

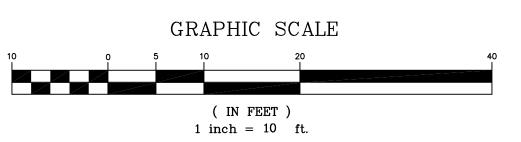
= EXIST. "B" INLET = PROPOSED "B" INLET S = EXIST. SANITARY SEWER MANHOLE →= PROPOSED 8" WATER VALVE ™ = EXIST. WATER VALVE = EXIST. FIRE HYDRANT 92 = PROPOSED CONTOUR ^{ov} = EXIST. GAS VALVE ×94.62= PROPOSED SPOT ELEVATION ∝ = EXIST. GAS METER 92.92 TC = PROPOSED TOP OF CURB = EXIST. UTILITY POLE WITH STREET LIGHT 92.42 BC = PROPOSED BOTTOM OF CURB = EXIST. UTILITY POLE FFF = 98.38 = PROPOSED FINISHED FIRST FLOOR ELEV —он——он— = EXIST. OVERHEAD WIRES FGF = 96.38 = PROPOSED FINISHED GARAGE FLOOR ELEV = PROPOSED FINISHED WOODS/BRUSH LINE CO = PROPOSED CLEANOUT ---- = EXIST. WOOD FENCE PCO = PROPOSED PRESSURE CLEANOUT -x-x- = EXIST. VINYL FENCE PROPOSED DECIDUOUS TREE = EXIST. SIGN (MISC.) → = EXIST. STREET SIGN = PROPOSED EVERGREEN TREE -() = EXIST. OLD FIRE ALARM POLE = PROPOSED TREE PROTECTION = EXIST. WOODS/BRUSH LINE = EXIST. TREE WITH SIZE = PROP SIGN (MSG) Ø = SHRUBS (3)AG ______115 = EXIST. CONTOURS $^{115.8}_{x}$ = EXIST. SPOT ELEVATION SL9 = SOIL LOG LOCATION - s --- s - = EXIST. 8" PVC SANITARY SEWER PIPE EX. PROP LINE _____= PROPOSED BOLLARD LIGHT EX. PROP LINE (TBR) PROPOSED PROP LINE PROPOSED TREELINE EXISTING TREELINE

SCALE:1" = 10"

SUMMARY OF FLOWS

| | EXISTING C | ONDITION |
|------------|--------------------------|-------------------|
| | PEAK RUN TO CENTRAL A | OFF VE GUTTER |
| EVENT | SCS (CFS) | DELMARVA (CFS) |
| WTR QUAL | 0.18 | 0.15 |
| 0 VD | 0.00 | |
| 2 YR | 0.22 | 0.21 |
| 10 YR | 0.35 | 0.33 |
| 100 \/D | 0 | |
| I IOO YR I | l() ケケ | 1 0.52 |

REFRENCE PLAN EXISTING CONDITIONS SURVEY
LOT 34 BLOCK 3701
JERSEY CITY, HUDSON COUNTY, NJ
BY: DMC ASSOCIATES, INC
ROBERT CIGOL, PLS
DATED: 07/12/21





DESCRIPTION

2.

1.

REV.

DOUGLAS C. PELIKAN, PE CIVIL & ARCHITECTURAL ENGINEERING
1701 Pennington Rd. — Ewing, NJ 08618
Phone (609)865-1596
Email: dcpenken@verizon.net

253 CENTRAL AVENUE LOT 34 - BLOCK 3701 situate in JERSEY CITY NEW JERSEY

EXISTING CONDITIONS PLAN

2 STORY RESIDENTIAL

SHEET NO.

 \triangleleft

RMAN

SANITARY MANHOLE RIM = 122.25

ELECTRIC MANHOLE

24" SANITARY SEWER INV. = 111.33

FEB 25, 2022 HUDSON COUNTY SCALE:1" = 10' FEB 25, 2022 DATE SIGNED DOUGLAS C. PELIKAN DRAWN BY: PROJECT NO. DRAWING FILE: N.J. LIC. PROFESSIONAL ENGINEER - GE27632 DCP

EXISTING CONDITON PLAN

/ SANITARY MANHOLE RIM = 119.94

INV. = 111.44

FRAME DWELLING No. 9

25.48HW OHW

EX FENCE (TBR)

LOT 33

EX WD FENCE

_EX WD FENCE

EX WD FENCE (TBR)

WD FENCE (TBR)

2 STORY

43°48′ 100.0

3 STORY

FRAME DWELLING

No. 255 FF=121.62

ROOF ELEV.= 157.21

LOT 31

COMC. WALL & TOTAL STEPS, UNDER (TBR)

2 STORY

DWELLING

FRAME & STUCCO

No. 253

2ND FLR.= 132.69 ROOF ELEV.=143.53

CONCRETE SIDEWALK

24" SANITARY SEWER

DCP

BY

DATE

70' R.O.W." WATER LINE

6" GAS LINE

36" UNDERGROUND ELECTRIC

BF=113.96 FF=121.37

CENTRAL AVENUE

-ELECTRIC MANHOLE

TRACE CIBEL

——○H₩——○H₩

NOTE: SUBJECT TO A UTILITY EASEMENT FOR OVERHEAD ... WIRES CROSSING THE REAR

OF LOT 3, BLOCK 3701.

LOT 35

EX C/L FENCE

EX FENCE (TBR)

2ND STORY DECK

3 STORY FRAME

DWELLING No. 251

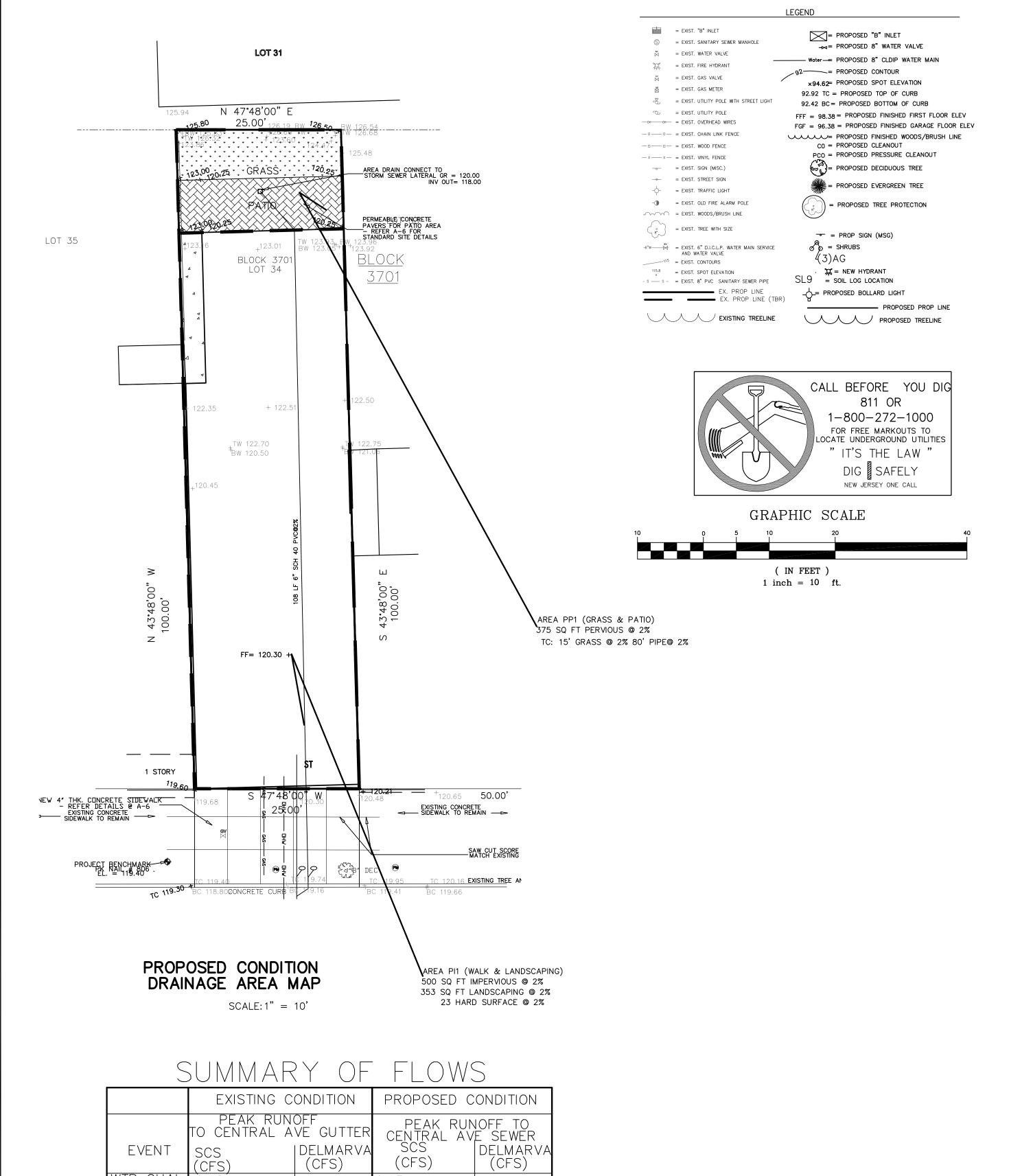
APPROX, LOCATION

OF EXISTING 20" MUNICIPAL WATER

- LINE

1 STORY

SCALE:1" = 10"



| | EXISTING C | ONDITION | PROPOSED C | ONDITION |
|----------|--------------------------|---------------------|-------------------------------|--------------------|
| | PEAK RUN TO CENTRAL A | OFF VE GUTTER | PEAK RUN CENTRAL AV SCS | IOFF TO E SEWER |
| EVENT | SCS (CFS) | DELMARVA (CFS) | SCS (CFS) | DELMARVA (CFS) |
| WTR QUAL | 0.18 | 0.15 | 0.15 | 0.15 |
| 2 YR | 0.22 | 0.21 | 0.19 | 0.18 |
| 10 YR | 0.35 | 0.33 | 0.31 | 0.29 |
| 100 YR | 0.55 | 0.52 | 0.51 | 0.48 |

LOT 31 N 47.48.00" E CNCRTE 25.00 326.19 BW 126.50 125.43H\ OH\ AREA DRAIN CONNECT TO
STORM SEWER LATERAL GR = 120.00
INV OUT= 118.00 123.00 25 · . · GRASS. REMOVE TEISTING FOLLOW TILITY FENCE & ANSTALL NEW BOARD AON PROPERTWIRES GROSSING THE REAR A-6 FOROSTANDARD, SETEODETASUSDI. PERMEABLE CONCRETE
PAVERS FOR PATIO AREA
REFER A-6 FOR
STANDARD SITE DETAILS LOT 35 BLOCK 3701 LOT 34 <u>3701</u> + 122.51 TW 122.70 \triangleleft [∓]BW 120.50 \geq NEW 4-STORY FRAME DWELLING FF= 120.30 + LOCATION AND INSTALLATION TO BE COORDINATED WITH PSE&G EXISTING GAS VALVE TO REMAIN-1 STORY PROPOSED 4" PVC SANITARY SEWER
LATERAL @ 2% SLOPE PROPOSED 4" Ø CL 52 CEMENT LINED DUCTILE IRON
PIPE W/ MECHANICAL JOINTS— G.C TO VERIFY
LOCATION IN FIELD —
REFER STANDARD WATER SERVICE DETAILS @ A-4
EXISTING STREET LIGHT POLE TO
REMAIN & NEW CONCRETE SIDEWALK PROPOSED 6" PVC STORM SEWER
LATERAL CONNECTION @ 2% SLOPE SAW CUT SCORE LINES TO

MATCH EXISTING PATTERN

PROPOSED GAS SERVICE — SIZE,
LOCATION AND INSTALLATION TO
BE COORDINATED WITH PSE&G PROJECT BENCHMARK

PROJECT BENCHMARK

EL. Nall 19.406

CURB GATE VALVE

NEW CONCRETE CURB

REFER DETAILS O A EGO TO 119.50 BC EXISTING TREE AND PIT TO REMAIN NEW PERMEABLE CONCRETE PAVERS AROUND

TREES PER FORESTRY STANDARDS — COLOR: BO BO

RUSTIN RED, HOLLANDSTONE PATTERN C

UNILOCK OR EQUAL AS CHOSEN BY THE OWNER —

TYPICAL — REFER DETAILS @ A-6 EXISTING PARKING METER_ TO REMAIN PROVIDE 45 DEG. ELBOW AND WYE FITTING AT CONENCTION OF STORM LATERAL TO SANITARY LATERAL. UNION OF STORM & SANITARY TO BE MADE WITHIN 2 FEET OF CURB 18 LF 6" SCH 40 PVC COMB SWR @ 2%-SANITARY MANHOLE 24" SANITARY SEWER INV. = 111.33 + 118.97 INV IN TO SAN = 112.48TAPING VALVE ELECTRIC MANHOLE-36" UNDERGROUND ELECTRIC 6" GAS LINE TC 118.85

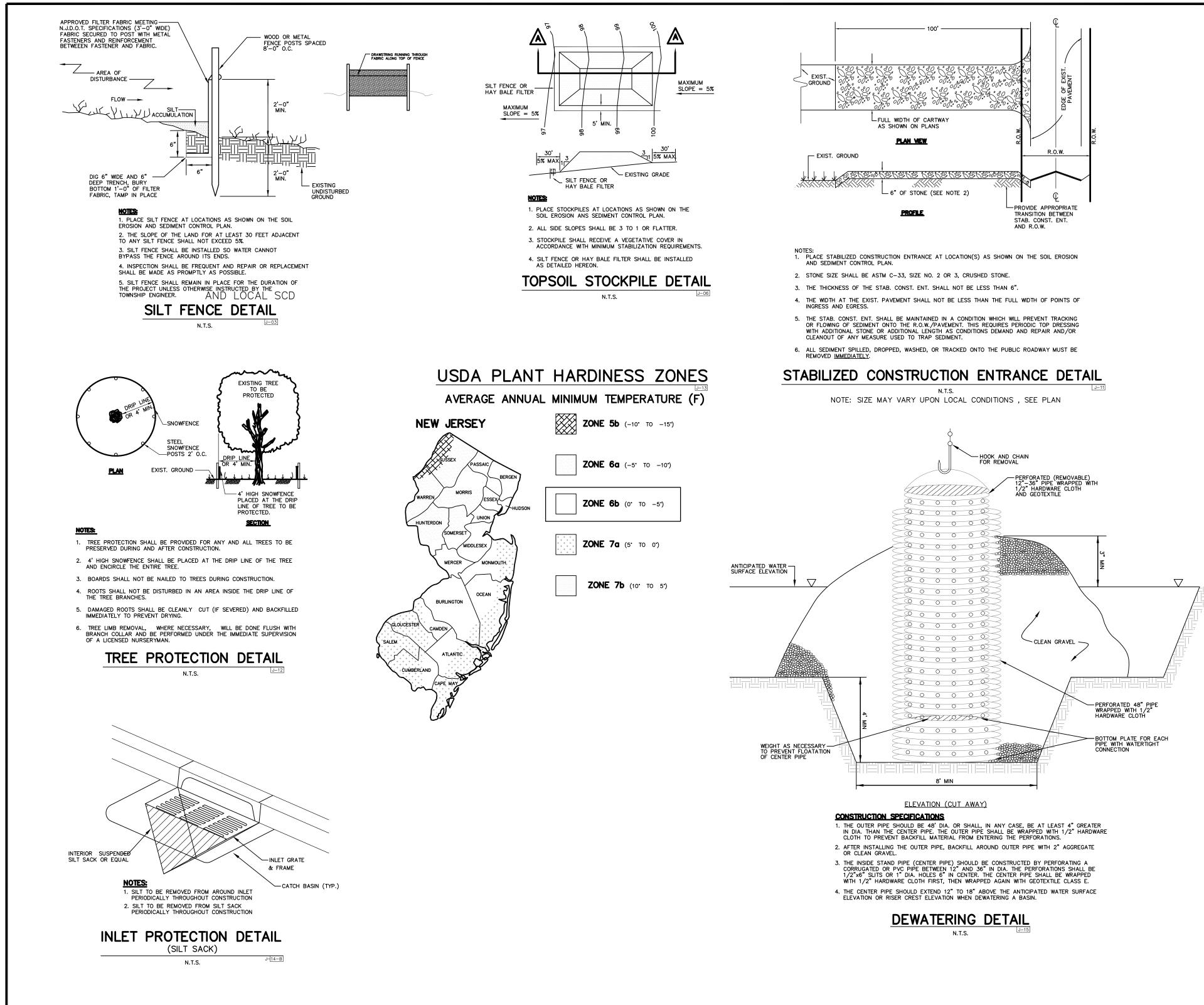
GRADING & UTILITY PLAN

REFRENCE PLAN

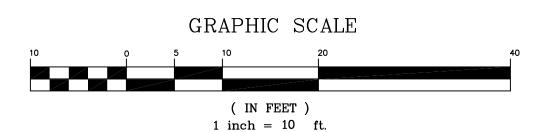
EXISTING CONDITIONS SURVEY
LOT 34 BLOCK 3701
JERSEY CITY, HUDSON COUNTY, NJ
BY: DMC ASSOCIATES, INC
ROBERT CIGOL, PLS
DATED: 07/12/21

SCALE: 1" = 10'

| | DOUGLAS C. PELIKAN,PE CIVIL & ARCHITECTURAL ENGINEERING 1701 Pennington Rd. – Ewing, NJ 08618 Phone: (609)865–1596 | GRADING & [4 STORY | DRAINAGE PL RESIDENTIAL | |
|--------------------------|--|------------------------|----------------------------------|----------|
| 6. | Email: Achelikan@verizon.net | | | |
| 5. | | | RAL AVENUE BLOCK 3701 | |
| 4. | | | BLOCK 3701 uate in EY CITY | |
| 3. | FEB 25, 2022 | HUDSON COUNTY | | JERSEY |
| 2. | DOUGLAS C. PELIKAN DATE SIGNED | SCALE: 1" = 10' | FEB 25, | , 2022 |
| 1. | N.J. LIC. PROFESSIONAL ENGINEER – GE27632 | DRAWN BY: PROJECT NO. | DRAWING FILE: SH | HEET NO. |
| REV. DESCRIPTION DATE BY | | DCP | | 2 |







CONSTRUCTION SCHEDULE LOT 10

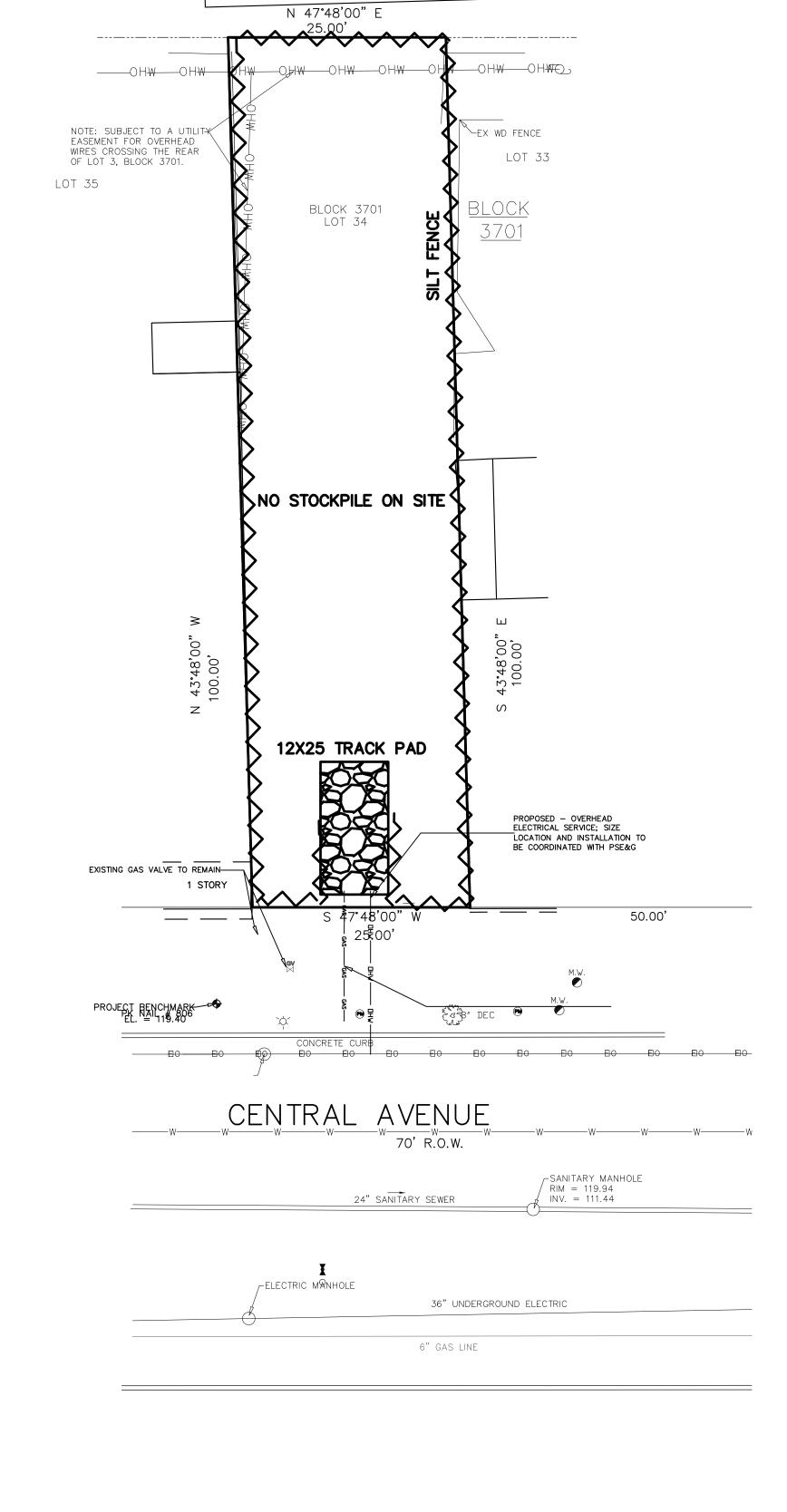
BEGIN CONSTRUCTION SPRING 2022 1. INSTALL TRACKING PAD; 1 WK 2. INSTALL SILT FENCE; 1 WK 3.DEMO EXISTING BUILDINGS; 1 WK 4. GENERAL CONSTRUCTION OF BULIDING AND GROUNDS; 8 MO 5.SOIL COMPACTION TESTING (N/A)
6.APPLICATION OF 5" TOPSOIL; 1 WK (N/A) 7. SEED AND STABILIZE; 1 WK (N/A) 8. REMOVE EROSION CONTROL MEASURES 1 WK

6.

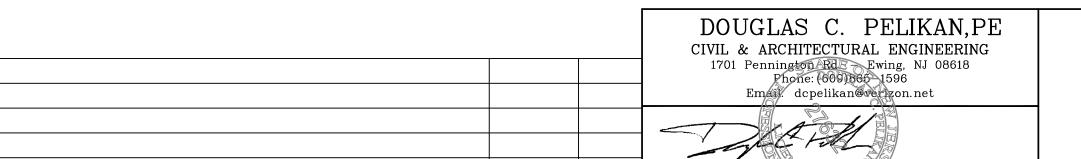
4.

REV.

AREA OF DISTURBANCE



LOT 31



253 CENTRAL AVENUE LOT 34 - BLOCK 3701 situate in JERSEY CITY NEW JERSEY

SHEET NO.

SOIL EROSION PLAN

4 STORY RESIDENTIAL

DOUGLAS C. PELIKAN N.J. LIC. PROFESSIONAL ENGINEER - GE27632

DESCRIPTION DATE BY

FEB 25, 2022

SCALE:1" = 10"

HUDSON COUNTY

DRAWN BY: PROJECT NO. DRAWING FILE:

FEB 25, 2022

STANDARD TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION DEFINITION

ESTABLISHMENT OF TEMPORARY VEGETATIVE COVER ON SOILS EXPOSED FOR PERIODS OF TWO TO 6 MONTHS WHICH ARE NOT BEING GRADED, NOT UNDER ACTIVE CONSTRUCTION OR NOT SCHEDULED FOR PERMANENT

TO TEMPORARILY STABILIZE THE SOIL AND REDUCE DAMAGE FROM WIND AND WATER EROSION UNTIL PERMANENT

WATER QUALITY ENHANCEMENT PROVIDES TEMPORARY PROTECTION AGAINST THE IMPACTS OF WIND AND RAIN, SLOWS THE OVER LAND MOVEMENT OF STORMWATER RUNOFF, INCREASES INFILTRATION AND RETAINS SOIL AND NUTRIENTS ON SITE, PROTECTING STREAMS OR OTHER STORMWATER CONVEYANCES.

WHERE APPLICABLE ON EXPOSED SOILS THAT HAVE THE POTENTIAL FOR CAUSING OFF-SITE ENVIRONMENTAL DAMAGE. METHODS AND MATERIALS

1. SITE PREPARATION . 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, PG. 19–1.

B INSTALL NEEDED FROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS. GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.

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.).

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. 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 SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM

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

3. <u>SEEDING</u> A. SELECT SEED FROM RECOMMENDATIONS IN TABLE 7-2.

3. PLANT HARDINESS ZONE (SEE FIGURE 7-1, PG 7-4.)

TEMPORARY VEGETATIVE STABILIZATION GRASSES, SEEDING RATES, DATES AND DEPTH.

| SEED SELECTIONS | | G RATES ¹ JNDS) | | MUM SEEDING D | | OPTIMUM SEED |
|------------------------------------|-------------|-------------------------------|----------------------|-----------------------|------------------------|--------------------------------|
| SEED SELECTIONS | PER ACRE | PER 1,000 SQ. FT. | ZONE 5b, 6s | ZONE 6b | ZONE 7a, b | DEPTH ⁴ (INCHES) |
| COOL SEASON GRASSES | | | | | | |
| 1. PERENNIAL RYEGRASS | 100 | 1.0 | 3/15-6/1 8/1-9/15 | 3/1-5/15 8/15-10/1 | 2/15-5/1 8/15-10/15 | 0.5 |
| 2. SPRING OATS | 86 | 2.0 | 3/15-6/1 8/1-9/15 | 3/1-5/15 8/15-10/1 | 2/15-5/1 8/15-10/15 | 1.0 |
| 3. WINTER BARLEY | 96 | 2.2 | 8/1-9/15 | 8/15-10/1 | 8/15-10/15 | 1.0 |
| 4. ANNUAL RYEGRASS | 100 | 1.0 | 3/15-6/1 8/1-9/15 | 3/15-6/1 8/1-9/15 | 2/15-5/1 8/15-10/15 | 0.5 |
| 5. WINTER CEREAL RYE | 112 | 2.8 | 8/1-11/1 | 8/1-11/15 | 8/1-12/15 | 1.0 |
| WARM SEASON GRASSES | | | | | | |
| 6. PEARL MILLET | 20 | 0.5 | 6/1-8/1 | 5/15-8/15 | 5/1-9/1 | 1.0 |
| 7. MILLET (GERMAN OR HUNGARIAN) | 30 | 0.7 | 6/1-8/1 | 5/15-8/15 | 5/1-9/1 | 1.0 |
| | | | | | | |

1. SEEDING RATE FOR WARM SEASONS GRASS, SELECTIONS 5-7 SHALL BE ADJUSTED TO REFLECT THE AMOUNT OF PURE LINE SEED (PLS) AS DETERMINED BY A GERMINATION TEST RESULT. NO ADJUSTMENT 2. MAY BE PLANTED THROUGHOUT SUMMER IF SOIL MOISTURE IS ADEQUATE OR SEEDED AREA CAN BE IRRIGATED.

B. CONVENTIONAL SEEDING. APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL <u>OR</u> 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 EED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE TEXTURED SOIL.

. 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 SEEDINH 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-SOI

CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDING EMERGENCE. THIS IS THE PREDERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.

MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTAB-LISHED AND WILL PROMOTE EASTER AND FARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SLIFE! CIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT. A STRAW OR HAY LINNROTTED SMALL GRAIN STRAW HAY FREE OF SEEDS TO BE 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 <u>NOT</u> GRIND THE MULĆH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF APPLICATION. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 95% OF

THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MUCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH 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 BE MOWED. CRIMPER (MULCH ANCHORING COULTER 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 NCHES 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 SALT HAY, 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 OCCURING, 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 DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS.

AND FOLLOWING APPLICATION TO MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR

NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION 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 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. 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 ADN WATERED, FORMA MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED 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 BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS, SEEDED AREAS WHERE WEED-SEED FREE MULCH IS DESIRED OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR

APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE



STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

ESTABLISHMENT OF PERMANENT VEGETATIVE COVER ON EXPOSED SOILS WHERE PERENNIAL VEGETATION IS NEEDED FOR LONG TERM PROTECTION. PURPOSE

TO PERMANENTLY STABILIZE THE SOIL, ASSURING CONSERVATION OF SOIL AND WATER, AND TO ENHANCE THE WATER QUALITY ENHANCEMENT

SLOWS THE OVER LAND MOVEMENT OF STORMWATER RUNOFF, INCREASES INFILTRATION AND RETAINS SOIL AND NUTRIENTS ON SITE, PROTECTING STREAMS OR OTHER STORMWATER CONVEYANCES. WHERE APPLICABLE

ON EXPOSED SOILS THAT HAVE A POTENTIAL FOR CAUSING OFF—SITE ENVIRONMENTAL DAMAGE.

METHODS AND MATERIALS . SITE PREPARATION

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

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

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

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A. GRADE AS NEEDED AS NEEDED AND FEASIBLE TO PE PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS 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 WITH OUT DAMAGING THE SOIL A UNIFORM APPLICATION TO A DEPTH OF 5" (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARDS FOR TOPSOILING.

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 -0.20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. APPLY LIMESTONE IN ACCORDANCE WITH TABLE 4-1, PG 4-2 AND THE RESULTS OF SOIL TESTING. 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. TABLE 4-1 IS A GENERAL CLIDIE INFE FOR LIMESTION. GENERAL GUIDELINE FOR LIMESTONE APPLICATION. TABLE 4-1

| LIMESTONE 1. APPLICATION | RATE BY SOIL T | EXTURE |
|--|----------------|----------------------|
| SOIL TEXTURE | TONS/ACRE | LBS. / 1,000 SQ. FT. |
| CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL | 3 | 135 |
| SANDY LOAM, LOAM, SILT LOAM | 2 | 90 |
| LOAMY SAND, SAND | 1 | 45 |

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 DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM SEEDBED IS PREPARED.

IMMEDIATELY PRIOR TO SEEDING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS PRATICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.). D. 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 SEEDBED PREPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, PG. 1–1. III. SEEDING

A. SELECT A MIXTURE FROM TABLE 4-3 (PG. 4-7) OR USE 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 VEGATATION. UP TO50% 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 PERMANENT VEGETATION MEANS 80% VEGETATIVE COVERAGE WITH THE SPECIFIED SEED MIXTURE FOR THE SEEDED AREA AND MOWED ONCE.

ONCE.

WARM SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT HIGH TEMPERATURES, GENERALLY 85' F AND ABOVE. SEE TABLE 4-3 (PG.4-7), MIXTURES 1 TO 7. PLANTING RATES FOR WARM SEASON GRASSES SHALL BE THE AMOUNT OF PURE LIVE SEED (PLS) AS DETERMINED BY GERMINATION TESTING RESULTS.

3. COOL SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT TEMPERATURES BELOW 85° F. MANY GRASSES BECOME ACTIVE AT 65' F. SEE TABLE 3, MIXTURES 8-20. ADJUSTMENT OF PLANTING RATES TO COMPENSATE FOR THE AMOUNT OF PURE LIVE SEED IS NOT REQUIRED FOR COOL SEASON GRASSES. B. CONVENTIONAL SEEDING IS PERFORMED BY APPLING 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. 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 BROKE STIMPS ETC. 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 SEEDING EMERGENCE. THIS IS THE PREDERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON THE WILL BE MANUAL TO THE WAY THE WAY THE WILL BE MANUAL TO THE WAY THE WA

MULCHING IS REQUIRED ON ALL SEEDING, MULCH WILL INSURE AGAINST EROSION BEFORE GRASS IS ESTAB-LISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFI-CIENT TO CONTROL SOIL EROSION SHALL BE DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT. A. STRAW OR HAY, UNNROTTED SMAL GRAIN STRAW, HAY FREE OF SEEDS, OR SALT HAY TO BE 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

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

 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. MULCH NETTINGS. STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED. 3. CRIMPER (MULCH ANCHORING COULTER 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 SALT HAY. 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.

AT CRESTS OF BANKS. THE REMAINDER OF THE 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 AREAS AND ON SLOPES LESS THAN 8

FEET OR MORE HIGH, USE 0.075 GAL_/SQ. YD. OR 363 GAL_/ACRE. THESE MATERIALS MAY BE

DIFFICULT TO APPLY UNIFORMLY AND WILL DISCOLOR SURFACES.

(2) ORGANIC AND VECETABLE BASED BINDERS— NATURALLY OCCURING, 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.

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 GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS. RECOMMENDATION 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 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. THIS MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PEPIODS IN SPRING AND FAIL ERIODS IN SPRING AND FALL.

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 ADN WATERED, FORMA MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED 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 BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS, SEEDED AREAS WHERE WEED—SEED FREE MULCH IS DESIRED OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR APPLYING THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE

5. IRRIGATION (WHERE FEASIBLE) IF SOIL MOISTURE IS DEFICIENT, AND MULCH IS NOT USED, SUPPLY NEW SEEDINGS WITH ADEQUATE WATER (A MINIMUM OF 1/4 INCH TWICE A DAY UNTIL VEGEATATION IS WELL ESTABLICHED). THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE IN ABNORMALLY DRY OR HOT WEATHER OR ON DROUGHTY SITES. 6. TOPDRESSING SINCE SLOW RELEASE NITROGEN FERTILZER (WATER INSOLUBLE) IS PRESCRIBED IN SECTION II. A. SEEDBED PREPARATION IN THIS STANDARD, NO FOLLOW-UP OF TOPDRESSING IS MANDATORY. AN EXCEPTION MAY BE MADE WHERE GROSS NITROGEN DEFICIENCY EXISTS TO THE EXTENT THAT TURF FAILURE MAY DEVICEOPE. IN THAT INSTANCE, TOPDRESS WITH 10-10-0 OR EQUIVALENT AT 400 POUNDS PER ACRE OR 10 POUNDS PER 1,000 SQUARE FEET.

. 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 (PG.4-7) ARE REQUIRED WHEN A <u>REPORT OF COMPULANCE</u> IN 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>REPPORT OF COMPULANCE</u> FROM THE USTRICT. THESE RATES APPLY TO ALL. METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVER (OF THE SEEDED SPECIES)

PERMANENT STABILIZATION MIXTURES FOR VARIOUS USES

| | PLANTING MIX | TURES BY SOIL DRAINAGE | CLASS/1 |
|---|----------------------------|---|---|
| APPLICATION | | (SEE TABLE 4-3) | |
| AFFLICATION | EXCESSIVELY <u>DRAINED</u> | WELL TO MODERATELY WELL <u>DRAINED</u> | SOMEWHAT POORLY TO POORLY <u>DRAINED</u> |
| RESIDENTIAL/COMMERCIAL LOTS | 12, 14, 17 | 12, 14, 15, 16, 17 | 18 |
| POND AND CHANNEL BANKS, DIKES, BERMS AND DAMS | 2, 7, 8, 12 | 7, 8, 9, 10, 11, 17 | 2, 10, 18, 19 |
| DRAINAGE DITCHES, SWALES, DETENTION BASINS | 2, 11, 13 | 2, 9, 11, 13, 14, 19 | 2, 10, 18, 19 |
| FILTER STRIPS | 14 | 13, 14 | 13, 14 |
| GRASSES WATERWAYS, SPILLWAYS | 2, 3, 11, 12, 14 | 8, 9, 11, 12, 13, 14 | 2, 11, 13, 14 |
| RECREATION AREAS, ATHLETIC FIELS | 7, 14, 17, 20 | 14, 15, 16, 17, 20 | 18 |
| <u>Special problem sites</u> Steep slopes and banks, roadways, Borrow areas | 2, 3, 6, 8 | 2, 3, 7, 9, 10, 11, 12, 17, 20 | 2, 11, 12, 13, 14 |
| SAND AND GRAVEL PITS, SANITARY LANDFILLS | 1, 2, 3, 4, 5, 6, 21 | 1, 2, 3, 4, 5, 6, 10, 17, 20 | 2, 10 |
| DREDGED MATERIAL, SPOILBANKS, BORROW AREAS | 2, 3, 6, 20 | 2, 3, 6, 11 | 2, 10 |
| STREAMBANKS & SHORELINES 2 | 2, 10,22, 23a | 2, 10, 21b, 22, 23a, 23b | 2, 10, 21a, 23a, b, c, d |
| UTILITY RIGHT-OF-WAY | 3, 9, 20 | 3, 9 | 10, 11, 19 |

. REFER TO SOILS SURVEYS FOR DRAINAGE CLASS DESCRIPTIONS.

2. REFER TO SOIL BIOENGINEERING STANDARD FOR ADDITIONAL SEED MIXTURES

3. SPILLWAYS ONLY.

3. SEE APPENDIX E FOR DESCRIPTION OF TURF GRASSES AND CULTIVARS.

TABLE 4-3 PERMANENT VEGETATIVE MIXTURES, PLANTING RATES AND PLANTING DATES

PLANTING DATES

| | PLAN | ITING | | | 0 | = OPTIM | AL PLAN | TING PE | RIOD | | | NAN 1 | REMARKS |
|--|------------------------------|---------------------------------|------------------|--------------|----------------|-------------------|------------------|----------------|-----------------|------------------|----------------|----------------------|---|
| SEED MIXTURE ² | RA1 | ΓE /3 | | PL | | | S ZON | | | | | AINTENANC :VEL /4 | |
| ı | | | ZOI | NE 5b, (| | | ZONE 6b | | _ | ONE 7a, | 7b | MAII | |
| ı | LBS/ ACRE | LBS/ 1000 SQ. FT. | 3/15- 5/31 | 6/1- 7/31 | 8/1- 10/31 | 3/1- 4/30 | 5/1- 8/14 | 8/15- 11/15 | 2/1- 4/30 | 5/1- 8/14 | 8/15- 11/30 | | |
| WARM SEASON SEED MIXTURES | | | | | | | | | | | | | |
| 1. SWITCHGRASS AND/OR COASTAL PANICGRASS PLUS SERECIA LESPEDEZA OR FLATPEA | 15 15 20 20 | .35 .34 .45 .45 | 0 | | | 0 | | | 0 | | | C-D | SERECIA LESPEDEZA NOT ADAPTED TO ZONE 5. |
| 2. DEERTONGU OR SWITCHGRASS REDTOP PLUS BIRDSFOOT TREFOIL | 15 20 1 10 | .35 .45 .1 .23 | 0 | | | 0 | | | 0 | | | C-D | USE DEETONGUE IF pH<4.0. SWITCHGRASS IS SUPERIOR MLDLIFE PLANT USE FOR WATERWAYS. REDITOP PROVIDES QUICK COVER. BIRDSFOOT NOT ADAPTED TO ZONE 6b, 7a, 7b. |
| 3. WEEPING LOVEGRASS FLATPEA OR SERECIA LESPEDEZA | 3 25 25 | .10 .60 .60 | 0 | Α | | 0 | Α | | 0 | A | | C-D | FLATPEA SUPPRESSES INVADING WOODY VEGETATION. |
| 4. SWTCHGRASS DEERTONGUE LITTLE BLUESTEM SHEEP FESCUE PLUS PARTRIDGE PEA | 15 10 20 20 10 | .35 .25 .45 .45 .25 | 0 | | | 0 | | | 0 | | | C-D | PINELANDS MIXTURE. |
| 5. SWTCHGRASS BIG BLUESTEM LITTLE BLUESTEM SAND LOVEGRASS COASTAL PANICGRASS | 10 5 5 4 10 | .25 .10 .10 .10 .25 | 0 | | | 0 | | | 0 | | | C-D | NATIVE WARM— SEASON MIXTURE. |
| 6. BERMUDAGRASS ZOYSIAGRASS (SEED) ZOYSIAGRASS (SPRIGS) | 15 30 | 0.35 0.70 | 0 | | | 0 | | | 0 | | | A-D | BERMUDAGRASS HAS SUPERIOR SALT TOLERANCE. ZOYSIA HAS GREATER WEAR TOLERANCE. |
| 7. DEERTONGUE WEEPING LOVEGRASS SERECIA LESPEDEZA | 20 3 25 | .45 .10 .60 | 0 | Α | BEFORE 8/30 | 0 | A | BEFORE 9/15 | 0 | A | BEFORE 9/30 | C-D | USE THIS MIX IF pH<4.5 AND TOXIC METALS PRESENT. |
| COOL SEASON SEED MIXTURES | | | | | | | | | | | | | |
| 8. FINE FESCUE (BLEND) HARD FESCUE STRONG CREEPING RED FESCUE | 75 | 2.1 | 0 | A | 0 | 0 | A | 0 | 0 | A | 0 | B-D | GENERAL LOW MAINTENANCE MIXTURE. |
| KENTUCKY BLUEGRASS PERENNIAL RYEGRASS PLUS WHITE CLOVER | 10 10 5 | .25 .25 .10 | | | | | | | | | | | |
| 9. STRONG CREEPING RED FESCUE KENTUCKY BLUEGRASS PERENNIAL RYEGRASS OR REDTOP PLUS WHITE CLOVER | 60 40 10 3 5 | .92 .25 .10 | 0 | A | o | 0 | A | 0 | 0 | A | 0 | B-D | SUITABLE WATERWAY MIX. CAMADA BLUEGRASS MORE DROUGHT TOLERANT. USE REDTOP FOR INCREASED DROUGHT TOLERANCE. |
| 10. TALL FESCUE (TURF-TYPE) OR STRONG CREEPING RED FESCUE OR PERENNIAL RYEGRASS PLUS CROWNVETCH OR FLATPEA | 20 20 20 25 25 | .45 .45 .45 .60 | 0 | 0 | 0 | 0 | A | 0 | 0 | A | 0 | B-D | TALL FESCUE BEST SELECTED FOR DROUGHTY CONDITIONS. USE CREEPING RED FESCUE IN HEAVY SHADE. USE FLATPEA TO SUPPRESS WOODY VEGETATION. |
| 11. DEERTONGUE REDTOP WILD RYE (ELYMUS) SWITCHGRASS | 20 2 15 25 | .45 .05 .35 .60 | 0 | | | 0 | | | 0 | | | C-D | NATIVE WET MIX. |
| 12. TALL FESCUE (TURF-TYPE) REDTOP OR PERENNIAL RYEGRASS BIRDSFOOT TREFOIL OR WHITE CLOVER | 50 5 5 10 5 | 1.1 .10 .10 .25 | 0 | Α | 0 | 0 | A | 0 | 0 | A | 0 | C-D | BIRDSFOOT TREFOIL IS BEST ADAPTED TO ZONE 5. |
| 13. REED CANARYGRASS KENTUCKY BLUEGRASS TURF-TYPE TALL FESCUE | 25 60 | 0.60 1.4 | 0 | Α | 0 | 0 | Α | 0 | 0 | Α | 0 | C-D | FILTER STRIP USE FOR NUTRIENT UPTAKE. |
| 14. TURF-TYPE TALL FESCUE (BLEND OF 3 CULTIVERS) | 150 | 3.5 | 0 | Α | 0 | 0 | A | 0 | 0 | Α | 0 | C-D | USE IN A MANAGED FILTER STRIP FOR NUTRIENT UPTAKE. |
| 15. HARD FESCUE PERENNIAL RYEGRASS KY. BLUEGRASS (BLEND) | 120 30 40 | 2.7 0.7 0.9 | 0 | Α | 0 | o | Α | 0 | 0 | Α | 0 | A-C | GENERAL LAWN/RECREATION. |
| 16. TALL FESCUE KY. BLUEGRASS (BLEND) PERENNIAL RYEGRASS (BLEND) | 160 20 20 | 3.7 0.50 0.50 | 0 | Α | 0 | 0 | Α | 0 | 0 | Α | 0 | A-B | ATHLETIC FIELD/MIX 3 CULTIVARS. OF KENTUCKY BLUEGRASS. |
| 17. HARD FESCUE CREEPING FESCUE PERENNIAL RYEGRASS | 120 30 10 | 2.7 0.7 .25 | 0 | Α | 0 | 0 | Α | 0 | 0 | Α | 0 | C-D | LOW MAINTENANCE FINE FESCUE LAWN MIX. |
| 18. ROUGH BLUEGRASS STRONG CREEPING RED FESCUE | 90 50 | 2.0 1.2 | 0 | A | 0 | 0 | A | 0 | 0 | A | 0 | C-D | MOIST SHADE. |
| 19. CREEPING BENTGRASS CREEPING RED FESCUE ALKALI SALTGRASS | 25 40 40 | 0.60 0.92 0.92 | 0 | A | 0 | 0 | A | 0 | 0 | A | 0 | B-D | USE BENTGRASS UNDER WETTER CONDITIONS. SALTGRASS WILL ONLY PERSISTENT UNDER SALINE CONDITIONS. |
| 20. HARD OR SHEEPS FESCUE N.E. WILDFLOWER MIXTURE | 25 12 | 0.60 0.35 | 0 | A | 0 | 0 | A | 0 | 0 | A | 0 | C-D | REGIONAL WILDFLOWER MIX. HYDROSEEDING NOT RECOMMENDED. |
| 21. g. SMOOTH CORDGRASS b. SALTMEADOW CORDGRASS | VEG VEG | | | | | 0 | BEFORE JULY 1 | | 0 | BEFORE JULY 1 | | D | PLANTED IN THE INTERTIDAL ZONE. PLANTED ABOVE MEAN HIGH TIDE. |
| 22. AMERICAN BEACHGRASS COASTAL PANICGRASS | VEG 20 | .45 | | | | BEFORE APRIL 1 | | | 0 | | | D | COASTAL PANICGRASS MAY BE INTERSEEDED BETWEEN ROWS OF BEACHGRASS. |
| 21. a. PURPLEOSIER WILLOW b. DWARF WILLOW c. REDOSIER DOGWOOD d. SILKY DOGWOOD | VEG. VEG. VEG. VEG. | | BEFORE MAY 10 | | | BEFORE MAY 10 | | | BEFORE MAY 1 | | | D | ALSO REFER TO CHAPTERS 16 AND 18 OF ENGINEERING FIELD HANDBOOK. USDA-NRCS |

USDA - SCS - NJ CLASSIFICATION OF NEW JERSEY SOIL SERIES INTO SITE CONDITIONS IMPORTANT TO SEEDING

| A = DROUGHTY B = WELL AND MOD C = SOMEWHAT POO | | | | | | | |
|--|---------|--------------------|-------|-------------------|-------|--------------|-------|
| D = POORLY AND V SERIES | ERY POO | RLY DRAINED SERIES | CLASS | SERIES | CLASS | SERIES | CLASS |
| ABBOTTSTOWN | С | COPLAY | | LAMINGTON | С | POPE | В |
| ADELPHIA | B | COSSAYUNA | B | LANSDALE | B | PORTSMOUTH | Ď |
| ADRIAN | D | CRESTMORE | B | LANSDOWNE | B | PREAKNESS | Ď |
| ALBIA | Č | CROTON | Ď | LAWRENCEVILLE | B | QUAKERTOWN | B |
| AMWELL | č | CULVERS | Č | LEGORE | B | RARITAN | č |
| ANNANDALE | B | DONLONTON | č | LEHIGH | Č | RAYNHAM | č |
| ASBURY | В | DOWNER | B | LENOIR | č | READINGTON | B |
| ATHERTON | Ď | DOYIESTOWN | Ď | LEON | Ď | REAVILLE | Č |
| ATHOL | В | DRAGSTON | Č | LINCROFT | Ä | RHINEBECK | č |
| ATSION | Ď | DUFFIELD | B | LIVINGSTON | Ď | RIDGEBURY | Ď |
| AURA | В | DUNELLEN | B | LYONS | D | RIVERHEAD | В |
| | | | В | | | | B |
| BARCLAY | C | DUTCHESS | | MARKSBORO | C | ROCKAWAY | |
| BARTLEY | В | EDNEYVILLE | В | MARITON | В | ROCKPORT | В |
| BATH | В | ELKTON | D | MATAPEAKE | В | ROE | Ċ |
| BAYBORO | D | ELLINGTON | В | MATAWAN | В | ROWLAND | В |
| BEATTY | В | EVESBORO | Α | MATLOCK | D | ROYCE | В |
| BEDINGTON | В | FALLSINGTON | D | MATTAPEX | В | RUTLEGE | D |
| BERKS | В | FORT MOTT | Α | MECKESVILLE | В | ST. JOHNS | D |
| BERRYLAND | D | FREDON | D | MIDDLEBURY | В | SASSAFRAS | В |
| BERTIE | С | FREEHOLD | В | MINOA | С | SCIO | С |
| BIBB | D | FRENEAU | D | MONMOUTH | В | SHREWSBURY | D |
| BIDDEFORD | D | GALESTOWN | Α | MOUNT LUCAS | В | SLOAN | D |
| BIRDSBORO | В | HACKETTSTOWN | В | NASSAU | A | STEPHENSBURG | В |
| BOONTON | B | HALEDON | č | NAVESINK | В | SWARTSWOOD | B |
| BOWMANSVILLE | č | HALSEY | Ď | NESHAMINY | B | TINTON | Ã |
| BOYNTON | Ď | HAMMONTON | B | NETCONG | B | TIOGA | B |
| BRACEVILLE | В | HAZEN | В | NIXON | В | TOWNSBURY | В |
| BRIDGEVILLE | Č | HAZLETON | В | NIXONTON | В | TUNKHANNOCK | В |
| BUCKS | В | HERO | В | NORTON | В | TURBOTVILLE | Č |
| | D | HIBERNIA | Č | | D | UNADILLE | В |
| BURNHAM | В | HOLMDEL | В | NORWICH OQUAGE | В | VALOIS | B |
| CALIFON | | | | | | | |
| CARLISLE | D | HOLYOKE | A | OSIER | D | WALLKILL | D |
| CATTARAUGUS | В | HOOSIC | A | OTHELLO | D | WASHINGTON | В |
| CHALFONT | С | HOWELL | В | OTISVILLE | Α | WASSAIC | В |
| CHATFIELD | В | KEANSBURG | D | PALMYRA | В | WATCHUNG | D |
| CHENANGO | В | KENDAIA | D | PARKER | Α | WAYLAND | D |
| CHILLUM | В | KEYPORT | В | PARSIPPANY | D | WEEKSVILLE | D |
| CHIPPEWA | С | KISTLER | В | PASQUOTANK | D | WELLSBORO | С |
| COKESBURY | D | KIEJ | Α | PATTENBURG | В | WESTPHALIA | В |
| COLDEN | D | KLINESVILLE | Α | PEMBERTON | Α | WHIPPANY | С |
| COLEMANSTOWN | D | KRESSON | С | PENN | В | WHITMAN | Ď |
| COLLINGTON | В | LACKAWANNA | B | PHELPS | c | WOODGIEN | Ď |
| COLONIE | Ā | LAKEHURST | Ā | PLUMMER | Ď | WOODMANSIE | B |
| COLTS NECK | В | LAKELAND | Ä | POCOMOKE | D | WOODSTOWN | В |
| COMLY | Č | LAKEWOOD | Ä | POMPTON | Č | WOOSTER | В |
| CUT AND FILL LAND | - | | ,, | 1011 | • | WURTSBORO | В |

STANDARD FOR DUST CONTROL DEFINITION

<u>PURPOSE</u> TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCE ON- AND OFF-SITE DAMAGE AND HEALTH HAZARDS, AND IMPROVE TRAFFIC SAFETY. WHERE APPLICABLE

THE CONTROL OF DUST ON CONSTRUCTION SITES AND ROADS.

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT WHERE ON- AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT. CONSULT WITH LOCAL MUNICIPAL ORDINANCES ON ANY RESTRICTIONS. PLANNING CRITERIA THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST:

MULCHES - SEE STANDARDS FOR STABILIZATION WITH MULCHES ONLY (P. 3.3.1). <u>VEGETATIVE COVER</u> - SEE STANDARDS FOR: TEMPORARY VEGETATIVE COVER (P. 3.6.1), PERMANENT VEGETATIVE COVER (P. 3.2.1), AND PERMANENT STABILIZATION WITH SOD (P. 3.6.1). SPRAY-ON ADHESIVES - ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS.

| | WATER DILUTION | TYPE OF NOZZLE | APPLY GALLONS/ACRE |
|--|-------------------------|--|-----------------------|
| ANIONIC ASPHALT EMULSION LATEX EMULSION RESIN IN WATER | 7: 1 12.5: 1 4: 1 | COARSE SPRAY FINE SPRAY FINE SPRAY | 1,200 235 300 |
| TILLAGE — TO ROUGHEN SURFACE AND BRIN | BEFORE SOIL E | BLOWING STARTS. BEGI | N PLOWING ON WINDY |

SIDE OF SITE: SHISEL-TYPE PLOWS SPACED ABOUT 12 INCHES APART, AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT. SPRINKLING - SITE IS SPRINKLED UNTIL THE SURFACE IS WET.

<u>BARRIERS</u> — SOILID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. CALCIUM CHLORIDE — SHALL BE IN THE FORM OF LOOSE, DRY GRANULES OR FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMMAGE. IF USED ON STEEPER SLOPES, THAN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS OR ACCUMULATION AROUND PLANTS. STONE - COVER SURFACE WITH CRUSHED STAON OR COARSE GRAVEL.

PERMANENT STABILIZATION WITH SOD

TO PERMANENTLY STABILIZE THE SOIL WITH AN IMMEDIATE AESTHETIC COVERING, THUS ASSURING CONSERVATION WATER QUALITY ENHANCEMENT PROVIDES IMMEDIATE, PERMANENT VEGATATIVE COVER TO THE SOIL FROM THE IMPACTS OF WIND OR RAIN AND PREVENTS SOIL AND NUTRIENT LOSSES TO STREAMS & OTHER STORMWATER CONVEYANCES FROM RUNOFF. WHERE APPLICABLE

ON EXPOSED SOILS THAT HAVE A POTENTIAL FOR CAUSING OFF—SITE ENVIRONMENTAL DAMAGE WHERE A QUICK VEGETATIVE COVER IS DESIRED. MOISTURE IS REQUIRED FOR SUCCESS; ACCESS TO IRRIGATION IS ESSENTIA METHODS AND MATERIALS

ESTABLISHING PERMANENT VEGETATION USING SOD.

1. CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD. SPECIFY "CERTIFIED SOD," OR OTHER HIGH QUALITY CULTIVATED SOD.

2. SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDEY GRASSES.

3. SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING. (EXCLUDES TOP GROWTH.)

4. SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 10 PERCENT OF THE STRIP. BROKEN PADS OR TORN AND UNEVEN ENDS WILL NOT BE ACCEPTABLE. 5. FOR DROUGHTY SITES, A SOD OF KENTUCKY 31 TALL FESCUE AND BLUEGRASS IS PREFERRED OVER A

ONLY MOIST, FRESH, UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 36 HOURS. I. SITE PREPARATION

A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR LIMING, FERTILIZING, AND SOIL PREPARATION. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING. B. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 6" (UNSETTLEDOIS REQUIRED AT ALL SITES. SEE THE STRNDARDS FOR TOPSOIL AND AMENDMENT REQUIREMENTS.

II. SOIL PREPARATION A. APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS SUCH AS THOSE OFFERED BY RUTGERS UNIVERSITY SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 500 POUNDS WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE, INCORPORATE INTO SURFACE 4". IF FERTALIZER IS NOT INCORPORATED APPLY 1/2 THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER 1/2 RATE APPLICATION WITHIN 3 T 5 WEEKS AFTER SEEDING. APPLY LIMESTONE A RATE OF 2T/AC UNLESS SOIL TESTING INDICATES OTHERWISE. CALCIUM CARBONATE

| IS THE EQUIVALENT AND STANDARD FOR THE MEAA SOIL ACIDITY & SUPPLY CALCIUM & MAGNESIUM T LIME APPLICATION RATE BY | O GRASSES & LEGU | MES. |
|---|------------------|----------------------|
| SOIL TEXTURE | TONS/ACRE | LBS. / 1,000 SQ. FT. |
| CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL SANDY LOAM, LOAM, SILT LOAM LOAMY SAND, SAND | 3 2 1 | 135 90 45 |

PULYERIZED DOLOMITIC LIMESTONE IS PREFERRED FOR MOST SOILS SOILS SOUTH OF THE NEW BRUNSWICK - TRENTON LINE. 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 DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM FINE SEEDBED IS PREPARED.

C. REMOVE FROM THE SURFACE ALL OBJECTS THAT WOULD PREVENT GOOD SOD TO SOIL CONTACT AND REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS,

LUMPS, OR OTHER UNSUITABLE MATERIAL. D. INSPECT SITE JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED AS ABOVE. III. SOD PLACEMENT

A. SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.

B. PLACE SOD STRIPS WITH SNUG, EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION. C. ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS.

D. ON SLOPES GREATER THAN 3 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WRE STAPLES, OR SPLIT SHINGLES (8 TO 10 INCHES LONG BY 3/4 INCH WIDE). SPLIT SHINGLES (8 TO 10 INCHES LONG BY 3/4 INCH WIDE).

E. SURFACE WAITER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WAITER—CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.

F. IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS

SSING — IF SLOW RELEASE NITROGEN (400 POUNDS 10-10-10 PER ACRE OR EQUIVALENT) IS USED IN N TO SUGGESTED FERTILIZER, THEN A FOLLOW UP EVERY 3 TO 5 WEEKS UNTILLGROSS NITROGEN Y IN THE TURF IS AMELIORATED.

STANDARD FOR TOPSOILING

DEFINITION

TOPSOILING ENTAILS THE DISTRIBUTION OF SUITABLE QUALITY SOIL ON AREAS TO BE VEGETATED. TO IMPROVE THE SOIL MEDIUM FOR PLANT ESTABLISHMENT AND MAINTENANCE. WATER QUALITY ENHANCEMENT GROWTH AND ESTABLISHMENT OF A VIGOROUS COVER IS FACILITATED BY TOPSOIL, PERVENTING SOIL LOSS BY WIND AND RAIN OFFSITE INTO STREAMS AND OTHER CONVEYANCES.

WHERE APPLICABLE TOPSOIL SHALL BE USED WHERE SOILS ARE TO BE DISTURBED AND WILL BE REVEGETATED. METHODS AND MATERIALS

. MATERIALS

A. TOPSOIL SHOULD BE FRIABLE AND LOAMY, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE THAT MAY BE HARMFUL TO PLANT GROWTH. A PH RANGE OF 5.0—7.5 IS ACCEPTABLE. SOLUBLE SALTS SHOULD NOT BE EXCESSIVE (CONDUCTIVITY LESS THAN 0.5 MILLIMHOS PER CENTIMETER). TOPSOIL HAULED IN FROM OFF SITE SHOULD HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. RGANIC MATTER CONTENT MAY BE RAISED BY ADDITIVES. B. TOPSOIL SUBSTITUTE IS A MATERIAL WHICH MAY HAVE BEEN AMMENDED WITH SAND, CLAY, ORGANIC MATTER FERTILIZER, OR LIME AND HAS THE APPEARANCE OF TOPSOIL.TPSOIL SUBSTITUTES MAY BE USED ON SITES WITH INSUFFICIENT TOPSOIL FOR ESTABLISHING PERMANENT VEGATATION. 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 ORGANICMATTER, SOLUABLE SALTS AND PH LEVEL.

A. FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHTER QUANTITY AND OR QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING. B. STRIPPING SHOULD BE CONFINED TO THE IMMMEDIATE CONSTRUCTION AREA.

C. WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY THE SOIL TESTS TO BRING 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 ENVIRONMENTAL DAMAGE. F. STOCKPILES SHOULD BE VEGETATED IN ACCORDANCE WITH STANDARDS PREVIOUSLY DESCRIBED HEREIN; SEE PAGE 4-1 OR TEMPORARY (PG7-1). WEEDS SHOULD NOT BE ALLOWED TO GROW ON STOCKPILES A. GRADE AT THE ONSET OF THE OPTIMAL SEEDING PERIOD SO AS TO MINIMIZE THE DURATION OF EXPOSURE OF

DISTURBED SOL TO EROSION. IMMEDIATELY PROCEES O ESTABLISH VEGATATIVE COVER IN ACCORDANCE WITH THE SPECIFIED SEED MIXTURE. TIME IS OF THE ESSSENCE. B. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION SEEDING, MULCH APPLICATION AND ANCHORIN, AND MAINTENANCE. SEE STANDARDS FOR LAND GRADING PG 19-1 C. AS GUIDANCE FOR IDEAL CONDITIONS, SUBSOIL SHOULD BETESTED FOR LIME REQUIREMENT. LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL TO A PH OF APPROX 6.5 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4".LISH VEGATATIVE COVER IN ACCORDANCE WITH THE

D. PRIOR TO TOPSOILING, THE SUBSOIL SHALL BE IN COMPLIANCE WITH THE STANDARD FOR LAND GRADING PG 19-1 STABILIZATION MEASURES, SEDIMENTATION BASINS, AND WATERWAYS. SEE STANDARDS 11 THRU 42 A. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE, IE, LESS THAN FIELD CAPACITY (SEE GLOSSARY).

B. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) FIRMED IN PLACE IS REQUIRED. ALTERNATIVE DEPTHS MAY BE CONSIDERED WHERE SPECIAL REGULATORY &/OR INDUSTRY DESIGN STANDARDS ARE APPROPIAT SUCH AS GOLF COURSE, SPORT FIELD, LANDFILLCAPPING, ETC.. SOILS WITH A PH OF 4 OR MORE, IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOIL (PG 1-1)

LEAST 80% OF THE SOILSTO BE STABILIZED WITH VEGATATION. FAILURE TO ACHIEVE THE MINIMUM COVERAGE MAY REQUIRE ADDITIONAL WORK TO BE PERFORMED BY THE CONTRACTORTO INCLUDE SOME OR ALL OF THI FOLOWING: SUPPLEMENTAL SEEDING, RE-APPLICATION OF LIME AND FERTILIZER, &/OR THE ADDITIONOF ORGANIC THOSE OFFERED BY RUTGERS COOPERATIVE EXTENSION SERVICE OR OTHER APPROVED LABORATORY FACILITIES QUALIFIED TO TEST SOIL SAMPLES FOR AGRONOMIC PROPERTIES.

STANDARD FOR TREE PROTECTION DURING CONSTRUCTION

DEFINITION PROTECTION OF DESIRABLE TREES FROM ENVIRONMENTAL AND MECHANICAL INJURY DURING CONSTRUCTION

O PROTECT DESIRABLE TREES THAT HAVE VALUE FOR EROSION AND SEDIMENT CONTROL, SHADE, AESTHETICS, SONG BIRDS, OTHER WILDLIFE, DUST CONTROL, NOISE ABATMENT, AND OXYGEN PRODUCTION. WHERE APPLICABLE

ON NEW DEVELOPMENT SITES CONTAINING VALUABLE TREES. METHODS AND MATERIALS

1. THE RECONNAISSANCE BEFORE LAND CLEARING BEGINS CAN RESULT IN AN AESTHETICALLY PLEASING DEVELOPMENT WITH NATURAL VEGETATION RATHER THAN THE PRESENCE OF DEAD OR DYING TREES. INVENTORY THE SITE AND CLEARLY MARK THE TREES TO BE SAVED. CONSIDER RELOCATING STRRETS, HOUSES, OR OTHER STRUCTURES IF NECESSARY AND FEASIBLE. ONCE CLEARING BEGINS AND DAMAGE TO THE TREES OCCURS, VALUABLE SPECIMENS MAY BE LOST. A. CHARACTERISTICS OF TREES TO BE PROTECTED AND SAVED. THE FOLLOWING LISTS CHARACTERISTICS THAT SHOULD BE EVALUATED BEFORE DECIDING TO REMOVE OR PROTECT A TREE.

(1) TREE VIGOR TREE HEALTH IS THE OVERALL CONDITION OF THE TRE. A TREE OF LOW VIGOR IS MORE SUSCEPTIBLE TO DAMAGE BY ENVIRONMENTAL CHANGES THAN HEALTHY TREES AND IS MORE SUSCEPTIBLE TO INSECT AND DISEASE ATTACKS. INDICATIONS OF POOR VIGOR INCLUDE THE DYING OF THE TIPS OF THE BRANCHES AND ENTIRE LIMBS, SMALL ANNUAL TWIG GROWTH, STUNTED LEAF SIZE, SPARSE FOILAGE, AND POOR FOILAGE COLOR. AVOID SAVING HOLLOW OR ROTTEN TREES, TREES CRACKED, SPLIT, LEANING OR CROOKED, OOZING SAP, OR WITH BROKEN TOPS.

(2) TREE AGE VERY OLD. PICTURESQUE TREES MAY BE MORE AESTETICALLY VALUABLE THAN SMALLER. YOUNG EES, BUT ALSO REQUIRE MORE EXTENSIVE PROTECTION MEASURES. IF LEAVING A VERY OLD TREE, BE SURE IT IS SOUND AND HEALTHY. (3) SPECIES

MANY SPECIES OF TREES FOUND IN NEW JERSEY WOODLANDS ARE NOT SUITABLE FOR SHADE TREE USES AROUND BUILDINGS. AVOID PROTECTING TREES THAT ARE SHORT—LIVED, BRITTLE, HAVE SOFT WOOD, MESSY LEAVES, FRUIT, OR ARE FREQUENTLY ATTACKED BY INSECTS AND DISEASE. TREE ROOT SYSTEMS WHICH DO NOT ADAPT WELL TO CUTS & FILLS MAY NOT BE A SUITABLE ALTERNATIVE. THE FOLLOWING ARE SEVERELY AFFECTED BY COMPACTED CONSTRUCTION FILL: SEE PAGE 9-2

(4) RESISTANT TO INSECTS AND DISEASES AVOID LEAVING TREES IN HIGHLY VISIBLE AREAS OR SPECIMENS THAT ARE FREQUENT TARGETS OF INSECTS AND DISEASES. AMERICAN ELM, FOR EXAMPLE, COULD BE LOST DUE TO DUTCH ELM DISEASE. WILD CHERRY, ANOTHER EXAMPLE, IS A FAVORITE HOST OF THE TENT CATERPILLAR, WHICH CAUSES DEFOILATION OF THE TREES IN EARLY SUMMER. SEE PAGE 9—2

CHOOSE TREES THAT ARE AESTHETICALLY PLEASING, EXHIBITING GOOD SHAPE AND FORM. AVOID LEANING, CROOKED, AND MISSHAPEN TREES. OCCASIONALLY, AN ODD—SHAPED TREE OR ONE OF UNUSUAL FORM MAY ADD INTEREST TO THE LANDSCAPE IF STRATEGICALLY LOCATED. BE SURE THE TREE IS STRUCTURALLY SOUND AND VIGOROUS.

(6) SPRING AND AUTUMN COLORATION SPECIES DIFFER IN FALL COLOR. SOME ARE BRIGHT RED, OTHERS ORANGE AND YELLOW. OTHER SPECIES EXHIBIT NO AUTUMN COLOR, SUCH AS WALNUT, LOCUST, AND SYCAMORE.

(7) WILDLIFE BENEFITS FAVOR TREES THAT ARE PREFERRED BY WILDLIFE FOR FOOD, COVER, AND NESTING. A MIXTURE OF EVERGREENS AND HARDWOODS IS BENEFICIAL. EVERGREEN TREES ARE IMPORTANT FOR COVER DURING THE WINTER MONTHS. THE HARDWOODS ARE MORE VALUABLE FOR FOOD.

(8) AIR POLLUTION SUSCEPTIBILITY TREE SPECIES VARY GREATLY IN THIS RESPECT. SYMPTOMS VARY FROM BROWNING ON THE EDGES OF THE LEAVES AND NEEDLES, TO STUNTING OF GROWTH, TO DEATH OF THE TREE. (9) SPECIES LONGEVITY

FAVOR TREES WHOSE LIFE SPAN IS LONG, SUCH AS OAK, BEECH, AND TULIP POPLAR. SHORT—LIVED TREES SHOULD BE AVOIDED FOR USE AS SHADE, LAWN, OR SPECIMEN TREES. ALTHOUGH SOME SHORT—LIVED TREES HAVE AN ATTRACTIVE FORM OR PLEASING COLORATION IN THE SPRING OR FALL, SUCH TREES MAY NOT LIVE FOR A LONG TIME. SEE PAGE 9—2,9—3 B. CRITERIA FOR PROTECTING REMAINING TREES:

(2) <u>BOX TREES</u> WITHIN 25 FEET OF A BUILDING SITE TO PREVENT MECHANICAL INJURY. FENCING OR OTHER BARRIER SHOULD BE INSTALLED AT THR DRIP LINE OF THE TREE BRANCHES. SEE FIGURE (3) BOARDS WILL NOT BE NAILED TO TREES DURING BUILDING OPERATIONS.

(4) FEEDER ROOTS SHOULD NOT BE CUT IN THE AREA INSIDE THE DRIP LINE OF THE TREE BRANCHES. (5) <u>DAMAGED TRUNKS OR EXPOSED ROOTS</u> WILL BE PAINTED IMMEDIATELY WITH A GOOD GRADE OF "TREE PAINT." <u>CARE FOR SERIOUS INJURY SHOULD BE PRESCRIBED BY A PROFESSIONAL FORESTER</u> OR LISCENSED TREE EXPERT.

(6) TREE LIMB REMOVAL, WHERE NECESSARY, WILL NOT BE FLUSH TO TRUNK OR MAIN BRANCH AND THAT AREA PAINTED WITH A GOOD GRADE OF TREE PAINT. SEE FIGURE 9.1, 9.2 NOTE: FOR MORE SPECIFIC DATA ON CERTAIN TREE CHARACTERISTICS, CONSULT THE TREE SCHRUB AND VINE STANDARD IN THIS HANDBOOK (PG. 3.8.1) OR CONSULT LOCAL PROFESSIONAL EXPERTS. YOUR LOCAL SOIL CONSERVATION DISTRICT OR COUNTY AGRICULTURAL AGENT CAN ASSIST YOU IN THIS.

STANDARD FOR STABILIZATION WITH MULCH ONLY

STABILIZING EXPOSED SOILS WITH NON-VEGETATIVE MATERIALS.

(1) MECHANICAL DAMAGE - SEE FIGURE 9.3.

PURPOSE

TO PROTECT EXPOSED SOIL SURFACES FROM EROSION DAMAGE AND TO REDUCE OFFSITE ENVIRONMENTAL DAMAGE. WHERE APPLICABLE

THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO EROSION, WHERE THE SEASON AND OTHER CONDITIONS

MAY NOT BE SUITABLE FOR GROWING AN EROSION—RESISTANT COVER OR WHERE STABILIZATION IS NEEDED FOR

A SHORT PERIOD UNTIL MORE SUITABLE PROTECTON CAN BE APPLIED. METHODS AND MATERIALS

. SITE PREPARATION
A. GRADE, AS NEEDED AND FEASIBLE, TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR APPLYING AND ANCHORING MULCH. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING. B. EMPLOY NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.

II. PROTECTIVE MATERIALS

A. UNROTTED SMALL-GRAIN STRAW, HAY, OR SALT HAY AT 2.0 TO 2.5 TONS PER ACRE IS SPREAD

A. UNROTTED SMALL-GRAIN STRAW, HAY, OR SALT HAY AT 2.0 TO 2.5 TONS PER ACRE IS SPREAD

A. UNROTTED SMALL-GRAIN STRAW, HAY, OR SALT HAY AT 2.0 TO 2.5 TONS PER ACRE IS SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING TIEDOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT. B. ASPHALT EMULSION OR CUTBACK ASPHALT IS NOT ALLOWED

C. SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED -- UNDER STABLE CONDITIONS AND IN SUFFICIENT QUANTITIES AS RECOMMENDED BY MANUFACTURER. D. WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE MAY BE APPLIED BY A HYDROSEEDER OR HYDROMULCHER.

E. MULCH NETTING, SUCH AS PAPER JUTE, EXCELSIOR, COTTON, OR PLASTIC, MAY BE USED. F. 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. G. GRAVEL, CRUSHED STONE, OR SLAG AT THE RATE OF 9 CUBIC YARDS PER 1,000 SQ. FT. APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 3 INCHES MAY BE USED. SIZE 2 OR 3 (ASTM C-33) IS

III. MULCH ANCHORING - SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW MULCH TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA AND STEEPNESS OF SLOPES.

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 CRISS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS. $\frac{\text{MULCH NETTINGS}}{\text{USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.}} \text{ NETTING IS USUALLY AVAILABLE IN ROLLS 4} \\ \text{FEET WIDE AND UP TO 300 FEET LONG.}$

MULCH ANCHORING 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. TOOL PENETRATION SHOULD BE DONE ABOUT 3 TO 4 INCHES. ON SLOPING LAND, THE OPERATION SHOULD BE DONE ON THE CONTOUR. D. <u>LIQUID MULCH-BINDERS</u>

 APPLICATIONS 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. 2. USE ONE OF THE FOLLOWING:

A. ORGANIC AND VEEGATABLE BASED BINDERS, SEE PAGE 5.2 APPLY AT RATES SPEWCIFIED BY MANUFACTURER

B. SYNTHETIC OR ORGANIC BINDERS — BINDERS SUCH AS CURASOL, DCA—70, PETRO—SET, AND TERRA—TACK MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS. NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER

LOCAL COUNTY SOIL CONSERVATION DISTRICT: ADDRESS: HUDSON COUNTY SOIL CONSERVATION DISTRICT 80 ORCHARD STREET

BLOOMFIELD, N.J. 07003

PHONE: (862) 333-4505

RECOMMENDED CULTIVARS CHEWING'S FESCUE KENTUKY BLUEGRASS ARBORETUM TOUCHDOWN AMERICA BARON Phone (609)865 1596 REBEL FALCON SWITCHGRASS BLACKWELL CROWNVETCH PENNGIFT CHEMUNG SPREADING FESCUE FORTRESS ENSYIVA PERENNIAL RYEGRASS REPEL PENNANT CITATION DIPLOMAT OR OTHER IMPROVED CULTIVARS BIRDSFOOT TREEFOIL HARD FESCUE RELIANT SPARTON al Coll SHEEP FESCUE DOUGLAS C. PELIKAN

DOUGLAS C. PELIKAN, PE

CIVIL & ARCHITECTURAL ENGINEERING 1701 Pennington Rd. – Ewing, NJ 08618 Email: dopelikan@verizon.net

N.J. LIC. PROFESSIONAL ENGINEER - GE27632

FEB 25, 2022

SOIL EROSION NOTES 4 STORY RESIDENTIAL

253 CENTRAL AVENUE

LOT 34 - BLOCK 3701

SOIL EROSION AND SEDIMENT CONTROL NOTES

ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCES, OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.

. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN 30 DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.

PERMANENT VEGETATION SHALL BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. MULCH WILL BE USED FOR PROTECTION UNTIL SEEDING IS ESTABLISHED.

ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE STATE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.

5. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRAD-ING AND INSTALLATION OF IMPROVEMENTS IN ORDER TO STABILIZE STREETS, ROAD, DRIVEWAYS AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN 15 DAYS OF PRELIMI-NARY GRADING.

IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OF ROUGH GRADING ALL CRITICAL AREAS SUBJECT TO EROSION (IE: STEEP SLOPES, ROADWAY EMBANKMENTS) WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.

ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION PROCEEDS (IE: SLOPES GREATER THAN $3{:}1$).

*8. TRAFFIC CONTROL STANDARDS REQUIRE THE INSTALLATION OF A 50'X 25'X 1'
PAD OF 1 1/2" TO 2" STONE, AT ALL CONSTRUCTION DRIVEWAYS, IMMEDIATELY
AFTER INITIAL SITE DISTURBANCE.

9. IN ACCORDANCE WITH THE STANDARDS FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE COVERED WITH A MINIMUM OF 12" OF SOIL HAVING A PH OF 5 OR MORE PRIOR TO SEEDBED PREPARATION.

11. AT THE TIME WHEN THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE
A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER,
SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT WILL PERMANENTLY,
ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE

12. IN THAT NUSA 4:24—39 ET SEQ., REQUIRES THAT NO CERTIFICATES OF OCCUPANCY BE ISSUED BEFORE THE PROMISIONS OF THE CERTIFIED PLAN FOR SOIL
EROSION AND SEDIMENT CONTROL HAVE BEEN COMPLIED WITH FOR PERMANENT
MEASURES, ALL SITE WORK FOR SITE PLANS AND ALL WORK AROUND INDIVIDUAL LOTS IN SUBDIVISIONS, WILL HAVE TO BE COMPLETED PRIOR TO THE
DISTRICT ISSUING A REPORT OF COMPLIANCE FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY.

*13. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.

14. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CON-TROL PLANS TO M.C.S.C.D. FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION & SEDIMENT CONTROL STANDARDS.

MULCHING TO THE STANDARDS IS REQUIRED FOR OBTAINING A CONDITIONAL REPORT OF COMILANCE. CONDITIONALS ARE ONLY ISSUED WHEN THE SEASON PROHIBITS SEEDING.

CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL ADJACENT ROADS CLEAN DUR-ING LIFE OF CONSTRUCTION PROJECT.

18. THE DEVELOPER SHALL BE RESPONSIBLE FOR REMEDIATING ANY EROSION OR SEDIMENT PROBLEMS THAT ARISE AS A RESULT OF ONGOING CONSTRUCTION AT THE REQUEST OF THE MERCER COUNTY SOIL CONSERVATION DISTRICT.

19. HYDROSEEDING IS A TWO STEP PROCESS. THE FIRST STEP INCLUDES SEED, FERTILIZER, LIME ETC. ALONG WITH MINIMAL AMOUNTS OF MULCH TO PROMOTE CONSISTENCY, GOOD SEED TO SOIL CONTACT, AND GIVE A VISUAL INDICATION OF COVERAGE. UPON COMPLETION OF SEEDING OPERATION, HYDRO—MULCH SHOULD BE APPLIED AT A RATE OF 1500 LBS. PER ACRE IN A SECOND STEP.

THE USE OF HYDRO-MULCH, AS OPPOSED TO STRAW, IS LIMITED TO OPTIMUM SEEDING DATES AS LISTED IN THE STANDARDS.

COUNTY SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED OF ANY CHANGES IN OWNERSHIP.

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.

10. COUNTY SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF ANY LAND DISTURBING ACTIVITY.

situate in JERSEY CITY HUDSON COUNTY

NEW JERSEY SCALE: 1" = 10"FEB 25, 202 PRAWN BY: PROJECT NO. DRAWING FILE: SHEET N

REV. DATE BY DESCRIPTION