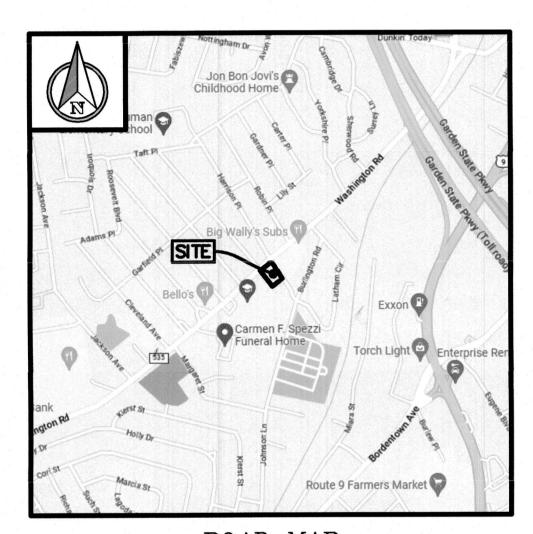
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HWIN BORO PHYSICAL THERAPY

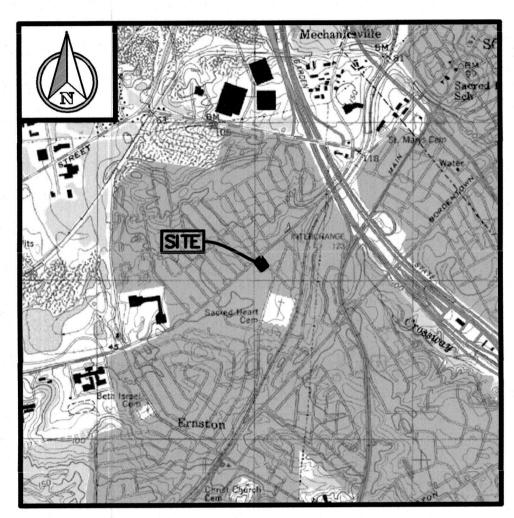
BOROUGH OF SAYREVILLE MIDDLESEX COUNTY

NEW JERSEY

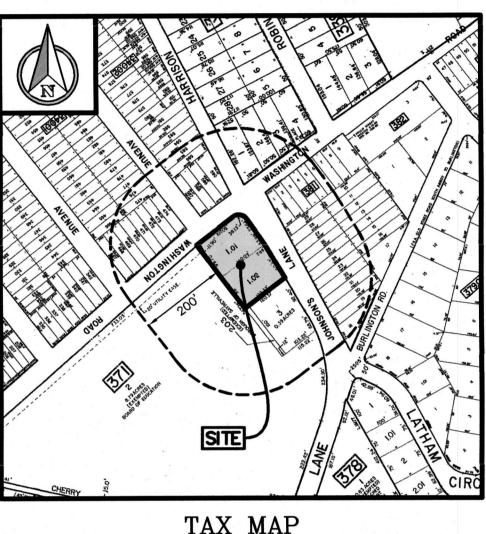
BLOCK 371, LOTS 1.01 & 1.02



ROAD MAP 1"=1,000'



U.S.G.S. MAP 1"=2,000'



TAX MAP 1"=250'



ZONE MAP 1"=500"

B-1 ZONE DATA - NEIGHBORHOOD BUSINESS PERMITTED USES - OFFICE AND HEALTH CLUBS PHYSICAL THERAPY NOT SPECIFICALLY LISTED CONDITION REQUIRED EXISTING PROPOSED SECTION LOT AND BUILDING REQUIREMENTS COMPLIES SCHEDULE II-B MINIMUM LOT AREA CORNER LOT 12,500 SF 27,471 SF 142 LF 142 LF COMPLIES 125 LF SCHEDULE II-B MINIMUM LOT WIDTH SCHEDULE II-B MINIMUM LOT DEPTH SCHEDULE II-B MAXIMUM BUILDING HEIGHT SCHEDULE II-B MAXIMUM LOT COVERAGE ALL SCHEDULE II-B MAXIMUM LOT COVERAGE SURI BUILDING SETBACKS SCHEDULE II-B MINIMUM FRONT YARD SETBACK SCHEDULE II-B MINIMUM SIDE YARD SETBACK SCHEDULE II-B MINIMUM REAR YARD SETBACK OFFICE SPACE: SECTION 26.88.1 5 SPACES/PROFESSIONAL 3 PROFESSIONALS X 5 SPACES 26-98.1.b.1 PARKING STALL SIZE MINIMUM AISLE WIDTH (2-WAY) 26-98.1.b.2 MINIMUM AISLE WIDTH (1-WAY,45 26-98.1.b.2 SECTION CURB CUT TO PROPERTY LINE 26-98.1.b.4 PARKING TO PROPERTY LINE 26.88.1.b 26.88.2.a. MINIMUM NUMBER OF LOADING SECTION 26 - 98.2MAXIMUM LIGHT INTENSITY AT T 26-96.8(H)(4) PROPERTY LINE ANDSCAPE MINIMUM FRONT YARD LANDSCAL 26-96.7(A) MINIMUM TOTAL LANDSCAPE ARE

	1 Contract 1 Contract			
	100 LF	198.5 LF	198.5 LF	COMPLIES
	35 FT	< 35 FT	< 35 FT	COMPLIES
BUILDINGS	25.0%	22.7% (6,240 SF)	15.3% (4,215 SF)	COMPLIES
IMPERVIOUS FACES	85.0%	76.6% (21,052 SF)	79.7% (21,906 SF)	COMPLIES
(20 FT	10 FT	10 FT	EXISTING NON-CONFORMITY
	10 FT	20.9 FT	20.9 FT	COMPLIES
	20 FT	108 FT	108 FT	COMPLIES
	and the state of t	2 7		
S =	15 SPACES	16 SPACES	52 SPACES (49 SPACES + 3 EV CREDITS) *	COMPLIES
	9 FT X 18 FT	9 FT X 18 FT	9 FT X 18 FT	COMPLIES
)	24 FT	15.26 FT	24 FT	COMPLIES
45-DEGREE)	18 FT	18 FT	18 FT	COMPLIES
	10 FT	6.9 FT (WASHINGTON) 0 FT (JOHNSONS)	6.9 FT (WASHINGTON) 23.6 FT (JOHNSONS)	EXISTING NON-CONFORMITY
	5 FT	1.0 FT	1.0 FT	EXISTING NON-CONFORMITY
	100	10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
SPACES	1 SPACE	NO SPACES	NO SPACES	EXISTING NON-CONFORMITY
THE	0.5 FC	2.5 FC	1.2 FC	WAIVER
APE AREA	5%	4.1% OR 1,133 SF	4.1% OR 1,133 SF	EXISTING NON-CONFORMITY
REA	20%	17.8% OR 4,904 SF	19.2% OR 5,267 SF	WAIVER

* 1 EV PARKING SPACE COUNTS AS TWO REGULAR PARKING SPACES ESTIMATED NUMBER OF SINGLE UNIT TRUCKS TO ENTER THE SITE EACH DAY: 1-2 PER DAY. ESTIMATED NUMBER OF SEMI-TRAILER TRUCKS TO ENTER THE SITE EACH DAY: 0-1 PER DAY.

26-96.7(A)

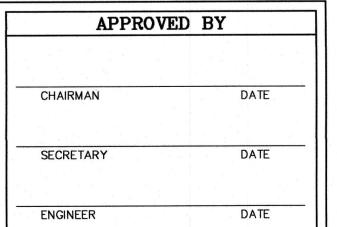
		SHEET INDEX
SHEET #	DWG. #	TITLE
SHEET 1	CV-1	COVER SHEET
SHEET 2	OP-1	OVERALL PLAN
SHEET 3	EC-1	EXISTING CONDITIONS/DEMOLITION PLAN
SHEET 4	SP-1	ENGINEERING SITE PLAN
SHEET 5	TP-1	TREE PRESERVATION PLAN
SHEET 6	LL-1	LIGHTING & LANDSCAPE PLAN
SHEET 7	SE-1	SOIL EROSION & SEDIMENT CONTROL PLAN
SHEET 8	SED-1	SOIL EROSION & SEDIMENT CONTROL DETAILS (1)
SHEET 9	SED-2	SOIL EROSION & SEDIMENT CONTROL DETAILS (2)
SHEET 10	DE-1	CONSTRUCTION DETAILS (1)
SHEET 11	DE-2	CONSTRUCTION DETAILS (2)
SHEET 12	DE-3	CONSTRUCTION DETAILS (3)
SHEET 13	DE-4	CONSTRUCTION DETAILS (4)

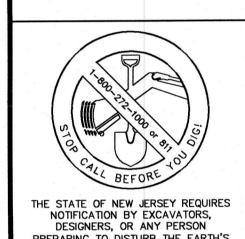
PERMITS/APPROVALS REQUIRED: MIDDLESEX COUNTY PLANNING BOARD - BOROUGH OF SAYREVILLE SOIL EROSION CERTIFICATION

OWNER/APPLICANT: TWIN BORO PHYSICAL THERAPY PO BOX 1014 CLARK, NJ 07066

200' OWNERS LIST

BLOCK	<u>LOT</u>	NAME & ADDRESS
339.01	1	David & Sherry Kuo 3275 Washington Road Parlin, NJ 08859
339.01	2	Mark & Margaret Santapaga 3277 Washington Road Parlin, NJ 08859
339.01	3	Mark Szypulski 3279 Washington Road Parlin, NJ 08859
339.01	4	Thomas & Cynthia Roberts 3281 Washington Road Parlin, NJ 08859
340.01	466	Badara S. Koureissi 12 Buchanan Avenue Parlin, NJ 08859
340.01	467, 468	Carmine Boccassini 3253 Washington Road Parlin, NJ 08859
340.01	469, 470	Ivan & Alicia E. Rivera 3 Marcia Street Parlin, NJ 08859
340.01	471, 472	Adegbola & Tammy Perry 3261 Washington Road Parlin, NJ 08859
340.01	473, 474	Clemens & Kathline Skarzy 3265 Washington Road Parlin, NJ 08859
340.01	475, 476	Yesenia & Alberto Melendo 13 Wilson Avenue Parlin, NJ 08859
340.02	585, 586	Kevin & Stacey Russell 12 Wilson Avenue Parlin, NJ 08859
340.02	587, 588	Susette Lucarello 3267 Washington Road Parlin, NJ 08859
340.02	589, 590	Maheshinder S. Gluman 3273 Washington Road Parlin, NJ 08859
371	2	Sayreville Board of Educat PO Box 997 Sayreville, NJ 08872
371	2.03	Borough of Sayreville 167 Main Street Sayreville, NJ 08872
371	3	Karen Bailey Bebert 9 Burlington Road Parlin, NJ 08859
381	1-4, 28,29,	JELS, LLC 6 Cherry Drive Colts Neck, NJ 07722
381	5	W & R Realty of Savrevill





TWIN BORO

PHYSICAL THERAPY



associates Civil Engineering Consultants Landscape Architects Professional Planners

ghland Park, NJ 0890

TWIN BORO

PHYSICAL

THERAPY

BOROUGH OF SAYREVILLE MIDDLESEX COUNTY

NEW JERSEY

BLOCK 371, LOTS 1.01 & 1.02 TAX MAP SHEET 109

> B-1 ZONE 0.63 ACRES

COVER SHEET

2023.011

MARCH 10, 2023

APRIL 26, 2023

DESIGNED BY

REVISED THROUGH

APPROVED BY

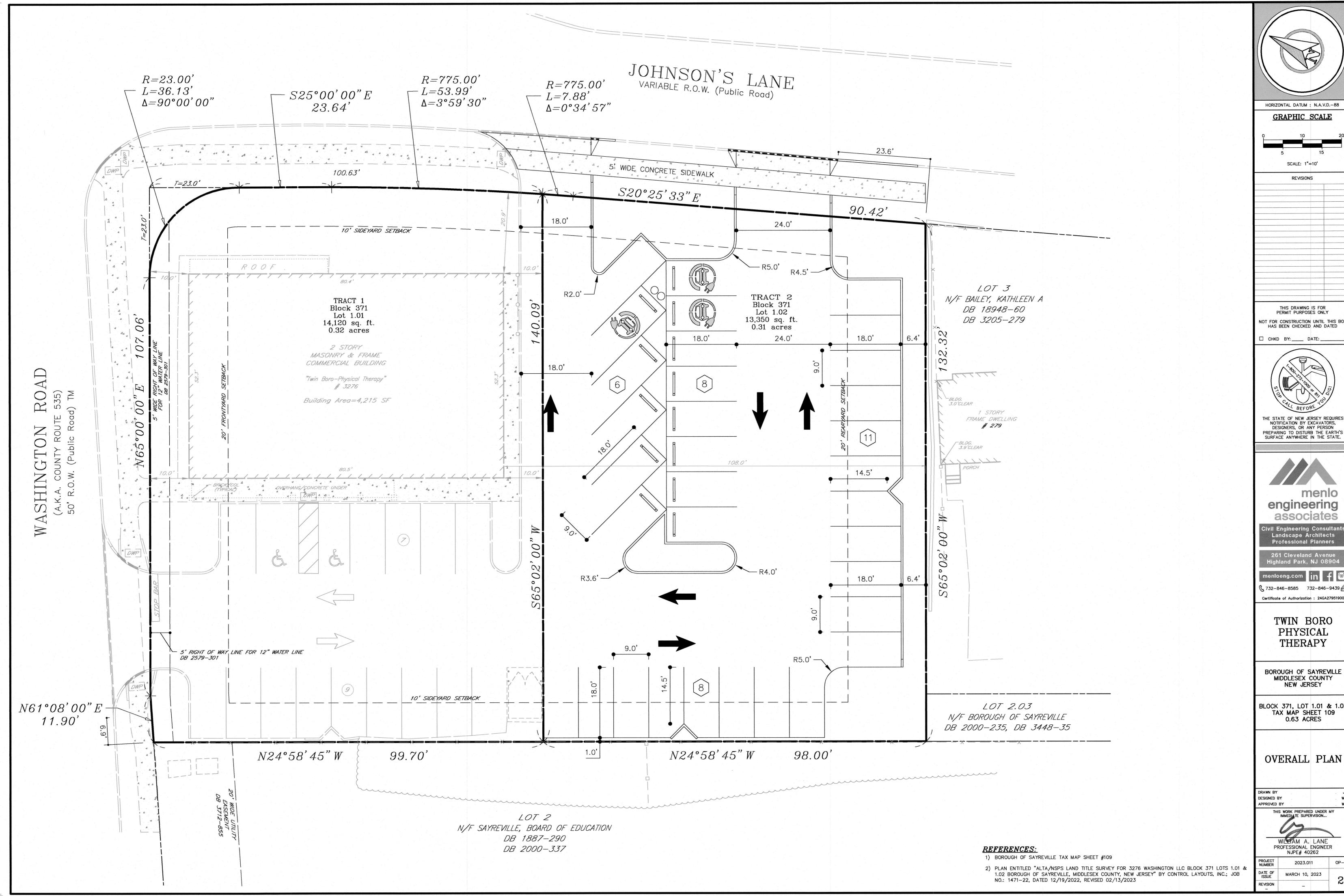
menloeng.com in f 732-846-8585 732-846-9439 Certificate of Authorization: 24GA27951900

W & R Realty of Sayreville, LLC 11 Applegate Road Freehold, NJ 07728

10-14, Karen Bailey Bebert 15-17, 9 Burlington Road 18-27 Parlin, NJ 08859

COUNTY PLANNIN	G BOARL
SECRETARY	DATE
PLANNING DIRECTOR	DATE

APPROVED BY								
CHAIRMAN	DATE							
SECRETARY	DATE							
ENGINEER	DATE							



HORIZONTAL DATUM: N.A.V.D.-88 GRAPHIC SCALE

> SCALE: 1"=10' REVISIONS

THIS DRAWING IS FOR PERMIT PURPOSES ONLY NOT FOR CONSTRUCTION UNTIL THIS BOX HAS BEEN CHECKED AND DATED



THE STATE OF NEW JERSEY REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.



Civil Engineering Consultants Landscape Architects Professional Planners

261 Cleveland Avenue Highland Park, NJ 08904

menloeng.com in f (§ 732-846-8585 732-846-9439 (§

> TWIN BORO PHYSICAL THERAPY

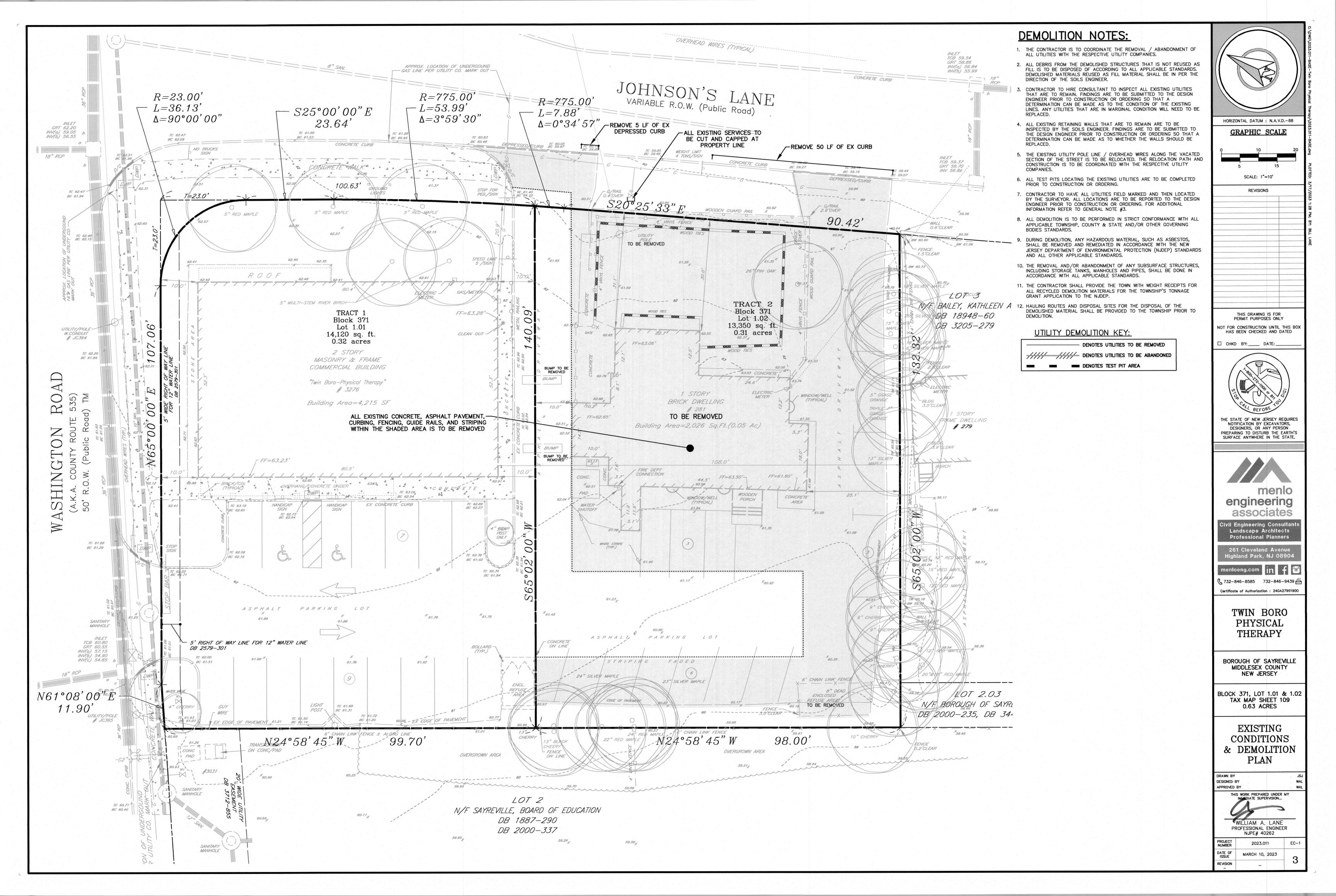
BOROUGH OF SAYREVILLE MIDDLESEX COUNTY **NEW JERSEY**

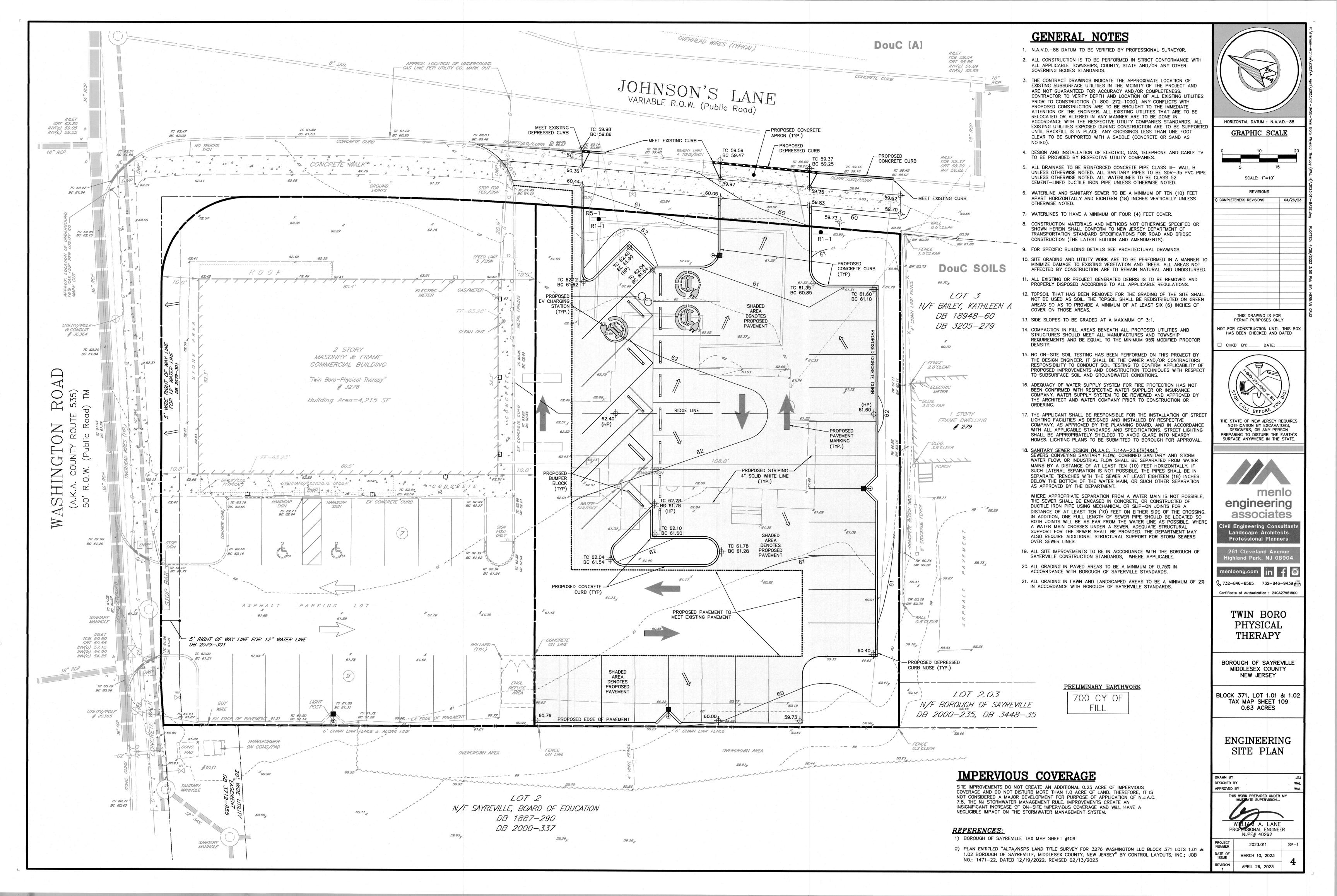
BLOCK 371, LOT 1.01 & 1.02 TAX MAP SHEET 109 0.63 ACRES

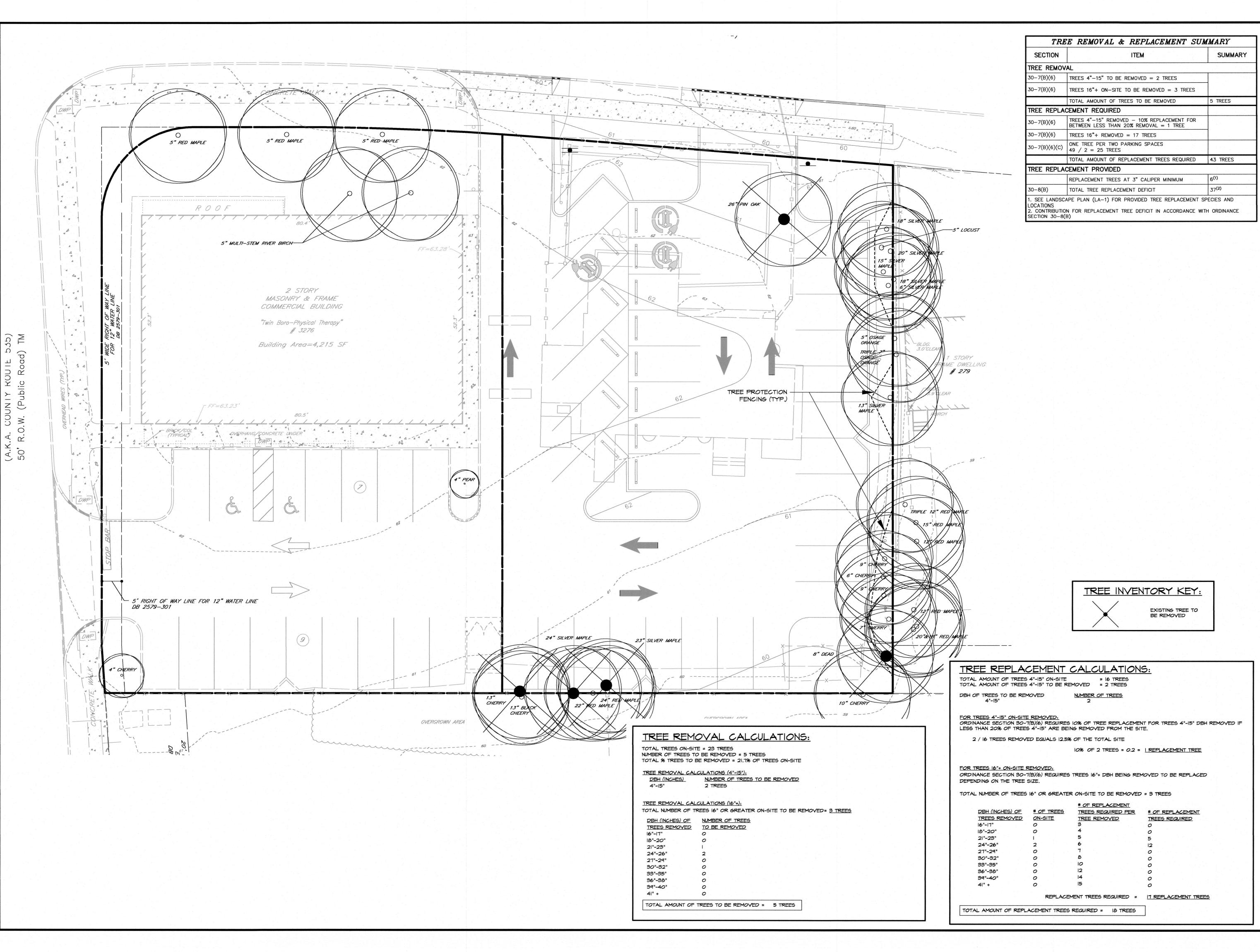
OVERALL PLAN

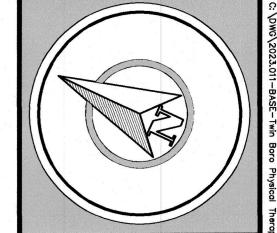
THIS WORK PREPARED UNDER MY IMMEDIATE SUPERVISION... PROFESSIONAL ENGINEER NJPE# 40262

2023.011 MARCH 10, 2023









HORIZONTAL DATUM : N.A.V.D.-88

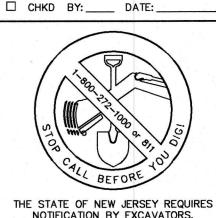
GRAPHIC SCALE

5 15 SCALE: 1"-10'

SCALE: 1"=10'
REVISIONS

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PERMIT PURPOSES ONLY

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Certificate of Authorization : 24GA27951900

BOROUGH OF SAYREVILLE MIDDLESEX COUNTY

NEW JERSEY

PHYSICAL

THERAPY

BLOCK 371, LOT 1.01 & 1.02

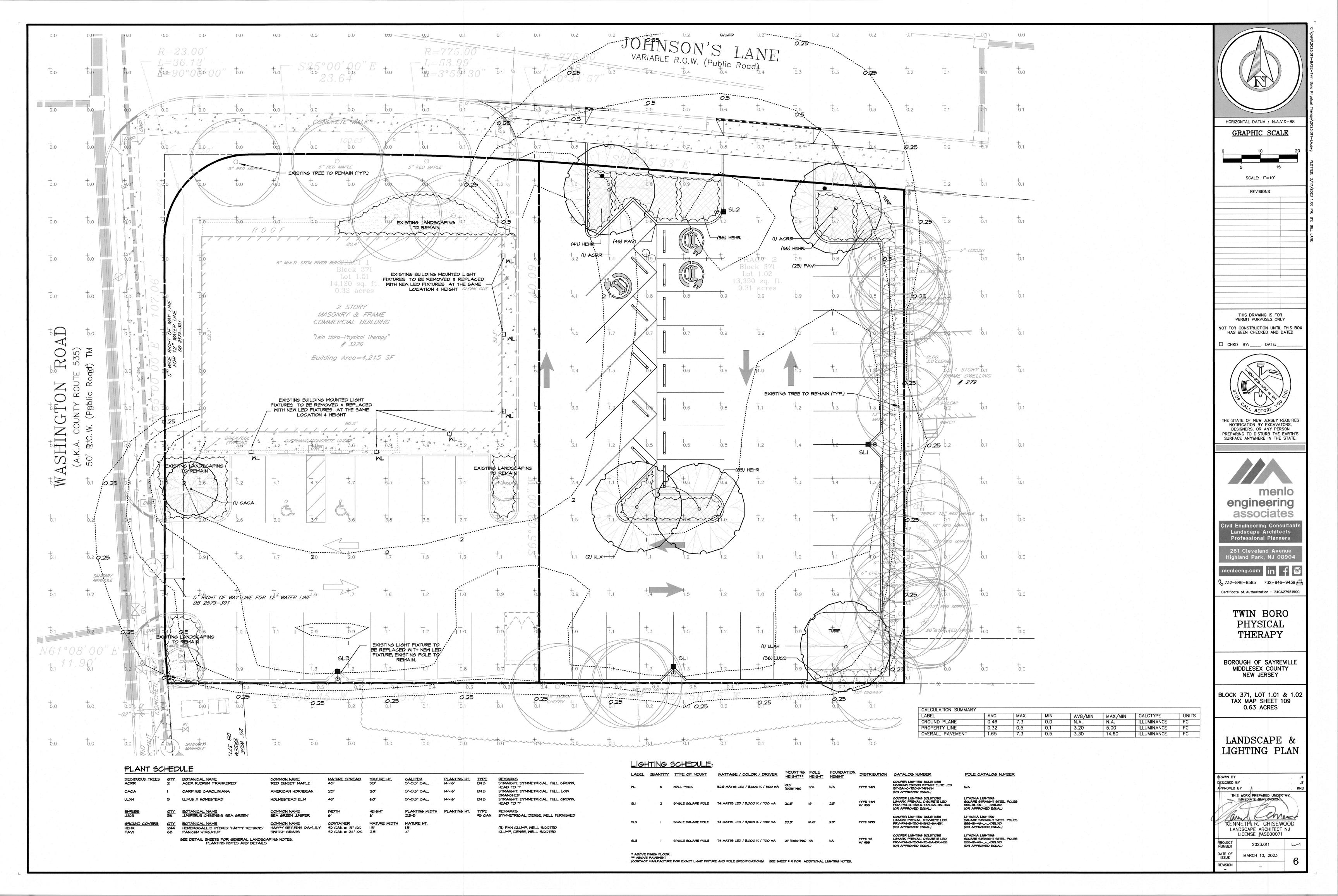
TAX MAP SHEET 109 0.63 ACRES

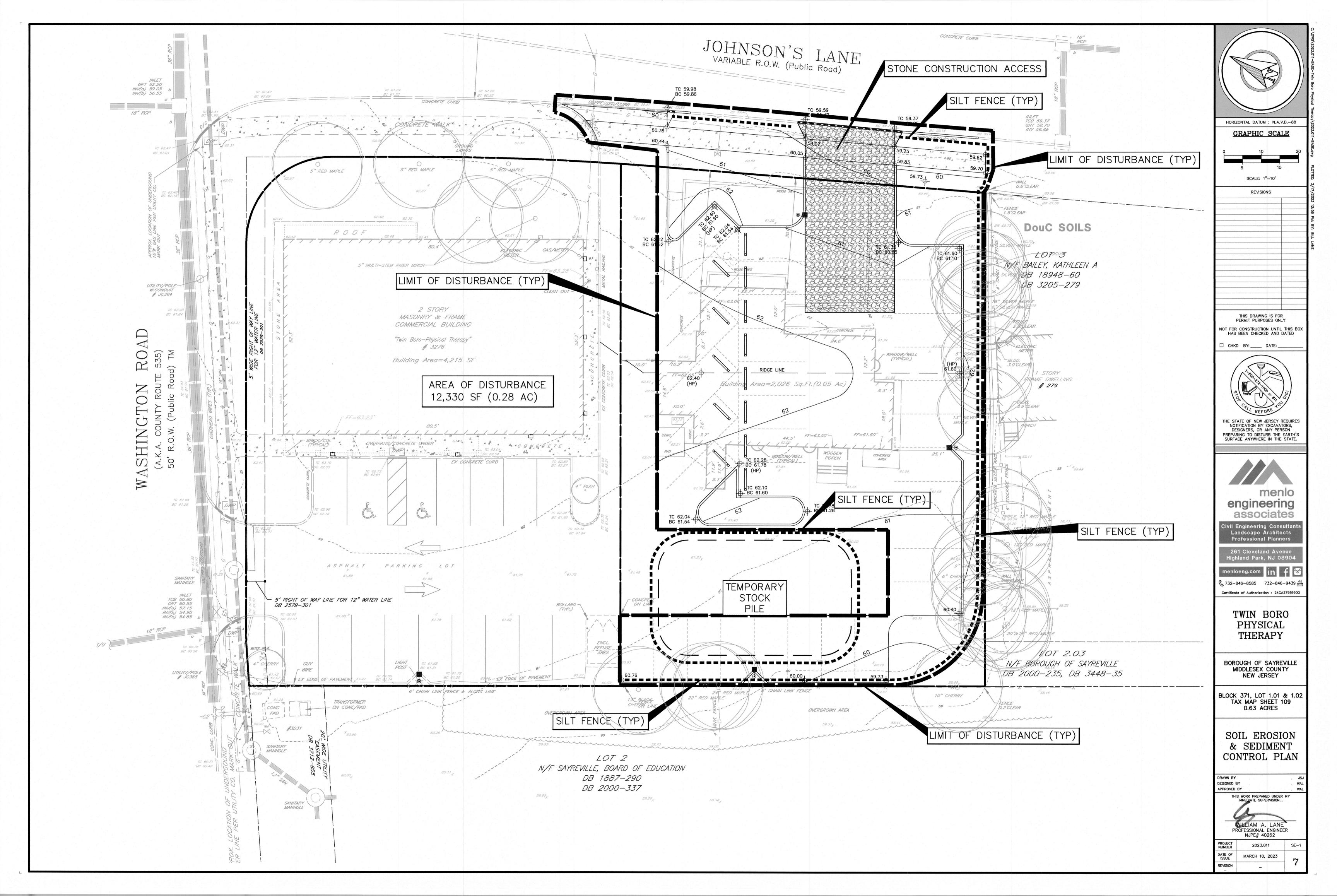
TREE
PRESERVATION
PLAN

DRAWN BY
DESIGNED BY
APPROVED BY

THIS WORK PREPARED UNDER MY
IMMEDIATE SUPERVISION...

LANDSCAPE ARCHITECT NJ





STANDARD FOR PERMANENT VEGETATIVE COVER

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 STANDARD FOR LAND

B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING.

C. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED

D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES. SEDIMENT BASINS. AND WATERWAYS.

WITH ORGANIC MATTER. AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING

2. SEEDBED PREPARATION

A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (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 NCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE—HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE—HALF RATE APPLICATION OF THE SAME FERTILIZER

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 ARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR, CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.

C. HIGH ACID PRODUCING SOIL. SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDBED REPARATION. SEE STANDARD FOR MANAGEMENT OF HIGH ACID-PRODUCING SOILS FOR SPECIFIC REQUIREMENTS.

3. SEEDING

A. SELECT A MIXTURE FROM TABLE 4-2 OR USE A MIXTURE RECOMMENDED BY RUTGERS COOPERATIVE EXTENSION OR NATURAL RESOURCES CONSERVATION SERVICE WHICH IS APPROVED BY THE SOIL CONSERVATION DISTRICT. SEED GERMINATION SHALL HAVE BEEN TESTED WITHIN 12 MONTHS OF THE PLANTING DATE. NO SEED SHALL BE ACCEPTED WITH A GERMINATION TEST DATE MORE THAN 12 MONTHS OLD UNLESS RETESTED.

1. SEEDING RATES SPECIFIED ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION. UP TO 50% REDUCTION IN RATES MAY BE USED WHEN PERMANENT ÆGETATION 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.

2. WARM-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT HIGH TEMPERATURES, GENERALLY 5'F AND ABOVE. SEE TABLE 4-2 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 650°F. SEE TABLE 4—2, MIXTURES 8—20. ADJUSTMENT OF PLANTING RATES TO COMPENSATE FOR THE AMOUNT OF PLS IS NOT REQUIRED FOR COOL SEASON GRASSES.

B. CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER, EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH. BY RAKING OR DRAGGING, DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE-TEXTURED SOIL.

C. AFTER SEFDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.

D. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK, OR TRAILER-MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THI 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 4-MULCHING BELOW). HYDROSEEDING IS NOT A REFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. WHEN POOR SEED TO SOIL CONTACT OCCURS, THERE IS A REDUCED SEED GERMINATION AND GROWTH.

4. MULCHING

MULCHING IS REQUIRED ON ALL SEEDING. MULCH WILL PROTECT AGAINST EROSION BEFORE GRASS IS ESTABLISHED AND WILL PROMOTE FASTER AND EARLIER ESTABLISHMENT. THE EXISTENCE OF VEGETATION SUFFICIENT TO CONTROL SOIL EROSION SHALL BE

A STRAW OR HAY, UNROTTED 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 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 AT LEAST 85% OF THE SOIL SURFACE IS 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 CRISS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH

2. 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

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 (b) USE ONE OF THE FOLLOWING:

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 TURF GRASS. USE AT RATES AN 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 OF MULCH, DRYING AND CURING, SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. BINDER SHALL BE APPLIED AT RATES RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION

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. 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, FORM A MULCH MAT, PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S 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 DESIRABLE. 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.

IRRIGATION (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 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.

7. 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 4-2 ARE REQUIRED WHEN A REPORT OF COMPLIANCE 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.

STANDARD FOR TEMPORARY VEGETATIVE COVER

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, PG. 19-1.

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

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.).

SLOPES, AND COSTS.

A. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER ,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TES 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, DOTH 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.

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, PG. 1-1.

C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED

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 HE 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 SÚRFACE 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.

MULCHING IS REQUIRED ON ALL SEEDING. MULCH WLL 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

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 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

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

2. MULCH NETTINGS - STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A

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 RAVERSABLE 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:

ORGANIC AND VEGETABLE BASED BINDERS - NATURALLY OCCURRING, POWDER-BASED, HYDROPHIL MÁTERIALS 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 GRASS, USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR CH MATERIALS. MANY NEW PRODUCTS ARE AVAILABLE, SOME OF WHICH MAY NEED FURTHER EVALUATION

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

NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A RECOMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.

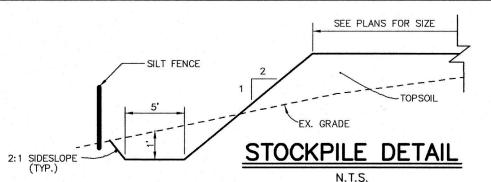
B. WOOD-FIBER OR PAPER-FIBER MULCH - SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. MULCH SHALL NOT BE MIXED IN THE 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. FORM A MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S 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 D 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 DESIRABLE. 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.

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.

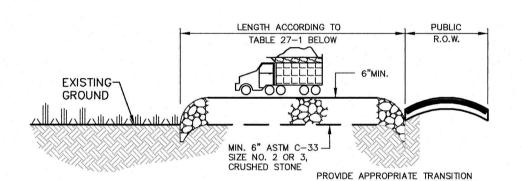
TEMPORARY VEGETATIVE STABILIZATION GRASSES, SEEDING RATES, DATES AND DEPTH.

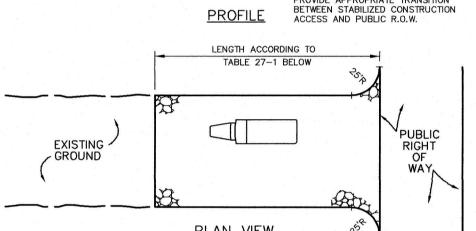
	SEEDIN	G RATE	OPTIMUN	A SEEDIN	G DATE	OPTIMUM SEED					
SEED SELECTIONS	(роц	ınds)	Bas Har	DEPTH ⁴ (inches)							
	Per Acre	Per 1000 Sq. Ft.	ZONE 5b, 6s	ZONE 6b	ZONE 7a, b						
COOL SEASON GRASSES											
1. PERENNIAL RYEGRASS	100	1.0	3/15- 6/1 8/1- 9/15	5/15	2/15- 5/1 8/15- 10/15	0.5					
2. SPRING 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		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	8/15- 12/15	1.0					
		WARM S	EASON G	RASSES							
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					



SOIL EROSION AND SEDIMENT CONTROL NOTES

- 1. THE FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY SOIL DISTURBING
- 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 EROSION 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
- 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
- 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 ANCHÓR, 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 PONTS 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
- 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 GROUND 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
- 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 DEWATERING.
- 15. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET, TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED AS REQUIRED BY THE STANDARD FOR
- 16. STOCKPILE AND STAGING LOCATIONS ESTABLISHED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING O 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 DISTURBED.
- 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 STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT





NOTE: INDIVIDUAL LOT ACCESS POINTS MAY REQUIRE STABILIZATION. THICKNESS SHOWN IS FOR STONE CONSTRUCTION ENTRANCE ONLY (TYP.)

- AT POORLY DRAINED LOCATIONS, SUBSURFACE DRAINAGE GRAVEL FILTER OR GEOTEXTILE SHALL BE INSTALLED BEFORE INSTALLING THE STABILIZED CONSTRUCTION ENTRANCE. INDIVIDUAL LOT ENTRANCE AND EGRESS- AFTER INTERIOR ROADWAYS ARE PAVED, INDIVIDUAL LOT INGRESS/EGRESS POINTS MAY REQUIRE A STABILIZED CONSTRUCTION ENTRANCE CONSISTING OF No. 3 STONE (1" TO 2") TO PREVENT OR MINIMIZE TRACKING OF SEDIMENTS. WIDTH OF THE STONE INGRESS/EGRESS SHALL BE EQUAL TO LOT ENTRANCE WIDTH AND SHALL BE A MINIMUM OF
- TIRE WASHING- IF SPACE IS LIMITED, VEHICLE TIRES MAY BE WASHED WITH CLEAN WATER BEFORE ENTERING A PAVED AREA. A WASH STATION MUST BE LOCATED SUCH THAT WASH WATER WILL NOT FLOW ONTO PAVED ROADWAYS OR INTO UNPROTECTED STORM DRAINAGE SYSTEMS. WHEN THE CONSTRUCTION ACCESS EXISTS ONTO A MAJOR ROADWAY, A PAVED TRANSITION AREA MAY BE INSTALLED BETWEEN
- THE MAJOR ROADWAY AND THE STONED ENTRANCE TO PREVENT LOOSE STONES FROM BEING TRANSPORTED OUT ONTO THE ROADWAY BY HEAVY EQUIPMENT ENTERING OR LEAVING THE SITE. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO ROADWAYS. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH AS CONDITIONS

DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. Table 27-1: Lengths of Construction Exits on Sloping Roadbeds Length of Stone Required Fine Grained Soils Coarse Grained Soils 100 ft 200 ft 100 ft Entire surface stabilized with FABC base course

1. As prescribed by local ordinance or other governing authority. STABILIZED CONSTRUCTION ACCESS

'WET TOLERANT' SEEDING SPECIFICATION

SEEDBED PREPARATION: FERTILIZER (10-10-10) 500 LB/AC LIMESTONE 6,000 LB/AC

FOR UNMAINTAINED AREAS

ZONE 5b,6a (3/15-5/31); ZONE 6b (3/1-4/30); ZONE 7a,7b (2/1-4/30)(IF DISTURBANCE IS OUTSIDE OF PLANTING DATES THEN SEED AREA WITH TEMPORARY SEEDING MIX. THE TARGET AREA

MUST THEN BE RESEED WITH REQUIRED MIX WITHIN THE REQUIRED PLANTING DATES.) DEERTONGUE SCS SEED MIX #9 20 LB/AC 2 LB/AC WLD RYE (ELYMUS) 15 LB/AC

SWITCHGRASS 30 LB/AC FOR MAINTAINED AREAS

(POND AND CHANNEL BANKS, BERMS AND DAMS) SEEDING DATES:

(OPTIMAL) ZONE 5b,6a (8/1-10/1); ZONE 6b (8/15-10/15); ZONE 7a,7b (8/15-10/30) (ACCEPTÁBLE) ZONE 56,6 (3/15-5/31, 6/1-7/31); ZONE 66 (3/1-4/30, 5/1-8/14); ZONE 7a,7b (2/1-4/30,

(SEE TABLE 4-3 OF THE SCS STANDARDS FOR ADDITIONAL PLANTING DATES) STRONG CREEPING RED FESCUE SCS SEED MIX #7 KENTUCKY BLUEGRASS 50 LB/AC

PERENNIAL RYEGRASS 20 LB/AC OR REDTOP 10 LB/AC W/ WHITE CLOVER 5 LB/AC

FOR MAINTAINED AREAS (DETENTION BASINS AND SWALES)

(OPTIMAL) ZONE 5b,6a (8/1-10/1); ZONE 6b (8/15-10/15); ZONE 7a,7b (8/15-10/30) (ACCEPTABLE) ZONE 5b,6a (3/15-5/31, 6/1-7/31); ZONE 6b (3/1-4/30, 5/1-8/14); ZONE 7a,7b (2/1-4/30, 5/1-8/141

(SEE TABLE 4-3 OF THE SCS STANDARDS FOR ADDITIONAL PLANTING DATES) TURE-TYPE TALL FESCUE SCS SEED MIX #14 350 LB/AC (3 CULTIVAR BLEND) KENTUCKY BLUEGRASS (BLEND) PERENNIAL RYEGRASS (BLEND) 30 LB/AC

UNROTTED SALT HAY OR APPROVED EQUAL 1 1/2 to 2 TONS/AC

MULCH ANCHORING HYDROMULCH OR APPROVED EQUAL (USE RATES AS RECOMMENDED BY MANUFACTURER)

1) FOR ADDITIONAL REQUIREMENTS REFER TO THE SCS STANDARD FOR PERMANENT VEGETATIVE COVER. 2) THE FERTILIZER AND LIMESTONE RATES REPRESENT THE UNTESTED SCS REQUIRED RATES. FINAL RATES SUBJECT TO SOIL FERTILITY, pH ANALYSIS AND LAB RECOMMENDATIONS.

2) BARE OR THIN SPOTS IN EXCESS OF 5 PERCENT OF ANY AREA WILL NOT BE ACCEPTABLE 3) ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATED COVER (OF THE SEEDED SPECIES) AND MOWED ONCE.

FOOTNOTE:

1 SUMMER SEEDING SHOULD ONLY BE CONDUCTED WHEN THE SITE IS IRRIGATED. MIXES INCLUDING WHITE CLOVER REQUIRE THAT AT LEAST SIX WEEKS OF GROWING SEASON REMAIN AFTER SEEDING TO ENSURE ESTABLISHMENT

STANDARD FOR STABILIZATION WITH MULCH ONLY

DEFINITION STABILIZING EXPOSED SOILS WITH NON-VEGETATIVE MATERIALS EXPOSED FOR PERIODS LONGER THAN 14 DAYS

TO PROTECT EXPOSED SOIL SURFACES FROM EROSION DAMAGE AND TO REDUCE OFFSITE ENVIRONMENTAL DAMAGE. WATER QUALITY ENHANCEMENT

PROVIDES TEMPORARY MECHANICAL PROTECTION AGAINST WIND OR RAINFALL INDUCED SOIL EROSION UNTIL PERMANENT VEGETATIVE COVER MAY BE ESTABLISHED. 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 PROTECTION CAN BE APPLIED. 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
- B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.
- 2. PROTECTIVE MATERIALS A. UNROTTED SMALL-GRAIN STRAW, AT 2.0 TO 2.5 TONS PER ACRE, IS SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1,000 SQUARE FEET AND ANCHÓRED 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. THE APPROVED RATES ABOVE HAVE BEEN MET WHEN THE MULCH COVERS THE GROUND COMPLETELY UPON VISUAL INSPECTION, I.E. THE SOIL
- C. SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED UNDER SUITABLE CONDITIONS AND IN QUANTITIES AS
- RECOMMENDED BY THE MANUFACTURER. D. 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 HYDROSEEDER. E. MULCH NETTING, SUCH AS PAPER JUTE, EXCELSIOR, COTTON, OR PLASTIC, MAY BE USED.

AREA AND STEEPNESS OF SLOPES.

- 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 RECOMMENDED 3. 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
- A. PEG AND TWINE DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET II L 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.
- B. MULCH NETTINGS STAPLE PAPER, COTTON, OR PLASTIC NETTINGS OVER MULCH. USE DEGRADABLE NETTING IN AREAS BE MOWED. NETTING IS USUALLY AVAILABLE IN ROLLS 4 FEET WIDE AND UP TO 300 FEET LONG. C. 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. LIQUID MULCH-BINDERS 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. a. ORGANIC AND VEGETABLE BASED BINDERS - NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIALS THAT MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WIL FORM MEMBRANE NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTO-TOXIC EFFECT OR IMPEDE GROWTH OF TURFGRASS. VEGETABLE BASED GELS SHALL BE APPLIED AT RATES AND WEATHER CONDITIONS RECOMMENDED BY THE MANUFACTURER.
- b. 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 AND WEATHER CONDITIONS RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL

DUST CONTROL

THE CONTROL OF DUST ON CONSTRUCTION SITES AND ROADS.

TO PREVENT BLOWING AND MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES, REDUCED ON-SITE AND OFF-SITE DAMAGE AND HEALTH HAZARDS AND IMPROVE TRAFFIC SAFETY. CONDITION WHERE PRACTICE APPLIES THIS PRACTICE IS APPLICABLE TO AREAS SUBJECT TO DUST BLOWING AND MOVEMENT

WHERE ON-SITE AND OFF-SITE DAMAGE IS LIKELY WITHOUT TREATMENT. CONSULT WITH LOCAL MUNICIPAL ORDINANCES ON ANY RESTRICTIONS. WATER QUALITY ENHANCEMENT

EXTREMELY DIFFICULT TO REMOVE FROM WATER ONCE IT BECOMES SUSPENDED USE OF THIS STANDARD WILL HELP TO CONTROL THE GENERATION OF DUST FROM CONSTRUCTION SITES

AND SUBSEQUENT BLOWING AND DEPOSITION INTO LOCAL SURFACE WATER RESOURCES.

THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST: MULCHES - SEE STANDARD OF STABILIZATION WITH MULCHES ONLY, PG. 5-1 VEGETATIVE COVER - SEE STANDARD FOR: TEMPORARY VEGETATIVE COVER, PG. 7-1, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION PG. 4-1 AND PERMANENT STABILIZATION WITH SOD, PG. 6-1

SEDIMENTS DEPOSITED AS "DUST" ARE OFTEN FINE COLLOIDAL MATERIAL WHICH IS

SPRAY-ON ADHESIVES - ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS. TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-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.

SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL

<u>CALCIUM CHLORIDE</u> — 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 DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS OR ACCUMULATION AROUND PLANTS.

STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL. TABLE 16-1 DUST CONTROL MATERIALS

MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/ ACRE		
AIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1200		
LATEX EMULSION	12.5:1	FINE SPRAY	235		
RESIN IN WATER	4 :1	FINE SPRAY	300		
POLYACRYLAMIDE (PAM)— SPRAY ON POLYACRYLAMIDE (PAM)— DRY SPREAD	INSTRUCTIONS. ADDITIVE TO S AND PRECIPITA	DING TO MANUF MAY ALSO BE EDIMENT BASINS ITE SUSPENDED IN STANDARD, F	USED AS AN TO FLOCCULATE COLLOIDS. SEE		
ACIDULATED SOY BEAN SOAP STICK	NONE	COARSE SPRAY	1200		
	N St St Mark St				

INFORMATION SEE THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY, 7TH EDITION, JANUARY 2014, REVISED JULY 2017

FOR CLARIFICATIONS AND ADDITIONAL

CONSTRUCTION DETAIL NOTES ALL TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL O UNIFORM TRAFFIC CONTROL DEVICES

- ALL CONSTRUCTION DETAILS SHALL B SUPERCEDED BY APPLICABLE MUNICIPAL, COUNTY OR STATE DETAILS UNLESS OTHERWISE NOTED STRUCTURAL DETAILS ARE PROVIDED
- FOR INFORMATIONAL PURPOSES ONLY SHOP DRAWINGS SHALL BE PROVIDED TO THE TOWNSHIP ENGINEER FOR AL WALLS AND STRUCTURAL ELEMENTS PRIOR TO CONSTRUCTION.
- SHOP DRAWINGS SHALL BE PROVIDED FOR ALL PRECAST STRUCTURES PRIOR TO THE ORDERING OF MATERIALS.
- DETAILS ASSUME APPROPRIATE LOAD BEARING CAPACITY AND COMPACTION OF SOILS, ACTUAL FIFLD CONDITIONS SHALL BE CONFIRMED BY ON-SITE GEOTECHNICAL ENGINEER.
- RESIDENTIAL DEVELOPMENTS SHALL

TO SCALE (N.T.S.) UNLESS OTHERWISE

CONFORM TO DETAILS WITHIN THE CURRENT EDITION OF THE RESIDENTIAL SITE IMPROVEMENT STANDARDS (R.S.I.S.). ALL CONSTRUCTION DETAILS ARE NOT

REVISIONS

THIS DRAWING IS FOR PERMIT PURPOSES ONLY

OT FOR CONSTRUCTION UNTIL THIS BOX HAS BEEN CHECKED AND DATED

☐ CHKD BY: ____ DATE: ___



THE STATE OF NEW JERSEY REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.



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TWIN BORO PHYSICAL THERAPY

BOROUGH OF SAYREVILLE MIDDLESEX COUNTY

NEW JERSEY

0.63 ACRES

BLOCK 371, LOTS 1.01 & 1.02 TAX MAP SHEET 109

SOIL EROSION & SEDIMENT CONTROL DETAILS

DESIGNED BY APPROVED BY THIS WORK PREPARED UNDER MY IMMEDIATE SUPERVISION ..

SED-2023.011 NUMBER MARCH 10, 2023 REVISION

ONAL ENGINEER

CONSTRUCTION SEQUENCE

CONSTRUCTION COMMENCEMENT DATE: SPRING 2023

001	ASTROCTION COMMENCED BYTE. SI THING 2020		
1.	INSTALLATION OF SILT FENCE ALONG LIMIT OF DISTURBANCE LINE AT SECTION DELINEATED ON "SOIL EROSION CONTROL PLANS" — INSTALLATION OF STONE AT CONSTRUCTION ENTRANCES —		DAY DAY
2.	CLEARING AND GRUBBING -	1	WEEK
3.	ROUGH GRADING AND TEMPORARY SEEDING — INSTALLATION OF DETENTION FACILITIES	1	WEEK
4.	CURBING -	4	DAYS
5.	PAVEMENT SUB-BASE -	4	DAYS
6.	FINISHED GRADING AND LIGHTING -	1	WEEK
7.	FINAL PAVEMENT -	3	DAY
8.	LANDSCAPING WITH PERMANENT SEEDING -	2	DAYS

THE ABOVE SCHEDULE SUBJECT TO WEATHER CONDITIONS AND MATERIAL AVAILABILITY.

GENERAL LANDSCAPE NOTES:

I. NO SUBSTITUTIONS IN THE PLANT LIST IS TO BE MADE UNLESS AUTHORIZED BY THE LANDSCAPE ARCHITECT AND APPROVED BY THE OWNER AND THE TOWNSHIP

2. ALL DISTURBED AND PERMANENT TURF AREAS SHALL BE SEEDED WITH A GENERAL PURPOSE MIXTURE SIMILAR TO THE FOLLOWING; SCS SEED MIX #14 (TALL TURF FESCUE, KENTUCKY BLUEGRASS, PERENNIAL RYEGRASS) OR APPROVED EQUAL. SEE SCS DETAIL SHEETS FOR SEEDING SPECIFICATIONS.

3. ALL PLANTING BEDS TO BE MULCHED WITH (3) INCH MINIMUM MULCH (SEE PLANTING NOTE #20). MULCH VOLCANOES (MOUNDS) AROUND TREES ARE PROHIBITED.

4. TOPSOIL PROTECTION: NO TOPSOIL SHALL BE REMOVED FROM THE SITE OR USED AS SPOIL. ALL TOPSOIL MOVED DURING THE COURSE OF CONSTRUCTION SHALL BE REDISTRIBUTED ON ALL REGRADED SURFACES SO AS TO PROVIDE AN EVEN COVER AND SHALL BE STABILIZED BY SEEDING OR PLANTING. ALL REGRADED TURF AREAS SHALL BE COVERED BY A SIX (6) INCH MINIMUM THICKNESS OF TOPSOIL. IF SUFFICIENT TOPSOIL IS NOT AVAILABLE ON THE SITE, TOPSOIL, MEETING OR EXCEEDING THE MINIMUM REQUIREMENTS OF THE NUDOT SPECIFICATIONS, SHALL BE PROVIDED TO RESULT IN A SIX (6) INCH MINIMUM THICKNESS. ANY IMPORTED TOPSOIL OR SUBSOIL SHALL BE NUDEP CERTIFIED FREE OF ANY TOXINS OR HARMFUL CHEMICALS.

5. LAWN AREAS SHALL MAINTAIN A MINIMUM SLOPE OF 2% AND A MAXIMUM OF (3) FEET HORIZONTAL TO (1) FOOT VERTICAL AND COMPACTED AREAS SHALL BE TILLED TO A DEPTH OF EIGHTEEN (18) INCHES.

6. UNACCEPTABLE PLANT MATERIALS: MATERIALS WHICH HAVE DAMAGED OR CROOKED LEADERS, DEFORMED GROWTH HABIT, ABRASIONS OF THE BARK, SUNSCALDS, WINDBURN, DISFIGURING KNOTS, OR FRESH CUTS OF LIMBS OVER 3/4 IN. WHICH HAVE NOT COMPLETELY CALLUSED WILL BE REJECTED. IN ADDITION, TREES HAVING THEIR CENTRAL LEADERS HEADED BACK WILL ALSO BE REJECTED.

7. SHRUB PLANTING ISLANDS, PARKING AREA ISLANDS AND FOUNDATION PLANTING BEDS SHALL RECEIVE A MINIMUM OF (2) FEET OF TOPSOIL MIXTURE MEETING OR EXCEEDING THE MINIMUM NUDOT SPECIFICATIONS.

8, ALL PLANT MATERIALS LOCATED WITHIN SIGHT TRIANGLES SHALL BE MAINTAINED NOT TO EXCEED A MAXIMUM OF (36) INCHES ABOVE PAVEMENT AND TREES SHALL BE LIMBED TO MAINTAIN A MINIMUM CLEARANCE OF (7) FEET ABOVE THE TOP OF CURB OR SIDEWALK FOR SIGHT VISIBILITY.

9. THE CONTRACT DRAWINGS INDICATE THE APPROXIMATE LOCATION OF EXISTING SUBSURFACE UTILITIES IN THE VICINITY OF THE PROJECT AND ARE NOT GUARANTEED FOR ACCURACY AND/OR COMPLETENESS. CONTRACTOR TO VERIFY DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. (1-800-272-1000). ANY CONFLICTS WITH PROPOSED CONSTRUCTION ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER AND THE LANDSCAPE ARCHITECT. ALL EXISTING UTILITIES THAT ARE TO BE RELOCATED OR ALTERED IN ANY MANNER SHALL BE DONE IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANIES STANDARDS. ALL EXISTING UTILITIES EXPOSED DURING CONSTRUCTION SHALL BE SUPPORTED UNTIL BACKFILL IS IN PLACE.

10. IRRIGATION SHALL BE PROVIDED FOR PLANT MATERIAL IF INDICATED ON THE PLAN OR AT THE OWNER'S DIRECTION. DESIGN TO BE PROVIDED BY IRRIGATION PROFESSIONAL. ALL LANDSCAPE AREAS PROVIDED WITH AUTOMATIC IRRIGATION SYSTEMS SHALL BE TIMER CONTROLLED AND PROVIDED WITH AN AUTOMATIC RAINFALL SHUTOFF DETECTION DEVICE.

II. FINAL LOCATIONS OF BUFFER PLANTINGS (IF REQUIRED) LOCATED WITHIN EXISTING TREE CANOPY AREAS SHALL BE PLACED BASED ON EXISTING TREE LOCATIONS IDENTIFIED IN THE FIELD. EVERGREENS SHALL BE PLACED WHERE GAPS APPEAR IN THE TREE CANOPY. FINAL LOCATIONS TO BE APPROVED BY TOWNSHIP ENGINEER OR TOWNSHIP LANDSCAPE ARCHITECT.

12. SEE DETAIL SHEETS FOR ADDITIONAL PLANTING NOTES AND DETAILS.

13. ALL SHADE TREES, EVERGREENS, AND FLOWERING TREES SHALL BE PROVIDED WITH "TREEGATOR ORIGINAL OR JR. PRO" TM WATERING BAGS, RINGS OR APPROVED EQUAL THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING WATER TO ALL PLANTINGS AND LAWN AREAS UNTIL FINAL ACCEPTANCE.

14. PRIOR TO THE INSTALLATION OF ANY PLANT MATERIAL, SEEDING OR SODDING OF LAWN AREAS, THE CONTRACTOR SHALL OBTAIN PHYSICAL, CHEMICAL AND SOIL FERTILITY TESTING AT AN APPROVED LAB TO DETERMINE SOIL COMPOSITION AND SUITABILITY. THE TESTING SHALL BE A RATE OF EITHER ONE TEST PER 500 CUBIC YARDS OF PLANTING MIX OR ONE TEST PER 15,000 SF OF LANDSCAPE SURFACE AREA THE SOILS SHALL BE AMENDED IN ACCORDANCE WITH THE TEST RESULTS FOR OPTIMAL PLANT AND LAWN GROWTH. THE RESULTS OF ALL TESTING SHALL BE SUBMITTED TO THE LANDSCAPE ARCHITECT FOR REVIEW.

15. THE SAYREVILLE BOROUGH LAND DEVELOPMENT ORDINANCE REQUIRES THE FOLLOWING TREE PLANTINGS: - 26-96.7(A) MINIMUM 20% LOT LANDSCAPE AREA REQUIRED.

5,261 SF OR 19.2% LOT LANDSCAPE AREA PROVIDED. - DESIGN WAIVER REQUIRED

26-96.7(A) MINIMUM 5% FRONT YARD LANDSCAPE AREA REQUIRED.

1,132 SF OR 4.1% FRONT YARD LANDSCAPE AREA PROVIDED. - EXISTING NON-CONFORMITY

26-97.2(C)(I) STREET TREES APPROXIMATELY 50 FT APART BETWEEN THE SETBACK AND STREET LINE. 333 FT / 50 FT = 7 TREES REQUIRED. 7 TREES PROVIDED (4 EXISTING TREES, 3 PROPOSED TREES)

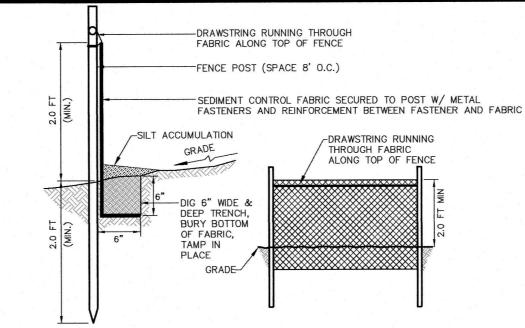
26-98(1) MINIMUM 10% PARKING LOT LANDSCAPING AREA.

26-98(1) ONE TREE PER 20 PARKING SPACES. 49 / 20 = 3 TREES REQUIRED. 3 PROPOSED TREES PROVIDED.

30-7(B)(6)(C) ONE TREE PER 2 PARKING SPACES. 49 / 2 = 25 TREES REQUIRED.

O TREES PROPOSED (25 TREE DEFICIT, CONTRIBUTION TO BE PROVIDED PER ORDINANCE SECTION 30-8). 30-7 REQUIRED TREE REPLACEMENT (MINIMUM 3" CAL.) - 18 TREES REQUIRED.

O TREES PROPOSED (18 TREE DEFICIT, CONTRIBUTION TO BE PROVIDED PER ORDINANCE SECTION 30-8).

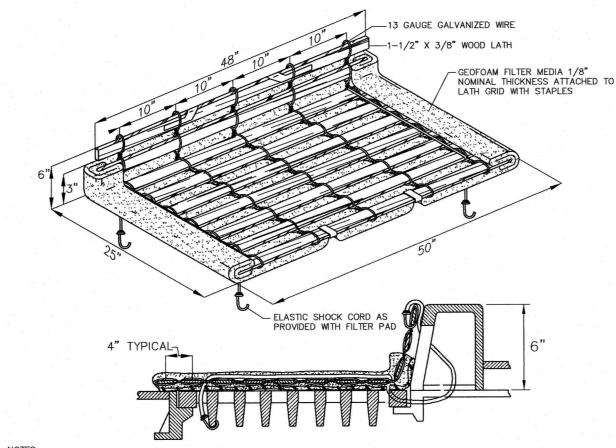


1) FENCE POSTS SHALL BE SPACE 8 FEET CENTER-TO-CENTER OR CLOSER. THEY SHALL EXTEND AT LEAST TWO (2) FEET INTO THE GROUND AND EXTEND AT LEAST TWO (2) FEET ABOVE GROUND. POSTS SHALL BE CONSTRUCTED OF HARDWOOD WITH A MINIMUM DIAMETER THICKNESS OF 13 INCHES.

2) A METAL FENCE WITH 6-INCH OR SMALLER OPENINGS AND AT LEAST TWO (2) FEET HIGH MAY BE UTILIZED, FASTENED TO THE FENCE POSTS, TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEO-TEXTILE FABRIC WHERE SPACE FOR OTHER PRACTICES IS

3) A GEO-TEXTILE FABRIC, RECOMMENDED FOR SUCH USE BY THE MANUFACTURER, SHALL BE BURIED AT LEAST 6-INCHES DEEP IN THE GROUND. THE FABRIC SHALL EXTEND AT LEAST TWO (2) FEET ABOVE THE GROUND. THE FABRIC MUST BE SECURELY FASTENED TO THE POSTS USING A SYSTEM CONSISTING OF METAL FASTENERS (NAILS OR STAPLES) AND A HIGH STRENGTH RFINFORCEMENT MATERIAL (NYLON WEBBING, GROMMETS, WASHERS ETC.) PLACED BETWEEN THE FASTENER AND THE GEO-TEXTILE FABRIC. THE FASTENING SYSTEM SHALL RESIST TEARING AWAY FROM THE POST. THE FABRIC SHALL INCORPORATE A DRAWSTRING IN THE TOP PORTION OF THE FENCE FOR ADDED STRENGTH

LIMITED AND HEAVY SEDIMENT LOADING IS EXPECTED.

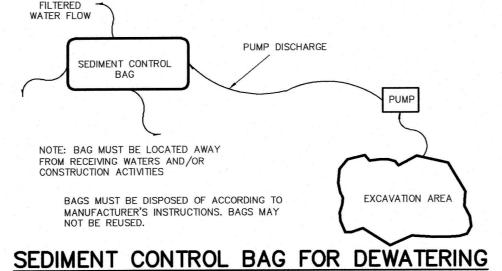


NOTES:

1. FURNISH AND INSTALL INLET FILTER PADS AS MANUFACTURED BY R.B.S. ENTERPRISES, OR APPROVED EQUAL. INSTALL IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, PAD SHALL CONSIST OF 3/8" NORMAL THICKNESS GEOFOAM FILTER MEDIA ATTACHED T FRAMEWORK, FRAMEWORK SHALL BE COMPRISED ON 1-1/2" x 3/8" x 48" WOOD LATH ON 4" CENTERS FOR A 5 WIRE GRID. FOAM SHALL BE ATTACHED TO LATH GRID WITH STAPLES. PAD SHALL BE ATTACHED TO GRATE WITH THE ELASTIC SHOCK CORD AND HOOKS. 2. THE PROTECTION DEVICE WILL BE DESIGNED TO CAPTURE OR FILTER RUNOFF FROM THE 1 YEAR, 24 HOUR STORM EVENT AND SHALL SAFELY CONVEY HIGHER FLOWS DIRECTLY INTO THE STORM SEWER SYSTEM.

INLET PROTECTION DETAIL

- 1. SILT CONTROL BAGS ARE CONTAINERS THROUGH WHICH SEDIMENT LADEN WATER IS PUMPED TO TRAP AND RETAIN THE DIMENT A SILT CONTROL BAG IS TO BE USED ON SITES WERE EXCAVATIONS ARE DEEP, AND SPACES IS LIMITED ANI WHERE DIRECT DISCHARGE OF SEDIMENT LADEN WATER TO STREAM AND STORM DRAINAGE SYSTEM IS TO BE AVOIDED.
- 2. CONTAINERS (BAGS) SHALL BE LOCATED FOR EASE OF CLEAN-OUT AND DISPOSAL OF THE TRAPPED SEDIMENT AND TO MINIMIZE INTERFERENCE WITH CONSTRUCTION ACTIVITIES AND PEDESTRIAN TRAFFIC. BAGS SHALL NOT BE PLACED
- 3. SEDIMENT CONTROL BAGS MUST BE LOCATED AWAY FROM RECEIVING WATERS AND DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS.



SEEDING RATES

SEEDBED PREPARATION: FERTILIZER (10-10-10) 500 LB/AC LIMESTONE 6.000 LB/AC

TEMPORARY SEEDING (NOT FOR ACIDIC SOILS HAVING A PH OF 4 OR LESS) SEED MIX: PERENNIAL RYEGRASS 200 LB/AC

PERMANENT SEEDING (NOT FOR ACIDIC SOILS HAVING A PH OF 4 OR LESS)

(OPTIMAL) ZONE 5b,6a (8/1-10/1); ZONE 6b (8/15-10/15); ZONE 7a,7b (8/15-10/30)

(SEE TABLE 4-2 OF THE SCS STANDARDS FOR ADDITIONAL PLANTING DATES)

TURF-TYPE TALL FESCUE SCS SEED MIX #14 (3 CULTIVAR BLEND)

KENTUCKY BLUEGRASS (BLEND) PERENNIAL RYEGRASS (BLEND) 30 LB/AC

UNROTTED SALT HAY OR APPROVED EQUAL 1 1/2 to 2 TONS/AC

HYDROMULCH OR APPROVED EQUAL (USE RATES AS RECOMMENDED BY MANUFACTURER)

) FOR ADDITIONAL REQUIREMENTS REFER TO THE SCS STANDARD FOR PERMANENT VEGETATIVE COVER. THE FERTILIZER AND LIMESTONE RATES REPRESENT THE UNTESTED SCS REQUIRED RATES. FINAL RATES SUBJECT TO SOIL FERTILITY, pH ANALYSIS AND LAB RECOMMENDATIONS.

350 LB/AC

CONDITION OF ACCEPTANCE NO EROSION SHALL EXIST

2) BARE OR THIN SPOTS IN EXCESS OF 5 PERCENT OF ANY AREA WILL NOT BE ACCEPTABLE 3) ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATED COVER (OF THE SEEDED SPECIES) AND MOWED ONCE.

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 VEGETATIVE COVER IS FACILITATED BY TOPSOIL, PREVENTING SOIL LOSS BY WIND AND RAIN OFFSITE AND INTO STREAMS AND OTHER STORMWATER

WHERE APPLICABLE

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

- A. TOPSOIL SHOULD BE FRIABLE¹, LOAMY², FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES. AND CONTAIN NO TOXIC SUBSTANCE OR ADVERSE CHEMICAL OR PHYSICAL CONDITION THAT MAY BE HARMFUL TO PLANT GROWTH. SOLUBLE SALTS SHOULD NOT BE EXCESSIVE (CONDUCTIVITY LESS THAN 0.5 MILLIMHOS PER CENTIMETER. MORE THAN 0.5 MILLIMHOS MAY DESICCATE SEEDLINGS AND ADVERSELY IMPACT GROWTH). IMPORTED TOPSOIL SHALL HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. ORGANIC MATTER CONTENT MAY BE RAISED BY ADDITIVES.
- B. TOPSOIL SUBSTITUTE IS A SOIL MATERIAL WHICH MAY HAVE BEEN AMENDED WITH SAND, SILT, CLAY, ORGANIC MATTER, FERTILIZER OR LIME AND HAS THE APPEARANCE OF TOPSOIL. TOPSOIL SUBSTITUTES MAY BE UTILIZED ON SITES WITH INSUFFICIENT TOPSOIL FOR FSTABLISHING PERMANENT VEGETATION. ALL TOPSOIL SUBSTITUTE MATERIALS SHALL MEET THE REQUIREMENTS OF TOPSOIL NOTED ABOVE. SOIL TESTS SHALL BE PERFORMED TO DETERMINE THE COMPONENTS OF SAND, SILT, CLAY, ORGANIC MATTER, SOLUBLE SALTS AND PH LEVEL.

2. STRIPPING AND STOCKPILING

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

B. STRIPPING SHALL BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA.

OR CAUSE OFF-SITE ENVIRONMENTAL DAMAGE

- C. WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TESTS TO BRING THE SOIL PH TO APPROXIMATELY 6.5.
- D. A 4-6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR
- E. STOCKPILES OF TOPSOIL SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE
- F. STOCKPILES SHOULD BE VEGETATED IN ACCORDANCE WITH STANDARDS PREVIOUSLY DESCRIBED HEREIN; SEE STANDARDS FOR PERMANENT (PG. 4-1) OR TEMPORARY (PG. 7-1) VEGETATIVE COVER FOR SOIL STABILIZATION. WEEDS SHOULD NOT BE ALLOWED TO GROW ON STOCKPILES.

3. SITE PREPARATION

- A. GRADE AT THE ONSET OF THE OPTIMAL SEEDING PERIOD SO AS TO MINIMIZE THE DURATION AND AREA OF EXPOSURE OF DISTURBED SOIL TO EROSION. IMMEDIATELY PROCEED TO ESTABLISH VEGETATIVE COVER IN ACCORDANCE WITH THE SPECIFIED SEED MIXTURE. TIME IS OF
- B. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING. AND MAINTENANCE. SEE THE STANDARD FOR LAND GRADING, PG. 19-1.
- C. AS GUIDANCE FOR IDEAL CONDITIONS, SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT. LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL TO A PH OF APPROXIMATELY 6.5 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.
- D. PRIOR TO TOPSOILING, THE SUBSOIL SHALL BE IN COMPLIANCE WITH THE STANDARD FOR LAND
- . EMPLOY NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENTATION BASINS, AND WATERWAYS.

4. APPLYING TOPSOIL

GRADING, PG. 19-1.

SEE STANDARDS 11 THROUGH 42.

- A. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE; I.E., LESS THAN FIELD CAPACITY (SEE GLOSSARY).
- B. A UNIFORM APPLICATION TO AN AVERAGE DEPTH OF 5.0 INCHES, MINIMUM OF 4 INCHES, FIRMED IN PLACE IS REQUIRED. ALTERNATIVE DEPTHS MAY BE CONSIDERED WHERE SPECIAL REGULATORY AND/OR INDUSTRY DESIGN STANDARDS ARE APPROPRIATE SUCH AS ON GOLF COURSES, SPORTS FIELDS, LANDFILL CAPPING, ETC.. SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM DEPTH OF 12 INCHES OF SOIL HAVING A PH OF 5.0 OR MORE, IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOIL (PG. 1-1).
- . PURSUANT TO THE REQUIREMENTS IN SECTION 7 OF THE STANDARD FOR PERMANENT VEGETATIVE STABILIZATION, THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT PERMANENT VEGETATIVE COVER BECOMES ESTABLISHED ON AT LEAST 80% OF THE SOILS TO BE STABILIZED WITH VEGETATION. FAILURE TO ACHIEVE THE MINIMUM COVERAGE MAY REQUIRE ADDITIONAL WORK TO BE PERFORMED BY THE CONTRACTOR TO INCLUDE SOME OR ALL OF THE FOLLOWING: SUPPLEMENTAL SEEDING, RE-APPLICATION OF LIME AND FERTILIZERS, AND/OR THE ADDITION OF ORGANIC MATTER (I.E. COMPOST) AS A TOP DRESSING. SUCH ADDITIONAL MEASURES SHALL BE BASED ON SOIL TESTS SUCH AS THOSE OFFERED BY RUTGERS COOPERATIVE EXTENSION SERVICE OR OTHER APPROVED LABORATORY FACILITIES QUALIFIED TO TEST SOIL SAMPLES FOR
- FRIABLE MEANS EASILY CRUMBLES IN THE FINGERS, AS DEFINED IN MOST SOILS TEXTS. LOAMY MEANS TEXTURE GROUPS CONSISTING OF COARSE LOAMY SANDS, SANDY LOAM, FINE AND VERY FINE SANDY LOAM, LOAM, SILT LOAM, CLAY LOAM, SANDY CLAY LOAM AND SILTY CLAY LOAM TEXTURES AND HAVING LESS THAN 35% COARSE FRAGMENTS (PARTICLES LESS THAN 2MM IN SIZE) AS DEFINED IN THE GLOSSARY OF SOIL SCIENCE TERMS, 1996, SOIL SCIENCE SOCIETY OF AMERICA.

CRITERIA FOR PROTECTING REMAINING TREES: 1. GENERAL MECHANICAL DAMAGE - SEE BELOW FOR CORRECT ROOT ZONE CALCULATION AND PLACEMENT OF TREE PROTECTION.

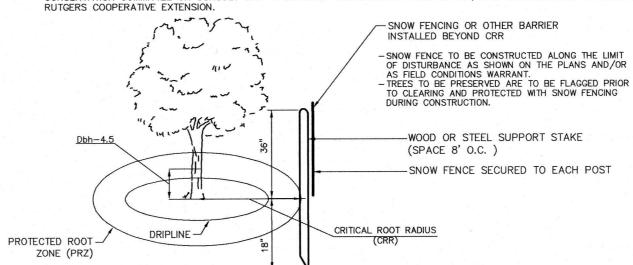
2. BOX TREES WITHIN 25 FEET OF A BUILDING SITE TO PREVENT MECHANICAL INJURY. FENCING OR OTHER BARRIER SHOULD BE INSTALLED BEYOND THE CRITICAL ROOT RADIUS. TREE ROOT SYSTEMS COMMONLY EXTEND WELL BEYOND THE DRIP LINE. 3. BOARDS WILL NOT BE NAILED TO TREES DURING BUILDING OPERATIONS.

4. FEEDER ROOTS SHOULD NOT BE CUT IN AN AREA INSIDE THE PROTECTED ROOT ZONE (PRZ).

5. DAMAGED TRUNKS OR EXPOSED ROOTS SHOULD HAVE DAMAGED BARK REMOVED IMMEDIATELY AND NO PAINT SHALL BE APPLIED.

EXPOSED ROOTS SHOULD BE COVERED WITH TOPSOIL IMMEDIATELY AFTER EXCAVATION IS COMPLETE. ROOTS SHALL BE PRUNED TO GIVE A CLEAN, SHARP SURFACE AMENABLE TO HEALING. ROOTS EXPOSED DURING HOT WEATHER SHOULD BE IRRIGATED TO PREVENT PERMANENT TREE INJURY. CARE FOR SERIOUS INJURY SHOULD BE PRESCRIBED BY A PROFESSIONAL FORESTER OR LICENSED TREE EXPERT.

NOTE: FOR MORE SPECIFIC TREE CHARACTERISTICS AND TREE LIMB REMOVAL, SEE THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY PUBLISHED BY THE NEW JERSEY DEPARTMENT OF AGRICULTURE-STATE SOIL CONSERVATION COMMITTEE OR CONSULT WITH A LICENSED PROFESSIONAL TREE EXPERT, SOIL CONSERVATION DISTRICT OR



ESTIMATE A TREE'S PROTECTED ROOT ZONE (PRZ) BY CALCULATING THE CRITICAL ROOT RADIUS (CRR)

1. MEASURE THE DBH (DIAMETER OF TREE AT BREAST HEIGHT, 4.5 FEET ABOVE GROUND ON THE UPHILL SIDE OF 2. MULTIPLY MEASURED DBH BY 1.5 OR 1.0. EXPRESS THE RESULT IN FEET.

DBH X 1.5: CRITICAL ROOT RADIUS FOR OLDER, UNHEALTHY, OR SENSITIVE SPECIES. DBH X 1.0: CRITICAL ROOT RADIUS FOR YOUNGER, HEALTHY OR TOLERANT SPECIES

TREE PROTECTION

STANDARD FOR PERMANENT STABILIZATION WITH SOD

DEFINITION

ESTABLISHING PERMANENT VEGETATION USING SOD.

<u>PURPOSE</u>

TO PERMANENTLY STABILIZE TOPSOIL WITH AN IMMEDIATE AESTHETIC COVERING. THUS ASSURING CONSERVATION OF SOIL AND WATER, AND TO ENHANCE THE ENVIRONMENT.

WATER QUALITY ENHANCEMENT

PROVIDES AN IMMEDIATE, PERMANENT VEGETATIVE COVER TO THE SOIL FROM THE IMPACTS OF WIND OR RAIN AND PREVENTS SOIL AND NUTRIENT LOSSES TO STREAMS AND OTHER STORMWATER CONVEYANCES FROM STORMWATER RUNOFF.

WHERE APPLICABLE

ON EXPOSED SOILS THAT HAVE A POTENTIAL FOR CAUSING OFF-SITE ENVIRONMENTAL DAMAGE WHERE AN IMMEDIATE, PERMANENT, VEGETATIVE COVER IS DESIRED. WATER (RAIN OR IRRIGATION) IS REQUIRED FOR SUCCESS; ACCESS TO IRRIGATION IS ESSENTIAL DURING DROUGHT

METHODS AND MATERIALS

1. HIGH QUALITY CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD.

2. SOD SHOULD BE FREE OF BROADLEAF WEEDS AND UNDESIRABLE COARSE AND FINE

3. SOD SHOULD BE OF UNIFORM THICKNESS, TYPICALLY 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 AND ROLLS OR TORN AND UNEVEN ENDS WILL NOT BE ACCEPTABLE.

5. FOR DROUGHTY SITES, A SOD OF TURF-TYPE TALL FESCUE OR TURF-TYPE TALL

BLUEGRASS SOD. ALTHOUGH NOT WIDELY AVAILABLE, A SOD OF FINE FESCUE IS ALSO ACCEPTABLE FOR DROUGHTY SITES.

FESCUE MIXED WITH KENTUCKY BLUEGRASS IS PREFERRED OVER A 100% KENTUCKY

6. ONLY MOIST, FRESH, UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED, AND INSTALLED WITHIN A PERIOD OF 24 HOURS OR LESS DURING SUMMER

SITE PREPARATION

- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR LIMING, FERTILIZING, INCORPORATION OF ORGANIC MATTER, AND OTHER SOIL PREPARATION PROCEDURES. 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 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES.
- SEE THE STANDARD FOR TOPSOILING FOR TOPSOIL AND AMENDMENT REQUIREMENTS.
- C. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS

2. SOIL PREPARATION

- UNIFORMLY 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 (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 USING 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY 1/2 THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER 1/2 RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING. APPLY LIMESTONE AT THE RATE OF 2 TONS/ACRE UNLESS SOIL TESTING INDICATES OTHERWISE, CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MFASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.
- B. WORK LIME, AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED.
- REMOVE FROM THE SURFACE ALL OBJECTS THAT WOULD PREVENT GOOD SOD TO TOPSOIL 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 SODDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED IN ACCORDANCE WITH THE ABOVE.

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 (SEAMS) THAT ARE STAGGERED. OPEN SPACES INVITE EROSION.
- C. LIGHTLY 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 TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS AND INVASION OF WEEDS.
- D. ON SLOPES GREATER THAN 3 TO 1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES BIODEGRADABLE PLASTIC SPIKES, OR SPLIT SHINGLES (8 TO 10 INCHES LONG BY 3/4 INCH WIDE).
- SURFACE WATER 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 SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER-CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL
- IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL WATER PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF 1 INCH. MAINTAIN OPTIMUM WATER FOR AT LEAST TWO WEEKS.
- 4. TOPDRESSING SINCE SOIL ORGANIC MATTER AND SLOW RELEASE NITROGEN FERTILIZER (WATER INSOLUBLE) ARE PRESCRIBED IN SECTIONS 1 AND 2IN THIS STANDARD, A FOLLOW-UP TOPDRESSING IS NOT MANDATORY, EXCEPT WHERE GROSS NITROGEN DEFICIENCY EXISTS IN THE SOIL TO THE EXTENT THAT TURF FAILURE MAY DEVELOP TOPDRESSING SHALL THEN BE APPLIED. TOPDRESS WITH 10-0-10 OR EQUIVALENT AT 400 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.

INFORMATION SEE THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY, 7TH EDITION, JANUARY 2014, REVISED JULY 2017

CONSTRUCTION DETAIL NOTES ALL TRAFFIC SIGNS AND PAVEMENT

MARKINGS SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL CO

UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL CONSTRUCTION DETAILS SHALL B SUPERCEDED BY APPLICABLE

MUNICIPAL, COUNTY OR STATE DETAILS UNLESS OTHERWISE NOTED. STRUCTURAL DETAILS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY SHOP DRAWINGS SHALL BE PROVIDED TO THE TOWNSHIP ENGINEER FOR ALL WALLS AND STRUCTURAL ELEMENTS PRIOR TO CONSTRUCTION.

SHOP DRAWINGS SHALL BE PROVIDED FOR ALL PRECAST STRUCTURES PRIOR TO THE ORDERING OF MATERIALS. DETAILS ASSUME APPROPRIATE LOAD BEARING CAPACITY AND COMPACTION OF SOILS. ACTUAL FIELD CONDITIONS SHALL BE CONFIRMED BY ON-SITE GEOTECHNICAL ENGINEER.

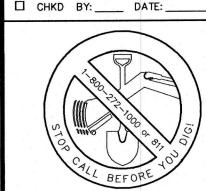
RESIDENTIAL DEVELOPMENTS SHALL CONFORM TO DETAILS WITHIN THE CURRENT EDITION OF THE RESIDENTIAL SITE IMPROVEMENT STANDARDS (R.S.I.S.). ALL CONSTRUCTION DETAILS ARE NOT

TO SCALE (N.T.S.) UNLESS OTHERWISE

REVISIONS

THIS DRAWING IS FOR PERMIT PURPOSES ONLY

IOT FOR CONSTRUCTION UNTIL THIS BOX HAS BEEN CHECKED AND DATED



IE STATE OF NEW JERSEY REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON REPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.



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Professional Planners

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BOROUGH OF SAYREVILLE MIDDLESEX COUNTY

NEW JERSEY

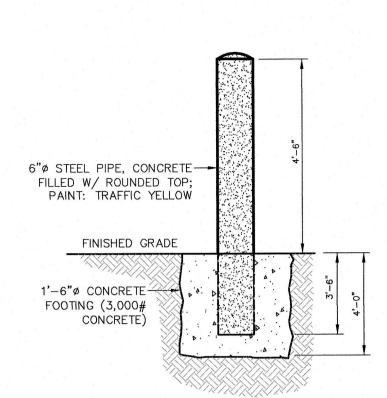
BLOCK 371, LOTS 1.01 & 1.02 TAX MAP SHEET 109 0.63 ACRES

SOIL EROSION & SEDIMENT CONTROL DETAILS (2)

DESIGNED BY PPROVED B' THIS WORK PREPARED UNDER MY SSIONAL ENGINEER

NJPE# 40262

FOR CLARIFICATIONS AND ADDITIONAL 2023.011 SED-NUMBER MARCH 10, 2023 REVISION



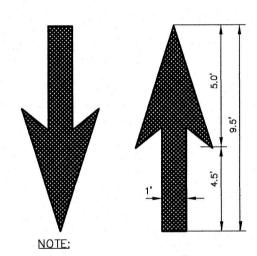
PIPE BOLLARD





SIGN DETAILS

N.T.S.

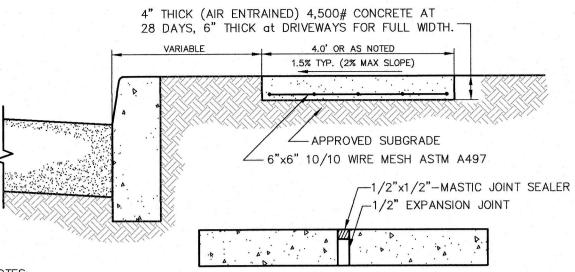


FOR PROPORTIONS SEE "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS." FHWA DOUBLE STRAIGHT ARROW DETAIL

N.T.S.

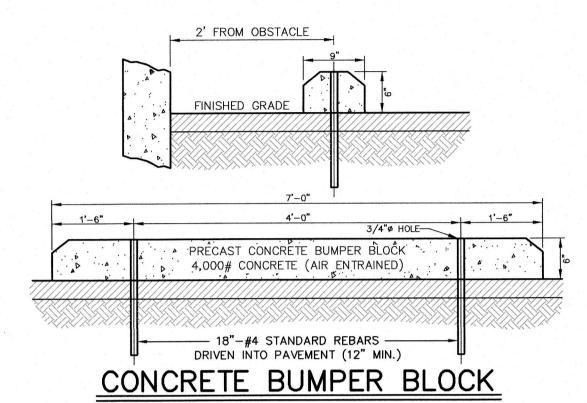
NOTE: FOR PROPORTIONS SEE "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS." FHWA STRAIGH1

ARROW DETAI

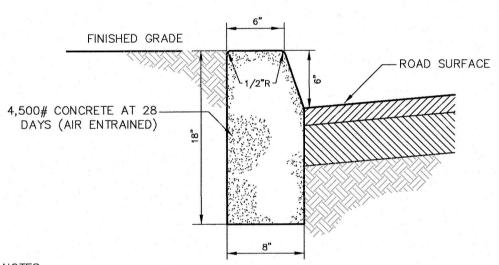


EXPANSION JOINTS TO BE LOCATED AT MAXIMUM OF 20' O.C.; AT ALL STRUCTURES; AND WHERE SIDEWALK ABUTS THE CURB. EXPANSION MATERIALS TO BE 1/2" PREMOLDED, ASPHALT IMPREGNATED, JOINT FILLER. TOOLED JOINTS TO BE SPACED EQUAL TO THE SIDEWALK WIDTH (6' MAX). 4. ALL MATERIALS AND METHODS TO BE IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS.

CONCRETE SIDEWALK

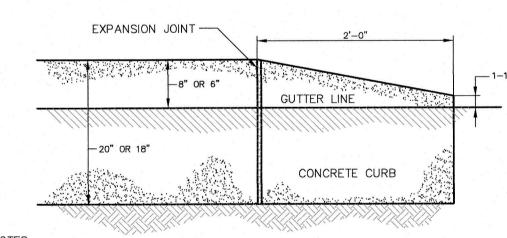


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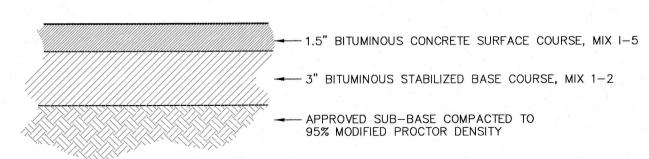
1. EXPANSION JOINTS TO BE 1/2" PREMOLDED, ASPHALT IMPREGNATED, JOINT FILLER MATERIAL, CUT TO FIT CROSS SECTION, RECESSED 1/4" FROM EXPOSED FACES AND ARE TO BE PLACED: IN TRAVERSE JOINTS 20' O.C. MAX: BETWEEN CURB AND CONCRETE SIDEWALK OR PAVEMENT; AT ALL STRUCTURES; AND AT THE END OF EACH WORK DAY. ALL MATERIALS AND METHODS TO BE IN CONFORMANCE WITH THE STANDARD

(8"WIDE / 6"REVEAL) STANDARD CONCRETE CURB (18'



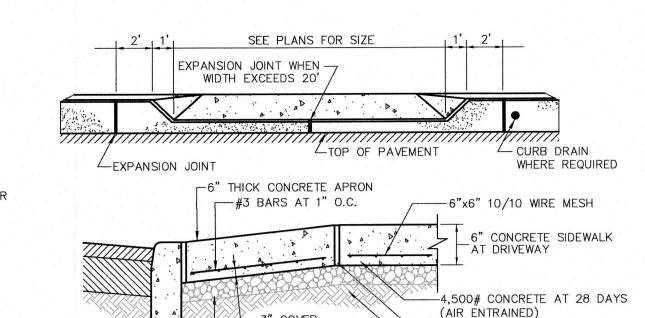
EXPANSION MATERIALS TO BE 1/2" PREMOLDED, ASPHALT IMPREGNATED, JOINT FILLER. 2. ALL MATERIALS AND METHODS TO BE IN CONFORMANCE WITH THE STANDARD

DEPRESSED NOSE DETAIL N.T.S.



NOTES:
1. BOROUGH STANDARD FOR LIGHT TRAFFIC. NOT A DESIGN PAVEMENT, SUBJECT TO ON—SITE 2. ALL MATERIALS AND METHODS TO BE IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS.

> PAVEMENT SECTION N.T.S.



-3" COVER

4" BANK RUN GRAVEL

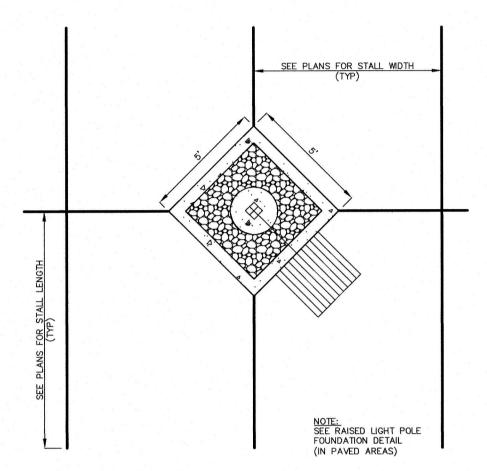
1. EXPANSION JOINTS TO BE 1/2" PREMOLDED, ASPHALT IMPREGNATED, JOINT FILLER MATERIAL, CUT TO FIT CROSS SECTION, RECESSED 1/4" FROM EXPOSED FACES AND ARE TO BE PLACED: IN TRAVERSE JOINTS 20' O.C. MAX; BETWEEN CURB AND CONCRETE (SIDEWALK OR PAVEMENT); AT ALL STRUCTURES; BETWEEN APRON AND SIDEWALK; AND AT THE END OF EACH WORK DAY. CURB DRAIN OPENING FOR CAST IRON, DIP OR BITUMINOUS PIPE. ALL MATERIALS AND METHODS TO BE IN CONFORMANCE WITH THE STANDARD SPECIFICATIONS.

-EXPANSION JOINT

-APPROVED SUBBASE

CONCRETE APRON DETAIL

N.T.S.



DIAMOND ISLAND DETAIL N.T.S.

1. ALL POSTS SHALL BE OF ADEQUATE LENGTH TO MEET THE REQUIREMENTS FOR ERECTION AS STATED IN THE CURRENT "MANUAL

2. TWO PIECE STEEL POST SHALL BE EMBEDDED 3'-8" MIN. ONE PIECE STEEL POST SHALL BE EMBEDDED 3'-6" MAX.

3. ALL STEEL POSTS AND BRACKETS SHALL BE CUT, BENT AND HOLES PUNCHED AND DRILLED BEFORE GALVANIZING. GALVANIZING SHALL BE IN CONFORMANCE WITH CURRENT A.S.T.M. SPECIFICATIONS A 123

4. POSTS MAY BE STEEL OR 2 PIECE STEEL U-POST IN CONFORMANCE WITH THE NOTES BELOW. 5. SIGN PANEL SIZES SHALL DETERMINE POST TYPE AND NUMBER AS SHOWN ON THIS DETAIL.

6. BOLTS SHALL NOT PROTRUDE MORE THAN 3/4" BEYOND THE NUT WHEN TIGHT BUT SHALL ENGAGE ALL THREADS IN THE NUT. 7. THE MINIMUM VERTICAL CLEARANCE REQUIREMENTS FOR SIGNS ARE:

 EDGE OF PAVEMENT TO BOTTOM OF SIGN AS PER SECTION 2A-23 OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS."

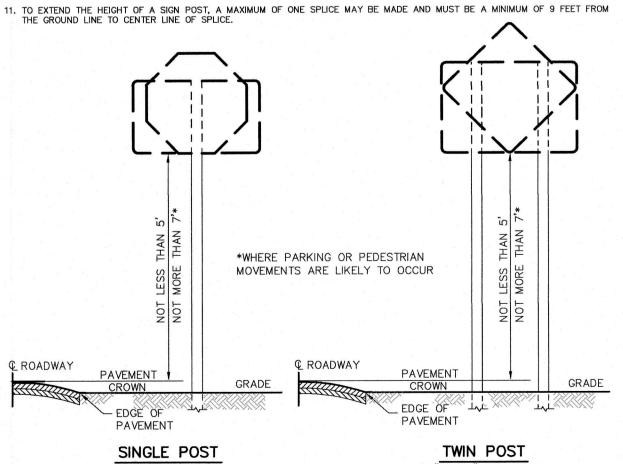
. GROUND LINE TO BOTTOM OF SIGN SHALL BE 7 FEET MINIMUM.

ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS"

. FOR SINGLE POST INSTALLATIONS, THE MINIMUM DISTANCE FROM GROUNDLINE TO THE TOP OF SIGN MUST BE 9 FEET. 8. PERMANENT SIGN SUPPORTS SHALL NOT BE INSTALLED ON SLOPES GREATER THAN 10:1, UNLESS BEHIND A TRAFFIC BARRIER, AND THE SLOPE SHALL EXTEND A MINIMUM OF 3'-0" BEYOND THE OUTSIDE EDGE OF SIGN (SEE GRADING DETAIL FOR SLOPE

9. EXTRUDED ALUMINUM SIGN PANELS ARE NOT PERMITTED FOR USE WITH U-POST SIGN SUPPORTS.

10. U-POST SIGN SUPPORTS SHALL NOT BE PLACED IN FRONT OF GUIDE RAIL AND THE POSTS MUST NOT STRADDLE GUIDE RAIL.



SIGN MOUNTING DETAIL

N.T.S.

GENERAL ADA NOTES

PEDESTRIAN CURBS PEDESTRIAN CURBS ARE PERMITTED WHEN ADJACENT TO NON-WALK AREAS OR ELEVATION DIFFERENCES WHICH CANNOT BE ACCOMMODATED BY FLARES OR GRADING.

CROSSWALKS • FOR CURB RAMPS THAT LEAD TO A SINGLE CROSSWALK, THE RAMP (EXCLUDING FLARES) TO BE FULLY INSIDE OF MARKED CROSSWALK LINES. • SHOULD BE PLACED A MINIMUM DISTANCE OF 4'-0" FROM STOP AND YIELD LINES.

FROM ON ROAD PARKING ZONES. FOR SIGNALIZED AREAS, CROSSWALKS SHOULD BE PLACED A MINIMUM DISTANCE OF 30'-0" FROM ON ROAD PARKING ZONES. • PEDESTRIAN CROSSWALKS ARE 6'-0" MINIMUM MEASURED FROM INSIDE THE PAINTED EDGE TO INSIDE PAINTED FORE AND THE INSIDE LINES MUST BE OUTSIDE THE PROJECTED CURB LINES. . AVOID USING THE PARALLEL LINE CROSSWALK DESIGN. INSTEAD USE THE LONGITUDINAL.

• FOR UN-SIGNALIZED AREAS, CROSSWALKS SHOULD BE PLACED A MINIMUM DISTANCE OF 20'-0" AWAY

LADDER-STYLE, LINES AT 6'-0" LONG AND 1'-2' WIDE WITH A SPACING OF 1'-2' APART. SPACING SHOULD BE DESIGNED SO THE PAINTED AREAS AVOID THE WHEEL PATHS.

• CONSTRUCT CURB RAMPS WITH A MINIMUM 4'-0" X 4'-0" CLEAR SPACE BEFORE THE CURB FACE, WITHIN THE WIDTH OF THE CROSSWALK. • SLOPES THAT EXCEED 8.00%, OR CONTRACT DOCUMENTS AS APPLICABLE, WILL NOT BE ACCEPTED AND

WILL BE RECONSTRUCTED. · PROVIDE SLIP RESISTANT TEXTURE ON CURB RAMP BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP. EXTEND TEXTURE THE FULL WIDTH AND LENGTH OF THE CURB RAMP INCLUDING FLARED SIDE RAMPS

. TO AVOID CHASING GRADE INDEFINITELY WHEN TRAVERSING THE HEIGHT OF CURB, RAMP LENGTH NOT TO EXCEED 15'-0". ADJUST RAMP SLOPE AS NEEDED TO PROVIDE ACCESS TO THE MAXIMUM EXTENT • FOR NEW CONSTRUCTION AND ALTERATIONS, CONSTRUCT CURB RAMP AND FLARE SLOPES WITH THE

FLATTEST SLOPE POSSIBLE • FOR NEW CONSTRUCTION, ATTEMPT TO KEEP THE CROSS SLOPE AS FLAT AS POSSIBLE. DO NOT EXCEED 2.00% CROSS SLOPE ON THE CURB RAMP OR PEDESTRIAN ACCESSIBLE ROUTE (MEASURED

PERPENDICULAR TO THE DIRECTION OF TRAVEL). . CURB RAMP AND SIDE FLARE LENGTHS ARE VARIABLE AND BASED ON CURB HEIGHT AND THE SIDEWALK

 AVOID CURB RAMP DESIGNS WHERE THE WIDTH OF THE CROSSWALK WILL NEED TO BE GREATER THAN · ALL SLOPES ARE MEASURED WITH RESPECT TO A LEVEL PLANE. THEREFORE, THE LENGTH OF RAMP IS NOT SOLELY DEPENDANT ON THE HEIGHT OF CURB. (FOR EXAMPLE, A 6" CURB DOES NOT

NECESSARILY MEAN A RAMP LENGTH OF 6'-0" FOR A 12:1 SLOPE . THE CHANGE IN GRADE AT THE BOTTOM OF THE CURB RAMP AND ADJOINING ROAD SURFACE IS NOT TO EXCEED AN ALGEBRAIC DIFFERENCE OF 11.00%. THE COUNTER SLOPE OF THE GUTTER OR ROAD AT THE FOOT OF A CURB RAMP, LANDING OR BLENDED TRANSITION IS NOT TO EXCEED 8.00% AND IT IS NOT NECESSARY TO HAVE THE LENGTH GREATER THAN 15'-0".

. WHEN TWO CROSSWALKS LEAD TO A SINGLE CURB RAMP, THE MAXIMUM RUNNING SLOPE IS 5% WITH A MAXIMUM 2% CROSS SLOPE. THESE TYPES OF RAMPS REQUIRE THE ENGINEERING DEPARTMENT'S APPROVAL AS THEY ARE NOT PREFERRED.

. CONSTRUCT TOP OF PLAIN CEMENT CONCRETE DEPRESSED CURB TO BE FLUSH WITH ADJACENT

SURFACES (RAMPS, SIDEWALKS, FLARES). . CONSTRUCT DEPRESSED CURB FOR CURB RAMPS FLUSH TO ADJACENT ROADWAY. GRADE EDGE OF ROAD ELEVATIONS AT THE FLOW LINE TO ENSURE POSITIVE DRAINAGE AND PREVENT PONDING. FOR LEVEL LANDINGS BEHIND DEPRESSED CURB, ADJUST SLOPES TO PROVIDE POSITIVE DRAINAGE. THE VERTICAL ALIGNMENT OF A CURB RAMP, EXCLUDING FLARES, SHALL BE PLANAR. GRADE BREAKS SHALL BE FLUSH AND PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN. RAMP TRANSITIONS BETWEEN WALKS, GUTTERS, LANDINGS, OR STREETS SHALL BE FLUSH AND FREE OF ABRUPT VERTICAL CHANGES (1/4" MAXIMUM).

. WHEN TWO CROSSWALKS LEAD TO A SINGLE CURB RAMP, THE DEPRESSED CURB MUST EXTEND FROM THE OUTER MOST EDGE OF EACH CROSSWALK.

DETECTABLE WARNING SURFACES • NO SEPARATION BETWEEN DETECTABLE WARNING SURFACES FOR MEDIANS LESS THAN 4'-0" BETWEEN

SEAL JOINTS WITH AN APPROVED SEALING MATERIAL.

PROVIDE HMA FLARES ON-

1:12 MAX

TEMPORARY CURB RAMP:-

HOT MIX ASPHALT (HMA)

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0 0 0 0 0

00000

00000

00000

<u>PLAN</u>

1.6" MIN. TO 2.4" MAX. CENTER TO CENTER T.D.

DWS SHOULD BE COLORED AS FOLLOWS:

SPECIFIED REQUIREMENTS.

SPACING

SURFACE COURSÉ

T.D. ALIGNED WITH

PEDESTRIAN TRAVEL

(EXCLUSIVE OF FLARES) OR FULL WIDTH OF LANDING/TURNING SPACE.

ADHERES TO THE SUBSTRATE WITHOUT PEELING OR BLISTERING.

DETECTABLE WARNING SURFACE ON CURB RADIUS" FOR EXCEPTIONS.

DETECTABLE WARNING SURFACE (DWS) SHALL EXTEND FULL WIDTH OF CURB RAMP

a. WITHIN TOWNSHIP/COUNTY RIGHT OF WAY, COLOR SHALL CONTRAST VISUALLY WITH

b. WITHIN STATE RIGHT OF WAY, USE A SURFACE OR A COATING MATERIAL THAT IS

ADJACENT SURFACES, EITHER LIGHT ON DARK OR DARK ON LIGHT, OR AS PER

TYPICALLY, DWS SHALL BE PLACED ADJACENT TO BACK OF CURB. SEE "PLACEMENT OF

DETECTABLE WARNING SURFACE

SAFETY RED IN COLOR ACCORDING TO FED-STD-595B COLOR CHIP NO. 31350 AND

HAS A 35 BPM MINIMUM SLIP RESISTANCE WHEN TESTED ACCORDING TO ASTM R 303.

ENSURE THAT THE FINISHED PRODUCT IS STABILIZED AGAINST UV DEGRADATION AND

DWS SHALL EXTEND 2 FEET MINIMUM IN THE DIRECTION OF PEDESTRIAN TRAVEL.

DIRECTION OF

EACH SIDE OF RAMP (3:1

• CURB RAMP WIDTH IS 4'-0" MINIMUM.

 PROVIDE DETECTABLE WARNING SURFACES (DWS) 24" MINIMUM (IN THE DIRECTION OF PEDESTRIAN TRAVEL) ACROSS FULL WIDTH OF RAMP AT THE GRADE BREAK NEAR STREET EDGE. PROVIDE DWS THAT CONTRAST VISUALLY WITH ADJACENT WALKWAY SURFACES. EITHER LIGHT-ON-DARK OR

DARK-ON-LIGHT FOR THE FULL WIDTH OF RAMP. · ALIGN DETECTABLE WARNING SURFACE TRUNCATED DOMES ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF THE RAMP AND PERPENDICULAR TO CURB WHEN APPROPRIATE. . DETECTABLE WARNING SURFACES SHALL BE SAFETY RED COLOR, EXCEPT IF THE MUNICIPALITIES HAVE

ESTABLISHED AN ALTERNATIVE COLOR SCHEME. • FOR TWO CROSSWALKS LEADING TO A SINGLE CURB RAMP, THE DETECTABLE WARNING SURFACE MUST BE PLACED ALONG THE ENTIRE DEPRESSED CURB AND THE DOMES MUST BE PLACED IN SUCH A WAY THAT THE DIRECTION OF TRAVEL IS ORIENTED INTO THE CROSSWALK.

 5.00% MAXIMUM SLOPE FOR THE DRIVEWAY APRON. • 1 1/2" MAXIMUM VERTICAL CHANGE IN HEIGHT BETWEEN THE ROAD SURFACE AND THE DEPRESSED

CURB AT THE DRIVEWAY APRON. • PROVIDE EXPANSION JOINT MATERIAL 1/2" THICK WHERE CURB RAMP ADJOINS ANY RIGID PAVEMENT SIDEWALK OR STRUCTURE WITH THE TOP OF JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE.

SIDEWALK

OR UNEVEN GROUND

TRUNCATED -

DOME (T.D.)

TEMPORARY CURB RAMP

(HOT MIX ASPHALT)

N.T.S.

TEMPORARY WALKWAY (WHERE APPLICABLE):

FIRM, STABLE, SLIP-RESISTANT SURFACE TO

- 0.45" MIN. TO 0.90" MAX.

- 0.90" MIN. TO 1.4" MAX.

TOP DIAMETER

BASE DIAMETER

ELEVATION

COVER SHORT SEGMENTS OF ROUGH, SOFT,

8. LANDINGS (AKA TURNING SPACE) • LANDING AREA, APPROACH SIDEWALK TRANSITIONS, AND CURB RAMP SHALL BE KEPT CLEAR OF

OBSTRUCTIONS, UNLESS AN EXCEPTION IS GRANTED DO NOT EXCEED 2.00% SLOPE IN ALL DIRECTIONS. • LANDING AREA SHOULD BE 4'-0" X 4'-0" MINIMUM CLEAR SPACE. IF THE TURNING SPACE IS

CONSTRAINED ON 2 OR MORE SIDES, IT MUST BE 4'x5' WITH THE 5' LENGTH ALONG THE

UNOBSTRUCTED SIDE. FOR TWO CROSSWALKS LEADING TO A SINGLE CURB, THE LANDING AREA MUST HAVE A MINIMUM OF A 5'-0" DEPTH (INCLUDING THE DETECTABLE WARNING SURFACE) ALONG THE DEPRESSED CURB/ROADWAY.

• ENGINEERING DEPÁRTMENT APPROVAL IS REQUIRED IF LANDING FOR TURNING MANEUVER IS NOT ON THE SIDEWALK, I.E. IF THE LANDING AREA "CLEAR SPACE" IS IN THE ROADWAY. · 4'x4' LANDINGS ARE REQUIRED AT EVERY ACCESSIBLE PEDESTRIAN SIGNAL/PUSHBUTTON LOCATION.

NON-WALK SURFACES • NON-WALK AREA IS AN OBSTRUCTION OR GRASS/NON-PAVED AREA ADJACENT TO THE PEDESTRIAN ACCESS ROUTE THAT IS NOT USED BY THE PEDESTRIAN FOR ACCESS.

 THE DETAILS DEPICT PEDESTRIAN PUSHBUTTON POLES TO ILLUSTRATE THE RECOMMENDED PLACEMENT OF PEDESTRIAN PUSHBUTTONS, FOR ALTERATION PROJECTS, PROVIDE ACCESS TO EXISTING PEDESTRIAN PUSHBUTTONS TO THE MAXIMUM EXTENT FEASIBLE. INSTALL PEDESTRIAN PUSHBUTTON STUB POLES, WHERE APPLICABLE, SO AS NOT TO CREATE PEDESTRIAN OBSTRUCTIONS.

. NEW CONSTRUCTION MUST COMPLY WITH RECOMMENDED LOCATIONS FOR ALTERATION PROJECTS LOCATE PEDESTRIAN PUSHBUTTONS, TO THE MAXIMUM EXTENT FEASIBLE (SEE 2009 MUTCD FIG 4E-3)

• ADJACENT TO A LEVEL NON-SLIP SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS A NON-SLIP WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP

 WITHIN 5'-0" OF THE CROSSWALK EXTENDED • BETWEEN 1'-6" AND 10'-0" OF THE EDGE OF CURB, SHOULDER OR PAVEMENT

 PARALLEL TO THE CROSSWALK TO BE USED • MOUNT PEDESTRIAN PUSHBUTTON 42" ABOVE THE SIDEWALK OR FINISHED GRADE TO THE CENTER OF THE PUSHBUTTON AND 10" MAXIMUM LATERALLY FROM LANDING.

· ALL SLOPES ARE MEASURED WITH RESPECT TO A LEVEL PLANE. THEREFORE, THE LENGTH OF RAMP IS NOT SOLELY DEPENDANT ON THE HEIGHT OF CURB. (FOR EXAMPLE, A 6" CURB DOES NOT NECESSARILY MEAN A RAMP LENGTH OF 6'-0" FOR A 12:1 SLOPE • SIDE FLARES 10.00% MAXIMUM SLOPE WHERE THE PEDESTRIAN PATH CROSSES THE CURB RAMP

 SIDE FLARES MUST BE PARALLEL TO THE CURB LINE · CURB RAMP AND SIDE FLARE LENGTHS ARE VARIABLE AND BASED ON CURB HEIGHT AND THE SIDEWALK

• GRADE GRASS AREAS OR OTHER NON-WALK AREAS AT 3:1 (1:3) MAXIMUM. DO NOT INSTALL CHEEK WALLS THAT INTERSECT THE PEDESTRIAN ACCESS ROUTE • SIDE FLARE WIDTH IS TYPICALLY 24" AND A MINIMUM OF 12".

12. SIDEWALKS

• NOTE THE AREA CONSIDERED TO BE THE "PEDESTRIAN ACCESSIBLE ROUTE" • THE MAXIMUM SIDEWALK CROSS SLOPE IS 2.00% (MEASURED PERPENDICULAR TO THE DIRECTION OF TRAVEL). THE MAXIMUM GRADE IS 5.00%. FOR SIDEWALKS ALONG STREETS: HOWEVER. THE LONGITUDINAL GRADE OF THE SIDEWALK SHOULD BE CONSISTENT WITH THE GRADE OF THE ADJACENT ROADWAY. IF THE 5.00% GRADE IS NOT FEASIBLE DUE TO TOPOGRAPHY AND OTHER PHYSICAL

CONSTRAINTS, THE LOWEST PRACTICAL GRADE GREATER THAN 5.00% SHOULD BE USED • SIDEWALK WIDTH MAY BE REDUCED TO 4'-0", WHEN PASSING AREAS 5'-0" X 5'-0" ARE PROVIDED

13. TRAVEL LANES . THE TRAVEL LANE IS DEFINED BY THE OUTSIDE EDGE OF THE WHITE PAVEMENT MARKING LINE. IF A WHITE PAVEMENT MARKING LINE DOES NOT EXIST, THE TRAVEL LANE IS DEFINED BY THE CONTRACT

14. MODIFY CONSTRUCTION DETAILS TO ADAPT DIMENSIONS TO EXISTING CURB HEIGHTS WHERE THE CURB IS LESS OR MORE THAN THE STANDARD 6" HEIGHT.

15. CONSTRUCTION MUST MEET THE STANDARDS CONTAINED HEREIN UNLESS OTHERWISE NOTED OR DIRECTED. 16. PREFERRED AND ALTERNATE TREATMENTS SHOULD NOT BE INTERMIXED WITHIN THE SAME INTERSECTION.

17. ALL HANDICAP RAMPS CONSTRUCTED IN THIS CONTRACT SHALL MEET ACCESSIBILITY REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT.

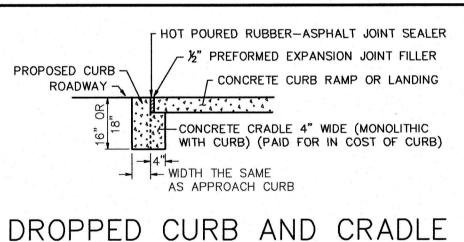
18. THE CONTRACTOR IS REQUIRED TO CONTACT THE TRAFFIC ENGINEERING DEPARTMENT ABOUT THE CONSTRUCTION OF ALL HANDICAP CURB RAMPS AT SIGNALIZED INTERSECTIONS AND VERIFY THE STRIPING PLAN IS IN ACCORDANCE WITH THE MOST RECENT NO PASSING ZONE PLAN.

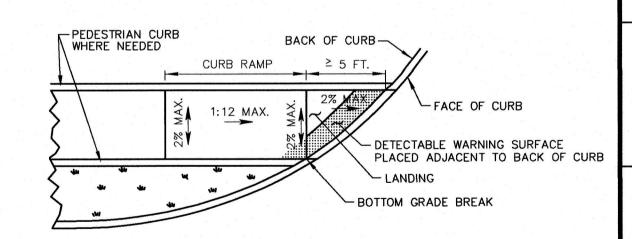
. GRADE BREAKS AT THE TOP AND BOTTOM OF THE CURB RAMP SHALL BE PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN. . GRADE BREAKS ARE NOT PERMITTED ON THE SURFACE OF RAMP RUNS OR LANDING AREAS. · SURFACE SLOPES THAT MEET AT THE GRADE BREAKS SHALL BE FLUSH.

20. FOR NEW CONSTRUCTION AND ALTERATIONS, CONSTRUCT CURB RAMP AND FLARE SLOPES WITH THE FLATTEST SLOPE POSSIBLE.

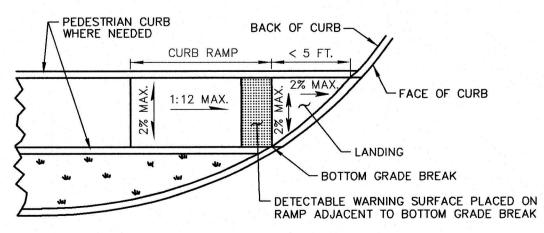
21. ALL VERTICAL SURFACE DISCONTINUITIES SHALL NOT EXCEED 1/4" IN HEIGHT. ANY VERTICAL SURFACE DISCONTINUITY BETWEEN 1/4" AND 1/2" SHALL BE BEVELED AT A SLOPE NO GREATER THAN 50% ACROSS THE ENTIRE DISCONTINUITY.

22 HORIZONTAL OPENINGS IN GRATES AND JOINTS SHALL NOT EXCEED 1/2" IN DIAMETER AND THE GRATES SHALL BE PLACED SO THE LONG DIMENSION IS PERPENDICULAR TO THE DIRECTION OF TRAVEL.





FOR RAMPS INTERSECTING A CURB RADIUS AT A SKEWED ANGLE WHERE AT LEAST ONE END OF BOTTOM GRADE BREAK IS GREATER THAN OR EQUAL TO 5 FEET FROM BACK OF CURB: DETECTABLE WARNING SURFACE SHALL BE PLACED ADJACENT TO BACK OF CURB.



FOR RAMPS INTERSECTING A CURB RADIUS AT A SKEWED ANGLE WHERE BOTH ENDS OF BOTTOM GRADE BREAK ARE LESS THAN 5 FEET FROM BACK OF CURB: DETECTABLE WARNING SURFACE SHALL BE PLACED ON THE RAMP ADJACENT TO BOTTOM GRADE BREAK.

PLACEMENT OF DETECTABLE WARNING SURFACE ON CURB RADIUS

N.T.S.

DETAILS ASSUME APPROPRIATE LOAD
BEARING CAPACITY AND COMPACTION OF SOILS. ACTUAL FIELD CONDITIONS SHALL BE CONFIRMED BY ON-SITE GEOTECHNICAL ENGINEER. RESIDENTIAL DEVELOPMENTS SHALL CONFORM TO DETAILS WITHIN THE CURRENT EDITION OF THE RESIDENTIAL SITE IMPROVEMENT STANDARDS ALL CONSTRUCTION DETAILS ARE NOT TO SCALE (N.T.S.) UNLESS OTHERWISE REVISIONS

CONSTRUCTION DETAIL NOTES

ALL TRAFFIC SIGNS AND PAVEMENT

MARKINGS SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL O

UNIFORM TRAFFIC CONTROL DEVICES

ALL CONSTRUCTION DETAILS SHALL B

DETAILS UNLESS OTHERWISE NOTED.

STRUCTURAL DETAILS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY

SHOP DRAWINGS SHALL BE PROVIDED

TO THE TOWNSHIP ENGINEER FOR ALL

WALLS AND STRUCTURAL ELEMENTS

SHOP DRAWINGS SHALL BE PROVIDED

FOR ALL PRECAST STRUCTURES PRIOR TO THE ORDERING OF MATERIALS.

SUPERCEDED BY APPLICABLE MUNICIPAL, COUNTY OR STATE

PRIOR TO CONSTRUCTION.

(MUTCD).

THIS DRAWING IS FOR PERMIT PURPOSES ONLY NOT FOR CONSTRUCTION UNTIL THIS BOX HAS BEEN CHECKED AND DATED

☐ CHKD BY: ____ DATE: __



NOTIFICATION BY EXCAVATORS. DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.



Professional Planners 261 Cleveland Avenue Highland Park, NJ 08904

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TWIN BORO PHYSICAL **THERAPY**

BOROUGH OF SAYREVILLE MIDDLESEX COUNTY **NEW JERSEY**

BLOCK 371, LOTS 1.01 & 1.02 TAX MAP SHEET 109 0.63 ACRES

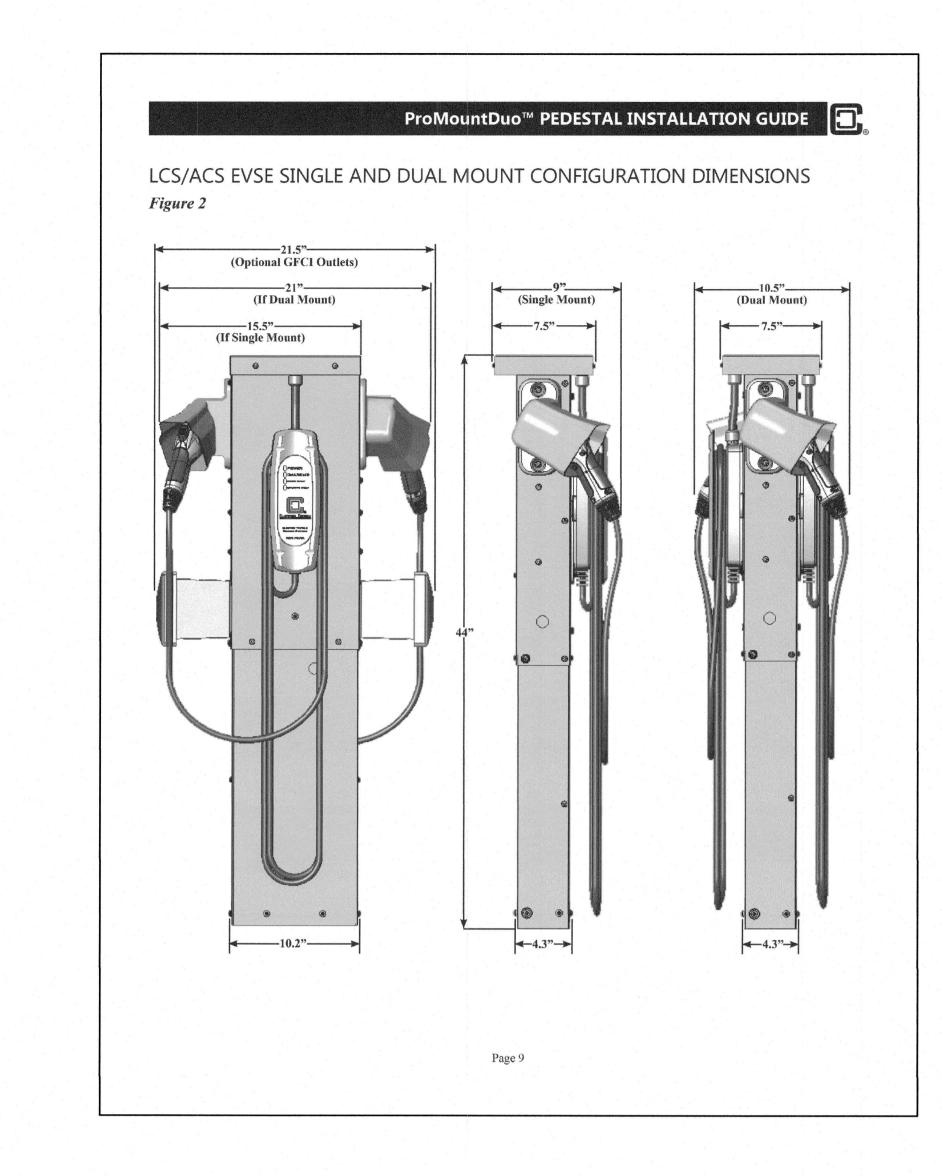
CONSTRUCTION **DETAILS**

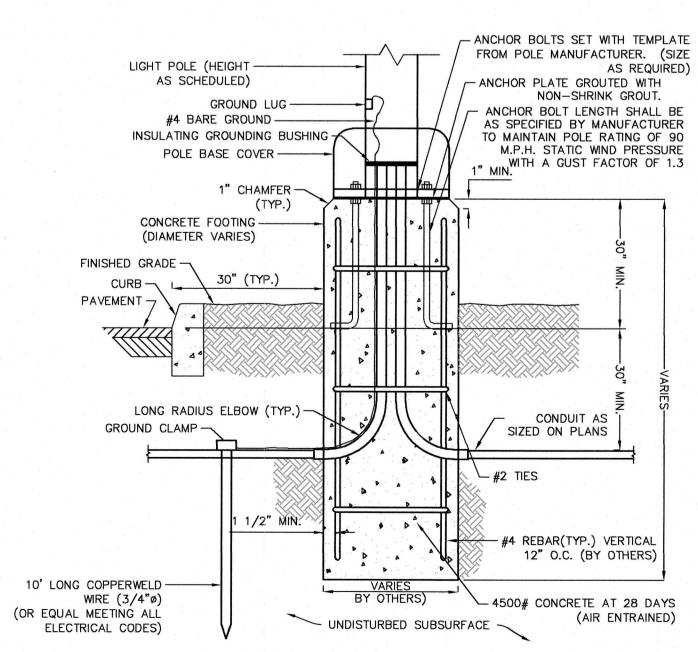
RAWN BY ESIGNED BY PPROVED BY THIS WORK PREPARED UNDER MY IMMEDIATE SUPERVISION... WILLIAM A. LANE

PROJECT NUMBER 2023.011 DE-1 DATE OF ISSUE MARCH 10, 2023 REVISION

ESSIONAL ENGINEER

NJPE# 40262





RAISED SITE LIGHT POLE FOUNDATION DETAIL (IN GRASSED AREAS)

N.T.S.

CONSTRUCTION DETAIL NOTES

1. ALL TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

2. ALL CONSTRUCTION DETAILS SHALL BE SUPERCEDED BY APPLICABLE MUNICIPAL, COUNTY OR STATE DETAILS UNLESS OTHERWISE NOTED.

3. STRUCTURAL DETAILS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY. SHOP DRAWINGS SHALL BE PROVIDED TO THE TOWNSHIP ENGINEER FOR ALL WALLS AND STRUCTURAL ELEMENTS PRIOR TO CONSTRUCTION.

4. SHOP DRAWINGS SHALL BE PROVIDED FOR ALL PRECAST STRUCTURES PRIOR TO THE ORDERING OF MATERIALS.

5. DETAILS ASSUME APPROPRIATE LOAD

SHOP DRAWINGS SHALL BE PROVIDED FOR ALL PRECAST STRUCTURES PRIOR TO THE ORDERING OF MATERIALS.
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§ 732-846-8585 732-846-9439

BOROUGH OF SAYREVILLE MIDDLESEX COUNTY NEW JERSEY

BLOCK 371, LOTS 1.01 & 1.02 TAX MAP SHEET 109 0.63 ACRES

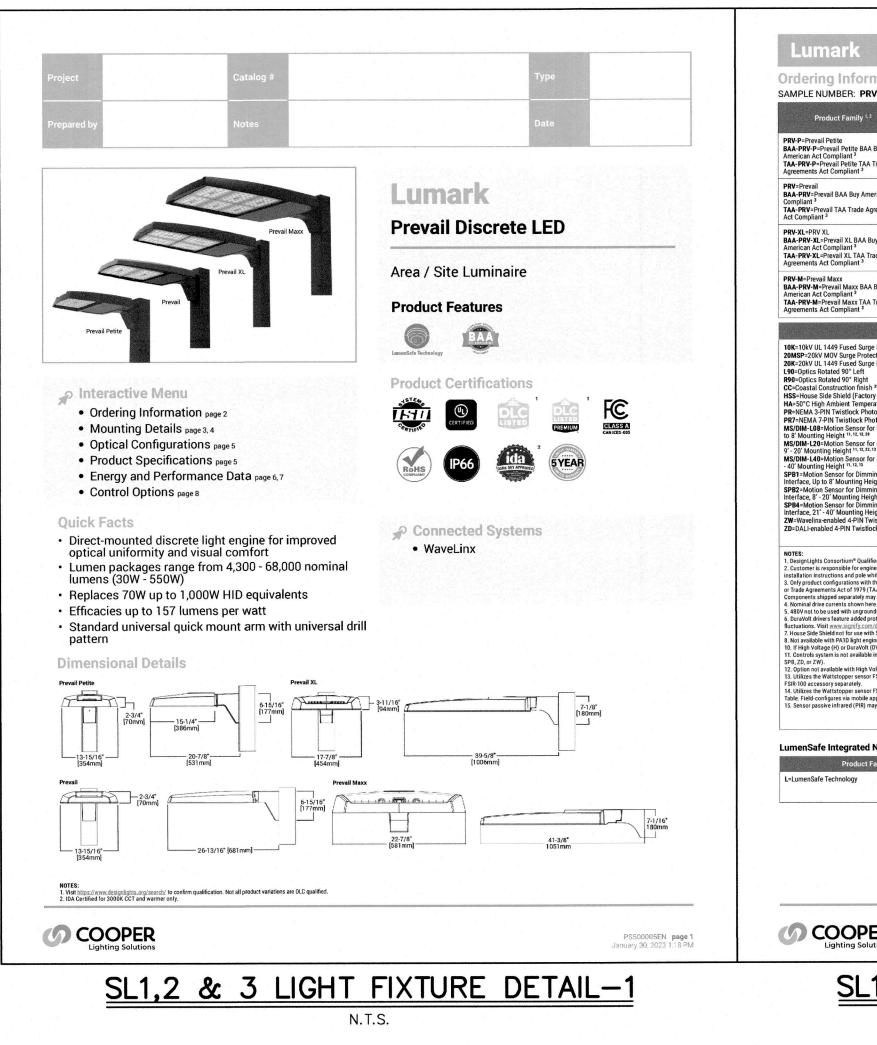
CONSTRUCTION DETAILS

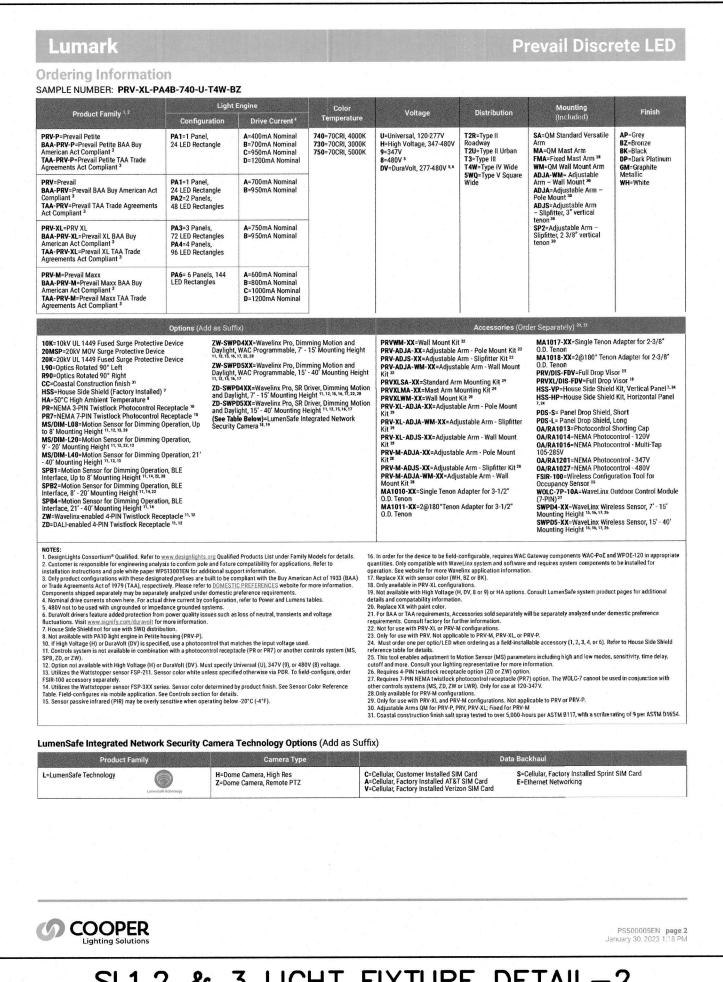
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DESIGNED BY
APPROVED BY

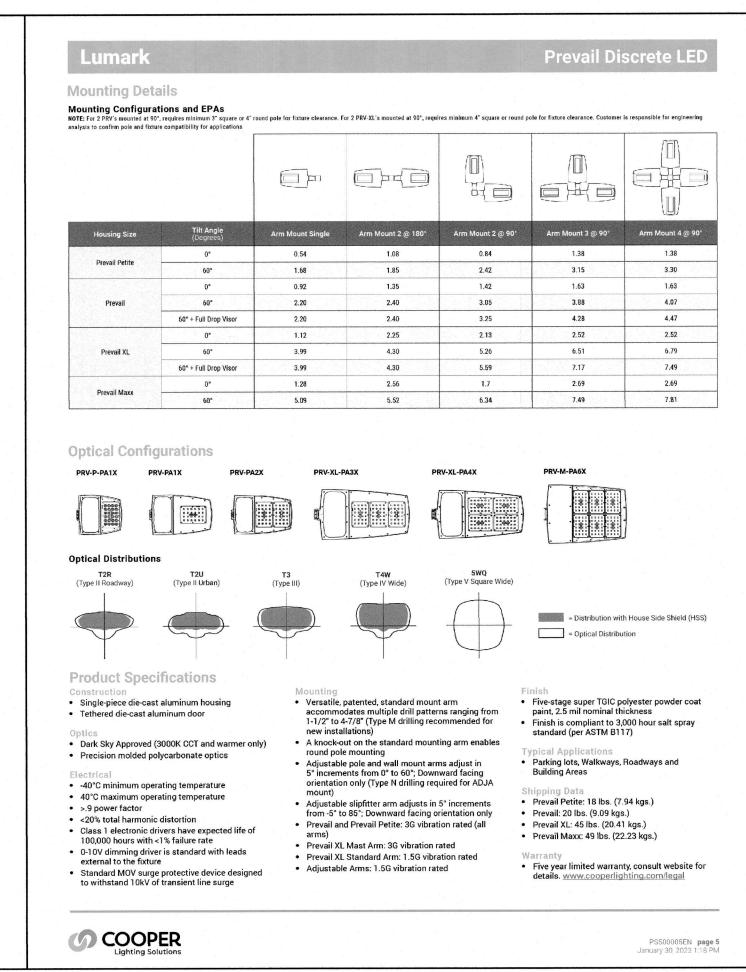
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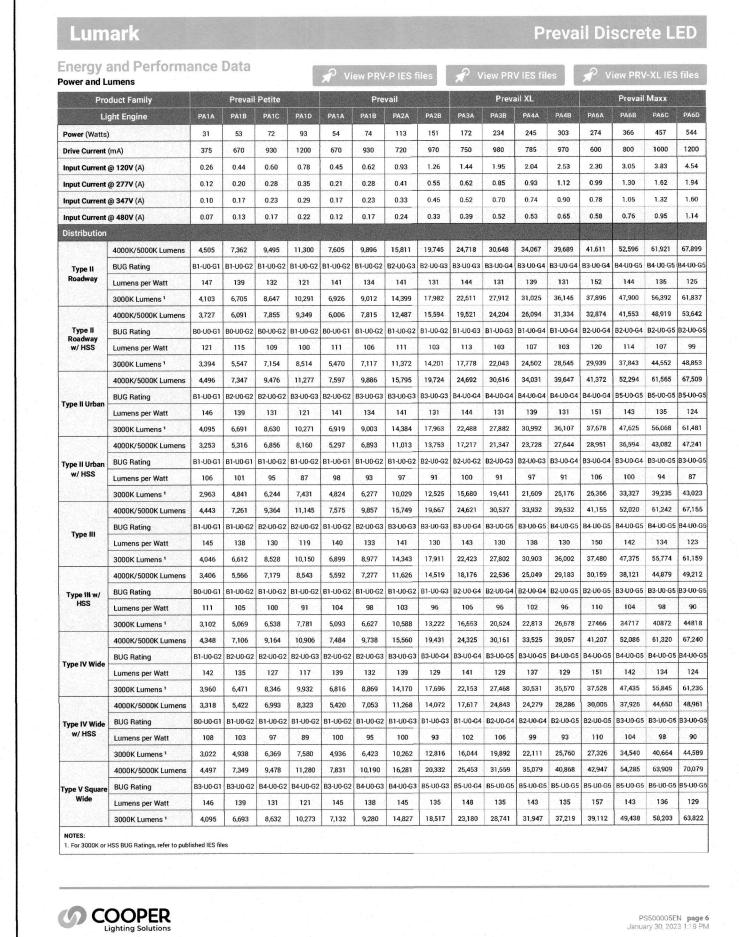
THIS WORK PREPARED UNDER MY
IMMEDIATE SUPERVISION...

WILLIAM A. LANE
PROFESSIONAL ENGINEER
NJPE# 40262





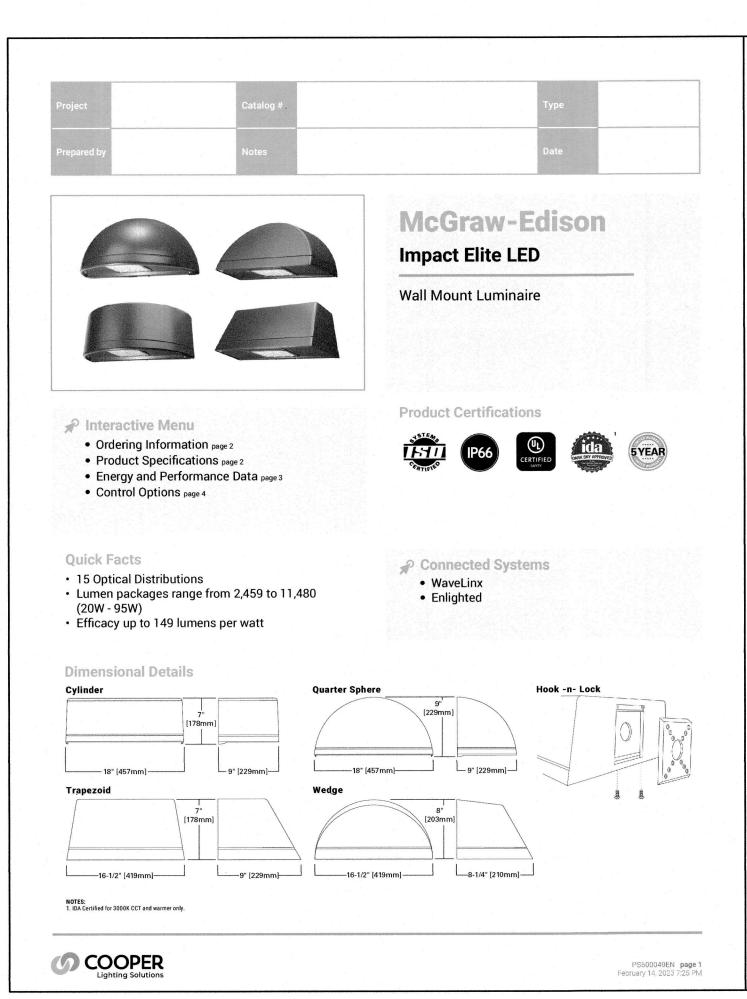


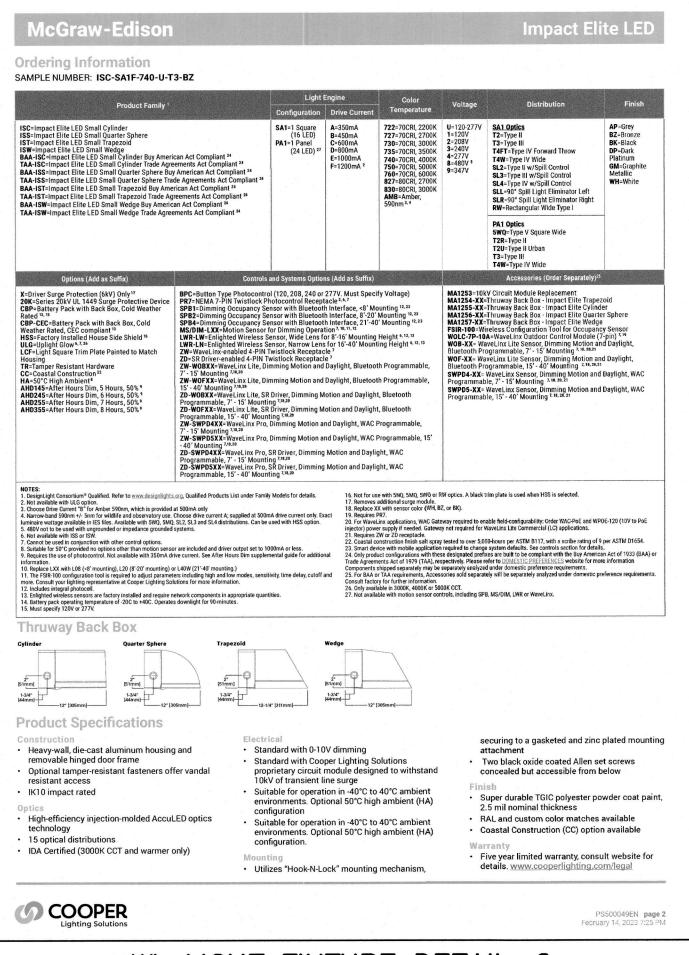


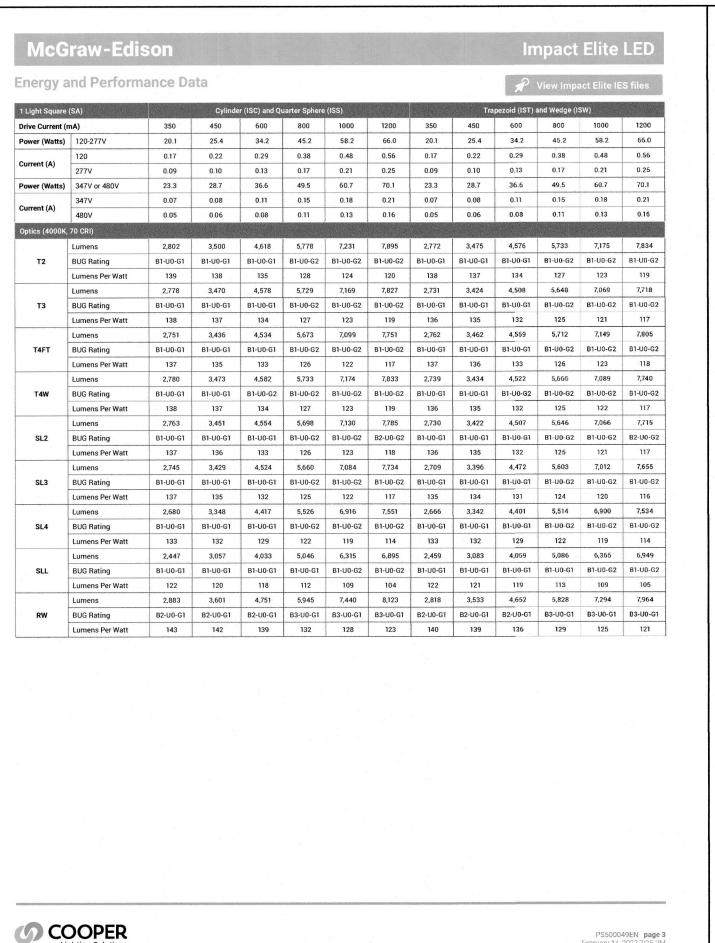
SL1,2 & 3 LIGHT FIXTURE DETAIL-2

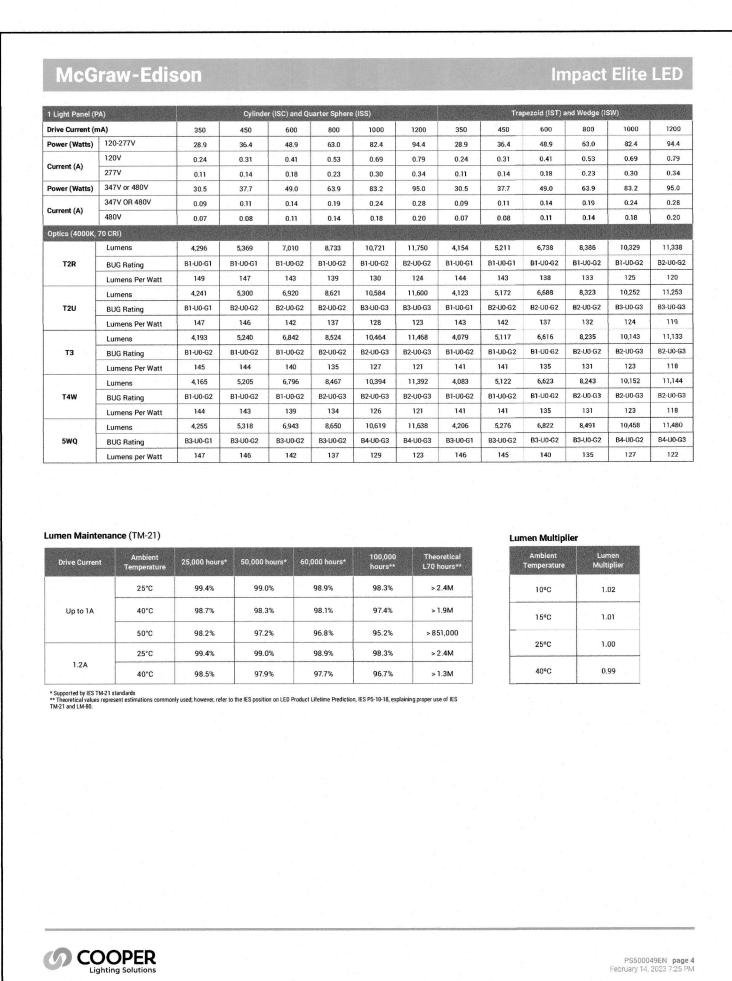
SL1,2 & 3 LIGHT FIXTURE DETAIL-3

SL1,2 & 3 LIGHT FIXTURE DETAIL-4









WL LIGHT FIXTURE DETAIL-1

WL LIGHT FIXTURE DETAIL-2

WL LIGHT FIXTURE DETAIL-3

PS500049EN page 3 February 14, 2023 7:25 PM

WL LIGHT FIXTURE DETAIL-4

PROJECT NUMBER DATE OF ISSUE

CONSTRUCTION DETAIL NOTES ALL TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL O UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
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menlo engineering associates

Civil Engineering Consultant Landscape Architects Professional Planners

lighland Park, NJ 08904

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TWIN BORO PHYSICAL THERAPY

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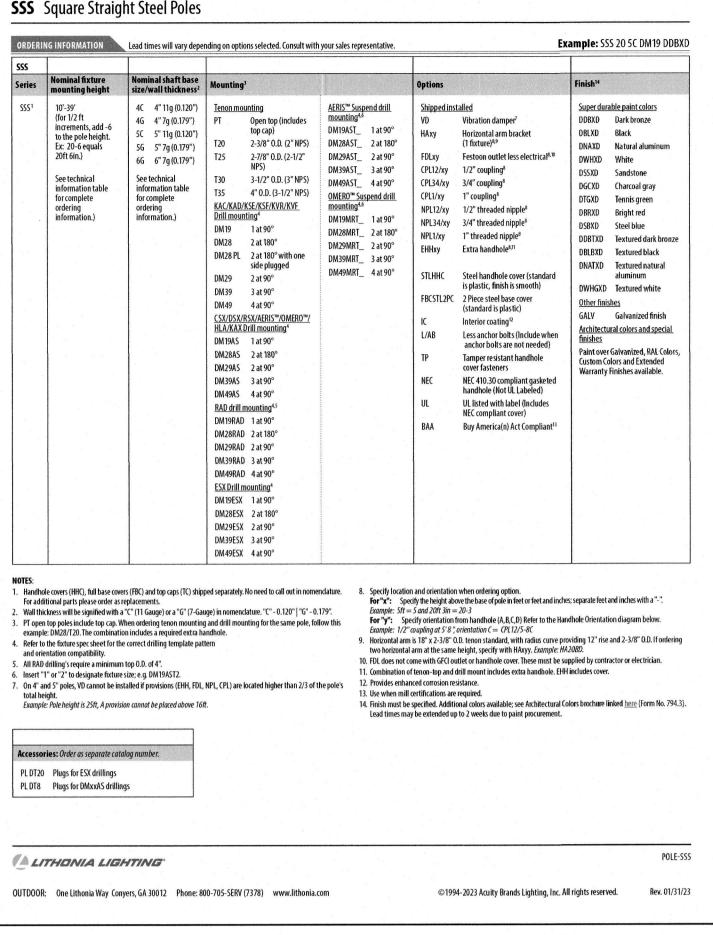
CONSTRUCTION DETAILS

(3)DESIGNED BY

APPROVED BY THIS WORK PREPARED UNDER MY IMMEDIATE SUPERVISION ... PROFESSIONAL ENGINEER NJPE# 40262

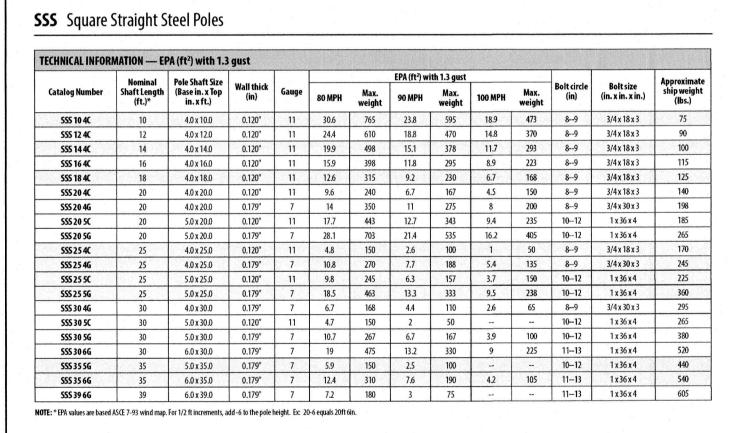
2023.011 DE-3 MARCH 10, 2023 12 REVISION





LIGHT POLE DETAIL-

OUTDOOR

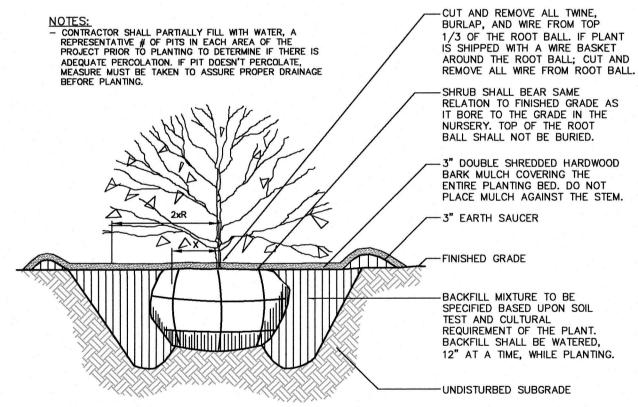


Series	Mounting Height (ft)*	Shaft Base Size	90 MPH	Max. weight	100 MPH	Max. weight	110 MPH	Max. weight	120 MPH	Max. weight	130 MPH	Max. weight	140 MPH	Max. weight	150 MPH	Max. weight	Approximate shi weight (lbs.)
SSS	10	40	20	500	16	400	13	325	10.5	263	8.5	213	7	175	6	150	75
SSS	12	40	16	400	13	325	10	250	8	200	6.5	163	5	125	4	100	90
SSS	14	40	13.5	338	10	250	7.5	188	6	150	4.5	113	3.5	88	2.5	63	100
SSS	16	40	10.5	263	7.5	188	5.5	138	4	100	3	75	1.5	38	1	25	115
SSS	18	40	8	200	5.5	138	4	100	2.5	63	1.5	38	0.5	13	-	•	125
SSS	18	4G	13	325	9.5	238	7	175	5	125	3.5	88	2.5	63	1.5	38	185
SSS	18	5C	13	325	9.5	238	6.5	163	4.5	113	3	75	1.5	38	.5	13	170
SSS	20	40	6	150	4	100	2.5	63	1	25	-		- 1	-		4 :	140
SSS	20	4G	10.5	263	7.5	188	5.5	138	3.5	88	2	50	1	25			205
SSS	20	5C	10	250	7	175	4.5	113	2.5	63	1	25	-	-	1	-	185
SSS	20	5G	20	500	15	375	11.5	288	8.5	213	6	150	4.5	113	3	75	265
SSS	25	40	2	50	0.5	13	-		-	-	-	-			-	-	170
SSS	25	4G	5.5	138	3	75	1.5	38		-	-	•		-			245
SSS	25	5C	4.5	113	2	50		-	-	-		-	-				225
SSS	25	5G	12	300	8.5	213	5.5	138	3	75	1.5	38		1 - 1	•	-	360
SSS	25	6G	19	475	13.5	338	9	225	5.5	138	3	75	1	25			445
SSS	30	4G	1.5	38	-		-	-		-	-	-	-	-	- "	-	291
SSS	30	5C	-	-	-	-	-	-	-	-	-	-		-		-	265
SSS	30	5G	6.5	163	3.5	88	1	25	-	-	-	-	-	-	-	-	380
SSS	30	6G	11	275	6	150	2.5	63		-	-	-	-	-	-	-	520
SSS	35	5G	2	50	-		-	-				-		-	-		440
SSS	35	6G	4	100	-	-	-	-			-	-	-		-	-	540
SSS	39	6G	-	-		-	-	-	-	-	-	-	-	-	-	-	605

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LIGHT POLE DETAIL—3

<u>LIGHT POLE DETAIL-2</u>



PRUNE DAMAGED AND CONFLICTING -

REE SHAPE. NEVER CUT CENTRAL

INSTALL CORRUGATED LDPE TREE GUARD -

STAKES TO BE 1/2 TO 1/3 HEIGHT OF THE -

TREE MEASURED FROM THE GROUND. INSTALL

TRUNK FLARE SHALL BE VISIBLE. TREE SHALL

BEAR SAME RELATION TO FINISHED GRADE AS

IT BORE TO THE GRADE IN NURSERY. TOP OF

CUT AND REMOVE BURLAP FROM TOP 1/3

OF ROOT BALL AS SHOWN. ALL WIRE AND

PLASTIC SHALL BE CUT AND COMPLETELY

SOIL TEST AND CULTURAL REQUIREMENT OF

DRIVE STAKE 2' MINIMUM INTO UNDISTURBED -

SOIL OUTSIDE OF THE PLANTING HOLE.

PLANT. BACKFILL SHALL BE WATERED 12" AT A

DO NOT PLACE MULCH AGAINST STEM.

3" DOUBLE SHREDDED HARDWOOD BARK MULCH.

BACKFILL MIXTURE TO BE SPECIFIED BASED ON

UNDISTURBED MOUND OF 3" OF COMPACTED SOIL. ---

1) CONTRACTOR SHALL PARTIALLY FILL WITH WATER.

A REPRESENTATIVE # OF PITS IN EACH AREA OF THE PROJECT PRIOR TO PLANTING TO DETERMINE IF THERE IS ADEQUATE PERCOLATION. IF PIT

DOESN'T PERCOLATE, MEASURE MUST BE TAKEN

CONTRACTOR SHALL REMOVE STAKING, ARBOR TREE TIES AND LDPE TREE GUARD AT END OF GUARANTEE PERIOD. ALL PLANTING MUST BE

GUARANTEED FOR ONE FULL GROWING SEASON FROM TIME OF FINAL ACCEPTANCE BY THE

TOWNSHIP LANDSCAPE ARCHITEC

TREEGATOR" TM WATERING RINGS

3) TREES SHALL BE PROVIDED WITH

OR EQUAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING WATER TO TREES

UNTIL FINAL ACCEPTANCE.

NOTE: ON SLOPES, PLACE

SINGLE STAKE

UNDISTURBED

SUBGRADE -

ARBORTIE

O ASSURE PROPER DRAINAGE BEFORE PLANTING.

FINISHED GRADE-

DECIDUOUS TREE PLANTING DETAIL

EQUAL TO HEIGH

(UP TO 10' HT.)

EVERGREEN TREE PLANTING DETAIL

ARBORTIE NAILED TO STAKE

FOLD ENDS OF

ARBORTIE BACK.

SECURE TO STAKE

WITH 1" GALVANIZED

ROOFING NAIL OR

USE A KNOT.

STAKES WITH "ARBOR TREE-TIES" OR EQUAL.

(3) STAKES PER TREE SHALL BE LIGHTLY

STAKES TO BE NOTCHED TO RECEIVE -

"ARBOR TREE-TIES" OR EQUAL -

ROOT BALL SHALL NOT BE BURIED.

REMOVED FROM ROOT BALL.

4" EARTH SAUCER -

NOTES:

ARBOR TIES.

AS SOON AS POSSIBLE AFTER PLANTING.

BRANCHES MAINTAINING NORMAL

SHRUB PLANTING DETAIL

LIGHTING NOTES:

- I. A CONCRETE FOOTING BELOW FINISHED GRADE, SHALL BE INSTALLED FOR EACH FIXTURE. SIZE AND DEPTH TO BE DESIGNED BY STRUCTURAL ENGINEER.
- 2. PARKING AREA POLES TO BE STEEL, NON-TAPERED, SQUARE TO MATCH FIXTURE
- 3. LIGHT FIXTURES AND POLES TO BE INSTALLED AS PER MANUFACTURERS' SPECIFICATIONS.

EXPOSED DURING CONSTRUCTION ARE TO BE SUPPORTED UNTIL BACKFILL IS IN PLACE.

- 4. PARKING AREA LIGHTING CONTROLS SHALL BE PHOTOCELL ACTIVATED AND TIMER DEACTIVATED DURING HOURS OF OPERATION.
- 5. LIGHT STANDARDS LOCATED IN PLANTING AREAS AND TURF AREAS SHALL BE A MINIMUM OF 30" OFF PAVEMENT CURB FACE. FOOTINGS MITHIN PARKING AREAS SHALL BE 30" ABOVE ADJACENT PAVEMENT GRADE. ALL FOUNDATIONS SHALL BE CYLINDRICAL. POLE HEIGHTS SHALL BE ADJUSTED FOR APPROPRIATE FOUNDATIONS USED WHILE MAINTAINING LUMINAIRE MOUNTING HEIGHT.
- 6. ALL CIRCUIT DIAGRAMS AND ELECTRICAL PLANS FOR EXTERIOR LIGHTING TO SERVICE PANEL SHALL BE DESIGNED BY INTERIOR LIGHTING CONTRACTOR/ENGINEER.
- 7. INSTALLATION OF ALL SITE LIGHTING ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH ALL APPLICABLE STANDARDS, CODES, AND LAWS.
- 6. THIS PLAN WAS PRODUCED USING LIGHTING ANALYSIS AGI PROGRAM WITH THE APPROPRIATE PHOTOMETRIC FILES SUPPLIED BY COOPER LIGHTING SOLUTIONS, PEACHTREE
- CITY, GA. 9. THE CONTRACTOR SHALL FIELD VERIFY EXISTING OVERHEAD WIRES FOR CLEARANCE REQUIREMENTS. THE CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT/ENGINEER

FOR ANY CONFLICTS PRIOR TO ORDERING LIGHTING EQUIPMENT. 10. THE CONTRACT DRAWINGS INDICATE THE APPROXIMATE LOCATION OF EXISTING SUBSURFACE UTILITIES IN THE VICINITY OF THE PROJECT AND ARE NOT GUARANTEED FOR ACCURACY AND/OR COMPLETENESS. CONTRACTOR TO VERIFY THE DEPTH AND LOCATION OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. (1-800-272-1000). ANY CONFLICTS WITH PROPOSED CONSTRUCTION ARE TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER, AND LANDSCAPE ARCHITECT. ALL EXISTING UTILITIES THAT

II. ANY LIGHT FIXTURE SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE ACCOMPANIED BY A POINT BY POINT CALCULATION VERIFYING THE SUBSTITUTED FIXTURES PERFORMANCE AND DEMONSTRATING THAT THE REVISED LIGHT LEVELS MATCH THE APPROVED PLANS. MENLO ENGINEERING WILL NOT PERFORM REVISED LIGHTING CALCULATIONS UNLESS AUTHORIZED BY THE OWNER. THE REVISED LIGHT LEVELS MUST BE RESUBMITTED TO THE MUNICIPAL REVIEWING ENGINEER FOR APPROVAL.

ARE TO BE RELOCATED OR ALTERED IN ANY MANNER SHALL BE DONE IN ACCORDANCE WITH THE RESPECTIVE UTILITY COMPANIES STANDARDS. ALL EXISTING UTILITIES

12. BUILDING MEP OR ELECTRICAL CONTRACTOR TO DETERMINE REQUIRED VOLTAGES FOR ALL SITE LIGHTING.

13. THIS PLAN REQUIRES-WAS GRANTED A WAIVER FROM SECTION 26-96.8(H)(4) RESTRICTED THE LIGHT INTENSITY AT THE PROPERTY LINE TO BE A MAXIMUM OF 0.5 FOOTCANDLES. THE PLAN PROVIDES A MAXIMUM LIGHT LEVEL AT THE PROPERTY LINE OF BLOCK 371 LOT 2 OF 1.2 FOOTCANDLES.

PLANTING NOTES

1) CONTRACTOR SHALL PARTIALLY FILL WITH WATER,

A REPRESENTATIVE # OF

TO DETERMINE IF THERE IS ADEQUATE PERCOLATION. I

PIT DOESN'T PERCOLATE, MEASURE MUST BE TAKEN

TO ASSURE PROPER
DRAINAGE BEFORE PLANTING

AND LDPE TREE GUARD AT END OF GUARANTEE PERIOD.

GUARANTEED FOR ONE FULL

GROWING SEASON FROM TIME OF FINAL ACCEPTANCE BY

THE TOWNSHIP LANDSCAPE ARCHITECT.

3) TREES SHALL BE PROVIDED

THE CONTRACTOR SHALL B

RESPONSIBLE FOR PROVIDING WATER TO TREES UNTIL

4"ø FLEXIBLE PERFORATED

STONE AND FILTER FABRIC

-TREE DRAIN TO BE USED

FINISHED GRADE.

-ARBOR TIE

WITH "TREEGATOR" TM WATERING BAGS OR EQUA

FINAL ACCEPTANCE

WITH CLEAN CRUSHED

VARIES

120°

OR DAMAGED.

-CENTER LEADER SHALL NOT BE CUT

-STAKES TO BE 1/2 TO 1/3 HEIGHT OF THE TREE MEASURED FROM GROUND.

-INSTALL STAKES WITH "ARBOR

BE LIGHTLY FITTING.

-3" EARTH SAUCER

TREE-TIES" OR APPROVED EQUAL.

(3) STAKES PER TREE. TIES SHALL

-CUT AND REMOVE TWINE AND BURLAF

FROM TOP 1/3 OF THE ROOT BALL

REMOVE BASKET FROM ROOT BALL

BASKET AROUND ROOT BALL; CUT AND

SHREDDED HARDWOOD BARK MULCH

COVERING ENTIRE PLANTING BED. DO

NOT PLACE MULCH AGAINST STEM.

BACKFILL MIXTURE TO BE SPECIFIED

BE WATERED 12" AT A TIME, WHILE

- DRIVE STAKE 2' MINIMUM INTO

UNDISTURBED SOIL OUTSIDE OF

4"ø FLEXIBLE PERFORATED HDPE TREE

DRAIN TO STORM WATER SYSTEM WITH

FABRIC WRAPPED ON ALL SIDES. TREE

-ARBORTIE

CLEAN CRUSHED STONE AND FILTER

DRAIN TO BE USED WHERE SOIL

CONDITIONS WARRANT.

STAKING DETAIL

N.T.S.

BASED ON SOIL TEST AND CULTURAL

ALL PLANTING MUST BE

2) CONTRACTOR SHALL REMOVE

PROJECT PRIOR TO PLANTING

THE FOLLOWING RECOMMENDED PLANTING PERIODS SHOULD BE ADHERED TO WHENEVER POSSIBLE:) BROADLEAF AND CONIFEROUS EVERGREEN TREES, SHRUBS, VINES AND GROUND COVERS SHALL BE PLANTED BETWEEN AUGUST 15th AND SEPTEMBER 15th AND BETWEEN APRIL 15th AND MAY 15th. DECIDUOUS TREES, SHRUBS, VINES, GROUND COVERS AND PERENNIALS SHALL BE PLANTED BETWEEN OCTOBER 15th AND NOVEMBER 15th AND BETWEEN MARCH 15th AND MAY 15th. THESE PLANTING SEASONS MAY BE EXTENDED OR SHORTENED ACCORDING TO PREVAILING WEATHER CONDITIONS, SOIL CONDITIONS, AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICE.

 THE PLANTING OPERATION INCLUDES ALL LABOR, MATERIALS, PLANTS, EQUIPMENT, SHIPPING, INCIDENTALS AND CLEANUP BY THE CONTRACTOR FOR THE INSTALLATION OF THE ENTIRE LANDSCAPE PLAN.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR PLANTING AT CORRECT GRADES AND ALIGNMENT.

4) THE CONTRACTOR WILL EXAMINE ALL FIELD CONDITIONS FOR EXACT LOCATIONS OF UTILITIES, DRAINAGE SYSTEMS AND IRRIGATION SYSTEMS AND ADJUST PROPOSED PLANTINGS ACCORDINGLY. THE LANDSCAPE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER DEPTH OF TOPSOIL IN ALL AREAS AND THE PROVISION OF POSITIVE DRAINAGE. THE CONTRACTOR SHALL NOTIFY THE CLIENT, ENGINEER, AND/OR LANDSCAPE ARCHITECT OF ANY DETRIMENTAL DRAINAGE HAZARD, INCLUDING BUT NOT LIMITED TO INSUFFICIENT TOPSOIL, ETC. PRIOR TO THE INSTALLATION OF ANY MATERIALS, INCLUDING LAWN AREAS.

5) THE CONTRACTOR WILL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING OF ALL SOIL OR DRAINAGE CONDITIONS WHICH THE CONTRACTOR CONSIDERS DETRIMENTAL TO THE GROWTH OF PLANT MATERIAL. STATE CONDITION AND SUBMIT A PROPOSAL FOR CORRECTION IF FEASIBLE.

6) PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY; HAVE NORMAL GROWTH HABITS; WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS AND BE FREE FROM DEFECTS AND INJURIES. QUALITY AND SIZE OF PLANTS, SPREAD OR ROOTS, AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH THE MOST RECENT ANSI 760 "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.

7) PLANTS SHALL NOT BE BOUND WITH WIRE OR ROPE AT ANY TIME SO AS TO DAMAGE THE BARK OR BREAK BRANCHES. PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE BALL ONLY.

8) GUARANTEE OF PLANT GROWTH: ALL PLANTS AND TREES SHALL BE GUARANTEED BY THE CONTRACTOR TO BE IN VIGOROUS GROWING CONDITION. PROVISION SHALL BE MADE FOR A GROWTH GUARANTEE OF AT LEAST ONE (1) YEAR FOR TREES AND SHRUBS FROM THE DATE OF FINAL ACCEPTANCE OR AS REQUIRED BY THE TOWNSHIP. REPLACEMENTS SHALL BE MADE AT THE BEGINNING OF THE FIRST SUCCEEDING PLANTING SEASON. ALL REPLACEMENTS SHALL HAVE A

9) INSOFAR AS IT IS PRACTICAL, PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL PROTECT THE STOCK NOT PLANTED. PLANTS SHALL NOT REMAIN UNPLANTED FOR LONGER THAN A THREE (3) DAY PERIOD AFTER

10) IF PLANT AVAILABILITY IS RESTRICTED, SUBSTITUTIONS MAY BE MADE WITHIN PLANT TYPE TO MAINTAIN SIMILAR GROWTH AND ORNAMENTAL QUALITIES UPON NOTIFICATION AND APPROVAL BY THE LANDSCAPE ARCHITECT.

GUARANTEE EQUAL TO THE ABOVE STATED.

11) PLANT LOCATIONS SHOWN ARE DIAGRAMMATIC. ALL PLANTS ARE SHOWN AT A SEMI—MATURE SIZE ON THE PLANS. THE STAKING LAYOUT OF ALL PLANTINGS WILL BE INSPECTED BY THE LANDSCAPE ARCHITECT PRIOR INSTALLATION AS REQUESTED BY THE OWNER.

12) AREAS DISTURBED BY LANDSCAPE OPERATIONS SHALL BE GRADED TO MATCH EXISTING. TOPSOIL AND SEED OR SOD AS REQUIRED.

13) NO PLANT, EXCEPT GROUND COVERS AND FOUNDATIONS PLANTS SHALL BE PLANTED LESS THAN TWO (2) FEET FROM EXISTING STRUCTURES AND SIDEWALKS.

14) ALL PLANTS SHALL BE PLANTED IN TOPSOIL THAT IS THOROUGHLY WATERED AND TAMPED AS BÁCKFILLING PROGRESSES. NOTHING BUT SUITABLE TOPSOIL FREE OF DRY SOD, STIFF CLAY, LITTER, STONES IN EXCESS OF 1"Ø, ANY TOXINS, ETC., SHALL BE USED FOR PLANTING.

15) SET ALL PLANTS PLUMB AND STRAIGHT. SET AT SUCH A LEVEL THAT, AFTER SETTLEMENT, A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE THE PLANT IN THE CENTER OF THE PIT.

16) IT IS ADVISABLE TO PRUNE APPROXIMATELY 1/3 OF THE GROWTH OF LARGE TREES (2" CALIPER AND OVER) BY THE REMOVAL OF SUPERFLUOUS BRANCHES. THOSE WHICH CROSS, THOSE WHICH RUN PARALLEL, ETC. THE MAIN LEADER TO TREES MUST NOT BE CUT BACK. LONG SIDE BRANCHES. HOWEVER, MUST BE SHORTENED. TREES WITH THE CENTRAL LEADER PRUNED WILL BE REJECTED.

17) EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH STANDARD HORTICULTURAL PRACTICE TO PRESERVE NATURAL CHARACTER OF THE PLANT. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS.

18) ALL TREES SHALL BE SUPPORTED IMMEDIATELY AFTER PLANTING. ALL TREES SIX (6) INCHES REQUIREMENT OF PLANT BACKFILL. SHALL AND OVER IN CALIPER SHALL BE GUYED, WHILE SMALLER TREES SHALL BE STAKED. ARBOR TREE TIES AND STAKES SHALL BE INSTALLED AS INDICATED. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF ARBOR TREE TIES ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE.

> 19) THE TRUNKS OF ALL TREES SHALL HAVE CORRUGATED LDPE TREE GUARDS INSTALLED AS SOON AS POSSIBLE AFTER PLANTING ACCORDING TO STANDARD PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL OF CORRUGATED LDPE TREE GUARDS ONE (1) YEAR FROM DATE OF FINAL ACCEPTANCE.

> 20) MULCH FOR PLANTING BEDS SHALL BE DOUBLE SHREDDED HARDWOOD BARK MULCH UNLESS OTHERWISE SPECIFIED ON THE PLANS AND SHALL HAVE NO LEAVES, YOUNG GREEN GROWTH, BRANCHES, TWIGS GREATER IN DIAMETER OF 1/2" WEEDS, SHAVINGS OR FOREIGN MATERIAL SUCH AS STONES, ETC. SHALL BE MIXED WITH THE MULCH. ALL SHRUB MASSES SHALL BE PLANTED IN CONTINUOUS MULCHED BEDS WITH A COMPACTED DEPTH OF 3". NO MULCH SHALL BE PLACED AGAINST THE PLANT STEMS.

> 21) WATER APPLIED TO SEEDED OR SODDED AREAS. PLANTS OR PLANTED AREAS SHALL BE FREE FROM IMPURITIES INJURIOUS TO VEGETATION AND APPLIED AT A RATE OF FIVE GALLONS OF WATER PER SQUARE YARD OF PLANT PIT.

22) FALL PLANTING HAZARDS: IT IS VERY RISKY TO TRANSPLANT THE FOLLOWING LIST OF TREES, BARE ROOT OR B&B IN THE

PLATANUS ACERIFOLIA PRUNUS-ALL STONE FRUITS CARPINUS VARIETIES CORNUS FLORIDA & VARS CRATAEGUS VARIETIES KOELREUTERIA

LIQUIDAMBAR STYRACIFLUA

PYRUS-ALL PEARS QUERCUS-ALL OAKS SALIX-WEEPING VARIETIES STYRAX JAPONICA TILIA TOMENTOSA ZELKOVA VARIETIES

LIRIODENDRON TULIPIFERA

THE CONTRACTOR ASSUMES RESPONSIBILITY FOR PLANT SURVIVAL OF THESE MATERIALS IF MOVED DURING THE FALL SEASON.

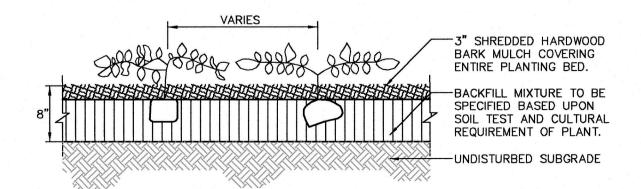
23) TREES TO REMAIN ON-SITE TO BE SELECTIVELY THINNED AND PRUNED REMOVING ALL DEAD AND DISEASED LIMBS WHILE PROTECTED BY FENCING DURING CONSTRUCTION (SEE DETAIL). FENCE TO BE MAINTAINED DURING CONSTRUCTION BY CONTRACTOR.

24) THE PLANTING PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE SHOULD ANY PLANT QUANTITY DISCREPANCIES OCCUR.

25) ALL STREET TREES AND SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BE BRANCHED LOWER THAN 7'-0" ABOVE GRADE. ALL PLANT MATERIAL LOCATED WITHIN ANY SIGHT TRIANGLE EASEMENTS SHALL NOT EXCEED A MATURE HEIGHT OF 30" ABOVE THE ELEVATION OF THE ADJACENT CURB. ALL STREET TREES PLANTED IN ANY SIGHT TRIANGLE SHALL BE PRUNED AS MENTIONED ABOVE.

26) SEE DETAIL DRAWINGS FOR TYPICAL PLANTING DETAILS.

27) ALL SHADE TREES, EVERGREENS, AND FLOWERING TREES SHALL BE PROVIDED WITH "TREEGATOR ORIGINAL OR JR. PRO" TM WATERING BAGS, RINGS OR APPROVED EQUAL. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING WATER TO ALL PLANTINGS AND LAWN AREAS UNTIL FINAL ACCEPTANCE.



GROUNDCOVER PLANTING DETAIL

N.T.S.

CONSTRUCTION DETAIL NOTES ALL TRAFFIC SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO THE CURRENT EDITION OF THE MANUAL O

UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL CONSTRUCTION DETAILS SHALL B SUPERCEDED BY APPLICABLE MUNICIPAL, COUNTY OR STATE DETAILS UNLESS OTHERWISE NOTED

STRUCTURAL DETAILS ARE PROVIDED FOR INFORMATIONAL PURPOSES ONL SHOP DRAWINGS SHALL BE PROVIDED TO THE TOWNSHIP ENGINEER FOR ALL WALLS AND STRUCTURAL ELEMENTS PRIOR TO CONSTRUCTION. SHOP DRAWINGS SHALL BE PROVIDED FOR ALL PRECAST STRUCTURES PRIOR TO THE ORDERING OF MATERIALS. DETAILS ASSUME APPROPRIATE LOAD BEARING CAPACITY AND COMPACTION OF SOILS, ACTUAL FIELD CONDITIONS SHALL BE CONFIRMED BY ON-SITE GEOTECHNICAL ENGINEER. RESIDENTIAL DEVELOPMENTS SHALL

CONFORM TO DETAILS WITHIN THE CURRENT EDITION OF THE RESIDENTIA SITE IMPROVEMENT STANDARDS ALL CONSTRUCTION DETAILS ARE NOT TO SCALE (N.T.S.) UNLESS OTHERWISE

REVISIONS

THIS DRAWING IS FOR PERMIT PURPOSES ONLY NOT FOR CONSTRUCTION UNTIL THIS BOX HAS BEEN CHECKED AND DATED

CHKD BY: ____ DATE:



THE STATE OF NEW JERSEY REQUIRES NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.



Civil Engineering Consultant Landscape Architects

Professional Planners

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Certificate of Authorization: 24GA27951900 TWIN BORO

PHYSICAL THERAPY

BOROUGH OF SAYREVILLE MIDDLESEX COUNTY NEW JERSEY

BLOCK 371, LOTS 1.01 & 1.02 TAX MAP SHEET 109

0.63 ACRES

CONSTRUCTION DETAILS

DRAWN BY DESIGNED BY PPROVED BY THIS WORK PREPARED UNDER MY IMMEDIATE SUPERVISION ...

NLLIAM A. LANE PROFESSIONAL ENGINEER NJPE# 40262 PROJECT NUMBER 2023.011

DE-4 MARCH 10, 2023 13 REVISION