





PROFILE LEGEND

GENERAL NOTES:

PHYSICAL FEATURES OUTSIDE OF THE SITE HAVE NOT BEEN COMPLETELY SHOWN.

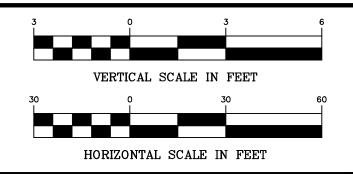
OCEAN CITY

- 2. HORIZONTAL DATUM IS THE NEW JERSEY STATE PLANE COORDINATE SYSTEM, NORTH AMERICAN DATUM OF 1983, (N.J.S.P.C.S., NAD 83). VERTICAL DATUM IS THE NORTH AMERICAN VERTICAL DATUM OF 1988
- (NAVD 88). 3. DATUMS WERE ESTABLISHED ON SITE USING GPS OBSERVATIONS.
- THE FIELD SURVEY WAS CONDUCTED ON FEBRUARY 25, 2016 BY ACT ENGINEERS, INC.
- 5. GRADING OF EXCESS MATERIAL AS A RESULT OF EXCAVATION FOR THE PROPOSED PATH MUST NOT INHIBIT POSITIVE DRAINAGE IN THE AREAS IDENTIFIED FOR PLACEMENT.

REFERENCE NOTES:

AERIAL IMAGE OBTAINED VIA NEARMAP, DATED 2/14/23.

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JEFFREY S. RICHTER NEW JERSEY PROFESSIONAL ENGINEER LIC. NO. 24GE03252000



NEW JERSEY CERTIFICATE of AUTHORIZATION No. 24GA27936900

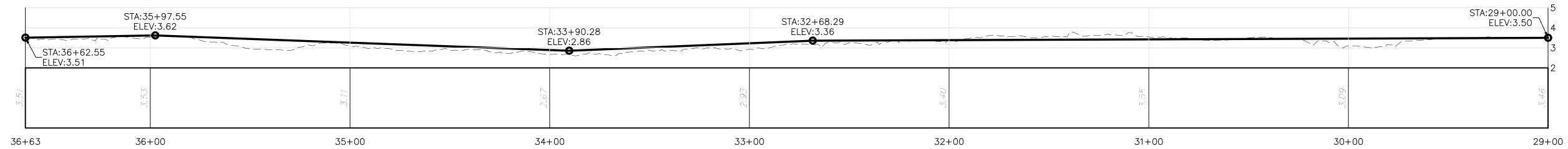
STA 20+00 TO 29+00 WEST 52ND STREET TRAIL IMPROVEMENTS

TRAIL IMPROVEMENT PLAN

SITUATED IN CAPE MAY COUNTY NEW JERSEY

1"=3' DATE ACT ENGINEERS, INC. 4 OF 9





GENERAL NOTES:

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- (NAVD 88).

 3. DATUMS WERE ESTABLISHED ON SITE USING GPS OBSERVATIONS.

OCEAN CITY

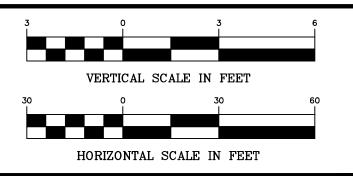
- 4. THE FIELD SURVEY WAS CONDUCTED ON FEBRUARY 25, 2016 BY ACT ENGINEERS, INC.
- GRADING OF EXCESS MATERIAL AS A RESULT OF EXCAVATION FOR THE PROPOSED PATH MUST NOT INHIBIT POSITIVE DRAINAGE IN THE AREAS IDENTIFIED FOR PLACEMENT.

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NEW JERSEY

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NO.	DATE	REVISION	DRAWN	CHK	REL	







NEW JERSEY CERTIFICATE of AUTHORIZATION No. 24GA27936900

TRAIL IMPROVEMENT PLAN				
STA 29+00 TO 36+63				
WEST 52ND STREET TRAIL IMPROVEMENTS				

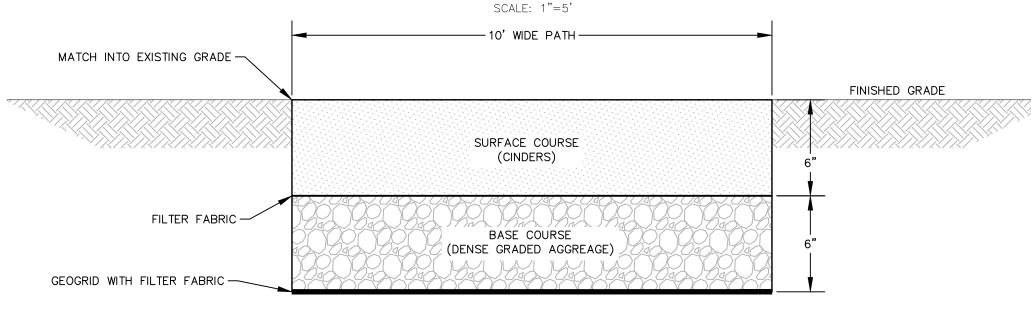
CAPE MAY COUNTY

52ND STREET TRAIL IMPROVEMENT

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		F-SITE	1507	09-23
D	RAWN BY	<i>(</i>	CHECKED	BY
		MSG		J
S	CALE	1"=3' 1"=30'	DATE	
		1"=30'	2	2/20/2
	ACT	ENGIN	IEERS	, INC.
		SH	EET	
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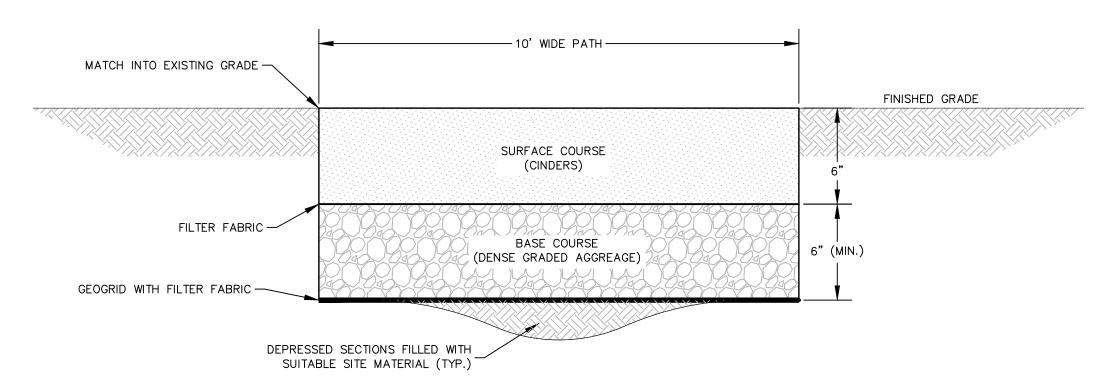
TYPICAL TRAIL CROSS—SECTION

(STATION 35+74 CROSS-SECTION)



TYPICAL TRAIL CROSS—SECTION

SCALE: NO SCALE



TYPICAL DEPRESSED TRAIL CROSS—SECTION

3/4" MARINE PLYWOOD-

2" X 4" SUPPORT-

CONCRETE FOOTING-

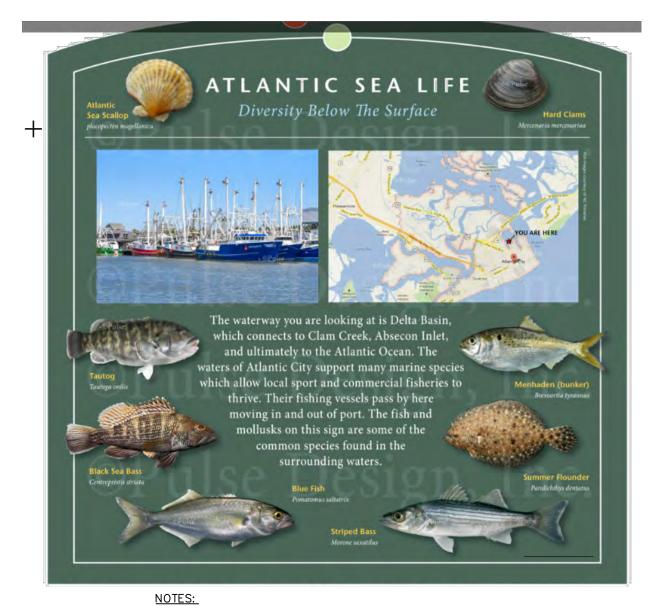
PROPOSED GRADE-

2" X 4" FRAME-

4" X 4" POST-

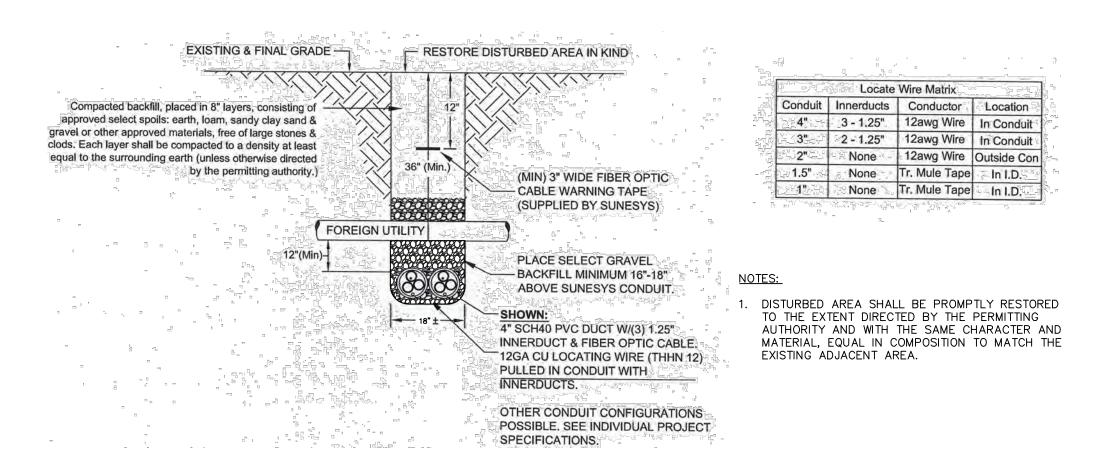
◄──1'-6" ──

SIGN SECTION



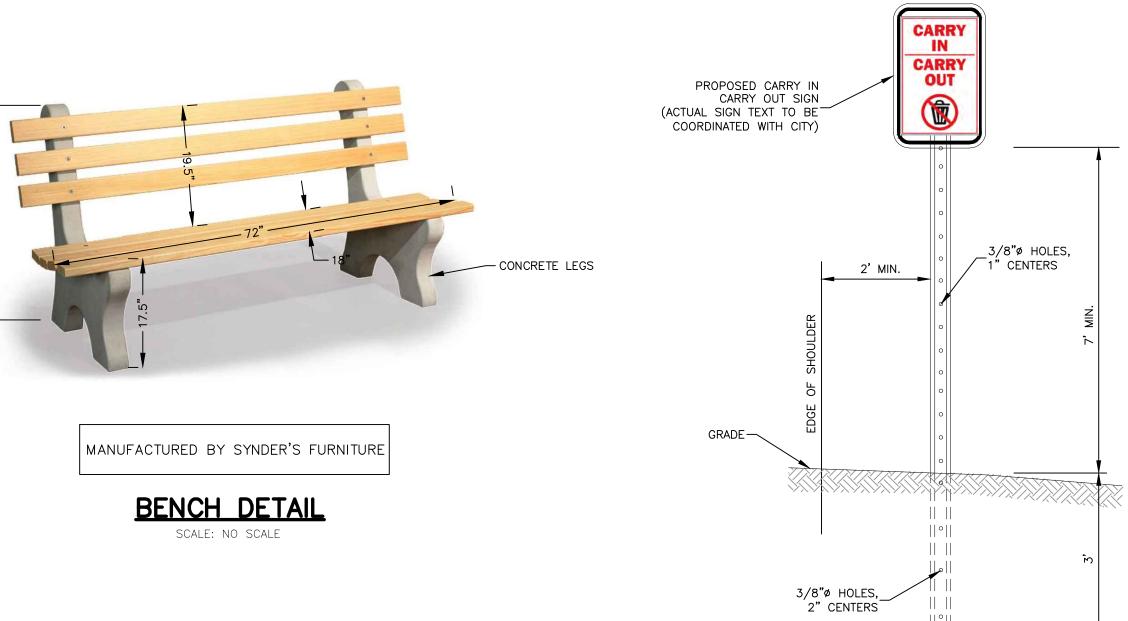
1. FINAL SIGN IMAGERY TO BE COORDINATED WITH CITY.

INTERPRETIVE SIGN IMAGERY (TYP.)

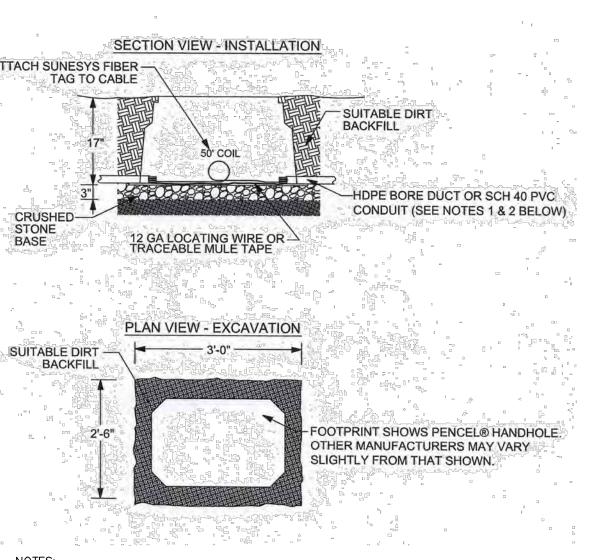


TRENCH DETAIL - UNPAVED W/ 4" SCH40 PVC CONDUCT

SCALE: NO SCALE

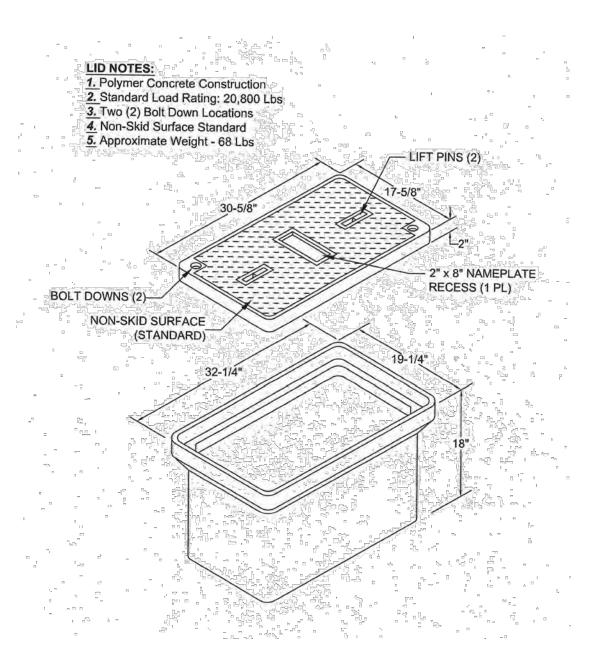


SIGN MOUNTING DETAIL

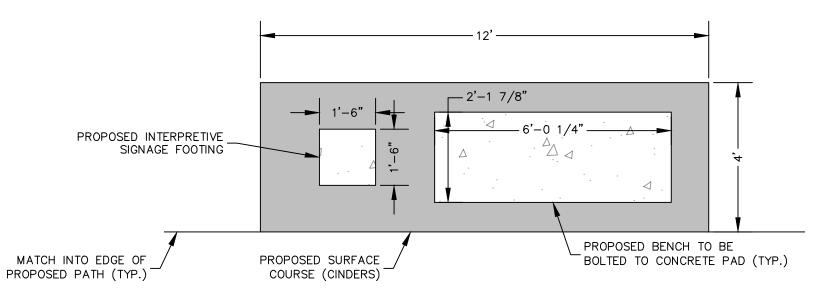


1. ALL CONDUIT/DUCT SHALL ENTER THE HANDHOLE IN A HORIZONTAL OR LEVEL MANNER

TYPICAL 17 X 30 HANDHOLE INSTALLATION



TYPICAL 17 X 30 HANDHOLE DETAIL



REST & NATURE OBSERVATION AREA DETAIL

NEW JERSEY

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		1			

INTERPRETIVE SIGN DETAIL SCALE: NO SCALE

1/4" CLEAR PLEXIGLASS W/ PRE-DRILLED HOLES

1/4" CLEAR PLEXIGLASS-

BRASS SCREWS—\ •

• • •

PLEXIGLASS COVER

1'-8"

FRAME PLAN

Voice (609) 918-0200 ENGINEERS, INC IVIL ENGINEERING 📋 LAND SURVEYING 📋 ENVIRONMENTAL PERMITTIN NEW JERSEY CERTIFICATE of AUTHORIZATION No. 24GA27936900



CONSTRUCTION DETAILS

OCEAN CITY

WEST 52ND STREET TRAIL IMPROVEMENTS SITUATED IN

CAPE MAY COUNTY

AS NOTED ACT ENGINEERS, INC 6 OF 9

JEFFREY S. RICHTER

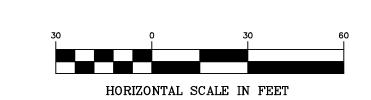
-3/4" MARINE PLYWOOD





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JEFFREY S. RICHTER

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OCEAN CITY

WASHINGTON BOULEVARD

VIL ENGINEERING 🗖 LAND SURVEYING 📮 ENVIRONMENTAL PERMITTING

NEW JERSEY CERTIFICATE of AUTHORIZATION No. 24GA27936900

THE FIELD SURVEY WAS CONDUCTED ON FEBRUARY 25, 2016 BY ACT ENGINEERS, INC.

REFERENCE NOTES:

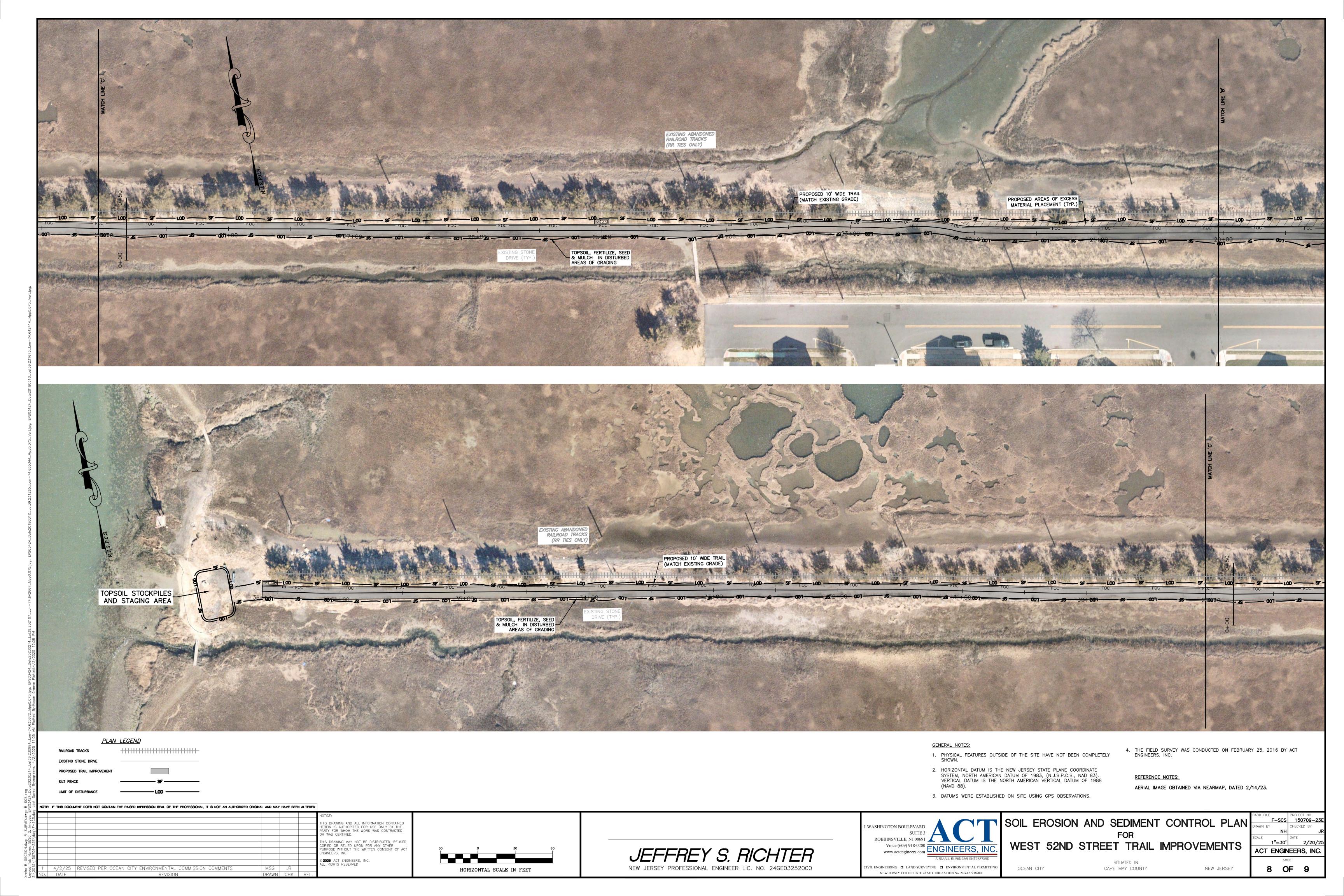
AERIAL IMAGE OBTAINED VIA NEARMAP, DATED 2/14/23.

SOIL EROSION AND SEDIMENT CONTROL PLAN

WEST 52ND STREET TRAIL IMPROVEMENTS

ACT ENGINEERS, INC. NEW JERSEY

SITUATED IN CAPE MAY COUNTY 7 OF 9



STABILIZATION MEASURES

1. PERMANENT VEGETATIVE COVER

SITE PREPARATION

- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDED PREPARATION. SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
- B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING.
- C. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD
- D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

SEEDBED PREPARATION

- A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED. ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE—HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.
- B. WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
- C. HIGH ACID PRODUCING SOIL. SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDBED REPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID-PRODUCING SOILS FOR SPECIFIC REQUIREMENTS.

SEEDING

- A. SELECT A MIXTURE FROM THE TABLE BELOW OR USE A MIXTURE RECOMMENDED BY RUTGERS COOPERATIVE EXTENSION OR NATURAL RESOURCES CONSERVATION SERVICE WHICH IS APPROVED BY THE SOIL CONSERVATION DISTRICT. SEED GERMINATION SHALL HAVE BEEN TESTED WITHIN 12 MONTHS OF THE PLANTING DATE. NO SEED SHALL BE ACCEPTED WITH A GERMINATION TEST DATE MORE THAN 12 MONTHS OLD UNLESS RETESTED.
- 1. SEEDING RATES SPECIFIED ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN RATES MAYBE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO A REPORT OF COMPLIANCE INSPECTION. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVERAGE WITH THE SPECIFIED SEED MIXTURE FOR THE SEEDED AREA AND MOWED ONCE
- B. CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE-TEXTURED SOIL.
- C. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED—TO—SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.
- D. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK, OR TRAILER-MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND PRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT-FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. WHEN POOR SEED TO SOIL CONTACT OCCURS, THERE IS A REDUCED SEED GERMINATION AND GROWTH.

SEEDING RATES AND DATES

NORMAL MIX (3/1-4/30 & 8/15-11/15)

PERENNIAL RYEGRASS KENTUCKY BLUEGRASS TALL FESCUE (TURF-TYPE) SEEDING RATE: 200 LBS./ACRE. SHADY MIX (3/1-4/30 & 8/15-11/15)

CREEPING RED FESCUE CHEWINGS FESCUE PERENNIAL RYEGRASS TALL FESCUE

2. TEMPORARY VEGETATIVE COVER

SITE PREPARATION

- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
- B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
- IMMEDIATELY PRIOR TO SEEDING. THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO GANDER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).

SEEDBED PREPARATION

- A. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER ,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. APPLY LIMESTONE AT THE RATE OF 2 TONS/ACRE UNLESS SOIL TESTING INDICATES OTHERWISE. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.
- B. WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, PRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
- C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREAS MUST BE RETILLED IN ACCORDANCE WITH THE ABOVE.
- D. SOILS HIGH IN SULFIDES OR HAVING A PH OF 4 OR LESS REFER TO STANDARD FOR MANAGEMENT OF HIGH ACID

A. SELECT A MIXTURE FROM THE TABLE BELOW.

- B. CONVENTIONAL SEEDING. APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE-TEXTURED SOIL.
- C. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED—TO—SOIL CONTACT, RESTORE CAPILLARITY. AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.
- D. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK, OR TRAILER-MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND PRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT-FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. WHEN POOR SEED TO SOIL CONTACT OCCURS, THERE IS A REDUCED SEED GERMINATION AND GROWTH.

SEEDING RATES AND DATES

<u>SPECIES</u>	SEEDING RATES (POUNDS PER 1000 S.F.)	OPTIMUM SEEDING DATE	OPT. SEED DEPTH (INCHES)
PERENNIAL RYEGRAS	SS 1.0	3/1-5/15 OR 8/15-10/1	0.5
OATS	2.0	3/1-5/15 OR 8/15-10/1	1.0
BARLEY	2.2	3/1-5/15 OR 8/15-10/1	1.0

1. MAY BE PLANTED THROUGHOUT SUMMER IF SOIL MOISTURE IS ADEQUATE OR CAN BE IRRIGATED. 2. TWICE THE DEPTH FOR SANDY SOILS.

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REVISED PER OCEAN CITY ENVIRONMENTAL COMMISSION COMMENTS

STANDARD FOR TOPSOIL

TOPSOILING ENTAILS THE DISTRIBUTION OF SUITABLE QUALITY SOIL ON AREAS TO BE VEGETATED.

TO IMPROVE THE SOIL MEDIUM FOR PLANT ESTABLISHMENT AND MAINTENANCE.

GROWTH AND ESTABLISHMENT OF A VIGOROUS VEGETATIVE COVER IS FACILITATED BY TOPSOIL, PREVENTING SOIL LOSS BY WIND AND RAIN OFFSITE AND INTO STREAMS AND OTHER STORMWATER CONVEYANCES.

TOPSOIL SHOULD BE USED WHERE SOILS ARE TO BE DISTURBED AND WILL BE REVEGETATED.

METHOD AND MATERIALS

TOPSOIL SHOULD BE FRIABLE AND LOAMY, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE OR ADVERSE CHEMICAL OR PHYSICAL CONDITION THAT MAY BE HARMFUL TO PLANT GROWTH. SOLUBLE SALTS SHOULD NOT BE EXCESSIVE (CONDUCTIVITY LESS THAN 0.5 MILLIMHOS PER CENTIMETER. MORE THAN 0.5 MILLIMHOS MAY DESICCATE SEEDLINGS AND ADVERSELY IMPACT GROWTH). IMPORTED TOPSOIL SHALL HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. ORGANIC MATTER CONTENT MAY BE RAISED BY ADDITIVES.

TOPSOIL SUBSTITUTE IS A SOIL MATERIAL WHICH MAY HAVE BEEN AMENDED WITH SAND, SILT, CLAY, ORGANIC MATER, FERTILIZER OR LIME AND HAS THE APPEARANCE OF TOPSOIL TOPSOIL SUBSTITUTES MAY BE UTILIZED ON SITES WITH INSUFFICIENT TOPSOIL FOR ESTABLISHING PERMANENT VEGETATION. ALL TOPSOIL SUBSTITUTE MATERIALS SHALL MEET THE REQUIREMENTS OF TOPSOIL NOTED ABOVE. SOIL TESTS SHALL BE PERFORMED TO DETERMINE THE COMPONENTS OF SAND, SILT, CLAY, ORGANIC SALTS, SOLUBLE SALTS AND PH LEVEL.

II. STRIPPING AND STOCKPILING

A. FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER QUANTITY AND OR QUALITY OF SURFACE SOIL JUSTIFIES

- B. STRIPPING SHOULD BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA.
- C. WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TESTS TO BRING THE SOIL
- D. A 4-6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL.
- E. STOCKPILES OF TOPSOIL SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF-SITE
- F. STOCKPILES SHOULD BE VEGETATED IN ACCORDANCE WITH STANDARDS PREVIOUSLY DESCRIBED HEREIN; SEE STANDARDS FOR PERMANENT (PG 4-1) OR TEMPORARY (PG 7.1) VEGETATIVE COVER FOR SOIL STABILIZATION. WEEDS SHOULD NOT

III. SITE PREPARATION

- A. GRADE AT THE ONSET OF THE OPTIMAL SEEDING PERIOD SO AS TO MINIMIZE THE DURATION AND AREA OF EXPOSURE OF DISTURBED SOIL TO EROSION. IMMEDIATELY PROCEED TO ESTABLISH VEGETATIVE COVER IN ACCORDANCE WITH THE SPECIFIED SEED MIXTURE. TIME IS OF THE ESSENCE
- B. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE.
- C. AS GUIDANCE AND IDEAL CONDITIONS, SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT, LIMESTONE, IF NEEDED. SHOULD BE APPLIED TO BRING SOIL TO A PH OF APPROXIMATELY 6.5 AND INCORPORATED INTO SOIL AS NEARLY AS
- D. PRIOR TO TOPSOILING, THE SUBSOIL SHALL BE IN COMPLIANCE WITH THE STANDARDS OF LAND GRADING, PG. 19-1.
- E. EMPLOY NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENTATION BASINS, AND WATERWAYS. SEE STANDARDS 11THROUGH 42.

IV. <u>APPLYING TOPSOIL</u>

- A. TOPSOIL SHOULD BE HANDLED ONLY WHEN ITS IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE; I.E., LESS THAN FIELD CAPACITY (SEE GLOSSARY).
- B. A UNIFORM APPLICATION TO AN AVERAGE DEPTH OF 5.0 INCHES, MINIMUM OF 4 INCHES, FIRMED IN PLACE IS REQUIRED. ALTERNATE DEPTHS MAY BE CONSIDERED WHERE SPECIAL REGULATORY AND/OR INDUSTRY DESIGN STANDARDS ARE APPROPRIATE SUCH AS ON GOLF COURSES. SPORTS FIELD. LANDFILL CAPPING. ETC., SOIL WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE, IN ACCORDANCE WITH THE STANDARDS FOR MANAGEMENT OF HIGH ACID PRODUCING SOIL (PG 1-1)
- C. PURSUANT TO THE REQUIREMENTS IN SECTION 7 OF THE STANDARD FOR PERMANENT VEGETATIVE STABILIZATION, THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT PERMANENT VEGETATIVE COVER BECOMES ESTABLISHED ON AT LEAST 80% OF HE SOILS TO BE STABILIZED AND VEGETATION. FAILURE TO ACHIEVE THE MINIMUM COVERAGE MAY REQUIRE ADDITIONAL WORK TO BE PERFORMED BY THE CONTRACTOR TO INCLUDE SOME OR ALL OF THE FOLLOWING: SUPPLEMENTAL SEEDING, RE-APPLICATION OF LIME AND FERTILIZERS. AND/OR THE ADDITION OF ORGANIC MATTER (I.E. COMPOST) AS A TOP DRESSING. SUCH ADDITIONAL MEASURES SHALL BE BASED ON SOIL TESTS SUCH AS THOSE OFFERED BY RUTGERS COOPERATIVE EXTENSION SERVICES OR OTHER APPROVED LABORATORY QUALIFIED TO TEST SOIL SAMPLES OF AGRONOMIC PROPERTIES.

IV. <u>APPLYING TOPSOIL</u>

- A. TOPSOIL SHOULD BE HANDLED ONLY WHEN ITS IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE; I.E.,
- B. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS RECOMMENDED. SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH OF

V. <u>MULCHING</u>

- MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. (THE EXISTENCE OF SATISFACTORY PERMANENT VEGETATION AT THE TIME OF PROJECT OR UNIT COMPLETION SHALL BE DEEMED AS COMPLIANCE WITH THIS MULCH REQUIREMENTS.
- A. MULCH MATERIAL SHOULD BE UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, OR SALT HAY TO BE APPLIED AT A RATE OF 1-1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION MUST BE DOUBLED THE LOWER RATE. MULCH CHOPPER-BLOWER MUST NOT GRIND THE MATERIAL.
- B. <u>SPREAD UNIFORMLY</u> BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 75% TO 95% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS, WITHIN EACH SECTION.
- C. <u>MULCH ANCHORING</u> SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF
- PEG AND TWINE DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKE MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS AND A SQUARE PATTERN. SECURE TWINE NETTING AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
- MULCH NETTINGS STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
- CRIMPER (MULCH ANCHORING TOOL) A TRACTOR DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC—HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPE. STRAW MULCH RATE MUST BE 3 TONS PER ACRES. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.
- <u>LIQUID MULCH-BINDER</u> MAY BE USED TO ANCHOR SALT HAY, HAY OR STRAW MULCHES.
- A. APPLICATION SHOULD BE HEAVIER AT EDGES WHERE WIND CATCHES THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. REMAINDER OF AREA SHOULD BE UNIFORM IN APPEARANCE B. USE ONE OF THE FOLLOWING:
- 1. EMULSIFIED ASPHALT (SS-1, CSS-1, CMS-2, MS-2, RS-1, RS-2, CRS-1, AND CRS-2). APPLY 0.04 GAL./SQ./YD. OR 194 GAL./ACRE ON FLAT SLOPES LESS THAN 8 FEET HIGH. ON SLOPES 8 FEET OR MORE HIGH, USE 0.075 GAL./SY. YD. OR 363 GAL./ACRE
- 2. SYNTHETIC OR ORGANIC BINDERS BINDERS SUCH AS CURASOL, DCA-70, PETRO-SET, AND TERRA-TRACK MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIAL. NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A
- RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS C. WOOD - FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE MAY BE APPLIED BY A HYDROSEEDER. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND

DUST CONTROL

- ANY OF THE FOLLOWING MAY BE USED:
- A. SPRINKLING SITE IS SPRINKLED UNTIL SURFACE IS WET.
- B. MULCHING ON SITE WHERE DIFFICULT TO VEGETATE.
- C. CALCIUM CHLORIDE SPREAD AT RATE THAT WILL KEEP SOIL MOIST BUT NOT CAUSE POLLUTION OR PLANT

RTY FOR WHOM THE WORK WAS CONTRACTED

RPOSE WITHOUT THE WRITTEN CONSENT OF ACT

R WAS CERTIFIED.

NGINEERS, INC.

L RIGHTS RESERVED

SWEEP STREET OF SEDIMENT AFTER EACH WORK DAY.

SOIL EROSION AND SEDIMENT CONTROL NOTES:

- 1. ALL WORK MUST BE DONE IN ACCORDANCE WITH THE "STANDARDS FOR SOIL EROSION AND
- SEDIMENT CONTROL IN NEW JERSEY". 7TH EDITION, JANUARY 2014, REVISED JULY 2017. 2. CONTACT THE DISTRICT 48 HOURS IN ADVANCE OF THE START OF ANY LAND DISTURBANCE
- ACTIVITIES. 3. REMOVE ANY SEDIMENT THAT MAY BE SPILLED, DROPPED, OR TRACKED OFF OF THE PROJECT SITE. ALL PAVED RIGHTS-OF-WAY ADJACENT TO THE PROJECT SITE MUST BE MAINTAINED IN A
- CLEAN, SWEPT CONDITION THROUGHOUT CONSTRUCTION. INSTALL CRUSHED STONE PAD(S) TO HELP REDUCE OFF-SITE TRACKING OF SEDIMENT. 4. CONTROL THE WASHING OR BLOWING OF SEDIMENT OFF OF THE PROJECT SITE. INSTALL
- SEDIMENT BARRIERS TO HELP REDUCE OFF-SITE SEDIMENTATION. MEASURES TO CONTROL DUST AND WIND EROSION MUST BE UTILIZED (IE. WETTING OF THE SITE). 5. THE PROPERTY MUST BE GRADED IN A MANNER THAT WILL NOT CAUSE EROSION OR SEDIMENTATION PROBLEMS ON THE PROJECT SITE, OR TO ADJACENT PROPERTIES. AREAS SUBJECT TO SOIL RESTORATION MEASURES MUST COMPLY WITH THE STANDARD FOR LAND
- **GRADING** 6. SITE MUST BE PROPERLY MULCHED FOR NON-GROWING SEASONS USING STRAW MULCH @ 90-115 LBS./1,000 SQ. FT. (3 BALES), PROPERLY ANCHORED OR TACKED.

7. WHEN REQUIRED, SITE MUST BE SEEDED TO ESTABLISH A TEMPORARY VEGETATIVE COVER.

- PERENNIAL RYEGRASS @ 1 LB./1,000 SQ. FT. MAY BE UTILIZED. 8. PREPARE AREAS TO BE PERMANENTLY VEGETATED BY TOPSOILING (A MINIMUM OF 5" IS REQUIRED), FERTILIZING @ 11 LBS./1,000 SQ. FT. OF 10-20-10, AND APPLYING LIME @ 90
- LBS. /1,000 SQ. FT. 9. SEED THE SITE TO ESTABLISH A PERMANENT VEGETATIVE COVER UTILIZING A TURF-TYPE TALL FESCUE/PERENNIAL RYEGRASS MIX @ 6-8 LBS./1,000 SQ. FT., OR EQUIVALENT. APPLY STRAW MULCH @ 70-90 LBS./1,000 SQ. FT. (2 BALES), AND PROPERLY ANCHOR OR TACK. SOD, STONE COVER OR MULCHED LANDSCAPE BEDS MAY BE SUBSTITUTED FOR SEEDING TO
- ESTABLISH A PERMANENT COVER. 10. DRIVEWAY MUST BE STABILIZED WITH A PERMANENT MATERIAL SUCH AS ASPHALT, CONCRETE, PAVING BLOCKS, CRUSHED STONE, CRUSHED CONCRETE OR DENSE GRADED AGGREGATE. 11. ALL SIDEWALKS, DRIVEWAY APRONS, AND CURBING IF REQUIRED BY THE MUNICIPALITY MUST BE
- 12. A REPORT OF COMPLIANCE MUST BE OBTAINED FROM THE DISTRICT UPON COMPLETION. REQUESTS FOR A DISTRICT INSPECTION FOR THE RELEASE OF A REPORT OF COMPLIANCE MUST BE MADE 5 WORKING DAYS IN ADVANCE. A REPORT OF COMPLETE COMPLIANCE IS ISSUED WHEN PERMANENT EROSION CONTROLS HAVE BEEN ADDRESSED. A REPORT OF CONDITIONAL COMPLIANCE MAY BE ISSUED WHEN THE SEASON OR OTHER CONDITIONS MAY NOT BE SUITABLE
- BE ISSUED BY A MUNICIPALITY UNLESS THE DISTRICT HAS ISSUED A REPORT OF COMPLIANCE. THIS APPLIES TO BOTH THE COMPLETE (FINAL) AND CONDITIONAL (TEMPORARY) CERTIFICATES. (REVISED 12/7/17) PAGE 2 OF 2 13. THE "SOIL COMPACTION MITIGATION VERIFICATION FORM" MUST BE SUBMITTED TO THE DISTRICT PRIOR TO THE ISSUANCE OF A REPORT OF COMPLIANCE WHEN YOUR SOIL EROSION AND SEDIMENT CONTROL PLAN DENOTES AREAS OF THE SITE THAT ARE SUBJECT TO SOIL

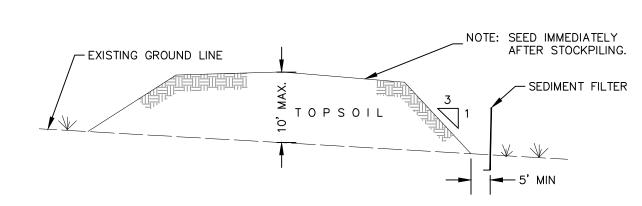
FOR ESTABLISHING A PERMANENT VEGETATIVE COVER. A CERTIFICATE OF OCCUPANCY WILL NOT

CAPE ATLANTIC CONSERVATION DISTRICT 6260 OLD HARDING HIGHWAY MAYS LANDING, NJ 08330 PHONE (609) 625-3144, FAX (609)625-7360

COMPACTION MITIGATION (TESTING AND/OR REMEDIATION).

SEQUENCE OF CONSTRUCTION:

- 1. NOTIFY CAPE ATLANTIC CONSERVATION DISTRICT 48 (FORTY-EIGHT) HOURS PRIOR TO ANY LAND-DISTURBING ACTIVITY (SEE S.E.S.C. NOTES FOR CONTACT INFORMATION)
- 2. PRIOR TO CONSTRUCTION, INSTALL ALL SOIL EROSION AND SEDIMENT CONTROL DEVICES AS SPECIFIED HEREON.
- 3. PERFORM SITE CLEARING OPERATIONS.
- 4. COMPLETE SITE IMPROVEMENTS INCLUDING EXCAVATION AND FILL OF PROPOSED PATH AND ADJACENT AREAS.
- 5. PLACE TOPSOIL PER SPECIFICATIONS, FERTILIZER, SEED, & MULCH IN AREAS INDICATED ON PLANS. SEEDING REQUIREMENTS TO BE IN ACCORDANCE WITH PERMANENT SEEDING
- 6. REMOVE ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES.
- 7. CONTACT CAPE ATLANTIC CONSERVATION DISTRICT TO REQUEST FINAL INSPECTION.



PUBLIC R.O.W. --FXISTING GROUND 1 1/2" - 4" DIA. STONE PROVIDE APPROPRIATE └─ FILTER FABRIC 6" MIN —

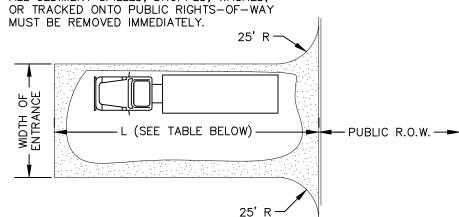
TRANSITION BETWEEN

ENTRANCE AND PUBLIC

STABILIZED CONSTRUCTION

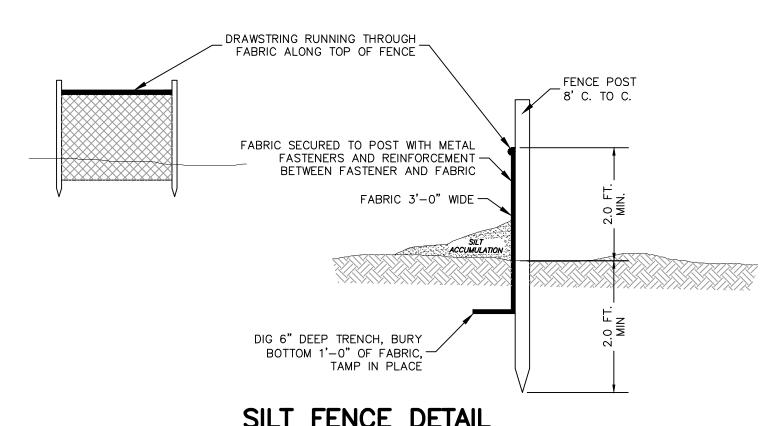
 ADDITIONAL LENGTH OR TOP DRESSING MAY BE REQUIRED BY THE DISTRICT AS CONDITIONS DEMAND. R.O.W.

ALL SEDIMENT SPILLED, DROPPED, WASHED,



LENGTH OF STABILIZED CONSTRUCTION ENTRANCE						
% SLOPE	LENGTH (L) FOR COARSE GRAINED SOIL	LENGTH (L) FOR FINE GRAINED SOIL				
0 - 2%	50 FT	100 FT				
2% – 5%	100 FT	200 FT				
> 5%	ENTIRE SURFACE STABILIZED WITH FABC BASE COURSE SAP BY LOCAL ORDINANCE OR OTHER GOVERNING BODY.					

STABILIZED CONSTRUCTION ENTRANCE





SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS

WEST 52ND STREET TRAIL IMPROVEMENTS

NO SCALE ACT ENGINEERS, INC 9 OF 9

CHECKED BY

JEFFREY S. RICHTER NEW JERSEY PROFESSIONAL ENGINEER LIC. NO. 24GE03252000

NEW JERSEY CERTIFICATE of AUTHORIZATION No. 24GA27936900

SITUATED IN OCEAN CITY CAPE MAY COUNTY

NEW JERSEY