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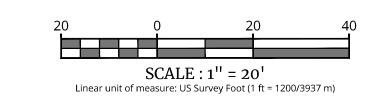
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(257) SOSE (5) ROVI -\ (252) SPPA ¬ (5) ROVI ¬ (5) MYPE ¬ (188) SCLI ¬ (288) SOSE ¬ ┌ (5) PRMA \ (62) ARUU - (133) SOSE -(3) ROVI (5) MŸPE (14) PAAM (3) √ (9) MYPE 
√ FILL LOD (1,547) AMBC1

LANDSCAPE PLAN (L-1) SCALE: 1" = 20'

BEACH AVENUE (CR 604)



SPACED 24" O.C.

BEARBERRY

SPACED 24" O.C.

- I. REFER TO SHEET **L8 (L-208)** FOR PLANTING NOTES, PLANTING DETAILS, AND PLANTING SCHEDULE.
- PLANT LOCATIONS INDICATED ON THE LANDSCAPE PLAN ARE APPROXIMATE; ACTUAL LOCATION OF PLANT MATERIAL IS SUBJECT TO SITE CONDITIONS.
- 3. THE LANDSCAPE PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE SHOULD ANY PLANT MATERIAL DISCREPANCIES OCCUR.
- 4. THIS SHEET TO BE USED FOR LANDSCAPE PURPOSES ONLY

# **PLANTING LEGEND**

SHRUB PLANTINGS SPACED 4' O.C.

FRONTAL DUNE PLANTINGS

BEACH PLUM SPACED 4' O.C.

VIRGINIA ROSE SPACED 4' O.C.

SPACED 18" O.C.

'CAPE' AMERICAN BEACH GRASS

AMBC1
'CAPE' AMERICAN BEACH GRASS
SPACED 36" O.C.

BACK DUNE PLANTINGS

**HUTO** BEACH HEATHER SPACED 14" O.C.

PAAA 'ATLANTIC' COSTAL PANICGRASS SPACED 30" O.C.

'DUNE CREST GERMPLASM' COASTAL LITTLE BLUESTEM SPACED 24" O.C.

SOSE 'MONARCH GERMPLASM' SEASIDE GOLDEN ROD

22003409G LANDSCAPE PLAN

Colliers

& Design

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

BITTER PANIC GRASS SPACED 36" O.C.

SPPA 'AVALON' SALTWATER CORDGRASS SPACED 24" O.C.

L-201.00

Richard C. Maloney

NEW JERSEY LICENSED PROFESSIONAL ENGINEER

LICENSE NUMBER: GE39023

COLLIERS ENGINEERING & DESIGN, INC.

N.J. C.O.A. #: 24GA27986500

CONSTRUCTION DRAWINGS

FOR

CAPE MAY SEAWALL

**EXTENSION** 

**PRELIMINARY** 

CITY OF CAPE MAY CAPE MAY COUNTY

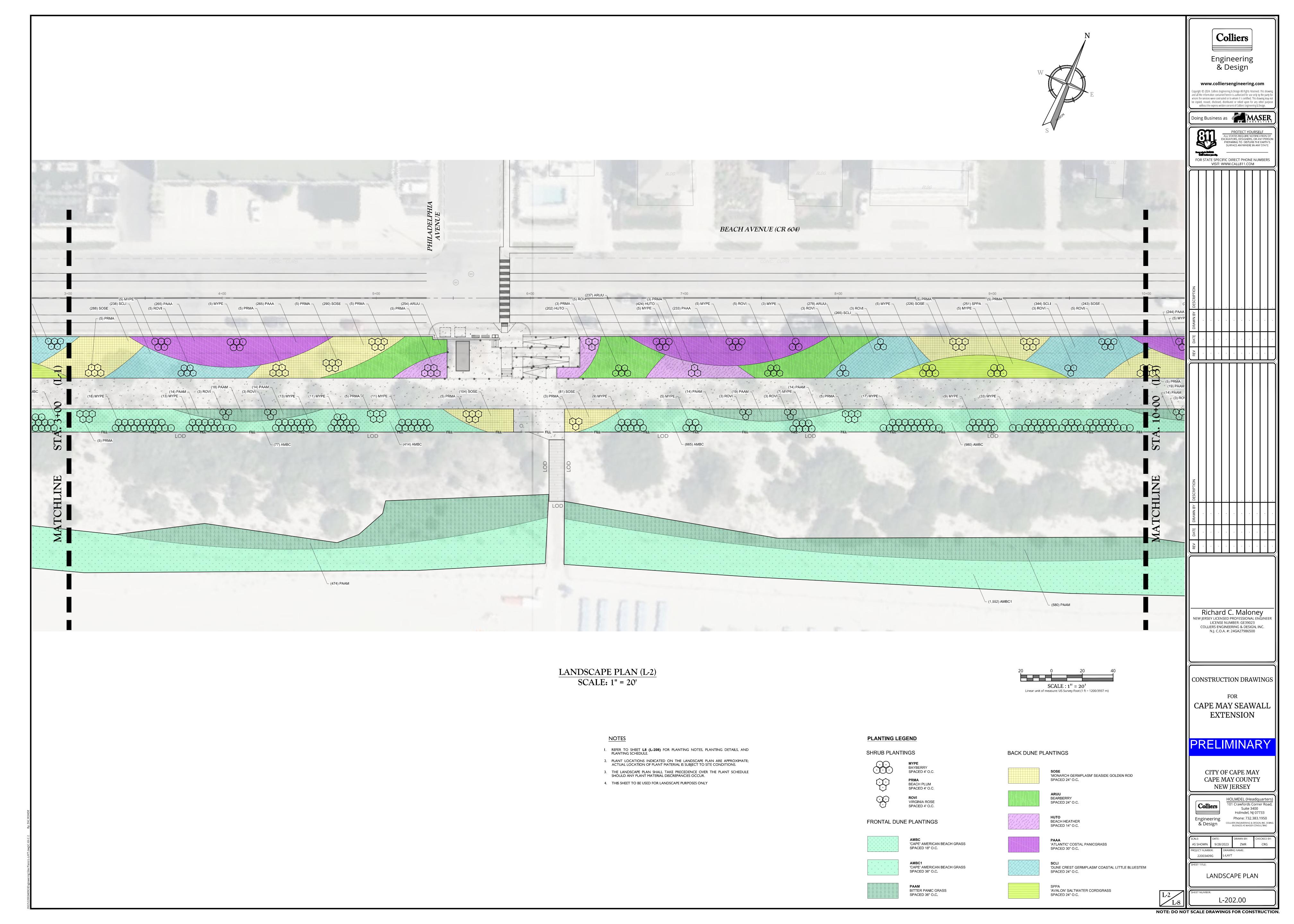
**NEW JERSEY** 

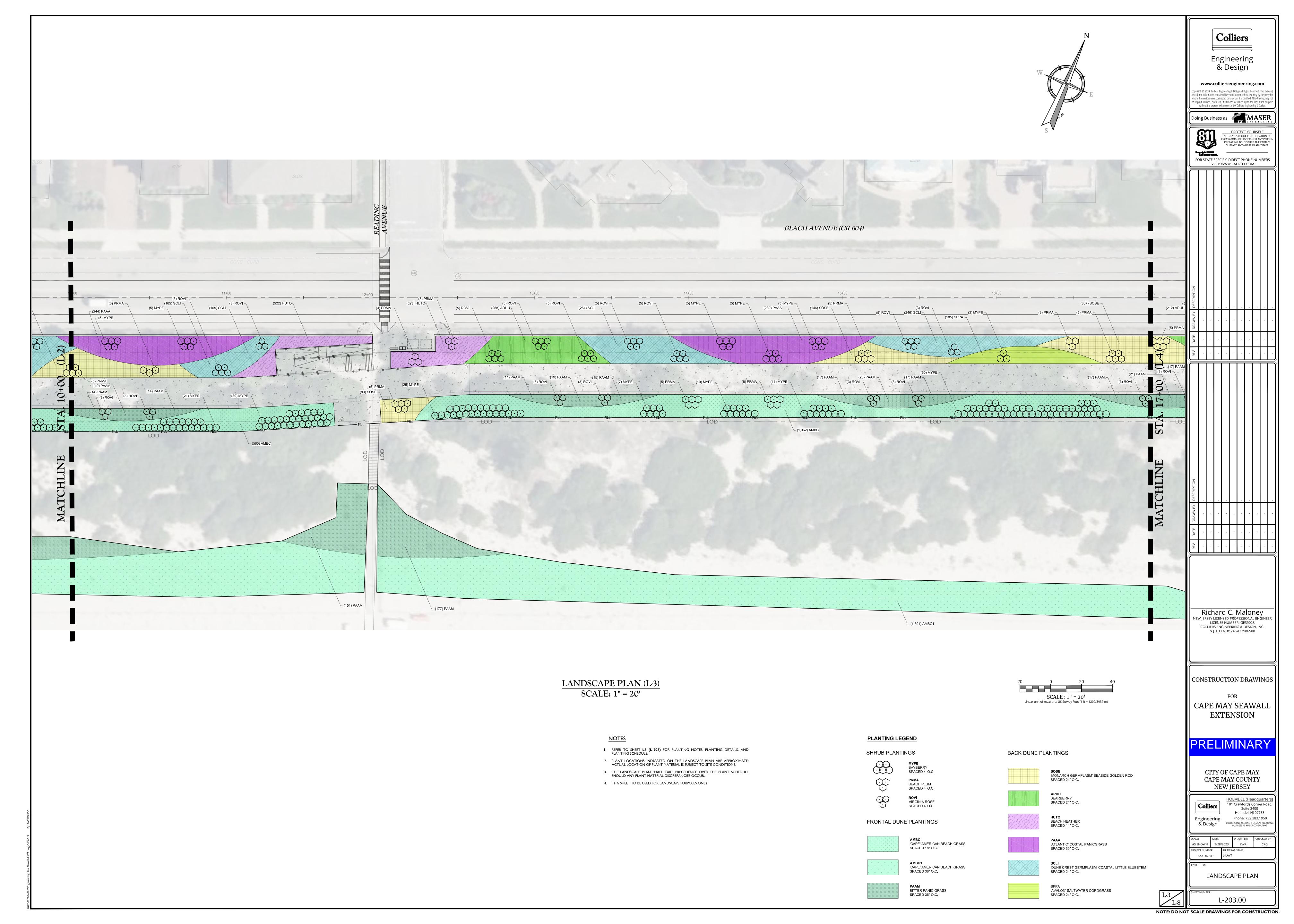
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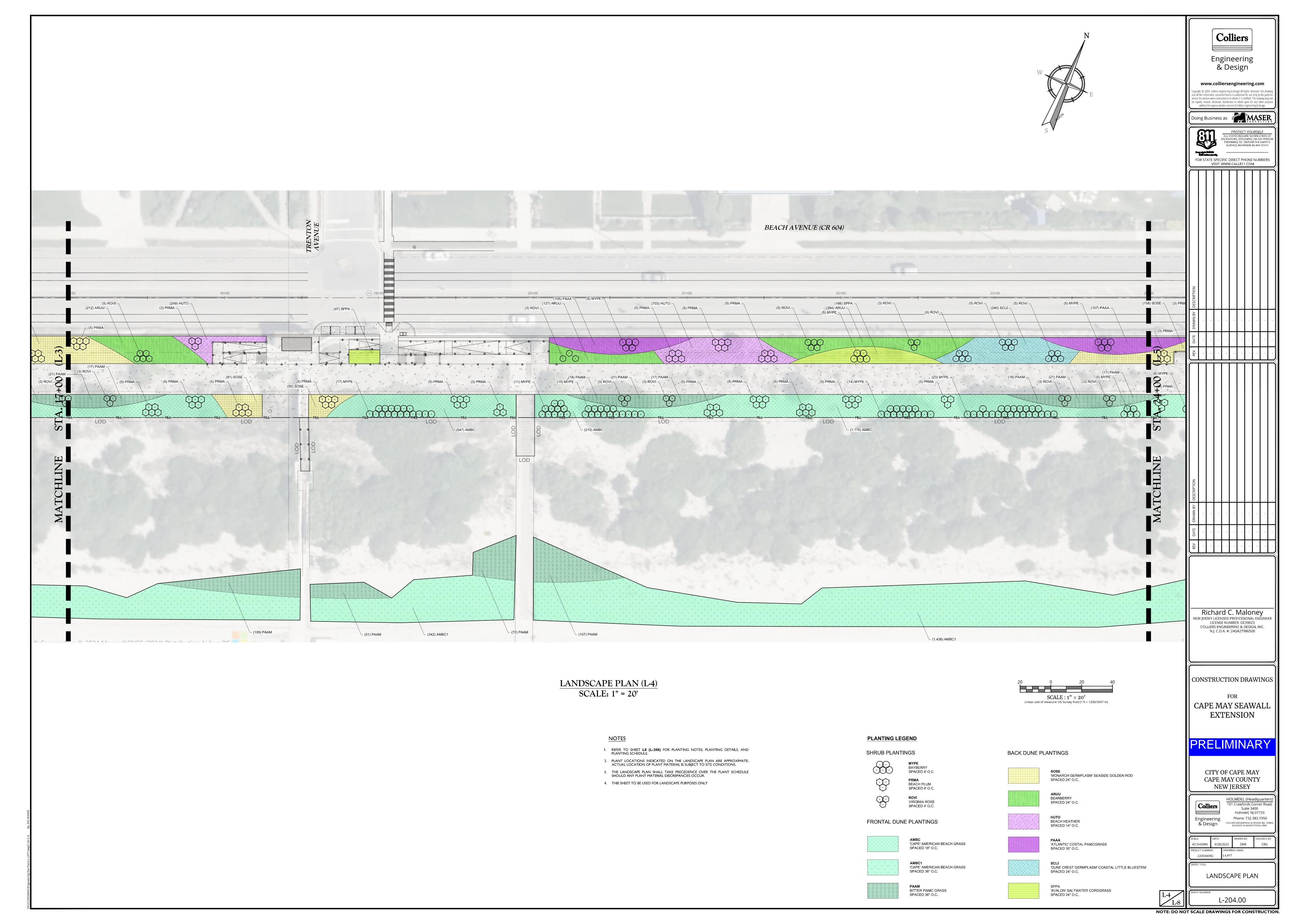
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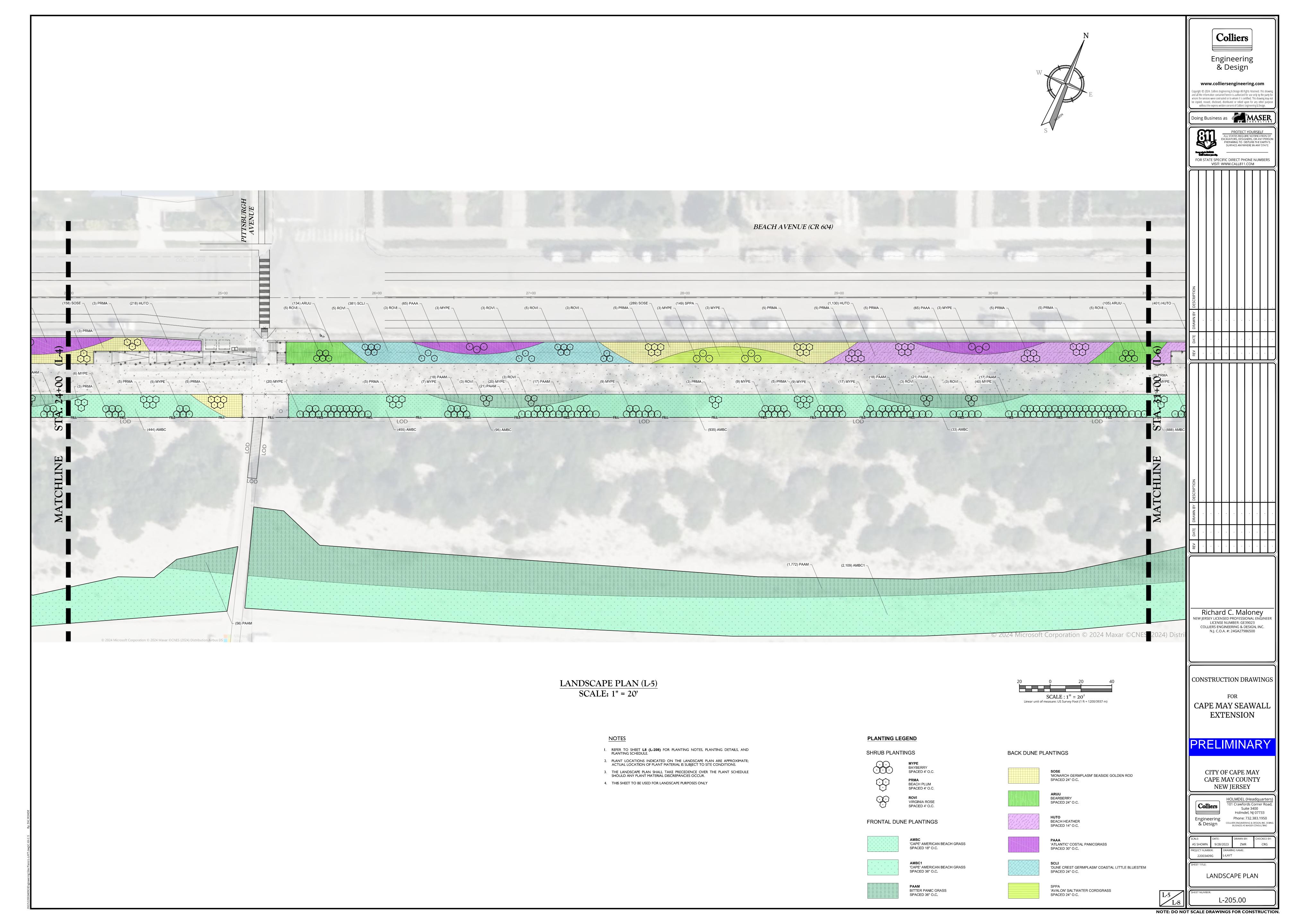
Suite 3400 Holmdel, NJ 07733

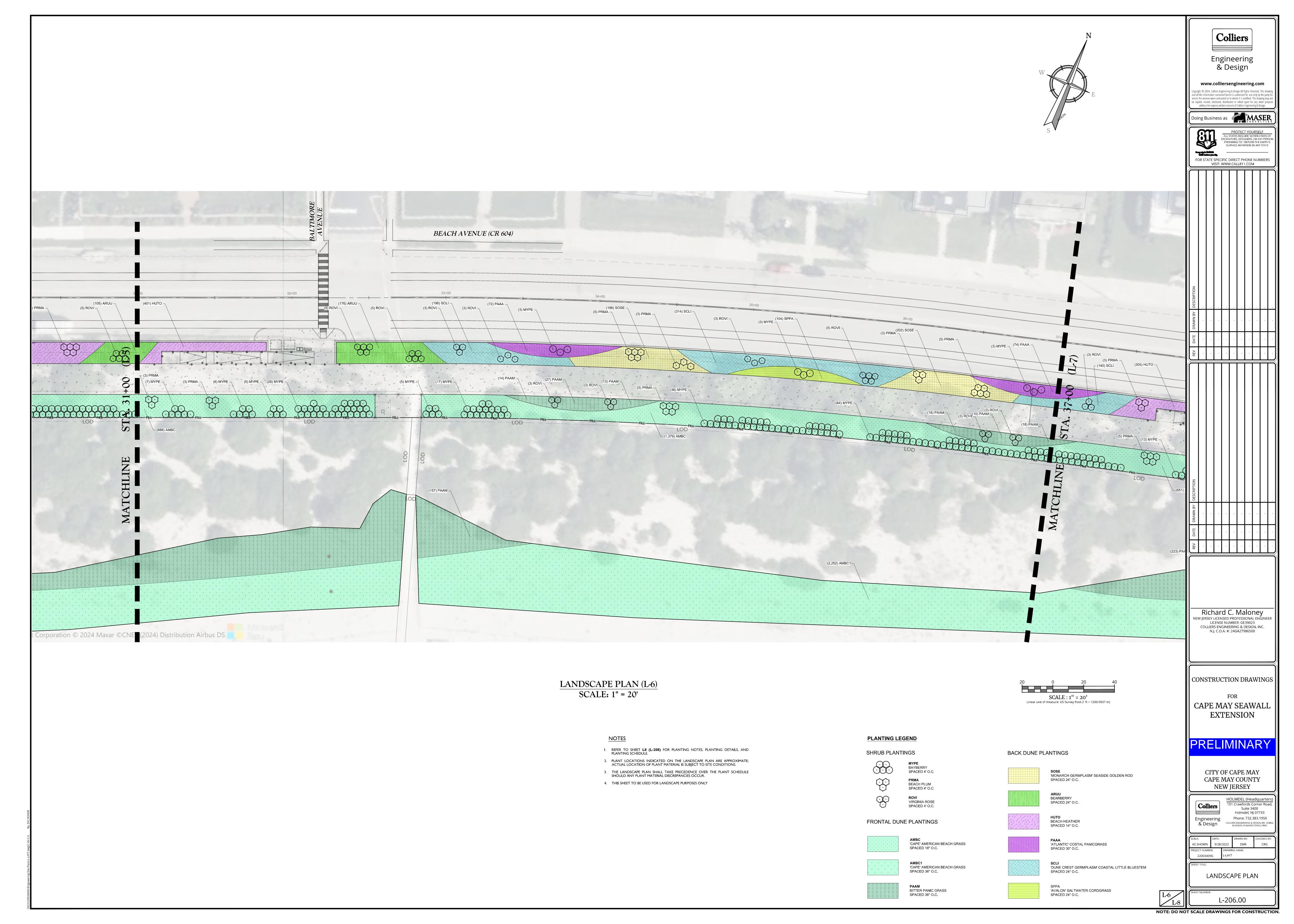
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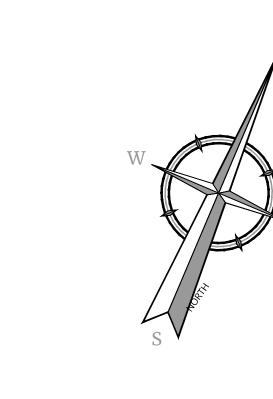












SCALE: 1" = 20'

SPACED 24" O.C.

BEARBERRY

SPACED 24" O.C.

**HUTO** BEACH HEATHER

SPACED 14" O.C.

SPACED 30" O.C.

SPACED 24" O.C.

SPACED 24" O.C.

'ATLANTIC' COSTAL PANICGRASS

'AVALON' SALTWATER CORDGRASS

BACK DUNE PLANTINGS

**PLANTING LEGEND** 

SHRUB PLANTINGS

SPACED 4' O.C.

BEACH PLUM

SPACED 4' O.C.

VIRGINIA ROSE

SPACED 18" O.C.

SPACED 36" O.C.

BITTER PANIC GRASS SPACED 36" O.C.

'CAPE' AMERICAN BEACH GRASS

AMBC1 'CAPE' AMERICAN BEACH GRASS

SPACED 4' O.C.

FRONTAL DUNE PLANTINGS

Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

'MONARCH GERMPLASM' SEASIDE GOLDEN ROD

'DUNE CREST GERMPLASM' COASTAL LITTLE BLUESTEM



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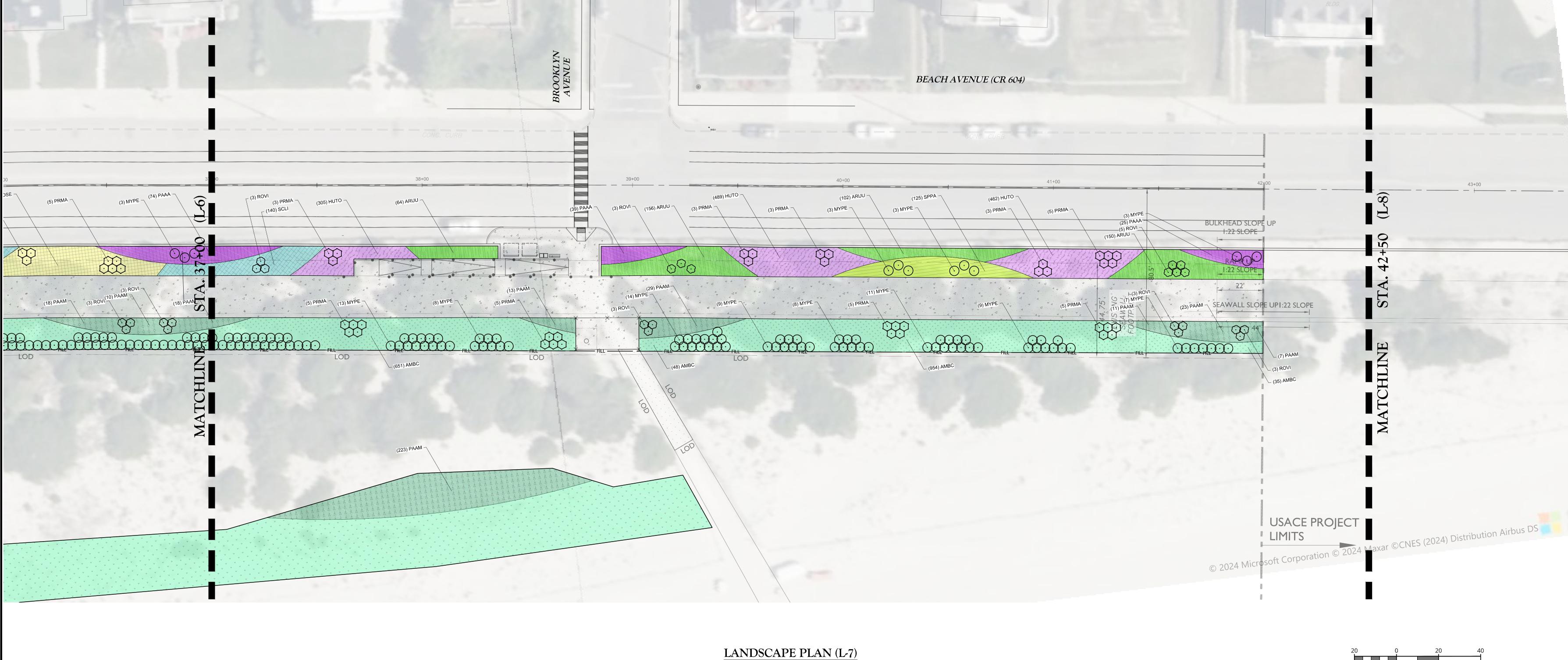
Engineering & Design

22003409G

LANDSCAPE PLAN

L-207.00

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



SCALE: 1" = 20'

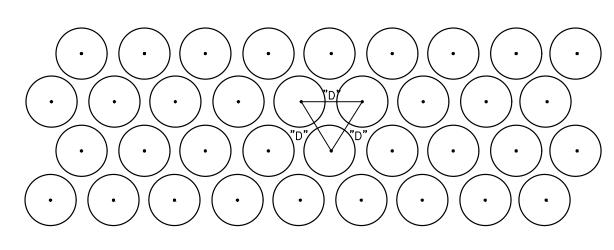
<u>NOTES</u>

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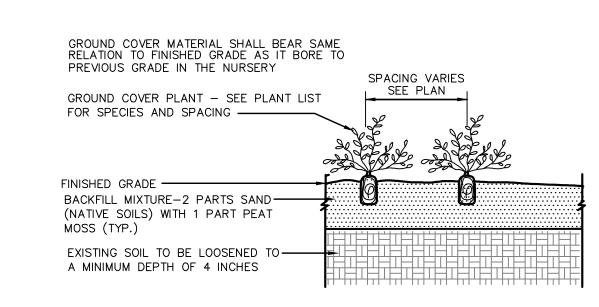
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D = DIMENSION OF PLANT SPACING (SHRUB, GROUNDCOVER, OR PERENNIAL) AS INDICATED ON PLANS.

### PLANT SPACING DETAIL

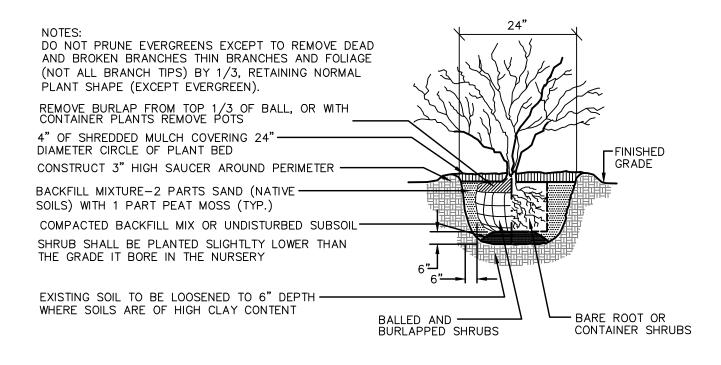


#### GROUNDCOVER PLANTING DETAIL N.T.S.

#### REQUIRED SOIL AMMENDMENTS:

ALL PLANTING PITS (TREES, SHRUBS AND PERENNIALS) SHALL HAVE ADDED THE FOLLOWING SOIL AMENDMENTS AS MANUFACTURED BY PLANT HEALTH CARE INC., 1—800—421—9051, OR APPROVED EQUAL. AMENDMENTS SHALL BE ADDED AS PER MANUFACTURER'S RATES AND RECOMMENDATIONS:

A. HEALTHY START ORGANIC FERTILIZER 3-4-3 WITH BENEFICIAL MYCORRHIZAL FUNGI AND BACTERIA B. TERRA-SORB POTASSIUM HYDROGEL



# <u>DUNE SHRUB PLANTING DETAIL</u>

# PERMITEE REQUIREMENTS

# PERMITTING CONDITION

materials, pre-construction earth movement, other site disturbance, and all authorized activities, the permittee shall complete mitigation for the direct loss of critical wildlife habitat. Critical wildlife habitat mitigation for the footprint of the area of the project must be submitted within 30 days of the date of permit issuance for review and approval to the NJDEP watershed and land management program, endangered & threatened species unit. The permittee shall first submit a proposal of mitigation for direct impacts to 2.86 acres of stopover habitat for migratory birds at a 2:1 ratio. Once approved, the mitigation must be completed within 180 days of the date of the permit or prior to or concurrent with construction. After the mitigation proposal is accepted by the division in writing, the permittee shall then proceed with the placement of a conservation restriction over the approved mitigation site. The permittee shall record the conservation restriction on the deed and shall file the restriction with the appropriate county clerk's office (the registrar of deeds and mortgages). The conservation restriction shall run with the land and be binding upon all successive owners. A copy of the recorded conservation restriction shall be forwarded to and received by the division. No project site preparation and authorized activities may commence until the required conservation restriction has been recorded and a signed copy has been received by the division of land resource protection. Any activities undertaken on the site before a copy of the recorded restriction is received by the division will be considered a violation of the coastal area facility review act.

Prior to the commencement of site preparation, inclusive of site clearing, project staging, onsite storage of

# MONITORING & SURVIVORSHIP REQUIREMENTS:

The permittee is required to monitor the plantings for five full growing seasons beginning the year after the plantings have been completed. The permittee shall submit monitoring reports to the division no later than December 31st of each full monitoring year (especially for years 1, 2 and 5). All monitoring reports must include the standards identified in the checklist entitled, "wetland mitigation monitoring project checklist" (available on the DLRP website).

When the required monitoring period has expired, and the permittee has submitted the final monitoring report, the division will make the finding that the mitigation (planting) effort is either a success or a failure. the effort will be considered a success if the following criteria are demonstrated:

i.) 85 % of plantings, which are species identified on the approved site plan, are surviving and 85% of the area designated for planting is covered by these species;

ii.) All planted material must be healthy and thriving; and, iii.) The site has less than 10% coverage by species that are not native to this region and or are invasive.

The permittee is responsible for assuming all liability for any corrective work necessary to meet the success criteria established above. The division will notify the permittee in writing if the mitigation effort is considered a failure. Within 30 days of that notification, the permittee shall submit a revised mitigation plan to meet the success criteria identified above for division review and approval.

#### ---THREE CULM MINIMUM PER PLANT ----- NATIVE SAND/ SOIL (TO BE FIRMED AROUND ROOTS UPON INSTALLATION) APPLY ORGANIC FERTILIZER AS REQUIRED —— INSTALL SEEDLINGS SO THAT 1/2 OF SEEDLING IS COVERD BY SAND. ENSURE FIRST BRANCHED LEAF FROM THE MAIN ROOT IS COVERD AND MOIST. — FINISHED GRADE —— PLANTING SOIL OR DUNE SAND BEACH DUNE GRASS IS AVAILABLE AT THESE NOTED SOURCES. PINELANDS NURSERY, COLUMBUS, NJ, 609-291-9486, CONTACT: DON KNEZICK COASTAL NATIVE'S NURSERY, MAURICETOWN, NJ 856-785-1102, CONTACT: ARNOLD CLEMENSON CONTRACTOR MUST SUBMIT OTHER PLANT SOURCES ON SOURCES COMPANY LETTERHEAD WITH CONTACT PERSON'S NAME, PHONE AND LOCATIONS FOR REVIEW AND APPROVAL BY THE LANDSCPAE ARCHITECT PRIOR TO PURCHASE FROM SOURCE NOT LISTED ABOVE. 2" PLUG WITH ROOT MEDIUM (TYP) - ROOTS (TYP)

# BEACHGRASS INSTALLATION DETAIL

WATER SEEDLINGS AT LEAST

BEACH GRASS PLANTING NOTES: (NOT FOR SEEDING)

1. PLANT BEACH GRASS SPRIGS (BARE ROOT) FROM OCTOBER 1ST TO MARCH 1ST DURING THE PLANT'S DORMANCY IN THE MID-ATLANTIC REGION (NEW JERSEY COAST). BEACH DUNE GRASS PLUGS (CONTAINERIZED) MAY BE USED WHERE ACCEPTABLE, SUBMIT NURSERY OR PLANT SOURCES AND

ONCE A WEEK IF WEATHER IS DRY

- PLANTING SCHEDULES. 3. DO NOT PLANT WHEN PLANTING SOILS OR DUNE SAND IS FROZEN.
- 4. DO NOT PLANT BEACH GRASS DURING THE SUMMER MONTHS.

PLANT SCHEDULE -

340

273

**GROUND COVERS** 

1,533

PLANT DATA:

Plant Species

SHRUB

Bayberry

Beach Plum

Virginia Rose

Bearberry

Beach Heather

Bitter Panicgrass

**GROUNDCOVER** 

'Cape' American Beachgrass

'Atlantic' Coastal Panicgrass

Avalon' Saltmeadow Cordgrass

Monarch Germplasm' Seaside Goldenrod

ERENNIAL

'Dune Crest Germplasm' Coastal Little Bluestem | Schizachyrium littorale

SHRUBS

PRMA

AMBC1

AMBC

PAAM

SCLI

SPPA

CODE QTY BOTANICAL NAME

MYRICA PENSYLVANICA

ARCTOSTAPHYLOS UVA-URSI

PRUNUS MARITIMA

2,981 SCHIZACHYRIUM LITTORALE

SOLIDAGO SEMPERVIRENS

ROSA VIRGINIANA

6,500 HUDSONIA TOMENTOSA

4,679 PANICUM AMARUM

1,279 SPARTINA PATENS

- 5. PANTING CAN BE DONE BY HAND WITH HAND TOOLS OR FOR LARGER AREAS WITH MECHANICAL EQUIPMENT SUITABLE FOR THIS 6. THE BEACH GRASS STEM OR CULMS WILL BE USED FOR THIS PLANTING. A THREE STEM MINIMUM WILL BE REQUIRED FOR EACH PLANT LOCATION.
- 7. PLANT THREE CULMS AT REQUIRED SPACING AS INDICATED IN PLANT LIST. IF SPACING IS NOT INDICATED USE THE FOLLOWING: 18" ON CENTER FOR TYPICAL PLANTINGS AND SAND DUNES 24" ON CENTER FOR PROTECTED PLANTINGS, BACK DUNE AREAS
- 12" ON CENTER FOR FORE DUNE AND EXPOSED AND WINDY PLANTING AREAS. 7. PLANTING WILL BE IN A STAGGERED, ALTERNATE ROWS. REFER TO PLANT SPACING DETAIL THIS SHEET.
- 8. PLANT BEACH GRASS CULM AT LEAST 8" DEEP. 9. CONTRACTORS RESPONSIBILITY TO TO KEEP CULM AND ROOT MOIST UPON PURCHASE, DELIVERY AND STORAGE OF PLANTS BEFORE AND DURING THE PLANTING INSTALLATION. PURCHASE PLANT STOCK THAT IS DORMANT ONLY AND DISPLAYS VERY LITTLE NEW
- 10. CONTRACTOR RESPONSIBLE TO PROVIDE TEMPORARY IRRIGATION, MEANS AND METHODS TO BE SUBMITTED AND REVIEWED BY THE LANDSCAPE ARCHITECT.
- 11. FERTILIZING OF NEWLY PLANTED BEACH GRASS IS REQUIRED. . APPLY FERTILIZER 30 DAYS AFTER PLANTING BUT NO EARLIER THAN APRIL 1ST IN THE MID-ATLANTIC REGION (NEW JERSEY). 13. FERTILIZE WITH AN INORGANIC FERTILIZER HIGH IN NITROGEN CONTENT . USE FERTILIZERS WITH N-P-K ANALYSIS OF THE FOLLOWING: • 30-10-C
- 16-8-8 13. APPLY FERTILIZER AT THREE INSTANCES, ONCE IN THE SPRING, SECOND IN EARLY SUMMER AND THIRD LATE SUMMER A A RATE OF 1LB / OF NITROGEN PER 1,000 SQ. FT FOR EACH APPLICATION.
- 14. TAKE SOIL/ SAND SAMPLES TO DETERMINE FERTILIZER REQUIREMENTS FOR BEACH GRASS. AFTER STAND OF BEACH GRASS HAS ESTABLISHED. REDUCE FERTILIZER AS INDICATED IN TESTING. FERTILIZE STAND AS REQUIRED, AND WHEN STAND APPEARS 15. CONTRACTOR MUST PROTECT BEACH GRASS PLANTING FROM VEHICULAR, PEDESTRIAN AND PET TRAFFIC. RETAIN APPROVED
- PROTECTION METHODS AS REQUIRED BY LANDSCAPE ARCHITECT. SUBMIT METHODS FOR REVIEW. 16. DUNE (SURFACE) FENCING AT PERIMETER OF NEWLY PLANTED AREAS MUST BE INSTALLED AND MAINTAINED UNTIL ACCEPTANCE
- AND DURING MAINTENANCE PERIOD. 17. ANY DUNE BLOWOUT, WASHOUT OR OTHER NATURAL AND HUMAN PRODUCED DAMAGE MUST BE REPAIRED QUICKLY AND IN A TIMELY AND WORKMAN LIKE MANNER.

**COMMON NAME** 

BAYBERRY

BEACH PLUM

VIRGINIA ROSE

BEARBERRY

10,829 AMMOPHILA BREVILIGULATA 'CAPE' CAPE AMERICAN BEACHGRASS

13,774 AMMOPHILA BREVILIGULATA 'CAPE' CAPE AMERICAN BEACHGRASS

PANICUM AMARUM VAR. AMARULUM 'ATLANTIC' COSTAL PANICGRASS

BEACH HEATHER

BITTER PANICGRASS

Scientific Name

|Morella pensylvanica

Arctostaphylos uva-ursi

Ammophila breviligulata

Panicum amarum var. amarulum | March to May

Hudsonia tomentosa

lPanicum amarum

Spartina patens

Solidago sempervirens

Prunus martima

Rosa virginiana

'DUNE CREST' COASTAL LITTLE BLUESTEM

'MONARCH GERMPLASM' SEASIDE GOLDENROD 1 QT.

'AVALON' SALTMEADOW CORDGRASS

COND.

3 GAL.

3 GAL.

3 GAL.

1 QT.

1 QT

Planting Season

March 15 to April 30

Bare-root: Nov. to April

May 1 to June 15

March 1 to May 15

2 1/2" PEA POT

### PLANTING NOTES:

- 1. THE CONTRACTOR SHALL REVIEW ARCHITECTURAL/ENGINEERING PLAN TO BECOME THOROUGHLY FAMILIAR WITH GRADING AND SURFACE UTILITIES.
- 2. ALL EQUIPMENT AND TOOLS SHALL BE PLACED SO AS NOT TO INTERFERE OR HINDER THE PEDESTRIAN AND VEHICULAR TRAFFIC FLOW.
- 3. THE CONTRACTOR SHALL COORDINATE WITH LIGHTING AND IRRIGATION CONTRACTORS REGARDING TIMING OF INSTALLATION OF PLANT MATERIAL AS REQUIRED.
- 4. THE CONTRACTOR SHALL INSURE THAT HIS WORK DOES NOT INTERRUPT ESTABLISHED OR PROJECTED DRAINAGE
- 5. DURING PLANTING OPERATIONS, EXCESS WASTE MATERIALS SHALL BE PROMPTLY AND FREQUENTLY REMOVED FROM THE SITE.
- 6. THE CONTRACTOR SHALL CALL N.J. UNDERGROUND UTILITY LOCATION SERVICE UTILITY A MINIMUM OF THREE DAYS PRIOR TO ANY EXCAVATION. THE CONTRACTOR IS ADVISED OF THE EXISTENCE OF UNDERGROUND UTILITIES ON THE SITE. THEIR EXACT LOCATION SHALL BE VERIFIED IN THE FIELD WITH THE OWNER OR GENERAL CONTRACTOR PRIOR TO COMMENCEMENT OF ANY DIGGING OPERATIONS. IN THE EVENT THEY ARE UNCOVERED, THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DAMAGE TO UTILITIES AND SUCH DAMAGE SHALL NOT RESULT IN ANY ADDITIONAL EXPENSES TO THE
- 7. IF UTILITY LINES ARE ENCOUNTERED IN EXCAVATION FOR PLANTING PITS, OTHER LOCATIONS FOR PLANTS SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COMPENSATION. NO CHANGES OF LOCATION SHALL BE MADE WITHOUT APPROVAL OF THE LANDSCAPE ARCHITECT.

OWNER. ANY DAMAGE OF UNREPORTED LINES SHALL NOT BE THE RESPONSIBILITY OF THE CONTRACTOR.

- 8. MAINTAIN POSITIVE DRAINAGE OUT OF PLANTING BEDS AT A MINIMUM 2% SLOPE. ALL GRADES, DIMENSIONS, AND EXISTING CONDITIONS SHALL BE VERIFIED BY THE CONTRACTOR ON SITE BEFORE CONSTRUCTION BEGINS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE
- 9. EVERY POSSIBLE SAFEGUARD SHALL BE TAKEN TO PROTECT BUILDING SURFACES, ROADWAYS, SIDEWALKS, EQUIPMENT, AND FURNISHINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OR INJURY TO PERSONS OR PROPERTY WHICH MAY OCCUR AS A RESULT OF HIS NEGLIGENCE IN THE EXECUTION OF THE WORK.
- 10. IN THE EVENT OF VARIATIONS BETWEEN WRITTEN QUANTITIES SHOWN ON THE PLAN AND THE PLANT LIST, THE PLANS SHALL CONTROL. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL PLANT QUANTITIES PRIOR TO THE COMMENCEMENT OF WORK. SOD AND SEED QUANTITY TAKEOFFS ARE THE RESPONSIBILITY OF THE CONTRACTOR. ALL DISCREPANCIES SHALL BE REPORTED TO THE LANDSCAPE ARCHITECT FOR CLARIFICATION PRIOR TO BIDDING. THE CONTRACTOR SHALL FURNISH PLANT MATERIAL IN SIZES AS SPECIFIED IN PLANT LIST.
- 11. PLANTS SHALL BE LOCATED AS SHOWN ON THE DRAWINGS OR AS DESIGNATED IN THE FIELD. THE CONTRACTOR SHALL STAKE ALL MATERIAL LOCATED ON THE SITE FOR REVIEW AND/OR ADJUSTMENT BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING. ALL LOCATIONS ARE TO BE APPROVED BY THE LANDSCAPE ARCHITECT BEFORE EXCAVATION.
- 12. PLANTS SHALL CONFORM TO CURRENT "AMERICAN STANDARDS FOR NURSERY STOCK" BY AMERICAN ASSOCIATION OF NURSERYMEN (AAN), PARTICULARLY WITH REGARD TO SIZE, GROWTH, SIZE OF BALL, AND DENSITY OF BRANCH STRUCTURE. PLANT MATERIAL SHALL BE TAGGED AT THE SOURCE BY THE LANDSCAPE
- 13. ALL PLANTS (B&B OR CONTAINER) SHALL BE PROPERLY IDENTIFIED BY WEATHERPROOF LABELS SECURELY ATTACHED THERETO BEFORE DELIVERY TO PROJECT SITE. LABELS SHALL IDENTIFY PLANTS BY NAME,

ARCHITECT UNLESS THIS REQUIREMENT IS SPECIFICALLY WAIVED.

- SPECIES, AND SIZE. LABELS SHALL NOT BE REMOVED UNTIL THE FINAL INSPECTION BY THE LANDSCAPE ARCHITECT OR AGENT IN CHARGE 14. ANY MATERIAL AND/OR WORK MAY BE REJECTED BY THE LANDSCAPE ARCHITECT IF IT DOES NOT MEET THE
- REQUIREMENTS OF THE SPECIFICATIONS. ALL REJECTED MATERIALS SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR. 15. NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN CONSENT OF THE OWNER OR LANDSCAPE ARCHITECT
- 16. THE LANDSCAPE ARCHITECT OR OWNER SHALL HAVE THE RIGHT, AT ANY STAGE OF THE OPERATIONS, TO REJECT ANY AND ALL WORK AND MATERIAL WHICH, IN HIS OPINION, DOES NOT MEET THE REQUIREMENTS OF
- 17. THE CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR STABILITY AND CONDITIONS OF ALL TREES, SHRUBS, DUNE GRASS AND PLANTS INSTALLED. CONTRACTOR WILL BE LEGALLY LIABLE FOR ANY DAMAGE CAUSED BY INSTABILITY
  OF ANY PLANT MATERIALS AND SAND DUNES. STAKING, AND FENCING TO STABILIZING DUNES WITH AS REQUIRED
- OR USE OF OTHER REVIEWED AND AGREED UPON MEANS AND METHODS MAYBE REQUIRED. 18. ALL PROPOSED TREES TO BE INSTALLED EITHER ENTIRELY ON OR ENTIRELY OUT OF PLANTING BEDS. PLANTING BED LINES ARE NOT TO BE OBSTRUCTED. ALL SHRUBS AND GROUND COVER AREAS SHALL BE PLANTED IN
- CONTINUOUS PREPARED BED AND TOP DRESSED WITH 4-INCH SHREDDED HARDWOOD MULCH. MULCH SHALL HAVE BEEN SHREDDED WITHIN THE LAST SIX MONTHS. AREAS OF DUNE GRASS DOES NOT REQUIRE MULCH. 19. ALL PLANTING BEDS ADJACENT TO LAWN, SOD, OR SEEDED AREAS SHALL BE SPADE EDGED.
- 20. MAINTENANCE SHALL BEGIN AFTER EACH PLANT HAS BEEN INSTALLED AND SHALL CONTINUE UNTIL 90 DAYS AFTER FINAL ACCEPTANCE BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE. MAINTENANCE INCLUDES WATERING, PRUNING, WEEDING, FERTILIZING, MULCHING, REPLACEMENT OF SICK OR DEAD PLANTS, AND ANY OTHER CARE NECESSARY FOR THE PROPER GROWTH OF THE PLANT MATERIAL. THE CONTRACTOR MUST BE ABLE TO PROVIDE CONTINUED MAINTENANCE IF REQUESTED BY THE OWNER.
- UPON COMPLETION OF ALL LANDSCAPING, AN ACCEPTANCE OF THE WORK SHALL BE HELD. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT OR OWNER FOR SCHEDULING THE INSPECTION AT LEAST SEVEN (7) DAYS PRIOR TO THE ANTICIPATED INSPECTION DATE
- 22. ALL TREES, SHRUBS, GROUND COVERS AND DUNE GRASS SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR, AS DICTATED BY THE CLIENT, MUNICIPALITY AND REVIEWING STATE AGENCY FROM THE DATE OF ACCEPTANCE. REPLACEMENT PLANTS WILL BE GUARANTEED FOR AN ADDITIONAL 90 DAYS- ONE YEAR AS REQUIRED.
- 23. THE CONTRACTOR IS RESPONSIBLE FOR TESTING PROJECT SOILS. THE CONTRACTOR IS TO PROVIDE A CERTIFIED SOILS REPORT TO THE OWNER AND THEIR REPRESENTATIVE. THE CONTRACTOR SHALL VERIFY THAT THE SOILS ON THE SITE ARE ACCEPTABLE FOR THE PROPER GROWTH OF THE PROPOSED PLANT MATERIAL. SHOULD THE CONTRACTOR FIND UNSATISFACTORY SOIL CONDITIONS. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE SOIL AMENDMENTS AS NECESSARY. THESE AMENDMENTS SHALL INCLUDE, BUT NOT BE LIMITED TO, FERTILIZERS, LIME, AND TOPSOIL. PROPER PLANTING SOILS MUST BE VERIFIED PRIOR TO PLANTING OF MATERIALS.

Planting Notes

Place sprigs at 45 degree angle in a 8"-10" hole | Best adapted for planting and growth on secondary dunes or the backside of

leaving the top 6"-10" of stem exposed. Plant primary dunes. Cultivar 'Northpa' is the only commercially available source tillers (sprigs) so the roots are well distributed | adapted to New Jersey. Stem material shall be > 6" in length with a minimun

Plant tillers (springs) so roots are well distributed | Transplant using single bare-root or containerized seedling or division; 12" to |

mechanically operated drill, or drop seeder.

habitat diversity and conservation effectiveness.

cordgrass, and beach pea or partridge pea.

Naturally occurs in the secondary and backdune areas

in moist soil and the crowns are covered with one- 18" tall, planted by hand; Or, hand broadcast or use a garden seeder,

Remove all competing vegetation in the first two (2) years of establishment

Remove all competing vegetation in the first two (2) years of establishment

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Remove all competing vegetation in the first two (2) years of establishment

Culms should be planted in groups of two in a staggered pattern and planted

6" - 8" in depth depending on the length of the dormant stem. Ideally 3/4 of

the length of the dormant stem should be placed in sand. When the bottom end of the clum is squeezed, it should be hard and not soft. Plants with spindly and shoft stems should be discarded. Material shall be > 8" -12" in

Transplant single potted plants and hand place or plant with vegetable

May be interplanted with switchgrass, coastal panicgrass, saltmeadow

planter. Coastal little bluestem may be interplanted with coastal panicgrass, saltmeadow cordgrass, seaside goldenrod, or partridge pea to enhance

- 24. THE CONTRACTOR SHALL DISPOSE OF STUMPS AND MAJOR ROOTS OF ALL PLANTS TO BE REMOVED. ANY DEPRESSIONS CAUSED BY REMOVAL OPERATIONS SHALL BE REFILLED WITH FERTILE, FRIABLE SOIL PLACED AND COMPACTED SO AS TO REESTABLISH PROPER GRADE FOR NEW PLANTING AND/OR LAWN AREAS.
- 25. THE CONTRACTOR SHALL INSURE ADEQUATE VERTICAL DRAINAGE IN ALL PLANT BEDS AND PLANTERS.

SEE PLANTING LEGEND ON SHEETS LI - L7 FOR PLANT SPACING

in moist soil and the crowns are covered with of two (2) nodes.

Plant 2" below nursery grown depth

Plant 2" below nursery grown depth

Plant 2" below nursery grown depth

2" below nursery grown depth

2" below nursery grown depth

one half to 1" of soil. Pack soil firmly.

Place root ball 2 inches below the

Plant 2" below nursery grown depth

2" below nursery grown depth

half to 1" soil. Pack soil.

nursery grown depth.

Late winter to early spring |Insert plant stems to a depth of 6" and pack soil

Plugs: November to June | firmly around the plant.

- 26. ALL SOD (IF AND WHERE REQUIRED) SHALL BE OBTAINED FROM AREAS HAVING GROWING CONDITIONS FAMILIAR TO AREAS TO BE COVERED. AREAS TO BE SODDED SHALL BE RAKED OF STONES AND DEBRIS. DEBRIS AND STONES OVER 1 INCH IN DIAMETER SHALL BE REMOVED FROM THE SITE. ALL DAMAGED SOD WILL BE REJECTED. ALL SOD MUST BE PLACED WITH STAGGERED JOINTS, TIGHTLY BUTTED, WITH NO INEQUALITIES IN GRADE. PLACE ALL SOD IN ROWS AR RIGHT ANGLES TO SLOPES (WHERE APPLICABLE).
- 27. BULBS (IF AND WHERE REQUIRED) SHALL BE IN CONFORMANCE WITH SECTION 11 OF THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS.
- 28. ALL PLANTING PROCEDURES SHALL CONFORM TO NJDOT SPECIFICATIONS.
- 29. SOME FIELD LOCATED PLANTS ARE NOT GRAPHICALLY SHOWN ON THIS PLAN BUT ARE WITHIN THE LIMIT OF CONSTRUCTION. ALL PLANTS (FIELD LOCATED PLANTS GRAPHICALLY SHOWN PLANTS) ARE NOTED
- 30. THIS PLAN IS TO BE USED FOR LANDSCAPING AND LIGHTING PURPOSES ONLY. THE CONTRACTOR SHALL EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR EXACT LOCATIONS OF UTILITIES, DRAINS ETC., AND NOTIFY THE OWNER ABOUT ANY DISCREPANCIES BEFORE STARTING WORK.
- 31. ALL PLANT MATERIALS USED SHALL BE TRUE TO NAME AND SIZE IN CONFORMITY WITH THE AMERICAN STANDARD OF NURSERY STOCK (LATEST VERSION) AND SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY.  $\,$  ALL PLANTS  $\,$ SHALL HAVE NORMAL, WELL-DEVÈLOPED BRANCHÉS & VIGOROUS ROOT SYSTEMS. THEY SHALL BE SOUND, HEALTHY, VIGOROUS, FREE FROM DEFECTS, DISFIGURING KNOTS, ABRASIONS OF THE BARK, SUN SCALD INJURIES, PLANT DISEASES, INSECT EGGS, BORERS AND ALL OTHER FORMS OF INFECTION. ALL PLANTS SHALL BE NURSERY GROWN. ALL PLANTS SHALL BE GRADE "A" NURSERY STOCK.
- 32. EXCAVATION NEAR EXISTING UTILITIES TO BE CAREFULLY PERFORMED BY HAND. ALL TREES SHALL NOT BE LOCATED CLOSER THAN 10' OF ANY EXISTING OR PROPOSED UNDERGROUND UTILITIES.
- 33. ALL PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISH GRADE AS IT BORE TO EXISTING GRADE AT THE NURSERY EXCEPT WHERE INDICATED IN SPECIFIC PLANTING DETAILS.
- 34. FIELD ADJUST ALL PROPOSED PLANTING LOCATIONS TO AVOID ANY DAMAGE TO EXISTING FACILITIES, AS
- 35. ALL PLANTING MATERIAL IS TO BE GUARANTEED FOR A PERIOD OF 12 MONTHS FROM THE FINAL ACCEPTANCE OF THE PROJECT. IF ANY PLANTS ARE DEAD OR IN AN UNHEALTHY CONDITION BEFORE FINAL ACCEPTANCE OF THE PROJECT, THE LANDSCAPE CONTRACTOR SHALL REPLACE THEM AT HIS
- 36. PRUNE NEWLY PLANTED TREES AS DIRECTED BY THE LANDSCAPE ARCHITECT. ALL PINES SHALL BE SHEARED AS DIRECTED BY THE LANDSCAPE ARCHITECT. PLANTS SHALL ONLY BE INSTALLED WHEN THE SOIL IS FROST FREE.
- 37. UNDER NO CIRCUMSTANCES SHOULD THE MAIN LEADER OF A DECIDUOUS OR EVERGREEN TREE BE TOPPED.
- 38. ALL DISTURBED AREAS WHERE INDICATED TO BE LAWN WILL RECEIVE TOPSOIL AT A 4" THICKNESS, WITH FERTILIZER, SEED AND MULCHED WITH SMALL GRAIN STRAW. TOPSOIL MUST BE A NATURAL FRIABLE, FERTILE SOIL CHARACTERISTIC OF PRODUCTIVE SOIL SANDY LOAM OR AS SIMILAR IN AREA. IT SHALL BE FREE OF LUMPS
- OF CLAY, STONES, ROOTS AND OTHER FOREIGN MATTER.
- 39. SHADE TREES LOCATED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BRANCH BELOW 7'. 40. ALL SHRUB MASSES WILL FORM PLANTING BEDS AND SHALL BE MULCHED.
- 41. CUT AND REMOVE BURLAP FROM TOP ONE-THIRD OF BALL ONLY IF NON-JUTE ROPING IS USED.
- 42. THE DEPTH OF PLANTING PITS SHALL BE INCREASED BY 12" THROUGH THE ADDITION OF LOOSE
- AGGREGATE (3/4" TO 1-1/2" DIAMETER) WHEREVER POOR DRAINAGE OCCURS OR WHERE DIRECTED BY THE LANDSCAPE ARCHITECT.
- 43. PLANTS PLANTED IN ROWS SHALL BE MATCHED SPECIMENS AND BE UNIFORM IN SIZE AND FORM. 44. THE CONTRACTOR SHALL FERTILIZE ALL PLANT MATERIAL WITH 5-10-5 FERTILIZER, OR APPROVED EQUAL UNLESS SPECIFIED OTHERWISE
- AT THE RATE SPECIFIED BY THE MANUFACTURER. ALL TURF AREAS SHALL BE LIMED AND FERTILIZED APPROPRIATELY FOR THE TYPES OF SOILS ON THE SITE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE THE SOIL ACIDITY AND A SOIL TEST CONDUCTED BY THE COUNTY SOIL DISTRICT OR EXTENSION SERVICE TO ESTABLISH THE SOIL'S LIME AND FERTILIZER RATES.
- 45. ALL WATER APPLIED TO PLANTED OR DUNE AREAS SHALL BE FREE FROM IMPURITIES HARMFUL TO VEGETATION AND APPLIED AT A RATE OF 5 GALLONS OF WATER PER SQUARE YARD OF PLANT PIT IMMEDIATELY AFTER PLANTING AND INSTALLATION. THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE ADEQUATE IRRIGATION TO ALL PLANT MATERIALS AND DUNE AREAS INSTALLED AS PART OF THIS CONTRACT DURING THE CONSTRUCTION TIME PERIOD UP TO AND INCLUDING THE TIME PERIOD ESTABLISHED FOR PLANT MATERIAL SURVIVAL GUARANTEE. WATER APPLIED DURING THE GUARANTEE PERIOD SHALL BE AT THE RATE OF 1 INCH OF WATER PER WEEK, WITH AN ALLOWANCE FOR NATURAL PRECIPITATION AND
- 46. BACK FILL MATERIAL FOR RAISED PLANT BEDS SHALL SHALL CONSIST OF NATURAL LOAM TOPSOIL FREE FROM SUBSOIL, AND SHALL BE OBTAINED FROM AN AREA WHICH HAS NEVER BEEN STRIPPED TOPSOIL SHALL HAVE BEEN REMOVED FROM A DEPTH OF NO MORE THAN 1 FOOT. OR LESS IF SUBSOIL IS ENCOUNTERED. TOPSOIL SHALL BE OF UNIFORM QUALITY, FREE FROM HARD CLODS, STIFF CLAY HARD PAN, SODS, PARTIALLY DISINTEGRATED STONE, LIME CEMENT, TAR RESIDUES, CHIPS OR ANY OTHER UNDESIRABLE MATERIAL.
- 47. ALL PLANTS ARE SHOWN SEMI-MATURE SIZE ON PLANS. SIZES INDICATED IN PLANT LIST ARE SIZES AT TIME OF INSTALLATION.
- 48. PLANT MATERIAL SHOWN IN A MASS OR TOUCHING EACH OTHER SHALL BE ALLOWED TO GROW TOGETHER TO PERFORM AS A SCREEN OR A HEDGE. DO NOT PRUNE OR SHEER INTO INDIVIDUAL FREESTANDING

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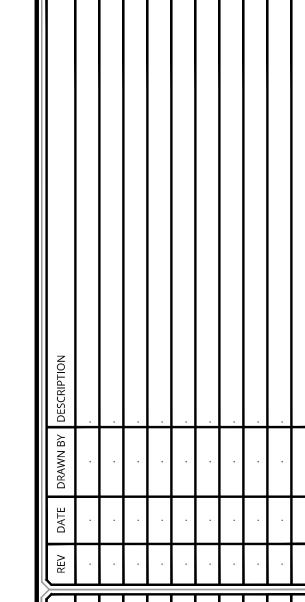
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CONSTRUCTION DRAWINGS

CAPE MAY SEAWALL

**EXTENSION** 

CITY OF CAPE MAY CAPE MAY COUNTY **NEW JERSEY** 

**Engineering** 

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LANDSCAPE DETAILS



L-208.00 NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION