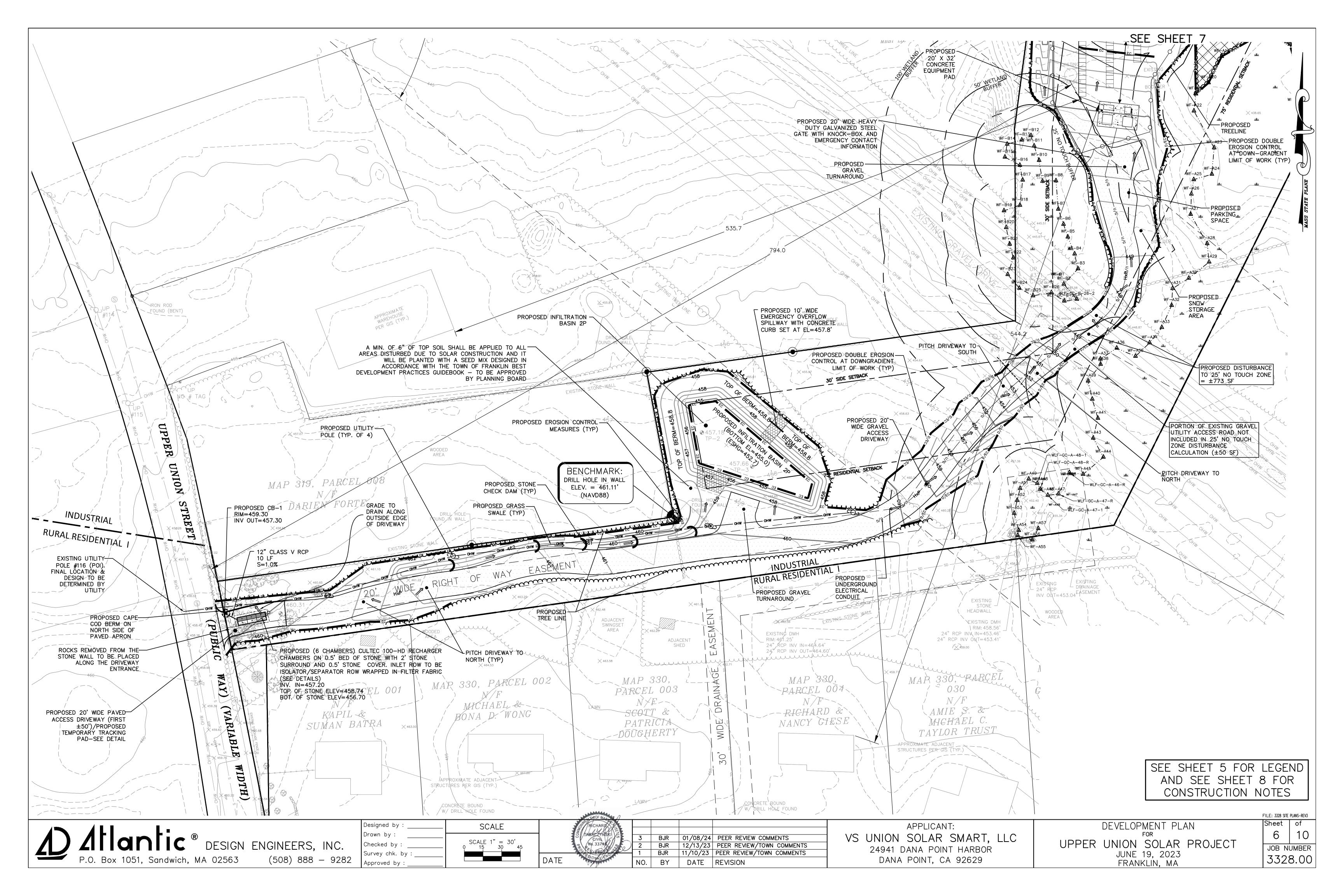
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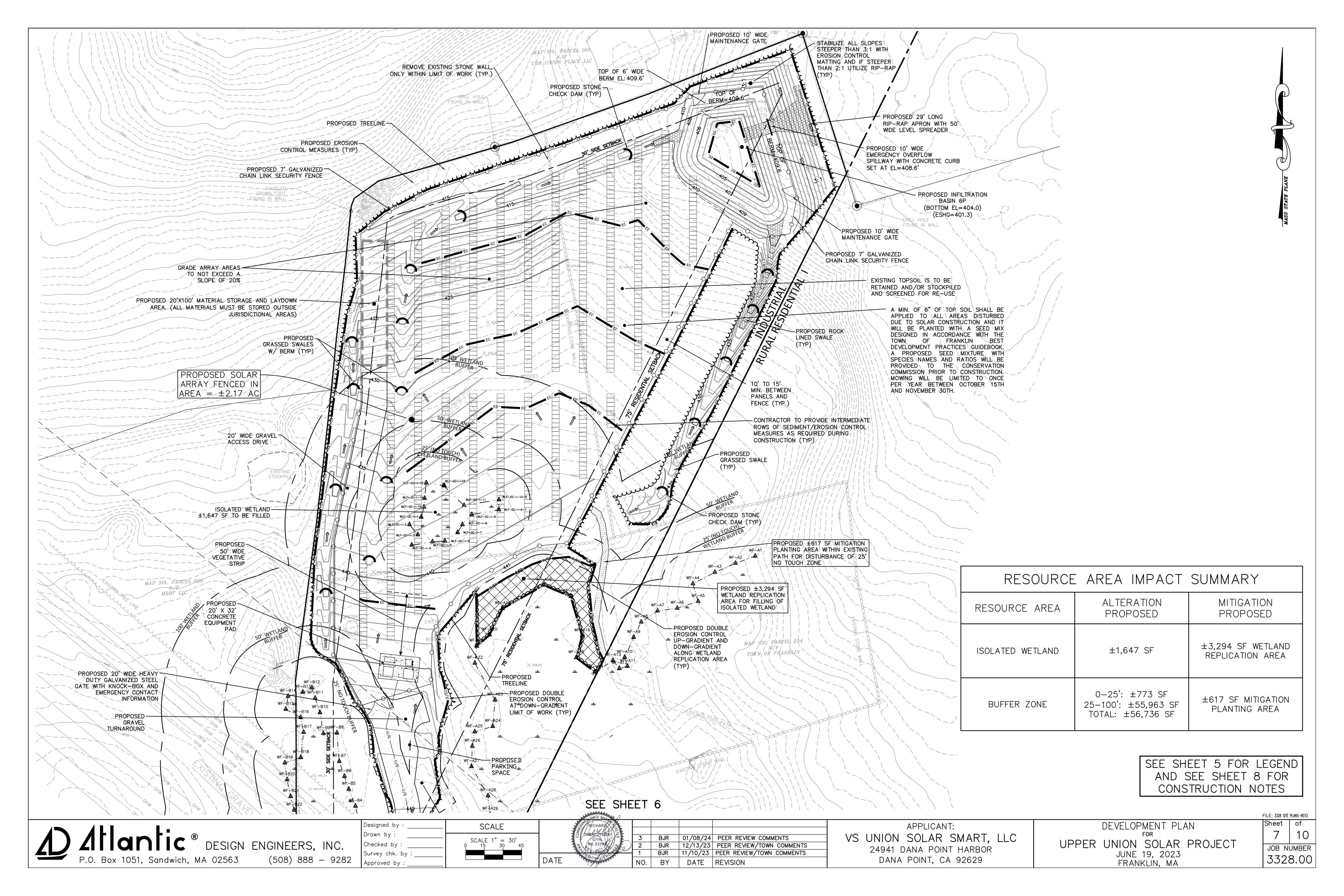
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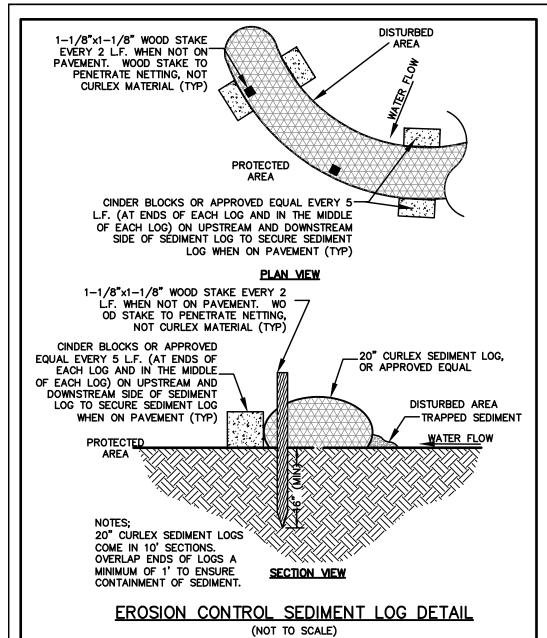












FULL WIDTH OF SWALE

STONE CHECK DAM DETAIL

NOTES:

1. LOAM AND SEED AND EROSION CONTROL MEASURES TO BE INSTALLED

2. CONTRACTOR TO CHECK SWALE WEEKLY AND AFTER ALL RAIN EVENTS

DURING CONSTRUCTION FOR SIGNS OF EROSION/BARE SPOTS AND RESEED

GRASSED SWALE

(NOT TO SCALE)

(3" TAKEUP)

2" MESH

GALVANIZED

CHAIN LINK FENCE — GATE 5/8" ROUND LATCH ROD —

(SEE PLANS)

- TRUSS ROD

WHRE FASTENERS AT 18"

INTERVALS. TOP AND BOTTOM

STRETCHER BAR

3. SEE STORMWATER O+M SCHEDULE FOR LONG TERM MEASURES.

MIN. GRADE OF SWALE -TO BE 0.5%

INSTALL STONE

-4" LOAM & SEED -

TIE INTO EXISTING GRADE

IMMEDIATELY UPON CONSTRUCTION OF SWALE.

ON CENTER

IMMEDIATELY, UNTIL STABILIZED.

CHECK DAMS @ 100'

 \longleftarrow FLOW

WHERE REQUIRED

GATE POST 4" SS40 -

FOOTING TO

DRAIN

6" RIPRAP. AS ROCKS ARE STACKED, FILL INTERSTICES

WITH 1 TO 2 INCH WASHED

-SEE ROCK/RIP-RAP LINED OF

EROSION CONTRO

MATTING (MIRAFI

R APPROVED

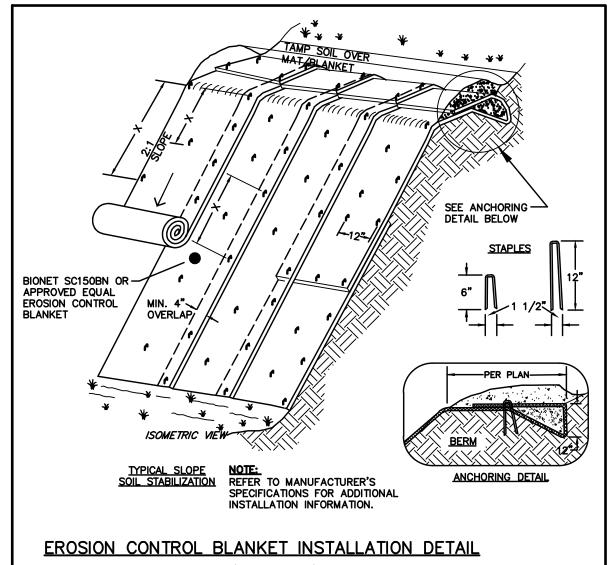
MANUFACTURERS

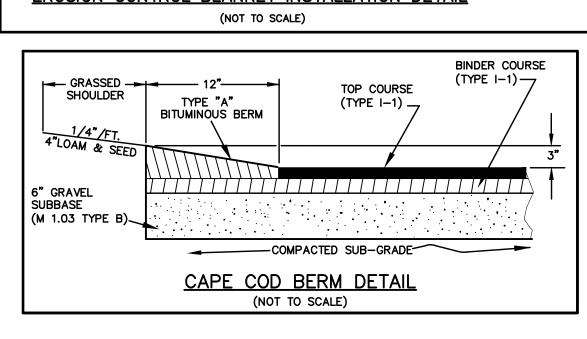
SPECIFICATIONS

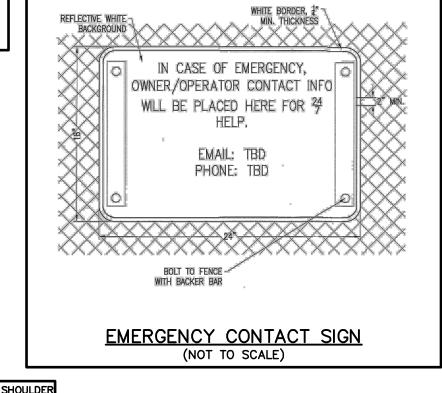
EQUAL) TO BE INSTALLED PER

GRASS SWALE DETAIL

TIE INTO EXISTING GRADE -







- FOR INFORMATION ONLY -

(MHD SPEC. M1.01.0)

DETECTABLE WARNING TAPE

FINAL NUMBER AND SIZE PER ELEC. DRAWINGS

-BASE SPACER (TYP.)

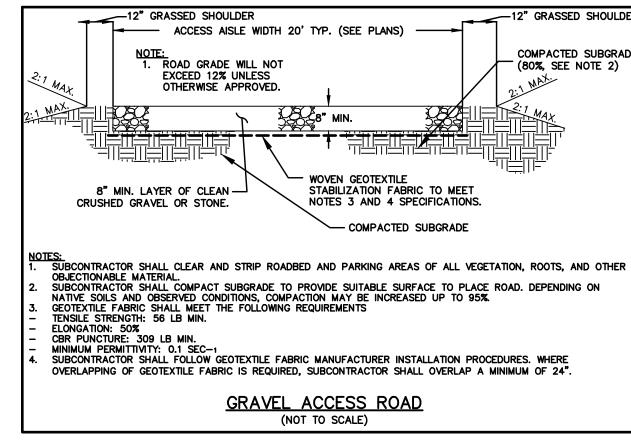
*ALL TRENCH CONDUITS SHALL BE SCHEDULE 40 PVC, UNLESS OTHERWISE NOTED OR ALLOWED BY UTILITY COMPANY

CONTACT UTILITY COMPANY AND REFER TO PLANS

BY OTHERS FOR SPECIFIC DETAIL FOR THIS SITE.

TYPICAL UTILITY TRENCH DETAIL

FINISHED TRENCH SURFACE



GALVANIZED CHAIN LINK FENCE

POSTS-

GALVANIZED

AND RAILS

TENSION

STRETCHER <

TENSION 9 GAUGE 2" MESH

2-1/2" SS20 CORNER POST OR

TERMINAL POST -

BAR BANDS AT

SLOPE TOP OF

FOOTING TO DRAIN -

GATE WITH LATCH ROD.

ONLY SINGLE GATE IS REQUIRED, REPLACE LATCH

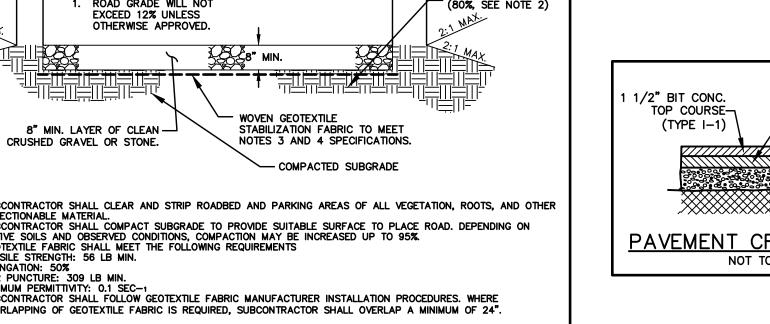
ROD WITH STANDARD GATE

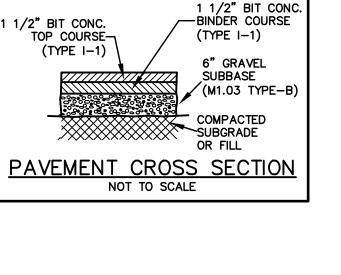
POST 4" NOMOD STEEL OR

EQUAL AND FOOTING TO

CHAIN LINK FENCE DETAIL (GALVANIZED)

12" INTERVALS —





EXISTING PAVEMENT PLAN VIEW (MIN.) PAVEMENT FILTER -**FABRIC** -MOUNTABLE BERM - 3" CRUSHED STONE NOTES: 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:- IT 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.

<u>EROSION CONTROL NOTES:</u>

MAINTAIN THROUGHOUT CONSTRUCTION.

- PRIOR TO COMMENCING SITE WORK OR EARTHWORK OPERATIONS, INSTALL EROSION CONTROL BARRIERS AT DOWN GRADIENT LIMITS OF WORK AND AT INTERIM LOCATIONS WITHIN ARRAY AS SHOWN ON THE SITE PLANS TO BE
- ALL DISTURBED AREAS SHALL BE LOAMED AND SEEDED IMMEDIATELY UPON
- 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 SEDIMENTATION CONTROL DEVICES AND EROSION
- SEDIMENTATION CONTROL DEVICES AND EROSION CONTROL BARRIERS SHALL BE

50% AND SHALL BE SEEDED OR STABILIZED IF LEFT UNDISTURBED FOR TWO

- INSPECTED WEEKLY AND MAINTAINED AS NECESSARY THROUGHOUT ALL PHASES OF CONSTRUCTION AND PROMPTLY AFTER EACH RAINFALL.
- ANY SLOPE STEEPER AND 3:1 SHALL BE EQUIPPED WITH SLOPE STABILIZATION FABRIC OR EROSION CONTROL MATTING. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTITUTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE ENGINEER AND/OR THE TOWN.
- DEVELOP WITHIN A PERIOD OF ONE YEAR AT NO ADDITIONAL EXPENSE TO THE

THE CONTRACTOR MUST REPAIR OR RE-SEED ANY AREAS THAT DO NOT

- . MATERIAL STOCKPILES SHALL NOT BE LOCATED WITHIN THE PATH OF EXISTING 2. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS SHOWN AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES THAT MAY BE FOUND IN THE OR PROPOSED WATERCOURSES (BOTH TEMPORARY OR PERMANENT) OR THOSE AREAS SUBJECT TO STORM WATER FLOW.
- SEDIMENT CONTROL DEVICES AND EROSION CONTROL BARRIERS MAY BE 3. CONTRACTOR SHALL VERIFY ALL CRITICAL ELEVATIONS AND INVERTS PRIOR TO CONSTRUCTION. O. 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.
- THE CONTRACTOR SHALL KEEP ON SITE AT ALL TIMES EXTRA SEDIMENTATION CONTROL DEVICES AND EROSION CONTROL BARRIERS FOR INSTALLATION AT THE DIRECTION OF THE ENGINEERS OR THE TOWN TO MITIGATE ANY
- 13. REFER TO CONSTRUCTION DETAILS FOR ADDITIONAL EROSION CONTROL 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. SEE

DUST CONTROL NOTES:

- THE CONTRACTOR SHALL TAKE STEPS TO MINIMIZE THE AMOUNT OF DUST GENERATED ON THE SITE AND ENSURE THE SITE IS IN CONFORMANCE WITH THE DEP AIR POLLUTION CONTROL REGULATIONS
- 2. DUST CONTROL MEASURES SHOULD BE IMPLEMENTED AS NEEDED DURING ALL SITE GRADING ACTIVITIES AND PARTICULARLY DURING
- 3. WATER SHALL BE APPLIED UNTIL THE SURFACE IS WET AND REPEAT AS NEEDED. WATER SHALL BE APPLIED AT RATES SO THAT RUNOFF, CHANNELING, OR EROSION DOES NOT OCCUR.
- 4. OTHER POTENTIAL WETTING AND/OR DUST CONTROL AGENTS MAY BE PROPOSED FOR USE BY THE CONTRACTOR AND MUST BE APPROVED BY THE TOWN PRIOR TO USE ON SITE.
- 5. WHEEL AND TRUCK WASHES SHALL BE USED AT SITE EGRESSES AS
- 6. ALL TRUCKS LEAVING THE SITE WHICH HAVE BEEN LOADED WITH SOIL
- WITH APPLICABLE REGULATIONS. 7. ALL PAVED SURFACES AND ROADWAYS (WITHIN 500 FEET OF THE 15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ADEQUATE SITE) ON WHICH EQUIPMENT AND TRUCK TRAFFIC ENTER AND LEAVE
- 8. WIND SCREENS, WIND FENCES, SILT FENCE OR SIMILAR BARRIERS SHALL BE IMPLEMENTED AS NEEDED AND PLACED AT INTERVALS OF ABOUT 10 TO 15 TIMES THE BARRIER HEIGHT.
- 9. ALL CLEARING, GRADING, EARTHMOVING, AND EXCAVATING ACTIVITIES SHALL BE SUSPENDED DURING PERIODS OF SUSTAINED STRONG WINDS (HOURLY AVERAGE WIND SPEEDS OF 25 MPH OR GREATER).

STABILIZATION DEADLINES

- (IN ACCORDANCE WITH THE EPA 2022 CONSTRUCTION GENERAL PERMIT) INITIATE THE INSTALLATION OF STABILIZATION MEASURES IMMEDIATELY SCHEDULE:
- PERATION AND MAINTENANCE:
- IN ANY AREAS OF EXPOSED SOIL WHERE CONSTRUCTION ACTIVITIES

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 IN ANY AREAS OF EXPOSED SOIL WHERE CONSTRUCTION ACTIVITY AND ACTIVITY ACTIVITY ACTIVITY ACTIVITY ACTIVITY ACTIVITY ACTIVITY AC
- AS PRACTICABLE, BUT NO LATER THAN 14 CALENDAR DAYS AFTERSHOULD 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 STABILIZATION HAS BEEN INITIATED.
- IF DISTURBANCE IS MORE THAN 5 ACRES AT A TIME:
- PAD SHOULD BE TOP DRESSED WITH NEW STONE OR COMPLETE THE INSTALLATION OF STABILIZATION MEASURES AS SOONEROSION CONTROL BARRIERS:

AFTER STABILIZATION HAS BEEN INITIATED. **CONSTRUCTION NOTES:**

- 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.
- 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.
- 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.
- 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. ALL BUILDINGS, SURFACE, AND SUBSURFACE IMPROVEMENTS ON AREAS ADJACENT TO THE SITE ARE NOT NECESSARILY SHOWN HEREON.
- 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
- STONE INFILTRATION TRENCH: 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.

EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

- ACCORDANCE WITH THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES AND MASSACHUSETTS HIGHWAY DEPARTMENT REQUIREMENTS FOR ALL WORK WITHIN PUBLIC STREETS.
- CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES, INCLUDING WATER TRUCKS THROUGHOUT CONSTRUCTION UNTIL PAVING IS COMPLETED AND ALL SURFACES ARE STABILIZED. DUST CONTROL ADDITIVES SUCH AS CALCIUM CHLORIDE OR SODIUM CHLORIDE SHALL BE USED ONLY WITH PERMISSION
- 12. 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.
- 13. 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
- OR DUST-PRODUCING MATERIAL SHALL BE TARPED IN ACCORDANCE 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL SURVEY CONTROL POINTS AND BENCHMARKS NECESSARY FOR THE PROPOSED WORK.
- RECORDS OF THE LOCATION AND ELEVATION OF ALL WORK INSTALLED. THE CONSTRUCTION AREA SHALL BE SWEPT AND/OR WATERED AS 16. THE CONTRACTOR SHALL INSTITUTE AND MAINTAIN ALL SAFETY MEASURES NEEDED.

 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.

- 17. 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. 18. 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.
- 19. CONTRACTOR TO DESIGNATE A SPECIFIC AREA FOR COMBUSTIBLE MATERIALS, APPROVED BY THE FIRE DEPARTMENT, SO THAT COMBUSTIBLES ARE NOT SPREAD THROUGHOUT THE CONSTRUCTION SITE.
- 20. EXISTING TOP SOIL IS TO BE RETAINED, STOCKPILED AND SCREENED FOR

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 DISPOSED OF IN A SUITABLE AREA AND PROTECTED FROM EROSION BY EITHER STRUCTURAL OR VEGETATIVE MEANS.

CONSTRUCTION PERIOD STORMWATER

- GRASSED SWALES WITH CHECK-DAMS: 2022 CGP) AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIR ERODED SPOTS IMMEDIATELY AFTER INSPECTION. ADDITIONAL INSPECTIONS SHOULD BE MONTHS TO ENSURE THAT 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 8. INSTALL CONSTRUCTION ENTRANCE PAD AND SUBSURFACE DRAINAGE
- DEEP SUMP HOODED CATCH BASINS: INSPECT MONTHLY (MINIMUM), OR AFTER MAJOR STORM EVENTS EXCESSIVE ACCUMULATION OF SEDIMENT, SAND, REPLICATION AREAS AND STORMWATER BASINS. OR PIPES AND OR TRASH. CLEAN SUMPS WHEN SEDIMENT REACHES FOLLOWING CONSTRUCTION, THE CATCH BASIN SHOULD INSPECTED FOUR TIMES A YEAR. ALL CATCH BASINS SHALL BE IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY DIGSAFE, THE TOWN OF PROVIDED WITH PRE-MANUFACTURED "SILT-BAG" CATCH BASIN INLET

SEDIMENT COLLECTION SYSTEMS UNTIL BASE COURSE IS IN PLACE.

- ALL CATCH BASINS SHALL BE PROVIDED WITH INLET PROTECTION 12. INSTALL AND COMPACT GRAVEL ACCESS ROAD AND INTERIOR SITE CONSISTING OF PRE-MANUFACTURED "SILT-SACKS" CATCH BASIN INLET SEDIMENT COLLECTION SYSTEMS UNTIL PAVEMENT BASE COURS! IS IN PLACE AND THE CONTRIBUTING DRAINAGE AREA TO THE INLET 13. PREPARE CONTRACTOR STAGING/LAYDOWN AREA FOR TEMPORARY IS STABILIZED. INSPECT THE INLET PROTECTION DEVICE WEEKLY AT A PARKING, STORAGE, WHEEL WASH AREA, CONCRETE WASH-OUT, AND 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 14. STUMPS ARE TO BE GROUND WHERE NECESSARY AND USED FOR WOOD DECOMPOSITION REACHES THE REMOVAL DEPTH PER MANUFACTURER
- 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 17. USE DISKS, TILLERS, OR HARROWS TO BREAK UP THE SURFACE WHERE 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 NECESSARY DURING CONSTRUCTION, WHILE THE SYSTEM IS DRY.
- 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 EXCESSIVE OUTLET VELOCITIES. CHECK FOR ACCUMULATION OF SEDIMENT AND PONDING OF WATER. IF PONDING WATER AROVE THE OUTLET PIPES IS VISIBLE INSIDE THE BASIN FOR SEVERAL DAYS AFTER A STORM EVENT. NOTIFY TH ENGINEER FOR POSSIBLE REMEDIAL MEASURES. MOW THE BERM AT THE COMPLETION OF THE CONSTRUCTION PERIOD. REMOVE SEDIMENT WHILE THE SYSTEM IS DRY.

DETENTION BASINS:

- 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 20. ONCE SITE CONSTRUCTION IS COMPLETE, PERMANENT SEEDING WILL BE CONSTRUCTION, IMMEDIATELY PRIOR TO TURNING OVER OPERATION APPLIED BY BROADCASTING. NO EARTH WILL BE REMOVED FROM THE AND MAINTENANCE RESPONSIBILITY TO THE PROJECT PROPONENT.
- 2. UPON COMPLETION OF CONSTRUCTION, THE OPERATION AND MAINTENANCE OF ALL COMPONENTS OF THE STORMWATER 21. TO ASSURE RAPID STABILIZATION, SUPPLEMENT SEEDING FOR AREAS MANAGEMENT SYSTEM WILL BE THE RESPONSIBILITY OF THE SYSTEM WHERE COVERAGE IS LESS THAN 70% UNIFORM COVER OF VEGETATION.

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- 3. DISPOSAL OF ACCUMULATED SEDIMENT AND HYDROCARBONS TO BE IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL 23. STAKE OUT PIER LOCATION FOR RACKING SYSTEM DRIVEN PIERS. GUIDELINES AND REGULATIONS.
- 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 PROPERLY DISPOSED OF OFF SITE.

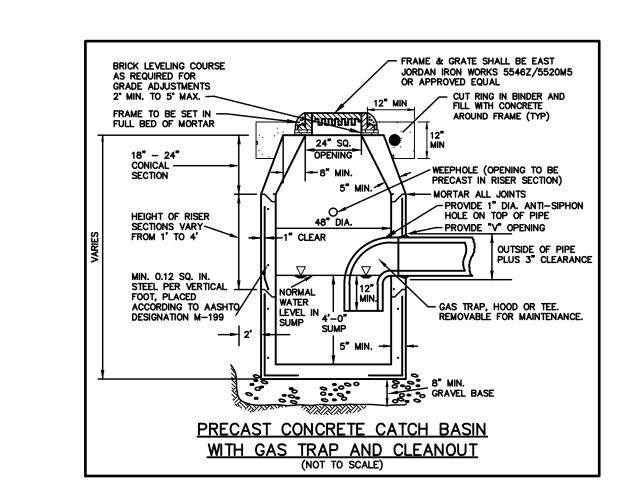
- **CONSTRUCTION SEQUENCE**
- IN CONJUNCTION WITH ANY SEQUENCE TO BE PROVIDED WITHIN STORMWATER POLLUTION PREVENTION PLAN (SWPPP), THE FOLLOWING GENERAL SEQUENCE OF CONSTRUCTION FOR THE SITE WORK IS AS FOLLOWS: ACCESS ROADS, SOLAR FIELD, UNDERGROUND UTILITY LINES, AND
- THE START OF CONSTRUCTION.
- 3. INSTALL EROSION CONTROL BARRIERS AT DOWN GRADIENT LIMITS OF WORK AND AT INTERIM LOCATIONS WITHIN ARRAY AS SHOWN ON THE
- AS PRACTICABLE, BUT NO LATER THAN SEVEN (7) CALENDAR DAYS EROSION CONTROL BARRIERS (HAY BALES, SILT FENCE, ETC.) SHOULD 4. BEGIN CLEARING AND CHIPPING OF VEGETATION. A TEMPORARY ACCESS AFTER STABILIZATION HAS BEEN INITIATED.

 BE INSPECTED IMMEDIATELY AFTER EACH RUN—OFF PRODUCING ROAD WILL BE CLEARED/INSTALLED TO ACCESS PROPOSED BASIN ROAD WILL BE CLEARED/INSTALLED TO ACCESS PROPOSED BASIN LOCATIONS. CLEARING WILL BE LIMITED TO A MANAGEABLE ACREAGE WHILE TEMPORARY SEDIMENT BASINS ARE INSTALLED TO PREVENT
 - SILTATION OF PERMANENT STORMWATER BASINS. 5. STOCKPILE WOOD CHIPS AS NEEDED IN PILES FOR FURTHER USE IN
 - DURING CONSTRUCTION GRASSED LINED SWALES SHALL BE INSPECTED 6. AT THE END OF EACH DAY OF CLEARING OPERATIONS, WALK SITE IMMEDIATELY AFTER MAJOR STORM EVENTS (>0.25 INCHES PER PERIMETER TO REPAIR ANY DAMAGED EROSION CONTROLS OR PERFORM
 - SCHEDULED DURING THE FIRST FEW 7. AT THE END OF EACH DAY, INSPECT ALL TEMPORARY STORMWATER VEGETATION IN THE FACILITIES AND REPAIR ANY DAMAGE AND PERFORM ANY NECESSARY MAINTENANCE.
 - SYSTEM AS SHOWN ON THE SITE PLANS. MAINTAIN SILT SAC IN CATCH BASIN TO PREVENT SILTATION OF THE UNDERGROUND CHAMBER DURING
 - (>0.25" PER THE CGP) DURING CONSTRUCTION FOR CLOGGED GRATES 9. COMPLETE FINAL GRADING OF STORMWATER SWALES, WETLAND
 - BE 10. INSTALL CHECK DAMS AND RIP-RAP APRONS/SPILLWAYS.
 - 11. STABILIZE ALL STORMWATER FACILITIES AND SLOPES WITH LOAM AND SEED AND EROSION CONTROL MEASURES AS REQUIRED.
 - ACCESS ROADS.
 - MOBILE FUELING AREAS.

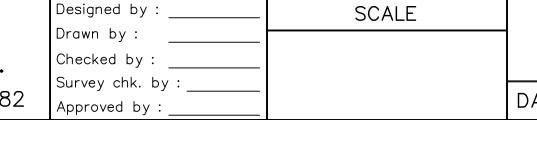
 - 15. GRADING ACTIVITIES SHOULD BE AVOIDED DURING EXTREMELY WET CONDITIONS TO MINIMIZE SOIL COMPACTION, DEEP RUTTING, AND SOIL
 - 16. IF NECESSARY, PROVIDE TEMPORARY PROTECTIVE MEASURES, WHICH MAY INCLUDE BARRIERS AND/OR SILT SACKS UNTIL SITE IS STABILIZED AND VEGETATED. INTERMEDIATE EROSION CONTROLS SHOULD BE INSTALLED PRIOR TO THE INSTALLATION OF THE SOLAR ARRAY RACKING SYSTEM.
 - SOIL HAS BECOME COMPACTED DURING CONSTRUCTION ACTIVITIES IN ORDER TO CREATE VIABLE SEED BEDS.
 - 18. INITIATE THE INSTALLATION OF STABILIZATION MEASURES IMMEDIATELY II ANY AREAS OF EXPOSED SOIL MORE THAN FIVE ACRES WHERE CONSTRUCTION ACTIVITIES HAVE PERMANENTLY CEASED OR WILL BE TEMPORARILY INACTIVE FOR 14 OR MORE CALENDAR DAYS. COMPLETE THE INSTALLATION OF MEASURES AS SOON AS PRACTICABLE, BUT NO LATER THAN (7) CALENDAR DAYS AFTER STABILIZATION HAS BEEN INITIATED. OATS WILL BE USED FOR A SPRING OR SUMMER SEEDING WINTER WHEAT FOR A FALL SEEDING. THIS COVER CROP WILL ESTABLISH QUICKLY, PROVIDING ADDITIONAL EROSION CONTROL THROUGHOUT CONSTRUCTION, ALONG WITH PROTECTION OF FINAL NATIVE VEGETATION
 - 19. WORK INVOLVING FOUNDATION PILE DRIVING AND TRENCHING SHALL BE STAGED TO CONCENTRATE WORK IN PHASES, TO REDUCE SITE DISTURBANCE. SEED AND MULCH ANY DISTURBED AREAS AS THEY ARE

DURING ITS ESTABLISHMENT PERIOD.

- 22. UNLESS DIRECTED OTHERWISE BY THE FRANKLIN CONSERVATION COMMISSION, ONCE THE SITE IS PERMANENTLY STABILIZED AT 70% UNIFORM COVER OF VEGETATION OR MORE, REMOVE ALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES.
- 24. INSTALL UNDERGROUND UTILITIES (ELECTRIC) IN THE AREA OF THE SOLAR FIELD AND EQUIPMENT PADS LEADING TO THE FIRST CUSTOMER OWNED POLE LOCATION.
- 25. INSTALL SOLAR FIELD ARRAY AND ELECTRICAL FACILITIES ON SITE INCLUDING ABOVE-GROUND UTILITY POLES AND WIRING.
- 26. COMPLETE PAVING AND BERM AT ENTRANCE TO SITE.
- 27. STABILIZE ALL DISTURBED AREAS WITH LOAM AND SEED.
- 28. INSTALL PLANTINGS FOR WETLAND REPLICATION AND MITIGATION AREAS AS REQUIRED PER THE GODDARD CONSULTING INC. WETLAND REPLICATION PLAN AND HABITAT RESTORATION PLAN.
- 29. AFTER COMPLETION OF CONSTRUCTION THE SITE WILL BE INSPECTED FOR ANY REMAINING DEBRIS AND, IF FOUND, WILL BE CLEANED AND DISPOSED OF OFF-SITE. INSTALL PERIMETER FENCING, SIGNS, AND GATES.







WIRE FASTENERS AT **18"** INTERVALS

FASTENERS

2" MESH

GALVANIZED

1 **%**" SS20

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01/08/24 PEER REVIEW COMMENTS BJR | 12/13/23 | PEER REVIEW/TOWN COMMENTS BSK | 11/10/23 | PEER REVIEW/TOWN COMMENTS BY DATE REVISION

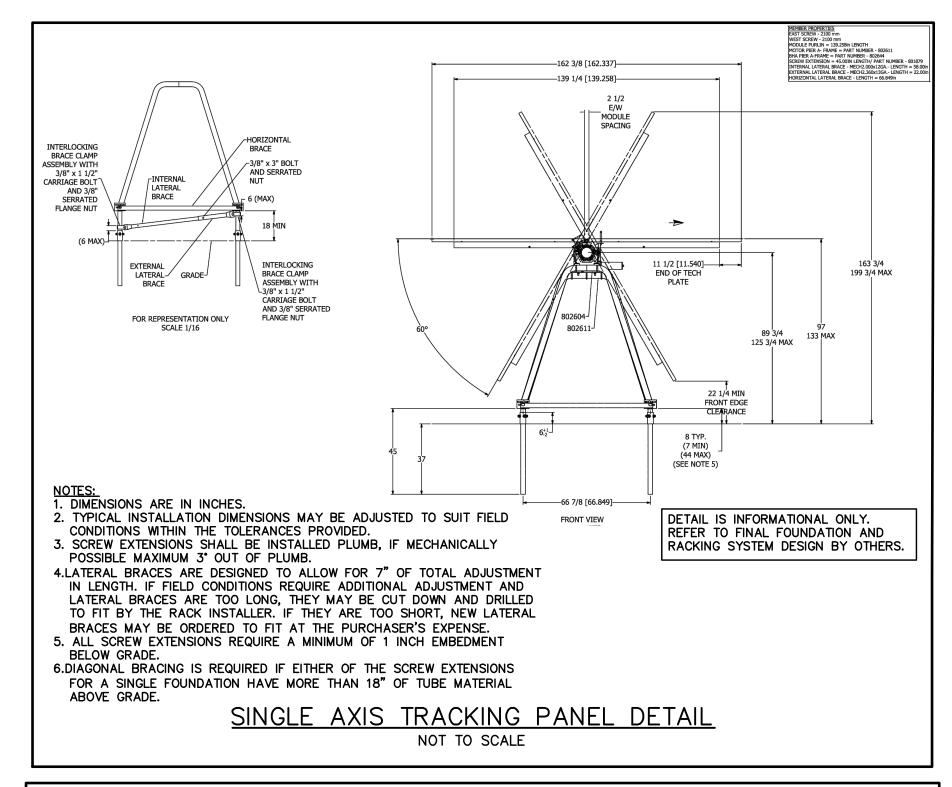
STABILIZED CONSTRUCTION ENTRANCE DETAIL NOT TO SCALE

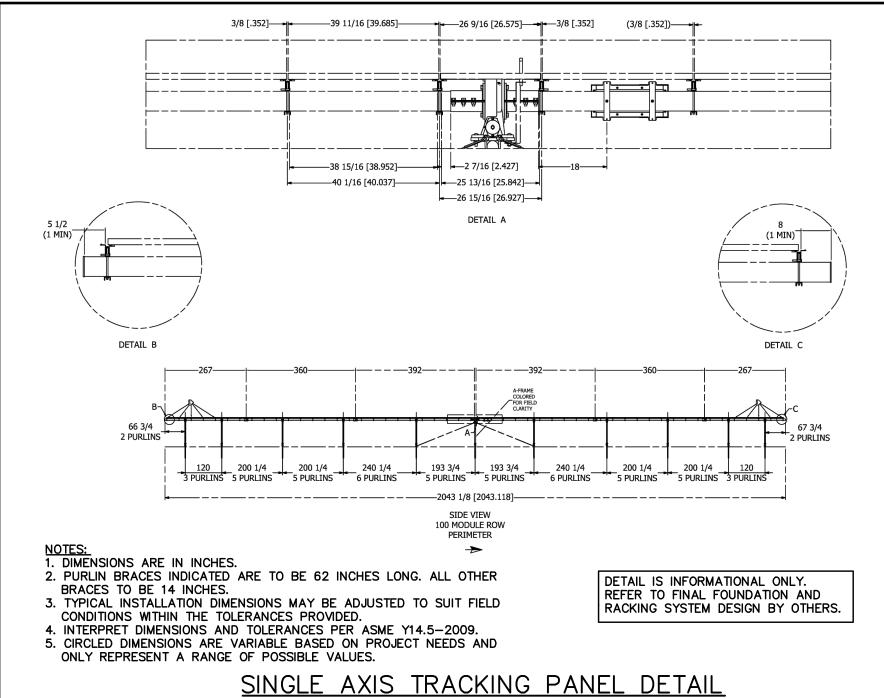
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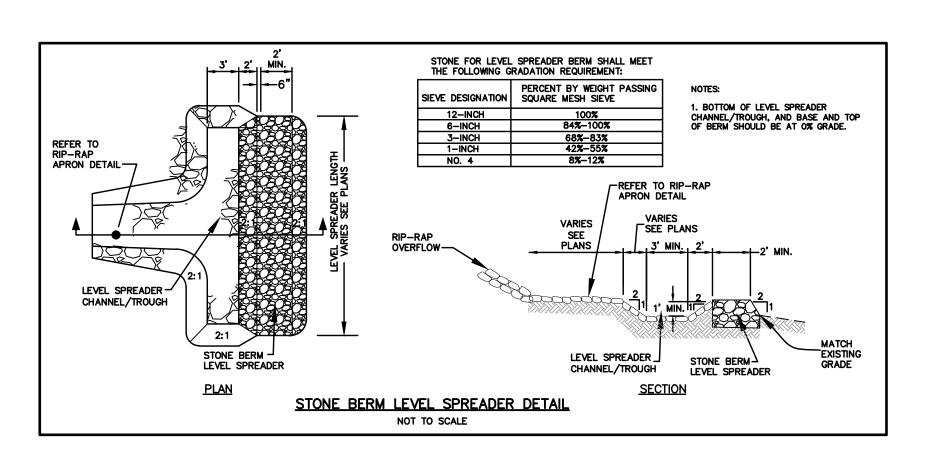
DETAILS UPPER UNION SOLAR PROJECT JUNE 19, 2023 FRANKLIN, MA

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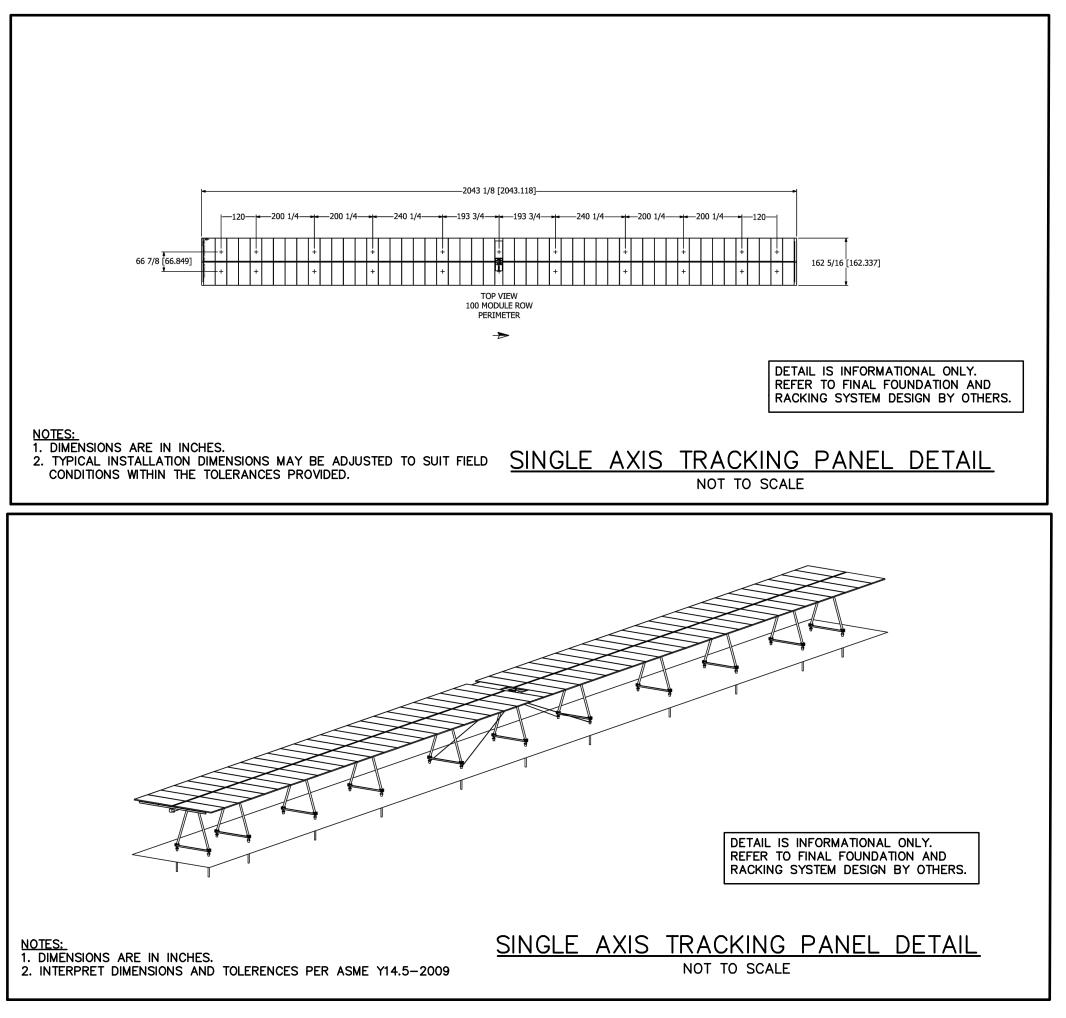
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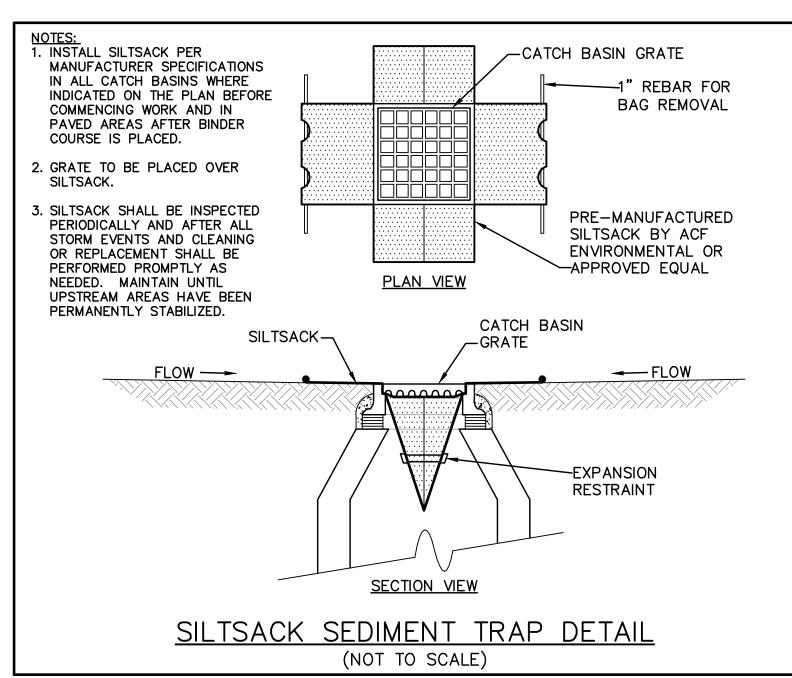


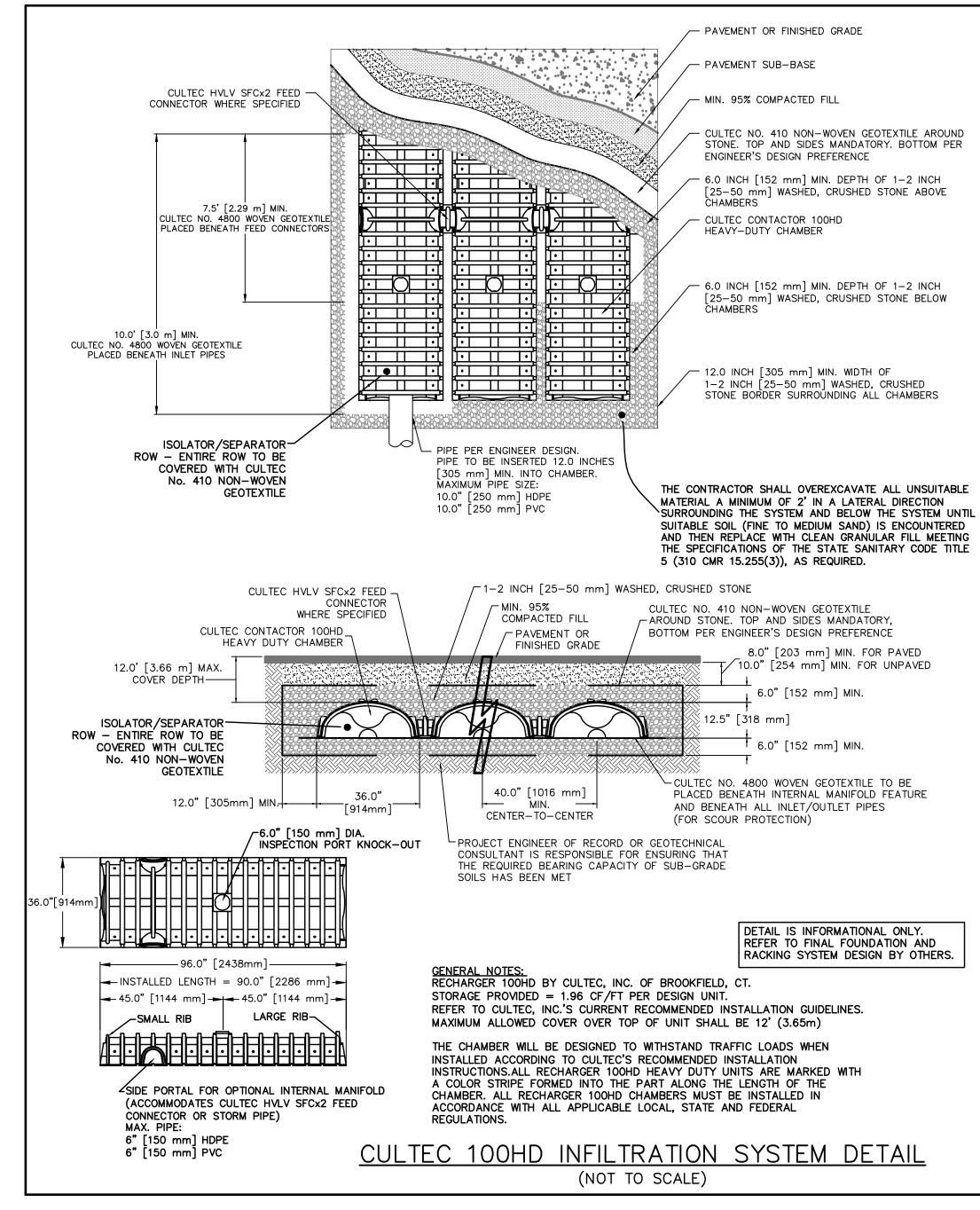


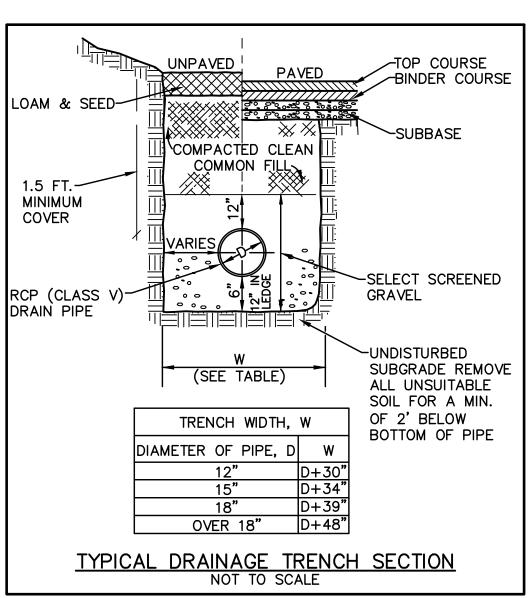


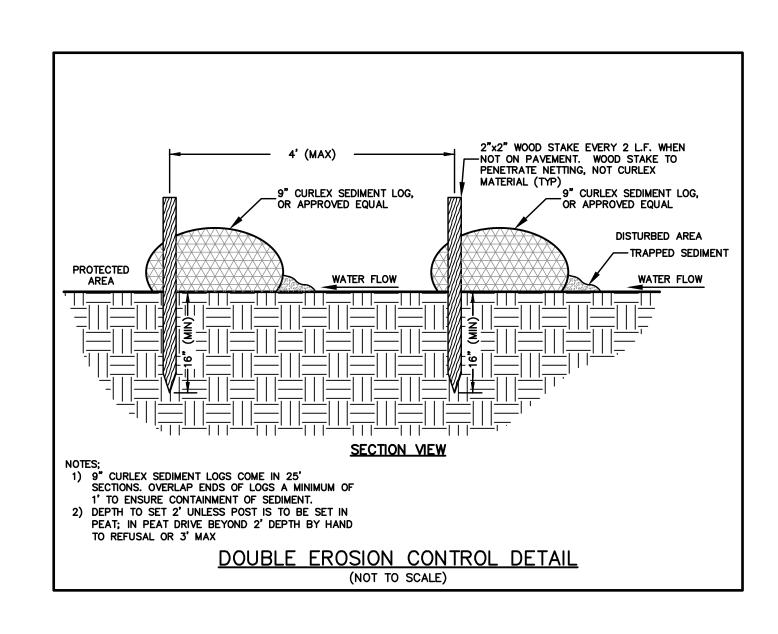
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APPLICANT:
VS UNION SOLAR SMART, LLC
24941 DANA POINT HARBOR
DANA POINT, CA 92629

DETAILS
FOR

UPPER UNION SOLAR PROJECT
JUNE 19, 2023
FRANKLIN, MA

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JOB NUMBER 3328.00

FILE: 3328-DETAIL-REV3

TEST PIT #1

Estimated Depth to High Groundwater Mottles @74"

	SOIL LOG							
Depth (in)	Soil Horizon/	Soil Texture	Soil Color	Mottles	Other			
	Layer		(Munsell)		(Structure, Stones, Boulders, Consistency, % Gravel)			
0-8	O/A	Sandy Loam	10YR 3/2					
8-34	В	Sandy Loam	10YR 5/6					
34-108	C	Loamy Sand	2.5Y 5/2	74"				

TEST PIT #2

Estimated Depth to High Groundwater Mottles @ 70"

	SOIL LOG							
Depth (in)	Soil Horizon/	Soil Texture	Soil Color	Mottles	Other			
Layer			(Munsell)		(Structure, Stones, Boulders, Consistency, % Gravel)			
0-8	O/A	Sandy Loam	10YR 3/2					
8-32	B	Sandy Loam	10YR 5/6					
32-94	C	Loamy Sand	2.5Y 5/2	70"	Refusal			

TEST PIT #3

Estimated Depth to High Groundwater Mottles @60"

	SOIL LOG							
Depth (in)	Soil Horizon/	Soil Texture	Soil Color	Mottles	Other			
	Layer		(Munsell)		(Structure, Stones, Boulders, Consistency, % Gravel)			
0-12	O/A	Sandy Loam	10YR 3/2					
12-38	В	Sandy Loam	10YR 5/6					
38-56	C1	Loamy Sand	2.5Y 5/2					
56-74	C2d	Sandy Loam	2.5Y 5/3	60"				
74-122	C3	Medium	2.5Y 5/4					
		Coarse Sand						

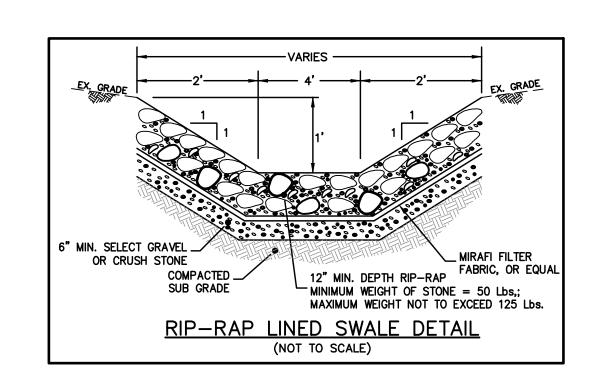
TEST PIT #4
Estimated Depth to High Groundwater Mottles @50"

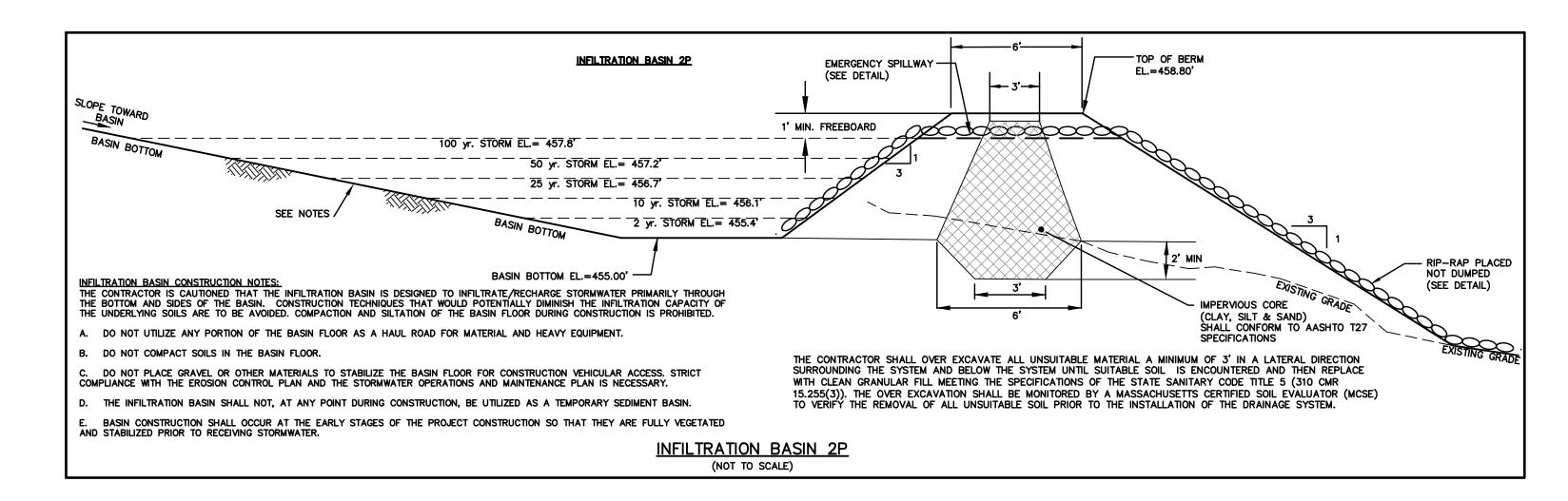
	SOIL LOG							
Depth (in) Soil Horizon/ Soil Texture Soil Color Mottles Other								
	Layer		(Munsell)	(Structure, Stones, Boulders, Consistency, % Gravel)				
0-10	O/A	Sandy Loam	10YR 3/2					
10-32	В	Sandy Loam	10YR 5/8					
32-76	C	Loamy Sand	2.5Y 5/6	50"				

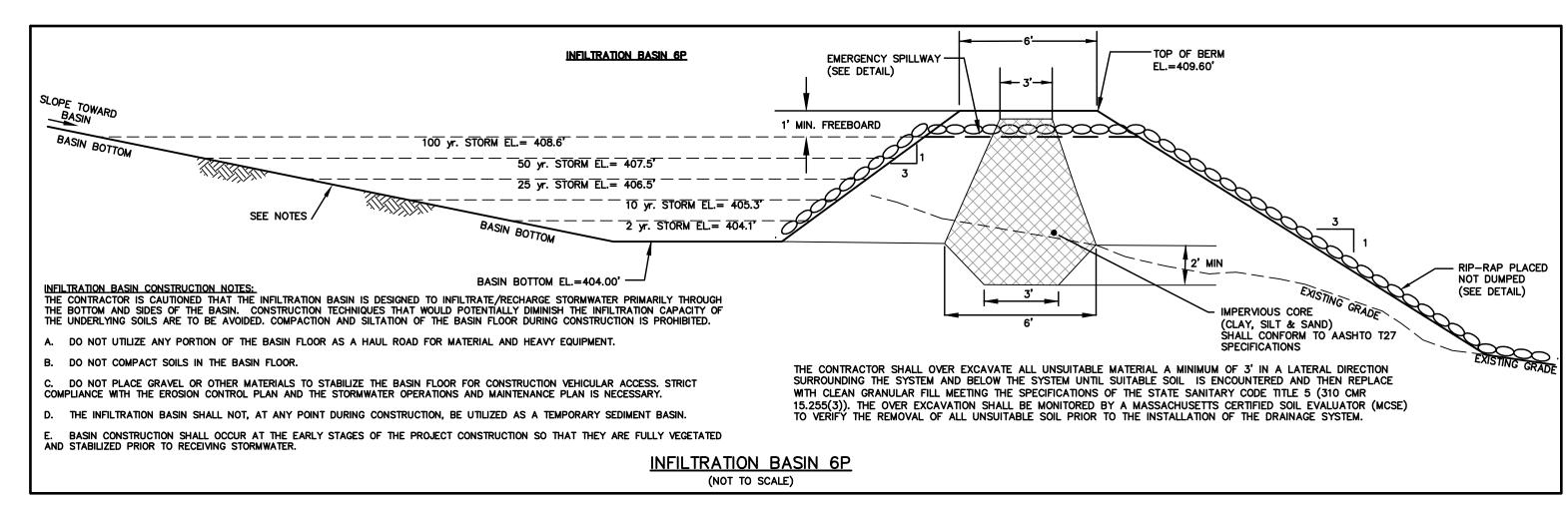
TEST PIT #5

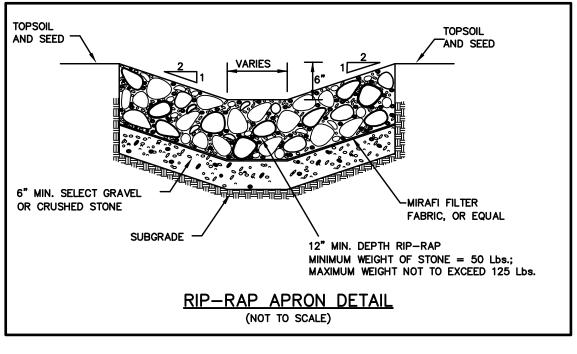
Estimated Depth to High Groundwater Mottles @40"

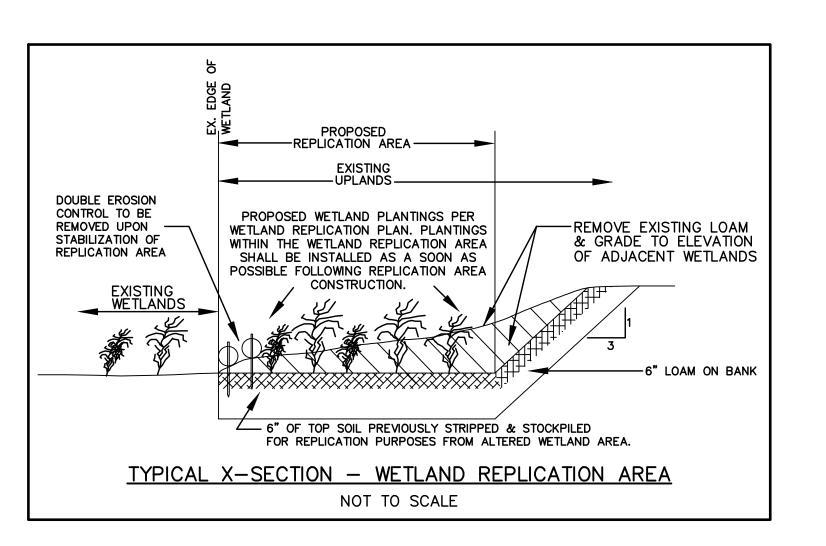
REFE	SOIL LOG								
Depth (in)	Depth (in) Soil Horizon/ Soil Texture Soil Color Mottles Other								
	Layer		(Munsell)		(Structure, Stones, Boulders, Consistency, % Gravel)				
0-8	O/A	Sandy Loam	10YR 3/2						
8-34	В	Sandy Loam	10YR-5/8						
34-84	C	Loamy Sand	2.5Y 5/6	40"	Refusal				

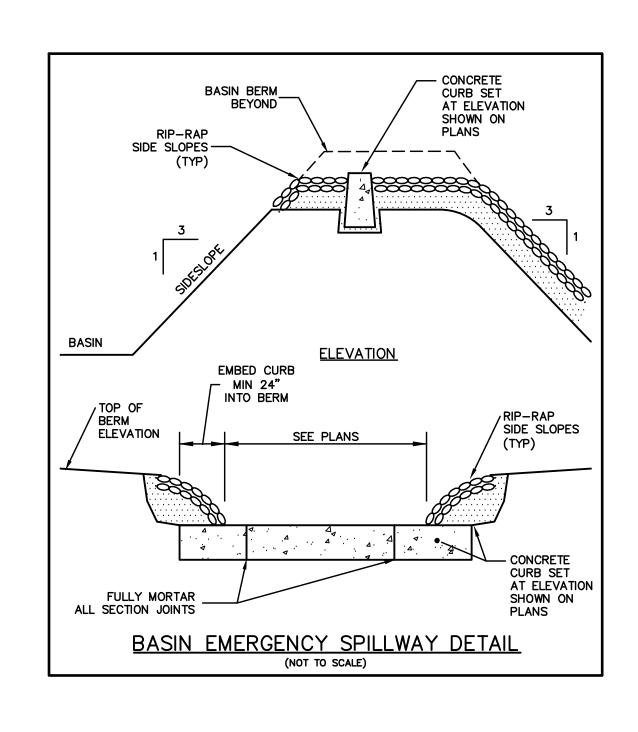












AFI	■ ■	ENGINEERS, INC. (508) 888 - 9282
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P.O. Box 1051, San	idwich, MA 02563	(508) 888 - 9282

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Drawn by :		
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Approved by:		DA

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

DETAILS UPPER UNION SOLAR PROJECT JUNE 19, 2023 FRANKLÍN, MA

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