BOROUGH OF HIGHLANDS MONMOUTH COUNTY, NEW JERSEY **— CONTRACT DRAWINGS —**

IMPROVEMENTS TO SNUG HARBOR PARK

CAROLYN BROULLON, MAYOR

BOROUGH COUNCIL JO-ANNE OLSZEWSKI LEO CERVANTES KAREN CHELAK

MICHAEL MUSCILLO NANCY TRAN SPENCER CARPENTER BRIAN J. CHABAREK, ESQ.

DONALD MELNYK

COUNCIL PRESIDENT COUNCIL MEMBER COUNCIL MEMBER COUNCIL MEMBER

BOROUGH ADMINISTRATOR ACTING BOROUGH CLERK DPW SUPERINTENDENT BOROUGH ATTORNEY



UTILITY AND GOVERNING AGENCIES CONTACT LIST:

NEW JERSEY AMERICAN WATER ATTN: MARK ASCHETTINO 661 SHREWSBURY AVENUE SHREWSBURY, NJ 07702 (732) 933-5903

HIGHLANDS BOROUGH SEWER DEPT. ATTN: JORGI CRAIG 42 SHORE DRIVE HIGHLANDS, NJ 07732 (732) 872-1224x204

JERSEY CENTRAL POWER AND LIGHT 101 CRAWFORDS CORNER ROAD BUILDING 1, SUITE 1-511 HOLMDEL, NJ 07733 (732) 212-4246

NEW JERSEY NATURAL GAS COMPANY ATTN: KENNY CHEN 1415 WYCKOFF ROAD WALL, NJ 07719 (732) 919-8254

COUNTY OF MONMOUTH DIVISION OF ENGINEERING ATTN: JOSEPH M. ETTORE, F HALL OF RECORDS ANNEX FREEHOLD, NJ 07728 (732) 431-7765

CABLEVISION OF MONMOUTH ATTN: PAUL R. KOSTYZ 40 PINE STREET TINTON FALLS, NJ 07753 (732) 922-6700x3285

VERIZON ATTN: BILL HIGGINS 175 W. MAIN STREET FREEHOLD, NJ 07728 (732) 683-5180

HIGHLANDS BOROUGH DPW ATTN: SPENCER CARPENTER 42 SHORE DRIVE HIGHLANDS, NJ 07732 (732) 872-1224x250

HIGHLANDS BOROUGH POLICE DEPARTMENT ATTN: PTL. MATTHEW CHESEK, TRAFFIC SAFETY UNIT 27 SHORE DRIVE HIGHLANDS, NJ 07732 (732) 872–1158x248

ONE CALL SYSTEM (800)-272-1000

LOCATION OF UTILITIES SHOWN ON THE PLANS ARE PLOTTED FROM AVAILABLE DATA ON FILE WITH THE UTILITY COMPANIES AND ARE NOT WARRANTED AS TO EXACTNESS. CONTRACTOR IS TO DETERMINE EXACT LOCATION AND DEPTH OF UTILITIES AT ALL CROSSINGS PRIOR TO CONSTRUCTION IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

JANUARY 2022 Contract No. HHI00201.01

LOCATION MAP SCALE: 1" = 500'

NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF 2019 WITH AMENDMENTS THERETO GOVERN



	INDEX OF SHEETS	
SHEET No.	DESCRIPTION	LAST REVISED
1	COVER AND INDEX SHEET	
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3	CONSTRUCTION PLAN	
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5	SOIL EROSION AND SEDIMENT CONTROL PLAN	
6	SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS	
7–9	CONSTRUCTION DETAILS	

No. DE	SCRIPTION OF REVISION		DATE	DRAWN	CHECKED
	BOROUGH OF HIGHLAND NMOUTH COUNTY, NEW JE IPROVEMENTS JG HARBOR F COVER AND INDEX SHE	s Ersey S TO PARK EET			OI-COVER
CON 3141 BORDENTOWN AVENUE	ASSOCIATES SULTING AND MUNICIPAL EN ARLIN, NEW JERSEY 08859 1460 ROUTE 9 SOUTH	IGINEERS 1, HOWELL, NEW JERSEY	07731-1194		PRANTING NO.: HI201_base
JOHN H. ALLGAIR P.E., P.P. (1983-2001) JAY B. CORNELL P.E., P.P.	DAVID J. SAMUEL P.E., P.P. NU PE LIC NO. 25838 NU PP LIC NO. 2455 MICHAEL J. MCCLELLAND P.E., P.P.	JOHN J. STEFA NJ PE LS LIC NO. 2422 GREGORY R. \	ANI P.E., L.S. & P. 1 NJ F /ALESI P.E., P.P.	2. P. 19 LIC NO. 2089	10
GREGOR R. VA	IN IFE LIC NO. 32446 NU IFF LIC NO. 3774 LESTER P.P. ENGINEER N.J. LIC. 34458	NU //E LIC NO. 34458 SCALE AS SHO DESIGNED BY DATE 01/27/20		RRM BAM 1 OF 9	FIE No: HHI00201.

PROJECT CONSTRUCTION NOTES:

- CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS NECESSARY FOR CONSTRUCTION IN ACCORDANCE WITH EXISTING LOCAL, COUNTY, OR STATE REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION IN THESE MATTERS.
- THE CONTRACTOR IS RESPONSIBLE FOR AND SHALL VERIFY ALL DIMENSIONS AND DETAILS BEFORE PROCEEDING WITH WORK. ANY DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER.
- ALL REGRADED AREAS AT THE SITE WHICH ARE NOT DESIGNATED AS PAVED OR GRAVEL AREAS SHALL BE TOPSOILED AND SEEDED AND SHALL BE STABILIZED IN ACCORDANCE WITH STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND THE CONTRACT SPECIFICATIONS.
- ALL GRADING OPERATIONS SHALL PROVIDE FOR POSITIVE DRAINAGE AWAY FROM ALL BUILDINGS AND STRUCTURES AND SHALL ELIMINATE PONDING AREAS.
- INFORMATION AS TO THE LOCATION OF EXISTING UTILITIES HAS BEEN COLLECTED FROM VARIOUS SOURCES, THE RESULT OF SUCH INVESTIGATIONS ARE SHOWN ON THE CONTRACT DRAWINGS AND ARE NOT GUARANTEED AS TO ACCURACY. THE CONTRACTOR IS PARTICULARLY DIRECTED TO THE FACT THAT UNDERGROUND OBJECTS OR MATERIAL LOCATION ELEVATION, OR TYPE IS NOT WARRANTED TO BE APPROXIMATELY CORRECT (NOR CAN THEY BE ASSUMED TO BE THE ONLY SUBSURFACE OBJECTS OR MATERIAL WHICH MAY BE ENCOUNTERED IN THE WORK.) THE CONTRACTOR SHALL MAKE ALL NECESSARY INVESTIGATIONS TO SATISFY HIMSELF AS TO THE EXISTING CONDITIONS PRIOR TO BIDDING WORK.
- THE CONTRACTOR IS RESPONSIBLE TO COORDINATE THE LOCATION OF THE UTILITIES WITH THE UTILITY COMPANIES PRIOR TO CONSTRUCTION.
- THE COORDINATION OF THE LOCATION OR RELOCATION WHERE REQUIRED OF TELEPHONE, ELECTRIC, GAS, AND WATER FACILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR AND SAME SHALL BE COORDINATED TO INSURE COMPLETION WITHIN THE TIME PERMITTED.
- THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN MEANS OF SAFE INGRESS AND EGRESS TO RESIDENTS THROUGHOUT THE COURSE OF THE WORK AND TO PROVIDE FOR THE SAFE MAINTENANCE AND PROTECTION OF TRAFFIC.
- THE CONTRACTOR'S LICENSED LAND SURVEYOR SHALL PROVIDE THE CONSTRUCTION STAKEOUT FOR THE PROJECT.
- 10. THE CONTRACTOR WILL NOT BE PERMITTED TO STOCKPILE EXCAVATED MATERIALS OVER EXISTING UTILITY LINES. THE STOCKPILED MATERIALS SHOULD BE PLACED SUFFICIENTLY AWAY FROM THE EDGE OF ANY EXCAVATION TO PREVENT CAVING OF THE TRENCH WALL AND TO PERMIT SAFE ACCESS ALONG THE TRENCH. WITH SHEETED TRENCHES, A MINIMUM OF FIVE (5) FEET FROM THE EDGE OF THE SHEETING TO TOE OF SPOIL BANK MUST BE MAINTAINED.
- THE CONTRACTOR IS HEREIN ADVISED THAT PERMITS FROM VARIOUS AGENCIES HAVE BEEN OBTAINED FOR THE CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR WILL BE REQUIRED TO COMPLY WITH THE CONSTRUCTION, TRAFFIC PROTECTION, SAFETY AND NOTIFICATION PROVISIONS OF THESE PERMITS.
- 12. THE CONTRACTOR SHALL TAKE EVERY PRECAUTION NECESSARY TO PRECLUDE DAMAGE TO EXISTING STRUCTURES, FACILITIES, AND UTILITIES DUE TO LOSS OF LATERAL SUPPORT AND/OR CONSTRUCTION LOADINGS. SPECIFIC DETAILS NECESSARY TO ACCOMPLISH SAME SHALL BE SUBMITTED BY THE CONTRACTOR FOR REVIEW AND APPROVAL PRIOR TO COMMENCING CONSTRUCTION OF SUBSURFACE IMPROVEMENTS.
- 13. ALL WORK BY THE CONTRACTOR SHALL BE DONE IN ACCORDANCE WITH THE PROVISIONS OF THE NEW JERSEY STATUTE KNOWN AS CHAPTER 249 OF THE LAWS OF 1948, BEING SECTIONS 34:6-47.1 TO 47.9, INCLUSIVE OF THE REVISED STATUTES OF NEW JERSEY, 1937, AND IN ACCORDANCE WITH THE RULES AND REGULATIONS CONCERNING PRECAUTIONS TO BE TAKEN IN THE PROXIMITY OF HIGH-VOLTAGE LINES FOR THE PREVENTION OF ACCIDENTS PROMULGATED BY THE COMMISSIONER OF THE DEPARTMENT OF LABOR AND INDUSTRY OF THE STATE OF NEW JERSEY, EFFECTIVE DECEMBER 28, 1948, ALL AS AMENDED AND SUPPLEMENTED, AND IN ACCORDANCE WITH THE PROVISIONS OF THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 AND OF SUBPART N, PARAGRAPH 1926.550 OF THE RULES AND REGULATIONS ISSUED UNDER SAID ACT.
- 14. THE CONTRACTOR IS HEREIN ADVISED THAT ALL WORK TO BE PERFORMED SHALL BE GOVERNED BY THE LOCAL MUNICIPAL ORDINANCES. THIS SHALL INCLUDE THE PROVISIONS IN THEIR CODES WHICH SET FORTH PERMITTED HOURS OF CONSTRUCTION WITHIN THE MUNICIPALITY.
- 15. THE CONTRACTOR IS ADVISED THAT THEY ARE RESPONSIBLE TO PAY FOR, ACQUIRE AND COMPLY WITH ANY ROAD OPENING PERMITS IF REQUIRED IN CONJUNCTION WITH THE PROPOSED IMPROVEMENTS.
- 16. THE CONTRACTOR SHALL COMPLY WITH THE LATEST VERSION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES BY THE U.S.D.O.T.
- 17. THE CONTRACTOR IS ADVISED THAT HE MUST MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES AND MUST COMPLETELY BACKFILL ALL TRENCHES PRIOR TO NON-DAYLIGHT HOURS.
- 18. IN ORDER TO MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION, THE CONTRACTOR MAY FIND IT NECESSARY TO UTILIZE STEEL PLATES OVER TRENCHES AT NO ADDITIONAL COST TO THE OWNER.
- WHEN DISTURBING, REMOVING AND/OR DISPOSING OF ASBESTOS CEMENT PIPE, THE CONTRACTOR SHALL COMPLY 19. WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REQUIREMENTS INCLUDING BUT NOT LIMITED TO: CURRENT USEPA REGULATIONS (NESHAP, 40 CFR 61 SUBPART M); OSHA REGULATIONS (29 CFR 192658); THE CURRENT NEW JERSEY ASBESTOS HAZARD ABATEMENT SUBCODE (N.J.A.C. 5:23-8): THE CURRENT NJDEPE REGULATIONS (N.J.A.C. 7:26-1 ET. SEQ.); AND NOTIFICATION REGULATIONS (N.J.A.C. 5:23-8.6, 40 CFR 61 SUBPART M, AND N.J.A.C. 7:26–2:12).
- 20. THE FREEHOLD SOIL CONSERVATION DISTRICT GOVERNS SOIL EROSION AND SEDIMENT CONTROL MEASURES WITHIN THE PROJECT AREA. ACCORDINGLY, ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED AS PER THE REQUIREMENTS OF THE FREEHOLD SOIL CONSERVATION DISTRICT AND AS DIRECTED BY THE ENGINEER.
- 21. AT CERTAIN TIMES THE SITE MAY BE OCCUPIED BY SEVERAL CONTRACTORS AND IT IS THEREFORE REQUIRED FOR ANY AND ALL CONTRACTORS OCCUPYING THE SITE TO COOPERATE WITH ONE ANOTHER. NO DELAYS RESULTING FROM MULTIPLE CONTRACTORS WORKING ON THE SITE WILL BE CONSIDERED.
- 22. THE CONTRACTOR SHALL CONTINUOUSLY DEWATER ALL EXCAVATIONS UNTIL BACKFILLING OPERATIONS HAVE BEEN COMPLETED. PRIOR TO DISCHARGE TO STREAMS, SILT SHALL BE SETTLED OUT IN AN APPROVED SETTLING BASIN.
- 23. THE CONTRACTOR SHALL MAINTAIN THE FLOW OF ALL STREAMS, DRAINAGE DITCHES, STORM SEWERS AND SANITARY SEWERS AT ALL TIMES BY A MEANS ACCEPTABLE TO THE ENGINEER AND ALL THE RESPONSIBLE AGENCIES.
- 24. THE CONTRACTOR SHALL MAINTAIN ALL UTILITY SERVICE FLOWS AND PRESSURES UNLESS WRITTEN APPROVAL BY THE RESPONSIBLE UTILITY PERMITS HIM TO DO OTHERWISE.
- 25. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF THE STATE OF NEW JERSEY WORKER HEALTH AND SAFETY ACT (N.J.A.C. 12:110 ET. SEQ.) AS AMENDED AND THE UNITED STATES OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) (29 CFR 1910), AS AMENDED WITH REGARDS TO WORKER AND JOBSITE SAFETY.
- 26. ALL MAILBOXES REQUIRING RELOCATION SHALL BE DONE SO IN ACCORDANCE WITH LOCAL POSTAL AUTHORITY REGULATIONS.
- 27. ALL MAILBOXES REQUIRING RELOCATION SHALL BE INCLUDED IN THE BID ITEM "CLEARING SITE".
- 28. TREES SHALL BE PLANTED IF AND WHERE DIRECTED BY THE ENGINEER.

PAVEMENT STRIPING LEGEND

PAVEMENT STRIPING	MATERIAL	DESCRIPTION	LEGEND
STOP LINE	THERMOPLASTIC	24" WIDE WHITE	SL
CENTER LINE	EPOXY RESIN	2–4" WIDE YELLOW SEPARATED 6"	CL
DASHED LANE LINE	EPOXY RESIN	4" WIDE WHITE, 10' LONG, 30' INTERVAL SPACING	DL
DOTTED LANE LINE	EPOXY RESIN	4" WIDE WHITE, 2' LONG, 4' INTERVAL SPACING	DLL
EDGE LINE	EPOXY RESIN	4" WIDE WHITE	EL
SOLID LANE LINE	EPOXY RESIN	8" WIDE WHITE	SLL
CROSSWALK LINE	THERMOPLASTIC	6" WIDE @ 6' SPACING	CWL
CROSS HATCH LINE	EPOXY RESIN	24" WIDE YELLOW @ 45°, 12' INTERVAL SPACING	CHL

UNLESS OTHERWISE NOTED, PAVEMENT STRIPING SHALL CONFORM TO THE FOLLOWING:







LP ¢

<u>NEW JERSEY DEPARTME</u>	NT OF TRANSPORTATI	ION	HIGH POINT	
STANDAR	D LEGEND	WATER MAIN (SIZE)	N V ALL MEASUREMENTS TO SLANT LETTERING DENO) FACE OF LINE FROM CENTER LINE, EXCEPT STRIPING TO TES EXISTING: VERTICAL LETTERING DENOTES PROPOSED.
GGGG	G	GAS MAIN (SIZE)		
TT	<i>TT</i>	TELEPHONE CONDUIT	ITEMS WITH	NO ALTERNATE
Ееее	EE	ELECTRIC CONDUIT	C – CONSTRUCTION PLANS	DOUBLE REFERENCE CODES TSS – TRAFFIC STRIPING AND SIGNING PLAI
$E - \frac{EXISTING}{D} - \frac{JCT.}{E} = \frac{BOX}{D}$	EPROPOSEDJCTBOX	ELECTRIC CONDUIT, HIGHWAY	E – ELECTRICAL PLANS G – GRADING PLANS	X – CROSS SECTIONS TC – TRAFFIC CONTROL/STAGING PLANS
EXISTING RECONS	STRUCT RESET	EXISTING SANITARY SEWERS	T – TIES L – LANDSCAPE PLANS	P – PROFILES B – BRIDGE PLANS
(DRAW TO SIZE) PROPOSED	(SIZE & TYPE)	DRADASED SANITARY SEWERS	D & EP — DRAINAGE AND ENVIRONMENT PLANS	S – SIGN PLANS AL
(SIZE & TYPE	E) TRUCTRESET	TROPOSED SANTART SEMERS		
(D) (DRAW TO SIZE)	(SIZE & TYPE)	EXISTING STORM SEWERS		
D (SIZE & TYPE	E)	PROPOSED STORM SEWERS		HATCH DENOTES MILLAND OVERLAY
EXISTING PROPOSED, TYPE A EXISTING PROPOSED	RESET CASTING, TYPE A RECON	ISTRUCT, TYPE A ISTRUCT		HOT MIX ASPHALT MILLING, 3" OR LESS, AND HOT MIX ASPHALT 9.5M64 SURFACE COURSE, 2" THICK, TO SPECIFIED GRADE.
NEW MANHOLE CASTING, SQUARE FRAME, CIRCULAR COVER	GAST IRON EXTENSION FRAME FOR EXISTING INLET			
NOTE: CURB PIECES FOR INLET, TYP	PE B ARE 8" UNLESS OTHERWISE	INDICATED	⊲	HATCH DENOTES PROPOSED CONCRETE SIDEWALK EXCAVATION, UNCLASSIFIED,
EXISTING PROPOSED	EXISTING PROPOSED	PAVEMENTS		DEMARCATION NETTING, DENSE GRADED AGGREGATE BASE COURSE, 4" THICK, AND CONCRETE SIDEWALK, 4" THICK, TO SPECIFIED GRADE.
EXISTING	PROPOSED	SHOULDERS		HATCH DENOTES ROADWAY RECONSTRUCTION
(F) (C)	(C) (F)	SLOPES		DENSE-GRADED AGGREGATE BASE COURSE, 6" THICK, HOT MIX ASPHALT 19M64 BASE COURSE, 4" THICK, AND
200+50 <u>¢</u>	<u>₽</u> 200+50	BASE LINE	${}\times\times\times\times\times\times$	TO SPECIFIED GRADE.
		RIGHT OF WAY LINES ACCESS PERMITTED	ψ ψ ψ	HATCH DENOTES LANDSCAPE AREAS EXCAVATION, UNCLASSIFIED, DEMARCATION, CEDTEXTILE
/ /	////	NO ACCESS	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	12" CERTIFIED CLEAN FILL, NJDOT SOIL AGGREGATE TYPE I-13, A 4" TOPSOIL, FERTILIZE, LIME AND SEED ALL DISTURBED AREA TO SPECIFIED GRADE
		TWP., CITY, COUNTY LINES		HATCH DENOTES MUNICIPAL PLAY AREAS
		CURBS		DEMARCATION GEOTEXTILE, 6" CERTIFIED CLEAN FILL, COMPACTED 3/4" CLEAN STONE SUBBASE, 6" THICK, AND
X X X X X	• • • • • •	FENCES		6" LOOSE RUBBER PLAY SURFACE (BY OTHERS), TO SPECIFIED G
		BEAM GUIDE RAIL		
		EX TREE LINE / LIMIT OF CLEARING		
EXISTING DITCH FLOW	PROPOSED DITCH FLOW			
EXISTING MONUMENT	■ PROPOSED MONUMENT			
BUILDING TO BE REMOVED AND PAID FOR UNDER CLEARING SITE	PROPOSED HMA DRIVEWA RESTORATION, 2" THICK	Y PROPOSED HEAN DRIVEWAY, REIN	VY DUTY CONCRETE FORCED, 8" THICK	
REMOVAL OF CONCRETE BASE COURS	SE	EWAY A PROPOSED CON	CRETE DRIVEWAY, THICK	
BENCH MARK		WITH 4' x 4' MINIMUM AND SEEDING (MAX CROSS SL	1 LANDING PAD .OPE OF 2.0%)	
B.M.	PARCEL DEMOLITION NO. & PARC	CAST-IN-PLACE	E DETECTABLE ACE	
A A A A A A A A A A A A A A A A A A A	OF BUILDING TO BE DEM	NOLISHED		
TEST PITS		<₩		
/ • RESET WATER GATE VALVE	GAS GATE VALVE	Q HYDRANT		
>>> POLE NO. & TYPE (GUY, LIGHT, ETC.)	PROPOSED UTILITY POLE	TEMPORARY UTILITY POLE		
+) "TREE (TYPE) O BUSH E	X EVERGREENS	TREE TO BE REMOVED		
TRAFFIC LIGHT	PROPOSED TRAFFIC LIGHT	PROPOSED SIGN		
F FIBER OPTIC JUNCTION BOX		X PROPOSED STREET SIGN		SPECIAL PROVISIONS
$\frac{1}{100} = 0r - \frac{(TYPE)}{5} \qquad TRAFFIC \ OR \ PRIVATE \ SIGN$	SEWER VENT	N (W) PROPOSED MONITORING W	ÆLL	THE CONTRACTOR IS SPECIFICALLY DIRECTED TO THE REQUIREMENTS CONTAINED IN THE SPECIAL PROVISIONS SECTION OF THE CONTRACT
EXIST. R.C. END SECTION OR C.M. HEADWALL	EXIST. HEADWALL	EXIST. HEADWALL & APRON		SPECIFICATIONS.
PROP. R.C. END SECTION OR C.M. HEADWALL	PROP. HEADWALL	PROP. HEADWALL & APRON		SOIL EROSION AND SEDIMENT CONTROL SEE SHEET 6 FOR SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS
		43.18 PROPOSED SPOT GRADE		LED AND DETAILS



LOW POINT

TO CENTER OF STRIPE

ALTERNATE ITEMS

AND.

RADE.

No. DESC	RIPTION OF REVISION		DATE	DRAWN	CHECKE
MON IMF SNU LEGE	BOROUGH OF HIGHLANDS IMOUTH COUNTY, NEW JEH PROVEMENTS G HARBOR F END AND GENERAL NO	RSEY TO PARK DTES			
3141 BORDENTOWN AVENUE, PA	ARLIN, NEW JERSEY 08859 1460 ROUTE 9 SOUTH, H		31-1194		PRANTING No.: HIZO1 Dase
JOHN H. ALLGAIR P.E., P.P. (1983-2001)	DAVID J. SAMUEL P.E., P.P. NJ PE LIC NO. 25838 NJ PP LIC NO. 2455	JOHN J. STEFANI NJ PE LS LIC NO. 24271	P.E., L.S. & P.F	P. 1 LIC NO. 2089	
JAY B. CORNELL P.E., P.P.	MICHAEL J. MCCLELLAND P.E., P.P. NJ FE UC NO. 32468 NJ FF UC NO. 3770	GREGORY R. VAL	ESI P.E., P.P.	· LIC NO. 4361	c
GREGOR R. VAL	ESTAR, P.P.	SCALE AS SHOWI DESIGNED BY DF		RRM BAM	10200
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SOIL EROSION AND SEDIMENT CONTROL NOTES:

. The Freehold Soil Conservation District shall be notified forty-eight (48) hours in advance of any soil disturbing activity.

2. All Soil Erosion and Sediment Control practices are to be installed prior to soil disturbance, or in their proper sequence, and maintained until permanent protection is established 3. Any changes to the Certified Soil Erosion and Sediment Control Plans will require the submission of revised Soil Érosion and Sediment Control Plans to the District for re-certification. The revised plans must meet all current State Soil Erosion and Sediment Control Standards.

4. N.J.S.A 4:24-39 et. Seq. requires that no Certificates of Occupancy be issued before the District determines that a project or portion thereof is in full compliance with the Certified Plan and Standards for Soil Erosion and Sediment Control in New Jersey and a Report of Compliance has been issued. Upon written request from the applicant, the District may issue a Report of Compliance with conditions on a lot-by-lot or section-by-section basis, provided that the project or portion thereof is in satisfactory compliance with the sequence of development and temporary measures for soil erosion and sediment control have been implemented, including provisions for stabilization and site work.

5. Any disturbed areas that will be left exposed more than sixty (60) days, and not subject to construction traffic, will immediately receive a temporary seeding. If the season prevents the establishment of temporary cover, the disturbed areas will be mulched with straw, or equivalent material, at a rate of 2 to 2 1/2 tons per acre, according to the Standard for Stabilization with Mulch Only

6. Immediately following initial disturbance or rough grading, all critical areas subject to erosion (i.e. soil stockpiles, steep slopes and roadway embankments) will receive temporary seeding in combination with straw mulch or a suitable equivalent, and a mulch anchor, in accordance with State Standards. 7. A sub—base course will be applied immediately following rough grading and installation of improvements to stabilize streets, roads, driveways, and parking areas. In areas where no utilities are present, the sub—base

shall be installed within fifteen (15) days of the preliminary grading. 8. The Standard for Stabilized Construction Access requires the installation of a pad of clean crushed stone

at points where traffic will be accessing the construction site. After interior roadways are paved, individual lots require a stabilized construction access consisting of one inch to two inch (1"-2") stone for a minimum length of ten feet (10) equal to the lot entrance width. All other access points shall be blocked off. 9. All soil washed, dropped, spilled, or tracked outside the limit of disturbance or onto public right-of-ways

will be removed immediately. 10. Permanent vegetation is to be seeded or sodded on all exposed areas within ten (10) days after final grading.

11. At the time that site preparation for permanent vegetative stabilization is going to be accomplished, any soil that will not provide a suitable environment to support adequate vegetative around cover shall be removed or treated in such a way that it will permanently adjust the soil conditions and render it suitable for vegetative ground cover. If the removal or treatment of the soil will not provide suitable conditions, non-vegetative means of permanent ground stabilization will have to be employed.

12. In accordance with the Standard for Management of High Acid Producing Soils, any soil having a pH of 4 or less or containing iron sulfides shall be ultimately placed or buried with limestone applied at the rate of 10 tons/acre, (or 450 lbs/1,000 sq ft of surface area) and covered with a minimum of 12" of settled soil with a pH of 5 or more, or 24" where trees or shrubs are to be planted

13. Conduit Outlet Protection must be installed at all required outfalls prior to the drainage system becoming operational

14. Unfiltered dewatering is not permitted. Necessary precautions must be taken during all dewatering operations to minimize sediment transfer. Any dewatering methods used must be in accordance with the Standard for Dewaterina.

15. Should the control of dust at the site be necessary, the site will be sprinkled until the surface is we temporary vegetative cover shall be established or mulch shall be applied as required by the Standard for Dust Control.

16. Stockpile and staging locations established in the field shall be placed within the limit of disturbance according to the certified plan. Staging and stockpiles not located within the limit of disturbance will require certification of a revised Soil Erosion and Sediment Control Plan. Certification of a new Soil Erosion and Sediment Control Plan may be required for these activities if an area greater than 5,000 square feet is disturbe

17. All soil stockpiles are to be temporarily stabilized in accordance with Soil Erosion and Sediment Control note #6 18. The property owner shall be responsible for any erosion or sedimentation that may occur below

STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION METHODS AND MATERIALS

stormwater outfalls or offsite as a result of construction of the project.

I. SITE PREPARATION

A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED 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 GRADIN

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 FOR TOPSOILING.

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 A. UNIFORMET APPET GROUND LIMESTONE AND PERTILIZER TO TOPSOLE 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 (HTTP://NJAES.RUTGERS.EDU/COUNTY/). 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 NCORPORATED, APPLY ONE-HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE-HALF RATE PPLICATION 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 ORE BEFORE INITIATING SEEDBED REPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID-PRODUCING SOILS FOR SPECIFIC REQUIREMENTS . SEEDING

A. SELECT A MIXTURE FROM TABLE 4-3 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

- 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 MAY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO A REPORT OF COMPLIANCE INSPECTION. THESE RATES APPLY TO ALL METHODS OF SEEDING, ESTABLISHING PERMANE VEGETATION MEANS 80% VEGETATIVE COVERAGE WITH THE SPECIFIED SEED MIXTURE FOR THE SEEDED AREA AND MOWED ONCE.
- WARM-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT HIGH TEMPERATURES, GENERALLY 850F AND ABOVE. PLANTING RATES FOR WARM-SEASON GRASSES SHALL
- E THE AMOUNT OF PURE LIVE SEED (PLS) AS DETERMINED BY GERMINATION TESTING RESULTS. COOL-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT TEMPERATURES BELOW 850F. MANY GRASSES BECOME ACTIVE AT 650F. SEE TABLE 4-3,
- VIXTURES 7 & 14. ADJUSTMENT OF PLANTING RATES TO COMPENSATE FOR THE AMOUNT OF PLS IS OT REQUIRED FOR COOL SEASON GRASSES.

. CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, rill or cultipacker seeder. Except for drilled, hydroseeded or cultipacked seedings, seed shall be incorporated into HE 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.

2. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT. RESTORE CAPILLARITY. ND 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.

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 spraying the mix onto the prepared seedbec MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT-FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING FDING, (ALSO, SEF, SECTION, 4-MULCHING, BELOW), HYDROSEFDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND RTILIZER 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.

SEE MULCHING SPECIFICATION FOR PERMANENT AND TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION)

RRIGATION (WHERE FEASIBLE)

IF SOIL MOISTURE IS DEFICIENT SUPPLY NEW SEEDING WITH ADEQUATE WATER (A MINIMUM OF 1/4 INCH APPLIED UP TO TWICE A DAY UNTIL VEGETATION IS WELL ESTABLISHED). THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE IN ABNORMALLY DRY OR HOT WEATHER OR ON DROUGHTY SITES. TOPDRESSING

SINCE SOIL ORGANIC MATTER CONTENT AND SLOW RELEASE NITROGEN FERTILIZER (WATER INSOLUBLE) ARE PRESCRIBED IN SECTION 2A -SEEDBED PREPARATION IN THIS STANDARD, NO FOLLOW-UP OF TOPDRESSING IS MANDATORY. AN EXCEPTION MAY BE MADE WHERE GROSS NITROGEN DEFICIENCY EXISTS IN THE SOIL TO THE EXTENT THAT TURF FAILURE MAY DEVELOP. IN THAT INSTANCE, TOPDRESS WITH 10–10–10 OR EQUIVALENT AT 300 POUNDS PER ACRE OR 7 POUNDS PER 1,000 SQUARE FEET EVERY 3 TO 5 WEEKS UNTIL THE GROSS NITROGEN DEFICIENCY IN THE TURF IS AMELIORATED.

ESTABLISHING PERMANENT VEGETATIVE STABILIZATION

THE QUALITY OF PERMANENT VEGETATION RESTS WITH THE CONTRACTOR. THE TIMING OF SEEDING, PREPARING THE SEEDBED, APPLYING NUTRIENTS, MULCH AND OTHER MANAGEMENT ARE ESSENTIAL THE SEED APPLICATION RATES IN TABLE 4-3 ARE REQUIRED WHEN A <u>REPORT</u> OF <u>COMPLIANCE</u> IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN APPLICATION RATES MAY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO REQUESTING A <u>REPORT OF COMPLIANCE</u> FROM THE DISTRICT. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVER (OF THE SEEDED SPECIES) AND MOWED ONCE. NOTE THIS DESIGNATION OF MOWED ONCE DOES NOT GUARANTEE THE PERMANENCY OF THE TURF SHOULD OTHER MAINTENANCE FACTORS BE NEGLECTED OR OTHERWISE MISMANAGED. MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

ABLE 4-3 (SELECTIONS AND RECOMMENDATIONS FROM TABLE 4-3)

PERMANENT SEED IN DETENTION BASIN MIXTURE: CONSISTING OF: (COOL SEASON SEED MIXTURE #7) STRONG CREEPING RED FESCÜÉ 130 LBS/ACRE 0 LBS/ACRE KENTUCKY BLUEGRASS 20 LBS/ACRE PERENNIAL RYE GRASS OR LBS/ACRE REDTOP 5 LBS/ACRE PLUS WHITE CLOVER

215 LBS/ACRE

PERMANENT SEED MIXTURE: CONSISTING OF: (COOL SEASON SEED MIXTURE #14) 265 LBS/ACRE TALL FESCUE 20 LBS/ACRE KENTUCKY BLUEGRASS (BLEND) 20 LBS/ACRE PERENNIAL RYE GRASS (BLEND) 305 LBS/ACRE

SEED MIX SHALL BE FRESH, CLEAN, NEW-CROP SEED WITH A GUARANTEED STATEMENT OF COMPOSITION. SEED TO BE PLANTED IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.

SEED TO BE PLANTED TO ITS OPTIMUM DEPTH OF 1/2".

SEEDING DATES: FEB 1 - OCTOBER 30.

STANDARD FOR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

METHODS AND MATERIALS 1. SITE PREPARATION

- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING.
- B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS
- C. 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 DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.). 2. SEEDBED PREPARATIO
- 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 1,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. LIME RATES SHALL BE ESTABLISHED
- B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC. SPRINGTOOTH 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 AREA 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 PRODUCING SOILS.
- 3. SEEDING A. SELECT SEED FROM RECOMMENDATIONS IN TABLE 7-2.
- 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, 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. 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 SPRAYING 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. (ALSO SEE SECTION IV MULCHING) HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. POOR SEED TO SOIL CONTACT OCCURS REDUCING SEED
- GERMINATION AND GROWTH HYDROSEEDING MAY BE USED FOR AREAS TOO STEEP FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS, STUMPS, ETC. D. 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.

(SEE MULCHING SPECIFICATION FOR PERMANENT AND TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION)

TEMPORARY VEGETATIVE STABILIZATION GRASSES. SEEDING RATES. DATES & DEPTH

SEED SELECTIONS	SEEDING RATI	E (POUNDS)	OPTIMUM SEEDING	
	PER ACRE	PER 1000 SF	DATE (Zone 7a,b)	(INCHES)
		COOL SEAS	ON GRASSES	
1. Perennial Ryegrass	100	1.0	2/15 - 5/1 8/15 - 10/15	0.5
2. Spring Oats	86	2.0	2/15 - 5/1 8/15 - 10/15	1.0
3. Winter Barley	96	2.2	8/15 - 10/15	1.0
4. Annual Ryegrass	100	1.0	2/15 - 5/1 8/15 - 10/15	0.5
5. Winter Cereal Rye	112	2.8	8/1 - 12/15	1.0
		WARM SEAS	ON GRASSES	
6. Pearl Millet	20	0.5	5/1 - 9/1	1.0
7. Millet (German or Hungarian)	30	0.7	5/1 - 9/1	1.0

1. Seeding rate for warm season grasses shall be adjusted to reflect the amount of Pure Line Seed (PLS) as determined by a germination test result. No adjustment is required for cool eason grasses

2. Cool Season Grasses may be planted all summer long if soil moisture is adequate or seed ped be propeerly irrigated.

3. Plant Hardiness Zone for this site plotted from Figure 7-1 Page 7-5 in the manual "The Standards for Soil Erosion and Sediment Control in New Jersey, 7th ed., Revised July 2017"

4. Optimum seeding depth varies, exceptionally sandy soils require the seeds to be planted to a depth two times the optimum seed planting depth recommended on this table.

MULCHING SPECIFICATION FOR PERMANENT AND TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

IULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT

A. STRAW OR HAY. UNNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, APPLIED AT THE 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 IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.

APPLICATION. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 85%-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.

ANCHORING SHALL 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 SLOPES, AND COSTS. 1. 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. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRIS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.

2. MULCH NETTINGS. STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO 5. 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 SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED. 4. LIQUID MULCH-BINDERS. - MAY BE USED TO ANCHOR HAY OR STRAW MULCH.

A. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE. B. USE ONE OF THE FOLLOWING

(1) ORGANIC AND VEGETABLE BASED BINDERS - NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC EFFECT OR IMPEDE GROWTH OF TURFGRASS. USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS. MANY NEW PRODUCTS ARE AVAILABLE, SOME OF WHICH MAY NEED FURTHER EVALUATION FOR USE IN THIS STATE

(2) SYNTHETIC BINDERS - HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS.

NOTE: ALL NAMES GIVE ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A COMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS. B. WOOD-FIBER OR PAPER-FIBER MULCH. SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 PONDS PER ACRE (OR AS RECOMMENDED BY THE PROJECT MANUFACTURER) AND MAY BE APPLIED BY A

IYDROSEEDER. THIS MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL. C. PELLETIZED MULCH. COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO-POLYMERS, TACKIFIERS, FERTILIZERS AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORMA MULCH MAT. PELLETIZED MULCH SHALL BE APPLIES IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75 LBS./1.000 SQUARE FEET AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEE FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS, SEEDED AREAS WHERE WEED-SEED FREE MULCH IS DESIRED OR ON SITES WHEF STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE. APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADIN

STANDARD FOR STABILIZATION WITH MULCH ONLY

METHODS AND MATERIALS: 1. SITE PREPARATION

- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING. B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION MEASURES. SEDIMENT BASINS, AND
- PROTECTIVE MATERIALS A. UNROTTED SMALL-GRAIN STRAW, OR SALT HAY AT 2.0 TO 2.5 TONS PER ACRE IS SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING TIE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT.
- B. SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED UNDER SUITABLE CONDITIONS AND IN QUANTITIES AS RECOMMENDED BY THE MANUFACTURER.
- C. WOOD-FIBER OR PAPER FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE (OR ACCORDING TO THE MANUFACTURER'S REQUIREMENTS)
- MAY BE APPLIED BY A HYDROSEEDE D. MULCH NETTING, SUCH AS PAPER JUTE, EXCELSIOR, COTTON, OR PLASTIC, MAY BE USED.
- E. WOODCHIPS APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 2 INCHES MAY BE USED. WOODCHIPS WILL NOT BE USED ON AREAS WHERE
- FLOWING WATER COULD WASH THEM INTO AN INLET AND PLUG IT. F. GRAVEL, CRUSHED STONE, OR SLAG AT THE RATE OF 9 CUBIC YARDS PER 1000 SQ. FT. APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 3 INCHES MAY BE USED. SIZE 2 OR 3 (ASTM C-33) IS RECOMMENDED.
- MULCH ANCHORING- SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW MULCH TO MINIMIZE LOSS BY WIND AND EATER. HIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA AND THE STEEPNESS OF SLOPES.
- A. 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 STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISSCROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
- B. MULCH NETTINGS- STAPLE PAPER, COTTON, OR PLASTIC NETTINGS OVER MULCH. USE A DEGRADABLE NETTING IN AREAS TO ME MOWED. NETTING IS USUALLY AVAILABLE IN ROLLS 4 FEET WIDE AND UP TO 300 FEET LONG.
- CRIMPER MULCH ANCHORING COULTER TOOL A TRACTOR-DRAWN IMPLEMENT ESPECIALLY DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE. THIS PRACTICE AFFORDS MAXIMUM EROSION CONTROL. BUT ITS USE IS LIMITED TO THOSE SLOPES UPON WHICH THE TRACTOR CAN OPERATE SAFELY. SOIL PENETRATION SHOULD BE ABOUT 3 TO 4 INCHES. ON SLOPING LAND, THE OPERATION SHOULD BE ON THE CONTOUR



N.J. LIC. 34458 01/27/2022

SIGN/L ENGINEER

NEW JERSEY PROF

6 OF 9



	MONMOUTH COUNTY, NEW JE	ERSEY		
	SNUG HARBOR F			
		IGINEERS		
3141 BORDENTO	OWN AVENUE, PARLIN, NEW JERSEY 08859 - 1460 ROUTE 9 SOUTH	H, HOWELL, NEW JERSEY (07731-1194	
3141 BORDENTO JOHN H. ALLGAIR P.E., P.P. (1983 - 2001)	DWN AVENUE, PARLIN, NEW JERSEY 08859 - 1460 ROUTE 9 SOUTH DAVID J. SAMUEL P.E., P.P. NJ PE LIC NO. 25838 NJ PF LIC NO. 243	JOHN J. STEFA	07731-1194 NI P.E., L.S. & P.P NJ PP I	P. LIC NO. 2089
3141 BORDENTO JOHN H. ALLGAIR P.E., P.P. (1983 - 2001) JAY B. CORNELL P.E., P.P. NJ FE UC NO. 32962 NJ FF	DAVID J. SAMUEL P.E., P.P. NJ PE LIC NO. 25838 NJ PE LIC NO. 2458 MICHAEL J. MCCLELLAND P.E., P.P. NJ PE LIC NO. 3874	4, HOWELL, NEW JERSEY (JOHN J. STEFA NJ PE IS LIC NO. 24271 GREGORY R. V NJ PE UC NO. 34458	07731-1194 NI P.E., L.S. & P.P NI PI ALESI P.E., P.P. NI PI	2. LIC NO. 2089 LIC NO. 4361
3141 BORDENTO JOHN H. ALLGAIR P.E., P.P. (1983 - 2001) JAY B. CORNELL P.E., P.P. NJ FE UC NO. 32962 NJ FE GREGORY R	DAVID J. SAMUEL P.E., P.P. NI PE LIC NO. 25838 NI PF LIC NO. 243 MICHAEL J. MCCLELLAND P.E., P.P. NI PE LIC NO. 32468 NI PF LIC NO. 377 NI PE LIC NO. 32468 NI PF LIC NO. 377	4, HOWELL, NEW JERSEY (JOHN J. STEFA 5 NJ PE LS LIC NO. 24271 GREGORY R. V 0 NJ PE LC NO. 34458 SCALE N. 7 DESUGNED BY	07731-1194 NI P.E., L.S. & P.P NI P ALESI P.E., P.P. NI P T.S.	P. LIC NO. 2009 LIC NO. 4361 RRM
3141 BORDENTO JOHN H. ALLGAIR P.E., P.P. (1993 - 2001) JAY B. CORNELL P.E., P.P. NJ FE LIC NO. 32962 NJ FE GREGORY R	DAVID J. SAMUEL P.E., P.P. NJ FE LIC NO. 25838 NJ FF LIC NO. 2455 MICHAEL J. MCCLELLAND P.E., P.P. NJ FE LIC NO. 32448 NJ FF LIC NO. 377 NJ FE LIC NO. 32448 NJ FF LIC NO. 377	4, HOWELL, NEW JERSEY (JOHN J. STEFA NJ PE IS LIC NO. 24271 GREGORY R. V/ NJ PE UC NO. 34458 SCALE NJ PE UC NO. 34458 SCALE DESIGNED BY DATE	07731-1194 NI P.E., L.S. & P.P NI PPI ALESI P.E., P.P. NI PPI T.S. CHECKED BY DEP	P. LIC NO. 2009 LIC NO. 4361 RRM BAM



NOTES:

1. FIXTURE, POLE, AND ALL COMPONENTS MANUFACTURED BY FONROCHE LIGHTING AMERICA (DAVE MURPHY & ASSOCIATES, 201-501-8336) OR APPROVED EQUAL

2. FIXTURE SHALL REMAIN OPERATIONAL 8 HOURS POST-DUSK AND 1 HOUR PRE-DAWN AT 20W, DIMMED 30% THE REMAINDER OF THE NIGHT (OR AS DESIRED BY OWNER)

LIGHTING LEGEND







PURCHASING PRODUCT.

ALL COMPONENTS PROVIDED BY BEN SHAFFER RECREATION, INC. (973-663-2021) AND MANUFACTURED BY VICTOR STANLEY, INC. OR APPROVED EQUAL N.T.S. 25-1/4"



N.T.S.



DECORATIVE BENCH W/ BACK N.T.S.

ALL COMPONENTS PROVIDED BY BEN SHAFFER RECREATION, INC. (973-663-2021) AND MANUFACTURED BY VICTOR STANLEY, INC. OR APPROVED EQUAL

INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS.

OVERALL COLOR SELECTIONS SHALL BE CHOSEN BY OWNER, PRIOR TO

STANDARD TAPERED FORMED LID, AND DECALS



INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS.

OVERALL COLOR SELECTIONS SHALL BE CHOSEN BY OWNER, PRIOR TO PURCHASING PRODUCT.

			SYMB
MODEL#	DESCRIPTION	COLOR	E
MCV-RD-3B	48" ROUND TABLE WITH THREE BACKED CHAIRS, POWER COAT FINISH, BOLTED TO CONCRETE PAD WITH STAINLESS WEDGE ANCHORS	BLACK	
MCV-RD-4B	48" ROUND TABLE WITH FOUR BACKED CHAIRS, POWDER COAT	BLACK	





No.	DESCRIPTION OF REVISION	DATE	DRAWN CHEC
	BOROUGH OF HIGHLANDS		· · · ·
Ν	IONMOUTH COUNTY, NEW JE	RSEY	
	MPROVEMENTS	ТО	
SN	ILIG HARBOR F	PARK	
	CONSTRUCTION DETAIL	S	O NAME
	Sono moethor DetAle		3
	ASSOCIATES		.: oz
3141 BORDENTOWN AV	INSULTING AND MUNICIPAL ENG ENUE, PARLIN, NEW JERSEY 08859	JINEEKS HOWELL, NEW JERSEY 07731-1194	
JOHN H. ALLGAIR P.E., P.P.	DAVID J. SAMUEL P.E., P.P.	JOHN J. STEFANI P.E., L.S. & P.P.	<u>×</u>
	NU PE LIC NO. 25838 NU PP LIC NO. 2455	NU PE LS LIC NO. 24271 NU PP L GREGORY P. VALESI P.E. P.P.	JC NO. 2089
NU PE LIC NO. 32962 NU PP LIC NO. 3	NU FE LIC NO. 32466 NU FE LIC NO. 3770	NU PE LIC NO. 34458 NU PP L	UC NO. 4361
GREGOR R V		SCALE DRAWN BY	
			BAM
In			
		UNIE SHEET	<u></u>