PRELIMINARY & FINAL SITE PLAN
SEA BRIGHT BEACH CLUB
BLOCK 23, LOT 4
BOROUGH OF SEA BRIGHT
MONMOUTH COUNTY, NEW JERSEY

GENERAL NOTES:

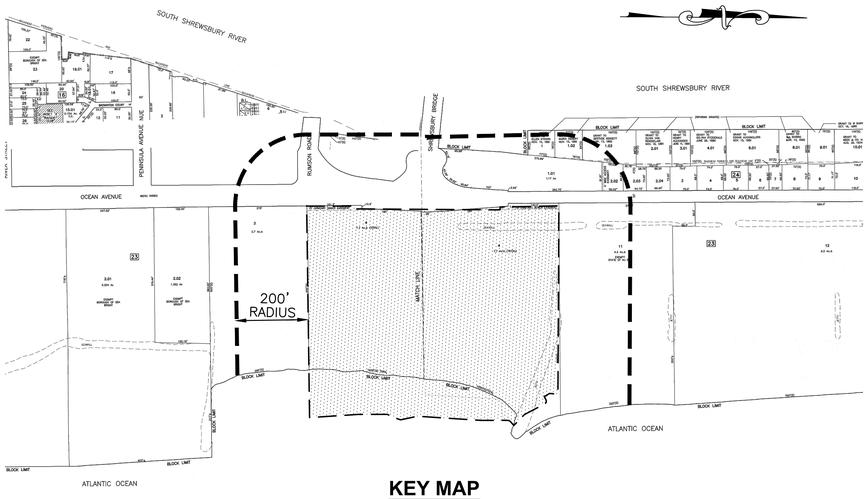
1. PROPERTY KNOWN AS BLOCK 23 LOT 4, BOROUGH OF SEA BRIGHT, MONMOUTH COUNTY, NEW JERSEY.
   LOT AREA: 406,044 S.F. (9.32 AC.)

THE PROPERTY IS LOCATED IN THE B–3 ZONE.

2. THE FOLLOWING DOCUMENTS WERE REFERENCED AND RELIED UPON AS BEING COMPLETE AND ACCURATE IN THE PREPARATION OF THIS PLAN SET:
   a. MAP ENTITLED: "SEA BRIGHT BEACH CLUB PARKING CONCEPT 3., REPLACEMENT OF BRIDGE S–32 ON COUNTY ROUTE 520 (RUMSON ROAD) OVER SHREWSBURY RIVER, BOROUGH OF RUMSON, BOROUGH OF SEA BRIGHT, MONMOUTH COUNTY, NEW JERSEY" PREPARED BY MONMOUTH COUNTY DIVISION OF ENGINEERING
   b. MAP ENTITLED: "BOUNDARY & TOPOGRAPHICAL SURVEY MAP FOR PROPERTY KNOWN AS LOT 4 IN BLOCK 23, NOW OR FORMERLY LANDS OF SEA BRIGHT BEACH CLUB" PREPARED BY YORKANIS & WHITE, INC., DATED DECEMBER 5, 2022.
4. ELECTRIC, TELEPHONE, CABLE, ETC. SHALL BE INSTALLED PER UTILITY COMPANY DESIGN.
5. THE CONTRACTOR SHALL BE SOLELY OBLIGATED TO LOCATE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION. SHOULD ANY KNOWN OR POTENTIAL CONFLICTS EXIST THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING PRIOR TO COMMENCEMENT OF CONSTRUCTION. ANY EXISTING UTILITIES OR PHYSICAL FEATURES FOUND TO EXIST THAT DIFFER FROM THAT INDICATED ON THE SITE DRAWINGS SHALL REQUIRE IMMEDIATE NOTICE TO THE ENGINEER.
6. APPLICANT/OWNER: SEA BRIGHT BEACH CLUB
   1037 OCEAN AVENUE
   SEA BRIGHT, NJ 07760

CONSTRUCTION NOTES:

1. ALL WORK TO CONFORM WITH THE LATEST EDITION OF THE FOLLOWING:
   NJDOT SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
   MONMOUTH COUNTY DESIGN STANDARDS
   MUNICIPAL DESIGN STANDARDS
   CURRENT MANUFACTURERS SPECIFICATIONS, STANDARDS, AND REQUIREMENTS
   CURRENT, PREVAILING UTILITY COMPANY OR AUTHORITY SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.
2. ALL BARRIER FREE CONSTRUCTION TO BE IN ACCORDANCE WITH THE NJ UNIFORM CONSTRUCTION CODE, SUBCHAPTER 7: BARRIER FREE SUBCODE AND ADA REGULATIONS WHERE REQUIRED.
3. CONTRACTOR IS RESPONSIBLE TO SECURE ALL WORKER SAFETY, TRAINING, AND SAFETY DEVICE USAGE FOR AND DURING THE CONSTRUCTION OF THE IMPROVEMENTS SHOWN ON THIS PLAN.
4. THE CONTRACTOR IS DESIGNATED AS RESPONSIBLE PARTY DURING CONSTRUCTION OF THE IMPROVEMENTS SHOWN HEREON. AS SUCH, CONTRACTOR WILL PROVIDE ADEQUATE SAFETY TRAINING, EQUIPMENT, AND OVERSIGHT.
5. CONTRACTOR IS RESPONSIBLE TO OBTAIN ALL REQUIRED PERMITS AND APPROVALS FOR CONSTRUCTION OF THE DEPICTED SITE IMPROVEMENTS.
6. ALL DISTURBED AREAS ON SITE TO BE STABILIZED IN ACCORDANCE WITH THE FREEHOLD SOIL CONSERVATION DISTRICT STANDARDS.
7. ALL AREAS NOT COVERED BY IMPERVIOUS SURFACE SHALL BE SEEDED OR OTHERWISE STABILIZED IN ACCORDANCE WITH SOIL EROSION CONTROL SPECIFICATIONS.
8. THE NEW JERSEY ONE CALL SYSTEM MUST BE CONTACTED PRIOR TO EXCAVATION ON–SITE OR WITHIN R.O.W (800) 242–1000.
9. ALL UTILITY CONNECTIONS AND RELOCATIONS ARE SHOWN SCHEMATICALLY. THE CONTRACTOR SHALL CONTACT AND COORDINATE WITH EACH UTILITY COMPANY AND ARCHITECT TO PROVIDE THE MOST APPROPRIATE LOCATION FOR UTILITY CONNECTIONS AND/OR RELOCATIONS.
10. EXISTING SITE AND UTILITY INFORMATION SHOWN ON THIS PLAN HAS BE COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR MUST VERIFY ALL UTILITIES PRIOR TO EXCAVATION.
11. ALL TRAFFIC SIGNS AND STRIPING SHALL CONFORM WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
12. ALL WATER AND SEWER SERVICES SHALL BE INSTALLED WITH A HORIZONTAL SEPARATION OF 10' OR A VERTICAL SEPARATION OF 18", OR BE ENCASED IN CONCRETE, 6" THICK, 10' ON EITHER SIDE OF CROSSINGS.
13. ANY DAMAGE TO EXISTING STRUCTURES AS A RESULT OF THIS DEVELOPMENT, SHALL BE REPAIRED AT THE SOLE EXPENSE OF THE CONTRACTOR.
14. DURING R.O.W. WORK, TRAFFIC TO BE PROTECTED AND MAINTAINED IN ACCORDANCE WITH MUTCD REQUIREMENTS.
15. CONTRACTOR TO MATCH EXISTING PAVEMENT SPECIFICATIONS FOR ALL PAVEMENT REPAIR TO EXISTING ROADWAYS.
16. CONCRETE SHALL BE NJDOT CLASS B UNLESS OTHERWISE STATED HEREIN OR WITHIN THE CONSTRUCTION DETAILS.
17. ALL IMPROVEMENTS SHOWN HEREON TO BE REMOVED SHALL BE DISPOSED OF IN A MANNER NOT CONTRARY TO LOCAL OR STATE ORDINANCES.
18. CONTRACTOR TO NOTIFY THE UNDERSIGNED PROFESSIONAL IF FIELD CONDITIONS VARY FROM THAT WHICH IS SHOWN HEREON.
19. THIS PLAN SET HAS BEEN PREPARED FOR MUNICIPAL AND AGENCY APPROVALS. THIS PLAN NOT TO BE UTILIZED FOR CONSTRUCTION UNTIL MARKED "FOR CONSTRUCTION"
20. ALL ROOF LEADER DOWNSPOUTS ARE TO BE FITTED WITH SPLASH BLOCKS AND DIRECTED TO THE GRAVEL DRIVEWAY.
21. ANY EXISTING STREET TREES DAMAGED DURING CONSTRUCTION SHALL BE REPLACED BY A TREE OF SUITABLE SIZE AND SPECIES AS APPROVED BY THE BOROUGH, PLANTED BEHIND THE SIDEWALK IN THE RIGHT OF WAY.
22. MECHANICAL SWEEPING OF ALL AFFECTED ROADWAYS TO BE PERFORMED EACH DAY, OR AS NECESSARY.



KEY MAP
SCALE: 1" = 200± FT.

PROPERTY OWNERS WITHIN 200'

SEA BRIGHT BOROUGH

BLOCK	LOT	OWNER
18	2	MONMOUTH COUNTY 1006 OCEAN AVENUE HALL OF RECORDS- 1E MAIN ST FREEHOLD, NJ 07728
18	1	1008 OCEAN AVENUE SEA BRIGHT BEACH CLUB 999 OCEAN AVENUE SEA BRIGHT, NJ 07760
17	5	1010 OCEAN AVENUE 1010 OCEAN PARTNERS, LLC P.O. BOX 80235 STATEN ISLAND, NY 10308
23	3	1041 OCEAN AVENUE SBBP, LLC 95 AVENUE OF TWO RIVERS RUMSON, NJ 07760
17	6	2 RUMSON ROAD NAUTILUS HOMEOWNERS ASSOCIATION P.O. BOX 8506 RED BANK, NJ 07701
23	11	909 OCEAN AVENUE STATE OF NJ-D.E.P. CN 229 TRENTON, NJ 08625
24	1.01	960 OCEAN AVENUE STATE OF NJ D.E.P. 401 EAST STATE STREET TRENTON, NJ 07865

OWNER/APPLICANT
SEA BRIGHT BEACH CLUB
999 OCEAN AVENUE N
SEA BRIGHT, NJ 07760

I HEREBY CERTIFY THAT I AM THE OWNER OF RECORD OF THE PLAN HEREIN DEPICTED AND THAT I CONCUR WITH THE PLAN.

SEA BRIGHT BEACH CLUB _____ DATE

JULY 25, 2023

SHEET INDEX

SHEET NO.	DESCRIPTION
1	COVER SHEET
2	EXISTING CONDITIONS & DEMOLITION PLAN
3	SITE LAYOUT PLAN
4	GRADING & UTILITIES PLAN
5	SOIL EROSION & SEDIMENT CONTROL PLAN & DETAILS
6	LANDSCAPE PLAN
7	LIGHTING PLAN
8	SOIL EROSION & SEDIMENT CONTROL NOTES
9	SOIL EROSION & SEDIMENT CONTROL NOTES
10	CONSTRUCTION DETAILS

ZONING SCHEDULE (B–3 ZONE)

BULK STANDARD		REQUIRED	EXISTING	PROPOSED
MIN. LOT AREA		50,000 S.F.	406,044 S.F	406,044 S.F.
MAX. BUILDING HEIGHT	(STORIES)	3 STORIES	3 STORIES	3 STORIES
	(FEET)	35 FT.	–	–
MIN. LOT WIDTH		125 FT.	705 FT.	705 FT.
MIN. LOT DEPTH		25 FT.	611 FT.	611 FT.
MAX. BUILDING COVERAGE		20% (81,209 S.F.)	6.4% (25,981 S.F.)	6.4% (25,981 S.F.)
MAX. LOT COVERAGE		40% (162,418 S.F.)	38.6% (156,541 S.F.)	37.3% (151,410 S.F.)

PROP. LOT COVERAGE SUMMARY

EXIST. BUILDINGS/ROOFED AREAS	25,981 S.F.
EXIST. PORCHES/BOARDWALK	30,890 S.F.
EXIST. BOULDER WALLS	4,153 S.F.
EXIST. BULKHEADS	212 S.F.
EXIST. CONC. WALL	165 S.F.
PROP. PARKING AREAS	87,475 S.F.
PROP. SIDEWALKS	2,534 S.F.
	151,410 S.F.

OFF–STREET PARKING

CH. 130–32 OFF–STREET PARKING
SECTION E: SCHEDULE OF MINIMUM PARKING REQUIREMENTS
OFF–STREET PARKING REQUIRED:
1 STALL FOR EVERY 3 MEMBERS
512 MEMBERS/1 STALL FOR EVERY 3 MEMBERS = 171 STALLS REQUIRED
(214 STALLS PROPOSED)

APPROVED AS A PRELIMINARY AND FINAL DEVELOPMENT PLAN BY THE BOROUGH OF SEA BRIGHT PLANNING BOARD ON _____ DATE

Attest:

CHAIRMAN _____ DATE

SECRETARY _____ DATE

ENGINEER _____ DATE

REVISION NO.	DATE	REVISION
2	01/07/2025	REVISED PER CLIENT DIRECTION
1	10/23/2024	REVISED PER CLIENT DIRECTION

DAVID A. CRANMER, PE
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STATE OF NEW JERSEY LICENSE No. 41926

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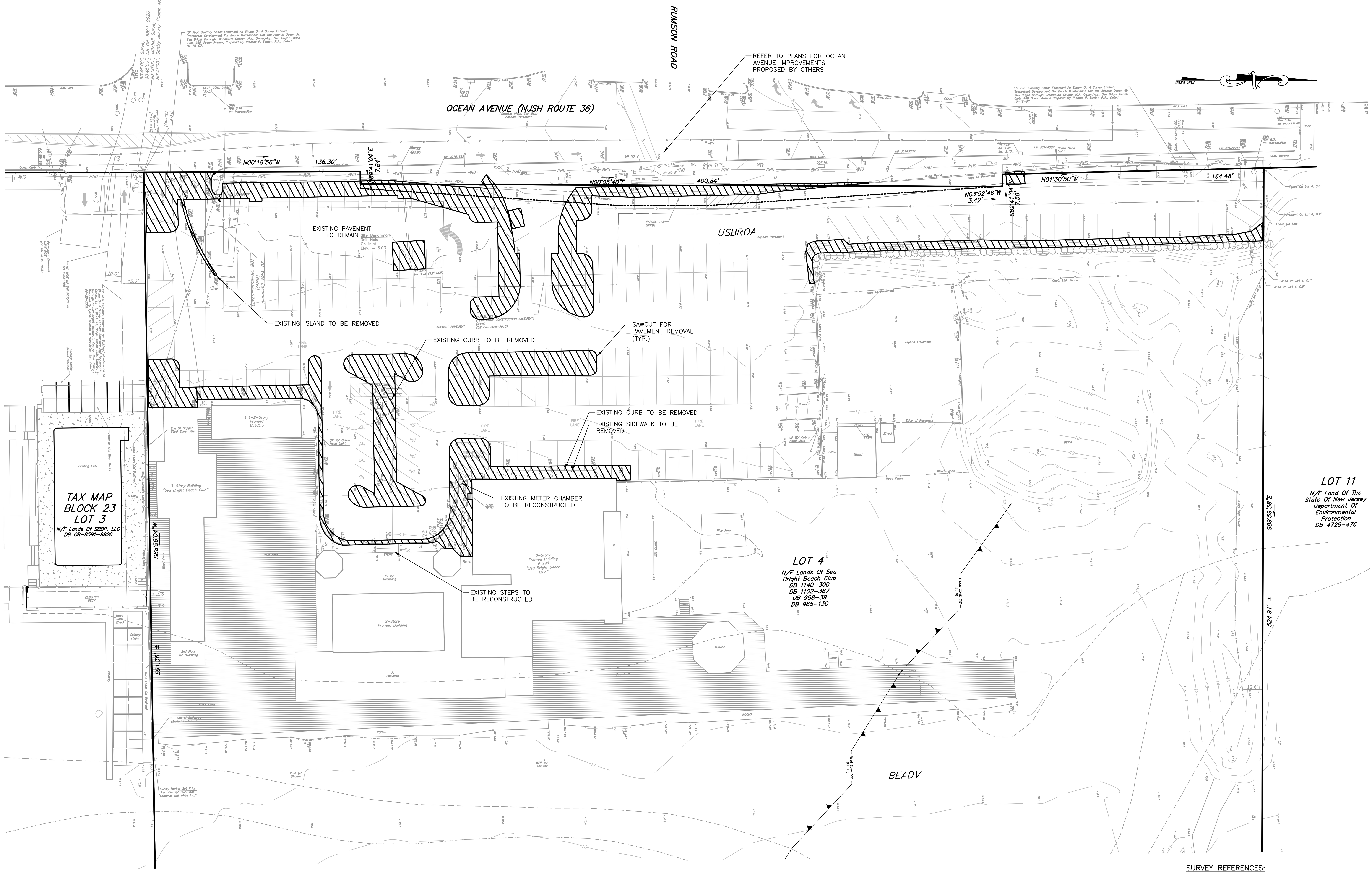
INTEGRITY INNOVATION EXCELLENCE

PRELIMINARY & FINAL SITE PLAN
COVER SHEET
SEA BRIGHT BEACH CLUB
BLOCK 23, LOT 4
BOROUGH OF SEA BRIGHT MONMOUTH COUNTY NEW JERSEY

PROJECT No	2022–015–133
DRAWN BY	WWN/ERH
DESIGNED BY	NM/ERH
SCALE	N.T.S.
CHECKED BY	DAC
DATE	JULY 25, 2023
SHEET NO.	1 of 10

J:\2022–015–133 Sea Bright Beach Club\DWG\2022–015–133 – 01–10 SITE 2024–10–24.dwg



SURVEY REFERENCES:

1. PROPERTY KNOWN AS BLOCK 23, LOT 4 AS SHOWN ON SHEET NUMBERS 11 & 12 OF THE SEA BRIGHT BOROUGH OFFICIAL TAX MAP.
2. THE FOLLOWING DOCUMENTS WERE RELIED UPON DURING THE PREPARATION OF THIS PLAN:
   a. MAP ENTITLED "BOUNDARY & TOPOGRAPHICAL SURVEY MAP FOR PROPERTY KNOWN AS LOT 4 IN BLOCK 23 NOW OR FORMERLY LANDS OF SEA BRIGHT BEACH CLUB, BOROUGH OF SEA BRIGHT, MONMOUTH COUNTY – NEW JERSEY" PREPARED BY YORKANIS & WHITE, INC., DATED DECEMBER 5, 2022.
3. VERTICAL DATUM IS NAVD88. (SEE SURVEY FOR BENCHMARK LOCATIONS AND ELEVATION).

REVISION NO.	DATE	REVISION
2	01/07/2025	REVISED PER CLIENT DIRECTION
1	10/23/2024	REVISED PER CLIENT DIRECTION

GRAPHIC SCALE
30 0 30 60 120
1 INCH = 30 FEET

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PRELIMINARY & FINAL SITE PLAN

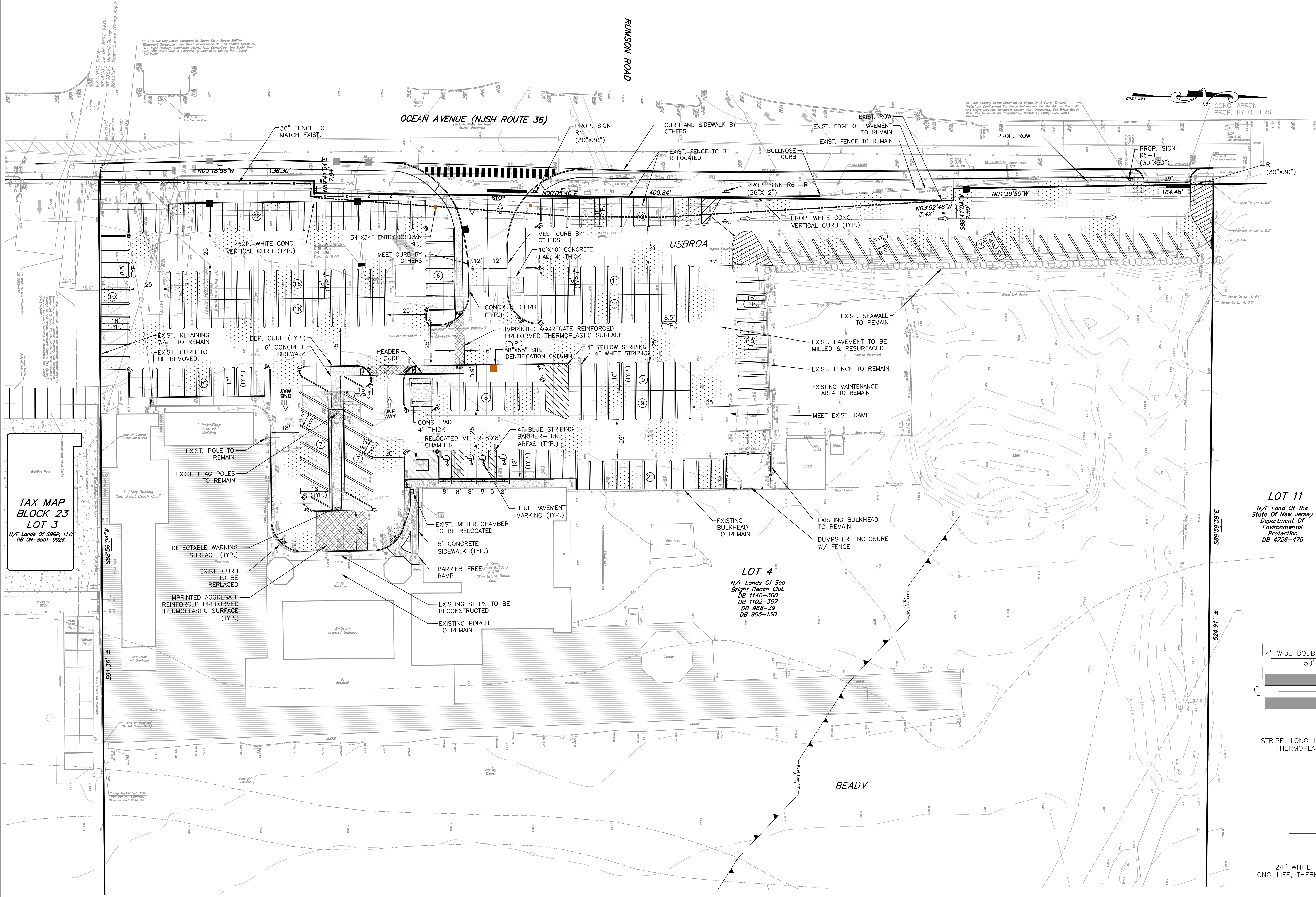
EXISTING CONDITIONS & DEMOLITION PLAN

SEA BRIGHT BEACH CLUB

BLOCK 23, LOT 4

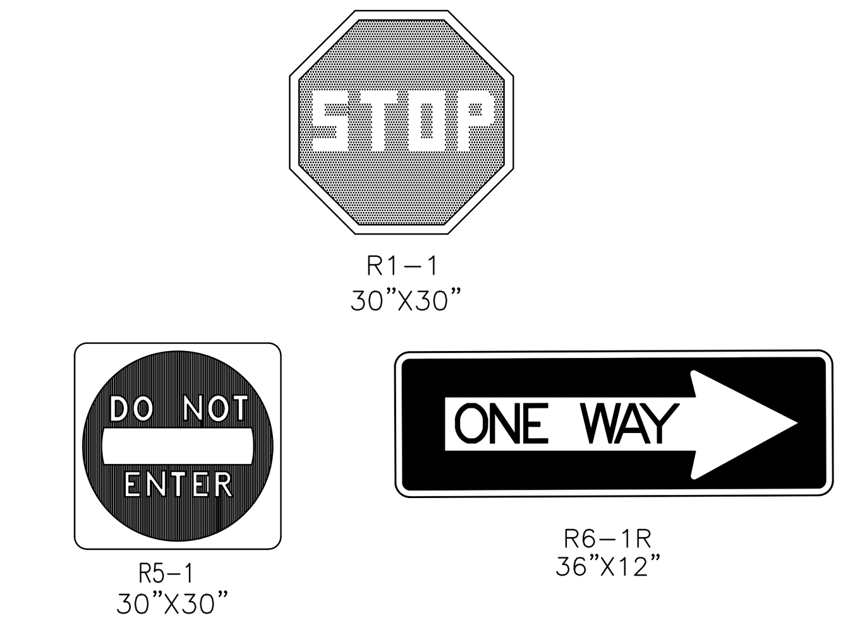
BOROUGH OF SEA BRIGHT MONMOUTH COUNTY NEW JERSEY

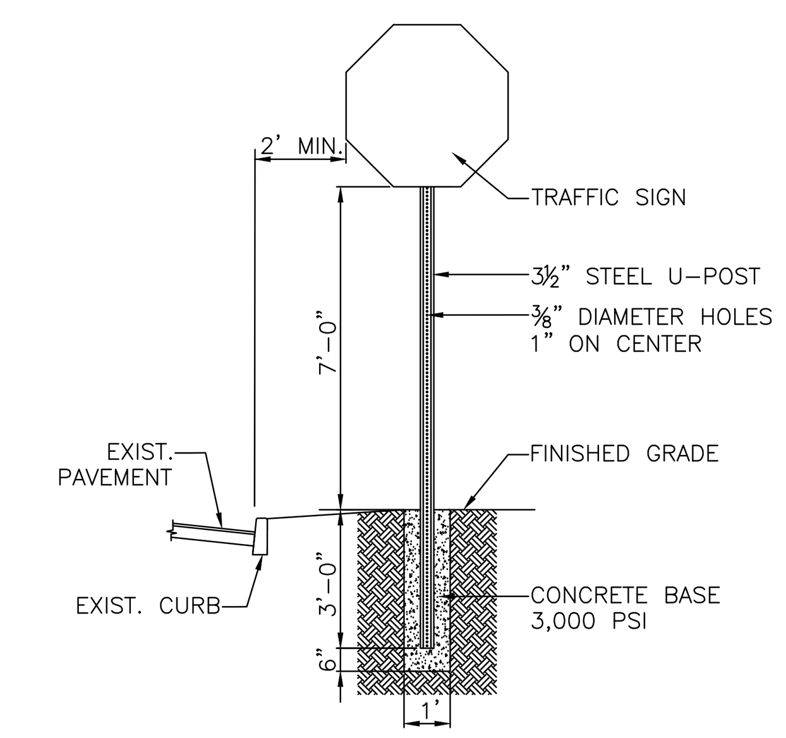
PROJECT No 2022-015-133	
DRAWN BY WWN/ERH	DESIGNED BY NM/ERH
SCALE 1"=30'	CHECKED BY DAC
DATE JULY 25, 2023	SHEET NO. 2 of 10



SIGNS

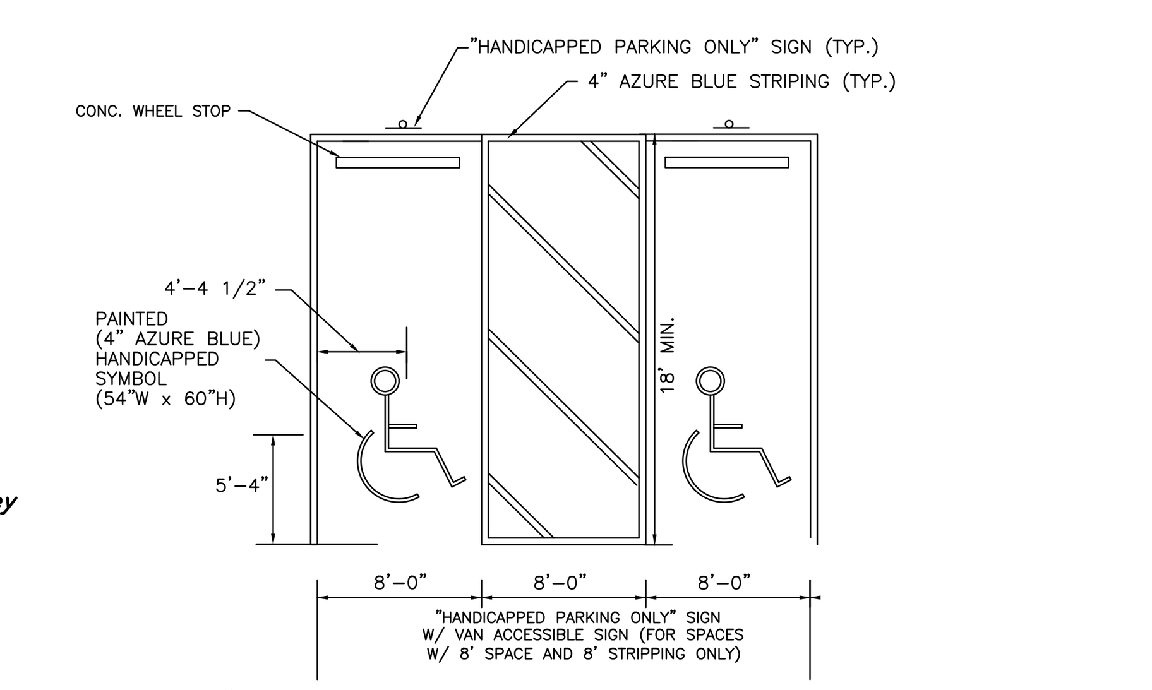
N.T.S.





TYPICAL SIGN POST DETAIL

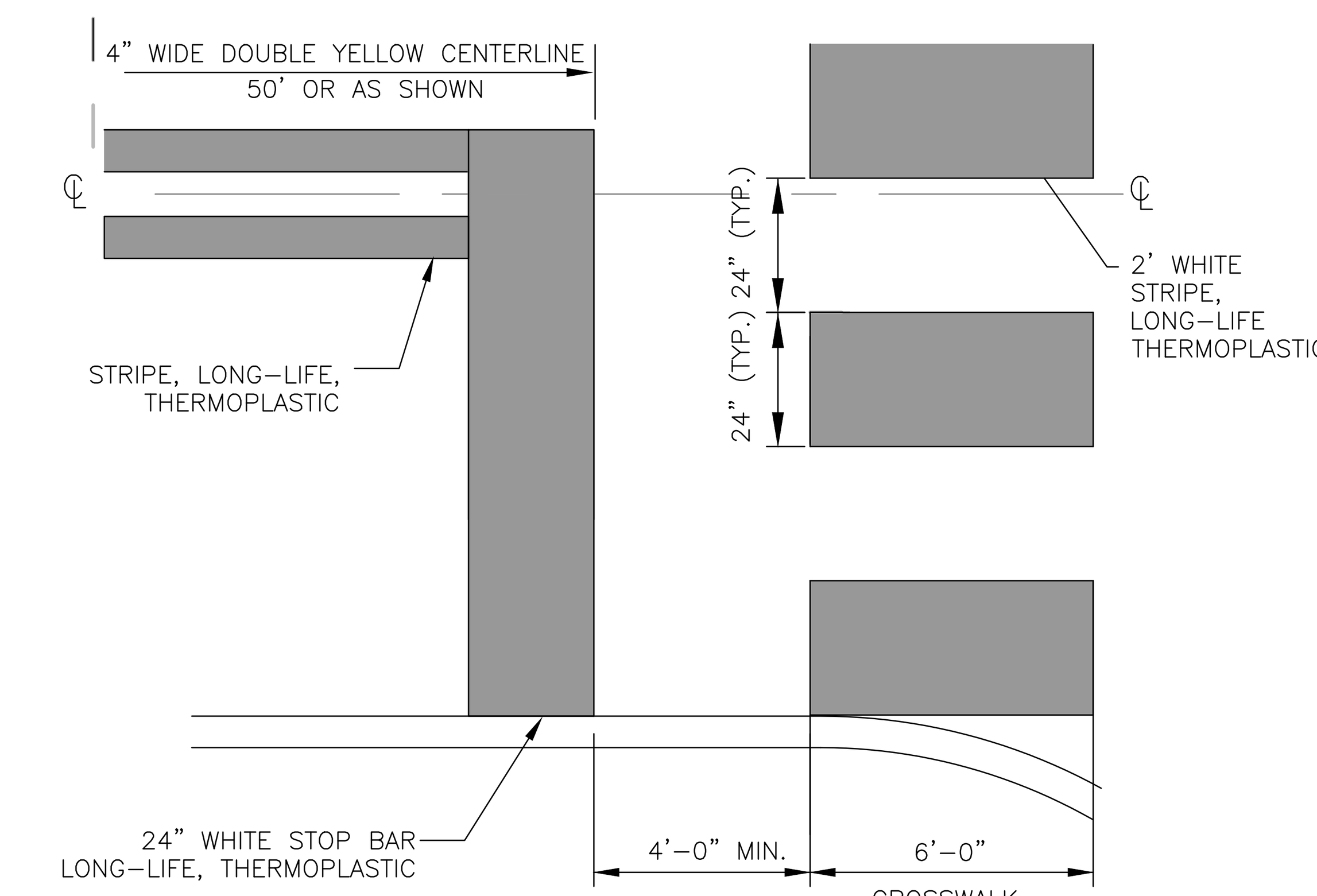
N.T.S.



NOTE:
ENTIRE AREA CROSS SLOPE SHALL BE NOT MORE THAN 2%.

BARRIER-FREE PARKING STALL MARKINGS

N.T.S.



CROSSWALK & STOP BAR

N.T.S.

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PRELIMINARY & FINAL SITE PLAN
SITE LAYOUT PLAN
SEA BRIGHT BEACH CLUB
BLOCK 23, LOT 4
BOROUGH OF SEA BRIGHT   MONMOUTH COUNTY   NEW JERSEY

PROJECT No. 2022-015-133	
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RUMSON ROAD
OCEAN AVENUE (NJSH ROUTE 36)
OCEAN AVENUE
(Width Varies)
PROP. INLET, TYPE 'B'
TC 5.96
GR 5.46
INV. 2.86 (15" RCP)
PROP. INLET, TYPE 'B' DOGHOUSE
TC 5.96
GR 5.46
INV. IN 3.16 (15" RCP)
MATCH EXIST. INVERTS
MANHOLE BY OTHERS
RIM 5.96
INV. 3.06 (15" RCP)
MANHOLE BY OTHERS
RIM 5.39
INV. 2.70 (15" RCP)
PROP. INLET, TYPE 'B'
TC 6.87
GR 6.37
INV. 3.83 (15" RCP)
PROP. INLET, TYPE 'E'
TC 5.41
GR 4.91
INV. 2.26 OUT (15" RCP)
10 LF 15"
RCP @ 1.0%
15.6 LF 15"
RCP @ 1.0%
67 LF 15"
RCP @ 1.0%
11 LF 15"
RCP @ 1.0%
RECONSTRUCT INLET TYPE 'E'
GR 6.50
N00°05'40"E
400.84'
N01°30'50"W
164.48'
N03°52'46"W
3.42'
138.30'
PAVEMENT REPAIR
(TYP.)
ALL WALKWAYS 2% MAX.
CROSS-SLOPE (TYP.)
MEET EXISTING DECK
TAX MAP
BLOCK 23
LOT 3
N/F Lands Of SBBP, LLC
DB OR-8591-9926
LOT 4
N/F Lands Of Sea
Bright Beach Club
DB 1140-300
DB 1102-367
DB 968-39
DB 965-130
LOT 11
N/F Land Of The
State Of New Jersey
Department Of
Environmental
Protection
DB 4726-476
S88°56'04"W
591.36' ±
S89°59'38"E
524.91' ±
USBROA
BEADV

2	01/07/2025	REVISED PER CLIENT DIRECTION
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GRAPHIC SCALE
30 0 30 60 120
1 INCH = 30 FEET

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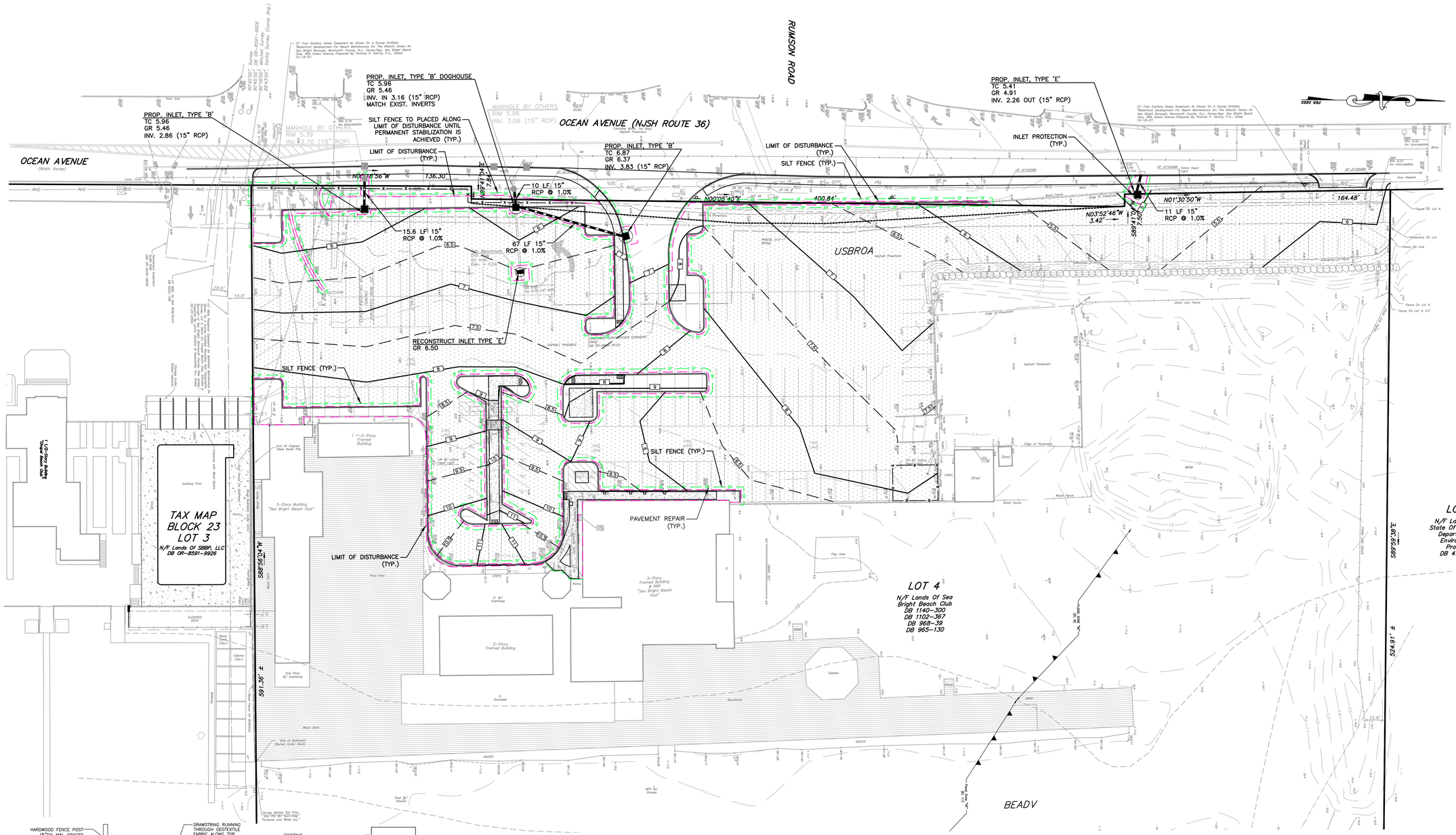
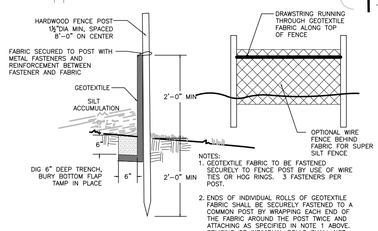
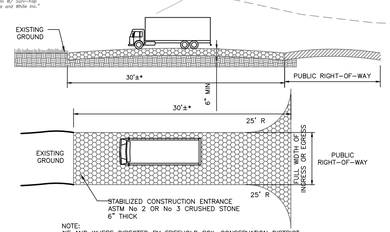
PRELIMINARY & FINAL SITE PLAN
GRADING & UTILITIES PLAN
SEA BRIGHT BEACH CLUB
BLOCK 23, LOT 4
BOROUGH OF SEA BRIGHT MONMOUTH COUNTY NEW JERSEY

PROJECT No. 2022-015-133	
DRAWN BY WWN/ERH	DESIGNED BY NM/ERH
SCALE 1"=30'	CHECKED BY DAC
DATE JULY 25, 2023	SHEET NO. 4 of 10

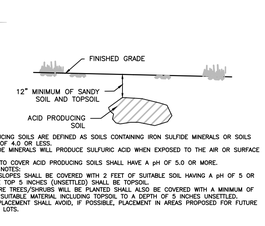




SILT FENCE
N.T.S.



STABILIZED CONSTRUCTION ENTRANCE
N.T.S.



NOTES:
1. ACID PRODUCING SOILS ARE DEFINED AS SOILS CONTAINING IRON SULFIDE MINERALS OR SOILS WITH A pH OF 4.0 OR LESS.
2. IRON SULFIDE MINERALS WILL PRODUCE SULFURIC ACID WHEN EXPOSED TO THE AIR OR SURFACE WATERS.
3. SOILS USED TO COVER ACID PRODUCING SOILS SHALL HAVE A pH OF 5.0 OR MORE.

ADDITIONAL NOTES:
1. AREAS ON SLOPES SHALL BE COVERED WITH 2 FEET OF SUITABLE SOIL HAVING A pH OF 5 OR MORE. THE TOP 5 INCHES (UNSETTLED) SHALL BE TOPSOIL.
2. AREAS WHERE TREES/SHRUBS WILL BE PLANTED SHALL ALSO BE COVERED WITH A MINIMUM OF 2 FEET OF SUITABLE MATERIAL INCLUDING TOPSOIL TO A DEPTH OF 5 INCHES UNSETTLED.
3. ACID SOIL PLACEMENT SHALL AVOID, IF POSSIBLE, PLACEMENT IN AREAS PROPOSED FOR FUTURE RESIDENTIAL LOTS.

BURIAL OF ACID PRODUCING SOILS
N.T.S.

AREA OF DISTURBANCE 12,761 S.F. = 0.293 AC.

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2	01/07/2025	REVISED PER CLIENT DIRECTION
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PRELIMINARY & FINAL SITE PLAN
SOIL EROSION & SEDIMENT CONTROL PLAN & DETAILS
SEA BRIGHT BEACH CLUB
BLOCK 23, LOT 4
BOROUGH OF SEA BRIGHT MONMOUTH COUNTY NEW JERSEY

PROJECT No. 2022-015-133	
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SCALE 1"=30'	CHECKED BY DAC
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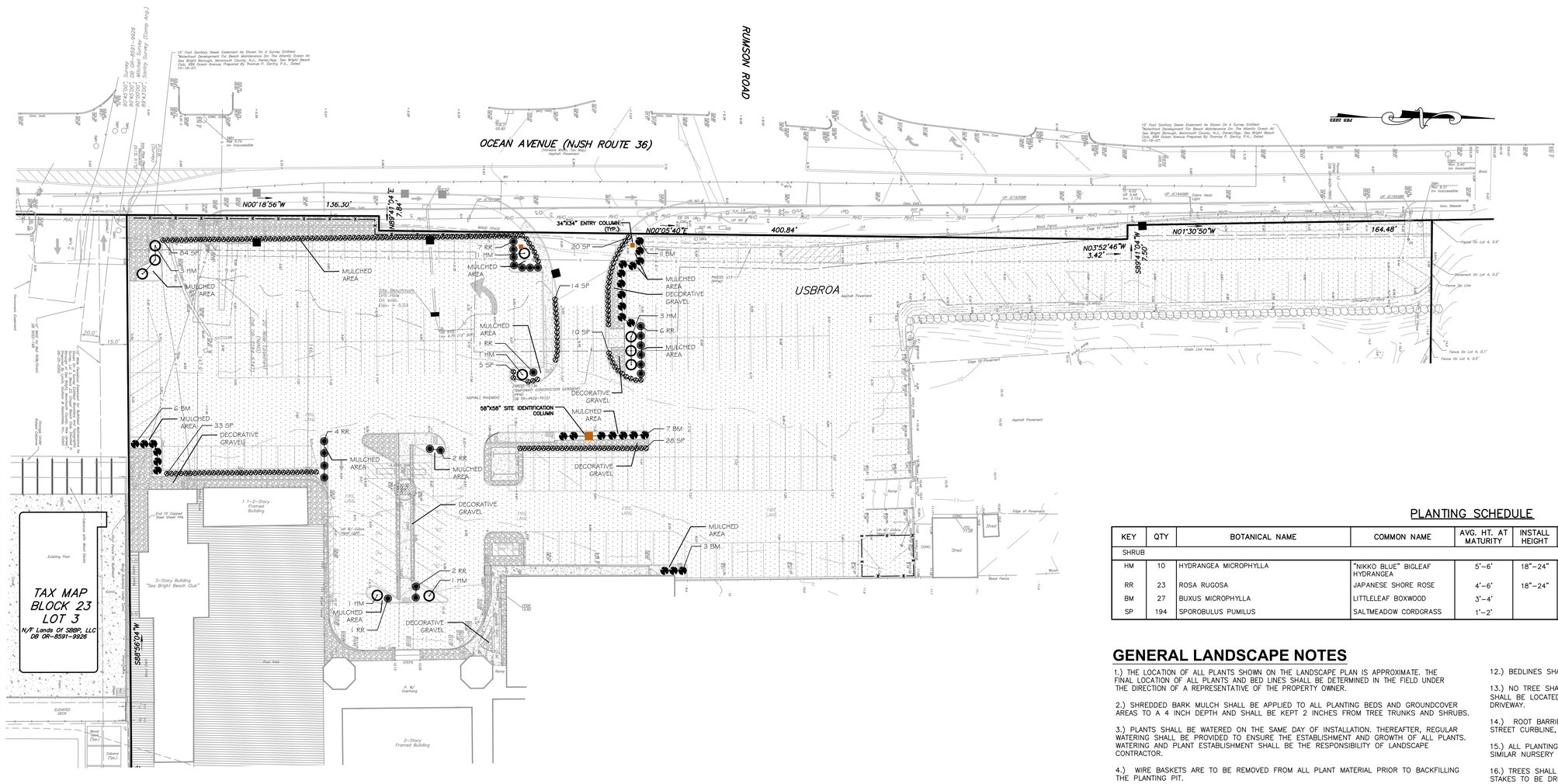
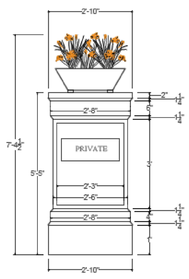
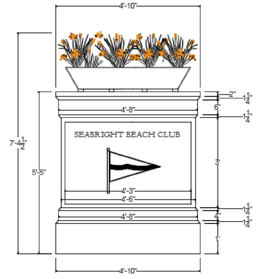
J:\2022-015-099 Sea Bright Beach Club\DWG\2022-015-099 - 01-10 SITE 2024-10-24.dwg





ENTRY COLUMN
N.T.S.



SITE IDENTIFICATION COLUMN
N.T.S.

PLANTING SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	AVG. HT. AT MATURITY	INSTALL HEIGHT	CALIPER	ROOT	COMMENTS
SHRUB								
HM	10	HYDRANGEA MICROPHYLLA	"NIKKO BLUE" BIGLEAF HYDRANGEA	5'–6'	18"–24"	#3		
RR	23	ROSA RUGOSA	JAPANESE SHORE ROSE	4'–6'	18"–24"	#3		
BM	27	BUXUS MICROPHYLLA	LITTLELEAF BOXWOOD	3'–4'		#5		
SP	194	SPOROBULUS PUMILUS	SALTMEADOW CORDGRASS	1'–2'				

GENERAL LANDSCAPE NOTES

1.) THE LOCATION OF ALL PLANTS SHOWN ON THE LANDSCAPE PLAN IS APPROXIMATE. THE FINAL LOCATION OF ALL PLANTS AND BED LINES SHALL BE DETERMINED IN THE FIELD UNDER THE DIRECTION OF A REPRESENTATIVE OF THE PROPERTY OWNER.

2.) SHREDDED BARK MULCH SHALL BE APPLIED TO ALL PLANTING BEDS AND GROUNDCOVER AREAS TO A 4 INCH DEPTH AND SHALL BE KEPT 2 INCHES FROM TREE TRUNKS AND SHRUBS.

3.) PLANTS SHALL BE WATERED ON THE SAME DAY OF INSTALLATION. THEREAFTER, REGULAR WATERING SHALL BE PROVIDED TO ENSURE THE ESTABLISHMENT AND GROWTH OF ALL PLANTS. WATERING AND PLANT ESTABLISHMENT SHALL BE THE RESPONSIBILITY OF LANDSCAPE CONTRACTOR.

4.) WIRE BASKETS ARE TO BE REMOVED FROM ALL PLANT MATERIAL PRIOR TO BACKFILLING THE PLANTING PIT.

5.) GUARANTEE: ALL TREES, SHRUBS, GROUNDCOVERS AND LAWNS SHALL BE GUARANTEED FOR A MINIMUM OF TWO (2) YEARS FROM THE RELEASE OF THE PERFORMANCE BOND. ALL PLANTS, LAWNS AND GROUNDCOVER AREAS, NOT IN A HEALTHY GROWING CONDITION SHALL BE REMOVED AND REPLACED WITH PLANTING OF LIKE KIND AND SIZE BEFORE THE CLOSE OF THE NEXT PLANTING SEASON BY THE LANDSCAPE CONTRACTOR AT NO CHARGE TO THE OWNER.

6.) ALL DISTURBED AREAS, UNLESS INDICATED OTHERWISE ON THE LANDSCAPE PLAN, SHALL BE PLANTED AS LAWN.

7.) CONTRACTOR SHALL PARTIALLY FILL WITH WATER A REPRESENTATIVE NUMBER OF PITS IN EACH AREA OF THE PROJECT PRIOR TO PLANTING TO DETERMINE IF THERE IS ADEQUATE PERCOLATION. IF PIT DOESN'T PERCOLATE, MEASURES MUST BE TAKEN TO ASSURE PROPER DRAINAGE BEFORE PLANTING.

8.) ALL PLANT MATERIAL SHALL CONFORM TO THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS FOR NURSERY STOCK, AMERICAN ASSOCIATION OF NURSERYMEN, 1250 I STREET, N.W., SUITE 500, WASHINGTON, D.C. 20005.

9.) ALL MATERIAL IN THE PLANT LIST ABOVE WAS AVAILABLE AT THE TIME OF THE PREPARATION OF THE LANDSCAPE PLAN. SHOULD A PLANT BE UNAVAILABLE AT THE TIME OF INSTALLATION, ALL SUBSTITUTIONS ARE SUBJECT TO THE APPROVAL OF THE TOWNSHIP ENGINEER.

10.) IN THE EVENT THAT PLANT QUANTITY DISCREPANCIES OR MATERIAL OMISSIONS OCCUR IN THE PLANTING SCHEDULE, THE PLAN SHALL SUPERSEDE.

11.) ANY EXISTING VEGETATION TO BE REMOVED FROM THE SITE SHALL BE DISPOSED OF IN A MANNER THAT IS APPLICABLE WITH LOCAL, COUNTY AND STATE REQUIREMENTS. ALL AREAS AROUND EXISTING VEGETATION TO REMAIN SHALL BE CLEARED FREE OF ALL WEEDS AND DEBRIS AND MULCHED WITH 4" SHREDDED BARK, KEPT 2" INCHES AWAY FROM TREE TRUNKS.

12.) BEDLINES SHALL HAVE A CLEAN, SHARP EDGE CUT WITH A SPADE.

13.) NO TREE SHALL BE LOCATED CLOSER THAN 15'–0" FROM ANY LIGHT FIXTURE. NO TREE SHALL BE LOCATED CLOSER THAN 3'–0" FROM ANY STREET CURBLINE, SIDEWALK OR DRIVEWAY.

14.) ROOT BARRIER IS TO BE INSTALLED AT ALL TREES WITHIN TEN FEET FROM PROPOSED STREET CURBLINE, SIDEWALK OR DRIVEWAY.

15.) ALL PLANTING STOCK TO BE OBTAINED FROM SOURCES IN NEW JERSEY AND HAVE SIMILAR NURSERY SOIL CONDITIONS.

16.) TREES SHALL ONLY BE STAKED WHERE WARRANTED BY SITE CONDITIONS, WITH TWO STAKES TO BE DRIVEN TO A MINIMUM OF TWO FEET INTO THE GROUND BELOW FINISHED GRADE. STAKES WHEN DRIVEN MUST BE ONE HALF TO TWO–THIRDS THE HEIGHT OF THE TREE MEASURED FROM GROUND LEVEL. STAKES SHALL BE AT LEAST 2 INCHES IN DIAMETER. STAKES SHALL BE PLACED IN LINE WITH PREVAILING WINDS. STAKES SHALL BE ATTACHED TO THE TREES WITH 12 GAUGE GALVANIZED WIRE COVERED WITH RUBBER OR PLASTIC HOSE WHERE WIRE IS LIKELY TO COME IN CONTACT WITH TREE TRUNK. AN ALTERNATE MAY BE ANY COMMERCIALLY AVAILABLE MATERIALS DESIGNED FOR STAKING TREES WITH THE APPROVAL OF THE BOROUGH ENGINEER. THE LOOP ON CONTACT WITH THE TREE SHALL BE LOOSE ENOUGH TO PERMIT GROWTH AND PREVENT GIRDLING FOR 2 YEARS, BUT SHALL BE TIGHTLY BOUND TO THE STAKE TO PREVENT SLIPPING. AFTER (1) ONE YEAR, ALL TREES THAT DO NOT REQUIRE OBVIOUS STRAIGHTENING SHALL HAVE TREE SUPPORTS AND TREE STAKES REMOVED.

17.) WITHIN THE SIGHT TRIANGLES; NO GRADING, PLANTING, OR STRUCTURE SHALL BE ERECTED OR MAINTAINED MORE THAN 18–INCHES OR LESS THAN 10–FEET ABOVE THE CENTERLINE GRADE, EXCEPT STREET SIGNS AND TRAFFIC REGULATION SIGNS.

18.) FOR ALL INSTALLED DECIDUOUS TREES, THE USE OF RIGID, PLASTIC, OPEN MESH TRUNK PROTECTION IS TO BE PROVIDED LOOSELY AROUND THE TRUNKS TO ALLOW THE GUARDS TO REMAIN FOR APPROXIMATELY FIVE (5) YEARS WHILE THE BARK HARDENS OFF.

19.) TREE PROTECTION FENCING SHALL BE INSTALLED WHERE NECESSARY, TO PROTECT NEIGHBORING TREES.

NOTE: THIS PLAN TO BE USED FOR LANDSCAPING PURPOSES ONLY.

REVISION NO.	DATE	REVISION
2	01/07/2025	REVISED PER CLIENT DIRECTION
1	10/23/2024	REVISED PER CLIENT DIRECTION

GRAPHIC SCALE
30 0 30 60 120
1 INCH = 30 FEET

DAVID A. CRANMER, PE
LICENSED PROFESSIONAL ENGINEER
STATE OF NEW JERSEY LICENSE No. 41926

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INTEGRITY INNOVATION EXCELLENCE

PRELIMINARY & FINAL SITE PLAN

LANDSCAPE PLAN

SEA BRIGHT BEACH CLUB
BLOCK 23, LOT 4

BOROUGH OF SEA BRIGHT MONMOUTH COUNTY NEW JERSEY

PROJECT No.	2022–015–133
DRAWN BY	WWN/ERH
DESIGNED BY	NM/ERH
SCALE	1"=30'
CHECKED BY	DAC
DATE	JULY 25, 2023
SHEET NO.	6 of 10

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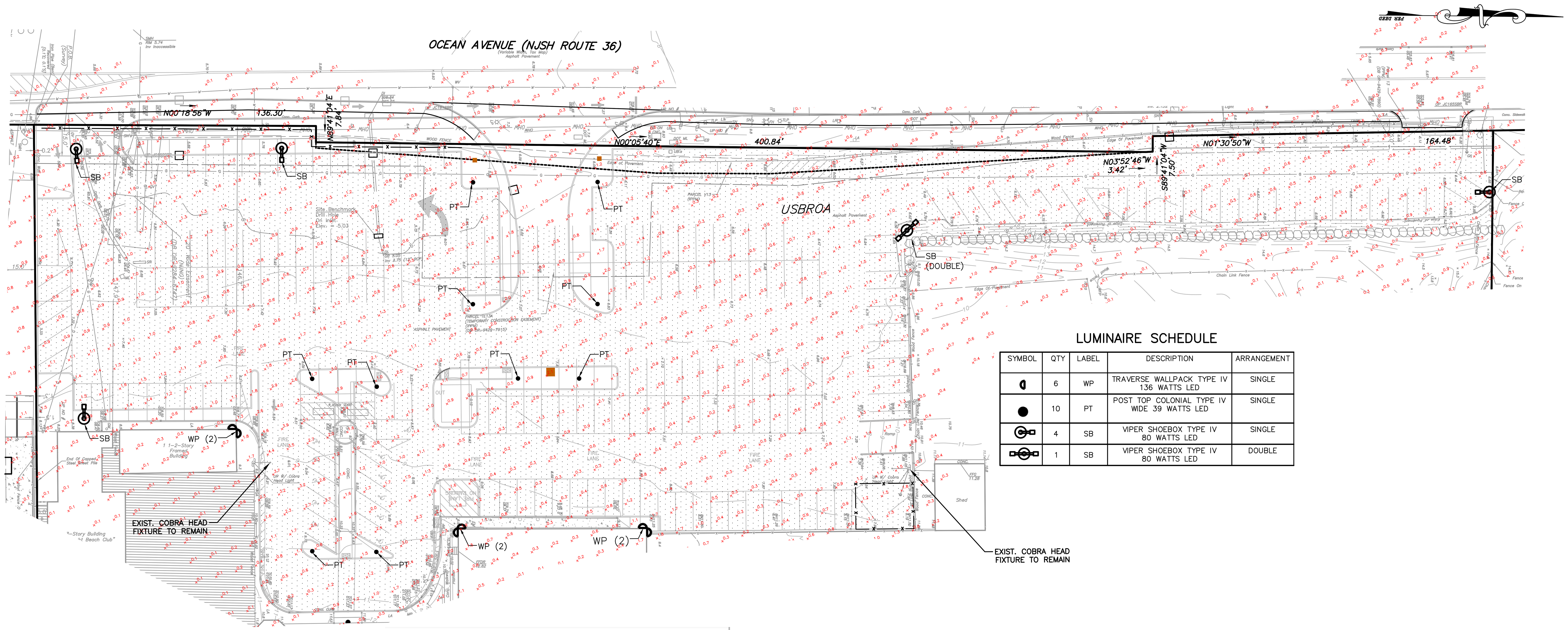
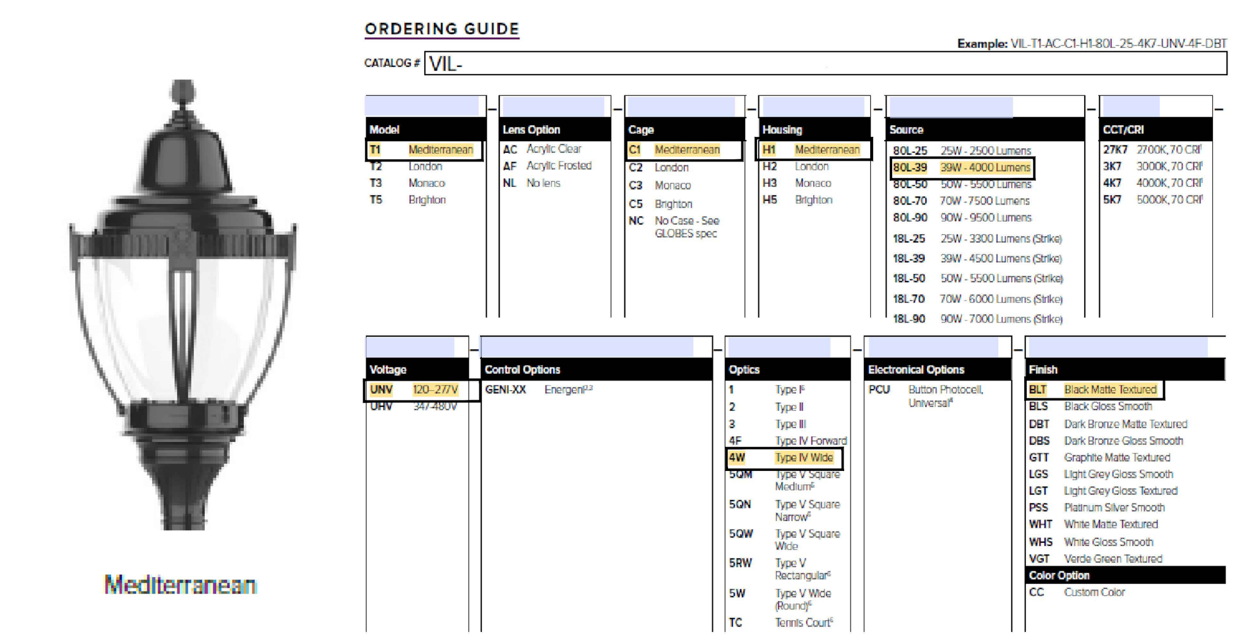


LUMINAIRE SCHEDULE

SYMBOL	QTY	LABEL	DESCRIPTION	ARRANGEMENT
(wallpack symbol)	6	WP	TRAVERSE WALLPACK TYPE IV 136 WATTS LED	SINGLE
(solid circle)	10	PT	POST TOP COLONIAL TYPE IV WIDE 39 WATTS LED	SINGLE
(shoebox symbol)	4	SB	VIPER SHOEBOX TYPE IV 80 WATTS LED	SINGLE
(double shoebox symbol)	1	SB	VIPER SHOEBOX TYPE IV 80 WATTS LED	DOUBLE

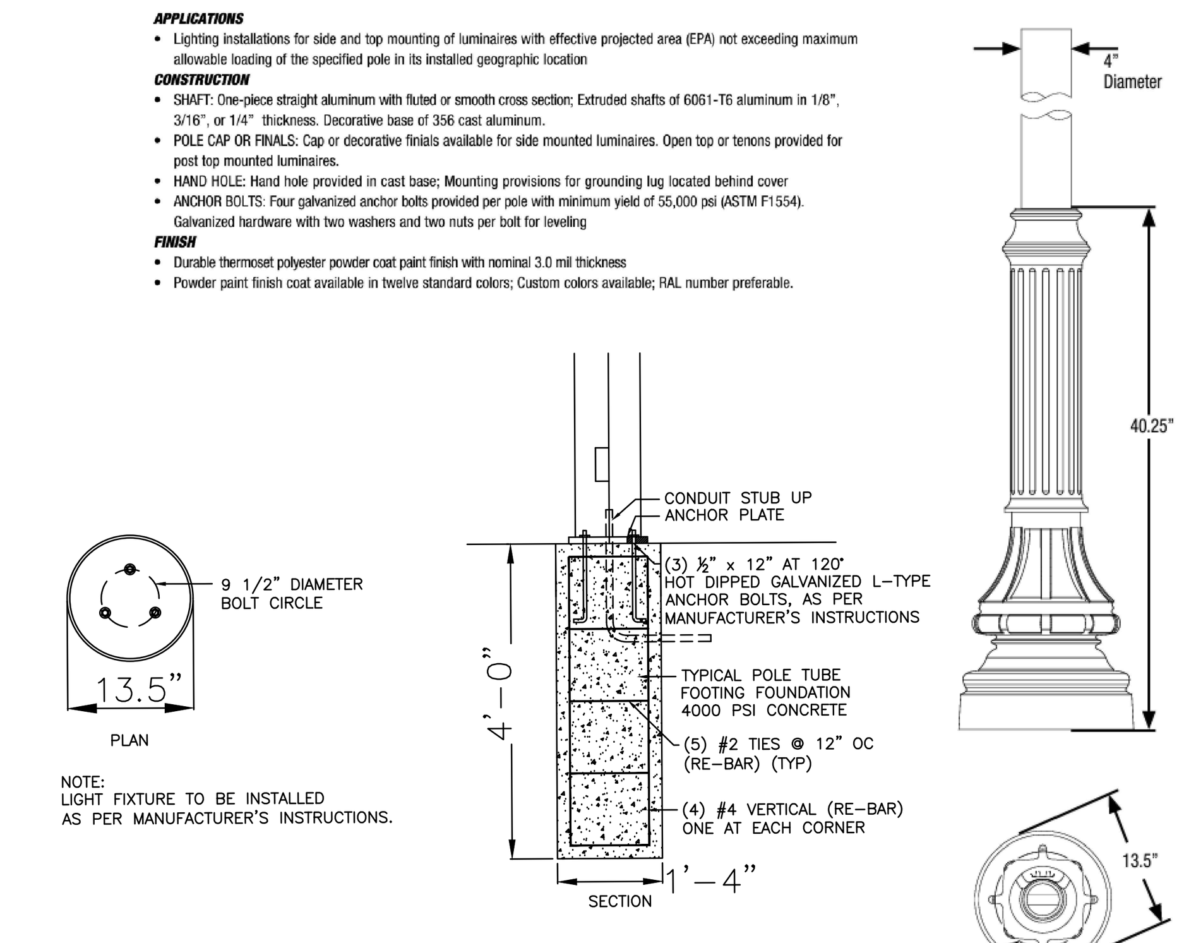


Max Weight	46 lbs
Max EPA	2.16 sq ft

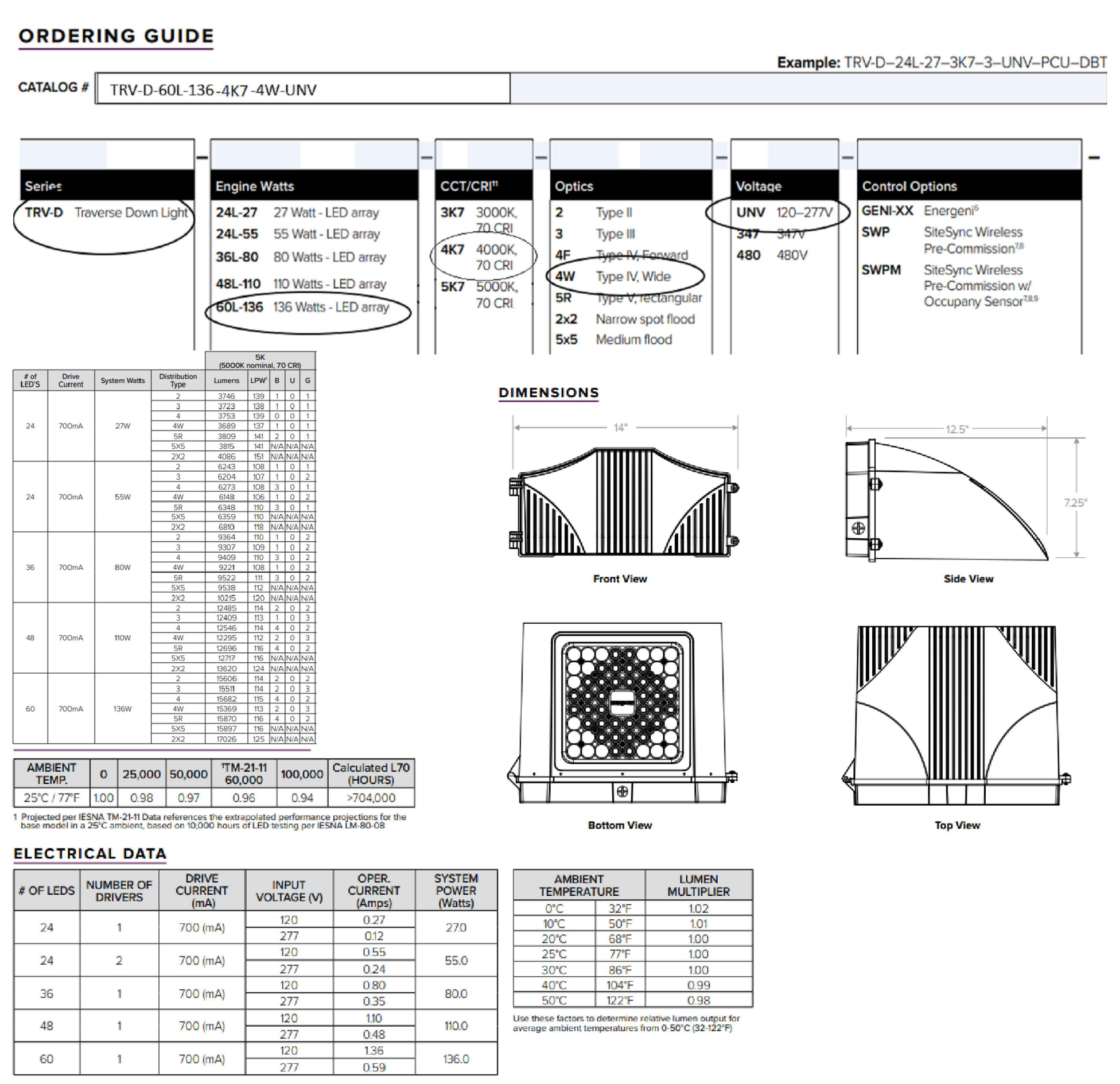
KEY DATA	
Lumen Range	2,400–10,165
Wattage Range	25–90
Efficacy Range (LPW)	77–118

COLONIAL POST TOP LIGHT FIXTURE DETAIL

N.T.S.

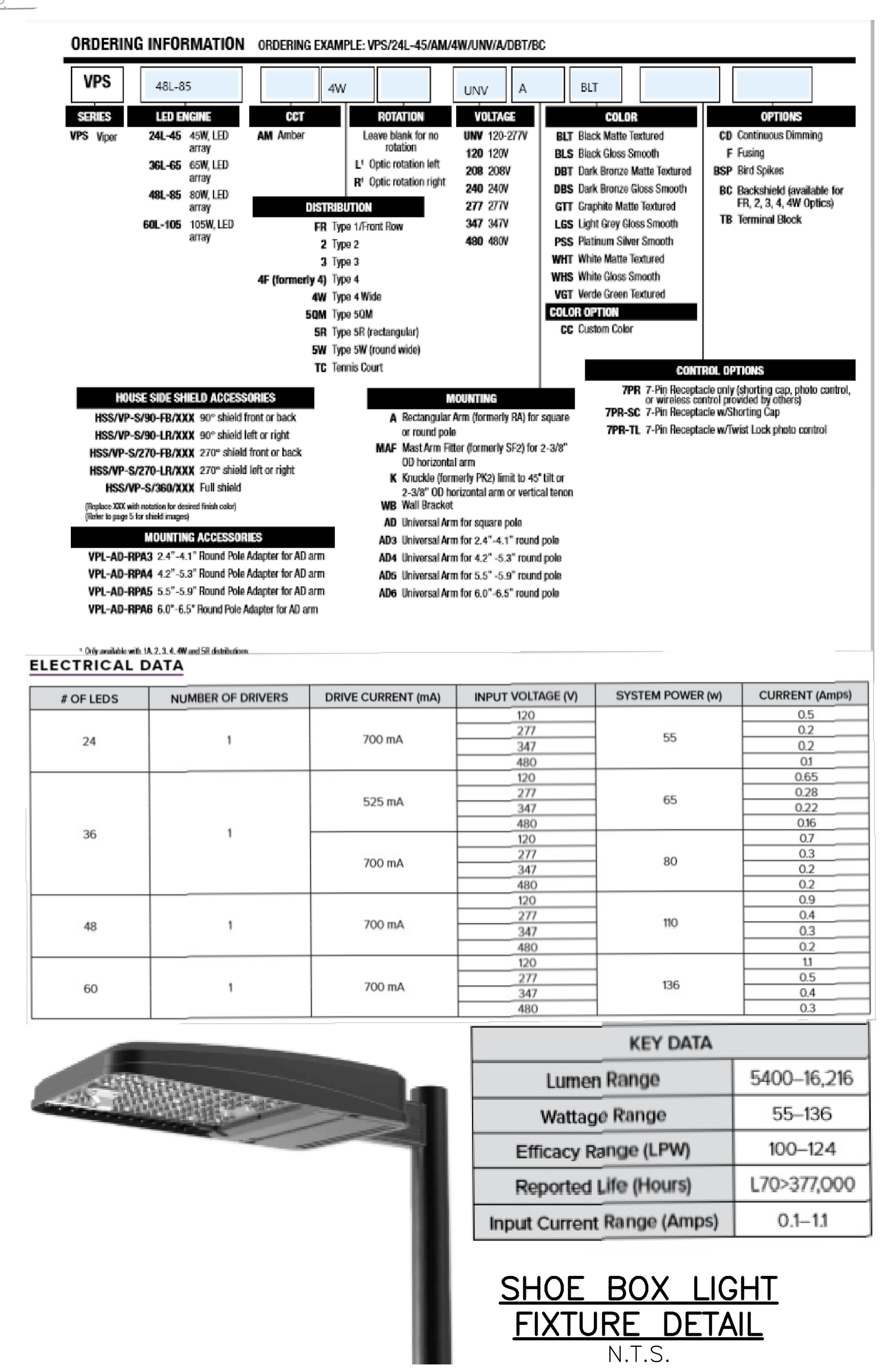


POST TOP LIGHT POLE & FOUNDATION



WALL PACK LIGHT FIXTURE DETAIL

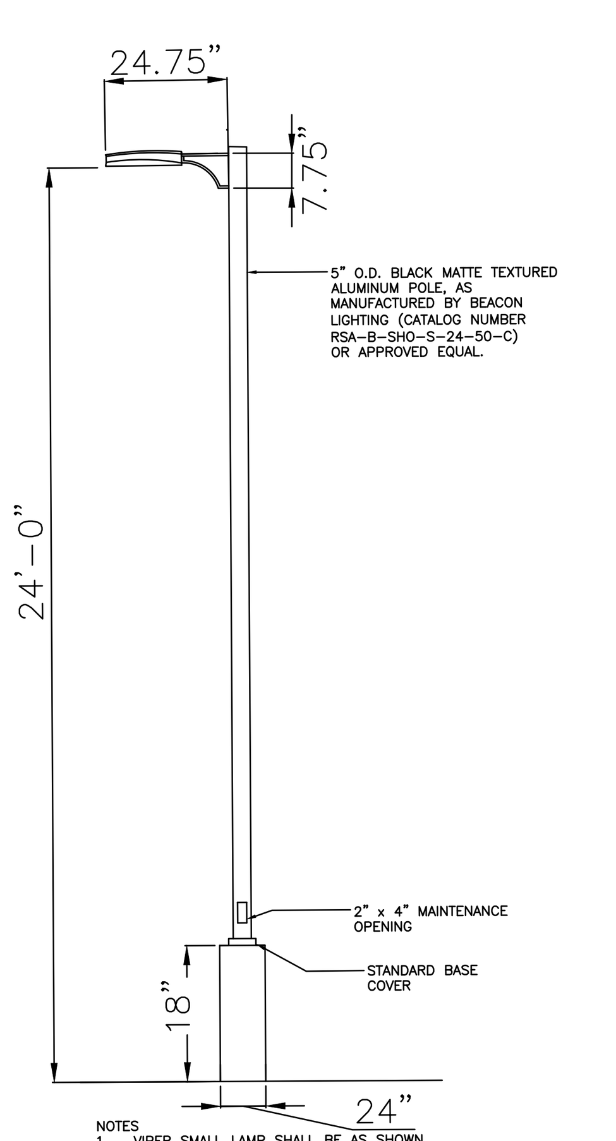
N.T.S.



KEY DATA	
Lumen Range	5400–16,216
Wattage Range	55–136
Efficacy Range (LPW)	100–124
Reported Life (Hours)	L70>377,000
Input Current Range (Amps)	0.1–1.1

SHOE BOX LIGHT FIXTURE DETAIL

N.T.S.



NOTES
1. VIPER SMALL LAMP SHALL BE AS SHOWN.
2. 4 LENSES MECHANICALLY SECURED POND ACRYLIC/POLY CARBONATE
3. OPTICAL SYSTEM IS I.E.S. TYPE 3L SEGMENTED REFLECTOR.
4. LUMINAIRE AND POLE ARE TO HAVE BLACK MATTE TEXTURED FINISH
5. LIGHT FIXTURE OPERATION IS TO BE PHOTOCELL.

LIGHT FIXTURE & POLE

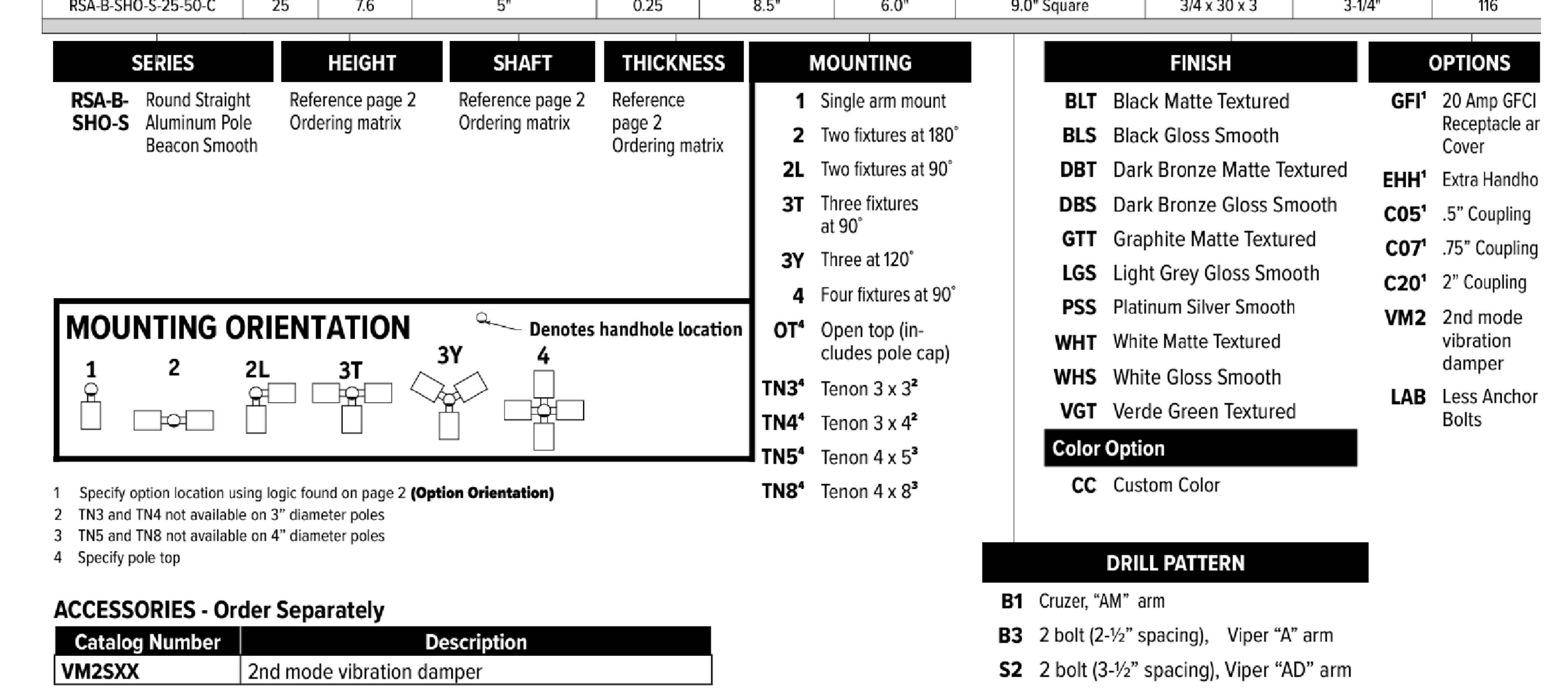
N.T.S.

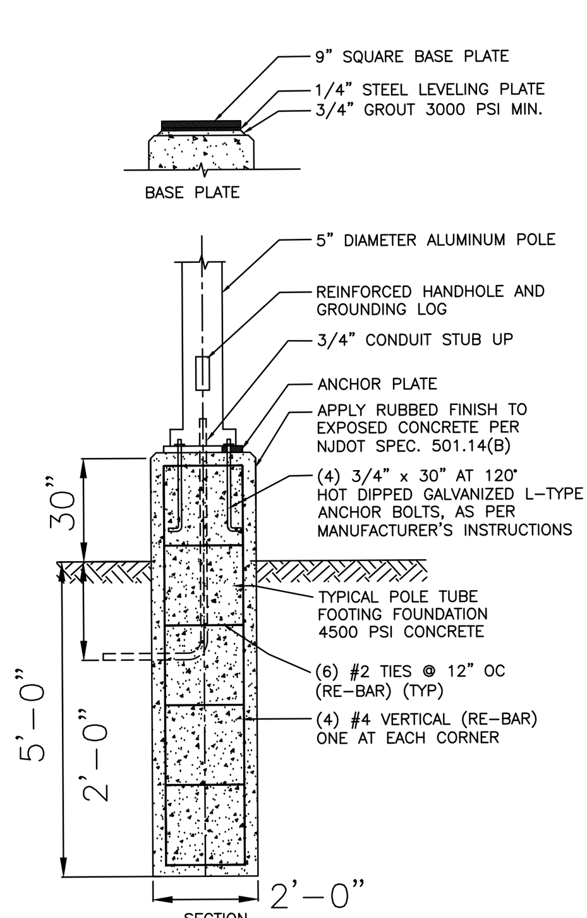
LIGHT POLE FIXTURE

RSA POLE NO. (OR EQ.)	QTY	MOUNTING HEIGHT	SHAFT	BASE PLATE SIZE
S2450–C	5	24 FT.	5"	9.0" SQUARE

ORDERING INFORMATION Cont.

Catalog Number	Height Feet	Height Meters	Nominal Shaft Dimensions	Wall Thickness	Bolt Circle (suggested)	Bolt Square	Base Plate Size	Anchor Bolt Size	Bolt Projection	Pole weight (lbs)
RSA-B-SHO-S-18-50-C	18	5.5	5"	0.25	8.5"	6.0"	9.0" Square	3/4 x 30 x 3	3-1/4"	85
RSA-B-SHO-S-20-50-C	20	6.1	5"	0.25	8.5"	6.0"	9.0" Square	3/4 x 30 x 3	3-1/4"	93
RSA-B-SHO-S-22-50-C	22	6.7	5"	0.25	8.5"	6.0"	9.0" Square	3/4 x 30 x 3	3-1/4"	102
RSA-B-SHO-S-24-50-C	24	7.3	5"	0.25	8.5"	6.0"	9.0" Square	3/4 x 30 x 3	3-1/4"	111
RSA-B-SHO-S-25-50-C	25	7.6	5"	0.25	8.5"	6.0"	9.0" Square	3/4 x 30 x 3	3-1/4"	116





LIGHT POLE FOUNDATION

N.T.S.

NOTE: THIS PLAN TO BE USED FOR LIGHTING PURPOSES ONLY.

HOURS OF OPERATION: DUSK - 1 HOUR AFTER CLOSING

ILLUMINANCE (FC)
AVERAGE = 0.5
MAXIMUM = 4.6
MINIMUM = 0.1 (IN PARKING AREA)
AVG/MIN RATIO = 5.0
MAX/MIN RATIO = 46.0

REVISION NO.	DATE	REVISION
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1	10/23/2024	REVISED PER CLIENT DIRECTION

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GRAPHIC SCALE
30 0 30 60 120
1 INCH = 30 FEET

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INTEGRITY INNOVATION EXCELLENCE

PRELIMINARY & FINAL SITE PLAN
LIGHTING PLAN
SEA BRIGHT BEACH CLUB
BLOCK 23, LOT 4
BOROUGH OF SEA BRIGHT MONMOUTH COUNTY NEW JERSEY

PROJECT No.	2022–015–133
DRAWN BY	WWN/ERH
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SHEET NO.	7 of 10

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SOIL DE–COMPACTION AND TESTING REQUIREMENTS

SOIL COMPACTION TESTING REQUIREMENTS:

1. SUBGRADE SOILS **PRIOR TO THE APPLICATION OF TOPSOIL** (SEE PERMANENT SEEDING AND STABILIZATION NOTES FOR TOPSOIL REQUIREMENTS) SHALL BE FREE OF EXCESSIVE COMPACTION TO A DEPTH OF 6.0 INCHES TO ENHANCE THE ESTABLISHMENTS OF PERMANENT VEGETATIVE COVER.
2. AREAS OF THE SITE WHICH ARE SUBJECT TO COMPACTION TESTING AND/OR MITIGATION ARE **GRAPHICALLY DENOTED** ON THE CERTIFIED SOIL EROSION CONTROL PLANS.
3. COMPACTION TESTING LOCATIONS ARE DENOTED ON THE PLAN. A COPY OF THE PLAN OR PORTION OF THE PLAN SHALL BE USED TO MARK LOCATIONS OF TESTS, AND ATTACHED TO THE COMPACTION REMEDIATION FORM, AVAILABLE FROM THE LOCAL SOIL CONSERVATION DISTRICT. THIS FORM MUST BE FILLED OUT AND SUBMITTED PRIOR TO RECEIVING A CERTIFICATE OF COMPLIANCE FROM THE DISTRICT.
4. IN THE EVENT THAT TESTING INDICATES COMPACTION IN EXCESS OF THE MAXIMUM THRESHOLD INDICATED FROM THE SIMPLIFIED TESTING METHODS (SEE DETAILS BELOW), THE CONTRACTOR/OWNER SHALL HAVE THE OPTION TO PERFORM EITHER (1) COMPACTION MITIGATION OVER THE ENTIRE MITIGATION AREA DENTORED ON THE PLAN (EXCLUDING EXEMPT AREAS), OR (2) PERFORM ADDITIONAL, MORE DETAILED TESTING TO ESTABLISH THE LIMITS OF EXCESSIVE COMPACTION WHEREUPON ONLY THE EXCESSIVELY COMPACTED AREAS WOULD REQUIRE COMPACTION MITIGATION. ADDITIONAL DETAILED TESTING SHALL BE PERFORMED BY A TRAINED, LICENSED PROFESSIONAL.

COMPACTION TESTING METHODS

A. PROBING WIRE TEST (SEE DETAIL)

B. HAND–HELD PENETROMETER TEST (SEE DETAIL)

C. TUBE BULK DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED)

D. NUCLEAR DENSITY TEST (LICENSED PROFESSIONAL ENGINEER REQUIRED)

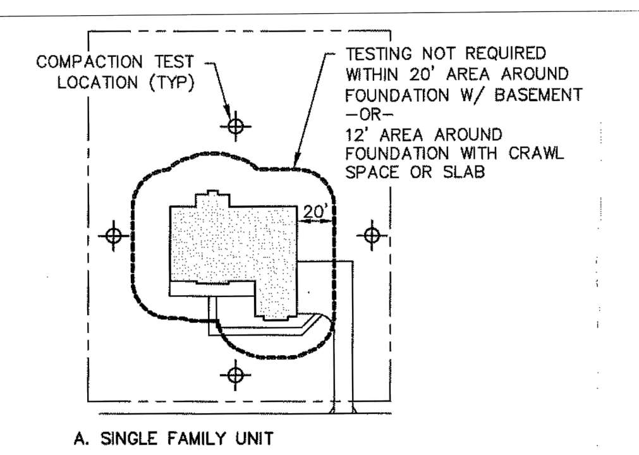
NOTE: ADDITIONAL TESTING METHODS WHICH CONFORM TO ASTM STANDARDS AND SPECIFICATIONS, AND WHICH PRODUCE A DRY WEIGHT, SOIL BULK DENSITY MEASUREMENT MAY BE ALLOWED SUBJECT TO DISTRICT APPROVAL.

SOIL COMPACTION TESTING IS NOT REQUIRED IF/WHEN SUBSOIL COMPACTION REMEDIATION (SCARIFICATION/TILLAGE (6"MINIMUM DEPTH) OR SIMILAR) IS PROPOSED AS PART OF THE SEQUENCE OF CONSTRUCTION.

PROCEDURES FOR SOIL COMPACTION MITIGATION

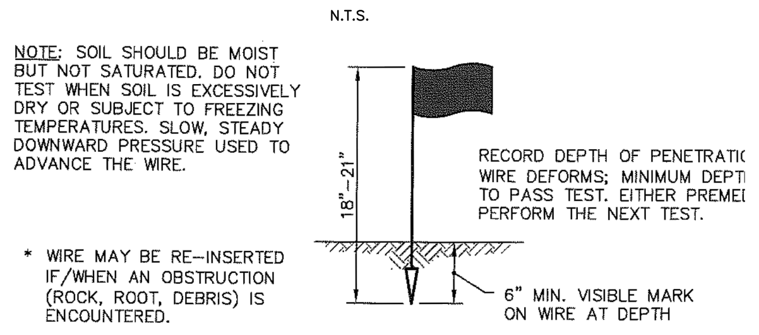
PROCEDURES SHALL BE USED TO MITIGATE EXCESSIVE SOIL COMPACTION **PRIOR TO PLACEMENT OF TOPSOIL** AND ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.

RESTORATION OF COMPACTED SOILS SHALL BE THROUGH DEEP SCARIFICATION/TILLAGE (6" MINIMUM DEPTH) WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.). IN THE ALTERNATIVE, ANOTHER METHOD AS SPECIFIED BY A NEW JERSEY LICENSED PROFESSIONAL ENGINEER MAYBE SUBSTITUTED SUBJECT TO DISTRICT APPROVAL.



TYPICAL SOIL COMPACTION TESTING LOCATIONS

N.T.S.



PROBING WIRE TEST
15.5 GA. STEEL WIRE (SURVEY FLAG)

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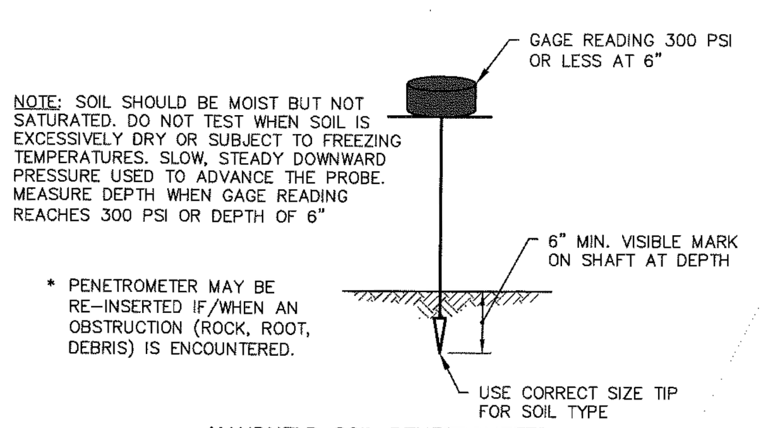


HANDHELD SOIL PENETROMETER TEST

N.T.S.

STANDARD FOR DEWATERING

DEFINITION

THE REMOVAL AND DISCHARGE OF SEDIMENT–LADEN WATER FROM AN EXCAVATED AREA, CONSTRUCTION SITE OR SEDIMENT BASIN.

PURPOSE

TO PROPERLY REMOVE SUSPENDED SEDIMENTS AND WATER FROM EXCAVATED AREAS THROUGH FILTRATION AND/OR SETTLEMENT PRIOR TO DISCHARGING WATER TO A RECEIVING WATER COURSE OR BODY.

CONDITIONS WHERE PRACTICE APPLIES

DURING CONSTRUCTION EXCAVATED FACILITIES NEED TO BE DEWATERED TO FACILITATE OR COMPLETE THE CONSTRUCTION PROCESS. THE WATER PUMPED OUT OF THE EXCAVATED AREAS CONTAIN SEDIMENTS THAT MUST BE REMOVED PRIOR TO DISCHARGING TO RECEIVING BODIES OF WATER. THIS STANDARD DOES NOT ADDRESS THE REMOVAL OF GROUND WATER THROUGH WELL POINTS ETC. THIS STANDARD DESCRIBES THE FOLLOWING PRACTICES FOR THE REMOVAL OF SEDIMENT LADEN WATERS FROM EXCAVATION AREAS: REMOVABLE PUMPING STATIONS, SUMP PITS, PORTABLE SEDIMENTATION TANKS AND SILT CONTROL BAGS.

WATER QUALITY ENHANCEMENT

WATER DISCHARGED FROM EXCAVATED AREAS ON CONSTRUCTION SITES MAY BE A SIGNIFICANT CONTRIBUTOR OF SEDIMENT TO SURFACE WATERS DURING CONSTRUCTION. WATER MUST BE REMOVED AND DISPOSED OF IN ORDER FOR CONSTRUCTION TO MOVE FORWARD. TYPICALLY, WATER IS PUMPED OR CONTAINMENT BERMS ARE BREACHED AND SEDIMENT LADEN WATERS ARE PERMITTED TO FLOW UNCONTROLLED INTO SURFACE WATERS SUCH AS STREAMS OR LAKES. BY EMPLOYING PRACTICES DESCRIBED IN THIS STANDARD, THE MAJORITY OF SEDIMENT SUSPENDED IN WATERS MAY EASILY BE REMOVED PRIOR TO LEAVING THE SITE. FILTERS AND MATERIALS DESCRIBED HEREIN ARE READILY AVAILABLE AND ARE EASY TO INSTALL AND MAINTAIN.

DESIGN CRITERIA

1. REMOVABLE PUMPING STATIONS ARE USED WHEN LONG DURATIONS OF PUMPING ARE REQUIRED. THE NUMBER OF REMOVABLE STATIONS AND THEIR LOCATIONS SHALL BE SHOWN ON THE PLANS AND SHALL CONFORM TO DETAIL 14–1. WATER PUMPED FROM THE STATION SHALL BE DISCHARGED INTO A SEDIMENT BASIN OR SUITABLE FILTER AREA.

   CONSTRUCTION SPECIFICATIONS

   A. THE SUCTION HOSE FROM THE PUMP SHALL BE PLACED INSIDE THE INNER PIPE TO BEGIN DEWATERING. THE DISCHARGE HOSE SHALL BE PLACED IN A STABILIZED AREA DOWNSLOPE OF UN–STABILIZED AREAS TO PREVENT EROSION.

   B. MAINTENANCE– THE INNER PIPE CAN EASILY BE REMOVED TO FACILITATE CHANGING THE GEOTEXTILE WHEN IT CLOGS. MAINTENANCE MUST BE PERFORMED WHEN THE PUMP RUNS DRY AND BACKED UP WATER REMAINS.

   C. SEE DETAIL 14–1 FOR ADDITIONAL SPECIFICATIONS.

2. SUMP PITS ARE TEMPORARY PITS WHICH ARE USED TO REMOVE EXCESS WATER WHILE MINIMIZING SEDIMENTATION. THE NUMBER OF SUMP PITS AND THEIR LOCATIONS SHALL BE INCLUDED ON THE PLANS. PITS MAY BE RELOCATED TO OPTIMIZE USE BUT DISCHARGE LOCATION CHANGES MUST BE COORDINATED WITH THE LOCAL CONSERVATION DISTRICT. THE DESIGN MUST CONFORM TO THE GENERAL CRITERIA OUTLINED ON DETAIL 14–2.

   A PERFORATED VERTICAL STANDPIPE IS WRAPPED WITH 2" HARDWARE CLOTH AND GEOTEXTILE FABRIC THEN PLACED IN THE CENTER OF AN EXCAVATED PIT WHICH IS THEN BACKFILLED WITH FILTER MATERIAL CONSISTING OF ANYTHING FROM CLEAN GRAVEL (MINIMAL FINES) TO ASTM C 33 STONE (1 2" MAXIMUM DIAMETER). WATER IS THEN PUMPED FROM THE CENTER OF THE STANDPIPE TO A SUITABLE DISCHARGE AREA SUCH AS INTO A SEDIMENT BASIN OR SUITABLE FILTER.

3. SEDIMENT TANK / SILT CONTROL BAGS ARE CONTAINERS THROUGH WHICH SEDIMENT LADEN WATER IS PUMPED TO TRAP AND RETAIN THE SEDIMENT. A SEDIMENT TANK OR A SILT CONTROL BAG IS TO BE USED ON SITES WERE EXCAVATIONS ARE DEEP, AND SPACE IS LIMITED AND WHERE DIRECT DISCHARGE OF SEDIMENT LADEN WATER TO STREAM AND STORM DRAINAGE SYSTEMS IS TO BE AVOIDED.

   CONSTRUCTION SPECIFICATIONS

   A. LOCATION. CONTAINERS (TANKS OR 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 PLACE DIRECTLY INTO RECEIVING WATERS.

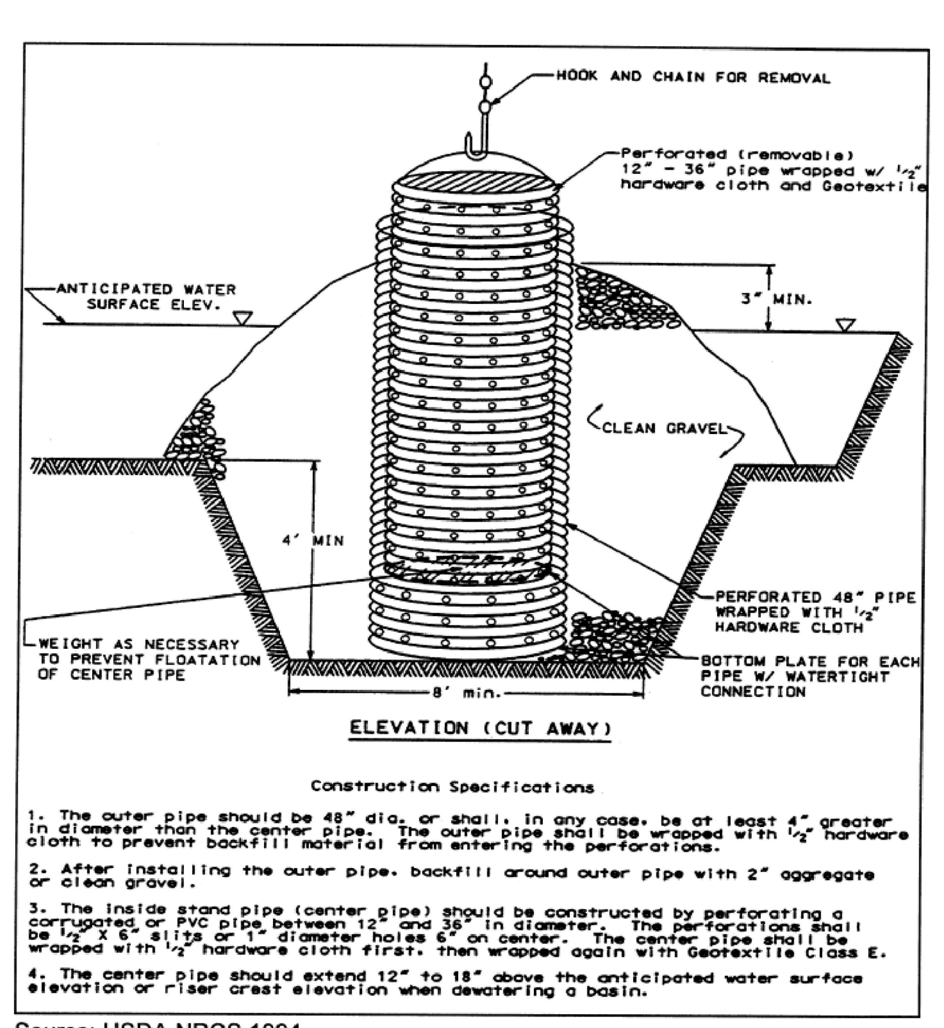
   B. TANK SIZE. THE FOLLOWING FORMULA SHOULD BE USED IN DETERMINING THE STORAGE VOLUME OF THE TANK: 1 CUBIC FOOT OF STORAGE FOR EACH GALLON PER MINUTE OF PUMP DISCHARGE CAPACITY. TYPICAL TANK CONFIGURATION IS SHOWN ON DETAIL 14–3. TANKS MAY BE CONNECTED IN SERIES TO INCREASE EFFECTIVENESS.

   C. TANKS CONSIST OF TWO CONCENTRIC CIRCULAR PIPES (CMP), ATTACHED TO A WATERTIGHT BASEPLATE. THE INNER CMP IS PERFORATED WITH 1" HOLES ON 6" CENTERS AND IS WRAPPED WITH GEOTEXTILE AND HARDWARE CLOTH. PUMPED WATER IS DISCHARGED INTO THE INNER CMP WHERE IT FLOWS THROUGH THE GEOTEXTILE INTO THE SPACE BETWEEN THE TWO CMP=S. A DISCHARGE LINE IS ATTACHED TO THE OUTER CMP AND DRAWS FILTERED WATER FROM THE ANNULUS BETWEEN THE TWO CONCENTRIC CMP=S. THE DISCHARGE LINE MAY BE CONNECTED TO ANOTHER TANK WHERE IT DRAINS TO THE INNER CMP OF THE SECOND TANK. THIS SERIES CONNECTION MAY BE CONTINUED INDEFINITELY.

   D. SEDIMENT CONTROL BAGS MUST BE LOCATED AWAY FROM RECEIVING WATERS AND DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS. SEE DETAIL 14–4. BAGS MAY BE COMBINED WITH TEMPORARY FILTERS (ITEM 4, FOLLOWING) FOR ENHANCED FILTRATION. TEMPORARY FILTERS FOR SMALL IMPOUNDMENTS FOR SMALL QUANTITIES OF PONDED WATER SUCH AS MAY BE FOUND IN SHALLOW EXCAVATIONS (SMALL TRENCHES, MANHOLE INSTALLATIONS ETC.) A SEDIMENT FILTER MAY BE CONSTRUCTED USING COMBINATIONS OF HAY BALES, SMALL CLEAN STONE AND FILTER FABRIC. THIS METHOD IS LIMITED TO SMALL QUANTITIES OF TRAPPED SURFACE WATER (PUMPING OF WELL POINTS IS EXCLUDED FROM THIS STANDARD) AND WHERE SEDIMENTS ARE NOT HIGHLY COLLOIDAL IN NATURE.

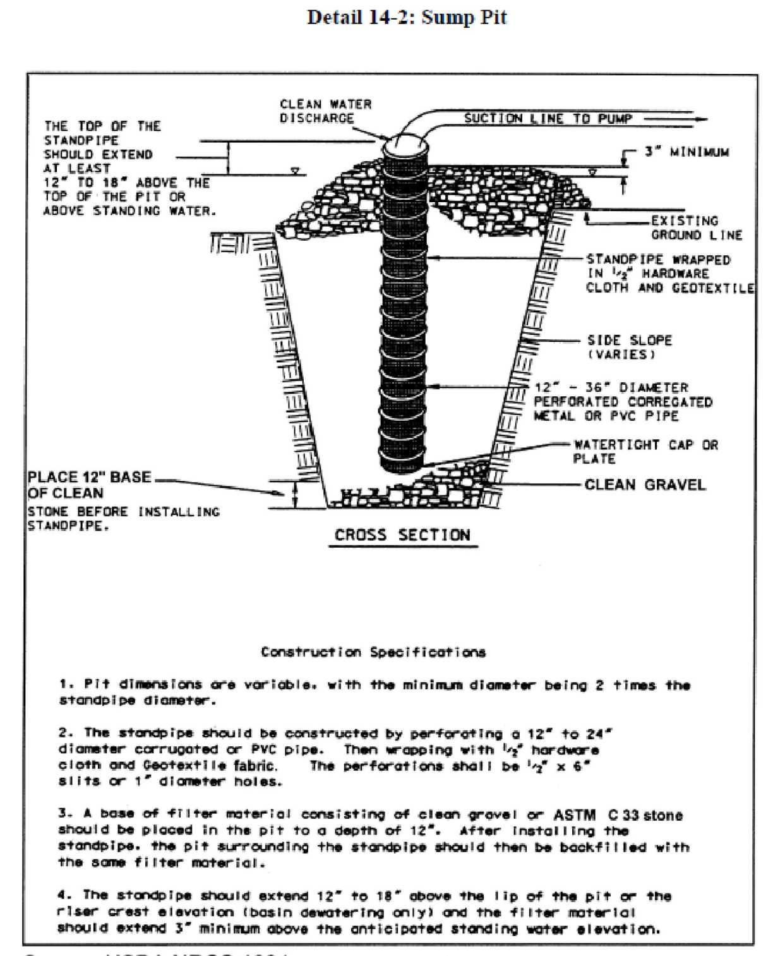
4. TEMPORARY FILTERS FOR SMALL IMPOUNDMENTS. FOR SMALL QUANTITIES OF PONDED WATER SUCH AS MAY BE FOUND IN SHALLOW EXCAVATIONS (SMALL TRENCHES, MANHOLE INSTALLATIONS ETC.) A SEDIMENT FILTER MAY BE CONSTRUCTED USING COMBINATIONS OF HAY BALES, SMALL CLEAN STONE AND FILTER FABRIC. THIS METHOD IS LIMITED TO SMALL QUANTITIES OF TRAPPED SURFACE WATER (PUMPING OF WELL POINTS IS EXCLUDED FROM THIS STANDARD) AND WHERE SEDIMENTS ARE NOT HIGHLY COLLOIDAL IN NATURE.

Detail 14-1 Removable Pumping Station



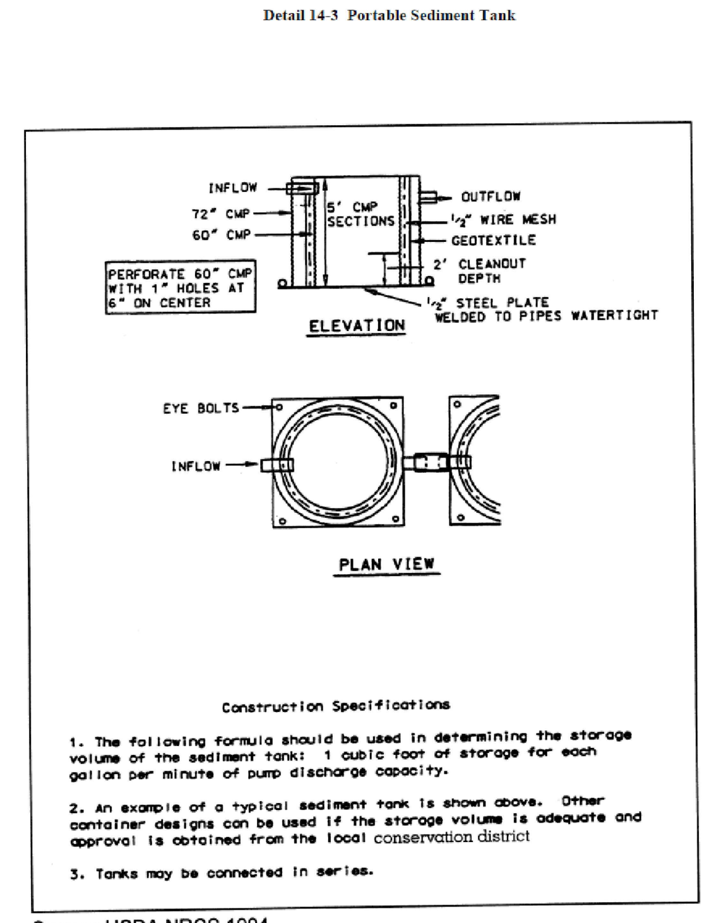
Source: USDA NRCS 1994

Detail 14-2: Sump Pit



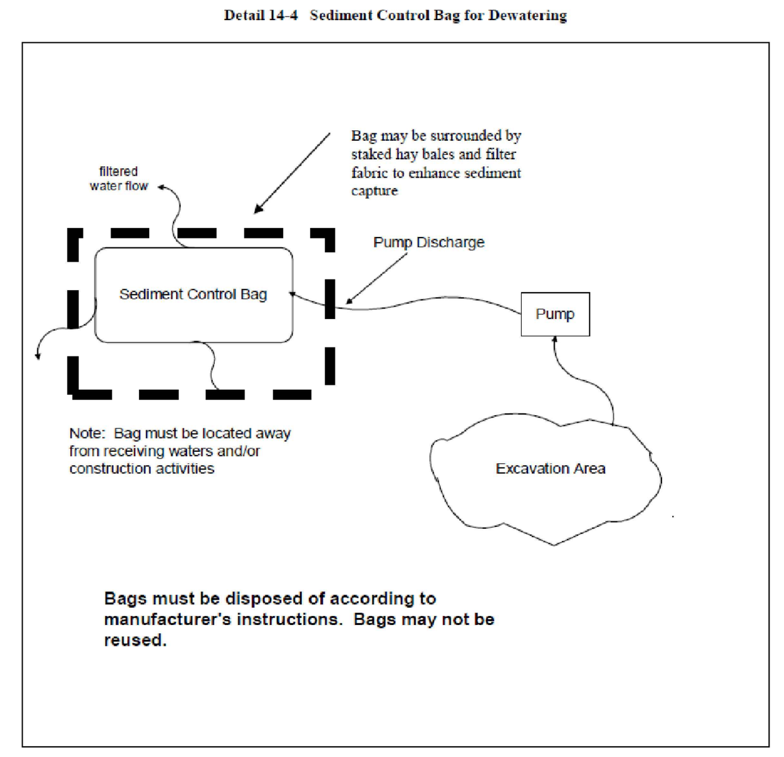
Source: USDA NRCS 1994

Detail 14-3 Portable Sediment Tank



Source: USDA NRCS 1994

Detail 14-4 Sediment Control Bag for Dewatering



STANDARD FOR STABILIZED CONSTRUCTION ACCESS

DEFINITION

A STABILIZED PAD OF CLEAN CRUSHED STONE LOCATED AT POINTS WHERE TRAFFIC WILL BE ACCESSING A CONSTRUCTION SITE.

PURPOSE

THE PURPOSE OF A STABILIZED CONSTRUCTION ACCESS IS TO REDUCE THE TRACKING OF FLOWING OF SEDIMENT ONTO PAVED ROADWAYS (OR OTHER IMPERVIOUS SURFACES).

CONDITIONS WHERE PRACTICE APPLIES

A STABILIZED CONSTRUCTION EXIT APPLIES TO POINTS OF CONSTRUCTION INGRESS AND EGRESS WHERE SEDIMENT MAY BE TRACKED, OR FLOW OFF, THE CONSTRUCTION SITE.

WATER QUALITY ENHANCEMENT

IN ADDITION TO MINIMIZING SEDIMENTS WHICH CAN BE TRACKED DIRECTLY ONTO PAVEMENT DURING CONSTRUCTION, OILS, GREASES, AND DIESEL FUELS WHICH BECOME MIXED WITH SEDIMENT DURING CONSTRUCTION MAY ALSO MIGRATE INTO THE OFFSITE DRAINAGE SYSTEM WHERE THEY MAY ENTER DIRECTLY INTO A WATERWAY. BY PREVENTING OR MINIMIZING THE TRACKING OF SEDIMENTS ONTO PAVED AREAS, A SIGNIFICANT REDUCTION IN CONSTRUCTION RELATED HYDROCARBON POLLUTION WILL ALSO BE CONTROLLED.

DESIGN CRITERIA

STONE SIZE– USE ASTM C–33, SIZE NO. 2 (2 ½ TO 1 ½ IN) OR 3 (2 TO 1 IN). USE CLEAN CRUSHED ANGULAR STONE; CRUSHED CONCRETE OF SIMILAR SIZE MAY BE SUBSTITUTED BUT WILL REQUIRE MORE FREQUENT UPGRADING AND MAINTENANCE.

THICKNESS– NOT LESS THAN SIX (6) INCHES.

WIDTH– NOT LESS THAN FULL WIDTH OF POINTS OF INGRESS OR EGRESS.

LENGTH– 50 FEET MINIMUM WHERE THE SOILS ARE COURSE GRAINED (SANDS OR GRAVELS) OR 100 FEET MINIMUM WHERE SOILS ARE FINE GRAINED (CLAYS OR SILTS), EXCEPT WHERE THE TRAVELED LENGTH IS LESS THAN 50 OR 100 FEET RESPECTIVELY. THESE LENGTHS MAY BE INCREASED WHERE FIELD CONDITIONS DICTATE. STORM WATER FROM UP–SLOPE AREAS SHALL BE DIVERTED AWAY FROM THE STABILIZED PAD (SEE STANDARD FOR DIVERSIONS, PG. 15–1). WHERE DIVERSION IS NOT POSSIBLE, THE LENGTH OF THE STABILIZED PAD SHALL BE AS SHOWN IN TABLE 27–1. WHERE THE SLOPE OF THE ACCESS ROAD EXCEEDS 5%, A STABILIZED BASE OF HOT MIX ASPHALT BASE COURSE, MIX I–2 SHALL BE INSTALLED. THE TYPE AND THICKNESS OF THE BASE COURSE AND USE OF A DENSE GRADED AGGREGATE SUB–BASE SHALL BE AS PRESCRIBED BY LOCAL MUNICIPAL ORDINANCE OR OTHER GOVERNING AUTHORITY.

AT POORLY DRAINED LOCATIONS, SUBSURFACE DRAINAGE GRAVEL FILTER OR GEOTEXTILE SHALL BE INSTALLED BEFORE INSTALLING THE STABILIZED CONSTRUCTION ENTRANCE.

TABLE 27–1: LENGTHS OF CONSTRUCTION EXITS ON SLOPING ROADBEDS

PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COARSE GRAINED SOILS	FINE GRAINED SOILS
0 TO 2%	50 FT	100 FT
2 TO 5%	100 FT	200 FT
>5%	ENTIRE SURFACE STABILIZED WITH HOT MIX ASPHALT BASE COURSE, MIX I–2[1]	

1. AS PRESCRIBED BY LOCAL ORDINANCE OR OTHER GOVERNING AUTHORITY.

WHERE A STABILIZED CONSTRUCTION EXIT TRAVERSES BETWEEN TWO BUILDINGS, IT SHALL BE STONED THE ENTIRE LENGTH OF THE RIGHT–OF–WAY. MOUNTABLE STONE BERMS PLACED ACROSS THE WIDTH OF THE EXIT MAY ALSO BE REQUIRED AT THE TRANSITION POINT BETWEEN PAVED AND NON–PAVED AREAS TO TRAP SEDIMENTS WHICH ARE CARRIED BY STORM WATER FLOWING ALONG THE CURB LINE.

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 TEN FEET IN LENGTH.

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 EXITS 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.

MAINTENANCE

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 OR REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO ROADWAYS (PUBLIC OR PRIVATE) OR OTHER IMPERVIOUS SURFACES MUST BE REMOVED IMMEDIATELY.

WHERE ACCUMULATION OF DUST/SEDIMENT IS INADEQUATE CLEANED OR REMOVED BY CONVENTIONAL METHODS, A POWER BROOM OR STREET SWEEPER WILL BE REQUIRED TO CLEAN PAVED OR IMPERVIOUS SURFACES. ALL OTHER ACCESS POINTS WHICH ARE NOT STABILIZED SHALL BE BLOCKED OF.

STANDARD FOR SEDIMENT BARRIERS

DEFINITION

A TEMPORARY BARRIER INSTALLED ACROSS OR AT THE TOE OF A SLOPE.

PURPOSE

THE PURPOSE OF A SEDIMENT BARRIER IS TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT FROM UNPROTECTED AREAS OF LIMITED EXTENT.

CONDITION WHERE PRACTICE APPLIES

THE SEDIMENT BARRIER IS USED WHERE:

1. NO OTHER PRACTICE IS FEASIBLE
2. THERE IS NO CONCENTRATION OF WATER IN A CHANNEL OR OTHER DRAINAGE WAY ABOVE THE BARRIER, AND
3. EROSION WOULD OCCUR IN THE FORM OF SHEET AND RILL EROSION.

DESIGN CRITERIA

A. ALL TYPES OF SEDIMENT BARRIERS:

1. CONTRIBUTING DRAINAGE AREA IS LESS THAN 1 ACRE AND THE LENGTH OF SLOPE ABOVE THE BARRIER IS LESS THAN 150 FEET.
2. THE SLOPE OF THE CONTRIBUTING DRAINAGE AREA FOR AT LEAST 30 FEET ADJACENT TO THE BARRIER SHALL NOT EXCEED 5%.
3. THE BARRIER SHALL BE CONSTRUCTED SO WATER CANNOT BYPASS THE BARRIER AROUND THE ENDS.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. THE BARRIER SHALL BE REMOVED WHEN THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

B. REQUIREMENTS FOR BALE BARRIER (E.G., STRAW, HAY, OR OTHER ACCEPTABLE VEGETATIVE MATERIAL):

1. ALL BALES SHALL BE SECURELY TIED AND STAKED ON THE CONTOUR (FIG. 23–1).
2. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
3. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4 INCHES.
4. BALES SHALL BE SECURELY ANCHORED IN PLACE BY TWO STAKES OR RE–BARS DRIVEN THROUGH EACH BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.

C. REQUIREMENTS FOR SILT FENCE:

1. FENCE POSTS SHALL BE SPACED 8 FEET CENTER–TO–CENTER OR CLOSER. THEY SHALL EXTEND AT LEAST 2 FEET INTO THE GROUND AND EXTEND AT LEAST 2 FEET ABOVE GROUND (FIG. 23–2). POSTS SHALL BE CONSTRUCTED OF HARDWOOD WITH A MINIMUM DIAMETER THICKNESS OF 1 ½ INCHES.
2. "SUPER" SILT FENCE – A METAL FENCE WITH 6 INCH OR SMALLER MESH OPENINGS AND AT LEAST 2 FEET HIGH MAY BE UTILIZED, FASTENED TO THE FENCE POSTS, TO PROVIDE REINFORCEMENT AND SUPPORT TO THE GEOTEXTILE FABRIC. POSTS MAY BE SPACED LESS THAN 8 FEET ON CENTER AND MAY BE CONSTRUCTED OF HEAVIER WOOD OR METAL AS NEEDED TO WITHSTAND HEAVIER SEDIMENT LOADING. THIS PRACTICE IS APPROPRIATE WHERE SPACE FOR OTHER PRACTICES IS LIMITED AND HEAVY SEDIMENT LOADING IS EXPECTED. "SUPER" SILT FENCE IS NOT TO BE USED IN PLACE OF PROPERLY DESIGNED DIVERSIONS (PG. 15–1) WHICH MAY BE NEEDED TO CONTROL SURFACE RUNOFF RATES AND VELOCITIES.
3. A GEOTEXTILE 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 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 REINFORCEMENT MATERIAL (NYLON WEBBING, GROMMETS, WASHERS ETC.) PLACED BETWEEN THE FASTENER AND THE GEOTEXTILE 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.

D. REQUIREMENTS FOR STONE BARRIER:

1. THE STONE SHALL BE PILED TO A NATURAL ANGLE OF REPOSE WITH A HEIGHT OF AT LEAST 2 FEET.
2. THE STONE SHALL MEET ASTM C–33 SIZE NO. 2 (2.5 TO 1.5) OR 3 (2 TO 1 INCH).

MAINTENANCE

1. SEDIMENT SHALL BE REMOVED FROM THE UPSTREAM FACE OF THE BARRIER WHEN IT HAS REACHED A DEPTH OF ½ THE BARRIER HEIGHT.
2. REPAIR OR REPLACE BARRIER (FABRIC, POSTS, BALES ETC.) WHEN DAMAGED.
3. BARRIERS SHALL BE INSPECTED DAILY FOR SIGNS OF DETERIORATION AND SEDIMENT REMOVAL.

STANDARD FOR DUST CONTROL

DEFINITION

THE CONTROL OF DUST ON CONSTRUCTION SITES AND ROAD.

PURPOSE

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

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

PLANNING CRITERIA

THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST:

MULCHES – SEE STANDARD FOR STABILIZATION WITH MULCHES ONLY.

VEGETATIVE COVER – SEE STANDARD FOR: TEMPORARY VEGETATIVE COVER, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION AND PERMANENT STABILIZATION WITH SOD.

SPRAY–ON ADHESIVES – ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS). KEEP TRAFFIC OFF THESE AREAS.

Table 16-1 Dust Control Materials

MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/ACRE
Anionic 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	Apply according to manufacturer's instructions. May also be used as an additive to sediment basins to flocculate and precipitate suspended colloids. See Sediment Basin standard, p. 26-1		
Acidulated Soy Bean Soap Stick	None	Coarse Spray	1200

Tillage - 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.

Barriers - Solid board fences, snow fences, burlap fences, crate walls, bales of hay and similar material can be used to control air currents and soil blowing.

Calcium Chloride - Shall be in the form of loose, dry granules or flakes fine enough to feed through commonly used spreaders at a rate that will keep surface moist but not cause pollution or plant 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.

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 ACTIVITY.
2. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO SOIL DISTURBANCE OR IN THEIR PROPER SEQUENCE AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
3. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL 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 CERTIFIED PLAN AND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND A REPORT OF COMPLIANCE HAS BEEN ISSUED. UPON WRITTEN REQUEST FROM THE APPLICANT, THE DISTRICT MAY ISSUE A REPORT OF COMPLIANCE WITH CONDITIONS ON A LOT–BY–LOT OR SECTION–BY–SECTION BASIS, PROVIDED THAT THE PROJECT OR PORTION THEREOF IS IN SATISFACTORY COMPLIANCE WITH THE SEQUENCE OF DEVELOPMENT AND TEMPORARY MEASURES FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN IMPLEMENTED, INCLUDING PROVISIONS FOR STABILIZATION AND SITE WORK.
5. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN SIXTY (60) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF 2 TO 2 ½ TONS PER ACRE, ACCORDING TO THE STANDARD FOR STABILIZATION WITH MULCH ONLY.
6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E SOIL STOCKPILES, STEEP SLOPES AND ROADWAY EMBANKMENTS WILL RECEIVE TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AND A MULCH ANCHOR, IN ACCORDANCE WITH STATE STANDARDS.
7. A SUB–BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS, AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB–BASE SHALL BE INSTALLED WITHIN FIFTEEN (15) DAYS OF THE PRELIMINARY GRADING.
8. THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THAT INSTALLATION OF A PAD OF CLEAN CRUSHED STONE AT POINTS WHERE TRAFFIC WILL BE ACCESSING THE CONSTRUCTION SITE. AFTER INTERIOR ROADWAYS ARE PAVED, INDIVIDUAL LOTS REQUIRE A STABILIZED CONSTRUCTION ACCESS CONSISTING) STONE FOR A MINIMUM LENGTH OF TEN FEET (10') EQUAL TO THE LOT "–2 "OF ONE INCH TO TWO INCH (1 ENTRANCE WIDTH. ALL OTHER ACCESS POINTS SHALL BE BLOCKED OFF.
9. ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT–OF–WAYS WILL BE REMOVED IMMEDIATELY.
10. PERMANENT VEGETATION IS TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING.
11. AT THE TIME THAT SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE 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, 9OR 450LBS/1,000 SQ FT OF SURFACE AREA) AND WHERE TREES OR " OF SETTLED SOIL WITH A PH OF 5 OR MORE, OR 24 "COVERED WITH A MINIMUM OF 12 SHRUBS ARE TO BE PLANTED.
13. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
14. UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH THE STANDARD FOR 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 DUST CONTROL.
16. STOCKPILE AND STAGING LOCATIONS ESTABLISHED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN. STAGING AND STOCKPILES NOT LOCATED WITHIN THE LIMIT OF DISTURBANCE WILL REQUIRE CERTIFICATION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN. CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN MAY BE REQUIRED FOR THESE ACTIVITIES IF AN AREA GREATER THAN 5,000 SQUARE FEET ARE DISTURBED.
17. ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE #6.
18. THIS PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORM WATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.

FREEHOLD SOIL CONSERVATION DISTRICT
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FREEHOLD, NJ 07728
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REVISION NO.	DATE	REVISION
2	01/07/2025	REVISED PER CLIENT DIRECTION
1	10/23/2024	REVISED PER CLIENT DIRECTION

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PRELIMINARY & FINAL SITE PLAN

SOIL EROSION & SEDIMENT CONTROL NOTES

SEA BRIGHT BEACH CLUB
BLOCK 23, LOT 4

BOROUGH OF SEA BRIGHT MONMOUTH COUNTY NEW JERSEY

PROJECT No	
2022–015–133	
DRAWN BY: WWN/ERH	DESIGNED BY: NM/ERH
SCALE: N.T.S.	CHECKED BY: DAC
DATE: JULY 25, 2023	SHEET NO.: 8of 10

STANDARD FOR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

DEFINITION:

ESTABLISHMENT OF TEMPORARY VEGETATIVE COVER ON SOILS EXPOSED FOR PERIODS OF TWO TO 6 MONTHS WHICH ARE NOT BEING GRADED, NOT UNDER ACTIVE CONSTRUCTION OR NOT SCHEDULED FOR PERMANENT SEEDING WITHIN 60 DAYS.

PURPOSE

TO TEMPORARILY STABILIZE THE SOIL AND REDUCE DAMAGE FROM WIND AND WATER EROSION UNTIL PERMANENT STABILIZATION IS ACCOMPLISHED.

WATER QUALITY ENHANCEMENT

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

WHERE APPLICABLE

ON EXPOSED SOILS THAT HAVE THE POTENTIAL FOR CAUSING OFF-SITE ENVIRONMENTAL DAMAGE.

METHODS AND MATERIALS

1. SITE PREPARATION

A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING.

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

C. IMMEDIATELY PRIOR TO SEEDING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES 9 CABLES, IRRIGATION SYSTEMS, ETC.).

2. SEEDBED PREPARATION

A. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. APPLY LIMESTONE AT A RATE ESTABLISHED BY SOIL TESTING. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.

B. WORK LIME AND FERTILIZER INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.

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

D. SOILS HIGH IN SULFIDE OR HAVING A PH OF 4 OR LESS REFER TO STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS.

3. SEEDING

A. SELECT SEED FROM RECOMMENDATIONS AS SPECIFIED IN STANDARDS FOR SOILS EROSION AND SEDIMENT CONTROL IN NEW JERSEY.

B. CONVENTIONAL SEEDING. APPLY SEED UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDING'S, SEED SHALL BE INCORPORATED INTO THE SOIL, TO A DEPTH OF ¼ TO ½ INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE ¼ INCH DEEPER ON COARSE TEXTURED SOIL.

C. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK OR TRAILER MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH **SHALL NOT** BE INCLUDED IN THE TANK WITH SEED. SHORT FIBERED MULCH MAY BE APPLIED WITH HYDROSEEDER FOLLOWING SEEDING. HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. POOR SEED TO SOIL CONTACT OCCURS REDUCING SEED GERMINATION AND GROWTH. HYDROSEEDCING MAY BE USED FOR AREAS TOO STEEP FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS, STOMPS. 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.

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 DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT.

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 SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
2. MULCH NETTINGS- STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
3. CRIMPER (MULCH ANCHORING COULTER TOOL) - A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.
4. LIQUID MULCH-BINDERS- MAY BE USED TO ANCHOR SALT, HAY, OR STRAW MULCH.

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

b. USE ONE OF THE FOLLOWING:

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

(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 OF GRASS.

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

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.

3. SEEDING

A. SELECT SEED FROM RECOMMENDATIONS IN TABLE (SEE THIS SHEET).

SEQUENCE OF CONSTRUCTION

ACTIVITY	DURATION
INSTALLATION OF SOIL EROSION AND SEDIMENT CONTROL MEASURES	1 WEEK
CLEARING AND EXCAVATION	2 WEEKS
ROUGH GRADING AND TEMPORARY STABILIZATION	2 WEEKS
INSTALLATION OF DRAINAGE FACILITIES	2 WEEKS
INSTALLATION OF SITE IMPROVEMENTS	2 WEEKS
MILLING AND/OR REMOVAL OF PAVEMENT	1 WEEK
FINAL GRADING AND PERMANENT STABILIZATION	1 WEEK
CONSTRUCTION OF SURFACE COURSE PAVEMENT	1 WEEK
FINAL CLEANUP AND PAVEMENT MARKINGS	1 WEEK

STANDARD FOR STABILIZATION FOR MULCH ONLY

DEFINITION:

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

PURPOSE

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 FOR LAND GRADING.

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 ANCHORED WITH 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 CANNOT BE SEEN BELOW THE MULCH.

B. SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED UNDER SUITABLE CONDITIONS AND IN QUANTITIES AS RECOMMENDED BY THE MANUFACTURER.

C. WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE (OR ACCORDING TO THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY) MAY BE APPLIED BY A HYDRO SEEDER.

D. MULCH NETTING, SUCH AS PAPER JUTE, EXCELSIOR, COTTON, OR PLASTIC, MAY BE USED.

E. WOODCHIPS APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 2 INCHES MAY BE USED. WOODCHIPS WILL NOT BE USED ON AREAS WHERE FLOWING WATER COULD WASH THEM INTO AN INLET AND PLUG IT.

F. GRAVEL, CRUSHED STONE, OR SLAG AT THE RATE OF 9 CUBIC YARDS PER 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 AREA AND STEEPNESS OF SLOPES.

A. PEG AND TWINE- DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A 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 TO 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.

D. LIQUID MULCH- BINDERS

1. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND CATCHES THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. REMAINDER OF AREA SHOULD BE UNIFORM IN APPEARANCE.
2. USE ONE OF THE FOLLOWING:

a. ORGANIC AND 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 WILL 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 TURF GRADE. 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 GERMINATION OF GRASS.

STANDARD FOR TOPSOILING

DEFINITION:

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

PURPOSE

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 CONVEYANCES.

WHERE APPLICABLE

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

METHODS AND MATERIALS

1. MATERIALS

A. TOPSOIL SHOULD BE FRIABLE, LOAMY, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE OR ADVERSE CHEMICAL OR PHYSICAL CONDITION THAT MAY BE HARMFUL TO PLANT GROWTH. SOLUBLE SALTS SHOULD NOT BE EXCESSIVE (CONDUCTIVITY LESS THAN 0.5 MILLIMHOS PER CENTIMETER. MORE THAN 0.5 MILLIMHOS MAY DESICCATE SEEDLINGS AND ADVERSELY IMPACT GROWTH). TOPSOIL HAULED IN FROM OFFSITE SHOULD 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 ESTABLISHING PERMANENT VEGETATION. ALL TOPSOIL SUBSTITUTE MATERIALS SHALL MEET THE REQUIREMENTS OF TOPSOIL NOTED ABOVE. SOIL TESTS SHALL BE PERFORMED TO DETERMINE THE COMPONENTS OF SAND, SILT, CLAY, ORGANIC 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 SHOULD BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA.

C. WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TESTS TO BRING THE SOIL PH TO APPROXIMATELY 6.5. IN LIEU OF SOIL TESTS, SEE LIME RATE GUIDE IN SEEDBED PREPARATION FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION.

D. A 4-6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR SOIL.

E. STOCKPILES OF TOPSOIL SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF-SITE ENVIRONMENTAL DAMAGE.

F. STOCKPILES SHOULD BE VEGETATED IN ACCORDANCE WITH STANDARDS PREVIOUSLY DESCRIBED HEREIN; SEE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL PLAN IN NEW JERSEY. 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 THE ESSENCE.

B. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION AND ANCHORING, AND MAINTENANCE. SEE THE STANDARD FOR SOIL EROSION AND SEDIMENT CONTROL PLAN IN NEW JERSEY.

C. AS GUIDANCE FOR IDEAL CONDITIONS, SUBSOIL SHOULD BE TESTED FOR LIME REQUIREMENT. LIMESTONE, IF NEEDED, SHOULD BE APPLIED TO BRING SOIL PH OF APPROXIMATELY 6.5 AND INCORPORATED INTO THE SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES.

D. IMMEDIATELY PRIOR TO TOPSOILING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS WILL HELP INSURE A GOOD BOND BETWEEN THE TOPSOIL AND SUBSOIL. **THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).**

E. EMPLOY NEEDED EROSION CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENTATION BASINS, AND WATERWAYS. SEE STANDARDS FOR SOIL EROSION & SEDIMENT CONTROL PLAN IN NEW JERSEY.

4. APPLYING TOPSOIL

A. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING SOIL STRUCTURE; I.E., LESS THAN FIELD CAPACITY SEE STANDARDS FOR SOIL EROSION & SEDIMENT CONTROL IN NEW JERSEY.

B. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS RECOMMENDED. SOILS WITH A PH OF 4.0 OR LESS OR CONTAIN 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.

STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

DEFINITION:

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

PURPOSE

TO PERMANENTLY STABILIZE THE SOIL, ENSURING CONSERVATION OF SOIL AND WATER, AND TO ENHANCE THE ENVIRONMENT

WATER QUALITY ENHANCEMENT

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

WHERE APPLICABLE

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

METHODS AND MATERIALS

1. SITE PREPARATION

A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING.

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

C. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.

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

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/COUNY/). FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE-HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE-HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.

B. WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING-TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.

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

3. SEEDING

A. SELECT A MIXTURE FROM TABLE 4-3 OR USE A MIXTURE RECOMMENDED BY RUTGERS COOPERATIVE EXTENSION OR NATURAL RESOURCES CONSERVATION SERVICE WHICH IS APPROVED BY THE SOIL CONSERVATION DISTRICT. SEED GERMINATION SHALL HAVE BEEN TESTED WITHIN 12 MONTHS OF THE PLANTING DATE. NO SEED SHALL BE ACCEPTED WITH A GERMINATION TEST DATE MORE THAN 12 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 VEGETATION IS ESTABLISHED PRIOR TO A REPORT OF COMPLIANCE INSPECTION. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVERAGE WITH THE SPECIFIED SEED MIXTURE FOR THE SEEDED AREA AND MOWED ONCE.
2. WARM-SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT HIGH TEMPERATURES, GENERALLY 85° F AND ABOVE. SEE TABLE 4-3 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 C BECOME ACTIVE AT 65°F. SEE TABLE 4-3, MIXTURES 8-20. ADJUSTMENT OF PLANTING RATES TO COMPENSATE FOR THE AMOUNT OF PLS IS NOT REQUIRED FOR COOL SEASON GRASSES.

B. C**ONVENTIONAL SEEDING** IS PERFORMED BY APPLYING SEEDING UNIFORMLY BY HAND, CYCLONE (CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDING'S, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF ¼ TO ½ INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE ¼ INCH DEEPER ON COARSE-TEXTURED SOIL.

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

D. H**YDROSEEDING** IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK, OR TRAILER-MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH THE SEED. SHORT-FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING.(SEE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY). HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. WHEN POOR SEED TO SOIL TACT 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 DEEMED COMPLIANCE WITH THIS MULCHING REQUIREMENT.

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 SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
2. MULCH NETTINGS- STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
3. CRIMPER (MULCH ANCHORING COULTER TOOL) - A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.
4. LIQUID MULCH-BINDERS- MAY BE USED TO ANCHOR SALT, HAY, OR STRAW MULCH.

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

b. USE ONE OF THE FOLLOWING:

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

(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 OF GRASS.

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

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.

5. IRRIGATION (WHERE FEASIBLE)

IF SOIL MOISTURE IS DEFICIENT SUPPLY NEW SEEDING WITH ADEQUATE WATER (A MINIMUM OF ¼ INCH APPLIED UP TO TWICE A DAY UNTIL VEGETATION IS WELL ESTABLISHED). THIS IS ESPECIALLY TRUE WHEN SEEDING'S MADE IN ABNORMALLY DRY OR HOT WEATHER OR ON DROUGHTY SITES.

6. 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 4-3 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 REPORT OF COMPLIANCE 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 MANAGEMENT OF HIGH ACID-PRODUCING SOILS

DEFINITION

HIGH ACID-PRODUCING SOILS ARE SOILS WITH A PH OF 4.0 OR LESS OR CONTAIN IRON SULFIDE.

PURPOSE

TO PREVENT OR LIMIT EXPOSURE AREA, TIME, AND SPREADING BY EQUIPMENT OR RAINFALL ON- AND OFF-SITE AND TO MINIMIZE EROSION, SEDIMENTATION AND ACID LEACHATE-RELATED DAMAGES. HIGH ACID-PRODUCING SOIL MAY BE EXPOSED DURING EXCAVATION AND LAND GRADING ACTIVITIES, OR MAY BE INTRODUCED IN DREDGED SEDIMENT, SOILS AND SEDIMENT CONTAINING IRON SULFIDE, CHARACTERIZED BY PYRITE OR MARCASITE NUGGETS OR GREENSANDS, ARE CHEMICALLY OXIDIZED WHEN EXPOSED TO AIR, PRODUCING SULFURIC ACID AND RESULT IN SOIL PH LEVELS FALLING TO PH 4.0 OR LOWER. MOST VEGETATION IS INCAPABLE OF GROWTH AT THIS pH LEVEL. ADJACENT LAND AND RECEIVING WATERS WILL BE NEGATIVELY IMPACTED BY THE ACID LEACHATE. CALCIUM-CONTAING MATERIALS SUCH AS SIDEWALKS, CULVERTS AND OTHER STRUCTURES AND SOME METALLIC MATERIALS ARE ALSO SUSCEPTIBLE TO DEGRADATION. AGRICULTURAL LIMESTONE MATERIALS APPLIED AT RATES OF 8 TONS PER ACRE HAVE RESULTED IN ONLY A TEMPORARY BUFFERING EFFECT, AND "LIMING-ONLY" IS THEREFORE NOT CONSIDERED AN ACCEPTABLE MITIGATION PRACTICE.

WATER QUALITY ENHANCEMENT

PROTECTS ONSITE SOILS AND OFFSITE STREAMS AND LAKES FROM SULFURIC ACID LEACHATE THAT CREATES SOIL PH CONDITIONS UNSUITABLE FOR GROWTH OF VEGETATION.

WHERE APPLICABLE

THIS PRACTICE IS APPLICABLE TO ANY HIGH ACID-PRODUCING SOIL MATERIALS. SUCH MATERIALS HAVE BEEN FOUND IN THE COASTAL PLAIN AREAS OF BURLINGTON, CAMDEN, CUMBERLAND, GLOUCESTER, MERCER, MIDDLESEX, MONMOUTH, OCEAN, SALEM AND SOMERSET COUNTIES.

PLANNING CRITERIA

EARLY RECOGNITION AND BURIAL, REMOVAL OR DISPOSAL OF HIGH ACID-PRODUCING SOILS IS ESSENTIAL FOR LIMITING THE AMOUNT OF ACIDIC MATERIAL PRODUCED.

CONTACT THE LOCAL SOIL CONSERVATION DISTRICT TO DETERMINE THE HISTORICAL PRESENCE OF HIGH ACID-PRODUCING SOILS IN THE VICINITY OF THE PROPOSED DEVELOPMENT SITE.

HIGH ACID-PRODUCING SOILS MAY BE PRESENT IN UNDISTURBED SOILS AT VARYING DEPTHS, INCLUDING NEAR THE SOIL SURFACE TO EXCAVATIONS OR DEEP DISTURBANCES. ITS PRESENCE ON A SITE MAY BE SIGNIFICANT OR LIMITED IN THE SOIL PROFILE. HIGH ACID-PRODUCING SOILS ARE COMMONLY BLACK, DARK BROWN, GRAY OR GREENISH WITH SILVERY PYRITE OR MARCASITE NUGGERS OR FLAKES. ALTERNATIVELY, SANDY SOILS OR REDDISH, YELLOWISH, OR LIGHT TO MEDIUM BROWN SOIL MATERIALS ARE USUALLY FREE OF HIGH ACID-PRODUCING DEPOSITS.

METHODS AND MATERIALS

1. LIMIT THE EXCAVATION AREA AND EXPOSURE TIME WHEN HIGH ACID-PRODUCING SOILS ARE ENCOUNTERED.
2. TOPSOIL STRIPPED FROM THE SITE SHALL BE STORED SEPARATELY FROM TEMPORARILY STOCKPILED HIGH ACID-PRODUCING SOILS.
3. STOCKPILES OF HIGH ACID-PRODUCING SOIL SHOULD BE LOCATED ON LEVEL LAND TO MINIMIZE ITS MOVEMENT, ESPECIALLY WHEN THIS MATERIAL HAS A HIGH CLAY CONTENT.
4. TEMPORARY STOCKPILED HIGH ACID-PRODUCING SOIL MATERIAL TO BE STORED MORE THAN 48 HOURS SHOULD BE COVERED WITH PROPERLY ANCHORED, HEAVY GRADE SHEETS OF POLYETHYLENE WHERE POSSIBLE. IF NOT POSSIBLE, STOCKPILES SHALL BE COVERED WITH A MINIMUM OF 3 TO 6 INCHES OF WOOD CHIPS TO MINIMIZE EROSION OF THE STOCKPILE. SILT FENCE SHALL BE INSTALLED AT THE TOE OF THE SLOPE TO CONTAIN MOVEMENT OF THE STOCKPILED MATERIAL. TOPSOIL SHALL NOT BE APPLIED TO THE STOCKPILES TO PREVENT TOPSOIL CONTAMINATION WITH HIGH ACID-PRODUCING SOIL.
5. HIGH ACID-PRODUCING SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE (INCLUDING BORROW FROM CUTS OR DREDGED SEDIMENT) SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS PER ACRE (OR 450 POUNDS PER 1,000 SQUARE FEET OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12 INCHES OF SETTLED SOIL WITH A PD OF 5.0 OR MORE EXCEPT AS FOLLOWS:

   A. AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED SHALL BE COVERED WITH A MINIMUM OF 24 INCHES OF SOIL WITH A PH OF 5 OR MORE.

   B. DISPOSAL AREAS SHALL NOT BE LOCATED WITHIN 24 INCHES OF ANY SURFACE OF A SLOPE OR BANK, SUCH AS BERMS, STREAM BANKS, DITCHES, AND OTHERS, TO PREVENT POTENTIAL LATERAL LEACHING DAMAGES.
6. EQUIPMENT USED FOR MOVEMENT OF HIGH ACID- PRODUCING SOILS SHOULD BE CLEANED AT THE END OF EACH DAY TO PREVENT SPREADING OF HIGH ACID-PRODUCING SOIL MATERIALS TO OTHER PARTS OF THE SITE, INTO STREAMS OR STORMWATER CONVEYANCES, AND TO PROTECT MACHINERY FROM ACCELERATED RUSTING.
7. NON-VEGETATIVE EROSION CONTROL PRACTICES (STONE TRACKING PADS, STRATEGICALLY PLACED LIMESTONE CHECK DAM, SEDIMENT BARRIER, WOOD CHIPS) SHOULD BE INSTALLED TO LIMIT THE MOVEMENT OF HIGH ACID-PRODUCING SOILS FROM, AROUND, OR OFF THE SITE.
8. FOLLOWING BURIAL OR REMOVAL OF HIGH ACID-PRODUCING SOIL, TOPSOILING AND SEEDING OF THE SITE (SEE TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, AND TOPSOILING), **MONITORING MUST CONTINUE FOR A MINIMUM OF 6 MONTHS** TO ENSURE THERE IS ADEQUATE STABILIZATION AND THAT NO HIGH ACID-PRODUCING SOIL PROBLEMS EMERGE. IF PROBLEMS STILL EXIST, THE AFFECTED AREA MUST BE TREATED AS INDICATED ABOVE TO CORRECT THE PROBLEM.

TEMPORARY VEGETATIVE STABILIZATION GRASSES, SEEDING RATES, DATES AND DEPTH

SEED SELECTION	SEEDING RATE [1] (pounds)		OPTIMUM SEEDING RATE [2] Based on Plant Hardiness Zone [3]			OPTIMUM SEED 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	3/1-5/15 8/15-10/1	2/15-5/1 8/15-10/15	0.5
2. Spring Oats	86	2.0	3/15-6/1 8/1-9/15	3/1-5/15 8/15-10/1	2/15-5/1 8/15-10/15	1.0
3. Winter Barley	96	2.2	8/1-9/15	8/15-10/1	8/15-10/15	1.0
4. Annual ryegrass	100	1.0	3/15-6/1 8/1-9/15	3/15-6/1 8/1-9/15	2/15-5/1 8/15-10/15	0.5
5. Winter Cereal Rye	112	2.8	8/1-11/1	8/1-11/15	8/1-12/15	1.0
WARM SEASON GRASSES						
6. Pearl millet	20	0.5	6/1-8/1	5/15-8/15	5/1-9/1	1.0
7. Millet (German or Hungarian)	30	0.7	6/1-8/1	5/15-8/15	5/1-9/1	1.0

1 Seeding rate for warm season grass, selections 5 - 7 shall be adjusted to reflect the amount of Pure Line Seed (PLS) as determined by germination test result. No adjustment is required for cool season grasses.

2 May be planted throughout summer if soil moisture is adequate or seeded area can be irrigated.

3 Plant Hardiness Zone (see figure 7-1, pg. 7-4.)

SEEDING SPECIFICATION

TOPSOIL:	TOPSOIL SHALL BE SPREAD OVER ALL DISTURBED AREAS TO A MINIMUM DEPTH OF 6" WHEN COMPACTED (SEE SPECIFICATIONS)
FERTILIZATION LIMING:	SHALL BE APPLIED AT SUCH RATES DETERMINED NECESSARY FOR GOOD PLANT GROWTH, PER SOIL TEST FINDINGS. AT LEAST 40% OF THE FERTILIZER NITROGEN SHALL BE OF AN ORGANIC ORIGIN.
SEEDING:	AREAS TO BE SEEDED SHALL BE SEEDED WITH SELECT HIGH-QUALITY SEED. SEEDING MIXTURE AND SEEDING RATES, SHALL BE AS SPECIFIED BELOW. TO ENSURE AN EVEN UNIFORM COVERAGE, SEED SHALL BE APPLIED IN TWO SUCCESSIVE SOWINGS WITH THE SECOND SOWING PERPENDICULAR TO THE FIRST. THE RATE OF EACH SOWING SHALL BE ½ THE TOTAL SEEDING RATE SPECIFIED BELOW. TO ENSURE GOOD GERMINATION, THE SEED SHALL BE RAKED INTO THE SOIL TO A DEPTH OF ½".
MULCHING:	ALL SEEDED AREAS SHALL BE MULCHED IMMEDIATELY AFTER SEEDING. MULCH MAY BE EITHER DRY STRAW OR HAY, FREE OF WEED SEEDS. APPLY AT A RATE OF 100 LBS/1000 SQ FT. ON SLOPES GREATER THAN 3:1.
WATERING:	SEEDED AREAS SHALL BE WATERED DAILY TO INSURE GOOD GERMINATION. ONCE SEEDS HAVE GERMINATED, IRRIGATION MAY BE DECREASED BUT THE SEEDLINGS MUST NEVER BE ALLOWED TO DRY OUT COMPLETELY. FREQUENT WATERING SHOULD BE CONTINUED FOR APPROXIMATELY THREE (3) WEEKS AFTER GERMINATION OR UNTIL GRASS HAS BECOME SUFFICIENTLY ESTABLISHED TO WARRANT WATERING ON AN "AS NEEDED" BASIS.
PLANTING DATES:	ACCEPTABLE: MAY 1 TO AUG 14 OPTIMAL: MAR 1 THRU APR 30 AND AUG 15 TO OCTOBER 15.
LAWN SEED MIXTURE:	SEE STANDARD FOR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION NOTE 3A (THIS SHEET) AND STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION LAWN AREA SEEDING SPECIFICATION TABLE (SEE SOIL EROSION AND SEDIMENT CONTROL PLAN).

LAWN AREA SEEDING SPECIFICATION

SEED	APPLICATION RATE
TALL FESCUE	265 LBS./ACRE
KENTUCKY BLUEGRASS (BLEND)	20 LBS./ACRE
PERENNIAL RYEGRASS (BLEND)	20 LBS./ACRE

REVISION NO.	DATE	REVISION
2	01/07/2025	REVISED PER CLIENT DIRECTION
1	10/23/2024	REVISED PER CLIENT DIRECTION

DAVID A. CRANMER, PE

LICENSED PROFESSIONAL ENGINEER

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INTEGRITY INNOVATION EXCELLENCE

PRELIMINARY & FINAL SITE PLAN

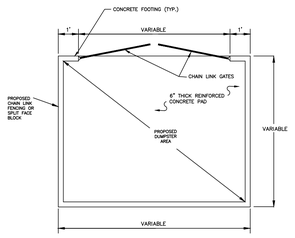
SOIL EROSION & SEDIMENT CONTROL NOTES

SEA BRIGHT BEACH CLUB

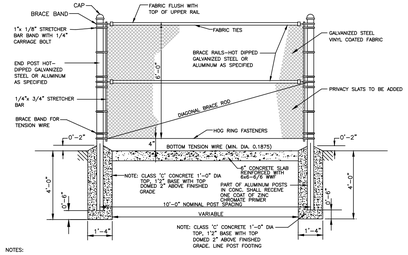
BLOCK 23, LOT 4

BOROUGH OF SEA BRIGHT MONMOUTH COUNTY NEW JERSEY

PROJECT No 2022-015-133	
DRAWN BY WWN/ERH	DESIGNED BY NM/ERH
SCALE N.T.S.	CHECKED BY DAC
DATE JULY 25, 2023	SHEET NO. 9 of 10

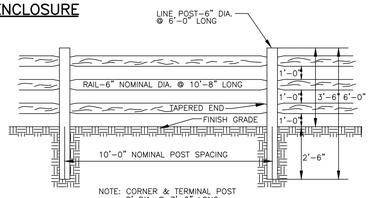


PLAN VIEW



NOTES:
1. FENCE MAY BE ALUMINUM COATED STEEL OR GALVANIZED STEEL TYPE CONSTRUCTION
2. POST SIZES TO BE 4" DIAMETER.
3. FOOTING SIZES VARY WITH NOMINAL FENCE HEIGHT. MINIMUM SHOWN.
4. UNLESS OTHERWISE PROVIDED, FENCE DETAILS SHALL CONFORM TO THE REQUIREMENTS OF ASTM M 181-60.

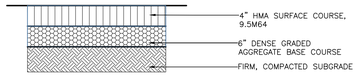
CHAIN LINK FENCE TRASH ENCLOSURE
N.T.S.



NOTE: CORNER & TERMINAL POST 8" DIA. @ 7'-0" LONG

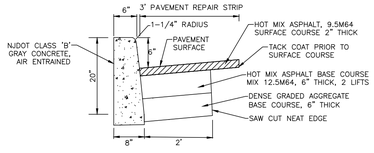
1. THREE RAIL, 3'-6" NOMINAL HEIGHT FENCE IS SHOWN. OTHER ARRANGEMENTS ARE POSSIBLE.
2. POSTS AND RAILS ARE TO BE CYPRESS, WITHOUT UNSOUND KNOTS OR THROUGH CRACKS.
3. ALL MATERIAL TO BE PRESSURE TREATED WITH IN ACCORDDANCE WITH AWPA STANDARD U-1.

POST & RAIL FENCE DETAIL
N.T.S.



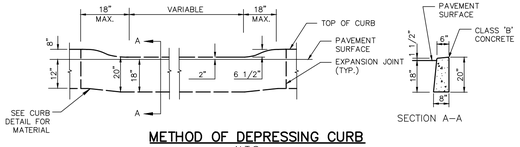
DRIVEWAY PAVEMENT DETAIL
N.T.S.

* ANY HMA REPAIR SHALL BE INFRA-RED HEATED *

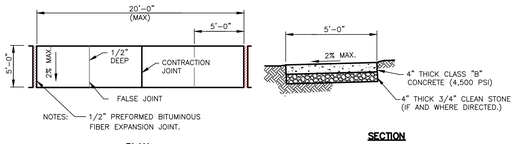


1. EXPANSION JOINTS ALTERNATE EVERY 10 FEET WITH CONSTRUCTION JOINTS. EXPANSION JOINTS SHALL BE FILLED WITH PREFORMED, BITUMINOUS-IMPREGNATED FIBER JOINT FILLER RECESSED 1" FROM THE FACE AND TOP OF THE CURB. SUCH JOINTS SHALL BE INSTALLED BETWEEN CURB AND INLET HEADS
2. ALL JOINTS SHALL EXTEND THE FULL 20" DEPTH OF THE CURB.
3. ALL CONCRETE SHALL BE N.J.D.O.T. CLASS 'B'.
4. ANY PAVEMENT REPLACEMENT SHALL BE FACE FORMED.

MONMOUTH COUNTY 6"X8"X20" CONCRETE CURB AND PAVEMENT DETAIL
N.T.S.



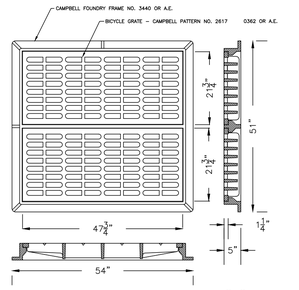
METHOD OF DEPRESSING CURB
N.T.S.



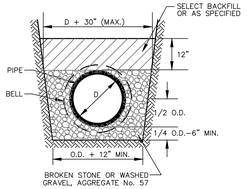
PLAN **SECTION**

1. 6" THICK CONCRETE SHALL EXTEND MIN. OF 3" BEYOND EACH EDGE OF ALL DRIVEWAYS.
2. DIRECTION OF SLOPE AND GRADE TO BE AS SHOWN ON GRADING PLANS.
3. SIDEWALKS IN BARRIER - FREE ACCESS PATHS SHALL COMPLY WITH ADA REQUIREMENTS.

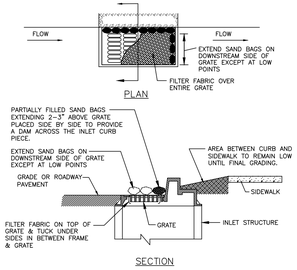
CONCRETE SIDEWALK DETAIL
N.T.S.



DETAIL: FRAME AND GRATE - TYPE "E" INLET
N.T.S.

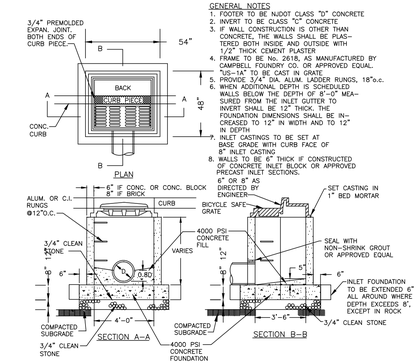


PIPE BEDDING DETAIL
N.T.S.



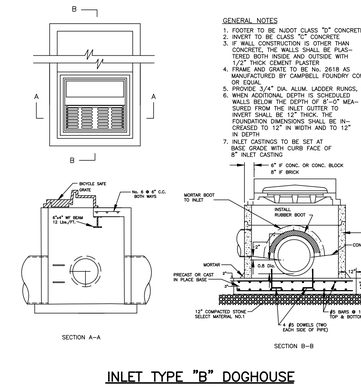
CONSTRUCTION NOTES:
1. FILTER TO REMAIN UNTIL COMPLETION OF FINAL GRADING AND ESTABLISHMENT OF COVER. ALSO, PERIODIC CHECKS MUST BE MADE AFTER EACH RAINFALL TO EXCAVATE AND REMOVE EXCESS SEDIMENT FROM AROUND INLETS.
2. FILTER FABRIC SHALL BE MIRAFI 140N OR APPROVED EQUIVALENT.
3. COMMERCIAL FILTERS ("SILT SACK") MAY BE USED IN LIEU OF ABOVE.

INLET FILTER CURB TYPE 'B'
N.T.S.



GENERAL NOTES
1. FOOTER TO BE NJDOT CLASS "D" CONCRETE
2. INVERT TO BE CLASS "C" CONCRETE
3. IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER
4. FRAME AND GRATE TO BE No. 2618 AS MANUFACTURED BY CAMPBELL FOUNDRY CO. OR APPROVED EQUAL.
5. PROVIDE 3/4" DIA. ALUM. LADDER RUNGS, 18"o.c.
6. WHEN ADDITIONAL DEPTH IS SCHEDULED WALLS BELOW THE DEPTH OF 8'-0" MEASURED FROM THE INLET GUTTER TO INVERT SHALL BE 12" THICK. THE FOUNDATION DIMENSIONS SHALL BE INCREASED TO 12" IN WIDTH AND TO 12" IN DEPTH
7. INLET CASTINGS TO BE SET AT BASE GRADE WITH CURB FACE OF 8" INLET CASTING
8. WALLS TO BE 6" THICK IF CONSTRUCTED OF CONCRETE INLET BLOCK OR APPROVED PRECAST INLET SECTIONS.

TYPE B INLET DETAIL (w/BICYCLE SAFE GRATE)
N.T.S.



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7. INLET CASTINGS TO BE SET AT BASE GRADE WITH CURB FACE OF 8" INLET CASTING

INLET TYPE "B" DOGHOUSE
N.T.S.

CURB RAMP TYPE 1				
H INCHES	X1 FEET	L1 FEET	W FEET
3	2.5	9.6	
4	3.3	10.6	4
5	4.2	12.4	5
6	5.0	14.0	6
7	5.8	15.6	7
8	6.7	17.4	8
9	7.5	19.0	9

CURB RAMP TYPE 2, 5 OR 6	
H INCHES	W FEET
3	4
4	4
5	5
6	6
7	7
8	8
9	9

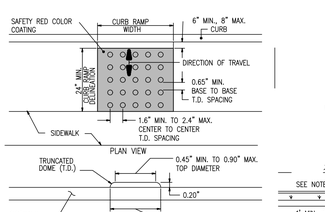
CURB RAMP TYPE 7			
W FEET	H INCHES	X1 FEET	L1 FEET
4 MIN. 6 MAX.	4	4	13
	5	5	15
	6	6	17
	7	7	19
	8	8	21
	9	9	23

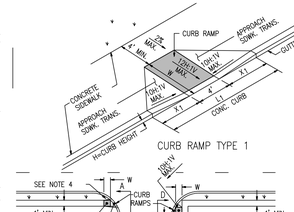
CURB RAMP TYPE 3						
W FEET	H INCHES	X1 FEET	Y FEET	X2 FEET	L2 FEET	
2.5	3	2.5	9	2.5	5	
	4	3.3	10.6	2.5	7	
	5	4.2	12.4	2.5	9	
	6	5.0	14.0	2.5	11	
	7	5.8	15.6	2.5	13	
	8	6.7	17.4	2.5	15	
	9	7.5	19.0	2.5	17	
3.0	3	*	*	*	*	
	4	3.3	10.6	3.0	6	
	5	4.2	12.4	3.0	8	
	6	5.0	14.0	3.0	10	
	7	5.8	15.6	3.0	12	
	8	6.7	17.4	3.0	14	
	9	7.5	19.0	3.0	16	
3.5	3	*	*	*	*	
	4	3.3	10.6	3.5	5	
	5	4.2	12.4	3.5	7	
	6	5.0	14.0	3.5	9	
	7	5.8	15.6	3.5	11	
	8	6.7	17.4	3.5	13	
	9	7.5	19.0	3.5	15	
4.0	3	*	*	*	*	
	4	3.3	10.6	4.0	4	
	5	4.2	12.4	4.0	6	
	6	5.0	14.0	4.0	8	
	7	5.8	15.6	4.0	10	
	8	6.7	17.4	4.0	12	
	9	7.5	19.0	4.0	14	

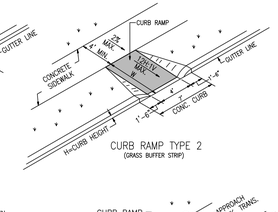
* TYPE 3 RAMP IS NOT APPLICABLE, USE TYPE 1.

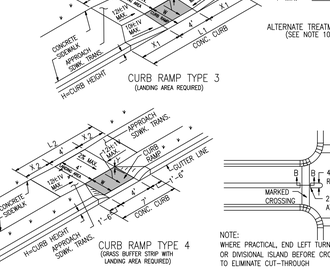
CURB RAMP TYPE 4				
W FEET	H INCHES	X1 FEET	X2 FEET	L2 FEET
2.5	3	2.5	0.5	5
	4	2.5	1.5	7
	5	2.5	2.5	9
	6	2.5	4.5	11
	7	2.5	4.5	13
	8	2.5	5.5	15
	9	2.5	6.5	17
3.0	3	**	**	**
	4	3.0	1	6
	5	3.0	2	8
	6	3.0	3	10
	7	3.0	4	12
	8	3.0	5	14
	9	3.0	6	16
3.5	3	**	**	**
	4	3.5	0.5	5
	5	3.5	1.5	7
	6	3.5	2.5	9
	7	3.5	3.5	11
	8	3.5	4.5	13
	9	3.5	5.5	15
4.0	3	**	**	**
	4	**	**	**
	5	4.0	1	6
	6	4.0	2	8
	7	4.0	3	10
	8	4.0	4	12
	9	4.0	5	14

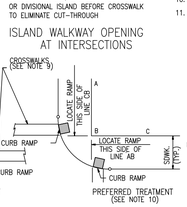
** TYPE 4 RAMP IS NOT APPLICABLE, USE TYPE 2.

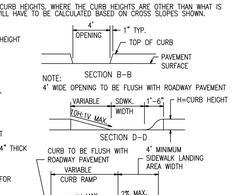




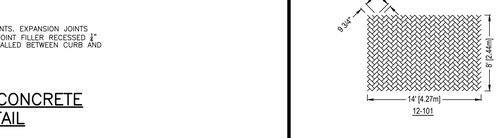








PUBLIC SIDEWALK CURB RAMP DETECTABLE WARNING SURFACE
NTS



WIRE-ROPE GRID	
XDG-12-101	8'L x 14'W DIAGONAL HERRINGBONE
XDG-12-102	8'W x 14'L OPEN DIAGONAL HERRINGBONE WITH TILE BORDER
XDG-12-103	8'W x 14'L CLOSED DIAGONAL HERRINGBONE WITH TILE BORDERS
XDG-12-104	6'L x 11'W DIAGONAL HERRINGBONE
XDG-12-105	6'W x 11'L OPEN DIAGONAL HERRINGBONE WITH TILE BORDER
XDG-12-110	2'W x 12'10"L DIAGONAL HERRINGBONE EDGER
XDG-12-111	3'1"W x 7'8"L OPEN DIAGONAL HERRINGBONE

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. ALL DIMENSIONS ARE CONSIDERED TRUE AND REFLECT MANUFACTURER'S SPECIFICATIONS.
3. DO NOT SCALE DRAWING.
4. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info REFERENCE NUMBER 4758-044.

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4758-044 REVISION DATE 09/24/2012

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www.flinttrading.com

REVISION NO.	DATE	REVISION
2	01/07/2025	REVISED PER CLIENT DIRECTION
1	10/23/2024	REVISED PER CLIENT DIRECTION

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INTEGRITY INNOVATION EXCELLENCE

PRELIMINARY & FINAL SITE PLAN

CONSTRUCTION DETAILS

SEA BRIGHT BEACH CLUB
BLOCK 23, LOT 4

BOROUGH OF SEA BRIGHT MONMOUTH COUNTY NEW JERSEY

PROJECT No	2022-015-133
DRAWN BY	WWN/ERH
DESIGNED BY	NM/ERH
SCALE	N.T.S.
CHECKED BY	DAC
DATE	JULY 25, 2023
SHEET NO.	10 of 10

J:\2022-015-999 Sea Bright Beach Club\DWG\2022-015-999 - 01-10 SITE 2024-10-24.dwg