# FINAL SITE PLAN MAIN STREET NORTH BRUNSWICK

PHASE 1F - PARCEL B5 FOR BLOCK 141, LOTS 38.01 North Brunswick Township, Middlesex County, NJ

### OWNERS WITHIN 200 FT.

NORTH BRUNSWICK TOD ASSOCIATES, LLC SHORT HILLS, NJ 07078

OWNER NAME & ADDRESS

COSTCO WS CORP %PROP TAX DEPT 1174

NORTH BRUNSWICK TOD ASSOCIATES LLC 820 MORRIS TURNPIKE SHORT HILLS, NJ 07078

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SHORT HILLS, NJ 07078 NORTH BRUNSWICK TOD ASSOCIATES LLC

SHORT HILLS, NJ 07078 NORTH BRUNSWICK TOD ASSOCIATES LLC

820 MORRIS TURNPIKE

SHORT HILLS, NJ 07078 NBTOD PHASE 1F LLC

820 MORRIS TURNPIKE

820 MORRIS TURNPIKE SHORT HILLS, NJ 07078

NBTOD PHASE 1F LLC 820 MORRIS TURNPIKE SHORT HILLS, NJ 07078

MIDDLESEX COUNTY PLANNING BOARD 5TH FLOOR, 75 BAYARD STREET

ATTN: TOWNSHIP CLERK NORTH BRUNSWICK TOWNSHIP

NEW BRUNSWICK, NJ 08901

710 HERMANN ROAD NORTH BRUNSWICK, NJ 08902

PUBLIC SERVICE ELECTRIC & GAS CO. NEWARK, NJ 07102

N.J. GEN. TAX ADMINISTRATION BROAD STREET, ROOM 305 NEWARK, NJ 07101

ATTN: MARGURITE PRENDERVILLE CABLEVISION OF RARITAN VALLEY 275 CENTENNIAL AVENUE

PISCATAWAY, NJ 08855-6805

DEPARTMENT OF TRANSPORTATION

STATE OF NEW JERSEY

TRENTON, NJ 08625 CONSTRUCTION DEPARTMENT, MR. TIM ALLEN TEXAS EASTERN TRANSMISSION CORP.

SOUTH PLAINFIELD, NJ 07080 SUNOCO PIPELINE, L.P. RIGHT-OF-WAY

MONTELLO COMPLEX 525 FRITZTOWN ROAD SINKING SPRING, PA 19608

THE STATE OF NEW JERSEY REQUIRES NOTIFICATION OF EXCAVATORS, DESIGNERS, O ANY PERSON PREPARING TO DISTURB THE

EARTH'S SURFACE ANYWHERE IN THE STATE.

# 19.01 (COSTCO) 8 (TARGET)

KEY MAP SCALE: 1"=500'

# Shared Parking Demand Worksheet Weekday day Model 600 Required - 630 Provided Phase 1F North Brunswick Central Business District North Brunswick, NJ Redevelopment Demand 1 000 SF OneStory LRE 000 SF MURC LRE 37.925 000 SF Mixed Use Retail Commercial 23.563 000 SF Restaurant SF Large Retail SF Main Street Retail SF Restaurant 91 Required - 157 Provided (124 Garage/Tandem and 33 Guest Surface Spaces) ΓVA Owners - 2 (Cityhomes II - Building R1-R5) 000 SF MURC LRE 000 SF Mixed Use Retail Commerc Residential Lofts 000 SF Restaurant Subtotal Development Total Shared Parking Demand SF Large Retail SF Main Street Retail SF Library Residential Lofts NOTE: SEE TRAFFIC STUDY BY DYNAMIC ENGINEERING CONSULTANTS, PC FOR SUPPLEMENTAL INFORMATION

			N	/linstreet NE	Renewa	le Energy	Demand					
	Previ	iously Approve	ed and Constru	cted	Pha	se 1 F Prelim	and Final Appro	vals	Mainstreet	NB Totals afte	r Construction (	of Phase 1F
		Estimated		Constructed		Estimated	Required	Proposed		Estimated	Required	Proposed
	SF, Room or	Energy	Renewable	Renewable	65	Energy	Renewable	Renewable	65	Energy	Renewable	Renewable
	Units	Demand	Energy (10%)	Energy	SF	Demand	Energy (10%)	Energy	SF	Demand	Energy (10%)	Energy
Story LRE (sf) ed Use Retail and LRE in	288,631	4,600,000	460,000	1,400,000	0		0 0	0	288,631	4,600,000	460,000	1,400,000
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lential (units)	158	189,600 5,057,435	18,960	0	242	290,40	0 29,040 0 47,695	12,400 12,400	400	480,000	48,000	12,400
energy demand and propose vioulsly approved and consti se 1F Includes all use apporv	ructed includes vals sought with	Costco, Target this application	, Panera, Gree on									
ost Phase 1F construction, rene	ewable energy v	will be 25% of	the project en	ergy totals, 15% ຄ	greater than t	the required	10%		_			
SE			eneral Developme Plan Development Approved	ent Preliminary Sit Plan Developmen Approved			Proposed Phase 1F elim and Final	Total Constructed After Phase 1F				
				710010400								
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## GENERAL NOTES

1. OWNER / APPLICANT

NBTOD PHASE 1F, LLC NORTH BRUNSWICK, NJ 08902

2. PROPERTY DESCRIPTION - 2300 U.S. HIGHWAY ROUTE 1

- TAX MAP SHEETS # 33, 37 - TOTAL ACREAGE = 206.45 ACRES

- TRANSIT-ORIENTED MIXED USE DEVELOPMENT

3. PROPOSED USES

- MIXED USE RESIDENTIAL AND NON-RESIDENTIAL - PROPERTY TO BE REDEVELOPED IS OUTSIDE THE 100 YEAR FLOOD PLAIN.

5. WATER MAIN TO BE OWNED BY NORTH BRUNSWICK TOWNSHIP

6. SANITARY SEWER MAINS AND SYSTEM TO BE OWNED BY DEVELOPER . ITS SUCCESSORS AND ASSIGNS. 7. A Restrictive Covenant has been filed which sets forth documentation that any

detention/retention/recharge facilities will be adequately maintained in accordance with the standards of Middlesex County. Refer to the paragraph in the restrictive covenant entitled "Right

of County of Middlesex to maintain drainage basins". Conditions that affect non-county facilities should be reviewed and approved by the appropriate jurisdictional agency.

### SHEET INDEX

- COVER SHEET
- EXISTING CONDITIONS PLAN 'A'
- EXISTING CONDITIONS PLAN 'B'
- OVERALL PLAN 'A'
- OVERALL PLAN 'B'
- DIMENSION/LOT LAYOUT, GRADING AND UTILITY PLAN
- DIMENSION/LOT LAYOUT, GRADING AND UTILITY PLAN (ALTERNATE)
- LANDSCAPE PLAN AND LIGHTING PLAN
- LANDSCAPE PLAN AND LIGHTING PLAN (ALTERNATE)
- SOIL EROSION AND SEDIMENT CONTROL PLAN AND DETAILS
- SOIL EROSION AND SEDIMENT CONTROL PLAN AND DETAILS (ALTERNATE)
- CONSTRUCTION DETAILS
- CONSTRUCTION DETAILS
- STORM SEWER DETAILS
- SANITARY SEWER AND WATER DETAILS

LANDCCADE AND LICHTING DETAILS	
LANDSCAPE AND LIGHTING DETAILS	
LIGHTING DETAILS	
SIGN DETAILS	
GARBAGE TRUCK TURNING PLAN	
GARBAGE TRUCK TURNING PLAN (ALTERNATE)	

The Re	eynolds
	575 Route 28, Suite 1 Raritan, N.J. 08869 908-722-1500 Fax 908-722-7035 www.reynoldsgrp.com
	Land Surveyors Planners

revisions

description

Number 24GA27969200 21MH00004300

F. Mitchel Ardman, P.E., P.P. Jeffrey D. Reynolds, P.L.A.

FMitabl Ardum F. MITCHEL ARDMAN N.J. PROFESSIONAL ENGINEER LIC. NO. 34317

FINAL SITE PLAN BLOCK 141, LOT 38,01

**COVER SHEET** 

NORTH BRUNSWICK TOWNSHIP MIDDLESEX COUNTY , NEW JERSEY

drawing number 21-042-4

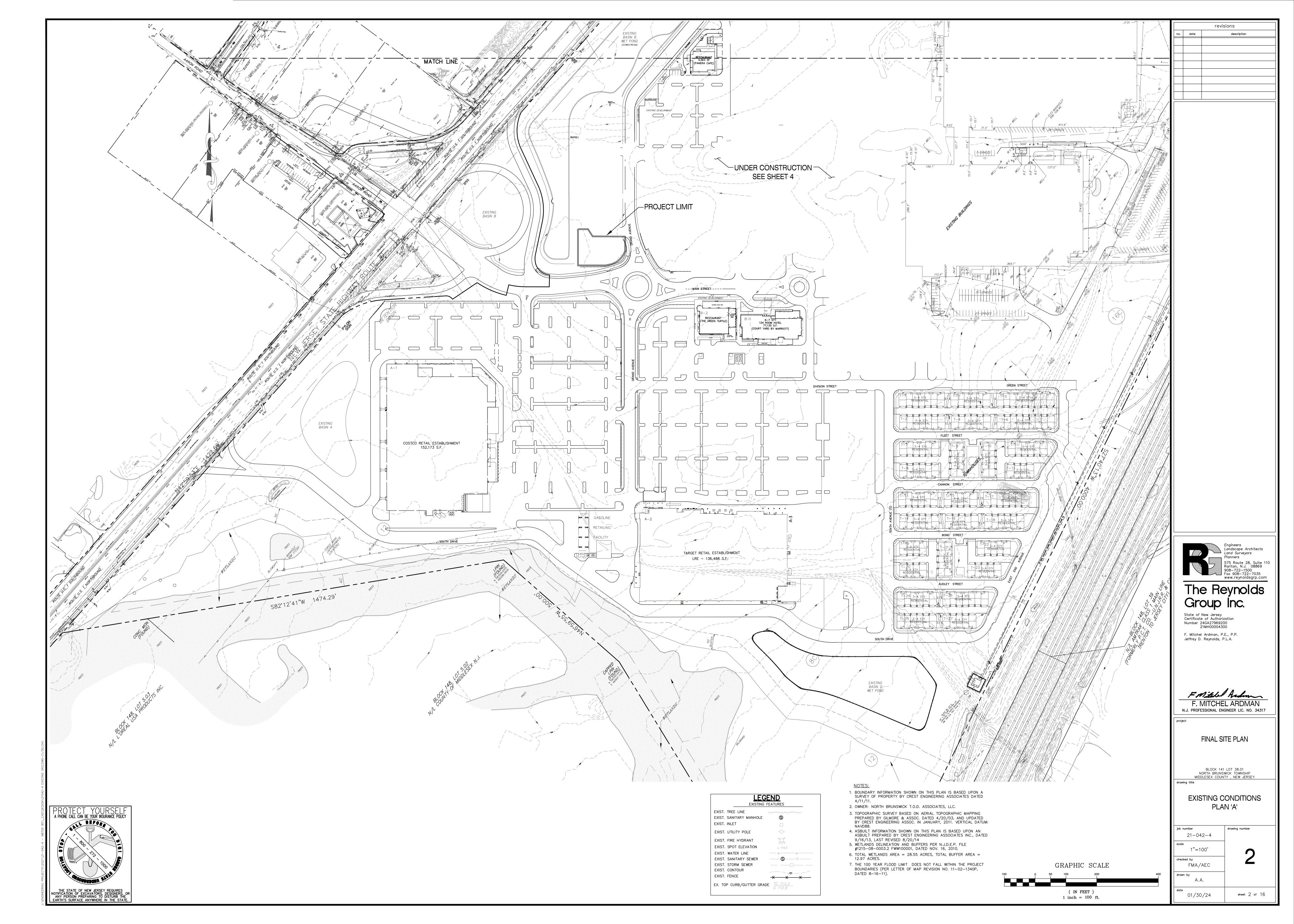
AS SHOWN hecked by FMA/AEC

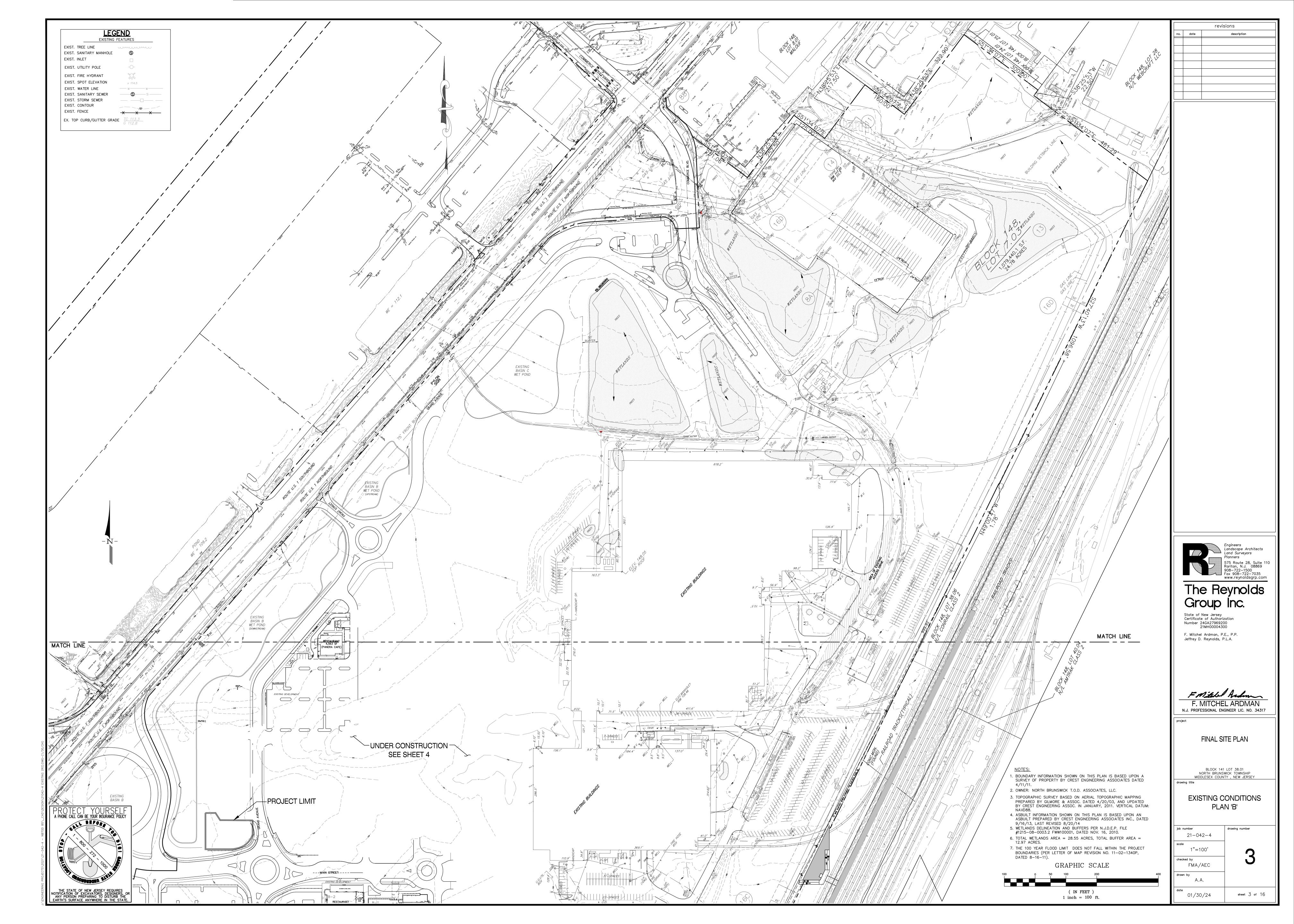
A.A. TOWNSHIP PLANNING BOARD ENGINEER DATE

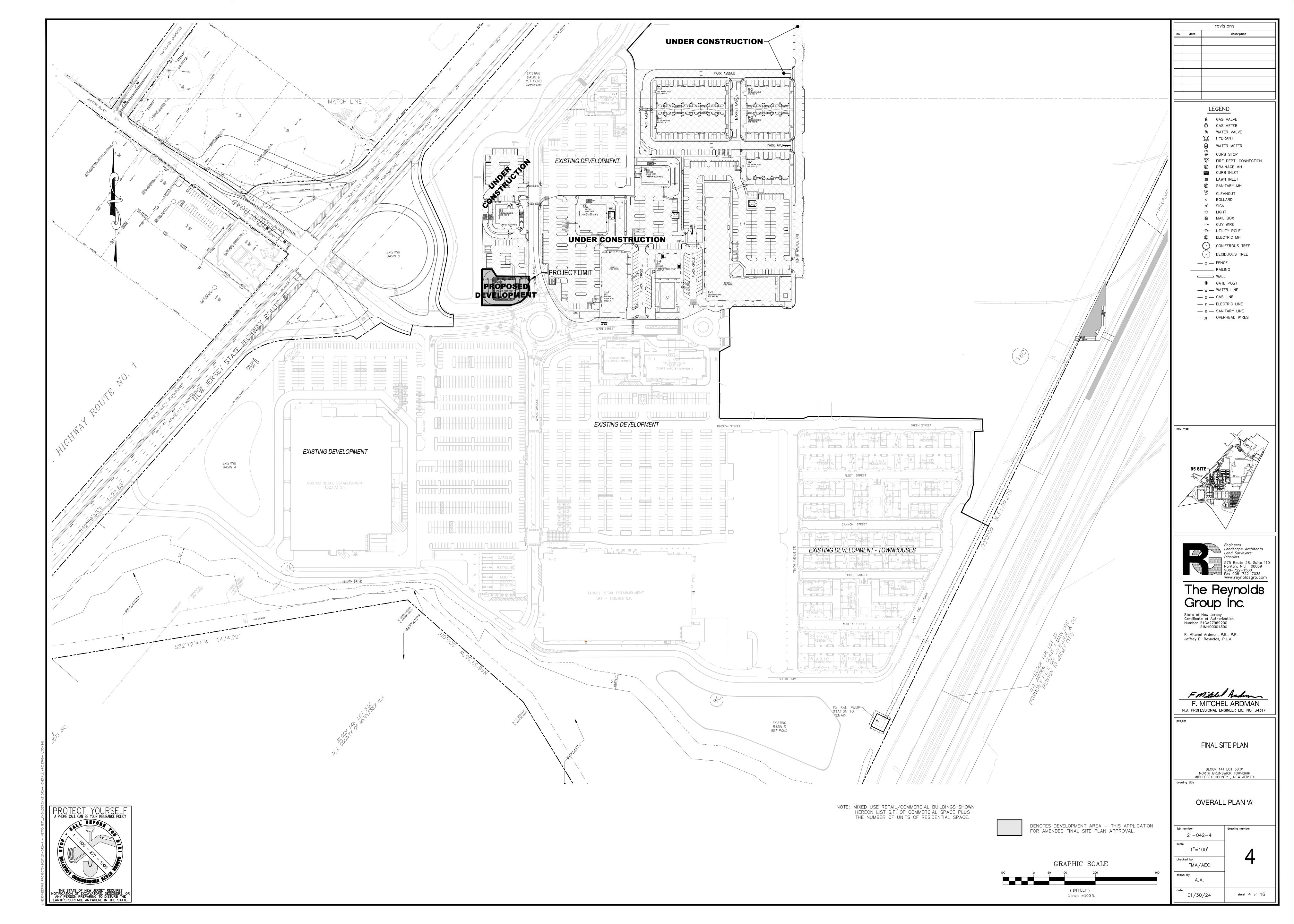
APPROVED AS A PRELIMINARY AND FINAL SITE

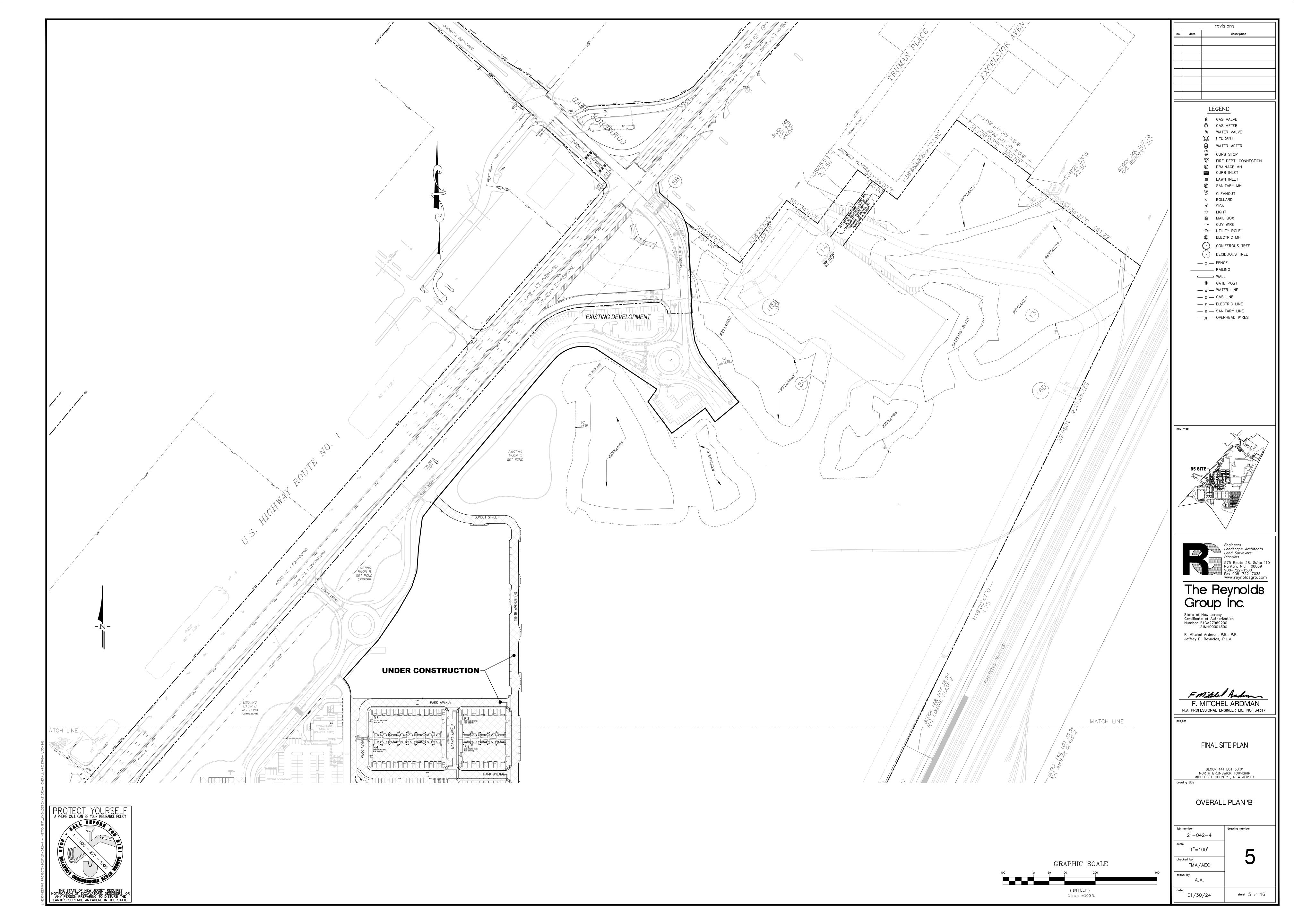
PLAN BY THE NORTH BRUNSWICK TOWNSHIP

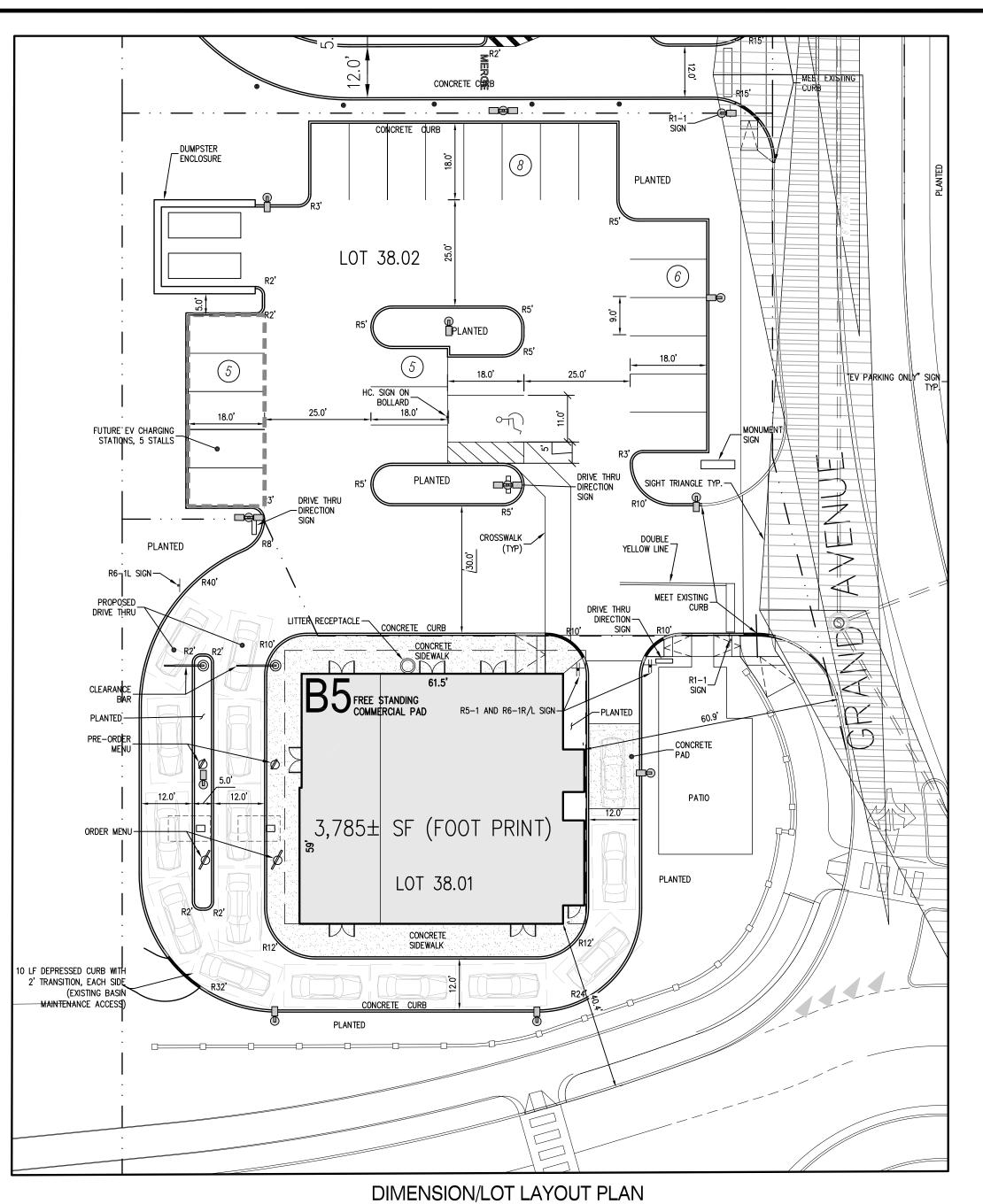
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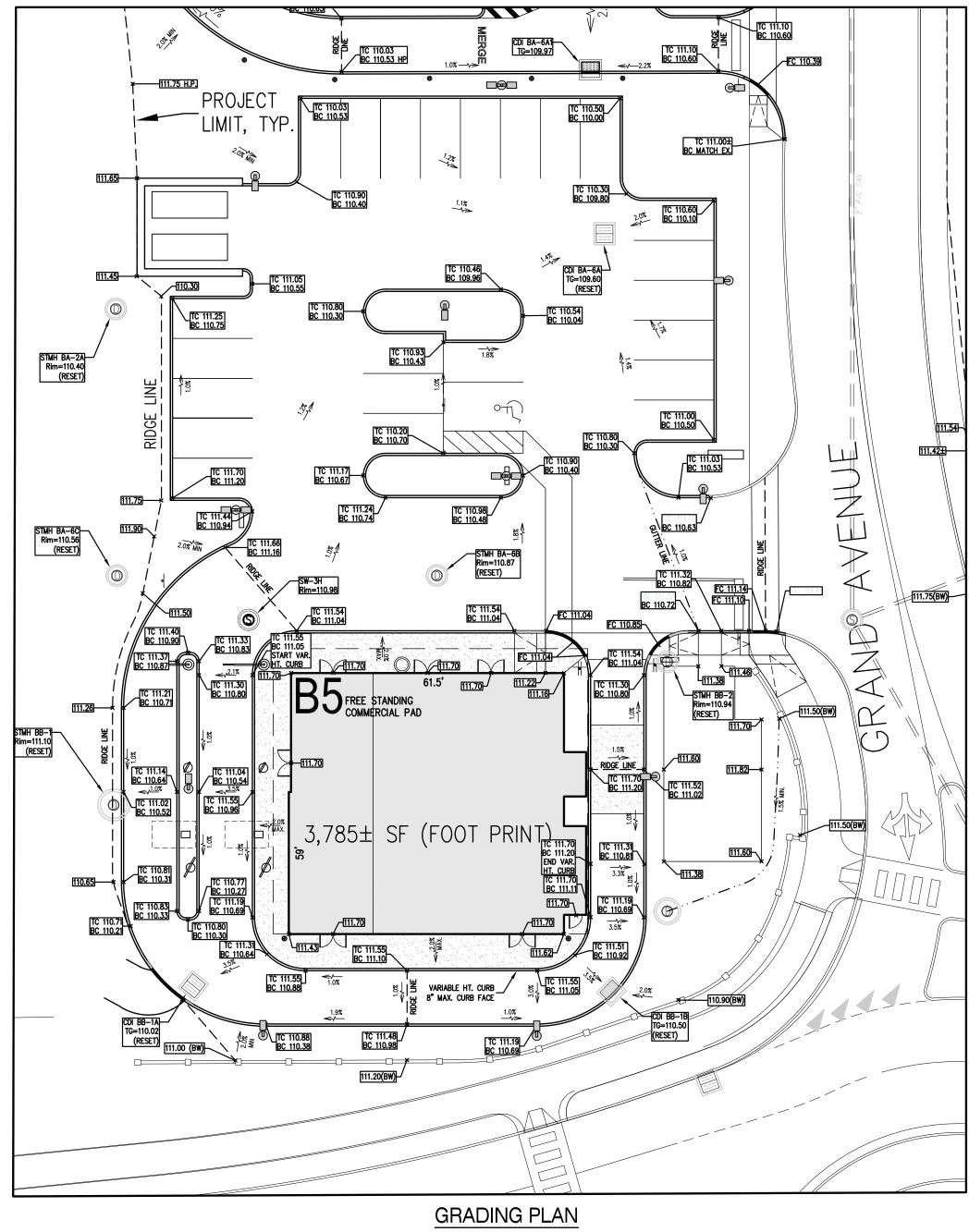


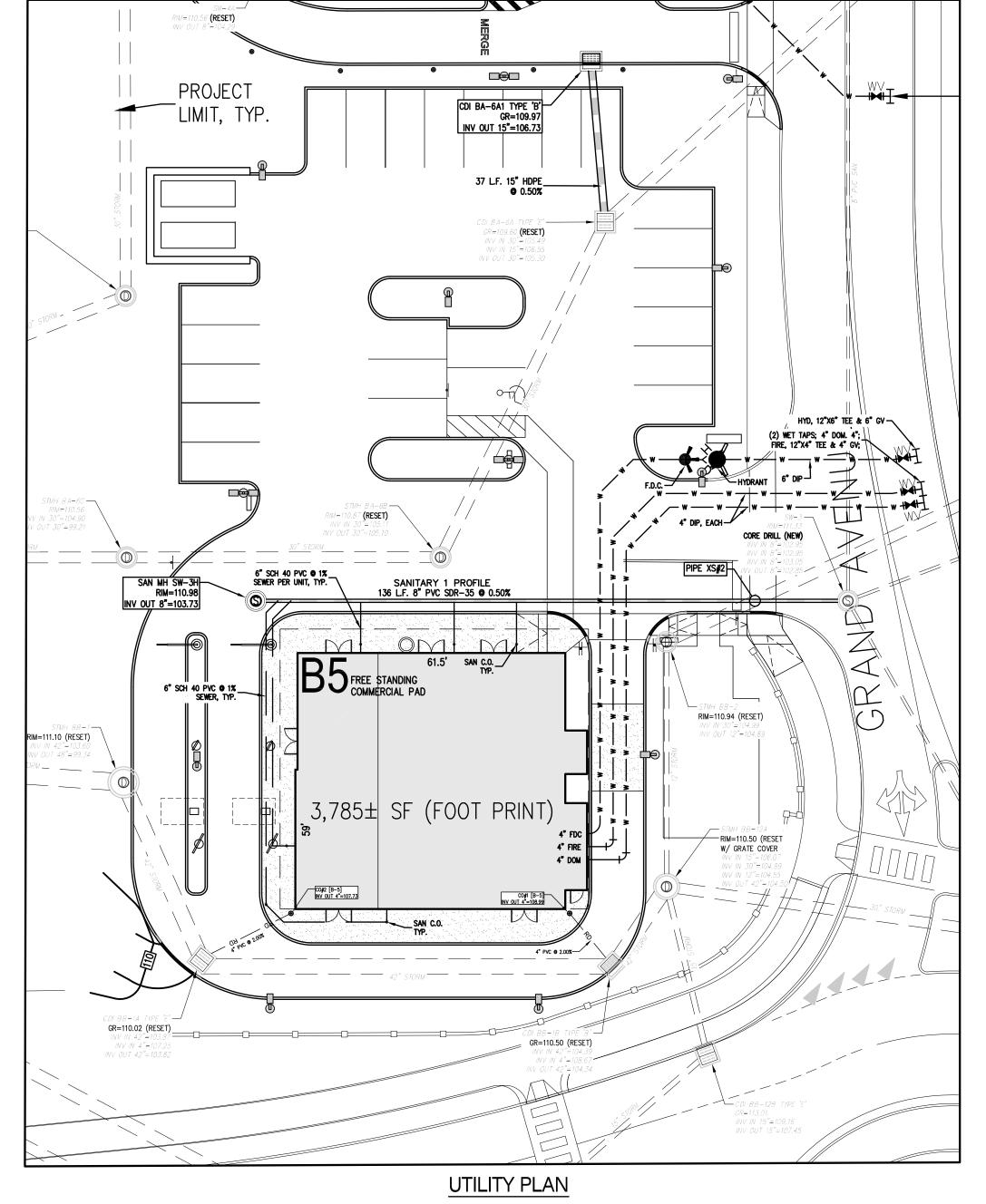












### **GENERAL NOTES:**

- 1. SITE INFORMATION SHOWN ARE BASED UPON APPROVED SITE PLANS, SUBDIVISION PLAN AND AS-BUILT PLANS PREPARED BY CREST ENGINEERING. 1.1. PRELIMINARY AND FINAL SITE PLAN: PANELS D & E DATED 8/2/2011, LAST REVISED
- 1.2. SUBDIVISION PLAN: ALTA/NSPS LAND TITLE SURVEY FOR LOTS 36.01, 38, 39, 40, 44.01, 45.01, 47, 48, 48.01, 49, 50.01, 50.02, 50.03, 51, 52, 53, 54, 55, 56, 57.01, 58, 59 & 60; BLOCK 141, SIGNED BY GARY P. YURO, P.L.S. No. 43251, DATED 6/1/2021, NO REVISION
- 1.3. AS-BUILT PLANS: PANEL 'D' DATED 9/16/2013, LOTS 5.04, 7.01, 7.03 & 23; BLOCK 148, SIGNED BY GARY P. YURO, P.L.S. No. 43251, SHEET 4 OF 8, DATED 9/16/2013, LAST REVISED 8/20/2014; PANEL 'E' DATED 9/16/2013, LOTS 5.04, 7.01, 7.03 & 23; BLOCK 148, SIGNED BY GARY P. YURO, P.L.S. No. 43251, SHEET 5 OF 8, DATED 9/16/2013, LAST REVISED 6/10/2014.
- 2. ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION FOR SITE IMPROVEMENTS SHALL CONFORM TO NORTH BRUNSWICK TOWNSHIP CODES AND STANDARDS, THE STANDARDS OF THE RESPECTIVE UTILITY COMPANIES, AND THE N.J.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2019 (AS UPDATED), AS APPLICABLE.
- 3. PROPOSED DEVELOPMENT SHALL BE IN COMPLIANCE WITH NJ BARRIER FREE AND A.D.A. REQUIREMENTS. RAMPS MUST COMPLY WITH CURRENT REQUIREMENTS IN PLACE DURING TIME OF CONSTRUCTION.
- 4. THE CONTRACTOR SHALL PROTECT ALL STRUCTURES, ROADS, PIPELINES, TREES, SHRUBBERY, GRASS AREA, ETC., DURING THE PROGRESS OF HIS WORK AND SHALL REMOVE FROM THE SITE ALL CUTTINGS, DRILLINGS, DEBRIS AND UNUSED MATERIALS. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL RESTORE THE SITE TO ITS ORIGINAL CONDITION, INCLUDING AT THE CONTRACTOR'S SOLE EXPENSE, THE REPLACEMENT OF GRASSED AREAS WHICH HAVE BEEN DAMAGED.
- 5. 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO SURROUNDING PROPERTY AND SHALL RESTORE ANY PROPERTY DAMAGED AS A RESULT OF HIS OPERATIONS. ALL RESTORATION WILL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- 6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO SURROUNDING PROPERTY AND SHALL RESTORE ANY PROPERTY DAMAGED AS A RESULT OF HIS OPERATIONS. ALL RESTORATION WILL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE
- 7. THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL FIRE OFFICIAL FOR APPROPRIATE FIRE LANE MARKINGS.
- 8. TRAFFIC, PARKING SIGNS AND STRIPING SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", U.S.D.O.T. FEDERAL HIGHWAY ADMINISTRATION, 2009 AND AS UPDATED AND ADOPTED BY THE N.J. DEPARTMENT OF TRANSPORTATION.
- 9. THE FREEHOLD SOIL CONSERVATION DISTRICT (FSCD) SHALL BE NOTIFIED A MINIMUM OF 72 HOURS PRIOR TO ANY SOIL DISTURBANCE (732) 683-8500.
- 10. IN THAT N.J.S.A. 4:24-39 ET. SEQ. REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE THE PROVISIONS OF THE CERTIFIED PLAN FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN COMPLETED FOR PERMANENT MEASURES, ALL WORK AROUND INDIVIDUAL BUILDINGS WILL HAVE TO BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY. NOTATION FOR THIS SHOULD BE PROVIDED ON THE SITE PLAN AND WITHIN THE CONSTRUCTION SCHEDULE.
- 11. THE CONTRACTOR IS RESPONSIBLE FOR PROJECT SAFETY INCLUDING PROVISIONS OF ALL APPROPRIATE SAFETY MEASURES DEVISED AND TRAINING REQUIRED.
- 12. AS-BUILTS AS REQUIRED BY THE TOWNSHIP ENGINEERING DEPARTMENT TO BE PROVIDED PRIOR TO BOND RELEASE OR REDUCTION. THE AS-BUILTS SHALL INCLUDE THE STORMWATER MANAGEMENT SYSTEM AND RETAINING WALLS AS WELL AS THE OTHER STANDARD REQUIREMENTS IN SUFFICIENT DETAIL TO DOCUMENT THE PROJECT AS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED LINES, GRADES AND INTENT. SEE TOWNSHIP ENGINEERING DEPARTMENT FOR SPECIFIC REQUIREMENTS.
- 13. THE CONTRACTOR SHALL NOTIFY THE UNDERSIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THOSE REPRESENTED HEREON SUCH CONDITIONS COULD RENDER THE DESIGNS SHOWN HEREON INAPPROPRIATE OR INEFFECTIVE.
- 14. LITTER RECEPTACLES MAY SHIFT AS FIELD LOCATED BY TENANTS.
- 15. SEE ADDITIONAL CONSTRUCTION NOTES ON OTHER PLAN SHEETS IN THIS SET.
- 16. CLEARANCE BARS FOR EACH DRIVE THROUGH SHALL BE INSTALLED PRIOR TO ISSURANCE OF C.O. FOR THE RESPECTIVE BUILDINGS.
- 17. REFER TO SHEET 9 FOR LOCATIONS OF FUTURE ELECTRIC VEHICLE CHARGING STATION (EVCS) PARKING SPACES INCLUDING EVCS MARKINGS AND SIGNS.
- 18. FUTURE EV SPACES TO BE STRIPED AND HAVE SIGNS INSTALLED MARKING THEM AS EV CHARGING ONLY SPACES AT THE TIME THOSE SPACES ARE TURNED INTO EV CHARGING

### **GRADING NOTES:**

AND COMMERCIAL BUILDINGS.

- 1. THE LIMIT OF GRADING AND DISTURBANCE SHALL BE AS SHOWN ON THE DEVELOPMENT PLANS. ALL AREAS BEYOND SHALL REMAIN UNDISTURBED AND IN THE NATURAL STATE. 2. THE CONTRACTOR SHALL GRADE ALL AREAS TO PROVIDE POSITIVE SLOPE TO CATCH BASINS. LAWN AREAS SHALL BE GRADED AT A MINIMUM OF 2.00% AND A MAXIMUM OF
- FOR SMOOTH HARD-FINISHED SURFACES OTHER THAN ROADWAYS, MINIMUM SLOPE SHALL BE 0.75%.

3H:1V (33.33%) ACROSS LAWN AREAS PERPENDICULAR TO THE PROPOSED RESIDENTIAL

- 5. ALL GRADING, EXCAVATION OR EMBANKMENT CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPROVED PLAN AND SHALL PROVIDE FOR THE DISPOSAL OF ALL STORMWATER RUNOFF AND SUCH GROUNDWATER SEEPAGE AS MAY BE ENCOUNTERED. ALL CLEARING, EXCAVATION AND EMBANKMENT CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE STANDARD SPECIFICATIONS. NO EXCAVATED MATERIAL MAY BE REMOVED FROM THE SITE EXCEPT IN ACCORDANCE WITH AN APPROVED PLAN NOR WITHOUT PRIOR APPROVAL OF THE TOWNSHIP ENGINEER. WHERE BORROW EXCAVATION MATERIALS FROM OFFSITE SOURCES ARE REQUIRED TO COMPLETE THE NECESSARY GRADING, SUCH MATERIAL SHALL MEET THE REQUIREMENTS OF THE STANDARD
- SPECIFICATIONS FOR BORROW EXCAVATION ZONE 3, AND SHALL BE SUBJECT TO THE APPROVAL OF THE TOWNSHIP ENGINEER. 5.1. MATERIAL SHALL BE PLACED IN 12" OR LESS LIFTS AND COMPACTED TO A DRY DENSITY OF NOT LESS THAN 95% OF THE LABORATORY STANDARD MAXIMUM SOIL DENSITY (DRY AS DETERMINED BY THE PROCTOR COMPACTION TEST FOR THE MATERIAL
- BEING COMPACTED). 5.2. BACKFILL TO BE FREE OF ORGANIC MATTER, ROCKS & COBBLES GREATER THAN 5" AND FROZEN MATERIALS.
- 6. MATERIAL WHICH THE TOWNSHIP ENGINEER JUDGES IS UNSUITABLE FOR USE IN ROADWAY SUBSURFACE MAY BE USED FOR GRADING OUTSIDE THE ROADWAY RIGHT-OF-WAY OF BUILDING AREAS WITH THE PERMISSION OF THE TOWNSHIP ENGINEER. ANY UNSUITABLE MATERIAL WHICH CANNOT BE SATISFACTORILY UTILIZED ON THE SITE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT PLACES TO BE PROVIDED BY THE SUBDIVIDER.
- 7. ALL CONSTRUCTION LAYOUT AND GRADING STAKES SHALL BE SET BY A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER EMPLOYED BY THE SUBDIVIDER OR HIS CONTRACTOR.
- 8. ALL ROUGH GRADING MUST BE COMPLETED PRIOR TO THE CONSTRUCTION OF THE ROADWAY SUBGRADE. ALL SIDEWALK AREAS AND SLOPE AREAS MUST BE FULLY GRADED PRIOR TO THE CONSTRUCTION OF FINISHED PAVEMENTS OR PAVEMENT BASE COURSES.
- 9. ROADWAYS AND ALL APPURTENANCES, INCLUDING SUBGRADE, SUBBASE, BASE COURSES AND PAVEMENTS, SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPLICABLE REQUIREMENTS OF THE STANDARD SPECIFICATIONS AS MODIFIED HEREIN. ALL SUBSURFACE UTILITIES INCLUDING SERVICE CONNECTIONS (TERMINATING AT LEAST TWO FEET BEHIND (BEYOND) THE SIDEWALK, OR IF NO SIDEWALKS ARE TO BE INSTALLED, TERMINATING AT LEAST SEVEN FEET BEHIND THE CURB), AND ALL STORM DRAINS SHALL BE INSTALLED IN ALL ROADWAY AREAS PRIOR TO THE CONSTRUCTION OF FINAL PAVEMENT SURFACES.
- 10. ANY WASTE, DEBRIS OR ANY OTHER SIMILAR MATERIAL FOUND ON THE SITE OR GENERATED BY OPERATIONS DURING THE CONSTRUCTION SEQUENCE, SHALL BE PROPERLY REMOVED AND PROPERLY DISPOSED OF BY THE DEVELOPER.
- 11. SEE ADDITIONAL NOTES CONSTRUCTION ON OTHER PLAN SHEETS.

### **UTILITY NOTES:**

INTENDED USE.

AS REQUIRED TO AVOID CONFLICTS.

FROM CENTERLINE OF STRUCTURES.

- 1. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING INVERTS, MATERIALS AND SIZES. TEST PITS INFORMATION SHALL BE GIVEN TO THE DESIGN ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENTS
- 2. STORM SEWER PIPE SHALL BE ADS N-12 OR ASTM C-76 REINFORCED CONCRETE PIPE WITH ASTM C-443 O-RING TYPE GASKETS (18" AND SMALLER MAY USE "KENT SEAL #2" AS AN ALTERNATIVE) CLASS III, UNLESS OTHERWISE NOTED, PIPE SHALL BE SIZED AND LAID TO THE LINE AND GRADE, AS SHOWN. ALL STORM PIPES TO BE HDPE, N-12 AS MANUFACTURED BY ADS UNLESS NOTED. LENGTH OF STORM SEWER PIPE IS MEASURED
- 3. DRAINAGE INLETS SHALL BE STANDARD NJDOT TYPE "B" INLETS, UNLESS OTHERWISE NOTED OR AS REQUIRED TO ACCOMMODATE ALL PIPES IN AND OUT OF THE STRUCTURE. CASTING CURB HEIGHT SHALL BE 6". ALL INLETS TO HAVE BICYCLE SAFE GRATES.
- 4. ALL STORMWATER STRUCTURES MAY BE PRECAST. SHOP DRAWINGS FOR OVERSIZED STRUCTURES / SPECIAL STRUCTURES TO BE SUBMITTED TO TOWNSHIP ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. SPECIAL STORM SEWER STRUCTURES MAYBE REQUIRED WHERE PIPE EXCEED 30" OR WITH MULTIPLE PIPES. CONTRACTOR TO PROVIDE SHOP DRAWINGS AS REQUIRED. ALL PRECAST DRAINAGE STRUCTURES SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A LICENSED NJ PROFESSIONAL ENGINEER AS TO THEIR ABILITY TO WITHSTAND AASHTO HS 20 LOADING AND THEIR SUITABILITY FOR THEIR
- 5. STORMWATER RUNOFF SHALL FLOW AWAY FROM BUILDINGS. ALL ROOF RUNOFF TO BE CONNECTED TO STORM SEWER VIA ROOF DRAIN COLLECTION SYSTEM.
- 6. ALL SANITARY SEWER CONSTRUCTION SHALL COMPLY WITH THE CURRENT STANDARDS OF NORTH BRUNSWICK TOWNSHIP UTILITY DEPARTMENTS AS WELL AS NJDEP STANDARDS. THE SANITARY SEWER SYSTEM SHALL BE LOW AIR PRESSURE TESTED AND DEFLECTION TESTED AS PER NORTH BRUNSWICK TOWNSHIP STANDARDS.
- SANITARY SEWER MAIN SHALL BE PVC SDR-35. IF DIP SEWER PIPE IS USED IN PLACE OF PVC PIPE, DIP SHALL HAVE A HYDROGEN SULFIDE / CORROSION RESISTANT INTERIOR LINING SUITABLE FOR SEWER APPLICATIONS. STANDARD CEMENT LINED DIP WILL NOT BE PERMITTED FOR SANITARY SEWER COLLECTION SYSTEM CONSTRUCTION.
- 8. SANITARY SEWER LATERAL SHALL BE SCHEDULE 40 PVC WITH CLEAN OUTS AS REQUIRED BY PLUMBING CODE. ALL CLEANOUTS IN PAVED AREA TO BE CONSTRUCTED IN ACCORDANCE WITH THE 'SIGHT TEE' DETAIL. ALL PROPOSED SANITARY SEWER LATERALS SHALL HAVE A MINIMUM DEPTH OF COVER OF 3 FT. SEWER LATERALS, 4" MIN. SLOPE 2.0%, 6" MIN. SLOPE 1.0%, AND A DIRECT CONNECTION TO A SANITARY MANHOLE WILL NOT BE PERMITTED.
- 9. THE TOWNSHIP OF NORTH BRUNSWICK UTILITY DEPARTMENT RESERVES THE RIGHT TO REQUIRE INSTALLATION OF A GREASE TRAP AND SAMPLING MANHOLE AND / OR PRETREATMENT FACILITIES IF THE QUALITY OF THE WASTEWATER STREAM DEMONSTRATES A FOOD SERVICE ESTABLISHMENT TYPE DISCHARGE ( QUANTITIES OF GREASE AND OIL IN EXCESS OF THAT OF DOMESTIC WASTE) AND / OR THE NEED FOR FLOW EQUALIZATION.
- 10. SANITARY SEWER AND WATER MAINS SHALL BE SEPARATED A MINIMUM OF 10' HORIZONTALLY. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, PIPES SHALL BE IN SEPARATE TRENCHES WITH THE SEWER AT LEAST 18" BELOW THE BOTTOM OF THE WATER MAIN. WHERE APPROPRIATE SEPARATION FROM A WATER MAIN IS NOT POSSIBLE. THE SEWER SHALL BE ENCASED IN CONCRETE, OR CONSTRUCTED OF DUCTILE IRON PIPE USING MECHANICAL SLIP-ON JOINTS FOR A DISTANCE OF AT LEAST 10 FEET ON EITHER SIDE OF THE CROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER MAIN AS POSSIBLE. WHERE A WATER

### MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER

- 11. NO BASEMENT SUMP PUMPS SHALL BE CONNECTED TO THE SANITARY SEWER SYSTEM OR
- 12. WATER LINES SHALL BE DIP, CLASS 52-CL, SIZES AS NOTED ON PLAN. ALL WATER DISTRIBUTION PIPES, VALVES, FITTINGS AND APPURTENANCES SHALL BE LEAD FREE IN ACCORDANCE TO THE LATEST SAFE DRINKING WATER ACT, NSF/ANSI 61 AND AWWA REQUIREMENTS. CONTRACTOR TO COORDINATE WITH FIRE OFFICIAL FOR APPROVED FDC. DOMESTIC LINE SHALL BE TYPE 'K' COPPER. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 4 FEET OF COVER ON THE INSTALLATION OF THE NEW WATER MAINS, DOMESTIC AND FIRE SERVICES. THE CONTRACTOR SHALL PROVIDE MECHANICAL JOINT RETAINER GLANDS AND THRUST BLOCKS AT ALL MECHANICAL JOINT FITTINGS. ALL WATER CONSTRUCTION (PIPES, VALVES, HYDRANTS AND APPURTENANCES, PRESSURE TESTING & DISINFECTIONS) AS PER NORTH BRUNSWICK TOWNSHIP STANDARDS.
- 13. IT IS THE INTENT TO PROVIDE GATE VALVES ON ALL LEGS OF "T" AND CROSS FITTINGS ON WATER MAIN CONNECTIONS.
- 14. PROVIDE SHUT OFF VALVE ON ALL FIRE SERVICE CONNECTIONS, CURB BOX / SHUT OFF
- 16. EXCAVATIONS OR TRENCHING WITHIN CLOSE PROXIMITY TO UNDERGROUND FACILITIES OR PROTECTION WILL BE BORNE BY THE CONTRACTOR.
- TO A MINIMUM. OPEN TRENCHES SHALL BE STEEL PLATED OR BARRICADED WHEN WORK IS
- 18. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT IN AN APPROVED MANNER EXISTING THRUST BLOCKS WHICH ARE RESTRAINING EXISTING UTILITIES. EXISTING THRUST BLOCKS SHALL NOT BE UNDERMINED.
- 20. GAS LINE TO BUILDING TO BE INSTALLED BY UTILITY COMPANY.
- 21. NO PIPE, INLET, MANHOLE, CURB, SHALL BE CONSTRUCTED WITHOUT CUT SHEETS. THE CONTRACTOR SHALL ALLOW TWO WORKING DAYS TO CHECK THE PROPOSED ELEVATIONS AGAINST THOSE ON THE CUT SHEET.
- 22. SEE ADDITIONAL CONSTRUCTION NOTES ON OTHER SHEETS.

A STORMWATER MAINTENANCE AGREEMENT HAS BEEN FILED WHICH SETS FORTH DOCUMENTATION THAT ANY PROPOSED DRAINAGE SYSTEM AND ANY AND ALL STORMWATER (DRAINAGE SWALES/DETENTION/RETENTION/RECHARGE FACILITIES) WILL BE ADEQUATELY MAINTAINED IN ACCORDANCE WITH THE STANDARDS OF MIDDLESEX COUNTY. REFER TO THE PARAGRAPH IN THE STORMWATER MAINTENANCE AGREEMENT ENTITLED AFFECT NON-COUNTY FACILITIES SHOULD BE REVIEWED AND APPROVED BY THE APPROPRIATE JURISDICTIONAL AGENCY.

SHALL BE PROVIDED. DISCHARGE DIRECTLY TO THE STREET.

VALVE ON ALL DOMESTIC SERVICES.

15. ALL UTILITIES SHALL BE INSTALLED UNDERGROUND. DESIGN AND LOCATION REQUIREMENTS PER RESPECTIVE UTILITY COMPANIES.

- UTILITY POLES WILL REQUIRE PROTECTION IN AN APPROVED MANNER TO PREVENT DAMAGE OR INTERRUPTION OF SERVICE TO UNDERGROUND FACILITIES. THE COST TO PROVIDE THIS
- 17. ALL TRENCHES SHALL BE BACKFILLED WITHOUT DELAY. OPEN TRENCHES SHALL BE KEPT
- NOT IN PROGRESS.
- 19. STORM & SANITARY IMPROVEMENTS SHALL BE INSTALLED BEFORE OTHER UTILITIES.

136 L.F. 8" PVC SDR-35 @ 0.50% DATUM: 0+00 1+00 SANITARY-1 PROFILE

1+50

date

description

EXISTING LEGENI

 GAS VALVE G GAS METER 数 WATER VALVE C HYDRANT

WATER METER

CURB INLET

CLEANOUT BOLLARD SIGN

O UTILITY POLE

E ELECTRIC MH

( CONIFEROUS TREE

( · ) DECIDUOUS TREE

— x — FENCE 

WALL

 GATE POST \_\_ w \_\_ WATER LINE — G — GAS LINE — E — ELECTRIC LINE — S — SANITARY LINE -OH- OVERHEAD WIRES

PROPOSED LEGEND

(**(D)**) STORM MANHOLE STORM 'B' INLET STORM 'E' INLET

(S) SANITARY MANHOLE

WV WATER VALVE FIRE HYDRANT

+ STREET SIGN

Landscape Architects

575 Route 28, Suite 11

Raritan, N.J. 08869

www.reynoldsgrp.com

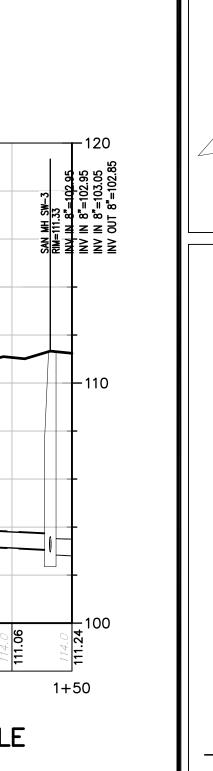
Land Surveyors

PHASE LINE

STORM PIPE

— W — WATER LINE

₩ 👺 F.D.C.



F. MITCHEL ARDMAN N.J. PROFESSIONAL ENGINEER LIC. NO. 34317

Certificate of Authorization

21MH00004300

F. Mitchel Ardman, P.E., P.P.

Jeffrey D. Reynolds, P.L.A.

Number 24GA27969200

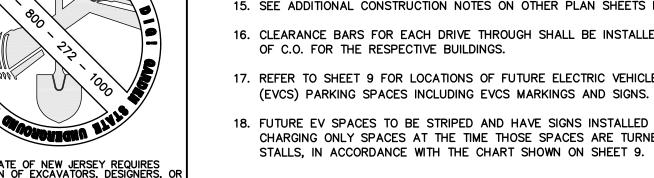
FINAL SITE PLAN BLOCK 141 LOT 38.01 NORTH BRUNSWICK TOWNSHIP MIDDLESEX COUNTY , NEW JERSEY drawing title

DIMENSION, GRADING AND UTILITY PLAN

job number drawing number 21-042-4 1"=20' hecked by FMA/AEC drawn by A.A.

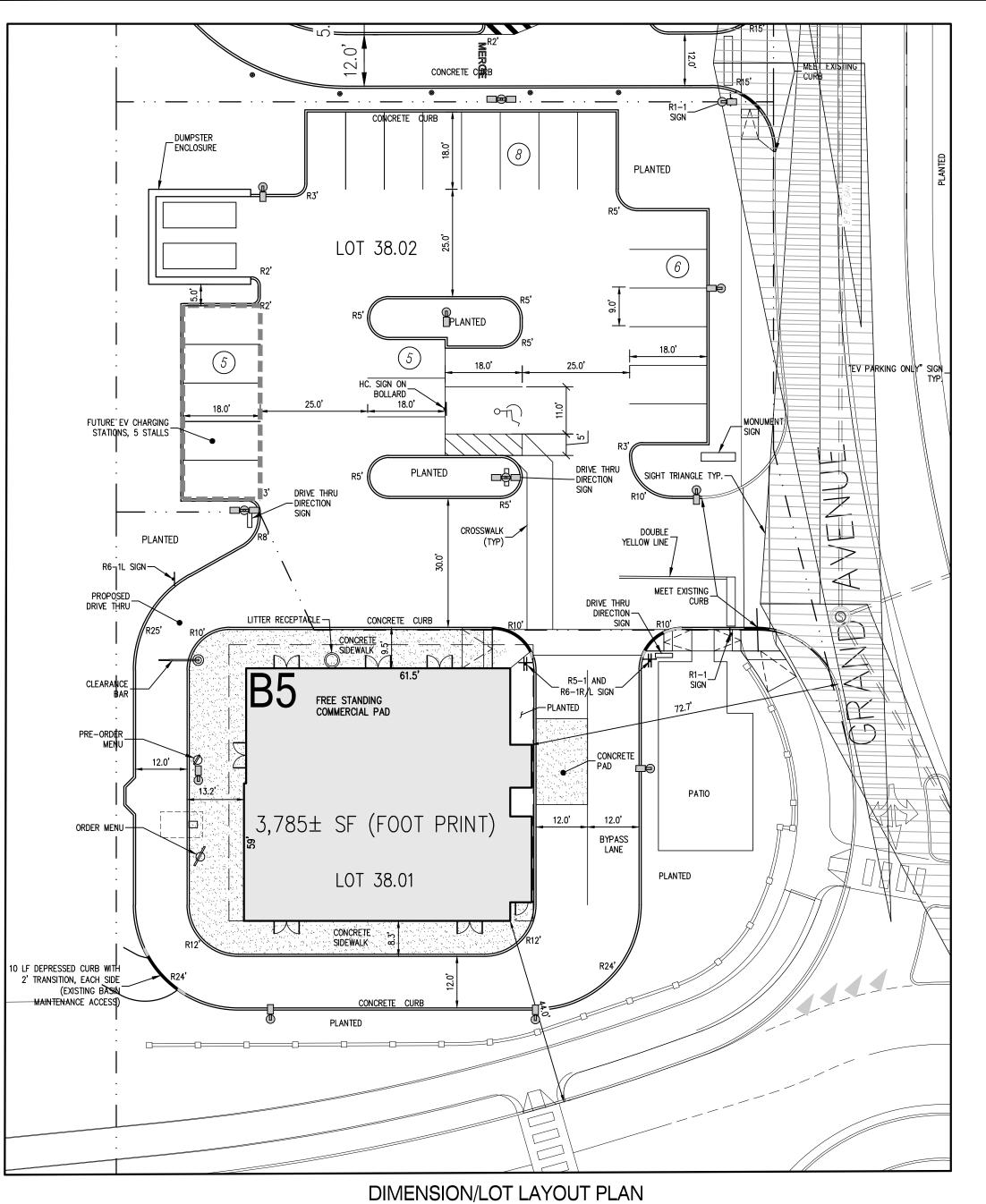
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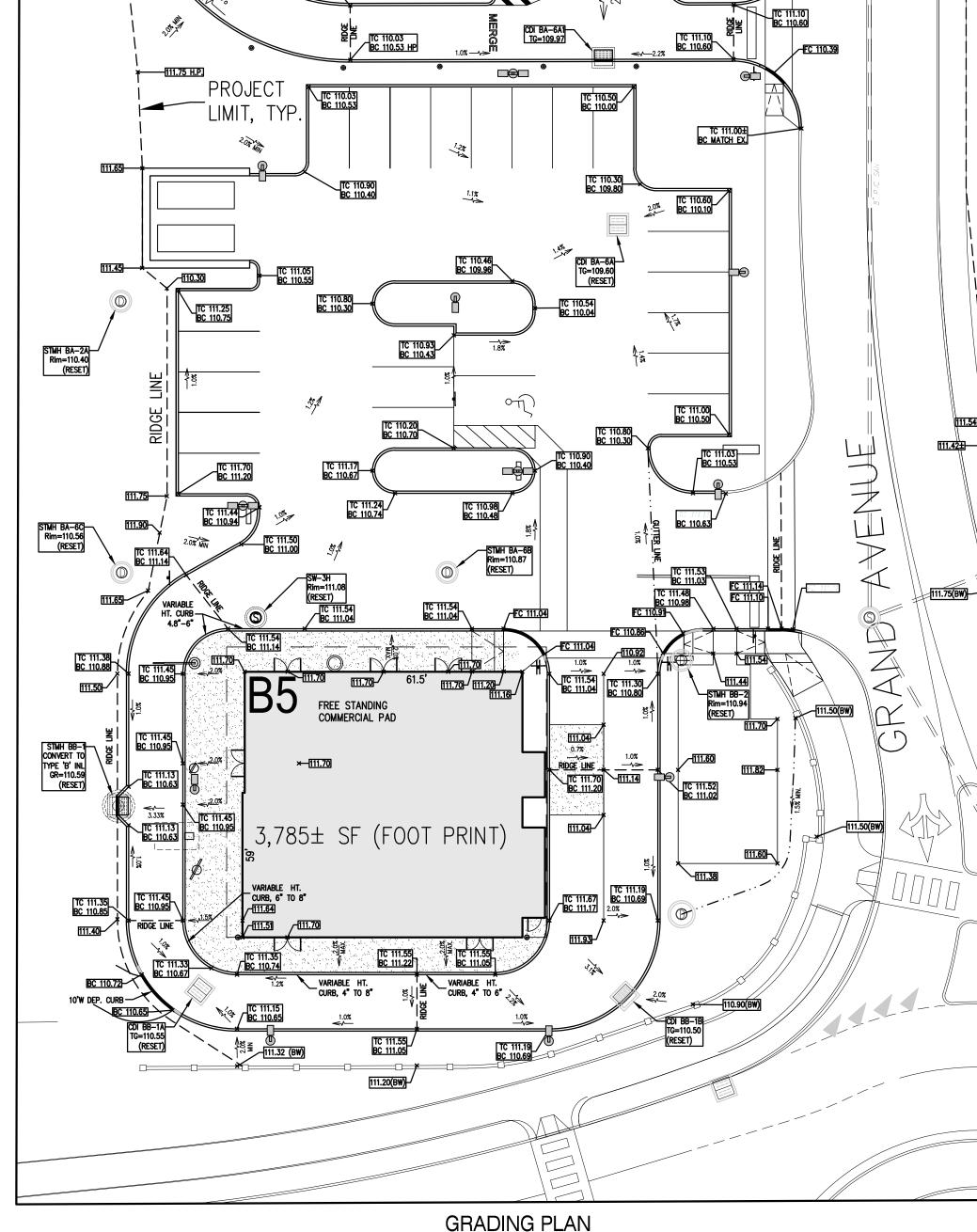
sheet 6 of 16

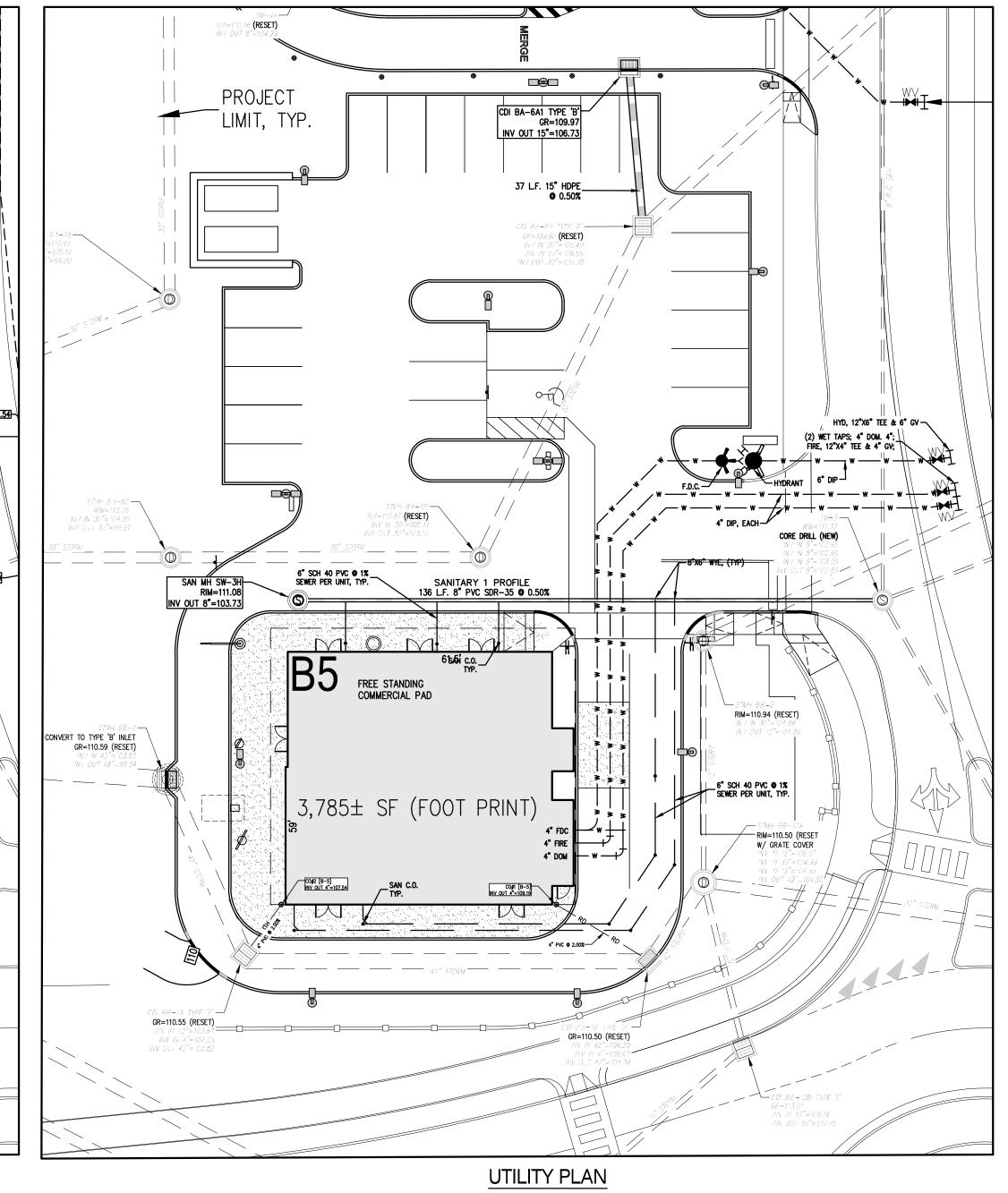


EARTH'S SURFACE ANYWHERE IN THE STATE

GRAPHIC SCALE ( IN FEET ) 1 inch = 20 ft.







### **GENERAL NOTES:**

- 1. SITE INFORMATION SHOWN ARE BASED UPON APPROVED SITE PLANS, SUBDIVISION PLAN AND AS-BUILT PLANS PREPARED BY CREST ENGINEERING.
- 1.1. PRELIMINARY AND FINAL SITE PLAN: PANELS D & E DATED 8/2/2011, LAST REVISED 1.2. SUBDIVISION PLAN: ALTA/NSPS LAND TITLE SURVEY FOR LOTS 36.01, 38, 39, 40, 44.01, 45.01, 47, 48, 48.01, 49, 50.01, 50.02, 50.03, 51, 52, 53, 54, 55, 56, 57.01, 58, 59 & 60; BLOCK 141, SIGNED BY GARY P. YURO, P.L.S. No. 43251, DATED
- 6/1/2021, NO REVISION 1.3. AS-BUILT PLANS: PANEL 'D' DATED 9/16/2013, LOTS 5.04, 7.01, 7.03 & 23; BLOCK 148, SIGNED BY GARY P. YURO, P.L.S. No. 43251, SHEET 4 OF 8, DATED 9/16/2013, LAST REVISED 8/20/2014; PANEL 'E' DATED 9/16/2013, LOTS 5.04, 7.01, 7.03 & 23; BLOCK 148, SIGNED BY GARY P. YURO, P.L.S. No. 43251, SHEET 5 OF 8, DATED 9/16/2013, LAST REVISED 6/10/2014.
- 2. ALL MATERIALS, WORKMANSHIP AND CONSTRUCTION FOR SITE IMPROVEMENTS SHALL CONFORM TO NORTH BRUNSWICK TOWNSHIP CODES AND STANDARDS, THE STANDARDS OF THE RESPECTIVE UTILITY COMPANIES, AND THE N.J.D.O.T. SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, 2019 (AS UPDATED), AS APPLICABLE.
- 3. PROPOSED DEVELOPMENT SHALL BE IN COMPLIANCE WITH NJ BARRIER FREE AND A.D.A. REQUIREMENTS. RAMPS MUST COMPLY WITH CURRENT REQUIREMENTS IN PLACE DURING TIME OF CONSTRUCTION.
- 4. THE CONTRACTOR SHALL PROTECT ALL STRUCTURES, ROADS, PIPELINES, TREES, SHRUBBERY, GRASS AREA, ETC., DURING THE PROGRESS OF HIS WORK AND SHALL REMOVE FROM THE SITE ALL CUTTINGS, DRILLINGS, DEBRIS AND UNUSED MATERIALS. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL RESTORE THE SITE TO ITS ORIGINAL CONDITION, INCLUDING AT THE CONTRACTOR'S SOLE EXPENSE, THE REPLACEMENT OF GRASSED AREAS WHICH HAVE BEEN DAMAGED.
- 5. 5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO SURROUNDING PROPERTY AND SHALL RESTORE ANY PROPERTY DAMAGED AS A RESULT OF HIS OPERATIONS. ALL RESTORATION WILL BE BORNE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
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- 7. THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL FIRE OFFICIAL FOR APPROPRIATE FIRE LANE MARKINGS.
- 8. TRAFFIC, PARKING SIGNS AND STRIPING SHALL BE IN ACCORDANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", U.S.D.O.T. FEDERAL HIGHWAY ADMINISTRATION, 2009 AND AS UPDATED AND ADOPTED BY THE N.J. DEPARTMENT OF TRANSPORTATION.
- 9. THE FREEHOLD SOIL CONSERVATION DISTRICT (FSCD) SHALL BE NOTIFIED A MINIMUM OF 72 HOURS PRIOR TO ANY SOIL DISTURBANCE (732) 683-8500.
- 10. IN THAT N.J.S.A. 4:24-39 ET. SEQ. REQUIRES THAT NO CERTIFICATE OF OCCUPANCY BE ISSUED BEFORE THE PROVISIONS OF THE CERTIFIED PLAN FOR SOIL EROSION AND SEDIMENT CONTROL HAVE BEEN COMPLETED FOR PERMANENT MEASURES, ALL WORK AROUND INDIVIDUAL BUILDINGS WILL HAVE TO BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE FOR THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY. NOTATION FOR THIS SHOULD BE PROVIDED ON THE SITE PLAN AND WITHIN THE CONSTRUCTION SCHEDULE.
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- 1. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTION, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING INVERTS, MATERIALS AND SIZES. TEST PITS INFORMATION SHALL BE GIVEN TO THE DESIGN ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENTS
- 2. STORM SEWER PIPE SHALL BE ADS N-12 OR ASTM C-76 REINFORCED CONCRETE PIPE WITH ASTM C-443 O-RING TYPE GASKETS (18" AND SMALLER MAY USE "KENT SEAL #2" AS AN ALTERNATIVE) CLASS III, UNLESS OTHERWISE NOTED, PIPE SHALL BE SIZED AND LAID TO THE LINE AND GRADE, AS SHOWN. ALL STORM PIPES TO BE HDPE, N-12 AS MANUFACTURED BY ADS UNLESS NOTED. LENGTH OF STORM SEWER PIPE IS MEASURED
- 3. DRAINAGE INLETS SHALL BE STANDARD NJDOT TYPE "B" INLETS, UNLESS OTHERWISE NOTED OR AS REQUIRED TO ACCOMMODATE ALL PIPES IN AND OUT OF THE STRUCTURE. CASTING CURB HEIGHT SHALL BE 6". ALL INLETS TO HAVE BICYCLE SAFE GRATES.
- 4. ALL STORMWATER STRUCTURES MAY BE PRECAST. SHOP DRAWINGS FOR OVERSIZED STRUCTURES / SPECIAL STRUCTURES TO BE SUBMITTED TO TOWNSHIP ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. SPECIAL STORM SEWER STRUCTURES MAYBE REQUIRED WHERE PIPE EXCEED 30" OR WITH MULTIPLE PIPES. CONTRACTOR TO PROVIDE SHOP DRAWINGS AS REQUIRED. ALL PRECAST DRAINAGE STRUCTURES SHOP DRAWINGS SHALL BE SIGNED AND SEALED BY A LICENSED NJ PROFESSIONAL ENGINEER AS TO THEIR ABILITY TO WITHSTAND AASHTO HS 20 LOADING AND THEIR SUITABILITY FOR THEIR
- 5. STORMWATER RUNOFF SHALL FLOW AWAY FROM BUILDINGS. ALL ROOF RUNOFF TO BE CONNECTED TO STORM SEWER VIA ROOF DRAIN COLLECTION SYSTEM.
- 6. ALL SANITARY SEWER CONSTRUCTION SHALL COMPLY WITH THE CURRENT STANDARDS OF NORTH BRUNSWICK TOWNSHIP UTILITY DEPARTMENTS AS WELL AS NJDEP STANDARDS. THE SANITARY SEWER SYSTEM SHALL BE LOW AIR PRESSURE TESTED AND DEFLECTION

TESTED AS PER NORTH BRUNSWICK TOWNSHIP STANDARDS.

- 7. SANITARY SEWER MAIN SHALL BE PVC SDR-35. IF DIP SEWER PIPE IS USED IN PLACE OF PVC PIPE, DIP SHALL HAVE A HYDROGEN SULFIDE / CORROSION RESISTANT INTERIOR LINING SUITABLE FOR SEWER APPLICATIONS. STANDARD CEMENT LINED DIP WILL NOT BE PERMITTED FOR SANITARY SEWER COLLECTION SYSTEM CONSTRUCTION.
- 8. SANITARY SEWER LATERAL SHALL BE SCHEDULE 40 PVC WITH CLEAN OUTS AS REQUIRED BY PLUMBING CODE. ALL CLEANOUTS IN PAVED AREA TO BE CONSTRUCTED IN ACCORDANCE WITH THE 'SIGHT TEE' DETAIL. ALL PROPOSED SANITARY SEWER LATERALS SHALL HAVE A MINIMUM DEPTH OF COVER OF 3 FT. SEWER LATERALS, 4" MIN. SLOPE 2.0%, 6" MIN. SLOPE 1.0%, AND A DIRECT CONNECTION TO A SANITARY MANHOLE WILL NOT BE PERMITTED.
- 9. THE TOWNSHIP OF NORTH BRUNSWICK UTILITY DEPARTMENT RESERVES THE RIGHT TO REQUIRE INSTALLATION OF A GREASE TRAP AND SAMPLING MANHOLE AND / OR PRETREATMENT FACILITIES IF THE QUALITY OF THE WASTEWATER STREAM DEMONSTRATES A FOOD SERVICE ESTABLISHMENT TYPE DISCHARGE ( QUANTITIES OF GREASE AND OIL IN EXCESS OF THAT OF DOMESTIC WASTE) AND / OR THE NEED FOR FLOW EQUALIZATION.
- 10. SANITARY SEWER AND WATER MAINS SHALL BE SEPARATED A MINIMUM OF 10' HORIZONTALLY. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, PIPES SHALL BE IN SEPARATE TRENCHES WITH THE SEWER AT LEAST 18" BELOW THE BOTTOM OF THE WATER MAIN. WHERE APPROPRIATE SEPARATION FROM A WATER MAIN IS NOT POSSIBLE. THE SEWER SHALL BE ENCASED IN CONCRETE, OR CONSTRUCTED OF DUCTILE IRON PIPE USING MECHANICAL SLIP-ON JOINTS FOR A DISTANCE OF AT LEAST 10 FEET ON EITHER SIDE OF THE CROSSING. IN ADDITION, ONE FULL LENGTH OF SEWER PIPE SHOULD BE LOCATED SO BOTH JOINTS WILL BE AS FAR FROM THE WATER MAIN AS POSSIBLE. WHERE A WATER

### MAIN CROSSES UNDER A SEWER, ADEQUATE STRUCTURAL SUPPORT FOR THE SEWER SHALL BE PROVIDED.

- 11. NO BASEMENT SUMP PUMPS SHALL BE CONNECTED TO THE SANITARY SEWER SYSTEM OR
- 12. WATER LINES SHALL BE DIP, CLASS 52-CL, SIZES AS NOTED ON PLAN. ALL WATER ACCORDANCE TO THE LATEST SAFE DRINKING WATER ACT, NSF/ANSI 61 AND AWWA DOMESTIC LINE SHALL BE TYPE 'K' COPPER. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF 4 FEET OF COVER ON THE INSTALLATION OF THE NEW WATER MAINS, DOMESTIC AND FIRE SERVICES. THE CONTRACTOR SHALL PROVIDE MECHANICAL JOINT DISINFECTIONS) AS PER NORTH BRUNSWICK TOWNSHIP STANDARDS.
- 13. IT IS THE INTENT TO PROVIDE GATE VALVES ON ALL LEGS OF "T" AND CROSS FITTINGS ON WATER MAIN CONNECTIONS.
- 14. PROVIDE SHUT OFF VALVE ON ALL FIRE SERVICE CONNECTIONS, CURB BOX / SHUT OFF
- 16. EXCAVATIONS OR TRENCHING WITHIN CLOSE PROXIMITY TO UNDERGROUND FACILITIES OR
- 17. ALL TRENCHES SHALL BE BACKFILLED WITHOUT DELAY. OPEN TRENCHES SHALL BE KEPT
- NOT IN PROGRESS. 18. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT IN AN APPROVED MANNER
- 20. GAS LINE TO BUILDING TO BE INSTALLED BY UTILITY COMPANY. 21. NO PIPE, INLET, MANHOLE, CURB, SHALL BE CONSTRUCTED WITHOUT CUT SHEETS. THE
- 22. SEE ADDITIONAL CONSTRUCTION NOTES ON OTHER SHEETS.

A STORMWATER MAINTENANCE AGREEMENT HAS BEEN FILED WHICH SETS FORTH DOCUMENTATION THAT ANY PROPOSED DRAINAGE SYSTEM AND ANY AND ALL STORMWATER (DRAINAGE SWALES/DETENTION/RETENTION/RECHARGE FACILITIES) WILL BE ADEQUATELY MAINTAINED IN ACCORDANCE WITH THE STANDARDS OF MIDDLESEX COUNTY. REFER TO THE PARAGRAPH IN THE STORMWATER MAINTENANCE AGREEMENT ENTITLED AFFECT NON-COUNTY FACILITIES SHOULD BE REVIEWED AND APPROVED BY THE APPROPRIATE JURISDICTIONAL AGENCY.

DISCHARGE DIRECTLY TO THE STREET.

DISTRIBUTION PIPES, VALVES, FITTINGS AND APPURTENANCES SHALL BE LEAD FREE IN REQUIREMENTS. CONTRACTOR TO COORDINATE WITH FIRE OFFICIAL FOR APPROVED FDC. RETAINER GLANDS AND THRUST BLOCKS AT ALL MECHANICAL JOINT FITTINGS. ALL WATER CONSTRUCTION (PIPES, VALVES, HYDRANTS AND APPURTENANCES, PRESSURE TESTING &

VALVE ON ALL DOMESTIC SERVICES.

15. ALL UTILITIES SHALL BE INSTALLED UNDERGROUND. DESIGN AND LOCATION REQUIREMENTS PER RESPECTIVE UTILITY COMPANIES.

UTILITY POLES WILL REQUIRE PROTECTION IN AN APPROVED MANNER TO PREVENT DAMAGE OR INTERRUPTION OF SERVICE TO UNDERGROUND FACILITIES. THE COST TO PROVIDE THIS PROTECTION WILL BE BORNE BY THE CONTRACTOR.

TO A MINIMUM. OPEN TRENCHES SHALL BE STEEL PLATED OR BARRICADED WHEN WORK IS

- EXISTING THRUST BLOCKS WHICH ARE RESTRAINING EXISTING UTILITIES. EXISTING THRUST BLOCKS SHALL NOT BE UNDERMINED.
- 19. STORM & SANITARY IMPROVEMENTS SHALL BE INSTALLED BEFORE OTHER UTILITIES.
- CONTRACTOR SHALL ALLOW TWO WORKING DAYS TO CHECK THE PROPOSED ELEVATIONS AGAINST THOSE ON THE CUT SHEET.

136 L.F. 8" PVC SDR-35 @ 0.50% DATUM: 0+00 0+50 1+00 SANITARY-1 PROFILE

1+50

F. MITCHEL ARDMAN

date

description

EXISTING LEGENI

 GAS VALVE G GAS METER WATER VALVE C HYDRANT

WATER METER

CLEANOUT BOLLARD ∘<sup>s</sup> SIGN

- UTILITY POLE

E ELECTRIC MH

( CONIFEROUS TREE

( · ) DECIDUOUS TREE

GATE POST

PROPOSED LEGEND

(**(D)**) STORM MANHOLE STORM 'B' INLET

STORM 'E' INLET STORM LAWN INLET

(S) SANITARY MANHOLE

WV WATER VALVE 🂢 FIRE HYDRANT

+ STREET SIGN

Landscape Architects

575 Route 28, Suite 11

Raritan, N.J. 08869

www.reynoldsgrp.com

Land Surveyors

PHASE LINE

STORM PIPE

— W — WATER LINE

₩ 👺 F.D.C.

\_\_ w \_\_ WATER LINE

— G — GAS LINE — E — ELECTRIC LINE — S — SANITARY LINE --- OH--- OVERHEAD WIRES

☆ LIGHT

— x — FENCE WALL

FINAL SITE PLAN

N.J. PROFESSIONAL ENGINEER LIC. NO. 34317

Certificate of Authorization

21MH00004300

F. Mitchel Ardman, P.E., P.P.

Jeffrey D. Reynolds, P.L.A.

Number 24GA27969200

BLOCK 141 LOT 38.01 NORTH BRUNSWICK TOWNSHIP MIDDLESEX COUNTY , NEW JERSEY drawing title

DIMENSION, GRADING AND UTILITY PLAN (ALTERNATE)

drawing number

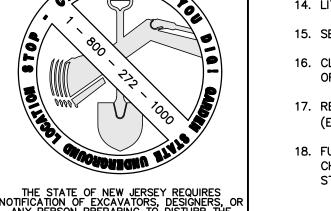
sheet 6 of 16

1"=20' hecked by FMA/AEC drawn by A.A.

21-042-4

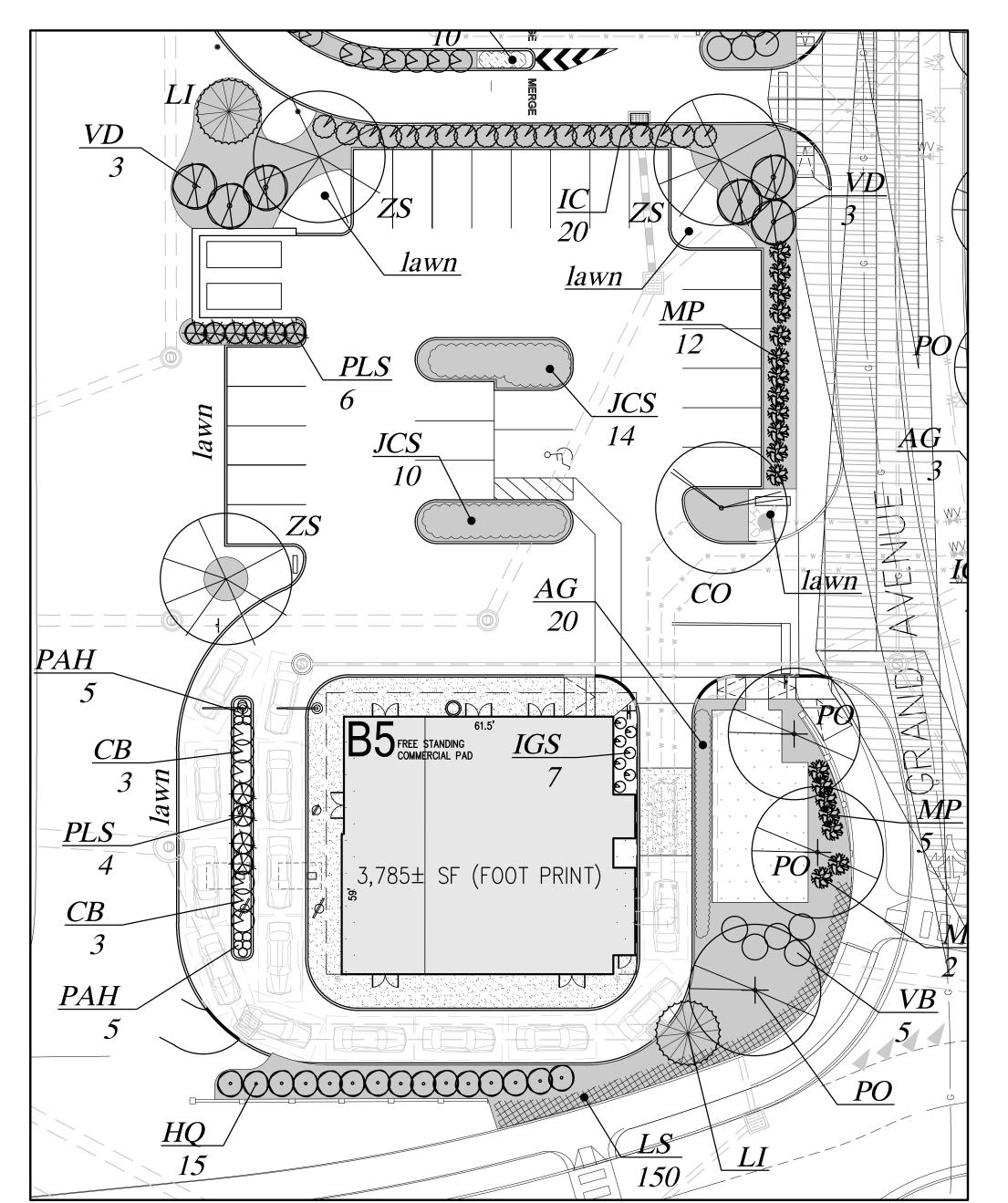
01/30/24

job number



EARTH'S SURFACE ANYWHERE IN THE STATE

GRAPHIC SCALE STALLS, IN ACCORDANCE WITH THE CHART SHOWN ON SHEET 9. ( IN FEET ) 1 inch = 20 ft.



LANDSCAPE PLAN

NOTE: ALL PARKING ISLANDS TO BE MULCHED.

THIS PLAN TO BE USED FOR LANDSCAPE PURPOSES ONLY

SEE PLANT LIST THIS SHEET

**COMMON NAME** 

SIZE ROOT SPACING

24-30" HT. 1 GAL. 24" OC

KARL FOSTER FEATHER REED GRASS 18-24" HT. 1 GAL. 3' OC

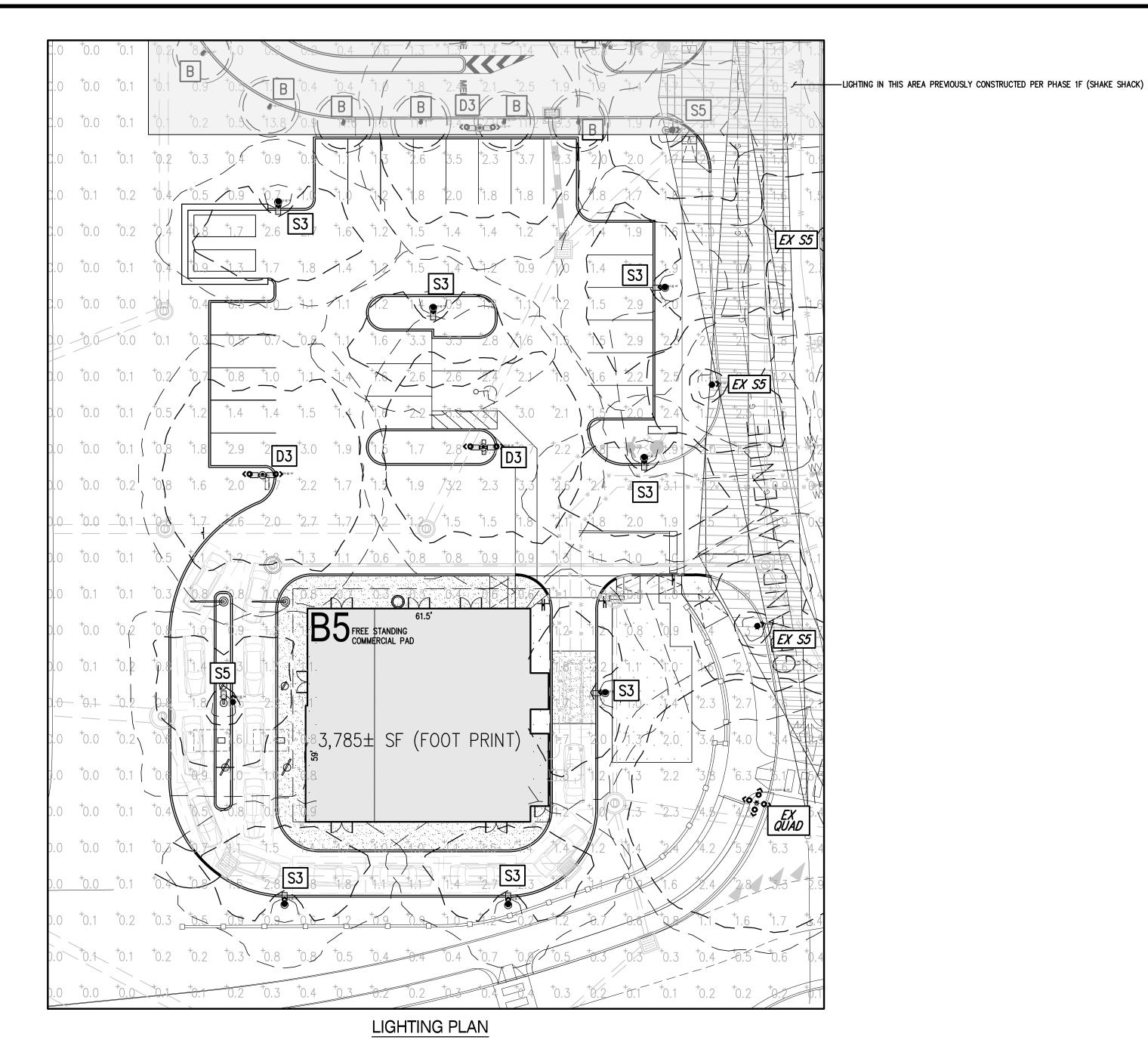
PLANTING SCHEDULE KEY QTY. BOTANICAL NAME

6 CALAMAGROSTIS BRACHYTRICHA

10 PENNISETUM ALOPECUROIDES 'HAMELN'

TREES
CELTIS OCCIDENTALIS 2.5-3" CAL. B&B As Shown 2.5-3" CAL. B&B As Shown 2.5-3" CAL. B&B As Shown COMMON HACKBERRY AMERICAN PLANETREE PLATANUS OCCIDENTALIS ZELKOVA SERRATA 'GREEN VASE' GREEN VASE ZELKOVA ORNAMENTAL TREES 2 LAGERSTROEMIA INDICA CRAPE MYRTLE 12-14' HT. B&B As Shown 20 ABELIA X GRANDIFLORA 24-30" HT. CONT. 4' OC **GLOSSY ABELIA** SNOW QUEEN OAKLEAF HYDRANGEA 18-24" HT. CONT. 5' OC HYDRANGEA QUERCIFOLIA 'SNOW QUEEN' BURKWOOD VIBURNUM 3-4' HT. B&B 5' OC BLUE MUFFIN ARROWWOOD VIBURNUM 3-4' HT. B&B 8' OC VIBURNUM DENTATUM 'BLUE MUFFIN' 20 ILEX CRENATA 'CONVEXA' CONVEX JAPANESE HOLLY **ILEX GLABRA INKBERRY HOLLY** 24-30" HT. 5 GAL. 4' OC ILEX GLABRA 'SHAMROCK' SHAMROCK INKBERRY HOLLY 18-24" HT. CONT. 3' OC 19 MYRICA PENSYLVANICA NORTHERN BAYBERRY 3-4' HT. B&B 4' OC 10 PRUNUS LAUROCERASUS 'SCHIPKAENSIS' SCHIPKAENSIS CHERRY LAUREL 4-5' HT. B&B 5' OC 24 JUNIPERUS CHINENSIS VAR. SARGENTII SARGENT JUNIPER 3 GAL. 6' OC CREEPING LILY TURF 150 LIRIORE SPICATA BAREROOT 18" OC

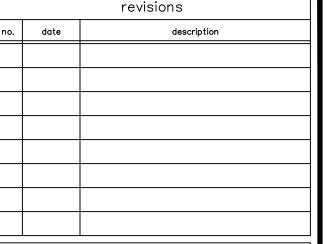
HAMELN FOUNTAIN GRASS



THIS PLAN TO BE USED FOR LIGHTING PURPOSES ONLY

LIGHT CALCULATION SUMMARY 0.0 MINIMUM MAXIMUM 13.9 1.5 AVERAGE

Schedule										
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	D3	3		Light 500-LED 740 4500lm NLG02 BACK TO BACK - 16' MOUNTING HEIGHT - TYPE 3 DIST.	XX500L023P6	1	XX500L023P6 4500lm 4000K Type III.LDT	4500	0.9	96
	S3	7		Light 500-LED 740 4500lm NLG02 - 16' MOUNTING HEIGHT - TYPE 3 DIST.	XX500L023P6	1	XX500L023P6 4500lm 4000K Type III.LDT	4500	0.9	48
	S5	1	NERI	Light 500-LED 740 4500lm NLG06 - 16' MOUNTING HEIGHT - TYPE 5 DIST.	XX500L063P6 ghit	P6-740 - 48.00 W 1	XX500L063P6 4500lm 4000K Type V.IES	3751	0.9	48



### EXISTING LEGEND

- GAS VALVE
- G GAS METER ₩ WATER VALVE
- C HYDRANT
- (W) WATER METER
- CURB STOP FDC FIRE DEPT. CONNECTION
- D DRAINAGE MH
- CURB INLET
- LAWN INLET
- Ö CLEANOUT
- BOLLARD
- ∘<sup>s</sup> SIGN ☆ LIGHT

MAIL BOX

- → GUY WIRE
- -O- UTILITY POLE E ELECTRIC MH
- CONIFEROUS TREE
- $(\cdot)$  DECIDUOUS TREE

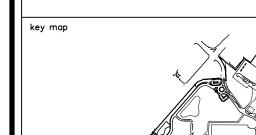
### — x — FENCE

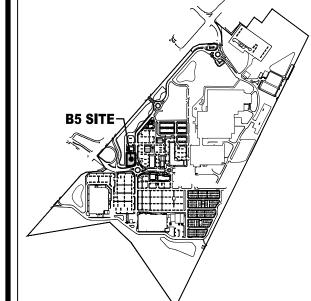
- WALL GATE POST
- G GAS LINE — E — ELECTRIC LINE
- S SANITARY LINE --- OH--- OVERHEAD WIRES

— w — WATER LINE

### PROPOSED LEGEND

- PHASE LINE STORM MANHOLE
- STORM 'B' INLET
- STORM 'E' INLET
- STORM LAWN INLET
- STORM PIPE
- SANITARY MANHOLE
- W WATER LINE
- WV WATER VALVE
- FIRE HYDRANT
- 💝 👺 F.D.C.
- + STREET SIGN







State of New Jersey Certificate of Authorization Number 24GA27969200 21MH00004300

F. Mitchel Ardman, P.E., P.P.

Jeffrey D. Reynolds, P.L.A.

F. MITCHEL ARDMAN N.J. PROFESSIONAL ENGINEER LIC. NO. 34317

drawing title

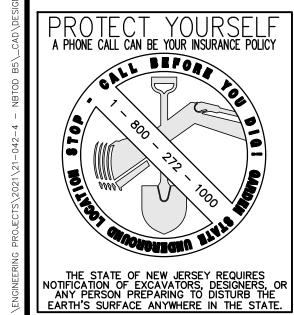
FINAL SITE PLAN

BLOCK 141 LOT 38.01 NORTH BRUNSWICK TOWNSHIP MIDDLESEX COUNTY , NEW JERSEY

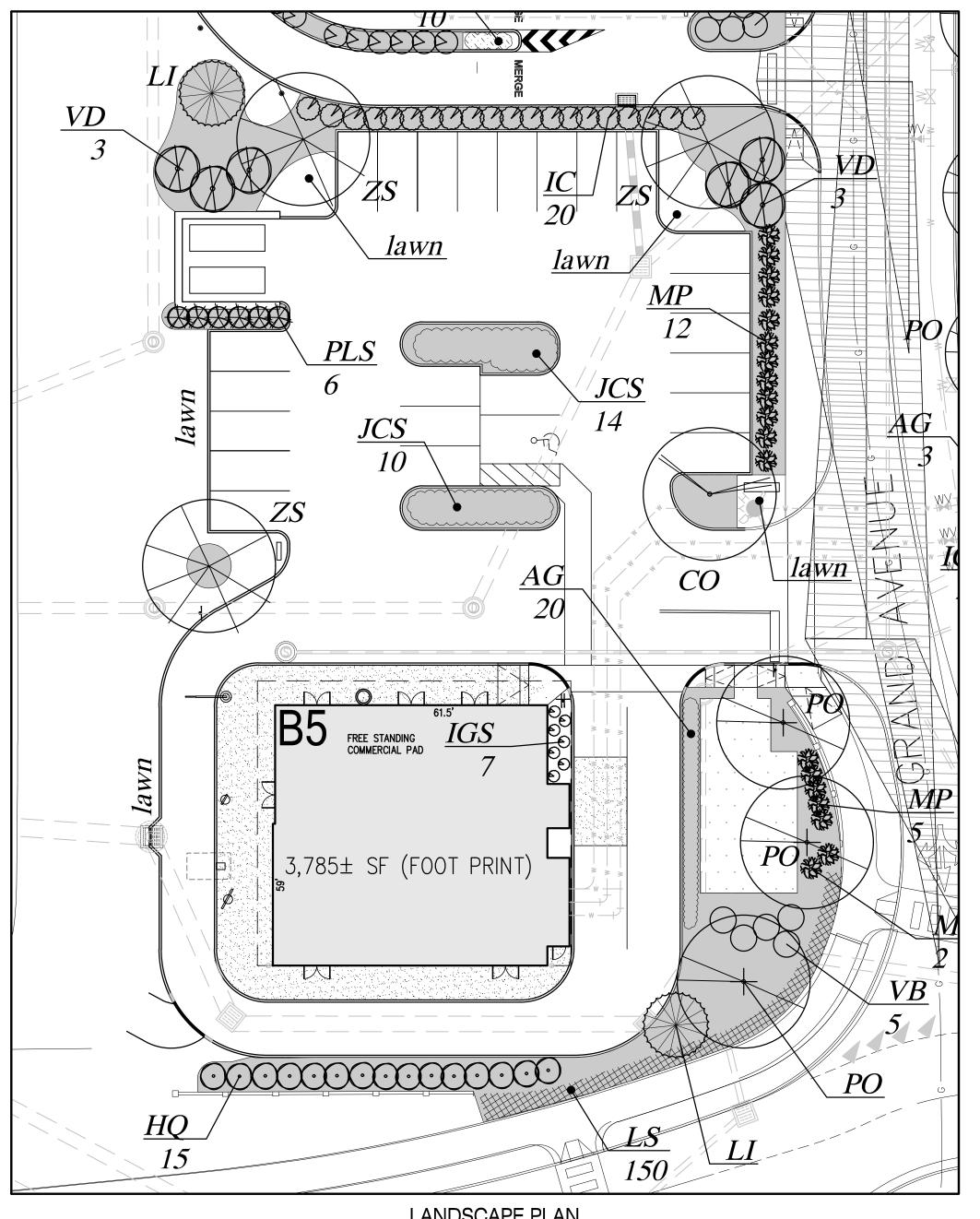
LANDSCAPING PLAN AND LIGHTING PLAN

drawing number 21-042-4 1"=40' hecked by

FMA/AEC drawn by A.A. sheet 7 of 16 01/30/24



GRAPHIC SCALE ( IN FEET ) 1 inch = 40 ft.



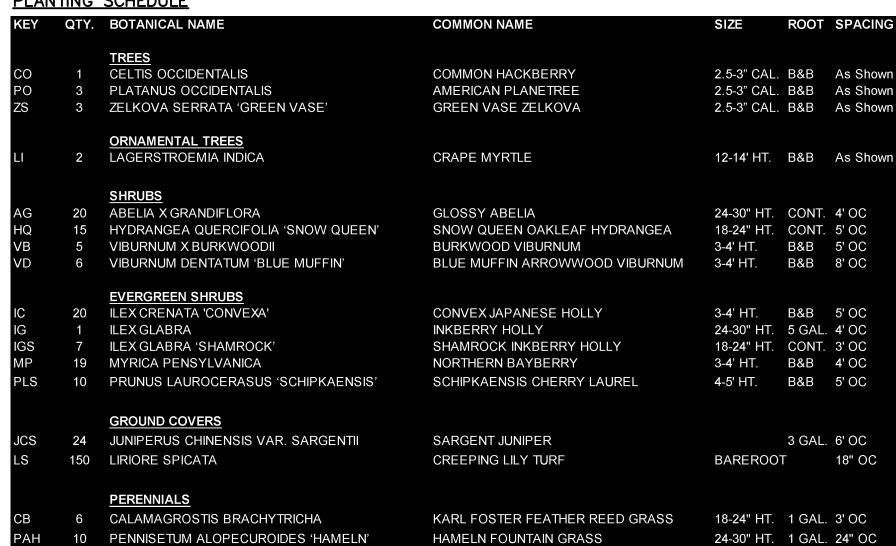
LANDSCAPE PLAN

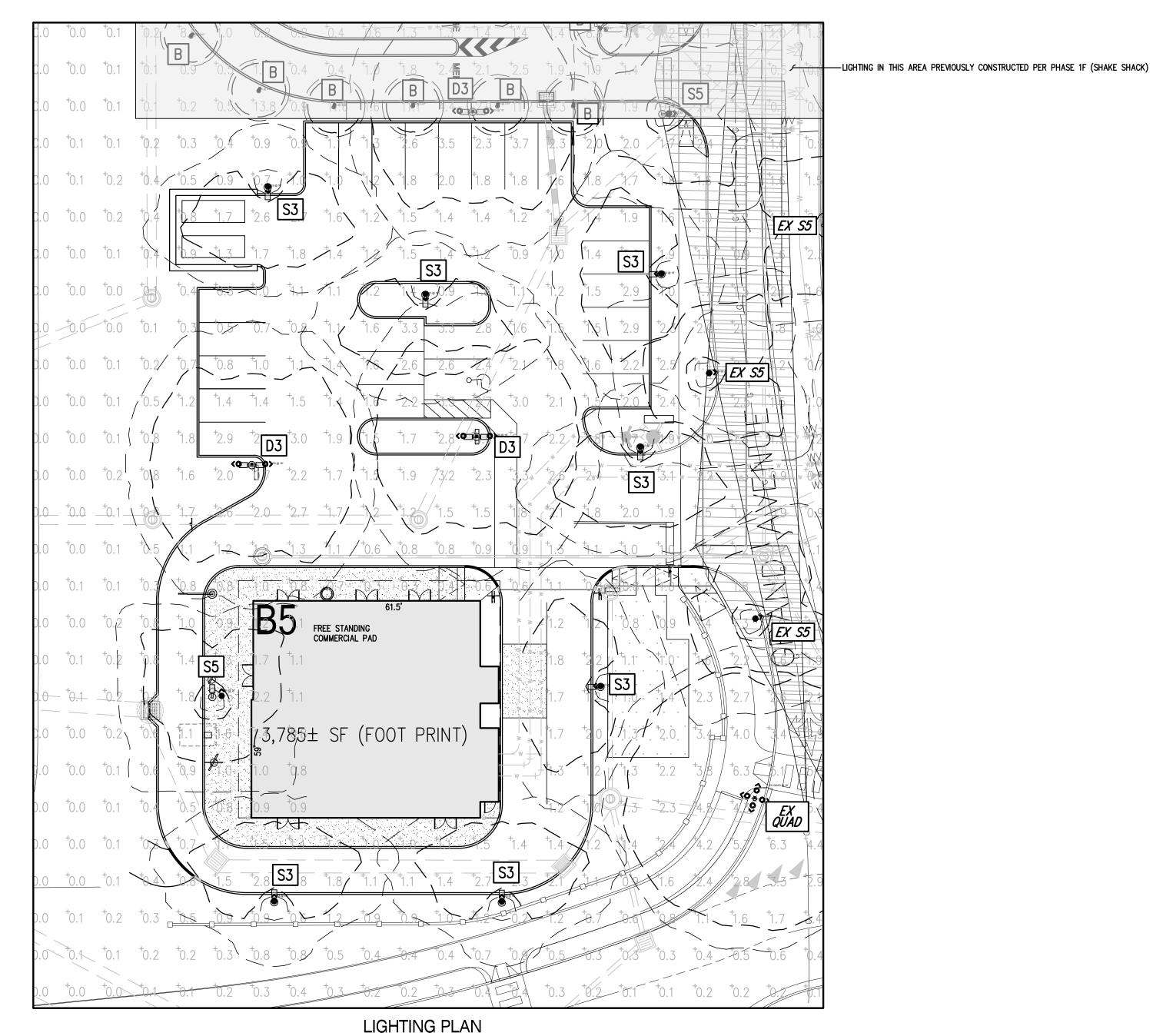
NOTE: ALL PARKING ISLANDS TO BE MULCHED.

THIS PLAN TO BE USED FOR LANDSCAPE PURPOSES ONLY

SEE PLANT LIST THIS SHEET

PLANTING SCHEDULE

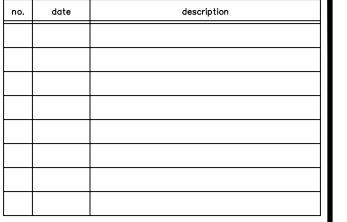




THIS PLAN TO BE USED FOR LIGHTING PURPOSES ONLY

LIGHT CALCULA	TION SUMMARY
MINIMUM	0.0
MAXIMUM	13.9
AVERAGE	1.5

Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp Number Lamps	Filename	Lumens Per Lamp	Light Loss Factor	Wattage
	D3	3	NERIMLD	Light 500-LED 740 4500lm NLG02 BACK TO BACK - 16' MOUNTING HEIGHT - TYPE 3 DIST.	XX500L023P6	1	XX500L023P6 4500lm 4000K Type III.LDT	4500	0.9	96
<b>(</b>	S3	7		Light 500-LED 740 4500lm NLG02 - 16' MOUNTING HEIGHT - TYPE 3 DIST.	XX500L023P6	1	XX500L023P6 4500lm 4000K Type III.LDT	4500	0.9	48
	S5	1	NERI	Light 500-LED 740 4500lm NLG06 - 16' MOUNTING HEIGHT - TYPE 5 DIST.	XX500L063P6 ghit	P6-740 - 48.00 W 1	XX500L063P6 4500lm 4000K Type V.IES	3751	0.9	48



revisions

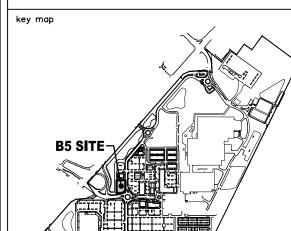
### EXISTING LEGEND

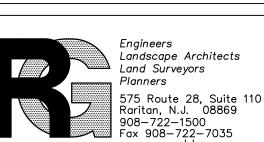
- GAS VALVE
- G GAS METER ₩ WATER VALVE
- C HYDRANT
- W WATER METER
- CURB STOP
- FIRE DEPT. CONNECTION
- D DRAINAGE MH
- CURB INLET
- LAWN INLET S SANITARY MH
- c.o. O CLEANOUT
- BOLLARD ∘<sup>s</sup> SIGN

☆ LIGHT

- MAIL BOX
- → GUY WIRE -O- UTILITY POLE
- E ELECTRIC MH CONIFEROUS TREE
- ( DECIDUOUS TREE
- x FENCE
- WALL GATE POST — w — WATER LINE
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- + STREET SIGN





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# Group Inc.

State of New Jersey Certificate of Authorization Number 24GA27969200 21MH00004300

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F. MITCHEL ARDMAN

N.J. PROFESSIONAL ENGINEER LIC. NO. 34317

drawing title

FINAL SITE PLAN

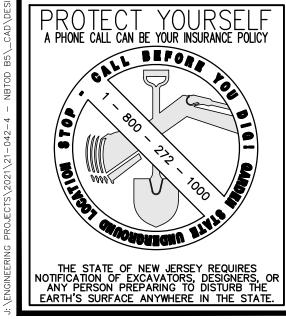
BLOCK 141 LOT 38.01 NORTH BRUNSWICK TOWNSHIP MIDDLESEX COUNTY , NEW JERSEY

LANDSCAPING PLAN AND LIGHTING PLAN (ALTERNATE)

drawing number 21-042-4 1"=40'

hecked by FMA/AEC drawn by A.A.

sheet 7 of 16 01/30/24



GRAPHIC SCALE ( IN FEET ) 1 inch = 40 ft.

FREEHOLD SOIL CONSERVATION DISTRICT NOTES:

INCLUDING THE COLLECTION SYSTEM AND BASINS A, B, C, D & E.

1. FSCD #2011-0558 ENCOMPASSED THE WHOLE ENTIRE PROJECT ACCEPT PHASE 1F AS DESCRIBED BELOW. THE MAIN

COMPONENTS OF THE STORMWATER MANAGEMENT SYSTEM HAVE BEEN OR ARE BEING CONSTRUCTED UNDER THIS PROJECT

2. FSCD #2015-0876 ENCOMPASSES THE AREA WITHIN THE INSIDE CURB OF SOUTH DRIVE, TENTH AVENUE, GREEN STREET AND

THE STATE OF NEW JERSEY REQUIRES NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE

THERE IS NO SCD APPROVAL REQUIRED WITH THIS APPLICATION. NOTHING CHANGED FROM THE FULL IPHASE 1F APPROVAL. THIS PAGE SHOWN FOR INFORMATION PURPOSES

FREEHOLD SOIL CONSERVATION DISTRICT SOIL EROSION AND SEDIMENT CONTROL NOTES 1. THE FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY SOIL DISTURBING ACTIVITY. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BI INSTALLED PRIOR TO SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE,

ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS. I. N.J.S.A 4: 24-39 ET. SEQ. REQUIRES THAT NO CERTIFICATES OF

AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.

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.

5. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN SIXTY 60) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY COVER. THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF 2 TO 2 1/2 TONS PER ACRE, ACCORDING TO THE STANDARD FOR STABILIZATION WITH

MULCH ONLY. 6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. SOIL STOCKPILES, STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AND A MULCH ANCHOR, IN ACCORDANCE WITH STATE STANDARDS.

7. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS. ROADS, DRIVEWAYS, AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN FIFTEEN (15) DAYS OF THE PRELIMINARY GRADING.

8. THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES 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 (1" - 2")STONE FOR A MINIMUM LENGTH OF TEN FEET (10') EQUAL TO THE LOT ENTRANCE WIDTH. ALL OTHER ACCESS POINTS SHALL BE BLOCKED OFF. . ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAYS WILL BE REMOVED

10. PERMANENT VEGETATION IS TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. 11. AT THE TIME THAT SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER.IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF

12. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS. ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS/ACRE, (OR 450 LBS/1,000 SQ FT OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12" OF SETTLED SOIL WITH A PH OF 5 OR MORE, OR 24" WHERE TREES OR SHRUBS ARE TO BE

PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.

13. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL. 14. UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMEN TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH THE STANDARD FOR DEWATERING.

15. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET, TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED AS REQUIRED BY THE STANDARD FOR DUST CONTROL.

16. STOCKPILE AND STAGING LOCATIONS ESTABLISHED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN. STAGING AND STOCKPILES NOT LOCATED WITHIN THE LIMIT OF DISTURBANCE WILL REQUIRE CERTIFICATION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN. CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN MAY BE REQUIRED FOR THESE ACTIVITIES, IF AN AREA GREATER THAN 5.000 SQUARE FEET IS DISTURBED.

17. ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE #6 18. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.

STANDARD FOR PERMANENT AND TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

SITE PREPARATION:

SEEDBED PREPARATION:

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

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

B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED

D. INSTALL NEEDED EROSION CONTROL PRACTICES FOR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS IN ACCORDANCE WITH STATE STANDARDS.

A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 (PERMANENT) AND 10-20-10 (TEMPORARY) OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE-HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE—HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.

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

PRODUCING SOILS.

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

1. SEEDING RATES SPECIFIED ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION UP TO 50% REDUCTION IN RATES MAY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO A REPORT OF COMPLIANCE INSPECTION. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVERAGE WITH THE SPECIFIED SEED MIXTURE FOR THE SEEDED AREA AND MOWED ONCE.

. WARM SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT HIGH TEMPERATURES, GENERALLY 85°F AND ABOVE. SEE PERMANENT SEEDING TABLE. PLANTING RATES FOR WARM SEASON GRASSES SHALL BE AMOUNT OF PURE LIVE SEED (PLS) AS DETERMINED BY GERMINATING TESTING RESULTS.

. COOL SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT TEMPERATURES BELOW 85°F. MANY GRASSES BECOME ACTIVE AT 65°F. ADJUSTMENT OF PLANTING RATES TO COMPENSATE FOR THE AMOUNT OF PURE LIVE SEED IS NOT REQUIRED FOR COOL SEASON GRASSES.

TEMPORARY SEEDING: TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED ON SOILS EXPOSED FOR PERIODS OF 2 TO 6 MONTHS WHICH ARE NOT BEING GRADED, NOT UNDER ACTIVE CONSTRUCTION, OR NOT SCHEDULED FOR PERMANENT SEEDING WITHIN 60 DAYS. SELECT A SEED FROM THE TEMPORARY VEGETATIVE SEEDING TABLE.

AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.

OCCURS, THERE IS REDUCED SEED GERMINATION AND GROWTH.

1-1/2" TO 2-1/2" CLEAN

LENGTH OF STONE REQUIRED

COARSE GRAINED SOILS FINE GRAINED SOILS

ENTIRE SURFACE STABILIZED WITH HMA BASE COURSE,

MIX I-2, OR AS DIRECTED BY LOCAL GOVERNMENT

(ASTM C-33)

B. CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE

(CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH. BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE TEXTURED SOIL. C. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED

D. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK OR TRAILER MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO 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

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

A. STRAW OR HAY. UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, TO BE APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1.000 SQUARE FEET). EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED.

APPLICATION. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT AT LEAST 85% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1.000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION. ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER

THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPE, AND COSTS. 1. PEG AND TWINE. DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE

MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISSCROSS AND SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.

2. MULCH NETTINGS. STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.

3. CRIMPER (MULCH ANCHORING COULTER TOOL). A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES.

4. LIQUID MULCH BINDERS. MAY BE USED TO ANCHOR SALT HAY, HAY OR STRAW MULCH. A. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH, IN VALLEYS, AND

STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.

AT CRESTS OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE. B. USE ONE OF THE FOLLOWING:

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

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

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

B. WOOD-FIBER OR PAPER -FIBER MULCH SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

C. PELLETIZED MULCH. COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN COPOLYMERS, 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 SQ. FT. AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN 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 SEEDBED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION

5. IRRIGATION (WHERE FEASIBLE):

OF THE MULCH TO PROVIDE SOIL COVERAGE.

IF SOIL MOISTURE IS DEFICIENT SUPPLY NEW SEEDING WITH ADEQUATE WATER (A MINIMUM OF 1/4 INCH APPLIED UP TO TWICE A DAY UNTIL VEGETATION IS WELL ESTABLISHED). THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE IN ABNORMALLY DRY OR HOT WEATHER OR ON DROUGHTY SITES.

SINCE SOIL ORGANIC MATTER CONTENT AND SLOW RELEASE NITROGEN FERTILIZER (WATER INSOLUBLE) ARE PRESCRIBED IN SECTION 2A - SEEDBED PREPARATION IN THIS STANDARD, NO FOLLOW-UP OF TOPDRESSING IS MANDATORY. AN EXCEPTION MAY BE MADE WHERE GROSS NITROGEN DEFICIENCY EXISTS IN THE SOIL TO THE EXTENT THAT TURF FAILURE MAY DEVELOP. IN THAT INSTANCE, TOPDRESS WITH 10-10-10 OR EQUIVALENT AT 300 Pounds Per Acre or 7 Pounds Per 1,000 Square Feet Every 3 to 5 weeks until the gross NITROGEN DEFICIENCY IN THE TURF IS AMELIORATED.

7. ESTABLISHING PERMANENT VEGETATIVE STABILIZATION:

2" PVC, SCH 40, 4" HIGH ABOVE GRATE -GRATE SECURE WITH 12 GA. GALVANIZED BAILING

Provide 12" dia. Opening in filter fabrio

WIRE IN FOUR PLACES AROUND PIPE

(OR EQUIVALENT)

GENERAL NOTES:

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 the permanent seeding table 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.

(OR EQUIVALENT)

- MOLD WELDED WIRE SUPPORT AROUND

2"X4" CCA SOUTHERN YELLOW PIN 5' LONG. PLACE ON END AND SECURE with 12 ga. Galvanized Baling wire

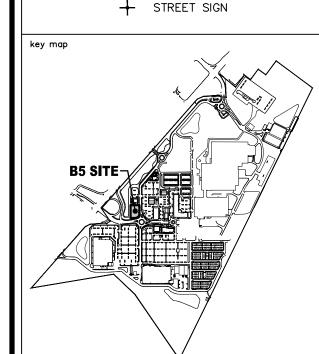
AT BOTH ENDS THROUGH INLET GRATE

BACKFILL AFTER INSTALLATION OF

— DRAWSTRING RUNNING THROUGH FABRIC ALONG TOP OF FENCE

INLET FRAME AND GRATE

FLAT TYPE INLET FRAM



revisions

EXISTING LEGENT

GAS VALVE

G GAS METER

C HYDRANT

数 WATER VALVE

WATER METER

CURB STOP

D DRAINAGE MH

CURB INLET

■ LAWN INLET

S SANITARY MH

CLEANOUT

BOLLARD

SIGN

MAIL BOX

→ GUY WIRE

-O UTILITY POLE

© ELECTRIC MH

( ) CONIFEROUS TREE

DECIDUOUS TREE

☆ LIGHT

───── WALL

GATE POST

— E — ELECTRIC LINE

— S — SANITARY LINE

-OH- OVERHEAD WIRES

PROPOSED LEGEND

(**(D)**) STORM MANHOLE

STORM 'B' INLET

■ STORM LAWN INLET

(S) SANITARY MANHOLE

WATER VALVE

🂢 FIRE HYDRANT

STORM 'E' INLET

PHASE LINE

STORM PIPE

— W — WATER LINE

₩ 👺 F.D.C.

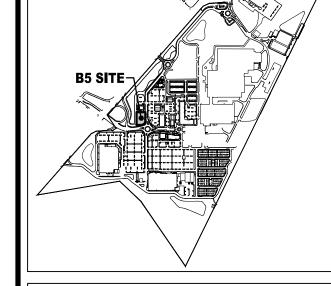
— w — WATER LINE

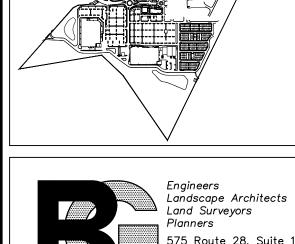
— G — GAS LINE

FDC FIRE DEPT. CONNECTION

description

date





Raritan, N.J. 08869 www.reynoldsgrp.com

Certificate of Authorization

Number 24GA27969200 21MH00004300 F. Mitchel Ardman, P.E., P.P. Jeffrey D. Reynolds, P.L.A.

F. MITCHEL ARDMAN

N.J. PROFESSIONAL ENGINEER LIC. NO. 34317

FINAL SITE PLAN

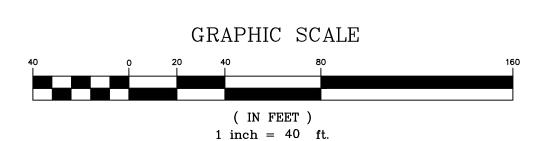
BLOCK 141 LOT 38.01 NORTH BRUNSWICK TOWNSHIP MIDDLESEX COUNTY , NEW JERSEY

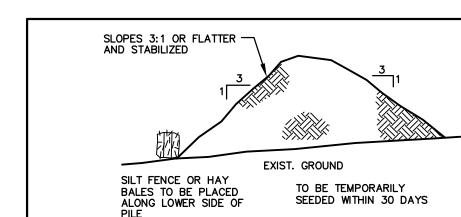
drawing title

SOIL EROSION AND SEDIMENT CONTROL PLAN AND DETAILS

ob number drawing number 21-042-4 1"=40' ecked by

THIS PLAN TO BE USED FOR SOIL EROSION AND SEDIMENT CONTROL PURPOSES ONLY. SEE THIS SHEET FOR DETAILS





TOPSOIL STOCKPILE

NOTE: INDIVIDUAL LOT ACCESS POINTS MAY REQUIRE STABILIZATION THICKNESS

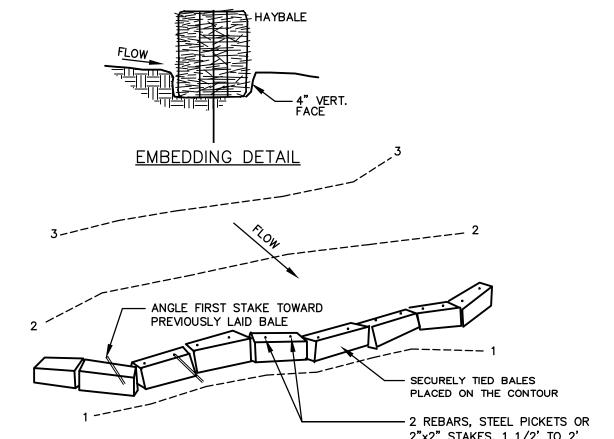
SHOWN IS FOR STONE CONSTRUCTION ENTRANCE ONLY (TYP.)
PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION
ENTRANCE AND PUBLIC R.O.W

STABILIZED CONSTRUCTION ACCESS

PERCENT SLOPE OF ROADWAY

2 TO 5%

LENGTH ACCORDING TO TABLE



2"x2" STAKES, 1 1/2' TO 2' IN GROUND

HAYBALE SEDIMENT BARRIER

SILT ACCUMULATION — DIG 6" WIDE & DEEP TRENCH, BURY FLAP OF OPTIONAL WIRE FENCE BEHIND FABRIC FOR "SUPER" FABRIC, TAMP IN PLACE SILT FENCE

1. CONTRACTOR TO CLEAN INLET FILTER AFTER EVERY STORM.

OR FINAL GRADING AND ESTABLISHMENT OF VEGETATION.

2. FILTER FABRIC, WOOD PIECE OR PVC PIPE TO BE REMOVED AFTER PAVING

**INLET FILTERS** 

FABRIC SECURED TO POST

WITH METAL FASTENERS AND

SILT FENCE SEDIMENT BARRIER

FMA/AEC drawn by 01/30/24

sheet 8 of 16

. Seeding rates specified are required when a report of compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in rates may be used when permanent vegetation is established prior to a report of compliance inspection. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative coverage of the seeded area and mowed once. Grass seed mixture checked by the State Seed Analyst, New Jersey Department of Agriculture, Trenton, New Jersey, will assure the purchaser that the mixture obtained is the mixture ordered, pursuant to the N.J. State Seed Law, N.J.S.A. 4:\*-17.13 et. seq.

A. Intensive mowing (2-4 days), fertilization, lime, pest control and irrigation (Examples-high maintenance lawns, commercial and recreation areas, public facilities). B. Frequent mowing (4-7 days), occasional fertilization, lime and weed control (Examples-home lawns, commercial sites, school sites) C. Periodic mowing (7-14 days), occasional fertilization and lime (Examples-home lawns, parks). D. Infrequent or no mowing, fertilization and lime the first year of establishment (Examples-roadsides, recreation areas, public open spaces).

FOR ADDITIONAL REQUIREMENTS REGARDING SOIL COMPACTION AND TESTING, SEE SOIL COMPACTION NOTES AND SOIL DE-COMPACTION AND TESTING

**SOIL COMPACTION NOTES:** 

TO ENSURE SUBGRADE SOILS ARE FREE OF EXCESSIVE COMPACTION, DEEP SCARIFICATION/TILLAGE (MINIMUM DEPTH 6"; MAXIMUM 12") SHALI

BE PERFORMED BY THE CONTRACTOR PRIOR TO THE APPLICATION OF TOPSOIL AND PERMANENT SEEDING. THE AREAS OF THE SITE SUBJECT

TO THIS SCARIFICATION ARE NOTED ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN. NOTE THAT SCARIFICATION IS PERMISSIBLE ONLY

IF THE CONTRACTOR, WITH CONSENT OF THE OWNER, ELECTS TO FOREGO SCARIFICATION OF THE SITE, THEN THE CONTRACTOR SHALL, AT HIS EXPENSE, PERFORM SOIL COMPACTION TESTING IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY. SEE CHAPTER 19 STANDARD OF LAND GRADING, IN THE ABOVE-REFERENCED MANUAL, FOR ACCEPTABLE METHODS OF TESTING AND THEIR SPECIFIC REQUIREMENTS. TWO TESTS PER ACRE MUST BE PERFORMED ON-SITE, WITH A MINIMUM OF TWO TESTS MUST BE PERFORMED

IF TESTING INDICATES EXCESSIVE COMPACTION, THEN THE CONTRACTOR/OWNER SHALL EITHER PERFORM COMPACTION MITIGATION, IN

TESTING TO ESTABLISH THE LIMITS OF THE EXCESSIVELY COMPACTED AREAS WHICH WOULD REQUIRE THE MITIGATION.

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

PLANT HARDINESS ZONES<sup>3</sup>

350 8 A A O A A O C-D Use in a managed filter strip for nutrient uptake.

<u>Permanent Seeding Table</u>

PERMANENT VEGETATIVE MIXTURES. PLANTING RATES AND PLANTING DATES

ACCORDANCE WITH NJ SESC STANDARDS, OVER THE ENTIRE DISTURBED AREA (EXCLUDING EXEMPT AREAS), OR TO PERFORM ADDITIONAL

THE CONTRACTOR SHALL SUBMIT A SOIL COMPACTION MITIGATION VERIFICATION FORM TO THE DISTRICT AND COMPLY WITH ALL DISTRICT

STANDARD FOR STABILIZATION WITH MULCH ONLY

A. UNROTTED SMALL-GRAIN STRAW AT 2.0 TO 2.5 TONS PER ACRE IS SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1.000 SQ. FEET AND ANCHORED WITH A MULCH ANCHORING TOOL

C. WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE (OR ACCORDING TO THE MANUFACTURER'S REQUIREMENTS) MAY BE APPLIED BY A HYDROSEEDER.

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

F. GRAVEL, CRUSHED STONE, OR SLAG AT THE RATE OF 9 CU. YDS. PER 1,000 SQ. FT. APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 3 INCHES MAY BE USED. SIZE 2 OR 3 (ASTM

Native wet mix.

LIQUID MULCH BINDERS, OR NETTING TIE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT. THE APPROVED RATES ABOVE HAVE

WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.)

FOR COMPACTION IN STORMWATER MANAGEMENT FACILITIES, SEE BASIN COMPACTION NOTES.

REQUIREMENTS REGARDING COMPACTION MITIGATION AND TESTING.

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

G. MULCH ANCHORING SHALL BE ACCOMPLISHED AS DIRECTED FOR PERMANENT STABILIZATION.

FOLLOW REQUIREMENTS FOR PERMANENT VEGETATIVE COVER.

BEEN MET WHEN THE MULCH COVERS THE

3. Project is in Plant Hardiness Zone <u>6b.</u>

REQUIREMENTS.

PROTECTIVE MATERIALS.

SEED MIXTURE

COOL SEASON SEED MIXTURES

(Blend of 3 local cultivars)

Redtop Wild Rye (Elymus)

THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST:

MULCHES - SEE STANDARD FOR STABILIZATION WITH MULCHES ONLY (PG. 5-1). VEGETATIVE COVER - SEE STANDARD FOR TEMPORARY VEGETATIVE COVER (PG. 7-1), PERMANAENT VEGATATIVE COVER FOR SOIL STABILIZATION (PG. 4-1), AND PERMANENT STABILIZATION WITH SOD (PG. 6-1).

SPRAY-ON ADHESIVES - ON MINERAL SOILS (NOT FEFECTIVE ON MILICK SOILS) KEEP TRAFFIC OFF THESE AREAS

<u> SPRAY-ON ADHESIVES</u> - ON MINERAL SUIL	.S (NOT EFFECTIVE ON MUCK SOILS).	KEEP TRAFFIC OFF THESE AREAS.					
MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/ACRE				
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1200				
LATEX EMULSION	12.5:1	FINE SPRAY	235				
RESIN IN WATER	4: 1	FINE SPRAY	300				
POLYACRYLAMIDE (PAM) - SPRAY ON	- SPRAY ON APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASIN TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD (PG. 26-1)						
POLYACRYLAMIDE (PAM) - DRY SPRAY  APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASIN TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD (PG. 26-1)							
ACIDULATED SOY BEAN SOAP STICK	NONE	COARSE SPRAY	1200				
THE ACT TO DOLLOHEN CHIDEACE AND DD	NO OLODO TO THE CHDEAGE THE IC	A TEMPODARY EMERGENCY MEACURE M	WHOLL CHOULD BE HEED BEFORE COLL				

TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL TYPE PLOWS SPACES ABOUT 12 INCHES APART, AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPTMENT WHICH MAY PRODUCE THE DESIRED EFFECT. SPRINKLING - SITE IS SPRINKLED UNTIL THE SURFACE IS WET.

BARRIERS — SOLID BOARD FENCES, SNOW FENCES, BURLAP FENCES, CRATE WALLS, BALES OF HAY, AND SIMILAR MATERIAL CAN BE USED TO CONTROL AIR CURRENTS AND SOIL BLOWING. CALCIUM CHLORIDE - SHALL BE USED IN THE FORM OF LOOSE, DRY GRANULATES OF FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS, OR ACCUMULATION AROUND PLANTS.

STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

FREEHOLD SOIL CONSERVATION DISTRICT NOTES:

INCLUDING THE COLLECTION SYSTEM AND BASINS A, B, C, D & E.

1. FSCD #2011-0558 ENCOMPASSED THE WHOLE ENTIRE PROJECT ACCEPT PHASE 1F AS DESCRIBED BELOW. THE MAIN

COMPONENTS OF THE STORMWATER MANAGEMENT SYSTEM HAVE BEEN OR ARE BEING CONSTRUCTED UNDER THIS PROJECT

2. FSCD #2015-0876 ENCOMPASSES THE AREA WITHIN THE INSIDE CURB OF SOUTH DRIVE, TENTH AVENUE, GREEN STREET AND

THE STATE OF NEW JERSEY REQUIRES NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE

THERE IS NO SCD APPROVAL REQUIRED WITH THIS APPLICATION. NOTHING CHANGED FROM THE FULL IPHASE 1F APPROVAL. THIS PAGE SHOWN FOR INFORMATION PURPOSES

FREEHOLD SOIL CONSERVATION DISTRICT SOIL EROSION AND SEDIMENT CONTROL NOTES 1. THE FREEHOLD SOIL CONSERVATION DISTRICT SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY SOIL DISTURBING ACTIVITY. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BI INSTALLED PRIOR TO SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE,

ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS. I. N.J.S.A 4: 24-39 ET. SEQ. REQUIRES THAT NO CERTIFICATES OF

AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.

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.

5. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN SIXTY 60) DAYS, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY COVER. THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF 2 TO 2 1/2 TONS PER ACRE, ACCORDING TO THE STANDARD FOR STABILIZATION WITH

MULCH ONLY. 6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. SOIL STOCKPILES, STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AND A MULCH ANCHOR, IN ACCORDANCE WITH STATE STANDARDS.

7. A SUB-BASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS. ROADS, DRIVEWAYS, AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUB-BASE SHALL BE INSTALLED WITHIN FIFTEEN (15) DAYS OF THE PRELIMINARY GRADING. 8. THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES 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 (1" - 2")STONE FOR A MINIMUM LENGTH OF TEN FEET (10') EQUAL TO THE LOT ENTRANCE WIDTH. ALL OTHER ACCESS POINTS SHALL BE BLOCKED OFF. . ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAYS WILL BE REMOVED

10. PERMANENT VEGETATION IS TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING. 11. AT THE TIME THAT SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER.IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.

12. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS. ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS/ACRE, (OR 450 LBS/1,000 SQ FT OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12" OF SETTLED SOIL WITH A PH OF 5 OR MORE, OR 24" WHERE TREES OR SHRUBS ARE TO BE

13. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL. 14. UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMEN TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH THE STANDARD FOR DEWATERING.

15. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET, TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED AS REQUIRED BY THE STANDARD FOR DUST CONTROL.

16. STOCKPILE AND STAGING LOCATIONS ESTABLISHED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN. STAGING AND STOCKPILES NOT LOCATED WITHIN THE LIMIT OF DISTURBANCE WILL REQUIRE CERTIFICATION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN. CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN MAY BE REQUIRED FOR THESE ACTIVITIES, IF AN AREA GREATER THAN 5,000 SQUARE FEET IS DISTURBED.

17. ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE #6 18. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE

AS A RESULT OF CONSTRUCTION OF THE PROJECT.

NOTE: INDIVIDUAL LOT ACCESS POINTS MAY REQUIRE STABILIZATION THICKNESS

SHOWN IS FOR STONE CONSTRUCTION ENTRANCE ONLY (TYP.)
PROVIDE APPROPRIATE TRANSITION BETWEEN STABILIZED CONSTRUCTION
ENTRANCE AND PUBLIC R.O.W

STANDARD FOR PERMANENT AND TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

SITE PREPARATION:

SEEDBED PREPARATION:

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

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

D. INSTALL NEEDED EROSION CONTROL PRACTICES FOR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS IN ACCORDANCE WITH STATE STANDARDS.

A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED, ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 (PERMANENT) AND 10-20-10 (TEMPORARY) OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE-HALF THE RATE DESCRIBED ABOVE DURING SEEDBED PREPARATION AND REPEAT ANOTHER ONE—HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER SEEDING.

INCHES WITH A DISC. SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED. HIGH ACID PRODUCING SOIL. C. 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 PREPARATION. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS.

B. WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4

AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.

OCCURS, THERE IS REDUCED SEED GERMINATION AND GROWTH.

1-1/2" TO 2-1/2" CLEAN

LENGTH OF STONE REQUIRED

COARSE GRAINED SOILS FINE GRAINED SOILS

ENTIRE SURFACE STABILIZED WITH HMA BASE COURSE,

(ASTM C-33)

A. PERMANENT SEEDING: USE MIXTURE SHOWN IN THE PERMANENT SEEDING TABLE OR USE MIXTURE RECOMMENDED BY RUTGERS COOPERATIVE EXTENSION OR NATURAL RESOURCES CONSERVATION SERVICE WHICH IS APPROVED BY THE SOIL CONSERVATION DISTRICT. SEED GERMINATION SHALL HAVE BEEN TESTED WITHIN 12 MONTHS OF THE PLANTING DATE. NO SEED SHALL BE ACCEPTED WITH A GERMINATION TEST DATE MORE THAN 12 MONTHS OLD UNLESS RETESTED. 1. SEEDING RATES SPECIFIED ARE REQUIRED WHEN A REPORT OF COMPLIANCE IS REQUESTED

RATES MAY BE USED WHEN PERMANENT VEGETATION IS ESTABLISHED PRIOR TO A REPORT OF COMPLIANCE INSPECTION. THESE RATES APPLY TO ALL METHODS OF SEEDING. ESTABLISHING PERMANENT VEGETATION MEANS 80% VEGETATIVE COVERAGE WITH THE SPECIFIED SEED MIXTURE FOR THE SEEDED AREA AND MOWED ONCE.

PRIOR TO ACTUAL ESTABLISHMENT OF PERMANENT VEGETATION UP TO 50% REDUCTION IN

. WARM SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT HIGH TEMPERATURES, GENERALLY 85°F AND ABOVE. SEE PERMANENT SEEDING TABLE. PLANTING RATES FOR WARM SEASON GRASSES SHALL BE AMOUNT OF PURE LIVE SEED (PLS) AS DETERMINED BY GERMINATING TESTING RESULTS.

. COOL SEASON MIXTURES ARE GRASSES AND LEGUMES WHICH MAXIMIZE GROWTH AT TEMPERATURES BELOW 85°F. MANY GRASSES BECOME ACTIVE AT 65°F. ADJUSTMENT OF PLANTING RATES TO COMPENSATE FOR THE AMOUNT OF PURE LIVE SEED IS NOT REQUIRED FOR COOL SEASON GRASSES.

TEMPORARY SEEDING: TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED ON SOILS EXPOSED FOR PERIODS OF 2 TO 6 MONTHS WHICH ARE NOT BEING GRADED, NOT UNDER ACTIVE CONSTRUCTION, OR NOT SCHEDULED FOR PERMANENT SEEDING WITHIN 60 DAYS. SELECT A SEED FROM THE TEMPORARY VEGETATIVE SEEDING TABLE.

B. CONVENTIONAL SEEDING IS PERFORMED BY APPLYING SEED UNIFORMLY BY HAND, CYCLONE

(CENTRIFUGAL) SEEDER, DROP SEEDER, DRILL OR CULTIPACKER SEEDER. EXCEPT FOR DRILLED, HYDROSEEDED OR CULTIPACKED SEEDINGS, SEED SHALL BE INCORPORATED INTO THE SOIL WITHIN 24 HOURS OF SEEDBED PREPARATION TO A DEPTH OF 1/4 TO 1/2 INCH. BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1/4 INCH DEEPER ON COARSE TEXTURED SOIL. C. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED

D. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK OR TRAILER MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER AND FERTILIZER AND SPRAYING THE MIX ONTO 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

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

A. STRAW OR HAY. UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, TO BE APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT

RECOMMENDED FOR ESTABLISHING FINE TURF OR LAWNS DUE TO THE PRESENCE OF WEED SEED. APPLICATION. SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT AT LEAST 85% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1.000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS WITHIN EACH SECTION. ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER

THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA, STEEPNESS OF SLOPE, AND COSTS. 1. PEG AND TWINE. DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE

MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISSCROSS AND SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.

2. MULCH NETTINGS. STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTINGS TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.

3. CRIMPER (MULCH ANCHORING COULTER TOOL). A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.

4. LIQUID MULCH BINDERS. MAY BE USED TO ANCHOR SALT HAY, HAY OR STRAW MULCH. A. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE.

B. USE ONE OF THE FOLLOWING: (1) ORGANIC AND VEGETABLE BASED BINDERS. NATURALLY OCCURRING. POWDER BASED HYDROPHILIC MATERIALS WHEN MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS.

THE VEGETATIVE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC EFFECT OR IMPEDE GROWTH OF TURFGRASS. USE AT RATES AND WEATHER CONDITIONS AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH MATERIALS. MANY NEW PRODUCTS ARE AVAILABLE, SOME OF WHICH MAY NEED FURTHER EVALUATION FOR USE IN THIS STATE. (2) SYNTHETIC BINDERS. HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED

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

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

B. WOOD-FIBER OR PAPER -FIBER MULCH SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS, USED AT THE RATE OF 1,500 POUNDS PER ACRE (OR AS RECOMMENDED BY THE PRODUCT MANUFACTURER) AND MAY BE APPLIED BY A HYDROSEEDER. MULCH SHALL NOT BE MIXED IN THE TANK WITH SEED. USE IS LIMITED TO FLATTER SLOPES AND DURING OPTIMUM SEEDING PERIODS IN SPRING AND FALL.

C. PELLETIZED MULCH. COMPRESSED AND EXTRUDED PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN COPOLYMERS, 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 SQ. FT. AND ACTIVATED WITH 0.2 TO 0.4 INCHES OF WATER THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN 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 SEEDBED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

5. IRRIGATION (WHERE FEASIBLE):

IF SOIL MOISTURE IS DEFICIENT SUPPLY NEW SEEDING WITH ADEQUATE WATER (A MINIMUM OF 1/4 INCH APPLIED UP TO TWICE A DAY UNTIL VEGETATION IS WELL ESTABLISHED). THIS IS ESPECIALLY TRUE WHEN SEEDINGS ARE MADE IN ABNORMALLY DRY OR HOT WEATHER OR ON DROUGHTY SITES.

SINCE SOIL ORGANIC MATTER CONTENT AND SLOW RELEASE NITROGEN FERTILIZER (WATER INSOLUBLE) ARE PRESCRIBED IN SECTION 2A - SEEDBED PREPARATION IN THIS STANDARD, NO FOLLOW-UP OF TOPDRESSING IS MANDATORY. AN EXCEPTION MAY BE MADE WHERE GROSS NITROGEN DEFICIENCY EXISTS IN THE SOIL TO THE EXTENT THAT TURF FAILURE MAY DEVELOP. IN THAT INSTANCE, TOPDRESS WITH 10-10-10 OR EQUIVALENT AT 300 Pounds Per Acre or 7 Pounds Per 1,000 Square Feet Every 3 to 5 weeks until the gross NITROGEN DEFICIENCY IN THE TURF IS AMELIORATED.

7. <u>ESTABLISHING PERMANENT VEGETATIVE STABILIZATION:</u>

2" PVC, SCH 40, 4" HIGH ABOVE GRATE -GRATE SECURE WITH 12 GA. GALVANIZED BAILING

Provide 12" dia. Opening in filter fabrio

WIRE IN FOUR PLACES AROUND PIPE

(OR EQUIVALENT)

GENERAL NOTES:

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 THE PERMANENT SEEDING TABLE 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.

(OR EQUIVALENT)

- MOLD WELDED WIRE SUPPORT AROUND

5' LONG. PLACE ON END AND SECURE with 12 ga. Galvanized Baling wire

AT BOTH ENDS THROUGH INLET GRATE

BACKFILL AFTER INSTALLATION OF

— DRAWSTRING RUNNING THROUGH FABRIC ALONG TOP OF FENCE

INLET FRAME AND GRATE

FLAT TYPE INLET FRAM

1. CONTRACTOR TO CLEAN INLET FILTER AFTER EVERY STORM.

OR FINAL GRADING AND ESTABLISHMENT OF VEGETATION.

2. FILTER FABRIC, WOOD PIECE OR PVC PIPE TO BE REMOVED AFTER PAVING

**INLET FILTERS** 

revisions

EXISTING LEGENT

GAS VALVE

G GAS METER

C HYDRANT

数 WATER VALVE

WATER METER

CURB STOP

D DRAINAGE MH

CURB INLET

■ LAWN INLET

S SANITARY MH

CLEANOUT

BOLLARD

SIGN

MAIL BOX

→ GUY WIRE

-O UTILITY POLE

© ELECTRIC MH

( ) CONIFEROUS TREE

DECIDUOUS TREE

☆ LIGHT

───── WALL

GATE POST

— E — ELECTRIC LINE

— S — SANITARY LINE

-OH- OVERHEAD WIRES

PROPOSED LEGEND

(**(D)**) STORM MANHOLE

STORM 'B' INLET

STORM 'E' INLET

■ STORM LAWN INLET

(S) SANITARY MANHOLE

WATER VALVE

🂢 FIRE HYDRANT

→ STREET SIGN

PHASE LINE

STORM PIPE

— W — WATER LINE

₩ 👺 F.D.C.

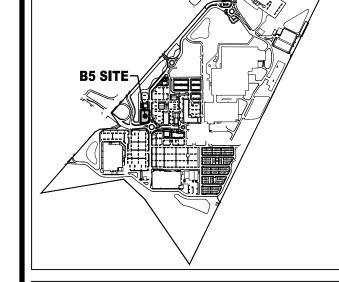
— w — WATER LINE

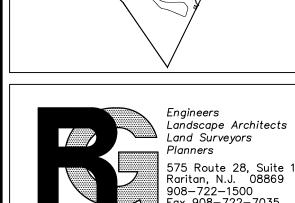
— G — GAS LINE

FDC FIRE DEPT. CONNECTION

description

date





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Certificate of Authorization Number 24GA27969200 21MH00004300

F. Mitchel Ardman, P.E., P.P. Jeffrey D. Reynolds, P.L.A.

F. MITCHEL ARDMAN

N.J. PROFESSIONAL ENGINEER LIC. NO. 34317

FINAL SITE PLAN

BLOCK 141 LOT 38.01

NORTH BRUNSWICK TOWNSHIP

MIDDLESEX COUNTY, NEW JERSEY

SOIL EROSION AND SEDIMENT CONTROL PLAN

AND DETAILS (ALTERNATE) job number drawing number 21-042-4

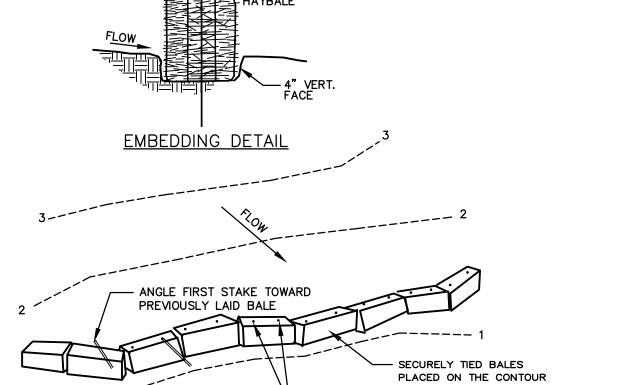
1"=40' ecked by FMA/AEC

EXIST. GROUND TO BE TEMPORARILY BALES TO BE PLACED SEEDED WITHIN 30 DAYS

TOPSOIL STOCKPILE

MIX I-2, OR AS DIRECTED BY LOCAL GOVERNMENT STABILIZED CONSTRUCTION ACCESS

LENGTH ACCORDING TO TABLE



PERCENT SLOPE OF ROADWAY

2 TO 5%

WITH METAL FASTENERS AND SILT ACCUMULATION — DIG 6" WIDE & DEEP TRENCH, BURY FLAP OF FABRIC, TAMP IN PLACE

FABRIC SECURED TO POST

OPTIONAL WIRE FENCE BEHIND FABRIC FOR "SUPER" SILT FENCE

G. MULCH ANCHORING SHALL BE ACCOMPLISHED AS DIRECTED FOR PERMANENT STABILIZATION. <u>Permanent Seeding Table</u>

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

NOTE: SCARIFICATION/TILLAGE IS NOT REQUIRED IN AREAS WITH SHALLOW BEDROCK CONDITIONS OR WHERE THERE IS A DANGER TO UNDERGROUND

FOR ADDITIONAL REQUIREMENTS REGARDING SOIL COMPACTION AND TESTING, SEE SOIL COMPACTION NOTES AND SOIL DE-COMPACTION AND TESTING

**SOIL COMPACTION NOTES:** 

TO ENSURE SUBGRADE SOILS ARE FREE OF EXCESSIVE COMPACTION, DEEP SCARIFICATION/TILLAGE (MINIMUM DEPTH 6"; MAXIMUM 12") SHALI

BE PERFORMED BY THE CONTRACTOR PRIOR TO THE APPLICATION OF TOPSOIL AND PERMANENT SEEDING. THE AREAS OF THE SITE SUBJECT

TO THIS SCARIFICATION ARE NOTED ON THE SOIL EROSION AND SEDIMENT CONTROL PLAN. NOTE THAT SCARIFICATION IS PERMISSIBLE ONLY

IF THE CONTRACTOR, WITH CONSENT OF THE OWNER, ELECTS TO FOREGO SCARIFICATION OF THE SITE, THEN THE CONTRACTOR SHALL, AT HIS EXPENSE, PERFORM SOIL COMPACTION TESTING IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY. SEE CHAPTER 19 STANDARD OF LAND GRADING, IN THE ABOVE-REFERENCED MANUAL, FOR ACCEPTABLE METHODS OF TESTING AND THEIR SPECIFIC REQUIREMENTS. TWO TESTS PER ACRE MUST BE PERFORMED ON-SITE, WITH A MINIMUM OF TWO TESTS MUST BE PERFORMED

IF TESTING INDICATES EXCESSIVE COMPACTION, THEN THE CONTRACTOR/OWNER SHALL EITHER PERFORM COMPACTION MITIGATION, IN

TESTING TO ESTABLISH THE LIMITS OF THE EXCESSIVELY COMPACTED AREAS WHICH WOULD REQUIRE THE MITIGATION.

ACCORDANCE WITH NJ SESC STANDARDS, OVER THE ENTIRE DISTURBED AREA (EXCLUDING EXEMPT AREAS), OR TO PERFORM ADDITIONAL

THE CONTRACTOR SHALL SUBMIT A SOIL COMPACTION MITIGATION VERIFICATION FORM TO THE DISTRICT AND COMPLY WITH ALL DISTRICT

STANDARD FOR STABILIZATION WITH MULCH ONLY

A. UNROTTED SMALL-GRAIN STRAW AT 2.0 TO 2.5 TONS PER ACRE IS SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1.000 SQ. FEET AND ANCHORED WITH A MULCH ANCHORING TOOL

C. WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE (OR ACCORDING TO THE MANUFACTURER'S REQUIREMENTS) MAY BE APPLIED BY A HYDROSEEDER.

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

F. GRAVEL, CRUSHED STONE, OR SLAG AT THE RATE OF 9 CU. YDS. PER 1,000 SQ. FT. APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 3 INCHES MAY BE USED. SIZE 2 OR 3 (ASTM

LIQUID MULCH BINDERS, OR NETTING TIE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT. THE APPROVED RATES ABOVE HAVE

WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.)

FOR COMPACTION IN STORMWATER MANAGEMENT FACILITIES, SEE BASIN COMPACTION NOTES.

REQUIREMENTS REGARDING COMPACTION MITIGATION AND TESTING.

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

FOLLOW REQUIREMENTS FOR PERMANENT VEGETATIVE COVER.

BEEN MET WHEN THE MULCH COVERS THI

PERMANENT VEGETATIVE MIXTURES. PLANTING RATES AND PLANTING DATES )=Optimum Planting period **▲**=Acceptable Planting period SEED MIXTURE PLANT HARDINESS ZONES<sup>3</sup> COOL SEASON SEED MIXTURES 350 8 A A O A A O C-D Use in a managed filter strip for nutrient uptake. (Blend of 3 local cultivars) Native wet mix. Redtop Wild Rye (Elymus)

. Seeding rates specified are required when a report of compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in rates may be used when permanent vegetation is established prior to a report of compliance inspection. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative coverage of the seeded area and mowed once. Grass seed mixture checked by the State Seed Analyst, New Jersey Department of Agriculture, Trenton, New Jersey, will assure the purchaser that the mixture obtained is the mixture ordered, pursuant to the N.J. State Seed Law, N.J.S.A. 4:\*-17.13 et. seq.

A. Intensive mowing (2-4 days), fertilization, lime, pest control and irrigation (Examples-high maintenance lawns, commercial and recreation areas, public facilities). B. Frequent mowing (4-7 days), occasional fertilization, lime and weed control (Examples-home lawns, commercial sites, school sites) C. Periodic mowing (7-14 days), occasional fertilization and lime (Examples-home lawns, parks). D. Infrequent or no mowing, fertilization and lime the first year of establishment (Examples-roadsides, recreation areas, public open spaces).

3. Project is in Plant Hardiness Zone <u>6b.</u>

REQUIREMENTS.

PROTECTIVE MATERIALS.

THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST:

MULCHES - SEE STANDARD FOR STABILIZATION WITH MULCHES ONLY (PG. 5-1). VEGETATIVE COVER - SEE STANDARD FOR TEMPORARY VEGETATIVE COVER (PG. 7-1), PERMANAENT VEGATATIVE COVER FOR SOIL STABILIZATION (PG. 4-1), AND PERMANENT STABILIZATION WITH SOD (PG. 6-1).

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

MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/ACRE			
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1200			
LATEX EMULSION	12.5:1	FINE SPRAY	235			
RESIN IN WATER	4: 1	FINE SPRAY	300			
POLYACRYLAMIDE (PAM) - SPRAY ON	APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BATTO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD (PG. 26-1)					
POLYACRYLAMIDE (PAM) - DRY SPRAY	APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BAS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD (PG. 26-1)					
ACIDULATED SOY BEAN SOAP STICK	NONE	COARSE SPRAY	1200			

THIS PLAN TO BE USED FOR SOIL EROSION AND SEDIMENT

CONTROL PURPOSES ONLY. SEE THIS SHEET FOR DETAILS

GRAPHIC SCALE

( IN FEET

1 inch = 40 ft.

TILLAGE - TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL TYPE PLOWS SPACES ABOUT 12 INCHES APART, AND SPRING-TOOTHED HARROWS ARE EXAMPLES OF EQUIPTMENT WHICH MAY PRODUCE THE DESIRED EFFECT. SPRINKLING - SITE IS SPRINKLED UNTIL THE SURFACE IS WET.

CALCIUM CHLORIDE - SHALL BE USED IN THE FORM OF LOOSE, DRY GRANULATES OF FLAKES FINE ENOUGH TO FEED THROUGH COMMONLY USED SPREADERS AT A RATE THAT WILL KEEP SURFACE MOIST BUT NOT CAUSE POLLUTION OR PLANT DAMAGE. IF USED ON STEEPER SLOPES, THEN USE OTHER PRACTICES TO PREVENT WASHING INTO STREAMS, OR ACCUMULATION AROUND PLANTS.

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

STONE - COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.

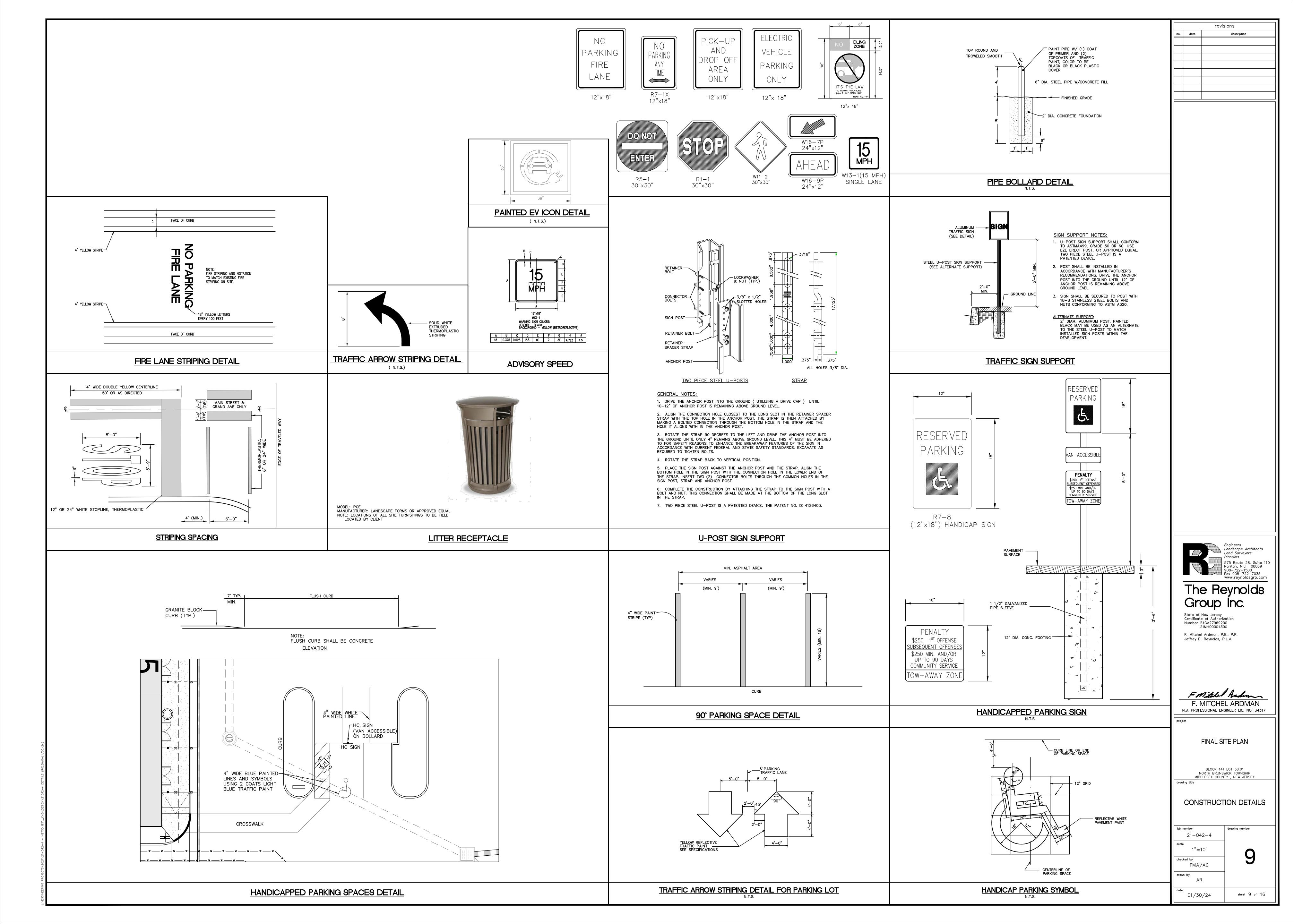
- 2 REBARS, STEEL PICKETS OR 2"x2" STAKES, 1 1/2' TO 2' IN GROUND

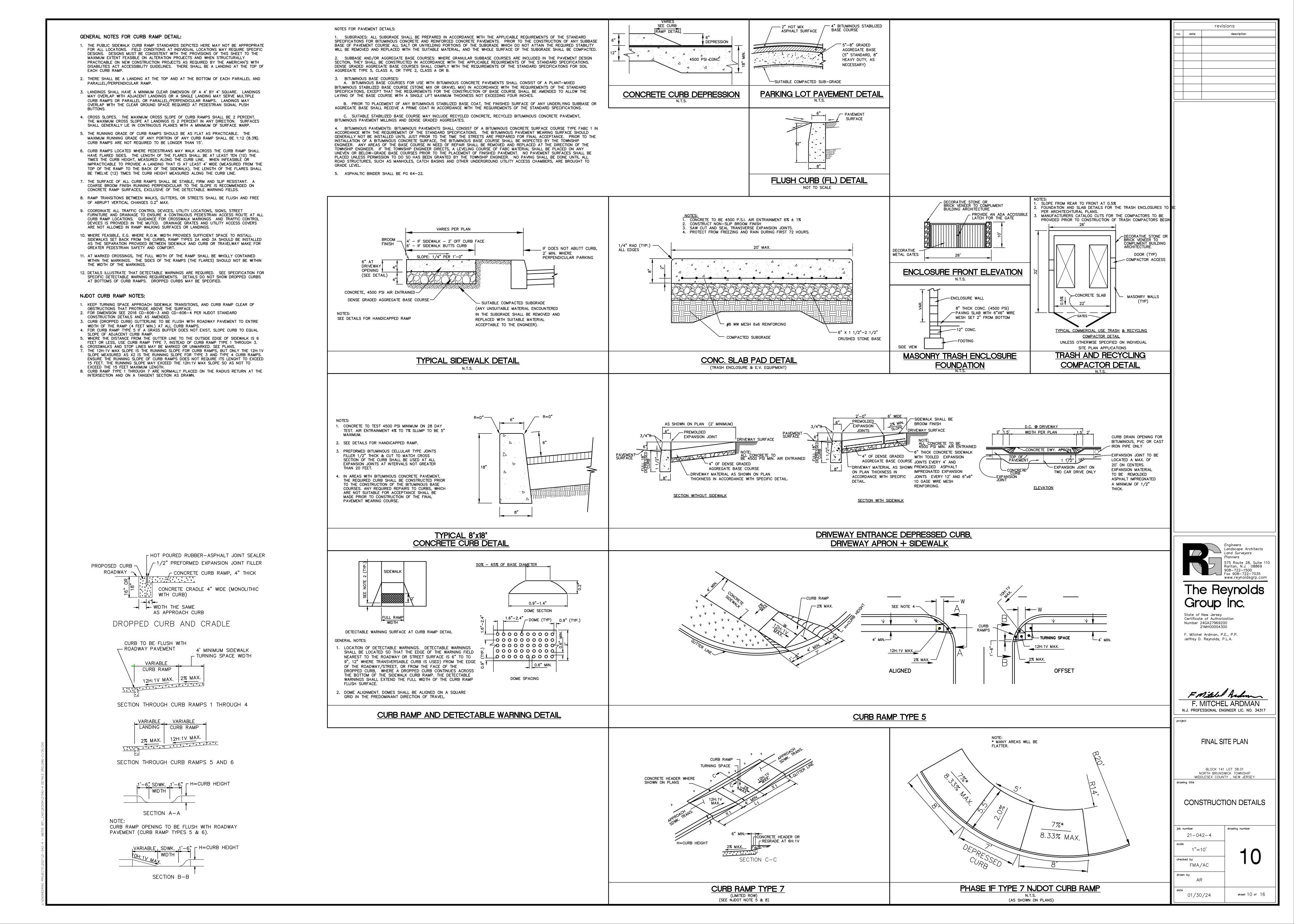
HAYBALE SEDIMENT BARRIER

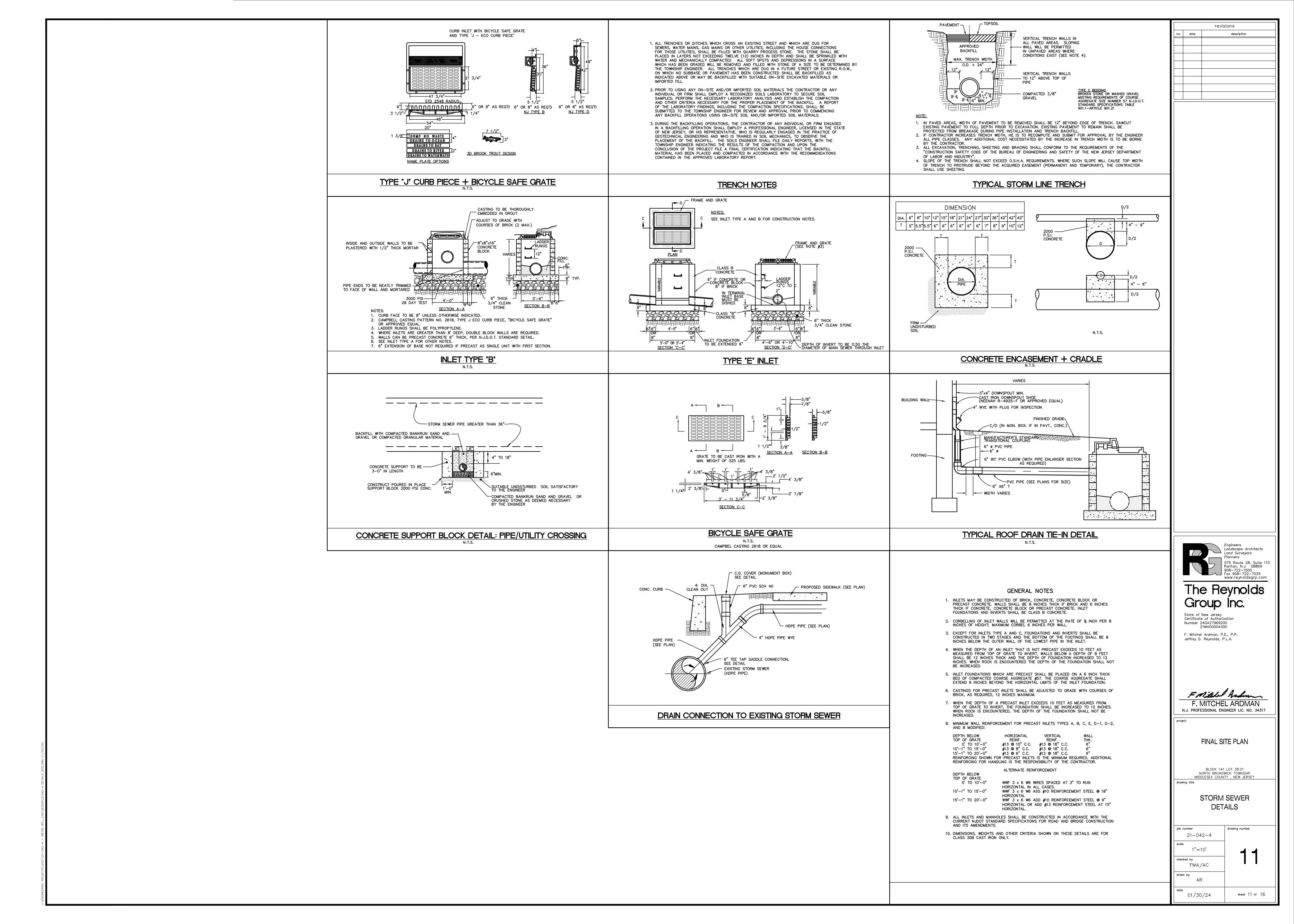
SILT FENCE SEDIMENT BARRIER

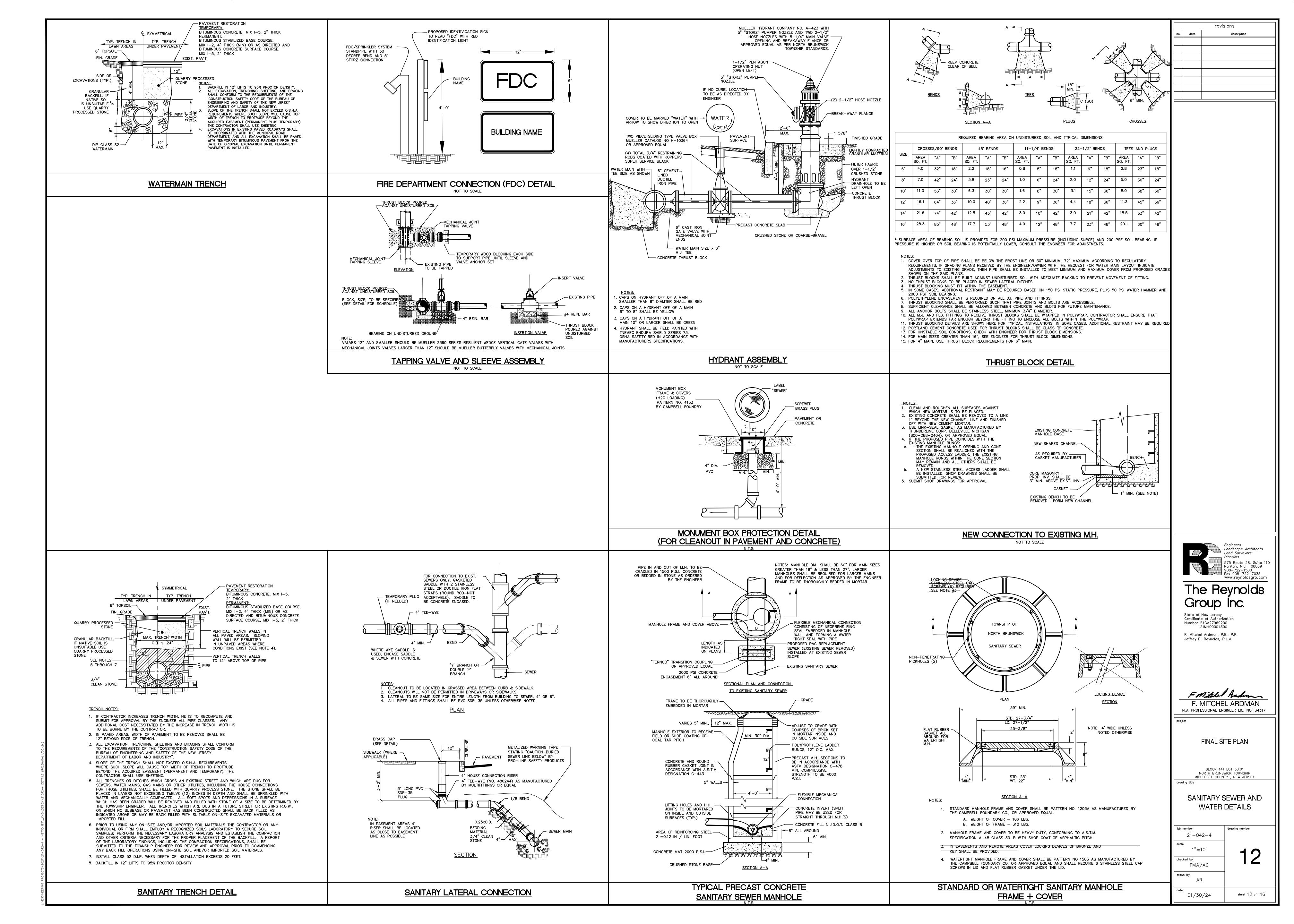
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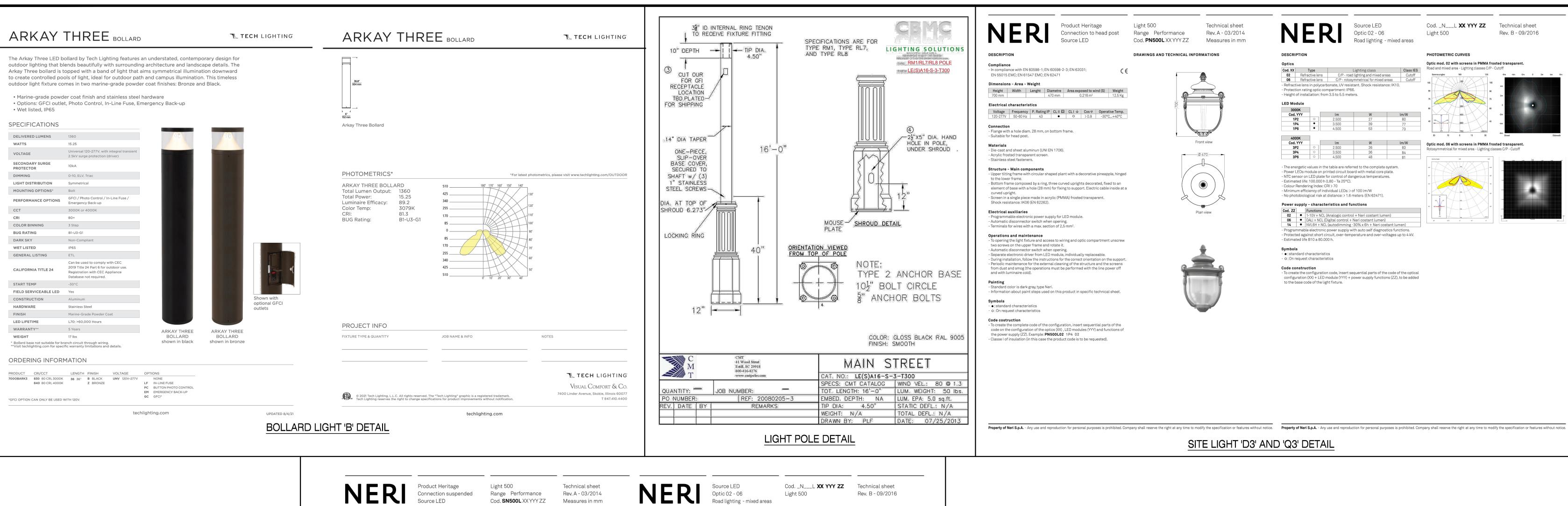


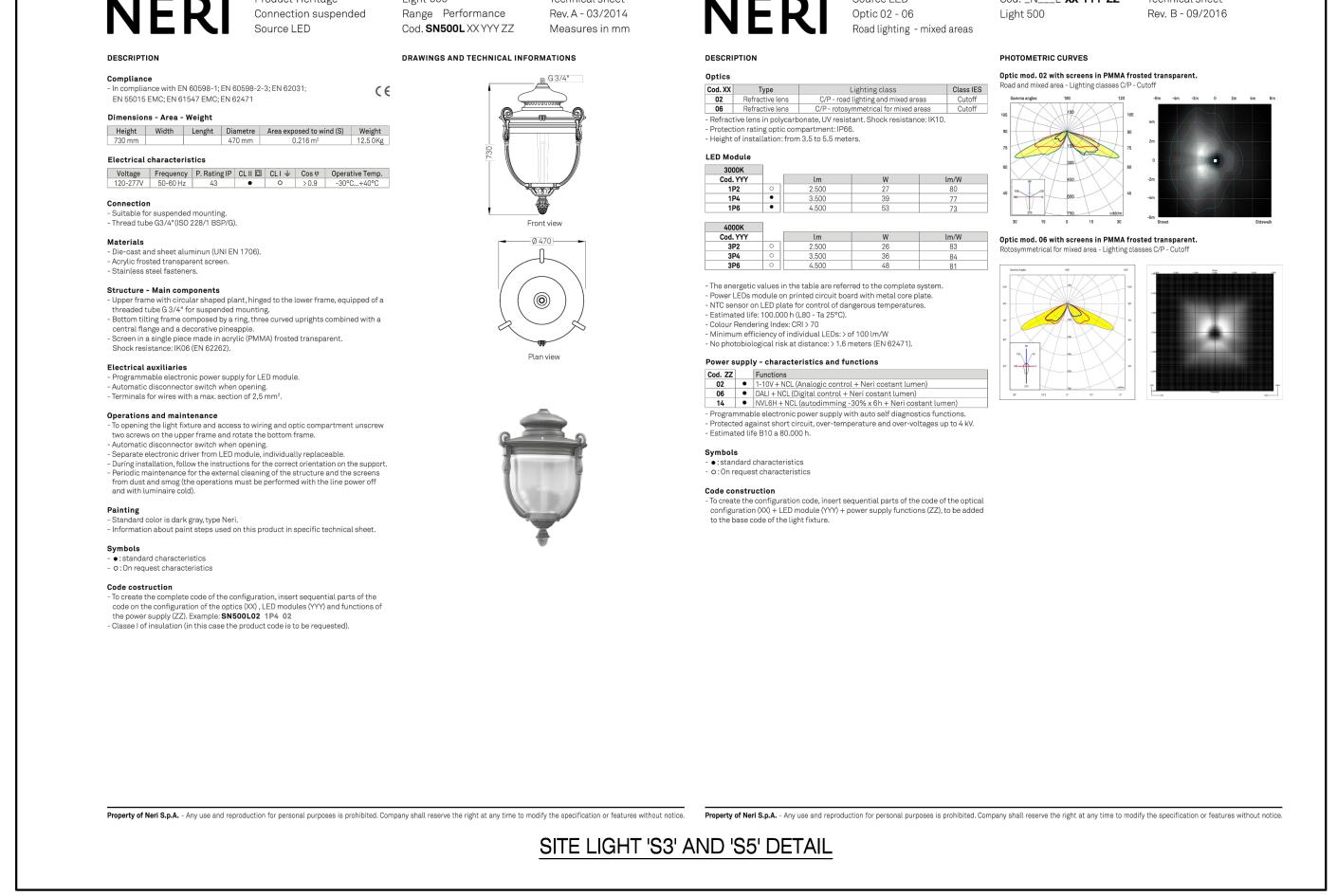


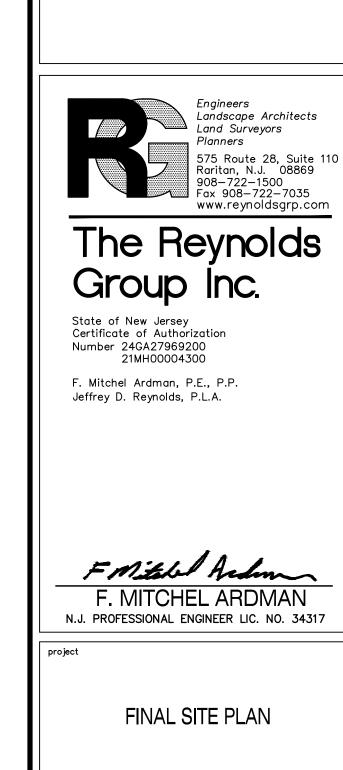




### revisions LANDSCAPE MAINTENANCE NOTES: PLANTING NOTES date description 1. LAWN AREAS: ALL LAWNS SHALL BE MAINTAINED AT A MOWN HEIGHT OF 2.5-3 INCHES. THE CUT SHALL NOT REMOVE MORE THAN 1/3 ALL PLANT MATERIAL TO BE FIRST QUALITY, NURSERY GROWN STOCK, FREE FROM DISEASE OR OF THE BLADE HEIGHT THEREFORE LAWN SHALL BE MOWED WHEN IT ACHIEVES A HEIGHT OF 3.5-4 INCHES. OBJECTIONABLE DISFIGUREMENTS. QUALITY AND SIZE OF PLANTS, INCLUDING ROOT SIZE SHALL BE IN ACCORDANCE WITH "AMERICAN STANDARDS FOR NURSERY STOCK" ANSI Z60.1 (MOST RECENT ADDITION) AS PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN. A. MOWING; USING CLEAN WELL SERVICED EQUIPMENT, MOW, TRIM, AND EDGE ALL FINE LAWN AREAS AS NEEDED; REMOVE ALL EXCESS CONTRACTOR TO VERIFY ALL PLANT DISCREPANCIES INCLUDING PLANT QUANTITIES BETWEEN PLANT LIST AND PLAN. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING QUANTITY WHICH IS GREATER. B. EDGING: TURF ALONG ALL PLAYING SURFACES (OTHER THAN TURF), FENCE LINES, AND ANY OTHER PERMANENT OBJECTS IS TO BE NO SUBSTITUTES SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE TOWNSHIP LANDSCAPE CUT WITH A MECHANICAL EDGER TO PRODUCE A WELL DEFINED EDGE. ALL DEBRIS FROM THIS OPERATION IS TO BE REMOVED. ARCHITECT AND ENGINEER. C. AERATION: AERATE LAWNS ON A YEARLY BASIS OR AS NEEDED TO PREVENT COMPACTION. ACCEPTABLE METHODS INCLUDE SPOON ALL PROPOSED PLANT MATERIAL SHALL BE BALLED AND BURLAPPED UNLESS NOTED OTHERWISE ON OR CORE PROCESSES. KNIFE TYPE METHODS ARE NOT RECOMMENDED. PLANTING SCHEDULE. ALL INSTALLED PLANT MATERIALS SHALL BEAR THE SAME RELATION TO GRADE WHEN INSTALLED ON SITE D. LEAVES AND OTHER DEBRIS SHALL BE REMOVED FROM ALL LAWNS AS NECESSARY IN THE AUTUMN AND SPRING. AS EXISTED IN NURSERY PRIOR TO DIGGING. HOLES FOR PLANT MATERIALS (B&B) SHALL BE DUG A MINIMUM OF TWICE THE BALL DIAMETER. ALL PLANTS IRRIGATION: ALL TURF SHOULD MAINTAIN A MOIST SOIL DEPTH TO AT LEAST FOUR INCHES THROUGH AUTOMATIC SYSTEMS IF SHALL BE LOCATED IN THE CENTER OF THEIR RESPECTIVE PITS. POSSIBLE. PRECAUTIONS SHOULD BE TAKEN TO AVOID WILTING AND DRYING OF THE TURF. B&B PLANTS SHALL BE HANDLED FROM THE BOTTOM OF THE ROOT BALL ONLY. PLANTS WITH BROKEN, SLIT FERTILIZATION: ALL FERTILIZER SHOULD BE INSPECTED BEFORE APPLICATION FOR REVIEW ON CONTENT AND APPLICATION. OR DAMAGED ROOT BALLS SHALL BE REJECTED. PLANTS SHALL NOT BE BOUND AT ANY TIME WITH WIRE OR ROPE AS TO DAMAGE THE BARK AND A. ALL LAWNS SHOULD BE FERTILIZED WITH THREE APPLICATIONS A YEAR, EARLY SPRING, LATE SPRING, AND EARLY FALL. GREAT CARE SHOULD BE TAKEN IN REGARDS TO HEAT AND MOISTURE TO AVOID BURNING OR DAMAGING TURF. ALL APPLICATIONS SHOULD BE MADE WITH TWO PASSES IN DIFFERING DIRECTIONS TO AVOID STREAKING. FERTILIZER SHOULD BE A 13-13-13 WITH A PLANT MATERIAL SHALL BE PLANTED ON THE DAY OF DELIVERY. IN THE EVENT THIS IS NOT POSSIBLE THE CONTRACTOR WILL PROTECT THE STOCK THAT IS NOT PLANTED AND KEEP WELL WATERED. PLANTS SHALL 50% SLOW RELEASE. APPLICATION RATE OF ONE POUND NITROGEN PER THOUSAND SQUARE FEET. EXTERIOR LIGHT POLE AND NOT REMAIN UNPLANTED FOR MORE THAN A THREE DAY PERIOD AFTER BEING DELIVERED. **APPURTENANCES** B. BROADLEAF WEED CONTROL: APPLICATION OF BROADLEAF WEED CONTROL SUCH AS TRIMEC OR SIMILAR PRODUCT TO AL ALL STAKING AND GUYING WIRES SHALL BE FLAGGED WITH A BRIGHT REFLECTIVE MATERIAL TO WARN MAINTAINED TURF. APPLICATIONS TO BE MADE IN MID SPRING AND EARLY FALL. GREAT CARE SHOULD BE TAKEN IN REGARDS TO PEDESTRIANS HEAT AND MOISTURE AT TIME OF APPLICATION TO AVOID TURF. TOPSOIL AND SEED ALL AREAS DISTURBED BY CONSTRUCTION AND ALL LOCATIONS SHOWN AS LAWN AREAS C. CRABGRASS CONTROL: APPLY PRE-EMERGENT CRABGRASS CONTROL SUCH AS TEAM, BALAN, OR OTHER LIKE MATERIAL WITH TWO APPLICATIONS IN THE SPRING. ALL PLANTS SHALL BE PLANTED IN AN APPROVED BACKFILL MIXTURE THAT IS THOROUGHLY WATERED AND TAMPED AS BACKFILLING PROGRESSES. ONLY SUITABLE TOPSOIL, FREE OF DRY SOD, STIFF CLAY, LITTER D. LIMING: MAINTAIN A PH OF 6.5 ON ALL PLAYING TURF WITH APPLICATIONS OF PULVERIZED LIME AT RATES AND FREQUENCIES AS ETC., SHALL BE USED FOR PLANTING ALL SHRUB BEDS AND TREE SAUCERS TO BE MULCHED AS DETAILED. E. INSECT CONTROL: APPLY DURSBAN, OR EQUAL, IN MID-JUNE FOR CHINCH BUG AND SOD WEBWORM CONTROL. APPLY OFTANOL, OR THE CONTRACTOR SHALL REPORT ANY SOIL OR DRAINAGE CONDITIONS CONSIDERED DETRIMENTAL TO THE EQUAL, IN LATE AUGUST OR EARLY SEPTEMBER FOR GRUB CONTROL. APPLY FUNGICIDES AND INSECTICIDES AS NECESSARY TO GROWTH OF ANY OF THE PROPOSED PLANTING MATERIAL. MAINTAIN TURF CONDITIONING. PROVIDE SNOW/TREE PROTECTION FENCING AS REQUIRED AROUND EXISTING TREES TO BE SAVED. PARKING AREA LAWN AREA 3. TREE, SHRUB AND GROUNDCOVER BED AREAS: BED AREAS ARE THOSE AREAS SPECIFICALLY PREPARED FOR TREE, SHRUB AND CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIAL (NOT INCLUDING LAWNS) FOR A PERIOD OF ONE (1) NON-TURF GROUNDCOVER GROWTH. BED AREAS ARE EITHER COVERED BY MULCH OR OTHER LIKE DECORATIVE MATERIAL. THESE AREAS TO YEAR FROM DATE OF ACCEPTANCE. BE MAINTAINED IN A WEED FREE AND WELL KEPT CONDITION. BOLT COVER AFTER THE PLANTING CONTRACTOR HAS COMPLETED THE TERMS OF HIS CONTRACT, THE OWNER SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL PROPOSED PLANTINGS BY PROVIDING THE CORRECT METHODS A. BED WEED CONTROL: APPLY PRE-EMERGENT WEED CONTROL SUCH AS RONSTAR G. SURFLAN, OR SIMILAR PRODUCT. TWO (2) OF WEEDING, SPRAYING, WATERING, PRUNING AND FERTILIZING ACCORDING TO GOOD HORTICULTURAL € OF ISLAND APPLICATIONS PER YEAR. 18. ALL TREES TO BE BRANCHED 7' HIGH. B. EDGE ALL BEDS, TREE RINGS, REMOVE ALL WEEDS, CLEAR EXISTING PLANTS OF DEBRIS AND DEAD MATERIAL. PAVEMENT C. PLANTING BED MULCH SHALL BE REPLENISHED AS NECESSARY TO MAINTAIN A 1 TO 3 INCH DEPTH OF MULCH UNLESS THE ADDITIONAL PLANTING NOTES GROUNDCOVER OR PLANTING HAS COMPLETELY COVERED THE BED, PRECLUDING THE NEED FOR MULCH. 1. AFTER CONSTRUCTION, IT MAY BE ADVISABLE TO SEED OR PLANT CERTAIN AREAS WITH NON-WOODY HERBACEOUS PLANT MATERIALS (I.E. WILDFLOWERS, FERNS, TALL GRASSES, D. ALL PLANTS AND LAWN AREAS SHALL BE IRRIGATED OR WATERED AS NECESSARY TO MAINTAIN VIGOROUS AND HEALTHY GROWTH. ETC.). THIS APPROACH MAY BE USEFUL ON STEEP SLOPES, EDGES FOR EXISTING WOODEL AREÁS, WHERE THE UNDERSTORY HAS BEEN DISTURBED AND IN AREAS WHERE MOWING IS E. HERBICIDES AND PESTICIDES SHALL BE APPLIED ONLY AS NECESSARY TO TREAT SPECIFIC PROBLEMS AS THEY ARE OBSERVED. ALL NOT PRACTICAL OR NECESSARY. SELECTION OF APPROPRIATE PLANTS SHALL BE TREATMENTS SHALL BE PERFORMED BY TRAINED AND LICENSED PERSONNEL IN ACCORDANCE WITH ALL REGULATIONS. DETERMINED AFTER COMPLETION OF GRADING AND CONSTRUCTION. POST CONSTRUCTION - FOR CONCRETE FOOTING SEE CONDITIONS WILL DICTATE WHICH HERBACEOUS PLANTS ARE MOST SUITABLE. LIGHT POLE FOOTING DETAIL F. PERENNIAL VEGETATION SHALL BE REMOVED AS APPROPRIATE IN THE FALL AND ORNAMENTAL GRASSES SHALL BE CUT IN THE SPRING TO PROMOTE PROPER GROWTH AND A NEAT AND CLEAN APPEARANCE, BUT NOT TO DIMINISH THEIR WINTER INTEREST. -IT IS RECOMMENDED THAT AN ANNUAL PRUNING PROGRAM BE BUDGETED AND G. PLANTINGS WHICH ARE NOT GROWING IN A VIGOROUS MANNER AND ANY DEAD PLANTS SHALL BE REPLACED AS NECESSARY TO SCHEDULED ON A CONTINUOUS BASIS. ACHIEVE THE INTENDED DESIGN DURING THE NEXT SPRING OR FALL PLANTING SEASON. -ALL TREES AND SHRUBS PLANTED NEAR SIGHT TRIANGLES, DRIVEWAYS, PARKING AREAS AND SIDEWALKS SHALL BE MAINTAINED AS FOLLOWS: ALL BRANCHES EXTENDING INTO LINE OF SIGHT OR INTERFERING WITH VEHICULAR OR PEDESTRIAN ACCESS SHALL BE 4. GENERAL SITE CLEAN UP: TO BE PERFORMED ON A TWICE YEARLY BASIS, EARLY SPRING AND LATE FALL. WORK LIMITED TO NATURAL NOTE: ALL FIXTURES TO BE BLACK FINISHED REMOVED TO AN ACCEPTABLE HEIGHT. PRODUCTION OF DEBRIS AND DOES NOT COVER DUMPING OR MUNICIPAL WASTE. **ELEVATION** -REMOVAL OF DEAD LIMBS AND BRANCHES AND PRUNING FOR THE GENERAL HEALTH AND APPEARANCE OF ALL PLANT MATERIAL IS RECOMMENDED. A. SPRING CLEAN UP: GENERAL CLEAN UP OF ENTIRE GROUNDS. EDGE ALL BEDS, REMOVE ALL WEEDS AND REMOVE WINTER KILL. -SOUND PRUNING PRACTICES SHALL BE OBSERVED IN MAINTENANCE OF ALL PLANT B. FALL CLEAN UP: WHEN VIRTUALLY ALL LEAVES HAVE FALLEN ALL LAWNS, BEDS, STREETS AND PARKING AREAS WILL BE CLEARED OF LEAVES, BROKEN BRANCHES, LITTER AND OTHER ASSORTED DEBRIS. EXISTING TREES AND SHRUBS IN AREAS TO BE CLEARED FOR CONSTRUCTION MAY ALSO BE SUBSTITUTED FOR PROPOSED PLANT MATERIAL, PROVIDED THEY HAVE EQUIVALENT SIZE AND 5. TRIMMING AND PRUNING: TRIMMING WILL REFER TO ALL ORNAMENTAL TREES, SHRUBS AND GROUNDCOVER. TRIMMING SHALL CONSIST OF CHARACTER. IT IS RECOMMENDED THAT AN EXPERIENCED CONTRACTOR USE A TREE REMOVAL OF EXCESSIVE SEASONAL GROWTH TO ALL HEDGE ROWS OR SHEARED MATERIAL PLANTED ON-SITE. PRUNING SHALL CONSIST DIGGING MACHINE TO REMOVE AND TRANSPLANT SUCH PLANT MATERIAL. LIGHT POLE MOUNTING OF REMOVAL OF WINTER KILL, REMOVAL OF DEAD BRANCHES, REMOVAL OF EXCESSIVE SUCKERING GROWTH FROM BASE OF TREES, AND A. IT IS RECOMMENDED THAT EXISTING TREES REMAINING ON SITE AFTER CONSTRUCTION BE PRUNED, ESPECIALLY IN CASES WHERE • IF TRANSPLANTED TREES ARE NOT ABLE TO BE TRANSPLANTED, REPLACEMENT ROOT SYSTEMS HAVE BEEN DISTURBED (I.E. CUT OR COMPACTED BY HEAVY EQUIPMENT). TREES OF LIKE KIND WILL BE PROVIDED. B. ALL PLANTS SHALL BE PERIODICALLY PRUNED FREE OF DEAD, DAMAGED OR DISEASED BRANCHES TO MAINTAIN VIGOR OF THE CONTRACTOR TO MARK NORTH SIDE OF TREE PRIOR TO DIGGING AND PLANT AND MAINTAIN A SAFE CONDITION. PRUNING SHALL MAINTAIN THE NATURAL FORM OR HABIT OF THE PLANT . FLOWERING TRANSPLANT WITH SAME ORIENTATION. SHRUBS AND TREES SHOULD BE PRUNED AFTER FLOWERING TO LIMIT IMPACT UPON FOLLOWING SEASON FLOWER BUDS UNLESS SAFETY CONCERNS WARRANT IMMEDIATE PRUNING. HEDGES SHALL BE SHEARED TO A TRAPEZOIDAL FORM TO PREVENT SHADING OF CONTRACTOR TO ENSURE THAT THE ROOT MASS OF ALL TRANSPLANTS ARE IN C. IT IS RECOMMENDED THAT AN ANNUAL PRUNING PROGRAM BE BUDGETED AND SCHEDULED ON A CONTINUOUS BASIS. THE ROOT BALL OF ALL TREES SHALL BE BALLED AND BURLAPPED UPON REMOVAL FROM PRESENT LOCATION. D. ALL TREES AND SHRUBS PLANTED NEAR SIGHT TRIANGLES, DRIVEWAYS, PARKING AREAS AND SIDEWALKS SHALL BE MAINTAINED AS FOLLOWS: ALL BRANCHES EXTENDING INTO LINE OF SIGHT OR INTERFERING WITH VEHICULAR OR PEDESTRIAN ACCESS SHALL BE REMOVED TO AN ACCEPTABLE HEIGHT CONTRACTOR TO STOCKPILE AND PROTECT ALL TRANSPLANT MATERIAL UNTIL IT IS TIME TO REPLANT. E. REMOVAL OF DEAD LIMBS AND BRANCHES ALONG WITH EXCESSIVE SUCKERING GROWTH FROM BASE OF PLANTS AND PRUNING FOR THE GENERAL HEALTH AND APPEARANCE OF ALL PLANT MATERIAL IS RECOMMENDED. PLANTS SHALL BE MAINTAINED BY WATERING, FERTILIZING, PRUNNING AND ANY OTHER METHODS TO KEEP PLANTS IN HEALTHY CONDITION. F. SOUND PRUNING PRACTICES SHALL BE OBSERVED IN MAINTENANCE OF ALL PLANT MATERIALS. ALL TRANSPLANTS ARE GUARANTEED FOR A PERIOD OF ONE (1) YEAR FROM 6. DEAD PLANT MATERIAL: FAILED PLANT MATERIAL UP TO TWELVE (12) FEET IN HEIGHT WILL BE REMOVED AT THE BASE AND PLACED AT FINAL COMPLETION. ANY PLANTS THAT DIE DURING THAT PERIOD WILL BE ON-SITE STORAGE OR AS DIRECTED. - ANCHOR BOLTS PER MANUFACTURERS SPECIFICATIONS 2" CHAMFER REPLACED TO THE CORRECT SIZE AND SPECIES AT THE CONTRACTOR'S AND FACTORY SUPPLIED TEMPLATE EXPENSE. 7. TREE AND SHRUB SPRAYING: SPRAYING OF ALL TREES AND SHRUBS, AS REQUIRED, TO CONTROL INSECT INFESTATION AND DISEASE. 8. TREE AND SHRUB FERTILIZATION: TREES AND SHRUBS WILL BE FERTILIZED IN SPRING AND FALL A. AT ALL TIMES USE GOVERNMENTAL APPROVED CHEMICALS AND WILL PROVIDE THE OWNER WITH MSDS SHEETS FOR ALL MATERIAL USED ON-SITE. B. AT ALL TIMES USE LICENSED APPLICATORS AND HAVE ALL PERMITS AND INSURANCE IN ACCORDANCE WITH DEP GUIDELINES AND ANCHOR BOLTS PER MANUFACTURERS SPECIFICATIONS REQUIREMENTS ISLAND AND FACTORY SUPPLIED TEMPLATE PAVEMENT SURFACE <u>VERTICAL BAR DESIGNATION</u> 30" DIA. 8 VERTICAL BARS Landscape Architects 24" DIA. 6 VERTICAL BARS Land Surveyors TREE SHALL BEAR SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS GRADE. 18" DIA. 4 VERTICAL BARS 75 Route 28, Suite 1 ALL TREES UNDER 3 1/2" CALIPER TO BE GUYED WITH 3 STAKES PER TREE. Raritan, N.J. 08869 ALL TREES OVER 3 1/2" CALIPER TO GUYED WITH DEADMEN, 3 PER TREE — 4500 PSI CONCRETE www.reynoldsgrp.com SHRUB SHALL BEAR SAME # 5 VERT. BARS (SEE VERTICAL BAR DESIGNATION ABOVE) DO NOT CUT LEADER, PRUNE \$\frac{1}{4}\$ OF TREE, RETAIN NORMAL SHAPE RELATION TO FINISHED GRADE - # 3 BAR TIES @ 12" ON CENTER AS IT BORE TO PREVIOUS EXISTING GRADE. BALL AND BURLAP EXISTING TREES PRIOR TO MOVING NOTE: ALL FIXTURES TO BE BLACK FINISHED $\supset \longrightarrow$ 1 1/2" CONDUIT (DEPENDANT UPON WIRING NEEDS, THIN BRANCHES AND FOLIAGE CONTRACTOR TO VERIFY) (NOT ALL END TIPS) BY 1/3 — 3" SHREDDED BARK MULCH RETAINING NORMAL PLANT SHAPE. - SAUCER AROUND SHRUB CONTRACTOR SHALL VERIFY FOOTING DESIGN IS IN ACCORDANCE WITH MANUFACTURER SPECIFICATIONS Certificate of Authorization Number 24GA27969200 CUT & REMOVE BURLAP $\frac{1}{1}$ LIMIT OF BARE ROOT SPREAD 21MH00004300 FROM TOP 1/3 OF BALL AS SHOWN F. Mitchel Ardman, P.E., P.P. Jeffrey D. Reynolds, P.L.A. ∕8" LED BOLLARD — 4" SHREDDED BARK MULCH NO MULCH PLACED AT ROOT COLLAR - ROOTBALL TO BE PLACED ON NATIVE SOIL OR COMPACTED SUBGRADE TO PREVENT SETTLING SCARIFY SUBSOIL TO MINIMUM 4" DEPTH 6" HIGH CIRCULAR SAUCER AROUND TREE PROVIDE GROUND ROD AS REQUIRED BY SUB-CODE HOLE FOR SHRUB TO BE DUG TWICE THE DIAMETER OF THE ROOTBALL OR CONTAINER REMOVE TRANSIT - CUT AND REMOVE BURLAP TOP 1/3 OF BALL TRUNK GUARD - ROOTBALL TO BE PLACED ON NATIVE SOIL PLANT TOP OF BALL OR COMPACTED SUBGRADE TO PREVENT -ANCHOR BOLTS PER MANUFACTURERS AT OR SLIGHTLY HIGHER SETTLING SCARIFY SUBSOIL TO MINIMUM RECOMMENDATIONS & TEMPLATE THAN EXISTING GRADE 4" DEPTH F. MITCHEL ARDMAN N.J. PROFESSIONAL ENGINEER LIC. NO. 34317 <u>LIGHT POLE FOOTING</u> **SHRUB PLANTING** TREE PLANTING FINISHED GRADE-TREE SHALL BEAR SAME RELATION TO FINISHED PREFABRICATED OR GRADE AS IT BORE TO PREVIOUS GRADE. FINAL SITE PLAN FORMED FOOTING 4,500 PSI CONCRETE DO NOT CUT LEADER, PRUNE NEW CANDLES. BALL AND BURLAP EXISTING TREES PRIOR TO #5 VERTICAL BARS BLOCK 141 LOT 38 01 #3 BAR TIES (12" O.C.) — 1" PLASTIC CHAIN NORTH BRUNSWICK TOWNSHIP ---- FINISHED GRADE OF ADJACENT MIDDLESEX COUNTY , NEW JERSEY LAWN OR PAVEMENT drawing title - POSTS WILL BE CUT OFF AT THE SAME HEIGHT —1" CONDUIT (DEPENDENT UPON WIRING NEEDS, LANDSCAPE AND LIGHTING CONTRACTOR TO VERIFY) — 2 CEDAR STAKES PER TREE " SHREDDED BARK MULCH **DETAILS** 4" SHREDDED BARK MULCH NO MULCH PLACED AT ROOT SCARIFY SUBGRADE TO ─ 6" HIGH CIRCULAR MINIMUM 4" DEPTH ob number drawing number 21-042-4 1"=10' - CUT AND REMOVE BURLAP TOP 1/3 OF BALL PLANT TOP OF BAL hecked by - ROOTBALL TO BE PLACED ON NATIVE SOIL OR COMPACTED SUBGRADE TO PREVENT AT OR SLIGHTLY HIGHER FMA/AC THAN EXISTING GRADE SETTLING SCARIFY SUBSOIL TO MINIMUM drawn by **GROUNDCOVER PLANTING EVERGREEN TREE PLANTING** LIGHT BOLLARD FOOTING DETAIL sheet 13 of 16 01/30/24







revisions

description

o. date

iob number
21-042-4
scale
1"=10'
checked by
FMA/AC
drawn by
AR

date
01/30/24

checked by
AR

sheet 14 of 16

BLOCK 141 LOT 38.01 NORTH BRUNSWICK TOWNSHIP MIDDLESEX COUNTY , NEW JERSEY

drawing title

