# PROPERTY OWNERS WITHIN 200 FT.

Middlesex County Planning Board County Administration Building 75 Bayard Street

New Brunswick, NJ 08901

Public Service Electric & Gas Co. Manager - Corporate Properties

80 Park Place, T6B Newark, NJ 07102

275 Centennial Avenue Piscataway, NJ 08855-6805 Attn: Margurite Prenderville

Cablevision of Raritan Valley

Construction Department Mr. Tim Allen Texas Eastern Transmission Corp. 501 Coolidge Street South Plainfield, NJ 07080

Sunoco Pipeline L.P. Montello Complex 525 Fritztown Road Sinking Spring, PA 19608

North Brunswick Township

North Brunswick, NJ 08902

N.J Gen. Tax Administration

Department of Transportation

Broad Street - Room 305

Newark, NJ 07101

State of New Jersey

Trenton, NJ 08625

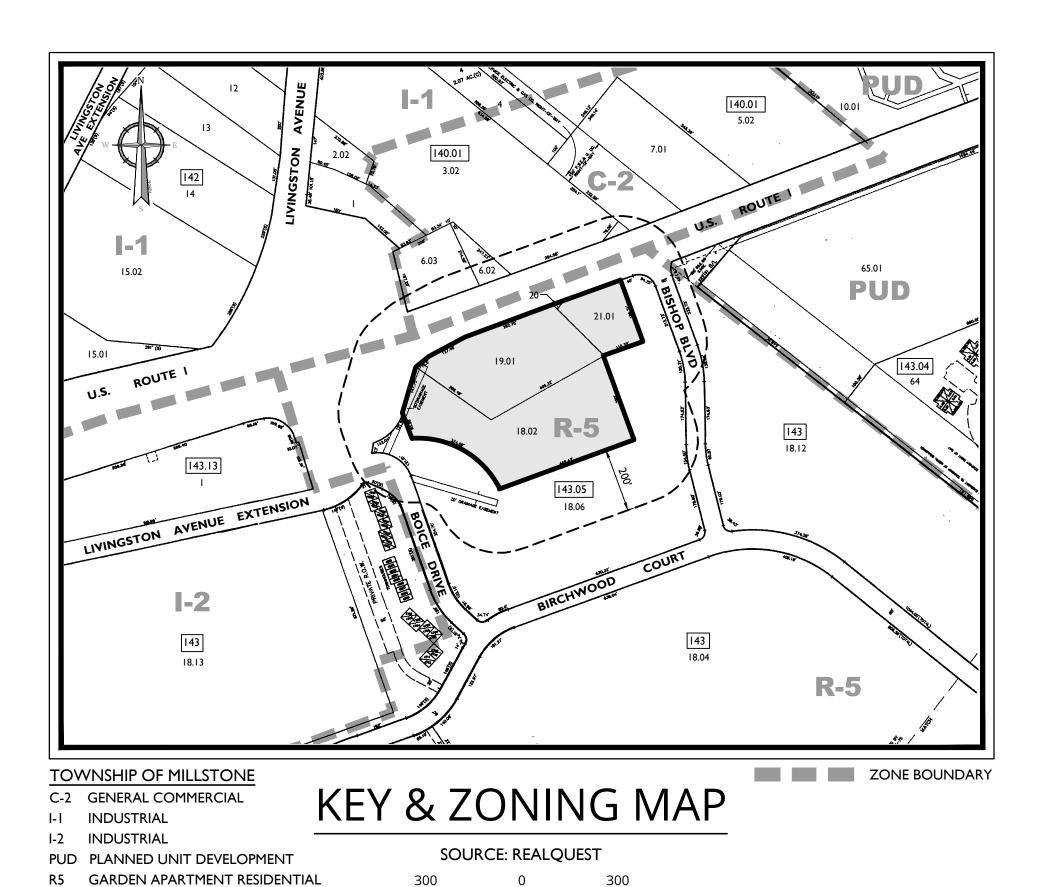
1035 Parkway

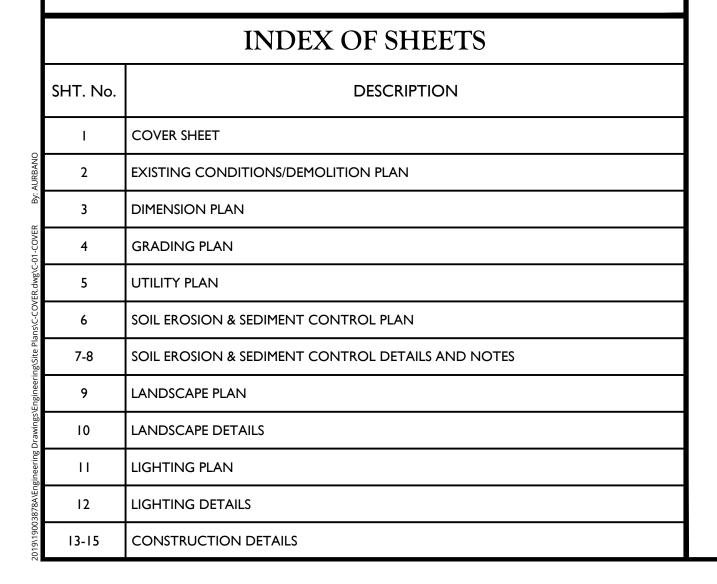
Attn: Township Clerk

# USE VARIANCE & PRELIMINARY AND FINAL MAJOR SITE PLAN

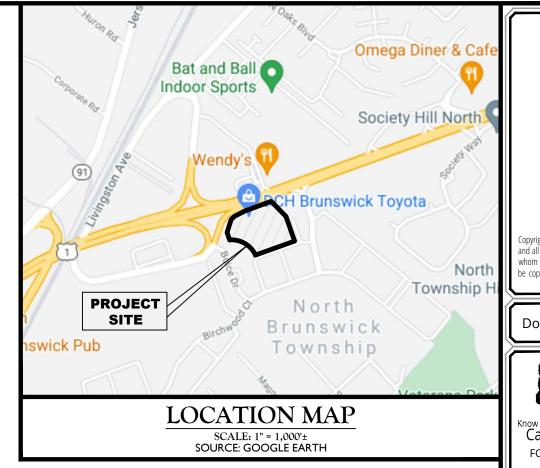
# DCH BRUNSWICK TOYOTA

BLOCK 143.05, LOTS 18.02, 19.01, 21.01 TOWNSHIP OF NORTH BRUNSWICK MIDDLESEX COUNTY, NEW JERSEY





I HEREBY CERTIFY THAT I AM THE OWNER OF RECORD OF THE SITE HEREIN DEPICTED AND THAT I CONCUR WITH THE SUBMISSION. APPROVED BY THE ZONING BOARD OF THE TOWNSHIP OF NORTH BRUNSWICK AT THE REGULAR MEETING OF \_\_\_\_ **ENGINEER** 



# THE SUBJECT PROPERTY IS KNOWN AS LOT(S) 18.02, 19.01 & 21.01 IN BLOCK(S) 143.05 AS SHOWN ON SHEET 44 OF THE OFFICIAL TAX MAP OF

THE TOWNSHIP OF NORTH BRUNSWICK, MIDDLESEX COUNTY, NEW IERSEY, DATED JUNE, 1998 AND REVISED THROUGH APRIL, 2004 CONTAINS A TOTAL TRACT AREA OF 275,687 SF, 6.329 ACRES

955 ROUTE 9 NORTH SOUTH AMBOY, NJ 08879 THE SUBJECT PROPERTY IS PRESENTLY DEVELOPED WITH A TOYOTA MOTOR VEHICLE DEALERSHIPS, A SATURN MOTOR VEHICLE DEALERHIP AND A RETAIL BUILDING. THE APPLICANT PROPOSES TO DEMOLISH THE SATURN DEALERSHIP BUILDING AND CONSTRUCT A BUILDING ADDITION ONTO THE TOYOTA DEALERSHIP TO EXPAND ITS SALES AND SERVICE

CAPARILITIES THE APPLICANT ALSO PROPOSES TO DEMOLISH THE

EXISTING RETAIL BUILDING ON LOT 21 TO INCREASE THE NUMBER OF

EXISTING USE: MOTOR VEHICLE DEALERSHIP & RETAIL

OWNER & APPLICANT: DCH INVESTMENTS, INC.

PERMITTED USE: NO			
	REQUIRED	EXISTING	PROPOSED
MINIMUM LOT AREA	5 AC	6.387 AC	6.387 AC
MINIMUM LOT WIDTH	300FT	717 FT	717 FT
MINIMUM LOT DEPTH	400 FT	466 FT	466 FT
PRINCIPAL BUILDING			
MINIMUM FRONT YARD (US ROUTE I)	100 FT	21.6 FT (E)	76.2 FT (E)
MINIMUM REAR YARD	75 FT	47.7 FT (E)	75.5 FT
MINIMUM SIDE YARD	75 FT	30.7 FT (E)	176.4 FT
TOTAL TWO SIDE YARDS	150 FT	N/A	N/A
MAXIMUM BUILDING HEIGHT (STORIES)	2 ½	COMPLIES	COMPLIES
MAXIMUM BUILDING HEIGHT	30 FT	28 FT	28 FT
MAXIMUM BUILDING (LOT) COVERAGE	25%	15.6%	21.5 %
MAXIMUM IMPERVIOUS COVERAGE	60%	94.2% (E)	84.3% (V)
MINIMUM GROSS HABITABLE FLOOR	N/A	N/A	N/A

(E) = PRE-EXISTING NON-CONFORMING CONDITION

= VARIANCE REQUIRED REQUIRED FROM THE FOLLOWING ORDINANCE SECTIONS IF DETERMINED

BY THE TOWNSHIP OF NORTH BRUNSWICK ZONING BOARD OF

WHEREAS THE APPLICANT PROPOSES TO MAINTAIN AN EXISTING FRONT

3205-55A.: A MOTOR VEHICLE DEALERSHIP IS NOT A PERMITTED USE ITHIN THE R-5 RESIDENTIAL ZONE DISTRICT.

S205F-5: THE MINIMUM FRONT YARD SETBACK OF A PRINCIPAL BUILDING

8205F-14: THE MAXIMUM PERCENTAGE OF LOT COVERAGE BY ALL

SHALL BE 60%, WHEREAS, THE APPLICANT PROPOSES AN IMPERVIOUS ROLINDARY AND TOPOGRAPHIC SURVEY INFORMATION SHOWN

HEREON IS TAKEN FROM A PLAN ENTITLED "BOUNDARY AND TOPOGRAPHIC SURVEY FOR DCH BRUNSWICK TOYOTA" CONSISTING OF TWO SHEETS, DATED 6/21/2021, PREPARED BY ERIC V. WILDE, P.L.S. LIC. NO. 43279 OF NEW JERSEY, OF COLLIERS ENGINEERING & DESIGN.

COORDINATE SYSTEM AND ADJUSTED NAD 1983. THE VERTICAL DATUM IS BENCHMARK REFERENCE: PK SET, ELEVATION: 118.51 FEET NAVD 1988.

NO FRESHWATER WETLANDS ARE KNOWN TO EXIST ON THE SITE.

0. NO 100 YEAR FLOOD PLAINS ARE KNOWN TO EXIST ON THE SITE PER THE EFFECTIVE FLOOD INSURANCE RATE MAP NO. 34023C0128F FOR MIDDLSEX COUNTY, NEW JERSEY (ALL JURISIDICTIONS), EFFECTIVE DATE JULY 6, 2010,

7/28/2021, PREPARED BY COLLIERS ENGINEERING & DESIGN.

PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY. . GEOTECHNICAL INFORMATION AND SOIL TEST PIT LOCATIONS SHOWN HEREON ARE AS PRESENTED IN A REPORT ENTITLED "REPORT OF GEOTECHNICAL EVALUATION FOR DCH TOYOTA BRUNSWICK", DATED:

2. THIS SET OF PLANS IS NOT DEPICTING ENVIRONMENTAL CONDITIONS OR A CERTIFICATION/WARRANTY REGARDING THE PRESENCE OR ABSENCE OF ENVIRONMENTALLY IMPACTED SITE CONDITIONS. COLLIERS ENGINEERING & DESIGN HAS PERFORMED NO EXPLORATORY OR TESTING ENVIRONMENTAL SERVICES RELATED TO THE DETERMINATION OF TH POTENTIAL FOR CHEMICAL, TOXIC, RADIOACTIVE OR OTHER TYPE OF CONTAMINANTS AFFECTING THE PROPERTY AND THE UNDERSIGNED PROFESSIONAL IS NOT QUALIFIED TO DETERMINE THE EXISTENCE OF SAME. SHOULD ENVIRONMENTAL CONTAMINATION OR WASTE BE DISCOVERED. THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE

B. THIS IS A SITE DEVELOPMENT PLAN AND UNLESS SPECIFICALLY NOTED ELSEWHERE HEREON, IS NOT A SURVEY. SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC

THEY ARE SCHEMATIC ONLY, EXCEPT WHERE DIMENSIONS ARE SHOWN

FOR COMPLYING WITH ALL APPLICABLE LAWS AND REGULATIONS.

MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL APPROVALS REQUIRED HAVE BEEN OBTAINED, ALL CONDITIONS OF APPROVAL HAVE BEEN SATISFIED AND THE DRAWINGS HAVE BEEN STAMPED "ISSUED FOR CONSTRUCTION". THIS SHALL INCLUDE APPROVAL OF ALL CATALOG CUTS, SHOP DRAWINGS AND/OR DESIGN CALCULATIONS AS REQUIRED BY THE PROJECT OWNER AND/OR

PROVISION OF ALL APPROPRIATE SAFETY DEVICES AND TRAINING

7. PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CALL 811 TO REQUEST A UTILITY MARKOUT.

BUILDING FOOTPRINT DIMENSIONS SHOWN HEREON ARE APPROXIMATE. FINAL BUILDING FOOTPRINT DIMENSIONS FOR EACH BUILDING SHALL BE FURNISHED ON THE INDIVIDUAL ARCHITECTURAL PLANS AT THE TIME OF CONFORM TO THE APPROVED BULK ZONING REQUIREMENTS.

CURB RAMPS ARE TO BE CONSTRUCTED FLUSH WITH THE FINISHED PAVEMENT SURFACE. ACCESSIBLE CURB RAMPS INSTALLED WITHIN THE PUBLIC RIGHT OF WAY ARE TO HAVE DETECTABLE WARNING SURFACES COMPLIANT WITH FEDERAL ACCESSIBILITY GUIDELINES FOR PEDESTRIAN

TRAFFIC SIGNAGE AND STRIPING SHALL CORRESPOND TO THE MANUAL REFUSE AND RECYCLABLES SHALL BE STORED WITHIN OUTSIDE SCREENED TRASH ENCLOSURES AS NOTED ON THE PLANS, AND PICKED UP BY

PRIVATE WASTE DISPOSAL HAULER THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF REGULATIONS AND AGENCIES.

THERE SHALL BE NO ON-SITE BURIAL OF CONSTRUCTION MATERIALS, TREE BRANCHES, STUMPS, OR OTHER DELETERIOUS MATERIALS. MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR THE SITE

A. RESIDENTIAL SITE IMPROVEMENT STANDARDS (N.J.A.C. 5:21).

SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" 2019: A CLIRRENT PREVAILING MUNICIPAL COLINITY AND/OR STATE AGEN SPECIFICATIONS, STANDARDS, CONDITIONS, AND REQUIREMENTS D. CURRENT PREVAILING UTILITY COMPANY/AUTHORITY SPECIFICATION STANDARDS, AND REQUIREMENTS.

E. CURRENT MANUFACTURER SPECIFICATIONS, STANDARDS, AND

FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURAC OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATIO TO HIS SATISFACTION PRIOR TO EXCAVATION. WHERE EXIST SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION ASCERTAIN EXISTING INVERTS, MATERIALS, AND SIZES. TEST
INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR CONSTRUCTION TO PERMIT ADJUSTMENTS AS REQUIRED TO AV PROFESSIONAL IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERING DIFFER MATERIALLY FROM THOSE REPRESENTED HEREON. SUC CONDITIONS COULD RENDER THE DESIGNS HEREON INAPPROPRIATE (

2. UTILITY RELOCATIONS SHOWN HEREON, IF ANY, ARE FOUNTFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT A FOR PERFORMING AND/OR COORDINATING ALL REQUIRED UTIL

 STORM SEWERS SHALL BE CLASS III (OR HIGHER IF NOTED) REINFORCEE CONCRETE PIPE (RCP) WITH "O" RING GASKETS OR INTERNALLY PRELUBRICATED GASKET (TYLOX SUPERSEAL OR EQUIVALENT, ADS N-12 HIGH DENSITY POLYETHYLENE PIPE (HDPEP), AS NOTED ON THE PLAN, O APPROVED EQUAL. PROPER PIPE COVERAGE SHALL BE MAINTAINE DURING ALL PHASES OF CONSTRUCTION. PIPE LENGTHS SHOWN HERE ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

4. CONTRACTOR IS RESPONSIBLE TO DETERMINE WHEN SPECIAL OVERSIZED DRAINAGE STRUCTURES ARE REQUIRED. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR ALL SPECIAL (OVERSIZED) DRAINAGE STRUCTURES TO THE TOWNSHIP ENGINEER FOR APPROVAL PRIOR

. WATER SERVICE TO BE PROVIDED FROM THE EXISTING WATER MAIN ON NEW IERSEY STATE HIGHWAY ROUTE I, OWNED AND OPERATED I THE NORTH BRUNSWICK WATER DEPARTMENT. PROPOSED WATER MEXTENSIONS AND FIRE HYDRANT LOCATIONS ARE SUBJECT MUNICIPAL REVIEW AND APPROVAL ACCORDING TO THE NEW IERS AMERICAN WATERWORKS ASSOCIATION STANDARDS, AND IN T PINELANDS AREA, THE STANDARDS OF THE PINELANDS CON MANAGEMENT PLAN. PIPE MATERIALS SHALL BE CEMENT LINED DUCT IRON PIPE, CLASS 52, WITH ASPHALTIC EPOXY TYPE COATING AS NO MINIMUM 4 FEET OF COVER FROM THE TOP OF PIPE TO THE PROPOSI

6. SANITARY SEWER SERVICE SHALL BE PROVIDED BY A GRA HIGHWAY ROUTE I, OWNED AN OPERATED BY THE MIDDLESEX COU UTILITIES AUTHORITY. PROPOSED SEWER MAIN EXTENSIONS A MANHOLE LOCATIONS ARE SUBJECT TO MUNICIPAL REVIEW A APPROVAL, ACCORDING TO NEW JERSEY DEPARTMENT C ENVIRONMENTAL PROTECTION REGULATIONS. PIPE MATERIALS SHALL E PVC SDR-35, EXCEPT AS NOTED OTHERWISE ON THE PLANS. EXCE WHERE SHALLOWER DEPTHS ARE PERMITTED BY THE MUNICIPALITY UTILITY AUTHORITY, SEWER LINES, INCLUDING FORCE MAINS AN LATERALS, SHALL BE INSTALLED TO PROVIDE A MINIMUM 3 FEET OF CO

7. ALL WATER MAINS SHOULD BE SEPARATED FROM SANITARY SEWER A 10 FEET. IF SUCH HORIZONTAL SEPARATION IS NOT POSSIBLE, THE WAT AND SEWER LINES SHALL BE IN SEPARATE TRENCHES (STEP TRENCHES A PROHIBITED) WITH THE TOP OF THE SEWER LINE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN OR WITH SUCH SEPARATION

8. AT THE CROSSINGS OF SEWER LINES AND WATER MAINS, THE TOP OF TI SEWER LINES SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF TI WATER MAIN (SEWER SERVICE LATERALS ARE NOT SUBJECT TO T REQUIREMENT). IF SUCH VERTICAL SEPARATION IS NOT POSSIBLE, T SEWER LINE SHALL BE OF WATERTIGHT CONSTRUCTION (THAT WATERTIGHT IOINTS THAT IS A MINIMUM OF 10 FEFT FROM THE WATE

9. GAS, ELECTRIC, LIGHTING, CABLE TELEVISION, AND ELECTRICAL SERVICE PLANS, IF REQUIRED, SHALL BE PREPARED BY THE RESPECTIVE UTILIT COMPANIES THAT SERVICE THE AREA PRIOR TO SITE CONSTRUCTION ND SHALL BE INSTALLED PER ORDINANCE OR LOCAL UTILI

10. TELEPHONE, ELECTRIC, AND GAS LINES WILL BE INSTALLE UNDERGROUND. CROSSINGS OF PROPOSED PAVEMENTS WILL E INSTALLED PRIOR TO THE CONSTRUCTION OF PAVEMENT BASE COURSE. THESE GENERAL NOTES SHALL APPLY TO ALL SHEETS IN THIS SET.

MODEL #350 I-OR EQUIVALENT AT DIP/PVC JOINTS.

# ADA INSTRUCTIONS TO CONTRACTOR:

I. CONTRACTOR MUST EXERCISE APPROPRIATE CARE AND PRECISION

SPACE, PUBLIC TRANSPORTATION, PEDESTRIAN ACCESS, INTER-BUILDING ACCESTO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EGRESS, MUST COMPLY WIT THESE INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING: (NOTE: THIS LIST IS NOT INTENDED TO CAPTURE EVERY APPLICABLE FEDERAL, STA

COMPLIANCE WITH THE LAW, WHETHER OR NOT STATED SPECIFICALLY HEREIN A. PARKING SPACES AND PARKING AISLES - SLOPE MUST NOT EXCEED 1:48 (L/4" PI

B. CURB RAMPS- SLOPES MUST NOT EXCEED 1:12 (8.3%).

i. LANDINGS AT CURB RAMPS - MUST BE 4 FT. MIN., X 4 FT. MIN. AND ARE TO B INCREASED TO 5 FEET WHERE THE LANDING SPACE (TURNING SPACE) I CONSTRAINED AT THE BACK OF THE SIDEWALK. LANDINGS AT RAMPS. MUST BE 5 FT MIN. IN THE DIRECTION OF TRAVEL ANI
BE PROVIDED AT EACH END OF THE RAMP, MUST PROVIDE POSITIV
DRAINAGE (1 % MIN), AND MUST NOT EXCEED 1:48 (1/4" PER FOOT OI
NORMALLY 2.0%) IN ANY DIRECTION. WHEN LANDING IS ALSO A TURNING
SPACE, IT MUST BE A MINIMUM 5 FT X 5 FT. ii. LANDINGS AT DOORWAYS - SEE NOTE F BELOW.

D. PATH OF TRAVEL ALONG ON-SITE ACCESSIBLE ROUTE - MUST PROVIDE A TRAVEL AND MUST NOT EXCEED 1:48 (1/4" PER FOOT OR NORMALLY 2.0%) I

E. WHERE PATH OF TRAVEL WILL BE GREATER THAN 1:20 (5.0%), AN ADA RAMP, WITH A MAXIMUM SLOPE OF 1:12 (8.3%), FOR A MAXIMUM RISE OF 30 INCHES, MUST BE PROVIDED. THE RAMP MUST HAVE A MINIMUM. CLEAR WIDTH OF 36 INCHES, HAVE ADA HAND RAILS AND LANDINGS (MIN. 5 FT. LONG IN THE DIRECTION OF TRAVEL) ON EACH END THAT ARE SLOPED A MIN. 1 % AND NO MORE THAN 1:48 (L/4" PER FOOT OR NOMINALLY 2.0%) FOR POSITIVE DRAINAGE. EXTERIOR DOORWAYS - MUST HAVE A "LEVEL" LANDING AREA ON THE EXTERIOR SIDE OF THE DOOR THAT IS SLOPED NO MORE THAN 1:48 (1/4" PER FOOT OR NORMALLY 2.0%) FOR POSITIVE DRAINAGE. THIS LANDING AREA IS GENERALLY 5 FT X 5 FT, EXCEPT WHERE OTHERWISE PERMITTED BY ADA STANDARDS, (SEE APPLICABLE CODE SECTIONS).

WHETHER OR NOT FALL PROTECTION IS REQUIRED.

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**USE VARIANCE &** PRELIMINARY AND FINAL MAJOR SITE PLAN

> DCH BRUNSWICK TOYOTA

BLOCK 143.05, LOTS 18.02, 19.01 & 21.01 TOWNSHIP OF NORTH BRUNSWICK

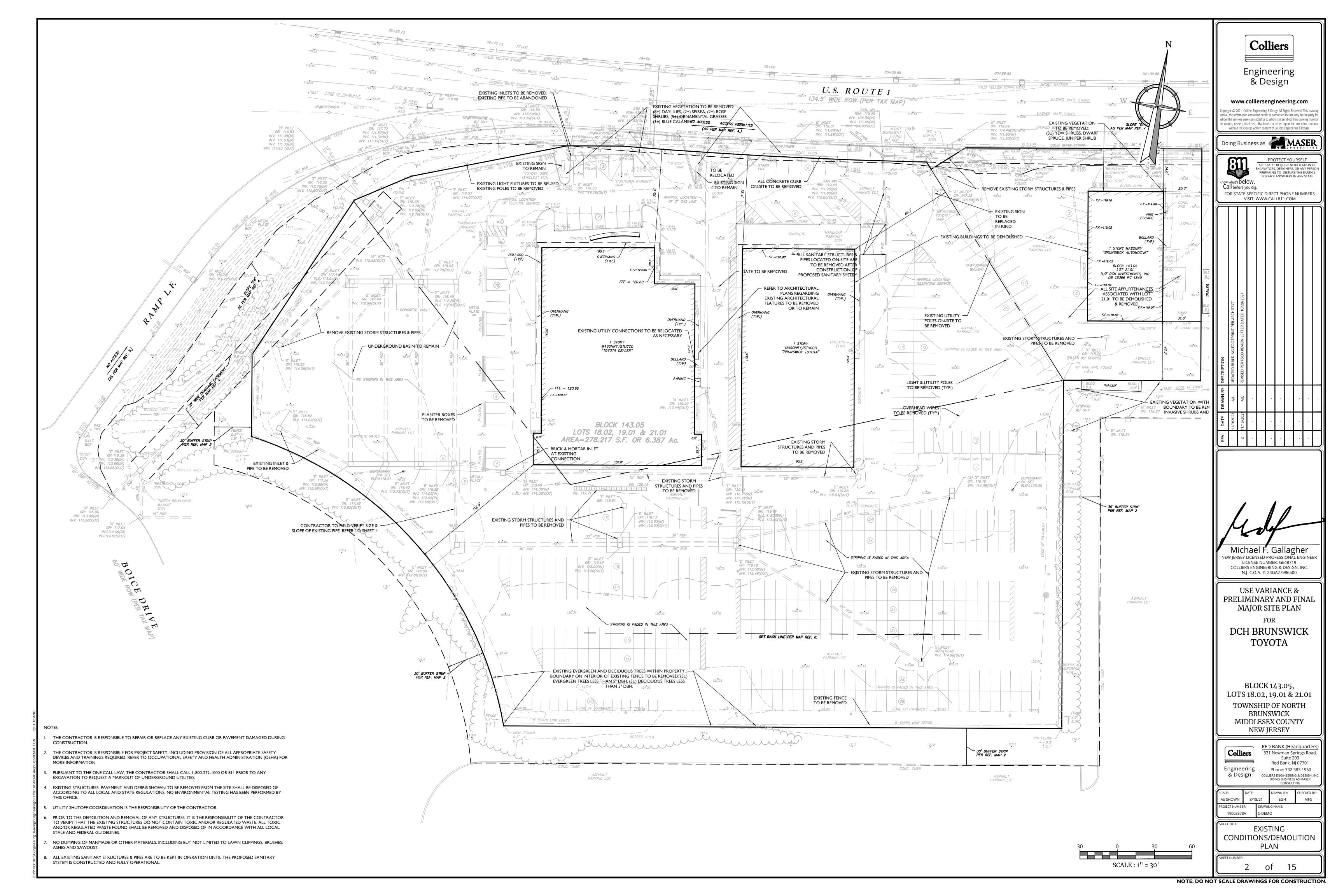
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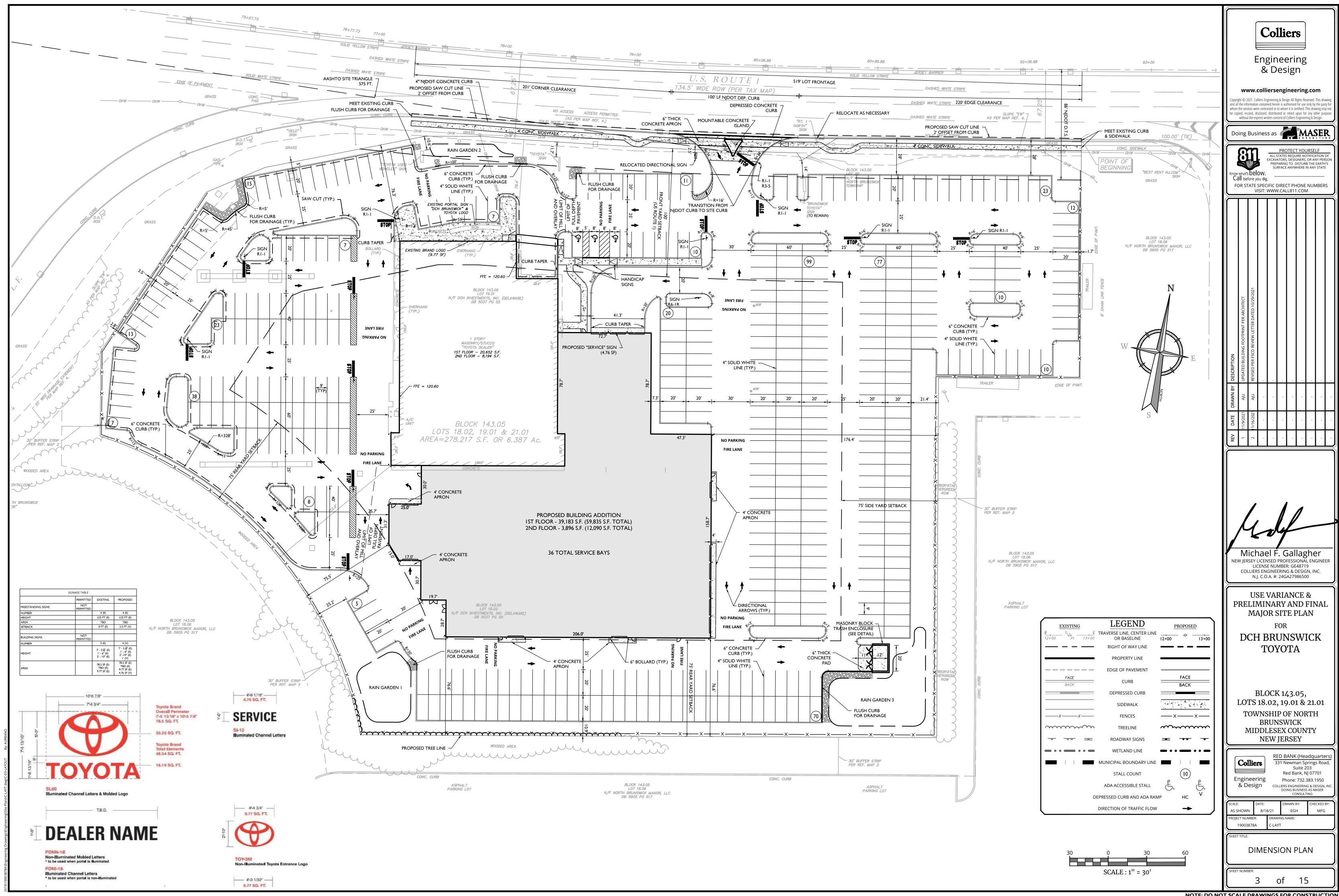
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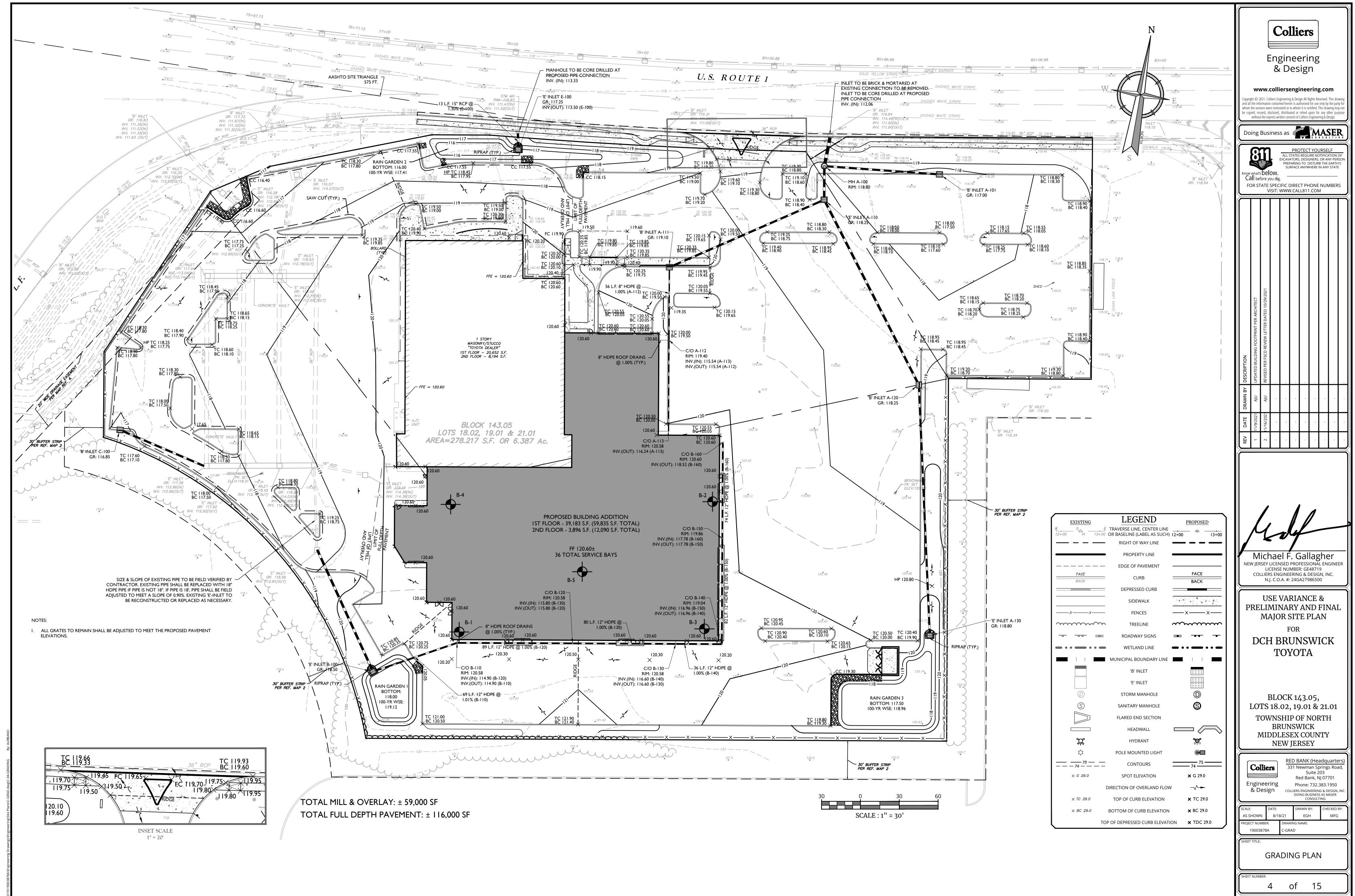
8/18/21 EGH 19003878A COVER

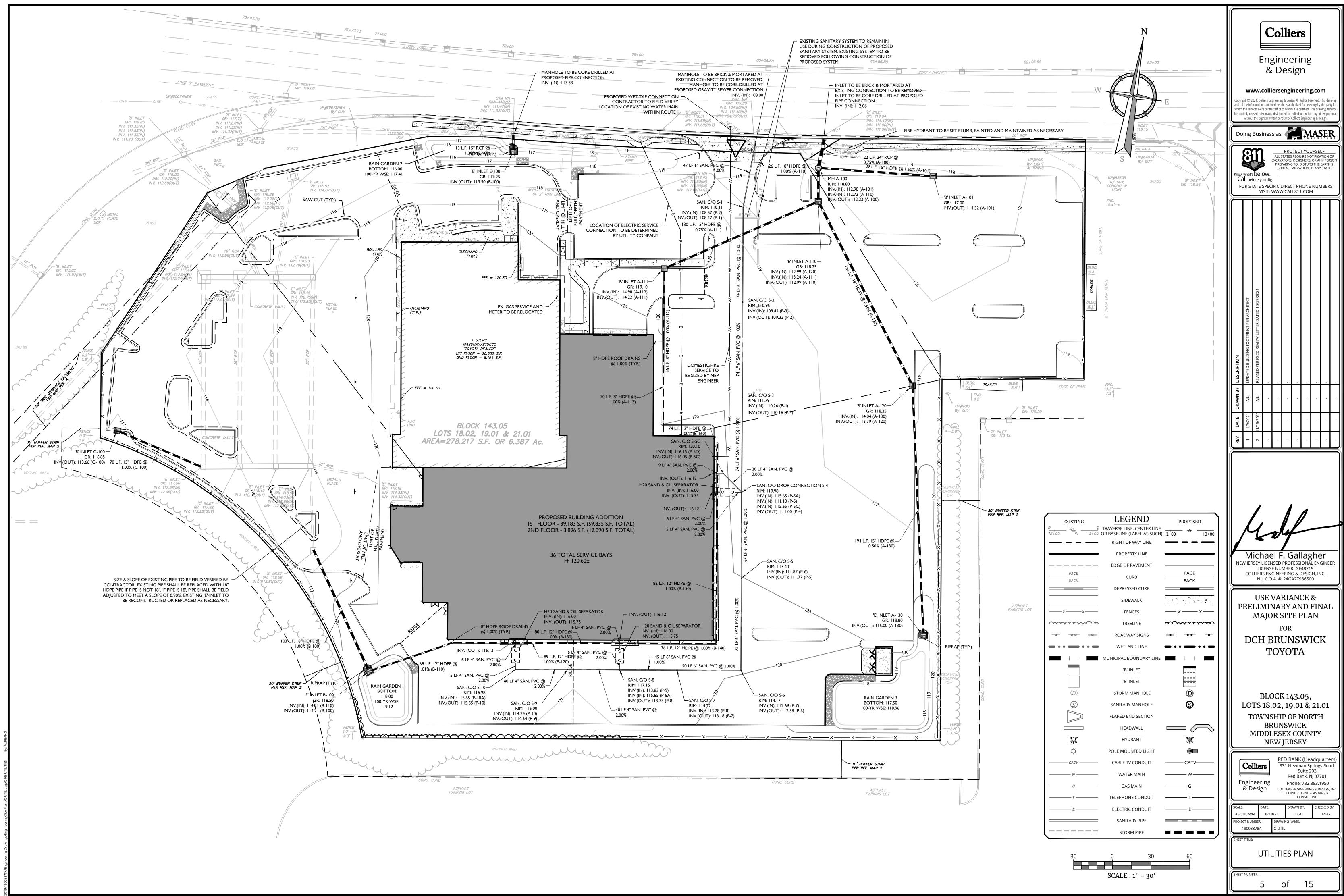
**COVER SHEET** 

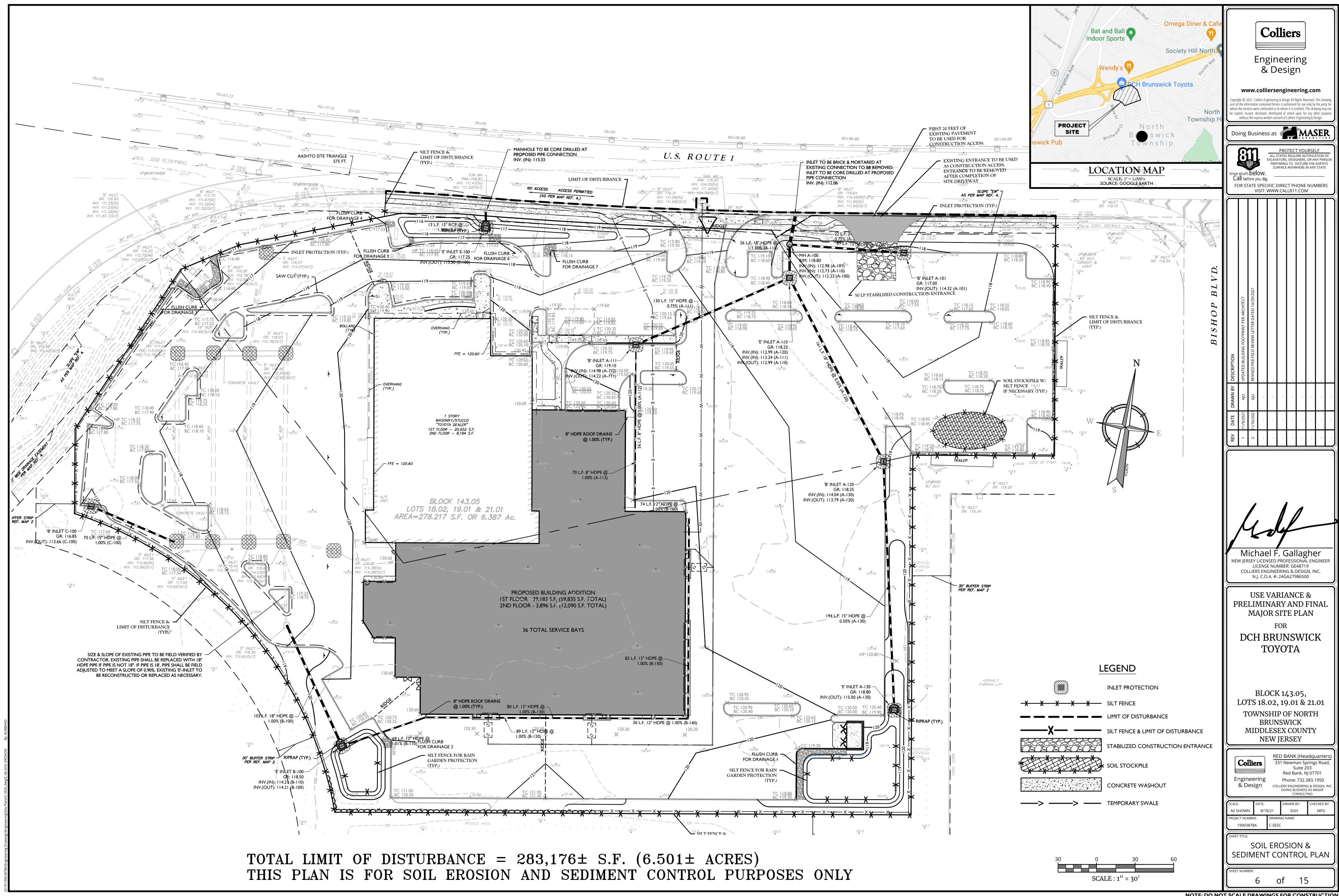
NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.











# FREEHOLD SOIL CONSERVATION DISTRICT NOTES

MCNJ-SOIL-NOTE-1005

- THE FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY SOIL DISTURBING ACTIVITY.
- 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.
- ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL FROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.
- N.J.S.A 4:24-39 ET. SEQ. REQUIRES THAT NO CERTIFICATES OF OCCUPANCY BE ISSUED BEFORE THE DISTRICT DETERMINES THAT A PROJECT OR PORTION THEREOF IS IN FULL COMPLIANCE WITH THE CERTIFIED PLAN AND STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND A REPORT OF COMPLIANCE HAS BEEN ISSUED. UPON WRITTEN REQUEST FROM THE APPLICANT, THE DISTRICT MAY ISSUE A REPORT OF COMPLIANCE WITH CONDITIONS ON A LOT-BY-LOT OR SECTION-BY-SECTION BASIS, PROVIDED THAT THE PROJECT OR PORTION THEREOF IS IN SATISFACTORY COMPLIANCE WITH THE SEQUENCE OF DEVELOPMENT AND TEMPORARY MEASURES FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN IMPLEMENTED, INCLUDING PROVISIONS FOR STABILIZATION AND SITE WORK.
- ANY STOCKPILE OR DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN FOURTEEN (14) 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.
- 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.
- 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.
- THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A PAD OF CLEAN CRUSHED STONE AT POINTS WHERE TRAFFIC WILL BE ACCESSING THE CONSTRUCTION SITE, AFTER INTERIOR ROADWAYS ARE PAVED, INDIVIDUAL LOTS REQUIRE A STABILIZED CONSTRUCTION ACCESS CONSISTING OF ONE INCH TO TWO INCH (I" - 2") STONE FOR A MINIMUM LENGTH OF TEN FEET (I0") EQUAL TO THE LOT ENTRANCE WIDTH. ALL OTHER ACCESS POINTS SHALL BE BLOCKED OFF.
- ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAYS WILL BE REMOVED IMMEDIATELY.
- PERMANENT VEGETATION IS TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING.
- 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.
- IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SUI FIDES SHALL BE LILTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS/ACRE, (OR 450 LBS/1,000 SQ FT OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12" OF SETTLED SOIL WITH A PH OF 5 OR MORE, OR 24" WHERE TREES OR SHRUBS ARE TO BE PLANTED.
- CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
- LINEILTERED DEWATERING IS NOT PERMITTED NECESSARY PRECALITIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH THE STANDARD

FOR DEWATERING.

DISTURBED.

- 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
- STOCKPILE AND STAGING LOCATIONS ESTABLISHED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN STAGING AND STOCKPILES NOT LOCATED WITHIN THE LIMIT OF DISTURBANCE WILL REQUIRE CERTIFICATION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN. CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN MAY BE REQUIRED FOR THESE ACTIVITIES IF AN AREA GREATER THAN 5,000 SQUARE FEET IS
- ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE #6.
- THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.

FREEHOLD SOIL CONSERVATION DISTRICT 4000 KOZLOSKI ROAD, FREEHOLD, NJ 07728-5033, PHONE (732) 683-8500, FAX (732) 683-9140, EMAIL: INFO@FREEHOLDSCD.ORG.

# SEQUENCE OF COMMERCIAL CONSTRUCTION

MCNJ-SOIL-NOTE-1500 05/01/18

- CLEARING OF ENTRANCE AND LIMIT OF DISTURBANCE FOR INSTALLATION OF SILT
- CLEARING AND ROUGH GRADING (2 WEEKS)
- INSTALL STORM DRAINAGE SYSTEM, CONDUIT OUTLET PROTECTION AND ALL
- OTHER UTILITIES. INSTALL INLET PROTECTION (3 WEEKS) CONSTRUCT CURBS AND PLACE ROAD SUBBASE (2 WEEKS).

FENCE AND CONSTRUCTION ENTRANCE PAD (I WEEK).

- CLEAR AND GRADE BUILDING AREAS AND CONSTRUCT BUILDINGS. ALL DISTURBED AREAS SHALL BE STABILIZED AS DEFINED IN SOIL EROSION AND SEDIMENT CONTROL NOTES. (ONGOING FROM COMMENCEMENT OF PROJECT).
- ESTABLISH FINISH GRADES. CONDUCT SOIL COMPACTION TESTING AS REQUIRED, OR SCARIFY/TILL 6" MINIMUM DEPTH OF SUBSOIL IN THE LANDSCAPED AND LAWN AREA.
- ALL SURFACES HAVING LAWN OR LANDSCAPING AS FINAL COVER ARE TO BE PROVIDED 5" OF TOPSOIL, FIRM IN PLACE, PRIOR TO SEEDING, SODDING OR PLANTING. PLACE PERMANENT VEGETATION COVER. (I WEEK)
- PAVE ROADS AND COMPLETE FINAL LANDSCAPING (I MONTH)
- REMOVE TEMPORARY ACCESS PROTECTION, SILT FENCE, AND INLET PROTECTION AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED.

- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
- B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND
- C. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO AN AVERAGE DEPTH OF 5 INCHES, MINIMUM OF 4 INCHES, FIRMED IN PLACE IS REQUIRED. ALTERNATIVE DEPTHS MAY BE CONSIDERED WHERE SPECIAL REGULATORY AND/OR INDUSTRY DESIGN STANDARDS ARE APPROPRIATE SUCH AS ON GOLF COURSES, SPORTS FIELDS, LANDFILL CAPPING ETC. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED. IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.
- D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE-STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

## SEEDBED PREPARATION

- A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SITE SPECIFIC SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP://NIAES.RUTGERS.EDU/COUNTY/).
- FOR TEMPORARY SEEDING: 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 EOUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. LIMING RATE SHALL BE ESTABLISHED PER SOIL TESTING.
- b. FOR PERMANENT SEEDING: FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR II POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR 4. MULCHING 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
- 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.
- D. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.). SEE "SOIL DECOMPACTION AND TESTING
- E. REMOVE FROM THE SURFACE ALL STONES 2 INCHES OR LARGER IN ANY DIMENSION AND OTHER DEBRIS SUCH AS WIRE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL

- A. TEMPORARY SEEDING SPECIFICATIONS TEMPORARY VEGETATIVE COVER SHALL CONSIST OF PERENNIAL RYEGRASS APPLIED UNIFORMLY AT A RATE OF 1.0 POUNDS PER 1,000 SQ.FT. (100 LBS/ACRE), OR A MIXTURE FROM TABLE 7-2 OF THE STANDARDS APPROVED BY THE SOIL CONSERVATION DISTRICT.
- B. PERMANENT SEEDING SPECIFICATIONS SELECT AN APPROVED MIXTURE FROM THOSE LISTED BELOW, AN APPROVED MIXTURE FROM TABLE 4-3 OF THE STANDARDS, 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. SEED SHALL BE APPLIED AS NOTED BELOW WITHIN THE DATES SPECIFIED IN THE STANDARDS:

# I. LAWN AREAS:

**DUST CONTROL METHODS:** 

CONTROL STANDARDS.

MIX #16 (POORLY DRAINED SOIL) ROUGH BLUEGRASS

90 LBS/ACRE STRONG CREEPING RED FESCUE 130 LBS/ACRE

DUST CONTROL

MCNJ-SOIL-NOTE-1400

APPLY MULCHES OR VEGETATIVE COVER AS PER NJ SOIL EROSION AND SEDIMENT

TILL AND 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

ERECT BARRIERS SUCH AS SOLID BOARD FENCES, SNOW FENCES, BURLAP

FENCES, CRATE WALLS, BALES OF HAY AND SIMILAR MATERIAL TO CONTROL AIR

APPLY CALCIUM CHLORIDE 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. NOT

SUITABLE ON STEEPER SLOPES NEAR THE STREAMS OR POTENTIALLY

USE SPRAY-ON ADHESIVE ON MINERAL SOILS (NOT EFFECTIVE ON MUCK SOILS).

TYPE OF NOZZLE

**COARSE SPRAY** 

FINE SPRAY

FINE SPRAY

COARSE SPRAY

SEE SEDIMENT BASIN STANDARD, P. 26-1

APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS.

MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS

TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS.

GALLONS/ACRE

1200

235

1200

COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

KEEP TRAFFIC OFF THESE AREAS. MATERIALS AS FOLLOWS:

WATER

DILUTION

7:I

12.5:1

NONE

EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE THE DESIRED EFFECT.

SPRINKLE THE SITE UNTIL THE SURFACE IS WET.

CURRENTS AND SOIL BLOWING.

ACCUMULATE AROUND PLANTS.

**MATERIAL** 

ANIONIC ASPHALT EMULSION

LATEX EMULSION

**RESIN IN WATER** 

ACIDULATED SOY BEAN

SOAP STICK

POLYACRYLAMIDE (PAM) -

POLYACRYLAMIDE (PAM) -

DRY SPREAD

**OPTIMUM SEEDING DATES:** 8/15 - 10/15 (ZONE 6b)

MCNJ-SOIL-NOTE-1100

IN THIS STATE.

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

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

NOTE: ALL NAMES GIVEN ABOVE ARE REGISTERED TRADE NAMES. THIS DOES

NOT CONSTITUTE A RECOMMENDATION OF THESE PRODUCTS TO THE

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

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 SOUARE

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

IF SOIL MOISTURE IS DEFICIENT SUPPLY NEW SEEDING WITH ADEQUATE WATER (A

MINIMUM OF 1/4 INCH APPLIED UP TO TWICE A DAY UNTIL VEGETATION IS WELL

ESTABLISHED). THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE IN ABNORMALLY DRY

NO FOLLOW-UP TOPDRESSING IS MANDATORY UNLESS WHERE GROSS NITROGEN

DIFICIENCY EXISTS IN THE SOIL TO THE EXTENT THAT TURF FAILURE MAY DEVELOP. IN

THAT INSTANCE, TOPDRESS WITH 10-10-10 OR EQUIVALENT AT 300 LB PER ACRE OR 7 LB

PER 1,000 SF EVERY 3 TO 5 WEEKS UNTIL THE GROSS NITROGEN DEFICIENCY IN THE TURF

THE QUALITY OF PERMANENT VEGETATION RESTS WITH THE CONTRACTOR. THE TIMING

OF SEEDING, PREPARING THE SEEDBED, APPLYING NUTRIENTS, MULCH AND OTHER

MANAGEMENT ARE ESSENTIAL. THE SEED APPLICATION RATES IN TABLE 4-2 ARE REQUIRED

WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF

PERMANENT VEGETATION. UP TO 50% REDUCTION IN APPLICATION RATES MAY BE USED

WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO REQUESTING A 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.

MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING

AND REMAIN TACKY UNTIL GERMINATION OF GRASS.

EXCLUSION OF OTHER PRODUCTS.

OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

MULCH TO PROVIDE SOIL COVERAGE.

OR HOT WEATHER OR ON DROUGHTY SITES.

. ESTABLISHING PERMANENT VEGETATIVE STABILIZATION:

IS AMELIORATED.

ACCEPTABLE SEEDING DATES: 3/I - 4/30 (ZONE 6b)

SUMMER SEEDING DATES \* 5/I - 8/I4 (ZONE 6b, 7a, 7b)

\* NOTE: SUMMER SEEDING SHOULD ONLY BE CONDUCTED WHEN THE SITE IS IRRIGATED. MIXES INCLUDING WHITE CLOVER REQUIRE THAT AT LEAST SIX WEEKS OF GROWING SEASON REMAIN AFTER SEEDING TO ENDURE ESTABLISHMENT BEFORE FREEZING CONDITIONS.

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

STANDARD FOR VEGETATIVE COVER

- 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
- E. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK, OR TRAILER-MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT-FIBERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. (ALSO SEE SECTION 4 - MULCHING BELOW), 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 CONTACT OCCURS, THERE IS A REDUCED SEED GERMINATION AND GROWTH.

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 5. IRRIGATION (WHERE FEASIBLE): 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
- 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.
- I. PEG AND TWINE DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
- 2. MULCH NETTINGS STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
- 3. CRIMPER (MULCH ANCHORING COULTER TOOL) A TRACTOR-DRAWN IMPLEMENT SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.
- 4. LIQUID MULCH-BINDERS MAY BE USED TO ANCHOR SALT HAY, HAY OR STRAW
- 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:
- I) 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

# STANDARD FOR STABILIZATION WITH SOD

MCNJ-SOIL-NOTE-1300 02/01/17

- HIGH QUALITY CULTIVATED SOD IS PREFERRED OVER NATIVE OR PASTURE SOD. SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDY GRASSES.
- SOD SHOULD BE UNIFORM THICKNESS, APPROXIMATELY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING (EXCLUDES TOP GROWTH).
- SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE
- WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 10 PERCENT OF THE STRIP. BROKEN PADS OR TORN AND UNEVEN ENDS WILL NOT BE
- FOR DROUGHTY SITES. A SOD OF TURF-TYPE TALL FESCUE OR TURF-TYPE TALL FESCUE MIXED WITH KENTUCKY BLUEGRASS IS PREFERRED OVER A 100% KENTUCKY BLUEGRASS SOD. ALTHOUGH NOT WIDELY AVAILABLE, A SOD OF FINE FESCUE IS ALSO ACCEPTABLE
- ONLY MOIST, FRESH, UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED DELIVERED AND INSTALLED WITHIN A PERIOD OF 24 HOURS OR LESS DURING SUMMER
- I. SITE PREPARATION

FOR DROUGHTY SITES.

ACCEPTABLE.

- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EOUIPMENT FOR LIMING, FERTILIZING, INCORPORATING ORGANIC MATTER, AND OTHER SOIL PREPARATION PROCEDURES. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARD FOR LAND GRADING.
- B. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. SEE STANDARD FOR TOPSOILING FOR TOPSOIL AMENDMENT REQUIREMENTS.
- C. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH . DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
- II. SOIL 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 (HTTP://NIAES.RUTGERS.EDU/COUNTY/). FERTILIZER SHALL B APPLIED AT THE RATE OF 500 POLINDS PER ACRE OR 11 POLINDS PER 1 000 SOLIARI FEET USING 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY 1/2 THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ! RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING APPLY LIMESTONE AT THE RATE OF 2 TONS/ACRE UNLESS SOIL TESTING INDICATE OTHERWISE. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES. UNIFORML' APPLY GROUND LIMESTONE TO TOPSOIL, WHICH HAS BEEN SPREAD AND FIRMED ACCORDING TO SITE SPECIFIC SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP://NJAES.RUTGERS.EDU/COUNTY/).
- B. WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC. SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED
- C. REMOVE FROM THE SURFACE ALL OBIECTS THAT WOULD PREVENT GOOD SOD TO TOPSOIL CONTACT AND REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS, OR OTHER UNSUITABLE MATERIAL.
- D. INSPECT SITE JUST BEFORE SODDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED THE AREA MUST BE RETILED AND FIRMED IN ACCORDANCE WITH THE ABOVE.
- A. SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
- B. PLACE SOD STRIPS WITH SNUG, EVEN JOINTS THAT ARE STAGGERED. OPEN SPACE
- C. LIGHTLY ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALI JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS AND INVASION OF WEEDS.
- D. ON SLOPES GREATER THAN 3 TO I. SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES BIODEGRADABLE PLASTIC SPIKES, OR SPLIT SHINGLES (8 TO 10 INCHES LONG BY 3/4 INCH WIDE).
- E. SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE. BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING. PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WIL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER-CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.
- F. IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE SOIL LAYER BENEATH SOD TO A DEPTH OF I INCH MAINTAIN OPTIMUM MOISTURE FOR AT LEAST TWO WEEKS.

# IV. TOP DRESSING

SINCE SOIL ORGANIC MATTER AND SLOW RELEASE NITROGEN FERTILIZER (WATER SOLUBLE) ARE PRESCRIBED IN SECTIONS I AND 2 IN THIS STANDARD. FOLLOW-UP TOP DRESSING IS NOT MANDATORY, EXCEPT WHERE GROSS NITROGEN DEFICIENCY EXISTS TO THE EXTENT THAT TURF FAILURE MAY DEVELOP, TOP DRESSING SHALL THEN BE APPLIED. TOP DRESS WITH 10-10-10 OR EQUIVALENT AT 400 POUNDS PER ACRE OR 7 POUNDS PER 1,000 SQUARE FEET EVERY 3 TO 5 WEEKS UNTIL THE GROSS NITROGEN DEFICIENCY IS THE TURF IS AMELIORATED.

# CONSTRUCTION SITE WASTE CONTROL COMPONENT OF THE STORMWATER POLLUTION PREVENTION PLAN (SPPP)

MCNJ-SOIL-NOTE-1200

THE CONSTRUCTION SITE WASTE CONTROL COMPONENT OF THE SPPP CONSISTS OF THE REQUIREMENTS IN 2., 3., AND 4. BELOW. THESE REQUIREMENTS BECAME OPERATIVE ON MARCH 3, 2004 AND APPLY TO CONSTRUCTION ACTIVITIES THAT COMMENCE ON OR AFTER MARCH 3, 2004. ANY NEW CONSTRUCTION ACTIVITY FOR WHICH AN RFA IS SUBMITTED ON OR AFTER MARCH 3, 2004 OR WHICH RECEIVE AUTOMATIC RENEWAL OF AUTHORIZATION UNDER THIS PERMIT AFTER MARCH 3, 2004 ALSO SHALL COMPLY WITH THESE REQUIREMENTS.

- MATERIAL MANAGEMENT TO PREVENT OR REDUCE WASTE ANY PESTICIDES, FERTILIZERS. FUELS. LUBRICANTS, PETROLEUM PRODUCTS, ANTI-FREEZE, PAINTS AND PAINT THINNERS, CLEANING SOLVENTS AND ACIDS, DETERGENTS, CHEMICAL ADDITIVES, AND CONCRETE CURING COMPOUNDS SHALL BE STORED IN CONTAINERS IN A DRY COVERED AREA. MANUFACTURERS' RECOMMENDED APPLICATION RATES, USES, AND METHODS SHALL BE STRICTLY FOLLOWED TO THE EXTENT NECESSARY TO PREVENT OR MINIMIZE THE PRESENCE OF WASTE FROM SUCH MATERIALS IN THE STORMWATER DISCHARGE AUTHORIZED BY THIS PERMIT. (THE PRECEDING SENTENCE DOES NOT APPLY TO ANY MANUFACTURERS' RECOMMENDATIONS ABOUT FERTILIZER OR OTHER MATERIAL THAT CONFLICT WITH THE EROSION AND SEDIMENT CONTROL COMPONENT OF THE FACILITY'S SPPP.)
- WASTE HANDLING THE FOLLOWING REQUIREMENTS APPLY ONLY TO CONSTRUCTION SITE WASTE THAT HAS THE POTENTIAL TO BE TRANSPORTED BY THE STORMWATER DISCHARGE AUTHORIZED BY THIS PERMIT. THE HANDLING AT THE CONSTRUCTION SITE OF WASTE BUILDING MATERIAL AND RUBBLE AND OTHER CONSTRUCTION SIT WASTES, INCLUDING LITTER AND HAZARDOUS AND SANITARY WASTES, SHALI CONFORM WITH THE STATE SOLID WASTE MANAGEMENT ACT, N.I.S.A. 13:1E-1 ET SEO.. AND ITS IMPLEMENTING RULES AT N.J.A.C. 7:26, 7:26A, AND 7:26G; THE NEW JERSEY PESTICIDE CONTROL CODE AT N.I.A.C. 7:30; THE STATE LITTER STATUTE (N.I.S.A 13:1E-99.3); AND OSHA REQUIREMENTS FOR SANITATION AT 29 C.F.R. 1926 (EXCEPT WHERE SUCH CONFORMANCE IS NOT RELEVANT TO THE STORMWATER DISCHARGE AUTHORIZED BY THIS PERMIT). CONSTRUCTION SITES SHALL HAVE ONE OR MORE DESIGNATED WASTE COLLECTION AREAS ONSITE OR ADJACENT TO THE SITE, AND AN ADEQUATE NUMBER OF CONTAINERS (WITH LIDS OR COVERS) FOR WASTE. WASTE SHALL BE COLLECTED FROM SUCH CONTAINERS BEFORE THEY OVERFLOW, AND SPILLS AT SUCH CONTAINERS SHALL BE CLEANED UP IMMEDIATELY.

# A. CONSTRUCTION SITE WASTES INCLUDE BUT ARE NOT LIMITED TO:

"CONSTRUCTION AND DEMOLITION WASTE," AS DEFINED IN N.J.A.C. 7:26-1.4 AS FOLLOWS: "WASTE BUILDING MATERIAL AND RUBBLE RESULTING FROM CONSTRUCTION, REMODELING, REPAIR, AND DEMOLITION OPERATIONS ON HOUSES COMMERCIAL BUILDINGS PAVEMENTS AND OTHER STRUCTURES THE FOLLOWING MATERIALS MAY BE FOUND IN CONSTRUCTION AND DEMOLITION WASTE: TREATED AND UNTREATED WOOD SCRAP; TREE PARTS, TREE STUMPS AND BRUSH; CONCRETE, ASPHALT, BRICKS, BLOCKS AND OTHER MASONRY; PLASTER AND WALLBOARD; ROOFING MATERIALS; CORRUGATED CARDBOARD AND MISCELLANEOUS PAPER; FERROUS AND NON-FERROUS METAL; NON-ASBESTOS BUILDING INSULATION; PLASTIC SCRAP; DIRT; CARPETS AND PADDING; GLASS (WINDOW AND DOOR); AND OTHER MISCELLANEOUS MATERIALS; BUT SHALL NOT INCLUDE OTHER SOLID WASTE TYPES." . ANY WASTE BUILDING MATERIAL AND RUBBLE RESULTING FROM SUCH OPERATIONS

THAT IS HAZARDOUS FOR PURPOSES OF N.J.A.C. 7:26G (THE HAZARDOUS WASTE

ii. DISCARDED (INCLUDING SPILLED) PESTICIDES, FERTILIZERS, FUELS, LUBRICANTS,

PETROLEUM PRODUCTS, ANTI-FREEZE, PAINTS AND PAINT THINNERS, PAINT CHIPS AND SANDBLASTING GRITS, CLEANING SOLVENTS, ACIDS FOR CLEANING MASONRY SURFACES, DETERGENTS, CHEMICAL ADDITIVES USED FOR SOIL STABILIZATION (E.G. CALCIUM CHLORIDE), AND CONCRETE CURING COMPOUNDS.

iv. OTHER "LITTER," AS DEFINED AT N.J.S.A. 13:1E-215.D AS FOLLOWS: "ANY USED OR UNCONSUMED SUBSTANCE OR WASTE MATERIAL WHICH HAS BEEN DISCARDED WHETHER MADE OF ALUMINUM, GLASS, PLASTIC, RUBBER, PAPER, OR OTHER NATURAL OR SYNTHETIC MATERIAL, OR ANY COMBINATION THEREOF, INCLUDING, BUT NOT LIMITED TO, ANY BOTTLE, JAR OR CAN, OR ANY TOP, CAP OR DETACHABLE TAB OF ANY BOTTLE, IAR OR CAN, ANY UNLIGHTED CIGARETTE, CIGAR, MATCH OR ANY FLAMING OR GLOWING MATERIAL OR ANY GARBAGE, TRASH, REFUSE, DEBRIS, RUBBISH, GRASS CLIPPINGS OR OTHER LAWN OR GARDEN WASTE, NEWSPAPERS, MAGAZINES, GLASS, METAL, PLASTIC OR PAPER CONTAINERS OR OTHER PACKAGING OR CONSTRUCTION MATERIAL, BUT DOES NOT INCLUDE THE WASTE OF THE PRIMARY PROCESSES OF MINING OR OTHER EXTRACTION PROCESSES, LOGGING SAWMILLING, FARMING OR MANUFACTURING."

# v. SANITARY SEWAGE AND SEPTAGE.

- vi. CONTAMINATED SOILS ENCOUNTERED OR DISCOVERED DURING EARTHMOVING activities or during the cleanup of a leak or discharge of a hazardo SUBSTANCE.
- B. CONCRETE WASHOUT CONCRETE WASHOUT ONSITE IS PROHIBITED OUTSIDE DESIGNATED AREAS. WASHOUT ACTIVITIES INCLUDE, BUT NOT LIMITED TO, THE WASHING OF TRUCKS, CHUTES, HOSES, MIXERS, HOPPERS, AND TOOLS.
- DESIGNATED WASHOUT AREAS SHALL BE LINED AND BERMED TO PREVENT DISCHARGES TO SURFACE AND GROUNDWATER.
- . HARDENED CONCRETE FROM THE CONCRETE WASHOUT WASHOUT SHALL BI REMOVED AND PROPERLY DISPOSED OF. ii. THE CONCRETE WASHOUT AREA SHALL BE CLEARLY DESIGNATED WITH A SIGN
- INDICATING THE AREAS USES. C. SANITARY SEWAGE/SEPTAGE DISPOSAL - DISCHARGES OF RAW SANITARY SEWAGE OF SEPTAGE ONSITE ARE STRICTLY PROHIBITED. ADEQUATE FACILITIES WITH PROPER

DISPOSAL SHALL BE PROVIDED AND MAINTAINED ONSITE OR ADJACENT TO THE SITE

SPILLS; DISCHARGES OF HAZARDOUS SUBSTANCES; FEDERALLY REPORTABLE RELEASES.

FOR ALL WORKERS AND OTHER SANITARY NEEDS.

- A. SPILL KITS SHALL BE AVAILABLE ONSITE OR ADJACENT TO THE SITE FOR ANY MATERIALS THAT ARE LISTED IN 2. ABOVE AND USED OR APPLIED ONSITE. ALL SPILLS OF SUCH MATERIAL SHALL BE CONTAINED AND CLEANED UP IMMEDIATELY. CLEANED UP MATERIALS SHALL BE PROPERLY DISPOSED OF.
- B. DISCHARGES OF HAZARDOUS SUBSTANCES (AS DEFINED IN N.J.A.C. 7:1E-1.6) IN CONSTRUCTION SITE WASTES ARE SUBJECT TO THE PROVISIONS OF THE SPILL COMPENSATION AND CONTROL ACT, N.I.S.A. 58:10-23.11 ET SEQ., AND OF DEPARTMENT RULES FOR DISCHARGES OF PETROLEUM AND OTHER HAZARDOUS SUBSTANCES AT N.J.A.C. 7:1E. NO DISCHARGE OF HAZARDOUS SUBSTANCES RESULTING FROM AN ONSITE SPILL SHALL BE DEEMED TO BE "PURSUANT TO AND IN COMPLIANCE WITH [THIS] PERMIT" WITHIN THE MEANING OF THE SPILL COMPENSATION AND CONTROL ACT AT N.J.S.A. 58:10-23.11C.
- C. RELEASES IN EXCESS OF REPORTABLE QUANTITIES (RQ) ESTABLISHED UNDER 40 C.F.R. 110, 117, AND 302 THAT OCCUR WITHIN A 24-HR PERIOD MUST BE REPORTED TO THE NATIONAL RESPONSE CENTER (800 424-8802).

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**USE VARIANCE &** PRELIMINARY AND FINAL MAJOR SITE PLAN

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

DCH BRUNSWICK TOYOTA

BLOCK 143.05, LOTS 18.02, 19.01 & 21.01 TOWNSHIP OF NORTH **BRUNSWICK** MIDDLESEX COUNTY

NEW JERSEY

RED BANK (Headquarte

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Red Bank, NJ 07701 Engineering Phone: 732.383.1950 & Design COLLIERS ENGINEERING & DESIGN, IN DOING BUSINESS AS MASER RAWN BY:

AS SHOWN 8/18/21 EGH AWING NAME 19003878A SOIL EROSION & SEDIMENT

AND NOTES

15 of

- MCNJ-SOIL-NOTE-1700 05/01/1 LIMIT THE EXCAVATION AREA AND EXPOSURE TIME WHEN HIGH-ACID PRODUCING SOILS ARE ENCOUNTERED.
- TOPSOIL STRIPPED FROM THE SITE SHALL BE STORED SEPARATELY FROM TEMPORARILY STOCKPILED HIGH ACID PRODUCING SOILS.

**MITIGATION NOTES** 

FOR ACIDIC SOIL

- 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. TEMPORARILY 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. 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 pH 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.
- 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.
- SHOULD BE INSTALLED TO LIMIT THE MOVEMENT OF HIGH ACID-PRODUCING SOILS FROM, AROUND, OR OFF THE SITE. 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.

NON-VEGETATIVE EROSION CONTROL PRACTICES (STONE TRACKING PADS,

STRATEGICALLY PLACED LIMESTONE CHECK DAM, SEDIMENT BARRIER, WOOD CHIPS)

# NOTES:

- CONCRETE WASHOUTS ARE REQUIRED ON ALL CONSTRUCTION SITES INVOLVING CONCRETE AND STUCCO USE:
- THE CONTRACTOR SHALL REQUIRE ALL CONCRETE DRIVERS TO UTILIZE THE CONCRETE WASHOUTS ONSITE
- WASHOUT FACILITIES SHALL BE LOCATED AT LEAST 50 YARDS AWAY FROM STORM SEWER DRAIN INLETS, GUTTERS, OPEN DITCHES, AND WATER COURSES.
- THE NUMBER OF CONCRETE WASHOUTS DEPENDS ON THE EXPECTED DEMAND FOR STORAGE CAPACITY. LARGE SITES WITH EXTENSIVE CONCRETE WORK SHALL BE

PLACED AT MULTIPLE LOCATIONS FOR USE BY CONCRETE TRUCK DRIVERS.

APPROPRIATE STONE SHOULD COVER PATHS TO CONCRETE WASHOUT.

- CONCRETE WASHOUT AREAS SHALL BE IDENTIFIED BY POSTING SIGNS ONSITE. CONCRETE WASHOUTS ARE TO BE INSPECTED DAILY BY THE CONTRACTOR FOR
- REMOVE AND DISPOSE OF ALL MATERIAL WHEN THE WASHOUT HAS BEEN FILLED TO
- PRIOR TO ANY RAINFALL, ALL CONCRETE WASHOUTS ARE TO BE CLEANED OUT OR ONCE THE MATERIAL HAS BEEN CLEANED OUT OF THE CONCRETE WASHOUT
- FACILITY, THE FACILITY MUST BE INSPECTED FOR REPAIR, RECONSTRUCTION OR REPLACEMENT. ALL PLASTIC LINING SHALL BE REMOVED AND REPLACED. PRE-FABRICATED OR ONSITE FABRICATED CONCRETE WASHOUTS MAY BE USED.
- 12. OPTIONS FOR ONSITE CONCRETE WASHOUTS:

LEAKS OR TEARS IN PLASTIC LINER.

- A. DIG A PIT AND LINE WITH 10 MIL PLASTIC SHEETING.
- B. CREATE AN ABOVE-GROUND STRUCTURE FROM STRAW BALES OR SANDBAGS, WITH 10 MIL PLASTIC LINING.

# CONCRETE WASHOUT NOTES

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CONTROL DETAILS

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

# SPPP REQUIRED INSPECTIONS AND REPORTS

MCNJ-SOIL-NOTE-1201

A COPY OF THE AUTHORIZATION SHALL BE POSTED ONSITE AT A SAFE, PUBLICLY ACCESSIBLE LOCATION IN CLOSE PROXIMITY OF THE CONSTRUCTION SITE AT ALL TIMES UNTIL A NOTICE OF COMPLETION HAS BEEN ISSUED. THE PERMITTEE SHALL POST THE NJDEP HOTLINE NUMBER (I-877-WARN-DEP) WITH THE COPY OF THE AUTHORIZATION.

### ROUTINE INSPECTIONS

- A. THE PERMITTEE SHALL CONDUCT AND DOCUMENT WEEKLY (MINIMUM) INSPECTIONS OF THE FACILITY TO IDENTIFY AREAS CONTRIBUTING TO THE STORMWATER DISCHARGE AUTHORIZED BY THIS PERMIT AND EVALUATE WHETHER THE STORMWATER POLLUTION PREVENTION PLAN (SPPP) IDENTIFIED UNDER E.I OF THE CONSTRUCTION ACTIVITY STORMWATER (GP) PART I NARRATIVE REQUIREMENTS, INCLUDING THIS SOIL EROSION AND SEDÍMENT CONTROL PLAN IS BEING PROPERLY IMPLEMENTED AND MAINTAINED, OR WHETHER ADDITIONAL MEASURES ARE NEEDED TO IMPLEMENT THE SPPP.
- B. ONCE INSTALLATION OF ANY REQUIRED OR OPTIONAL EROSION CONTROL DEVICE OR MEASURE HAS BEEN IMPLEMENTED, ROUTINE INSPECTIONS, MINIMUM WEEKLY, OF EACH MEASURE SHALL BE PERFORMED BY THE CONTRACTOR'S INSPECTION PERSONNEL AND THE RESULTS RECORDED TO INVENTORY AND REPORT THE CONDITION OF EACH MEASURE TO ASSIST IN MAINTAINING THE EROSION AND SEDIMENT CONTROL MEASURES IN GOOD WORKING ORDER.
- C. THESE REPORT FORMS SHALL BECOME AN INTEGRAL PART OF THE SPPP AND SHALL BE MADE READILY ACCESSIBLE TO GOVERNMENTAL INSPECTION OFFICIALS, THE OPERATOR'S ENGINEER, AND THE OPERATOR FOR REVIEW UPON REQUEST DURING VISITS TO THE PROJECT SITE. IN ADDITION, COPIES OF THE REPORTS SHALL BE PROVIDED TO ANY OF THESE PERSONS, UPON REQUEST, VIA MAIL OR FACSIMILE

### D. OTHER RECORD-KEEPING REQUIREMENTS

- THE CONTRACTOR SHALL KEEP THE FOLLOWING RECORDS RELATED TO CONSTRUCTION ACTIVITIES AT THE SITE:
- DATES WHEN MAJOR GRADING ACTIVITIES OCCUR AND THE AREAS WHICH WERE DATES AND DETAILS CONCERNING THE INSTALLATION OF STRUCTURAL
- CONTROLS - DATES WHEN CONSTRUCTION ACTIVITIES CEASE IN AN AREA
- DATES WHEN AN AREAS IS STABILIZED, EITHER TEMPORARILY OR PERMANENTLY DATES OF RAINFALL AND THE AMOUNT OF RAINFALL DATES AND DESCRIPTIONS OF THE CHARACTER AND AMOUNT OF AN SPILLS OF
- HAZARDOUS MATERIALS RECORDS OF REPORTS FILED WITH REGULATORY AGENCIES IF REPORTABLE
- STORMWATER POLLUTION PREVENTION PLAN (SPPP)

QUANTITIES OF HAZARDOUS MATERIALS SPILLED

A. CONSTRUCTION ACTIVITY THAT MAY RESULT IN A STORMWATER DISCHARGE AUTHORIZED BY THIS PERMIT SHALL BE EXECUTED ONLY IN ACCORDANCE WITH A SPPP THAT CONSISTS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN, AND (WHERE APPLICABLE) THE CONSTRUCTION SITE WASTE CONTROL COMPONENT SET FORTH IN ATTACHMENT B TO THE GENERAL PERMIT. A COPY OF THIS SPPP SHALL BE RETAINED BY THE PERMITTEE FOR A PERIOD OF AT LEAST FIVE (5) YEARS AFTER THE COMPLETION OF CONSTRUCTION. THIS PERIOD MAY BE EXTENDED BY WRITTEN REQUEST OF THE DEPARTMENT AT ANY TIME (SEE N.J.A.C.

# REPORTS OF NONCOMPLIANCE

A. ALL INSTANCES OF NONCOMPLIANCE NOT REPORTED UNDER N.J.A.C. 7:14A-6.10 SHALL BE REPORTED TO THE DEPARTMENT ANNUALLY.

### NOTIFICATION OF COMPLETION

- A. THE SOIL CONSERVATION DISTRICT WILL PROVIDE THE DEPARTMENT A COPY OF THE REPORT OF COMPLIANCE ISSUED UNDER N.J.A.C. 2:90-1 FOR COMPLETED CONSTRUCTION ACTIVITIES. EXCEPT SINGLE FAMILY HOME CONSTRUCTION UNDER B. BELOW. THE REPORT OF COMPLIANCE SHALL SERVE AS THE NOTIFICATION OF COMPLETION
- B. THE BUILDER OF A SINGLE FAMILY HOME THAT IS AUTHORIZED UNDER THIS PERMIT, BUT NOT WITHIN THE DEFINITION OF "PROJECT AT N.J.S.A. 4:24-41G, SHALL SEND A COPY OF THE FINAL CERTIFICATE OF OCCUPANCY TO THE SOIL CONSERVATION DISTRICT. THE SOIL CONSERVATION DISTRICT WILL PROVIDE A COPY OF THE FINAL CERTIFICATE OF OCCUPANCY TO THE DEPARTMENT, WHICH WILL SERVE AS NOTIFICATION OF COMPLETION.
- DOT CERTIFIED PROJECTS ARE COMPLETED.
- BE MAINTAINED ON-SITE.

# SPPP REQUIRED INSPECTIONS AND REPORTS

(I-877-WARN-DEP) WITH THE COPY OF THE AUTHORIZATION.

MCNJ-SOIL-NOTE-1201

09/01/1 A COPY OF THE AUTHORIZATION SHALL BE POSTED ONSITE AT A SAFE, PUBLICLY ACCESSIBLE LOCATION IN CLOSE PROXIMITY OF THE

09/01/1

- A. THE PERMITTEE SHALL CONDUCT AND DOCUMENT WEEKLY (MINIMUM) INSPECTIONS OF THE FACILITY TO IDENTIFY AREAS CONTRIBUTING TO THE STORMWATER DISCHARGE AUTHORIZED BY THIS PERMIT AND EVALUATE WHETHER THE STORMWATER POLLUTION PREVENTION PLAN (SPPP) IDENTIFIED UNDER E.I. C. THE CONSTRUCTION ACTIVITY STORMWATER (GP) PART I NARRATIVI REQUIREMENTS, INCLUDING THIS SOIL EROSION AND SEDIMENT CONTROL PLAN IS BEING PROPERLY IMPLEMENTED AND MAINTAINED, OR WHETHER ADDITIONAL MEASURES ARE NEEDED TO IMPLEMENT THE SPPP.
- B. ONCE INSTALLATION OF ANY REQUIRED OR OPTIONAL EROSION CONTROL DEVICE OR MEASURE HAS BEEN IMPLEMENTED, ROUTINE INSPECTIONS, MINIMUM WEEKLY, O EACH MEASURE SHALL BE PERFORMED BY THE CONTRACTOR'S INSPECTION PERSONNEL AND THE RESULTS RECORDED TO INVENTORY AND REPORT THE CONDITION OF EACH MEASURE TO ASSIST IN MAINTAINING THE EROSION AND SEDIMENT CONTROL MEASURES IN GOOD WORKING ORDER.
- C. THESE REPORT FORMS SHALL BECOME AN INTEGRAL PART OF THE SPPP AND SHALI BE MADE READILY ACCESSIBLE TO GOVERNMENTAL INSPECTION OFFICIALS, THE OPERATOR'S ENGINEER, AND THE OPERATOR FOR REVIEW UPON REQUEST DURING VISITS TO THE PROJECT SITE. IN ADDITION, COPIES OF THE REPORTS SHALL BI PROVIDED TO ANY OF THESE PERSONS, UPON REQUEST, VIA MAIL OR FACSIMILE

### D. OTHER RECORD-KEEPING REQUIREMENTS

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- DATES WHEN CONSTRUCTION ACTIVITIES CEASE IN AN AREA DATES WHEN AN AREAS IS STABILIZED, EITHER TEMPORARILY OR PERMANENTLY
- DATES OF RAINFALL AND THE AMOUNT OF RAINFALL DATES AND DESCRIPTIONS OF THE CHARACTER AND AMOUNT OF AN SPILLS OF HAZARDOUS MATERIALS RECORDS OF REPORTS FILED WITH REGULATORY AGENCIES IF REPORTABLE
- QUANTITIES OF HAZARDOUS MATERIALS SPILLED

# STORMWATER POLLUTION PREVENTION PLAN (SPPP)

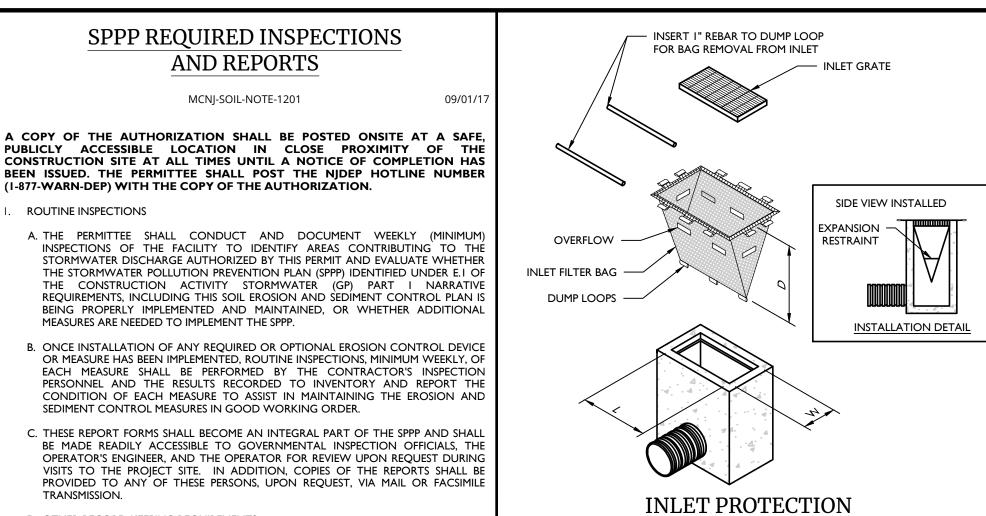
A. CONSTRUCTION ACTIVITY THAT MAY RESULT IN A STORMWATER DISCHARGE AUTHORIZED BY THIS PERMIT SHALL BE EXECUTED ONLY IN ACCORDANCE WITH A SPPP THAT CONSISTS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN, AND (WHERE APPLICABLE) THE CONSTRUCTION SITE WASTE CONTROL COMPONENT SET FORTH IN ATTACHMENT B TO THE GENERAL PERMIT. A COPY OF THIS SPPP SHALL BE RETAINED BY THE PERMITTEE FOR A PERIOD OF AT LEAST FIVE (5 YEARS AFTER THE COMPLETION OF CONSTRUCTION. THIS PERIOD MAY B EXTENDED BY WRITTEN REQUEST OF THE DEPARTMENT AT ANY TIME (SEE N.J.A.C

### REPORTS OF NONCOMPLIANCE

A. ALL INSTANCES OF NONCOMPLIANCE NOT REPORTED UNDER N.J.A.C. 7:14A-6.10 SHALL BE REPORTED TO THE DEPARTMENT ANNUALLY.

## NOTIFICATION OF COMPLETION

- A. THE SOIL CONSERVATION DISTRICT WILL PROVIDE THE DEPARTMENT A COPY OF THE REPORT OF COMPLIANCE ISSUED UNDER N.I.A.C. 2:90-1 FOR COMPLETED CONSTRUCTION ACTIVITIES. EXCEPT SINGLE FAMILY HOME CONSTRUCTION UNDER B. BELOW. THE REPORT OF COMPLIANCE SHALL SERVE AS THE NOTIFICATION OF
- B. THE BUILDER OF A SINGLE FAMILY HOME THAT IS AUTHORIZED UNDER THIS PERMIT. BUT NOT WITHIN THE DEFINITION OF "PROJECT AT N.J.S.A. 4:24-41G, SHALL SEND A COPY OF THE FINAL CERTIFICATE OF OCCUPANCY TO THE SOIL CONSERVATION DISTRICT. THE SOIL CONSERVATION DISTRICT WILL PROVIDE A COPY OF THE FINAL CERTIFICATE OF OCCUPANCY TO THE DEPARTMENT, WHICH WILL SERVE A NOTIFICATION OF COMPLETION.



(FILTER BAG) DETAIL

PUBLIC RIGHT OF WAY LENGTH OF STONE REQUIRED EXISTING GROUND OMPACTED SUBGRADE LENGTH OF STONE REQUIRED SEE TABLE -----**PUBLIC RIGHT** EXISTING GROUND SEE NOTE I \_\_\_\_

8. STONE SIZE PER ASTM C-33, SIZE #2 (2  $\frac{1}{2}$ " TO I  $\frac{1}{2}$ ") OR #3 (2" TO I") STONE.

THE WIDTH OF CONSTRUCTION ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF POINTS OF INGRESS OR EGRESS, OR AS SHOWN ON THE PLAN. THICKNESS SHOWN IS FOR STONE CONSTRUCTION ENTRANCE ONLY. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT

TRACKING OR FLOWING OF SEDIMENT ONTO ROADWAYS.

- THE ENTRANCE SHALL BE PERIODICALLY TOP DRESSED WITH ADDITIONAL STONE OR
- SPILLED, DROPPED, WASHED, OR TRACKED SEDIMENT ONTO ROADWAYS OR OTHER IMPERVIOUS SURFACES SHALL BE REMOVED IMMEDIATELY.
- WHERE ACCUMULATION OF DUST AND SEDIMENT IS INADEQUATELY CLEANED OR REMOVED BY CONVENTIONAL METHODS, A POWER BROOM OR STREET SWEEPER SHALL BE USED TO CLEAN PAVED AREAS.
- ALL OTHER ACCESS POINTS TO THE SITE WHICH DO NOT CONTAIN A CONSTRUCTION ACCESS PAD SHALL BE BLOCKED OFF.
- 9. INDIVIDUAL INTERIOR LOT INGRESS/EGRESS CONSTRUCTION ACCESS SHALL HAVE # 3 (I"

PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED	
	COARSE GRAINED SOILS	FINE GRAINED SOILS

200 FT

2' MIN.

ENTIRE SURFACE STABILIZED WITH HMA BASE COURSE,

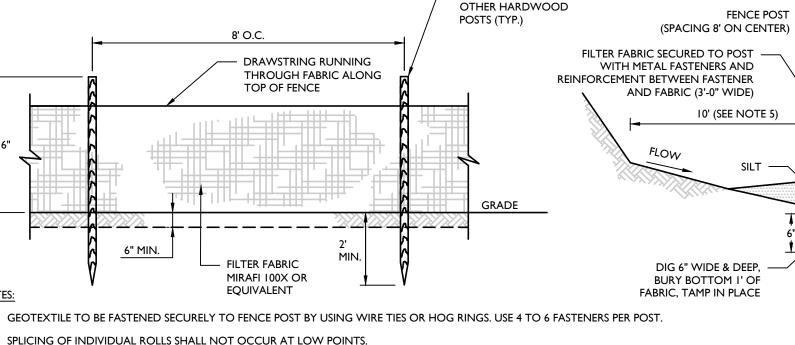
MIX I-2

# STABILIZED CONSTRUCTION ACCESS DETAIL

- 2"x2"x4'-6" OAK OR

MCNI-SOIL-EROS-1000

2% TO 5%



- SPLICING OF INDIVIDUAL ROLLS SHALL NOT OCCUR AT LOW POINTS.
- ALL SILT FENCE TO BE INSPECTED AND REMEDIAL MAINTENANCE PERFORMED BY THE CONTRACTOR WITHIN 24 HOURS AFTER EACH RAINFALL. REMOVE THE SILT ACCUMULATION WHEN IT REACHES I/3 OF THE FENCE FABRIC HEIGHT.
- FOR EVERY 100 FEET OF SILT FENCE, OR 1/4 ACRE OF DRAINAGE AREA, PROVIDE AN OVERFLOW POINT TO REDUCE PONDING IN
- 5. IF SPACE PERMITTED, LOCATE SILT FENCE 10' AWAY FROM TOE OF SLOPE IF THE SLOPE IS STEEPER THAN 1:1.

# TOPSOIL STOCKPILE DETAIL

ALL STOCKPILES SHALL NOT TO BE LOCATED WITHIN 50 FEET OF A FLOODPLAIN, SLOPE,

ROADWAY OR DRAINAGE FACILITY.

NOT TO SCALE

09/01/17 NOT TO SCALE

HEAVY DUTY 5 MIL.

POLYETHYLENE TARP

REQUIRED FOR SOILS

TESTED AT 4.5 PH OR

JOWNGRADE

SILT FENCE

MAJOR PUBLIC

RIGHT OF WAY

- 4" THICK

**ASPHALT** 

MAJOR PUBLIC

4" THICK HMA

BASE COURSE, MIX I-2 OR 19M64

RIGHT OF WAY

# SILT FENCE DETAIL

THE WIDTH OF CONSTRUCTION ENTRANCE SHALL NOT BE LESS THAN THE FULL WIDTH OF POINTS OF INGRESS OR EGRESS, OR AS SHOWN ON THE PLAN.

- THICKNESS SHOWN IS FOR STONE CONSTRUCTION ENTRANCE ONLY. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT
- TRACKING OR FLOWING OF SEDIMENT ONTO ROADWAYS. THE ENTRANCE SHALL BE PERIODICALLY TOP DRESSED WITH ADDITIONAL STONE OR
- ADDITIONAL LENGTH AS ON-SITE CONDITIONS REQUIRE SPILLED, DROPPED, WASHED, OR TRACKED SEDIMENT ONTO ROADWAYS OR OTHER
- IMPERVIOUS SURFACES SHALL BE REMOVED IMMEDIATELY.
- REMOVED BY CONVENTIONAL METHODS, A POWER BROOM OR STREET SWEEPER SHALL BE USED TO CLEAN PAVED AREAS.

6. WHERE ACCUMULATION OF DUST AND SEDIMENT IS INADEQUATELY CLEANED OR

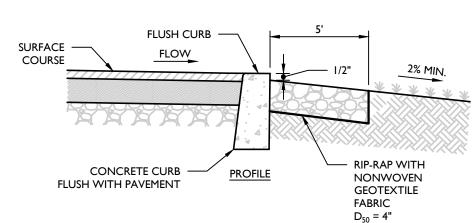
- . ALL OTHER ACCESS POINTS TO THE SITE WHICH DO NOT CONTAIN A CONSTRUCTION ACCESS PAD SHALL BE BLOCKED OFF.
- 8. STONE SIZE PER ASTM C-33. SIZE #2 (2  $\frac{1}{2}$ " TO  $\frac{1}{2}$ ") OR #3 (2" TO 1") STONE.
- INDIVIDUAL INTERIOR LOT INGRESS/EGRESS CONSTRUCTION ACCESS SHALL HAVE # 3 (I" TO 2") STONE, MINIMUM 10' (L) X 10' (W) AND 6" THICK.

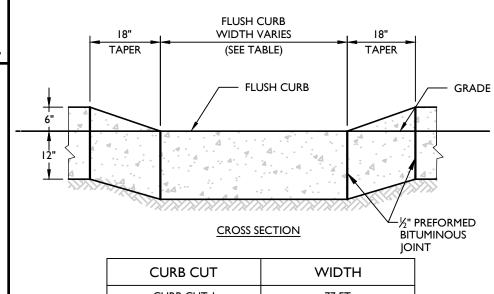
PERCENT SLOPE OF ROADWAY	LENGTH OF STONE REQUIRED		
	COARSE GRAINED SOILS	FINE GRAINED SOILS	
0% TO 2%	50 FT	100 FT	
2% TO 5%	I00 FT	200 FT	
> 5%	ENTIRE SURFACE STABILIZED WITH HOT MIX ASPHALT BASE COURSE, MIX I-2		

# STABILIZED CONSTRUCTION ACCESS (WITH PAVEMENT) DETAIL

MCNJ-SOIL-EROS-1001

FLUSH CURB WIDTH VARIES CONCRETE CURB OPENING RIP-RAP WITH NONWOVEN FLUSH WITH PAVEMENT GEOTEXTILE FABRIC  $D_{50} = 4"$ DIRECTION OF FLOW





CURB CUT	WIDTH
CURB CUT I	77 FT
CURB CUT 2	I0 FT
CURB CUT 3	61 FT
CURB CUT 4	4 FT
CURB CUT 5	4 FT
CURB CUT 6	I0 FT
CURB CUT 7	8 FT

- FLUSH CURB FOR OVERLAND FLOW TO BE USED AT DESIGNATED LOCATIONS ONL' AS SHOWN ON SITE PLANS.
- CONTRACTOR SHALL ENSURE THAT THERE IS POSITIVE DRAINAGE FROM TH PAVEMENT TO THE GRASSED AREA.

# FLUSH CURB FOR DRAINAGE DETAIL

GNRL-DTLS-STND-GRID

Michael F. Gallagher NEW JERSEY LICENSED PROFESSIONAL ENGINEER

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PRELIMINARY AND FINAL MAJOR SITE PLAN

LICENSE NUMBER: GE48719

DCH BRUNSWICK TOYOTA

BLOCK 143.05, LOTS 18.02, 19.01 & 21.01 TOWNSHIP OF NORTH BRUNSWICK MIDDLESEX COUNTY NEW JERSEY

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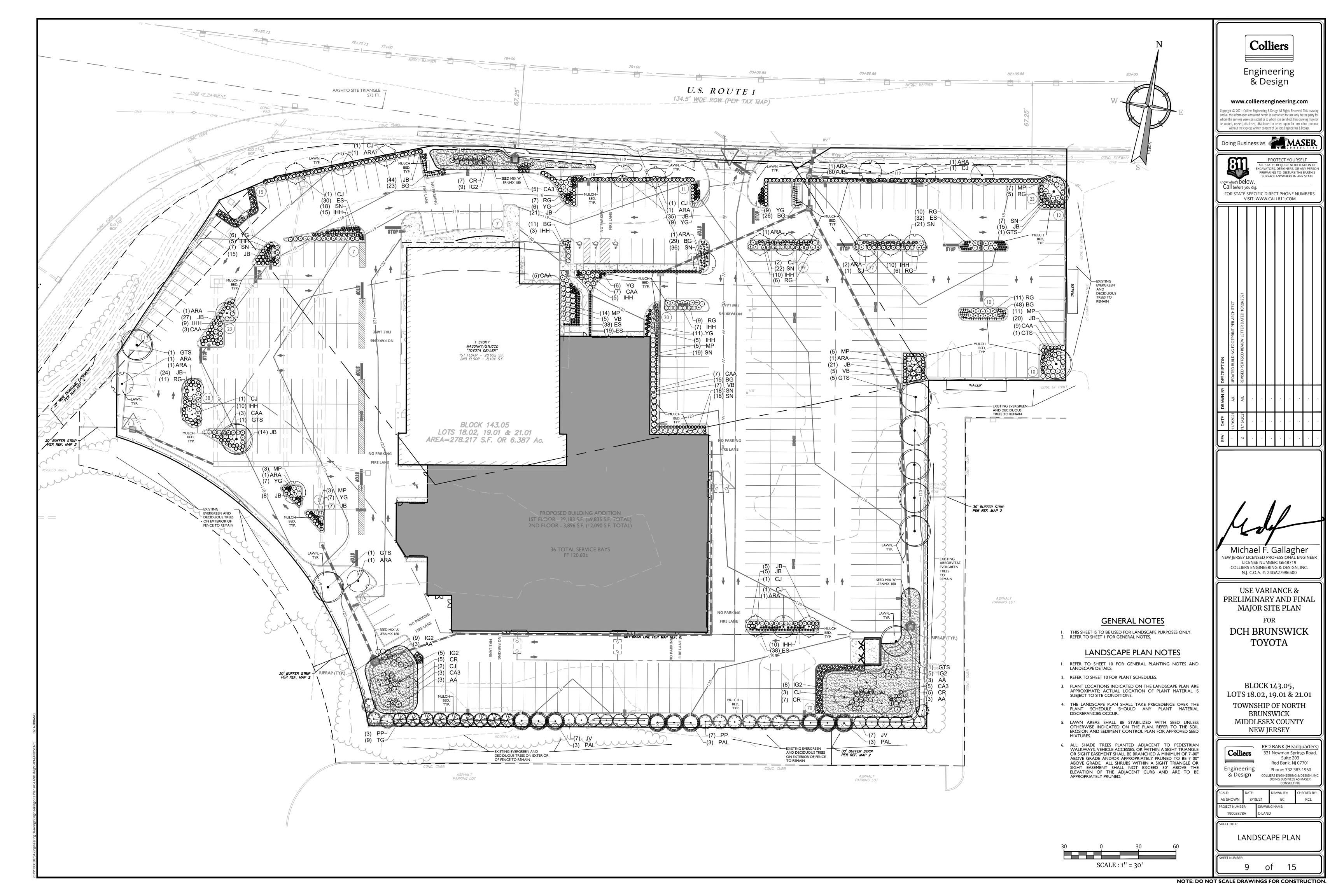
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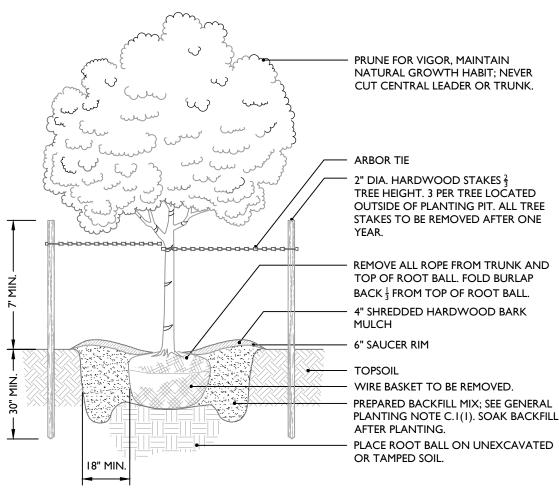
AS SHOWN 8/18/21 EGH 19003878A SOIL EROSION & SEDIMENT

CONTROL DETAILS AND NOTES

of NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

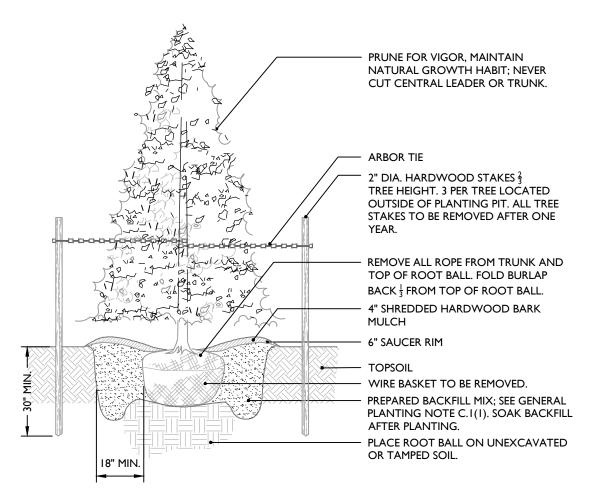
C. THE DOT SHALL PROVIDE WRITTEN NOTIFICATION TO THE DEPARTMENT WHEN C. THE DOT SHALL PROVIDE WRITTEN NOTIFICATION TO THE DEPARTMENT WHEN DOT CERTIFIED PROJECTS ARE COMPLETED. LENGTH OF STONE REQUIRED COPIES OF ALL OF THE ABOVE, INCLUDING THE SPPP (WITH THE CERTIFIED PLAN), THI COPIES OF ALL OF THE ABOVE, INCLUDING THE SPPP (WITH THE CERTIFIED PLAN), THE CERTIFICATION, AUTHORIZATION UNDER NJPDES CONSTRUCTION ACTIVITY CERTIFICATION, AUTHORIZATION UNDER NJPDES CONSTRUCTION ACTIVITY STORMWATER GENERAL PERMIT, ALL CORRESPONDENCE AND NOTES TO AND FROM STORMWATER GENERAL PERMIT, ALL CORRESPONDENCE AND NOTES TO AND FROM THE NIDEP AND SOIL CONSERVATION DISTRICT (OR DESIGNATED MUNICIPALITY) SHALL THE NIDEP AND SOIL CONSERVATION DISTRICT (OR DESIGNATED MUNICIPALITY) SHALI EXISTING — BE MAINTAINED ON-SITE. GROUND LENGTH OF STONE REQUIRED
SEE TABLE EXISTING GROUND (SEE NOTE I)





NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSER)

# DECIDUOUS TREE PLANTING DETAIL



NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT 2. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY

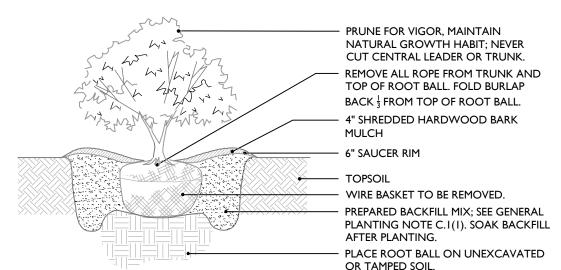
# **EVERGREEN TREE PLANTING DETAIL**

PLANT SCHED	ULE					
TREES ARA	<u>QTY</u> 15	BOTANICAL NAME Acer rubrum `Armstrong`	COMMON NAME Armstrong Red Maple	CONT B & B	<u>SIZE</u> 2.5-3"Cal	<u>HEIGHT</u> 12-15` H
CJ	15	Carpinus caroliniana 'J.N. Upright' TM	Firespire American Hornbeam	B & B	2.5-3"Cal	
GTS	11	Gleditsia triacanthos `Skyline`	Skyline Honey Locust	B & B	2.5-3"Cal	
EVERGREEN TREES JV	<u>QTY</u> 14	BOTANICAL NAME Juniperus virginiana	COMMON NAME Eastern Red Cedar	CONT B & B	SIZE	HEIGHT 7-8`
PP	10	Picea pungens	Colorado Spruce	B & B		7-8`
PAL	9	Pinus alba	White Pine	B & B		7-8`
TG	9	Thuja occidentalis `Green Giant`	Green Giant Arborvitae	B & B		7-8`
SHRUBS AA	<u>QTY</u> 12	BOTANICAL NAME Aronia arbutifolia	COMMON NAME Red Chokeberry	CONT 5 gal	<u>SIZE</u> 24-30"	<u>HEIGHT</u>
CAA	34	Ceanothus americanus	New Jersey Tea	5 gal	24-30"	
CA3	13	Clethra alnifolia	Summersweet Clethra	5 gal	24-30"	
CR	24	Cornus sericea	Red Twig Dogwood	5 gal	24-30"	
MP	57	Myrica pensylvanica	Northern Bayberry	5 gal	24-30"	
RG	65	Rhus aromatica `Gro-Low`	Gro-Low Fragrant Sumac	5 gal	24-30"	
VB	17	Viburnum prunifolium	Blackhaw Viburnum	5 gal	24-30"	
YG	67	Yucca filamentosa `Golden Sword`	Adam's Needle	3 gal	18-24"	
EVERGREEN SHRUBS IHH	<u>QTY</u> 92	BOTANICAL NAME Ilex crenata 'Helleri'	COMMON NAME Heler Japanese Holly	CONT 5 gal	<u>SIZE</u> 24-30"	<u>HEIGHT</u>
IG2	36	llex glabra	Inkberry Holly	5 gal	24-30"	
JB	341	Juniperus conferta `Blue Pacific`	Blue Pacific Juniper	5 gal	24-30"	
GRASSES BG	QTY 152	BOTANICAL NAME Bouteloua gracilis	COMMON NAME Blue Grama Grass	CONT 2 gal	<u>SIZE</u> 15-18"	<u>HEIGHT</u>
ES	157	Eragrostis spectabilis	Purple Lovegrass	2 gal	15-18"	
CNI	110	Sarahaatrum nutana	Indian Cross	2 acl	15 10"	

Indian Grass

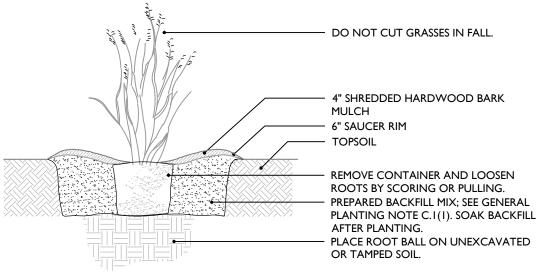
148 Sorghastrum nutans

2 gal 15-18"



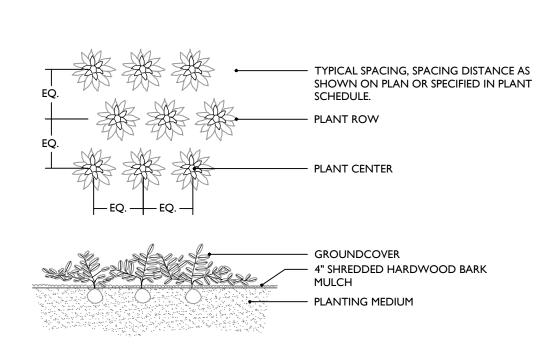
NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT . PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY

# SHRUB PLANTING DETAIL



NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.

# ORNAMENTAL GRASS PLANTING DETAIL



I. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.

# GROUNDCOVER PLANTING DETAIL

# ERNMX-180- MIX 'A'

RAIN GARDEN MIX SEEDING RATE: 15 LBS PER ACRE WITH 30 LBS PER ACRE COVER CROP

BY ERNST CONSERVATION SEEDS HEIGHT: 0.3 - 5.0 FEET

33.40 % SCHIZACHYRIUM SCOPARIUM, 'ITASCA', MN ECOTYPE (LITTLE BLUESTEM, 'ITASCA', MN 20.00 % ELYMUS VIRGINICUS, MADISON-NY ECOTYPE (VIRGINIA WILDRYE, MADISON-NY ECOTYPE) 7.00 % CAREX VULPINOIDEA, PA ECOTYPE (FOX SEDGE, PA ECOTYPE) 5.60 % CHASMANTHIUM LATIFOLIUM, WV ECOTYPE (RIVER OATS, WV ECOTYPE) 5.50 % ECHINACEA PURPUREA (PURPLE CONFELOWER) 3.00 % CHAMAECRISTA FASCICULATA, PA ECOTYPE (PARTRIDGE PEA, PA ECOTYPE) 3.00 % COREOPSIS LANCEOLATA (LANCELEAF COREOPSIS)

3.00 % PANICUM CLANDESTINUM, TIOGA (DEERTONGUE, TIOGA) 3.00 % PANICUM RIGIDULUM, PA ECOTYPE (REDTOP PANICGRASS, PA ECOTYPE) 3.00 % RUDBECKIA HIRTA (BLACKEYED SUSAN) 3.00 % VERBENA HASTATA, PA ECOTYPE (BLUE VERVAIN, PA ECOTYPE) 2.00 % HELIOPSIS HELIANTHOIDES, PA ECOTYPE (OXEYE SUNFLOWER, PA ECOTYPE) 1.80 % ASCLEPIAS INCARNATA, PA ECOTYPE (SWAMP MILKWEED, PA ECOTYPE) 1.00 % CAREX SCOPARIA, PA ECOTYPE (BLUNT BROOM SEDGE, PA ECOTYPE) 1.00 % SENNA HEBECARPA, VA & WV ECOTYPE (WILD SENNA, VA & WV ECOTYPE) 0.70 % PYCNANTHEMUM TENUIFOLIUM (NARROWLEAF MOUNTAINMINT) 0.50 % ASTER NOVAE-ANGLIAE, PA ECOTYPE (NEW ENGLAND ASTER, PA ECOTYPE) 0.50 % ASTER PRENANTHOIDES, PA ECOTYPE (ZIGZAG ASTER, PA ECOTYPE) 0.50 % BAPTISIA AUSTRALIS, SOUTHERN WY ECOTYPE (BLUE FALSE INDIGO, SOUTHERN WY ECOTYPE)

0.50 % ZIZIA AUREA (GOLDEN ALEXANDERS) 0.40 % MONARDA FISTULOSA, FORT INDIANTOWN GAP-PA ECOTYPE (WILD BERGAMOT, FORT INDIANTOWN GAP-PA ECOTYPE) 0.30 % HELENIUM AUTUMNALE. PA ECOTYPE (COMMON SNEEZEWEED, PA ECOTYPE) 0.30 % IUNCUS TENUIS, PA ECOTYPE (PATH RUSH, PA ECOTYPE) 0.20 % EUPATORIUM PERFOLIATUM, PA (ECOTYPE BONESET, PA ECOTYPE)

0.20 % JUNCUS EFFUSUS (SOFT RUSH) 0.20 % OENOTHERA FRUTICOSA VAR. (FRUTICOSA SUNDROPS) 0.20 % SOLIDAGO NEMORALIS, PA ECOTYPE (GRAY GOLDENRÓD, PA ECOTYPE) 0.20 % SOLIDAGO RUGOSA, PA ECOTYPE (WRINKLELEAF GOLDENROD, PA ECOTYPE)

# **GENERAL PLANTING NOTES**

# THIS PLAN SHALL BE USED FOR LANDSCAPE PLANTING PURPOSES ONLY. EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR SPECIFIC LOCATIONS OF UTILITIES AND STRUCTURES. NOTIFY

- THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES OR LOCATION CONFLICTS PRIOR TO PLANTING
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITIES MARKOUTS AND COMPLIANCE WITH ALL FEDERAL, STATE, OR LOCAL CODES, LAWFUL ORDERS OR REGULATIONS GOVERNING UPON THIS WORK.
- 3. OWNER OR HIS/HER REPRESENTATIVE SHALL BE NOTIFIED PRIOR TO BEGINNING PLANTING OPERATIONS.

### B. PLANT MATERIAL

A. GENERAL

# I. PLANT MATERIAL

- I.I. PLANT MATERIAL SHALL CONFORM WITH THE ANSI Z60.1-2014 'AMERICAN STANDARD FOR NURSERY STOCK' AS PUBLISHED BY AMERICANHORT IN REGARD TO QUALITY, SIZE OF PLANTING, SPREAD OF ROOTS, SIZE OF ROOTBALL, AND BRANCHING PATTERN.
- 1.2. PLANTS SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY, HAVE NORMAL GROWTH HABITS, WELL DEVELOPED BRANCHES, DENSELY FOLIATED, VIGOROUS ROOT SYSTEMS, AND FREE FROM DEFECTS, INJURY, DISEASE, AND/OR INFESTATION, WITH ROOT BALLS INTACT.
- I.3. ALL PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AT THE NURSERY. THE PLANT MATERIAL SHALL BE PLANTED AT THE SAME LEVEL WHEN PLANTED.
- 1.4. PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY TO THE SITE. IN THE EVENT THIS IS NOT POSSIBLE, THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO PROTECT THE PLANT MATERIAL FROM DAMAGE PRIOR TO INSTALLATION.
- 1.5. THE LANDSCAPE ARCHITECT OR OWNER SHALL HAVE THE RIGHT, AT ANY STAGE OF THE OPERATION, TO REJECT ANY AND ALL PLANT MATERIAL WHICH IN THEIR OPINION DOES NOT MEET THE REQUIREMENTS OF THESE PLANS.
- ANY PLANT DISCREPANCIES OCCUR. PLANT SIZE: THE CONTRACTOR SHALL FURNISH PLANT MATERIAL IN THE CALIPER, HEIGHT, SIZE OR

PLANT QUANTITIES: THE LANDSCAPE PLAN SHOULD TAKE PRECEDENCE OVER THE PLANT SCHEDULE IF

SPREAD INDICATED IN THE PLANT SCHEDULE. SUBSTITUTIONS: NO PLANT SUBSTITUTIONS SHALL BE PERMITTED WITH REGARD TO SIZE, SPECIES, OR VARIETY WITHOUT WRITTEN PERMISSIONS OF THE MUNICIPALITY, LANDSCAPE ARCHITECT, OR OWNER.

WRITTEN PROOF OF THE PLANT MATERIAL UNAVAILABILITY MUST BY DOCUMENTED BY THE

GUARANTEE: PLANT MATERIAL SHALL BE GUARANTEED FOR ONE (I) YEAR AFTER THE DATE OF FINAL ACCEPTANCE. ANY PLANT MATERIAL THAT IS DEAD WITHIN THAT TIME PERIOD SHALL BE REMOVED, INCLUDING STUMP, AND REPLACED WITH A SIMILAR SIZE AND SPECIES AT THE EXPENSE OF THE CONTRACTOR WITHIN ONE YEAR OF ONE GROWING SEASON. TREE STAKES AND ARBOR TIES SHALL BE

# C. TOPSOIL REQUIREMENTS:

CONTRACTOR.

## TOPSOIL REQUIREMENTS: SEE NIDOT SECTION 917 FOR REFERENCE AND SOIL ADDITIVES

REMOVED AT THE END OF THE GUARANTEE PERIOD.

- I.I. UNACCEPTABLE TOPSOIL SOURCES: DO NOT OBTAIN TOPSOIL FROM THE FOLLOWING SOURCES: AREAS CONTAINING CHEMICALLY CONTAMINATED SOILS. AREAS FROM WHICH THE ORIGINAL SURFACE HAS BEEN STRIPPED OR COVERED OVER, SUCH AS BORROW PITS, OPEN MINES, DEMOLITION SITES, DUMPS, LANDFILLS. NO TOPSOIL FROM WET EXCAVATION OR ACID PRODUCING SOILS.
- TOPSOIL SHALL BE UNIFORM QUALITY, FREE FROM HARD CLODS, STIFF CLAY, HARD PAN, SODS, LARGE STONE, CEMENT, ASH, SLAG, CONCRETE, TAR, BOARDS, CHIPS, MULCH, OR ANY OTHER UNDESIRABLE MATERIALS. NO TOPSOIL SHALL BE DELIVERED IN A FROZEN OR MUDDY CONDITION.
- TOPSOIL PH REQUIREMENTS ARE AS FOLLOWS: PH < 4.1 TOPSOIL IS UNACCEPTABLE. 4.1 ≤ PH < 5.8 ADD PULVERIZED LIME TO INCREASE THE PH TO 6.5 BEFORE USE. 5.8  $\leq$  PH < 7.0 TOPSOIL IS ACCEPTABLE. NO REMEDIATION NEEDED. 7.0 ≤ PH < 7.2 DECREASE PH TO AT LEAST 6.8 BEFORE USE. PH ≥ 7.2 TOPSOIL IS UNACCEPTABLE.
- 1.4. ORGANIC CONTENT. ENSURE THAT TOPSOIL HAS A MINIMUM ORGANIC CONTENT OF 2.75% BY WEIGHT. IF THE ORGANIC CONTENT IS LESS THAN 2.75%, INCREASE THE ORGANIC CONTENT BY ADDING SOIL ADDITIVES AT A RATE NECESSARY TO ATTAIN THE MINIMUM ORGANIC CONTENT. THE ORGANIC CONTENT SHALL NOT EXCEED 8% BY WEIGHT AND SHALL BE SAMPLED IN ACCORDANCE WITH THE ASSOCIATION OF AGRICULTURAL CHEMISTS.
- I.5. GRADATION/PARTICLE SIZE, PROVIDE TOPSOIL CONFORMING TO THE PARTICLE SIZE REQUIREMENTS IN TABLE 917.01-2 AND THAT HAS NO MORE THAN 20 PERCENT RETAINED ON A NO. 10 SIEVE WHEN MECHANICALLY GRADED. THE DEPARTMENT WILL DETERMINE THE PARTICLE SIZE DISTRIBUTION FOR THE PORTION OF THE TOPSOIL PASSING THE NO. 10 SIEVE USING HYDROMETER ANALYSIS ACCORDING TO AASHTO T 88. SAND (2.0 MM TO 0.05 MM) 40 - 80% COMPOSITION. SILT (0.05 MM TO 0.005 MM) 0 - 30% COMPOSITION. CLAY (0.005 MM AND SMALLER) 10 - 30% COMPOSITION.

# 2. PREPARATION OF SUBGRADE:

- 2.1. HOLLOWS, DEPRESSIONS, AND GULLIES SHALL BE FILLED WITH ACCEPTABLE SANDY LOAM AS OUTLINED ABOVE OR SOIL AS DESCRIBED HEREON: SOIL TO BE ONE PART EACH OF TOPSOIL, MOISTENED PEAT MOSS, AND PARENT MATERIAL.
- 2.2. LOOSEN SUBSOIL BY SCARIFYING, RIPPING OR TILLING USING DISKS, HARROWS OR OTHER SUITABLE EOUIPMENT TO A DEPTH OF 4"-6" IMMEDIATELY BEFORE PLACING ANY TOPSOIL. REPEAT IN AREAS WHERE SEED OR PLANTINGS ARE PROPOSED AND THERE HAS BEEN COMPACTED SOIL.

# 3. TESTING AND APPROVAL OF SOILS:

3.1. THE CONTRACTOR SHALL SUBMIT A CERTIFIED REPORT SHOWING THE ANALYSIS OF REPRESENTATIVE SAMPLES OF TOPSOIL. TESTING SHALL BE PERFORMED BY RUTGERS COOPERATIVE RESEARCH & EXTENSION TESTING LABORATORIES OR EQUIVALENT AS APPROVED BY STATE AND LOCAL REGULATIONS. PRICE BID SHALL INCLUDE ALL INSPECTION AND LABORATORY FEES.

## D. PLANTING PROCEDURES

- PROVIDE PLANTING PITS AS INDICATED ON PLANTING DETAILS. BACKFILL PLANTING PITS WITH SOILS AS OUTLINED IN SECTION C PRIOR. BACKFILL SOIL TO BE AT MINIMUM ONE PART EACH OF TOPSOIL, MOISTENED PEAT MOSS, AND PARENT MATERIAL.
- PLANTING BEDS SHALL RECEIVE FOUR (4) INCHES OF DOUBLE SHREDDED HARDWOOD MULCH AND TREATED WITH A PRE-EMERGENT HERBICIDE. NO MULCH SHALL COME IN DIRECT CONTACT WITH ROOT FLARE/COLLAR: UNDER NO CIRCUMSTANCES SHALL THE ROOT CROWN BE BURIED.
- I.3. SHRUB MASSES SHALL BE PLANTED IN CONTINUOUS MULCHED BEDS.
- 2. PLANT LOCATIONS: THE LOCATION OF ALL PLANT MATERIAL INDICATED ON THE LANDSCAPE PLANS ARE approximate. The final location of all plant material and planting bedlines shall be DETERMINED IN THE FIELD AT THE TIME OF INSTALLATION FOLLOWING THE BASIC INTENT OF THE APPROVED PLANS, UNLESS THERE IS A SPECIFIC DIMENSION OR LOCATION SHOWN.
- 3. PLANTING DATES: PLANTING OPERATIONS SHALL BE PERFORMED DURING PERIODS WITHIN THE PLANTING SEASON WHEN WEATHER AND SOIL CONDITIONS ARE SUITABLE AND IN ACCORDANCE WITH ACCEPTED LOCAL PRACTICES. PLANTING SEASONS ARE DEFINED AS MARCH 15 THROUGH MAY 15 AND SEPT 15 THROUGH NOV 15. PLANTING IS ACCEPTABLE DURING THE WINTER MONTHS IF WEATHER PERMITS AND THE GROUND IS NOT FROZEN, AND IN THE SUMMER IF SUPPLEMENTAL WATERING IS PROVIDED. SOIL MUST BE FROST FREE, FRIABLE, AND NOT MUDDY AT TIME OF PLANTING.

### 4. PLANTING METHODS

- LOCAL ORDINANCETREES SHALL BE SUPPORTED IMMEDIATELY AFTER PLANTING. PLANT MATERIAL SHALL BE PROPERLY GUYED, STAKED, AND PLANTED IN CONFORMANCE WITH THE TYPICAL PLANTING DETAILS.
- STAKES SHALL BE EIGHT TO TEN FEET LONG, OF SOUND, DURABLE UNFINISHED LUMBER CAPABLE OF WITHSTANDING ABOVEGROUND AND UNDERGROUND CONDITIONS DURING THE PERIOD OF GUARANTEE WITH TOP AND BOTTOM DIMENSIONS OF TWO INCHES BY TWO INCHES IN DIAMETER
- THREE STAKES SHALL BE EQUALLY SPACED ABOUT THE TREE IN A TRIANGULAR FASHION AND SHALL BE DRIVEN VERTICALLY INTO THE GROUND 2  $\frac{1}{2}$  TO 3 FEET IN A MANNER THAT DOES NOT INJURE THE ROOT BALL.
- TREES SHALL BE FASTENED TO EACH STAKE AT A HEIGHT OF FIVE FEET BY MEANS OF ARBOR TIE TREE TIE  $(\frac{7}{16}"$  WIDE RECOMMENDED FOR TREES UP TO  $2\frac{1}{2}$  INCHES IN CALIPER).
- 4.2. SET PLANTS PLUMB AND STRAIGHT. SET AT SUCH LEVEL THAT AFTER SETTLEMENT A NORMAL OR NATURAL RELATIONSHIP TO THE CROWN OF THE PLANT WITH THE GROUND SURFACE WILL BE ESTABLISHED. LOCATE PLANTS IN CENTER OF PIT.
- AT TIME OF INSTALLATION, THE CONTRACTOR SHALL WATER NEWLY INSTALLED PLANT MATERIAL. THE CONTRACTOR SHALL PROVIDE REGULAR WATERING TO ENSURE THE ESTABLISHMENT, GROWTH, AND SURVIVAL OF ALL PLANTS.
- 4.4. B&B PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE ROOTBALL ONLY. PLANTS WITH BROKEN, SPLIT, OR DAMAGED ROOTBALLS SHALL BE REJECTED.
- 4.5. CORD BINDING OF ALL B&B PLANTS SHALL BE CUT AND REMOVED, ALONG WITH THE BURLAP OF THE UPPER \$ OF THE ROOT BALL. ALL WIRE BASKETS ARE TO BE REMOVED PRIOR TO BACKFILLING PLANTING PIT.

# E. MAINTENANCE

- EACH TREE AND SHRUB SHALL BE PRUNED IN ACCORDANCE WITH AMERICAN STANDARD FOR NURSERY STOCK TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ALL DEAD WOOD OR SUCKERS AND ALL BROKEN OR BADLY BRUISED BRANCHES SHALL BE REMOVED. PRUNING SHALL BE DONE WITH CLEAN, SHARP TOOLS
- I.2. SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BE BRANCHED LOWER THAN 7'-0" ABOVE GRADE. PLANT MATERIAL LOCATED WITHIN SIGHT TRIANGLE EASEMENTS SHALL NOT EXCEED A MATURE HEIGHT OF 30" ABOVE THE ELEVATION OF THE ADJACENT CURB. STREET TREES PLANTED IN SIGHT TRIANGLE EASEMENTS SHALL BE PRUNED TO NOT TO HAVE BRANCHES BELOW 7'-0".
- 1.3. THE CENTRAL LEADER SHALL NOT BE CUT OR DAMAGED.

# LAWN AREAS:

- THE LANDSCAPE CONTRACTOR SHALL TEST THE SOIL TO CONFIRM SUITABILITY FOR THE PROPOSED SEED MIX AND SUPPLEMENT AS REQUIRED TO MEET THE REQUIRED PH & NUTRIENT LEVELS.
- 2.2. ALL DISTURBED AREAS SHALL BE STABILIZED WITH SEED UNLESS OTHERWISE INDICATED ON THE LANDSCAPE PLANS. SEED SHALL BE IN ACCORDANCE WITH THE SOIL EROSION AND SEDIMENT CONTROL DISTRICT'S SEED SPECIFICATIONS AS NOTED ON THE SOIL EROSION AND SEDIMENT CONTROL DETAILS SHEET.
- SOD, IF SPECIFIED, SHALL CONSIST OF A STATE CERTIFIED MIXTURE. ALL DISTURBED AREAS INDICATED AS LAWN OR SOD SHALL BE TOPSOILED, LIMED, AND FERTILIZED & FINE GRADED PRIOR TO LAWN INSTALLATION.
- EXISTING VEGETATION: EXISTING TREES AND SHRUBS TO BE PRESERVED ON SITE SHALL BE PROTECTED AGAINST CONSTRUCTION DAMAGE BY SNOW FENCING. FENCING SHALL BE PLACED OUTSIDE THE INDIVIDUAL TREE CANOPY. TREES TO REMAIN SHALL BE IDENTIFIED IN THE FIELD PRIOR TO COMMENCEMENT OF CONSTRUCTION. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO COMMENCEMENT OF CONSTRUCTION, GRADING, OR CLEARING. EXISTING VEGETATION BEING PRESERVED AND LOCATED AT THE EDGE OF THE NEW TREELINE SHALL BE PRUNED AND TRIMMED TO REMOVE ALL DEAD, DAMAGED, OR DISEASED BRANCHES.
- 4. SITE CLEANUP: PLANTING DEBRIS (WIRE, TWINE, RUBBERHOSE, BACKFILL, ETC.) SHALL BE REMOVED FROM THE SITE AFTER PLANTING IS COMPLETE. THE PROPERTY IS TO BE LEFT IN A NEAT, ORDERLY CONDITION IN ACCORDANCE WITH ACCEPTED PLANTING PRACTICES.



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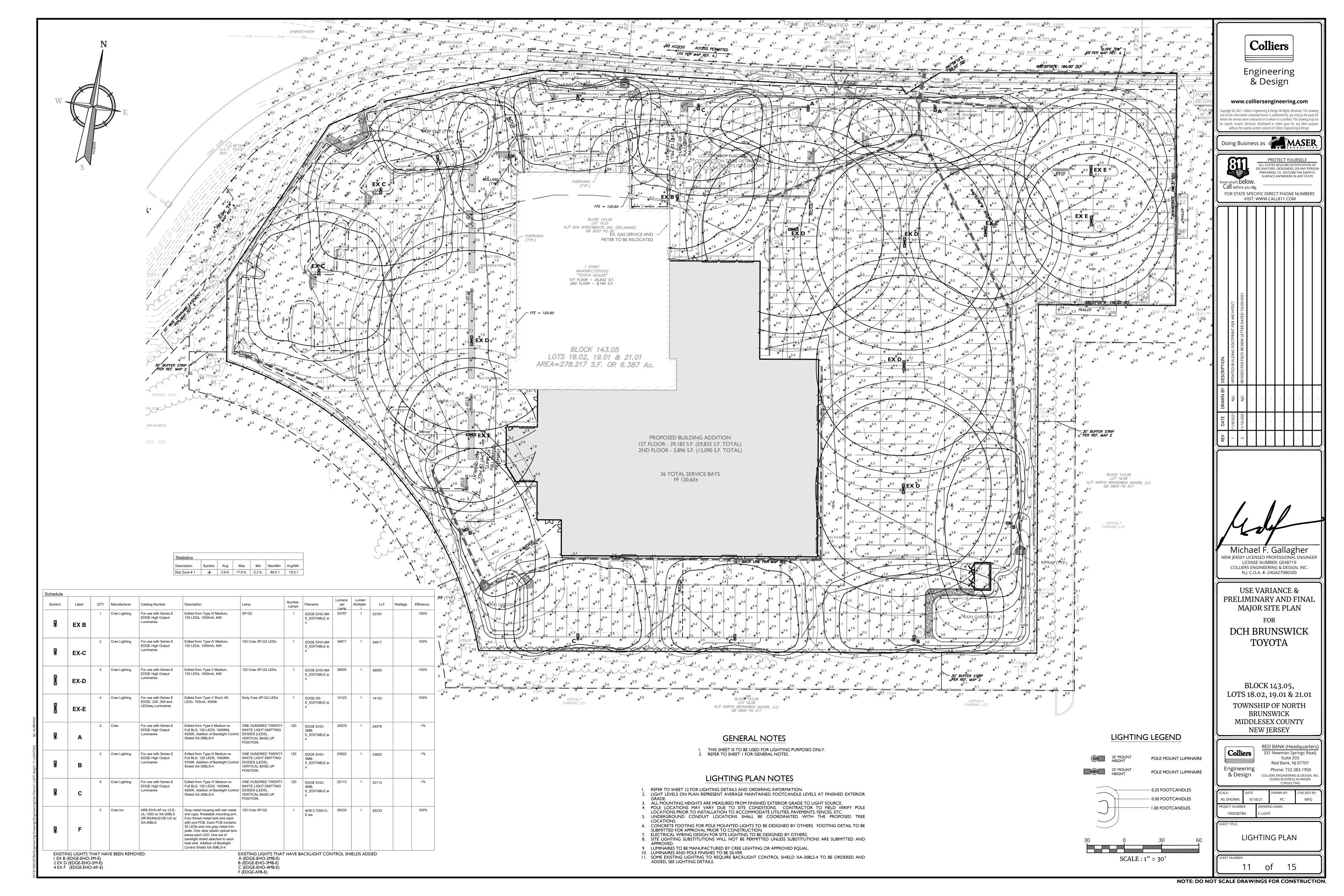
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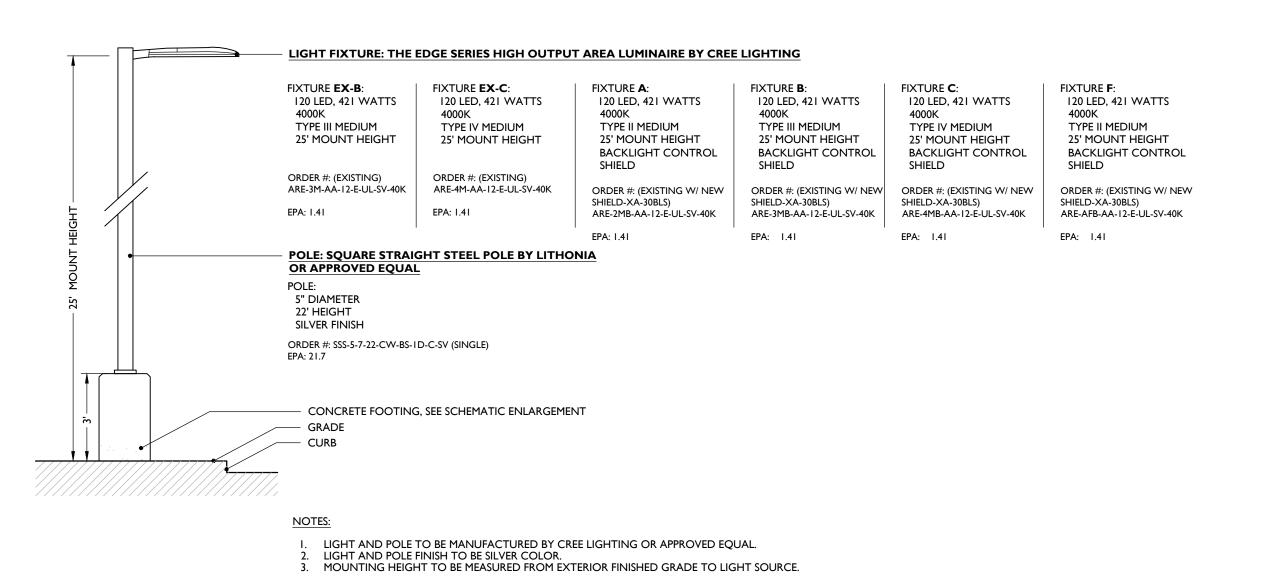
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LANDSCAPE DETAILS

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NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.





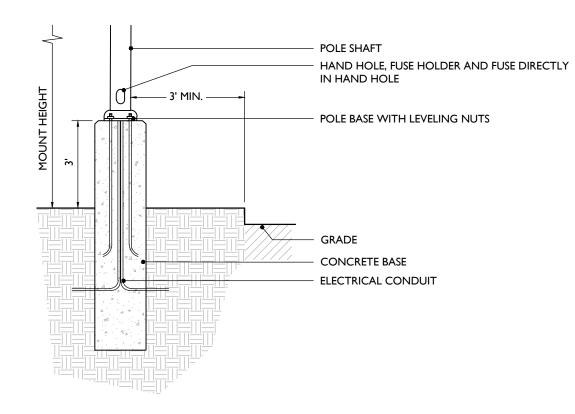
POLE MOUNTED LUMINAIRE DETAIL

LIGHT FIXTURE: THE EDGE SERIES HIGH **OUTPUT AREA LUMINAIRE BY CREE LIGHTING** FIXTURE **EX-E**: 120 LED, 268 WATTS FIXTURE **EX-D**: 120 LED, 842 WATTS TYPE V MEDIUM TYPE V SHORT 25' MOUNT HEIGHT 25' MOUNT HEIGHT ORDER #: (EXISTING) ORDER #: (EXISTING) ARE-5M-AA-12-E-UL-SV-40K ARE-5S-AA-12-E-UL-SV-40K EPA: 2.83 EPA: 2.83 POLE: SQUARE STRAIGHT STEEL POLE BY CREE LIGHTING 5" DIAMETER 22' HEIGHT SILVER FINISH SSS-5-7-22-CW-BS-2D90-C-SV (TWIN) CONCRETE FOOTING, SEE SCHEMATIC ENLARGEMENT

LIGHT AND POLE FINISH TO BE SILVER COLOR.
 MOUNTING HEIGHT TO BE MEASURED FROM EXTERIOR FINISHED GRADE TO LIGHT SOURCE.

LIGHT AND POLE TO BE MANUFACTURED BY CREE LIGHTING OR APPROVED EQUAL.

POLE MOUNTED LUMINAIRE DETAIL

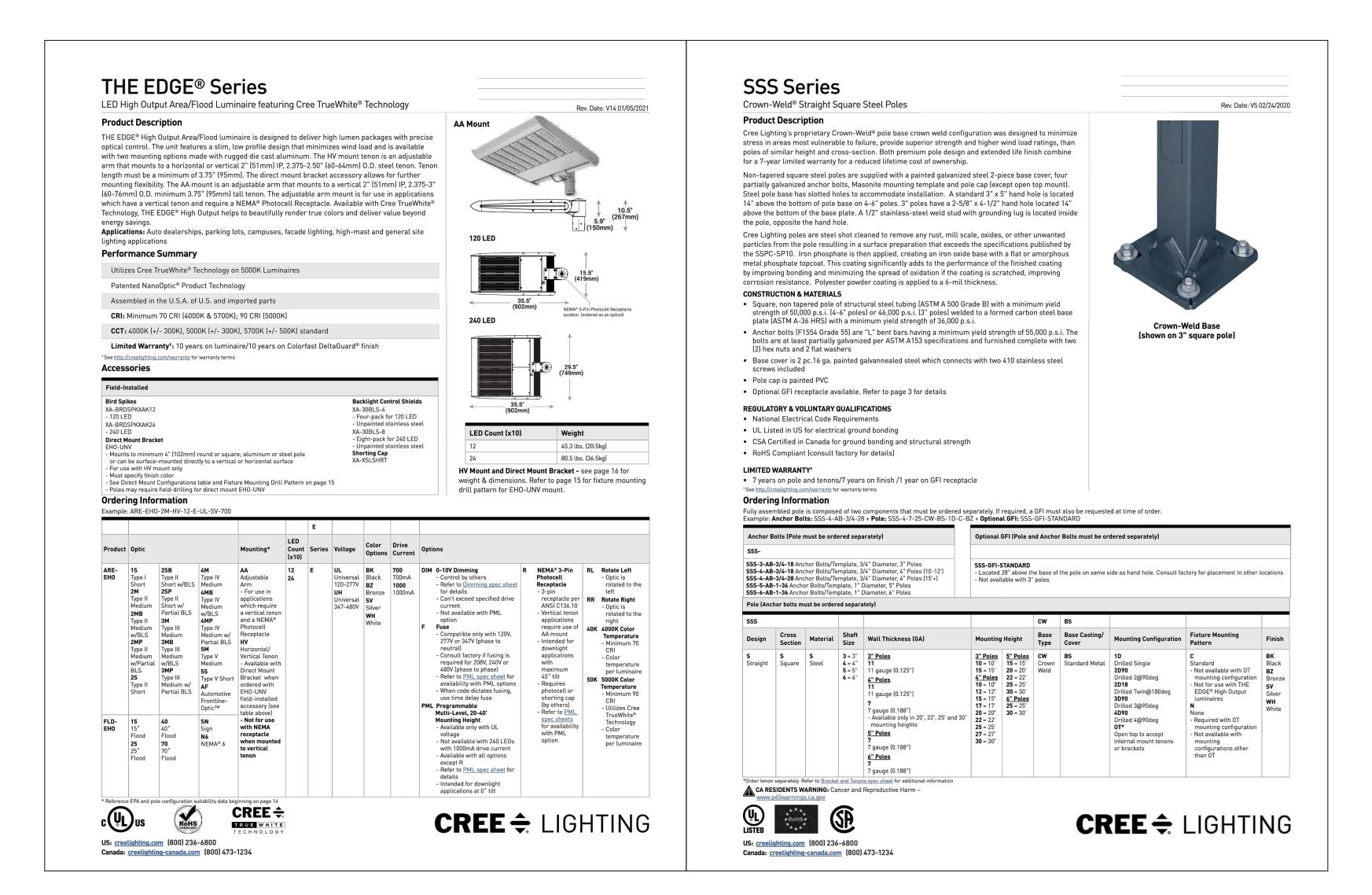


# NOTE

- FOOTING SHOWN IS SCHEMATIC ONLY.
   SHOP DRAWINGS AND CALCULATIONS FOR THE DESIGN AND SIZING OF THE CONCRETE FOOTING SHALL BE PREPARED BY A PROFESSIONAL ENGINEER, AND SHALL BE PROVIDED BY THE CONTRACTOR FOR THE APPROVAL PRIOR TO CONSTRUCTION.
- CONTRACTOR FOR THE APPROVAL PRIOR TO CONSTRUCTION.

  3. SITE ELECTRICAL CONTRACTOR TO COORDINATE LOCATED OF EASEMENTS, UNDERGROUND UTILITIES, AND DRAINAGE AREAS BEFORE DRILLING POLE BASES.

CONCRETE FOOTING SCHEMATIC DETAIL



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ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSONAL PROPERTY OF THE PRO PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE Call before you dig. FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM Michael F. Gallagher NEW IERSEY LICENSED PROFESSIONAL ENGINEER LICENSE NUMBER: GE48719 COLLIERS ENGINEERING & DESIGN, INC. N.J. C.O.A. #: 24GA27986500 USE VARIANCE & PRELIMINARY AND FINAL MAJOR SITE PLAN DCH BRUNSWICK TOYOTA BLOCK 143.05, LOTS 18.02, 19.01 & 21.01 TOWNSHIP OF NORTH BRUNSWICK MIDDLESEX COUNTY NEW JERSEY RED BANK (Headquarter Colliers 331 Newman Springs Road, Suite 203 Red Bank, NJ 07701 Engineering Phone: 732.383.1950 & Design COLLIERS ENGINEERING & DESIGN, IN DOING BUSINESS AS MASER AS SHOWN 8/18/21

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Engineering & Design

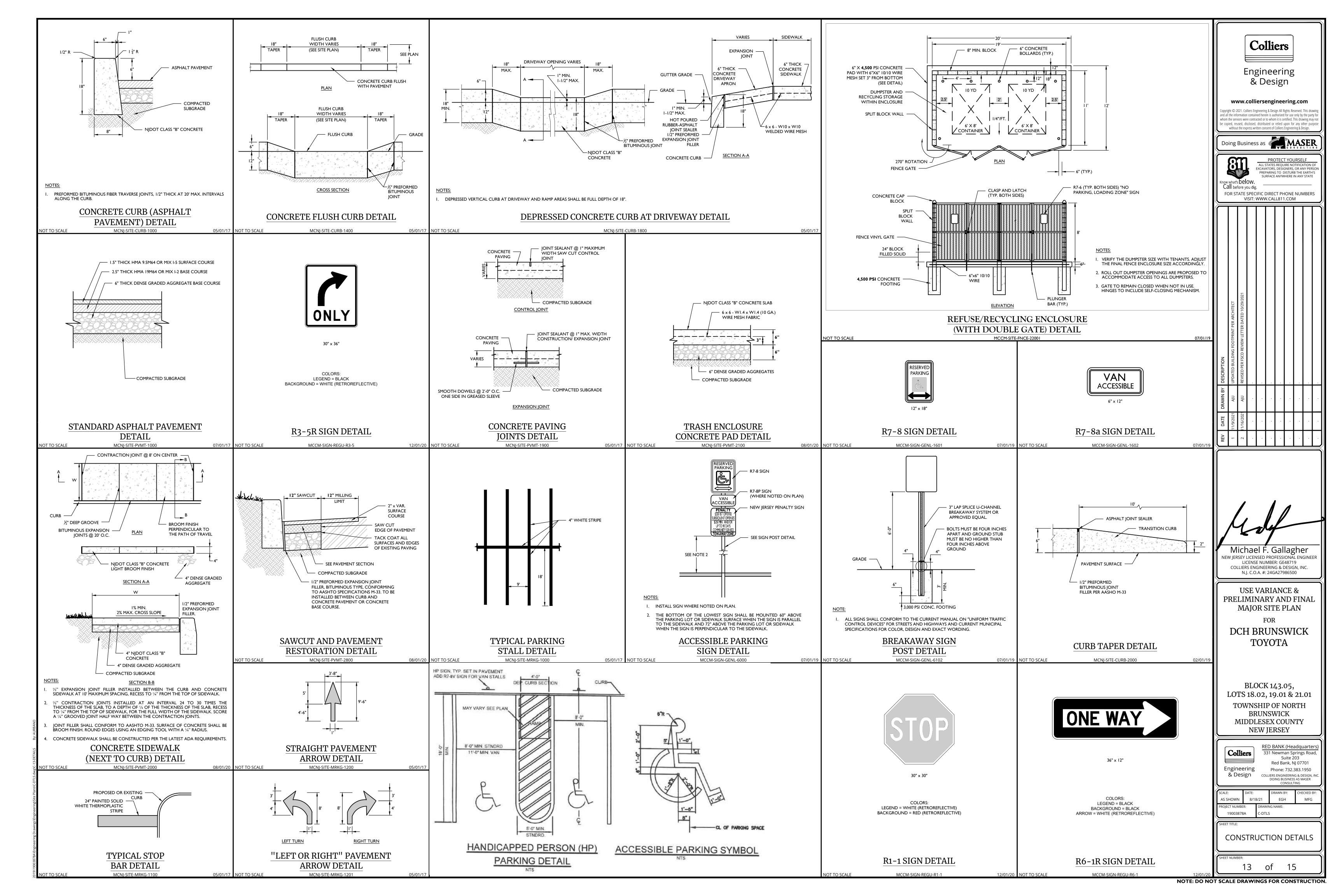
12

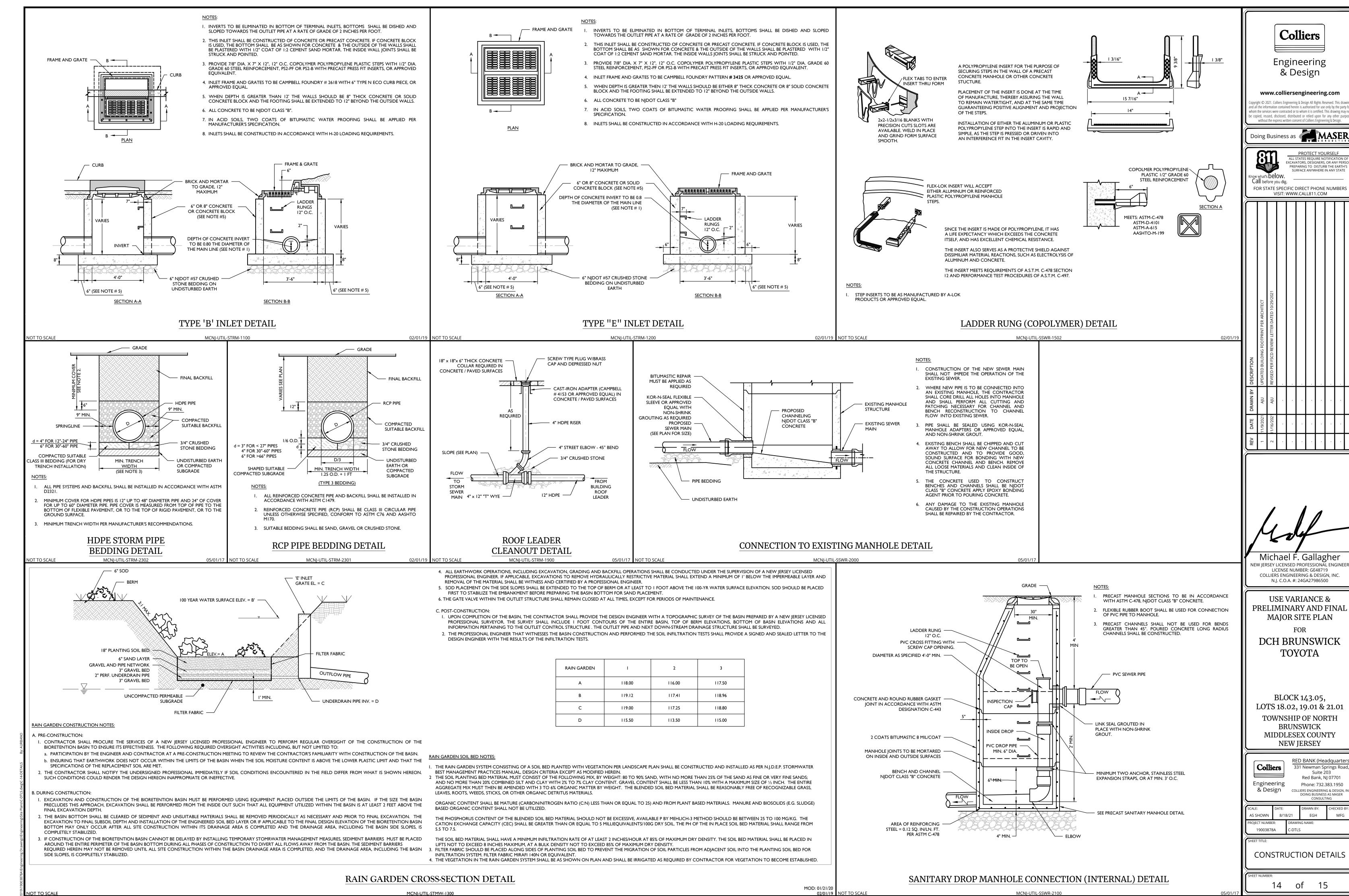
LIGHTING DETAILS

of

15

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NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

