Sheet	List Table
Sheet Number	Sheet Title
1	COVER SHEET
2	DEMOLITION PLAN
3	SITE PLAN
4	GRADING, DRAINAGE AND UTILITY PLAN
5	SOIL EROSION AND SEDIMENT CONTROL PLAN
6	SOIL EROSION AND SEDIMENT CONTROL DETAILS
7	LANDSCAPING AND LIGHTING PLAN
8	LANDSCAPING AND LIGHTING NOTES AND DETAILS
9	TRUCK TURNING PLAN
10	CONSTRUCTION DETAILS (1)
11	CONSTRUCTION DETAILS (2)

SAYREVILLE UTILITIES LIST (2022):

Middlesex County Planning Board

David Goldberg Transportation Center

75 Bayard Street-5th Floor

732-745-3812

New Brunswick, NJ 08902

1035 Parkway Avenue

NJ Natural Gas Company

275 Centennial Avenue CN8805

Piscataway, NJ 08855-6805

Attn: Construction Department

732-583-0606

Middlesex County Landfill

732-246-4313

Philadelphia, PA 19103

South Plainfield, NJ 07080

908-753-0801

540 Broad Street - 20th Floor

Verizon New Jersey

East Brunswick, NJ 08816-1636

Consolidated Rail Corporation

1717 Arch Street or 2001 Market Street

P.O. Box 600

Trenton, NJ 08625

John Wyckoff Road

Wall, NJ 07719

15 Hoes Lane

80 Park Plaza

Newark, NJ 07102

167 Main Street

Sayreville, NJ

P.O. Box 159 2571 Main Street

JCP&L c/o 1st Energy

Morristown, NJ 07962-1911

732-723-6609 or 1-800-662-3115

Borough of Sayreville Water & Sewer

Middlesex County Utilities Authority

Attn: Corporate Properties

732-390-7060

Sayreville, NJ 08872-0086

315 Cold Soil Road

Houston, TX 77251

P.O. Box 1396

Lawrenceville, NJ 08540

Transcontinental Gas Pipeline

1-800-440-8475

300 Madison Avenue P.O. Box 1911

New Brunswick, NJ 08902

732-721-7000

36 West State Street

Trenton, NJ 08625

PROPERTY OWNERS WITHIN 200 FEET OF SUBJECT PROPERTY:

Lynn McGowan - owner 2 Ely Court

Hightstown, NJ 08540

121 Mountain Lake Road Belivedere, NJ 07823

2067 Route 35, LLC

1866 Highway 35 South Amboy, NI 08879

2074 Highway 35

South Amboy, NJ 08879

2070-72 Highway 35 South Amboy, NJ 08879

2036 Route 35, Inc.

E.Y. Management LLC

South Amboy, NJ 08879

45 North Main Street Mariboro, NJ 07746

2163 Oak Tree Road, #101 Edison, NJ 08820

Harry James Dieker 801 Bordentown Avenue

South Amboy, NJ 08879

Borough of Sayreville

Sayreville, NJ 08872

7 Highland Street

South Amboy, NJ 08879

South Amboy, NJ 08879

South Amboy, NJ 08879

Robert and Monique Corby

Pietro and Caterina Di Maggio

South Amboy, NJ 08879

South Amboy, NJ 08879

South Amboy, NJ 08879

South Amboy, NJ 08879

Robert and Paula K. Duffy

South Amboy, NJ 08879

South Amboy, NJ 08879

III Merritt Avenue

Debra and Kevin Zakrzewski

116 Merritt Avenue

5 Seaman Court

112 Merritt Avenue

Carmen Asencio

2 Evelyn Terrace

Ramon E. Abreu & Maria R. Beato-Veras

167 Main Street

BLOCK

BLOCK

BLOCK 422

BLOCK 422

BLOCK

BLOCK

QUAL

BLOCK

BLOCK

BLOCKS 432.05

BLOCK 432.05

BLOCK 435.01

BLOCK

BLOCK

BLOCK

1 & 2

435.01

PROPERTY OWNERS WITHIN 200 FEET OF BLOCK 428, LOTS 1, 2 & 2.01

PRELIMINARY AND FINAL MAJOR SITE PLAN

FOR

BULK YARD 35

BLOCK 428 LOTS 1, 2 & 2.01 2069 HIGHWAY 35 BOROUGH OF SAYREVILLE MIDDLESEX COUNTY, NEW JERSEY

OF SOUTH EVELYN R-10 **PROJECT LOCATION B-3**

KEY MAP

SCALE: ±1" = 100'

SCALE IN FEET

GENERAL NOTES:

- 1. THE PROPERTY IS KNOWN AND DESIGNATED AS BLOCK 428, LOTS 1,2 & 2.01 AS SHOWN ON THE CURRENT TAX ASSESSMENT MAP OF BOROUGH OF SAYREVILLE, SHEET NO. 132 AND IS SITUATED IN THE "B-3" (HIGHWAY BUISNESS) ZONING DISTRICT. THE SUBJECT
- PROPERTY CONTAINS A TOTAL OF 86,123 SF, OR ±1.977 ACRES.
- OWNER/APPLICANT:

BULK YARD 35 LANDSCAPE AND MASONRY SUPPLY ATTN: BRIAN BURLEW

2069 HIGHWAY 35, SOUTH AMBOY, NJ 08879

- 4. BASE MAP INFORMATION WAS OBTAINED FROM THE FOLLOWING SOURCES:
- 4.1. BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM A PLAN ENTITLED "BOUNDARY & TOPOGRAPHIC SURVEY PREPARED FOR LOTS 1, 2 & 2.01 - BLOCK 428, SITUATED IN THE BOROUGH OF SAYREVILLE, MIDDLESEX COUNTY, NEW JERSEY" PREPARED BY FRENCH AND PARRELLO ASSOCIATES, DATED JUNE 23, 2022, LAST REVISED 8/9/2022.
- 5. THE APPLICANT PROPOSES TO MAINTAIN THE EXISTING LANDSCAPE YARD AND CEASE THE RESIDENTIAL USE ON THE PROPERTY. THE DWELLING WILL BE DEMOLISHED AND A NEW 2,250 SF POLE BARN BUILDING IS PROPOSED ALONG WITH NEW PARKING, LANDSCAPING AND STORMWATER MANAGEMENT. THE APPLICANT WISHES TO APPROVE THE NUMBER AND LOCATION OF STORAGE BINS AS PER THE
- 6. BULK ZONE REQUIREMENTS

B-3 ZONE (HIGHWAY BUISNESS)

REQUIREMENTS	PERMITTED:	EXISTING:	PROPOSED:
MINIMUM LOT AREA	20,000 S.F.	86,123 SF	NO CHANGE
MINIMUM LOT WIDTH	100 FT	141.7 FT	NO CHANGE
MINIMUM LOT DEPTH	100 FT	129.75 FT	NO CHANGE
MINIMUM FRONT YARD SETBACK	50 FT	21.6 FT	NO CHANGE FOR EX. 53.34 FT FOR PR.
MINIMUM ONE SIDE YARD SETBACK/TOTAL	10 FT/20 FT	31.6 FT	NO CHANGE FOR EX. 38.85 FT FOR PR.
MINIMUM REAR YARD SETBACK	25 FT	99.8 FT	NO CHANGE
MAXIMUM HEIGHT	35 FT	<35 FT	< 35 FT
MAXIMUM BUILDING COVERAGE (%)	25%	7.6%	11.1%
MAXIMUM BUILDING AND PAVEMENT COVERAGE (%)	85%	72.3% (INCLUDING GRAVEL SURFACES)	
	00%	36.5% (EXCLUDING GRAVEL SURFACES)	

7. THE FOLLOWING VARIANCES AND/OR WAIVERS WERE PREVIOUSLY GRANTED:

SECTION 26-81.5 A VARIANCE FROM THE FRONT YARD SETBACK REQUIREMENT AS IT RELATES TO THE EXISTING GARAGE (25 FEET REQUIRED, 21.6 PROVIDED). A VARIANCE WAS GRANTED THROUGH A ZONING BOARD APPROVAL DATED 3/25/2001. SECTION 26-82.10 A VARIANCE FROM PROVIDING A 50 FOOT BUFFER TO RESIDENTIAL ZONES WAS GRANTED THROUGH A ZONING BOARD APPROVAL DATED 3/25/2001. A BUFFER OF 25 WAS GRANTED.

8. THE FOLLOWING VARIANCES AND/OR WAIVERS ARE REQUIRED:

SECTION 26-82.6.B.4 A VARIANCE FOR USING THE FRONT YARD AS AN OUTDOOR STORAGE AREA FOR EQUIPMENT AND

SECTION 26-98 I A WAIVER FROM PROVIDING A MINIMUM OF 10% OF ANY SURFACE PARKING FACILITY TO BE LANDSCAPED ABOUT THE INTERIOR AND TO INCLUDE 1 SHADE TREE FOR EVERY TWENTY PARKING SPACES.

SECTION 26-98.1 B-1 A WAIVER FROM PROVIDING HAIRPIN STRIPING FOR ALL PARKING SPACES.

SECTION 26-98.1 B-5 A WAIVER FROM PROVIDING ALL PARKING LOTS AND ALL LOADING AREAS WITH CONCRETE OR BELGIAN

SECTION 26-98.1 B-6 A WAIVER FROM PROVIDING SIDEWALK THROUGHOUT THE SITE AND ALONG FRONTAGE OF THE PROPERTY. SECTION 26-98.1 B-7 A WAIVER FROM SURFACING ALL OFF-STREET PARKING AREAS, INTERIOR DRIVEWAYS AND LOADING/UNLOADING AREAS WITH BITUMINOUS CONCRETE PAVEMENT.

SECTION 26-98.2 A WAIVER FROM PROVIDING A DEDICATED OFF-STREET LOADING BERTH FOR THE NEW POLE BARN.

- 9. THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSES OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL CONDITIONS OF APPROVAL HAVE BEEN SATISFIED ON THE DRAWINGS AND EACH DRAWING HAS BEEN REVISED TO INDICATE 'ISSUED FOR CONSTRUCTION'.
- PREVIOUSLY REQUIRED FOR EXISTING OFFICE AND SHOP: 8 SPACES REQUIRED FOR PROPOSED POLE BARN: 1 SPACE/5,000 SQUARE FEET OF BUILDING FLOOR AREA (WAREHOUSE/DISTRIBUTION CENTER)= 2,250 SF OF BUILDING AREA/ 5,000 SQUARE FEET = 1 SPACE TOTAL REQUIRED: 9 SPACES TOTAL PROVIDED: 13 SPACES
- 11. ALL SITE IMPROVEMENTS WILL BE IN ACCORDANCE WITH THE BOROUGH OF SAYREVILLE CONSTRUCTION STANDARDS, WHERE
- 12. THE BUSINESS IS OPEN FROM 7:00 AM TO 6:00 PM, WITH SEVERAL EMPLOYEES AND AN OFFICE/BUSINESS MANAGER ON SITE.

PROVED BY THE BOROUGH OF SAYREVILLE PLANNING					
ARD ON:					<u> </u>
HAIRMAN	-				
	2	12/18/2023	REVISED PER BOROUGH OF SAYREVILLE COMMENTS	KN	LBB
	_ 1	5/23/2023	REVISED FOR COMPLETENESS	KN	LBB
ECRETARY	No.	Date	Revision	Revised By	Checked By
			100 0 100 200	5	
NGINFFR	-		SCALE IN FFFT		



Wall, New Jersey 07719

732.312.9800 FPAengineers.com BLOCK 428, LOTS 1,2, & 2.01

New Jersey ▲ New York ▲ Pennsylvania ▲ Georgia BOROUGH OF SAYREVILLE MIDDLESEX COUNTY, NEW JERSEY

COVER SHEET

BULK YARD 35

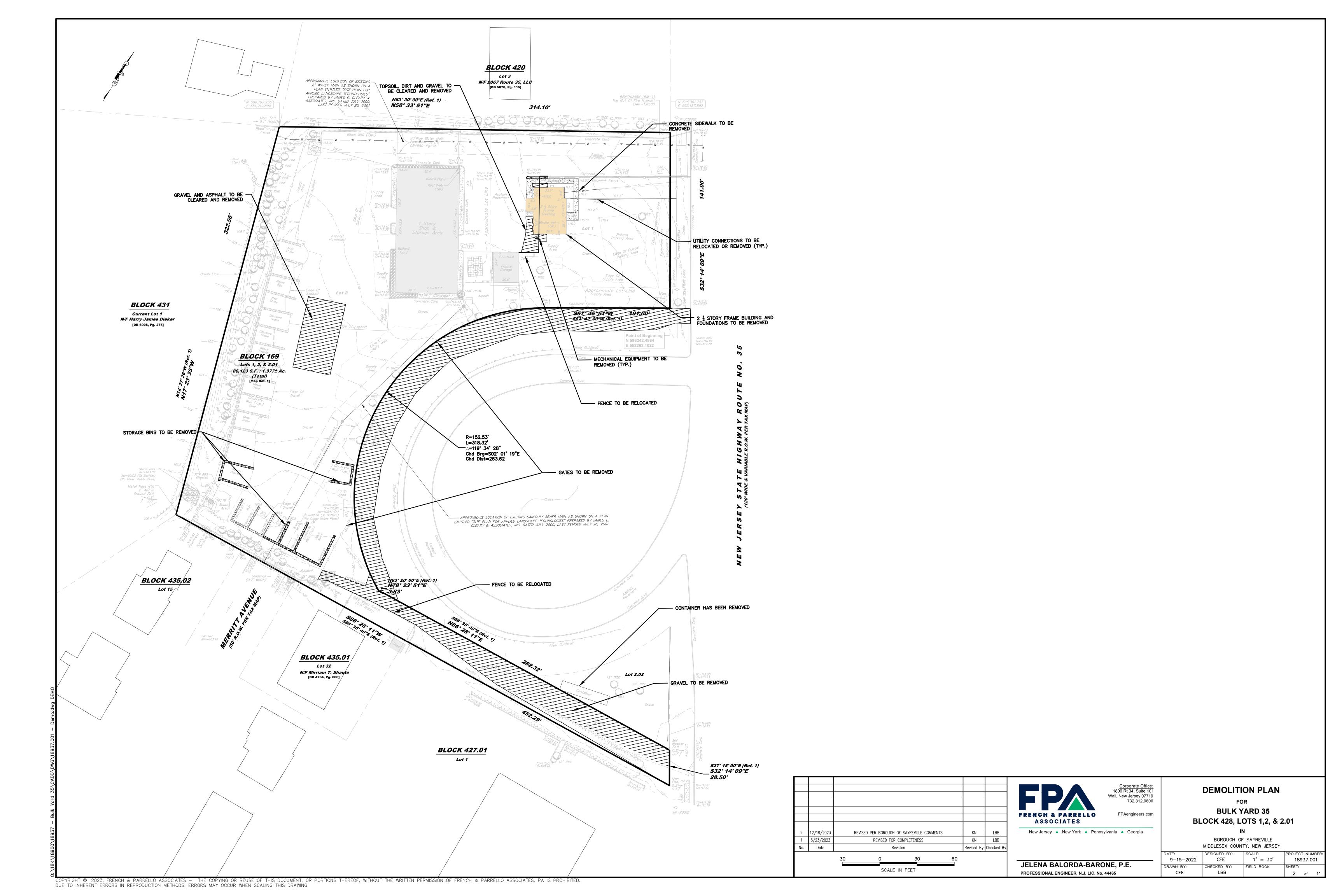
AS SHOWN

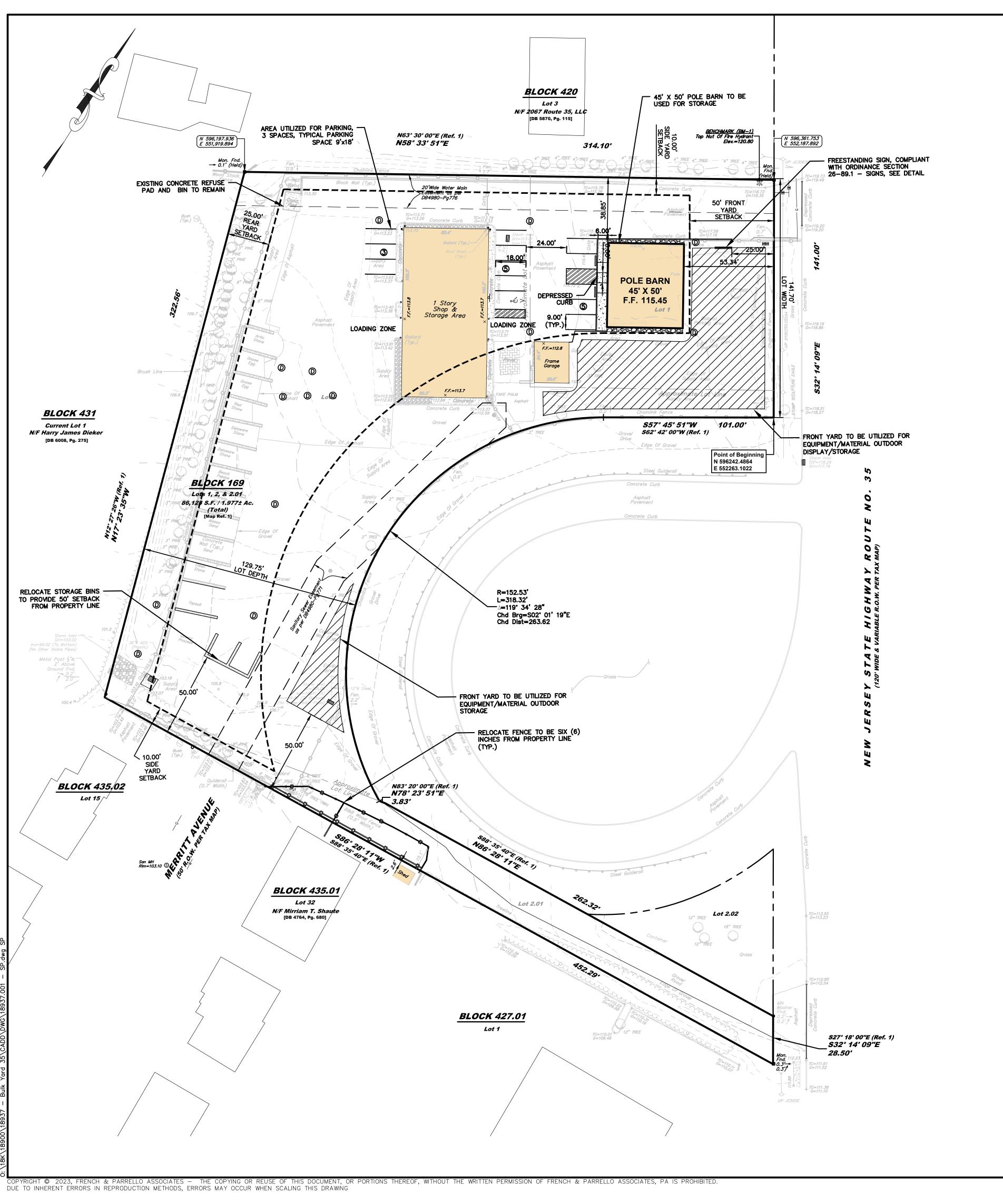
FIELD BOOK

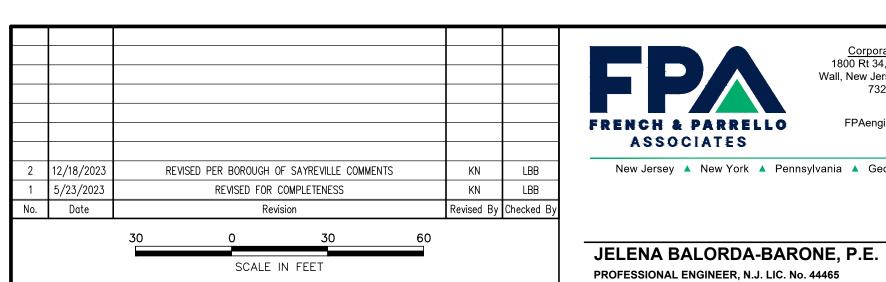
18937.001

CFE JELENA BALORDA-BARONE, P.E. CHECKED BY: PROFESSIONAL ENGINEER, N.J. LIC, No. 44465 LBB

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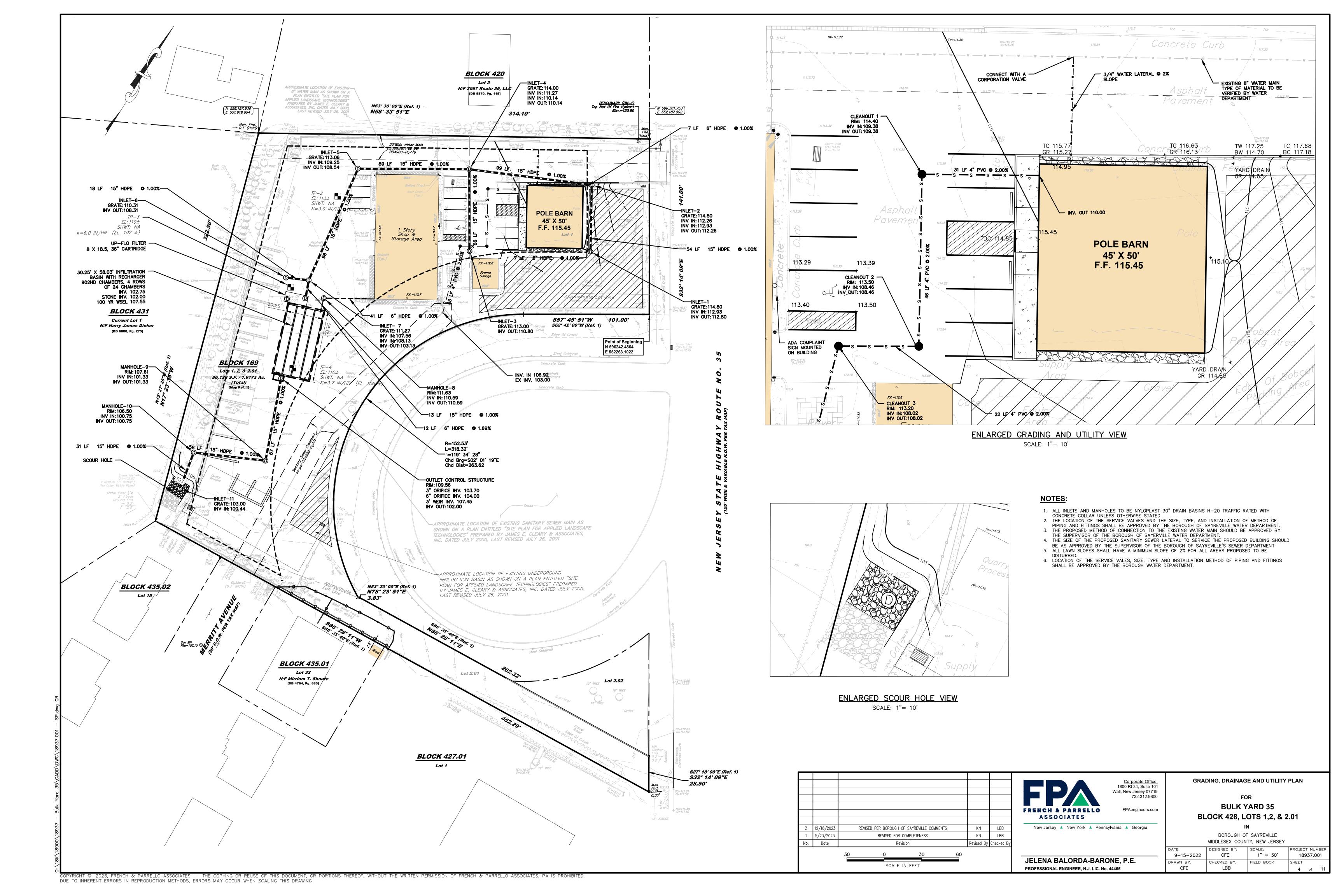
BULK YARD 35 BLOCK 428, LOTS 1,2, & 2.01

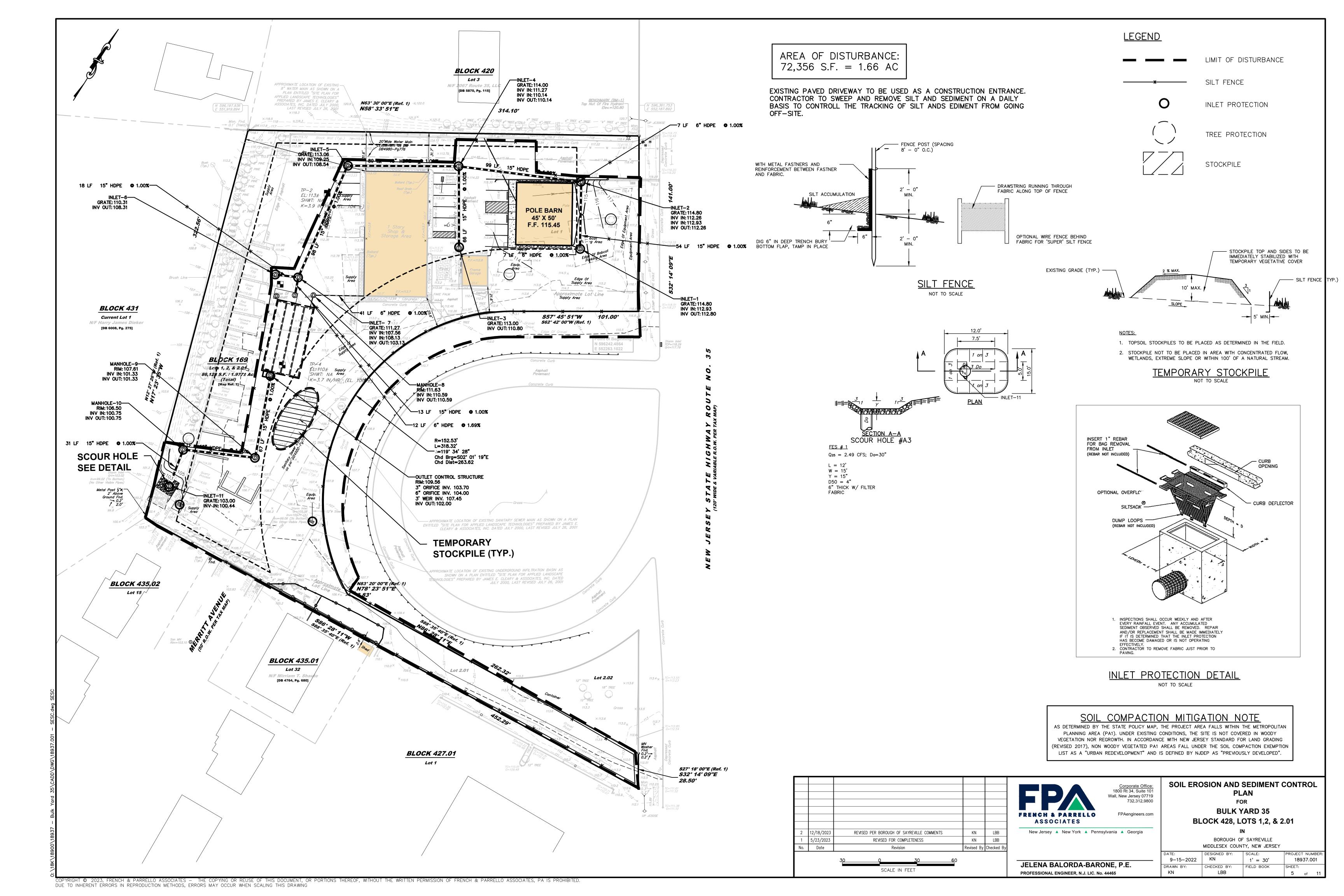
BOROUGH OF SAYREVILLE

SITE PLAN

FOR

MIDDLESEX COUNTY, NEW JERSEY CFE 1" = 30' 18937.001 9-15-2022 RAWN BY: CHECKED BY: FIELD BOOK CFE LBB





SOIL EROSION AND SEDIMENT CONTROL NOTES

- . THE BOROUGH OF SAYREVILLE SHALL BE NOTIFIED FORTY-EIGHT (48) HOURS IN ADVANCE OF ANY SOIL DISTURBING ACTIVITY.
- 2. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
- 3. ANY CHANGES TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLANS WILL REQUIRE THE SUBMISSION OF REVISED SOIL EROSION AND SEDIMENT CONTROL PLANS TO THE DISTRICT FOR RE-CERTIFICATION. THE REVISED PLANS MUST MEET ALL CURRENT STATE SOIL EROSION AND SEDIMENT CONTROL STANDARDS.
- 4. N.J.S.A 4: 24-39 ET. SEQ. REQUIRES THAT NO CERTIFICATES OF OCCUPANCY BE ISSUED BEFORE THE DISTRICT DETERMINES THAT A PROJECT OR PORTION THEREOF IS IN FULL COMPLIANCE WITH 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 STATE STANDARD FOR STABILIZATION WITH MULCH ONLY.
- 6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. 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 ENTRANCE CONSISTING OF ONE INCH TO TWO INCH (1" - 2") STONE FOR A MINIMUM LENGTH OF TEN FEET (10') EQUAL TO THE LOT ENTRANCE WIDTH. ALL OTHER ACCESS POINTS SHALL BE BLOCKED OFF.
- 9. ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAYS WILL BE REMOVED IMMEDIATELY.
- 10. PERMANENT VEGETATION IS TO BE SEEDED OR SODDED ON ALL EXPOSED AREAS WITHIN TEN (10) DAYS AFTER FINAL GRADING.
- 11. AT THE TIME THAT SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR TREATMENT OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT GROUND STABILIZATION WILL HAVE TO BE EMPLOYED.
- 12. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS/ACRE, (OR 450 LBS/SQ FT OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12" OF SETTLED SOIL WITH A PH OF 5 OR MORE, OR 24" WHERE TREES OR SHRUBS ARE TO BE PLANTED.
- 13. CONDUIT OUTLET PROTECTION MUST BE INSTALLED AT ALL REQUIRED OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
- 14. UNFILTERED DEWATERING IS NOT PERMITTED. NECESSARY PRECAUTIONS MUST BE TAKEN DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH THE STANDARD FOR DEWATERING.
- 15. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET, TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED AS REQUIRED BY THE STANDARD FOR DUST CONTROL.
- 16. STOCKPILE AND STAGING LOCATIONS ESTABLISHED IN THE FIELD SHALL BE PLACED WITHIN THE LIMIT OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN. STAGING AND STOCKPILES NOT LOCATED WITHIN THE LIMIT OF DISTURBANCE WILL REQUIRE CERTIFICATION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN. CERTIFICATION OF A NEW SOIL EROSION AND SEDIMENT CONTROL PLAN MAY BE REQUIRED FOR THESE ACTIVITIES IF AN AREA GREATER THAN 5,000 SQUARE FEET 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.

BOROUGH OF SAYREVILLE 167 MAIN STREET SAYREVILLE, NEW JERSEY 08872 (732) 390-7000

ACID SOILS NOTES

PRODUCING SOILS.

IN ORDER TO PROVIDE SUITABLE CONDITIONS FOR GROWTH AND VEGETATION AND TO PREVENT THE ACIDIFYING OF DRAINAGE WATER IN THOSE AREAS UNDERLAIN WITH ACID FORMATIONS WITH A ph BELOW 4.0 THE FOLLOWING REQUIREMENT SHALL BE MET:

- 1. LIMIT THE EXCAVATION AREA AND EXPOSURE TIME WHEN HIGH ACID PRODUCING SOILS ARE ENCOUNTERED. 2. TOPSOIL STRIPPED FROM THE SITE SHALL BE STORED SEPARATELY FROM TEMPORARILY STOCKPILED HIGH ACID
- 3. STOCKPILES OF HIGH ACID PRODUCING SOIL SHOULD BE LOCATED ON LEVEL LAND TO MINIMIZE ITS MOVEMENT,
- ESPECIALLY WHEN THIS MATERIAL HAS A HIGH CLAY CONTENT. 4. TEMPORARILY STOCKPILED HIGH ACID PRODUCING SOIL MATERIAL TO BE STORED MORE THAN 48 HOURS SHOULD BE COVERED WITH PROPERLY ANCHORED, HEAVY GRADE SHEETS OF POLYETHYLENE WHERE POSSIBLE. IF NOT POSSIBLE, STOCKPILES SHALL BE COVERED WITH A MINIMUM OF 3 TO 6 INCHES OF WOOD CHIPS TO MINIMIZE. EROSION OF THE STOCKPILE. SILT FENCE SHALL BE INSTALLED AT THE TOE OF SLOPE TO CONTAIN MOVEMENT OF THE STOCKPILED MATERIAL. TOPSOIL SHALL NOT BE APPLIED TO THE STOCKPILES TO PREVENT TOPSOIL CONTAMINATION WITH HIGH ACID PRODUCING SOIL.
- 5. HIGH ACID PRODUCING SOILS WITH A pH OF 4 OR LESS, OR CONTAINING IRON SULFIDE, (INCLUDING BORROW FROM CUTS OR DREDGED SEDIMENT) SHALL BE ULTIMATELY PLACE OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS PER ACRE (OR 450 POUNDS PER 1,000 SQUARE FEET OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12 INCHES OF SETTLED SOIL WITH A pH OF 5 OR MORE EXCEPT AS FOLLOWS:
 - A. AREAS WHERE TREES OR SHRUBS ARE PLANTED SHALL BE COVERED WITH A MINIMUM OF 24 INCHES OF SOIL WITH A pH OF 5 OR MORE.
 - B. DISPOSAL AREAS SHALL NOT BE LOCATED WITHIN 24" OF ANY SURFACE OF A SLOPE OR BANK, SUCH AS BERMS, STREAM BANKS, DITCHES AND OTHERS TO PREVENT POTENTIAL LATERAL LEACHING
- DAY TO PREVENT SPREADING OF HIGH ACID-PRODUCING SOIL MATERIALS TO OTHER PARTS OF THE SITE, INTO STREAMS OR STORMWATER CONVEYANCES, AND TO PROTECT MACHINERY FROM ACCELERATED RUSTING. NON-VEGETATIVE EROSION CONTROL PRACTICES (STONE TRACKING PADS, STRATEGICALLY PLACED LIMESTONE

CHECK DAM, SEDIMENT BARRIER, WOOD CHIPS) SHOULD BE INSTALLED TO LIMIT THE MOVEMENT OF HIGH

ACID-PRODUCING SOILS FROM, AROUND, OR OFF THE SITE.

6. EQUIPMENT USED FOR MOVEMENT OF HIGH ACID-PRODUCING SOILS SHOULD BE CLEANED AT THE END OF EACH

8. FOLLOWING BURIAL OR REMOVAL OF HIGH ACID-PRODUCING SOIL, TOPSOILING AND SEEDING OF THE SITE (SEE TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, AND TOPSOILING), <u>MONITORING MUST CONTINUE FOR A MINIMUM OF 6 MONTHS</u> TO ENSURE THERE IS ADEQUATE STABILIZATION AND THAT NO HIGH ACID—PRODUCING SOIL PROBLEMS EMERGE. IF PROBLEMS STILL EXIST, THE AFFECTED AREA MUST BE TREATED AS INDICATED ABOVE TO CORRECT THE PROBLEM.

PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

- 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 TOPSOILING APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING.
- C. TOPSOIL SHOULD BE HANDLED ONLY WHEN ITS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED. IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.
- D. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.

2. SEEDBED PREPARATION

- A. UNIFORMLY APPLY GROUND LIMESTONE AND FERTILIZER TO TOPSOIL WHICH HAS BEEN SPREAD AND FIRMED. ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES (HTTP: //NJAES.RUTGERS.EDU/COUNTY/). FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 S.F. OF 10-10-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND INCORPORATED INTO THE SURFACE 4 INCHES. IF FERTILIZER IS NOT INCORPORATED, APPLY ONE-HALFTHE RATE DESCRIBED ABOVE DURING THE SEEDBED PREPARATION AND REPEAT ANOTHER ONE-HALF RATE APPLICATION OF THE SAME FERTILIZER WITHIN 3 TO 5 WEEKS AFTER
- B. WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR, CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
- C. HIGH ACID PRODUCING SOIL. SOILS HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDE SHALL BE COVERED WITH A MINIMUM OF 12 INCHES OF SOIL HAVING A PH OF 5 OR MORE BEFORE INITIATING SEEDBED PREPARATION. SEE ACID SOIL NOTES.

SEEDING

A. PERMANENT SEEDING SHALL CONSISTING OF THE FOLLOWING MIXES OR APPROVED EQUAL - ACCEPTABLE SEEDING DATES ARE BETWEEN MARCH 1 THRU APRIL 30 AND OPTIMAL SEEDING DATES ARE AUGUST 15 THRU OCTOBER 15:

> @ 4.0#/1,000 S.F. PERENNIAL RYEGRASS @ 1.0#/1,000 S.F. KENTUCKY BLUEGRASS @ 1.0#/1.000 S.F.

PERMANENT SEEDING SHALL BE PROVIDED ON ALL THE DETENTION BASIN SIDE SLOPES AND BASIN BOTTOM. THE SEED MIX SHALL BE SEED MIXTURE 17 AND CONSIST OF THE FOLLOWING MIXTURE OR APPROVED EQUAL — ACCEPTABLE SEEDING DATES ARE BETWEEN MARCH 1 THRU AUGUST 14 AND OPTIMAL

@1#/1,000 S.F.

CREEPING BENTGRASS @1#/1,000 S.F. CREEPING RED FESCUE @1#/1,000 S.F. ALKALI SALTGRASS

SEEDING DATES ARE AUGUST 15 THRU OCTOBER 1:

PLEASE NOTE THAT OTHER SEED MIXTURES CAN BE USED IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.

- 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 \$\frac{1}{4}\$ TO \$\frac{1}{2}\$ INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE $rac{1}{4}$ INCH DEEPER ON COARSE-TEXTURED SOIL.
- C. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY, AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.
- D. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK, OR TRAILER-MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER, AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED. SHORT-FINERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. WHEN POOR SEED TO SOIL CONTACT OCCURS, THERE IS A REDUCED SEED GERMINATION AND GROWTH.

4. MULCHING

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

- A. STRAW OR HAY. UNROTTED SMALL GRAIN STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1 ½ TO 2 TONS 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 PRESENCE OF WEED
- APPLICATION- SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT APPROXIMATELY 95% OF THE SOIL SURFACE WILL BE COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTION 70 TO 90 POUNDS WITHIN EACH SECTION.
- ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS. DEPENDING UPON THE SIZE OF THE AREA. STEEPNESS OF SLOPES, AND COSTS.
- 1. PEG AND TWINE. DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRECHING TWINE BETWEEN PEGS IN A CRIS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
- 2. MULCH NETTING. STAPLE PAPER, JUTE, COTTON, OR PLASTIC NETTING TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS
- 3. CRIMPER (MULCH ANCHORING COULTER TOOL) A TRACTOR-DRAWN IMPLEMENT, SOMEWHAT LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH OR CUT SOME OF THE BROADCAST LONG FIBER MULCH 3 TO 4 INCHES INTO THE SOIL SO AS TO ANCHOR IT AND LEAVE PART STANDING UPRIGHT. THIS TECHNIQUE IS LIMITED TO AREAS TRAVERSABLE BY A TRACTOR, WHICH MUST OPERATE ON THE CONTOUR OF SLOPES. STRAW MULCH RATE MUST BE 3 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.
- 4. LIQUID MULCH BINDERS-MAY BE USED TO ANCHOR SALT HAY OR STRAW MULCH.
 - A. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND CATCHES THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. REMAINDER OF AREA SHOULD BE UNIFORM IN APPEARANCE.
 - B. USE ONE OF THE FOLLOWING:

TO THE EXCLUSION OF OTHER PRODUCTS.

- ORGANIC AND VEGETABLE BASED BINDERS NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIALS THAT MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY CURING CONDITIONS WILL FORM MEMBRANED NETWORKS OF INSOLUBLE POLYMERS. THE VEGETABLE 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. IT SHALL BE APPLIED AT RATES AND WEATHER CONDITIONS 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 COMMENDATION OF THESE PRODUCTS
- 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. THIS 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.

- PELLETIZED MULCH. COMPRESSED AND EXTRUDE PAPER AND/OR WOOD FIBER PRODUCT, WHICH MAY CONTAIN CO-POLYMERS, TACKIFIERS, FERTILIZERS AND COLORING AGENTS. THE DRY PELLETS, WHEN APPLIED TO A SEEDED AREA AND WATERED, FORMA MULCH MAT. PELLETIZED MULCH SHALL BE APPLIED IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS. MULCH MAY BE APPLIED BY HAND OR MECHANICAL SPREADER AT THE RATE OF 60-75LBS/1,000 SQUARE FEET WITH 0.2 TO 0.4 INCHES OF WATER. THIS MATERIAL HAS BEEN FOUND TO BE BENEFICIAL FOR USE ON SMALL LAWN OR RENOVATION AREAS. SEED AREAS WHERE WEED-SEED FREE MULCH IS DESIRED OR ON SITES WHERE STRAW MULCH AND TACKIFIER AGENT ARE NOT PRACTICAL OR DESIRABLE.
 - APPLY THE FULL 0.2 TO 0.4 INCHES OF WATER AFTER SPREADING PELLETIZED MULCH ON THE SEED BED IS EXTREMELY IMPORTANT FOR SUFFICIENT ACTIVATION AND EXPANSION OF THE MULCH TO PROVIDE SOIL COVERAGE.

5. IRRIGATION (WHERE FEASIBLE)

IF SOIL MOISTURE IS DEFICIENT, AND MULCH IS NOT USED, SUPPLY NEW SEEDINGS 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.

STABILIZATION WITH MULCH

METHODS AND MATERIALS

1. SITE PREPARATION

- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS, FOR LAND GRADING.
- B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE STANDARDS 11 THROUGH 42.
- 2. PROTECTIVE MATERIALS
- A. UN-ROTTED SMALL-GRAIN STRAW, OR SALT HAY AT 2.0 TO 2.5 TONS PER ACRE IS SPREAD UNIFORMLY AT 90 TO 115 POUNDS PER 1,000 SQUARE FEET AND ANCHORED WITH A MULCH ANCHORING TOOL, LIQUID MULCH BINDERS, OR NETTING TIE DOWN. OTHER SUITABLE MATERIALS MAY BE USED IF APPROVED BY THE SOIL CONSERVATION DISTRICT. THE APPROVED RATES ABOVE HAVE BEEN MET WHEN THE MULCH COVERS THE GROUND COMPLETELY UPON VISUAL INSPECTION, ie. THE SOIL CAN NOT BE BELOW THE MULCH.
- B. ASPHALT EMULSION IS RECOMMENDED AT THE RATE OF 600 TO 1,200 GALLONS PER ACRE. THIS IS SUITABLE FOR A LIMITED PERIOD OF TIME WHERE TRAVEL BY PEOPLE, ANIMALS OR MACHINES IS NOT A PROBLEM.
- C. SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED UNDER SUITABLE CONDITIONS AND IN QUANTITIES AS RECOMMENDED BY
- D. WOOD-FIBER OR PAPER-FIBER MULCH AT THE RATE OF 1,500 POUNDS PER ACRE (OR ACCORDING TO THE MANUFACTURER'S REQUIREMENTS) MAY BE APPLIED BY A HYROSEEDER.
- E. MULCH NETTING, SUCH AS PAPER JUTE, EXCELSIOR, COTTON, OR PLASTIC, MAY BE USED.
- F. WOODCHIPS APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 2 INCHES MAY BE USED. WOODCHIPS WILL NOT BE USED ON AREAS WHERE FLOWING WATER COULD WHERE FLOWING WATER COULD WASH THEM INTO AN INLET AND PLUG IT.
- G. GRAVEL, CRUSHED STONE, OR SAG AT THE RATE OF 9 CUBIC YARDS PER 1,000 SQ. FT. APPLIED UNIFORMLY TO A MINIMUM DEPTH OF 3 INCHES MAY BE USED. SIZE 2 OR 3 (ASTM-C-33) IS RECOMMENDED.
- 3. MULCH ANCHORING SHOULD BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT OF HAY OR STRAW TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS, DEPENDING UPON THE SIZE OF THE AREA AND STEEPNESS OF
- A. PEG AND TWINE DRIVE 8 TO 10 INCH WOODEN PEGS TO WITHIN 2 TO 3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINI BETWEEN PEGS IN A CRIS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.
- B. MUI CH NETTING STAPLE PAPER. COTTON. OR PLASTIC NETTINGS OVER MULCH. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED. NETTING IS USUALLY AVAILABLE IN ROLLS 4 FEET WIDE AND UP TO 300 FEET LONG
- C. CRIMPER MULCH ANCHORING COULTER TOOL A TRACTOR-DAWN IMPLEMENT ESPECIALLY DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SURFACE. THIS PRACTICE AFFORDS MAXIMUM EROSION CONTROL, BUT IS USE IS LIMITED TO THOSE SLOPES UPON WHICH THE TRACTOR CAN OPERATE SAFELY. SOIL PENETRATION SHOULD BE ABOUT 3 TO 4 INCHES. ON SLOPING LAND, THE OPERATION
- D. LIQUID MULCH -BINDERS
 - 1. APPLICATION SHOULD BE HEAVIER AT EDGES WHERE WIND CATCHES THE MULCH, IN VALLEYS, AND AT CRESTS OF BANKS. REMAINDER OF AREA SHOULD BE UNIFORM IN APPEARANCE.
 - 2. USE ONE OF THE FOLLOWING:
- A. ORGANIC AND VEGETABLE BASED BINDER NATURALLY OCCURRING, POWDER BASED, HYDROPHILIC MATERIALS THAT MIXED WITH WATER FORMULATES A GEL AND WHEN APPLIED TO MULCH UNDER SATISFACTORY SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT RESULT IN A PHYTOTOXIC EFFECT OR IMPEDE GROWTH OF TURFGRASS. VEGETABLE BASED GELS SHALL BE APPLIED AT RATES AND WEATHER CONDITIONS RECOMMENDED BY THE MANUFACTURER.
 - B. SYNTHETIC BINDERS HIGH POLYMER SYNTHETIC EMULSION, MISCIBLE WITH WATER WHEN DILUTED AND FOLLOWING APPLICATION TO MULCH, DRYING AND CURING SHALL NO LONGER BE SOLUBLE OR DISPERSIBLE IN WATER. IT SHALL BE APPLIED AT RATES AND WEATHER CONDITIONS RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL

TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

1. SITE PREPARATION

- A. GRADE AS NEEDED AND FEASIBLE TO PERMIT THE USE OF CONVENTIONAL EQUIPMENT FOR SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING. ALL GRADING SHOULD BE DONE IN ACCORDANCE WITH STANDARDS, FOR LAND GRADING.
- B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS.
- C. IMMEDIATELY PRIOR TO SEEDING, THE SURFACE SHOULD BE SCARIFIED 6" TO 12" WHERE THERE HAS BEEN SOIL COMPACTION. THIS PRACTICE IS PERMISSIBLE ONLY WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.) 2. SEEDBED PREPARATION
 - A. APPLY GROUND LIMESTONE AND FERTILIZER ACCORDING TO SOIL TEST RECOMMENDATIONS SUCH AS OFFERED BY RUTGERS CO-OPERATIVE EXTENSION. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL RUTGERS COOPERATIVE EXTENSION OFFICES. FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 S.F. OF 10-20-10 OR EQUIVALENT WITH 50% WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. APPLY LIMESTONE AT THE RATE AS ESTABLISHI BY SOIL TESTING. CALCIUM CARBONATE IS THE EQUIVALENT AND STANDARD FOR MEASURING THE ABILITY OF LIMING MATERIALS TO NEUTRALIZE SOIL ACIDITY AND SUPPLY CALCIUM AND MAGNESIUM TO GRASSES AND LEGUMES.
 - B. WORK LIME AND FERTILIZER INTO THE TOPSOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRING TOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISKING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
 - C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RECTIFIED IN ACCORDANCE
 - D. SOILS HIGH IN SULFIDES OR HAVING A PH OF 4 OR LESS, SEE ACID SOIL NOTES.

SEEDING

A. TEMPORARY SEEDING SHALL CONSISTING OF THE FOLLOWING SEED SELECTIONS OR APPROVED EQUAL:

COOL SEASON GRASSES

@ 2.0#/1,000 S.F., WITH OPTIMUM SEED DEPTH OF 1.0 INCH

WARM SEASON GRASSES

SEDIMENT CONTROL IN NEW JERSEY.

PEARL MILLET

WINTER CEREAL RYE

@ 0.5#/1,000 S.F. WITH OPTIMUM SEED DEPTH OF 1.0 INCH PLEASE NOTE THAT OTHER SEED SELECTIONS CAN BE USED IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND

@ 2.8#/1,000 S.F., WITH OPTIMUM SEED DEPTH OF 1.0 INCH

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 TO 1 INCH, BY RAKING OR DRAGGING. DEPTH OF SEED PLACEMENT MAY BE 1 INCH DEEPER ON COARSE-TEXTURED SOIL.

- C. HYDROSEEDING IS A BROADCAST SEEDING METHOD USUALLY INVOLVING A TRUCK, OR TRAILER-MOUNTED TANK, WITH AN AGITATION SYSTEM AND HYDRAULIC PUMP FOR MIXING SEED, WATER, AND FERTILIZER AND SPRAYING THE MIX ONTO THE PREPARED SEEDBED. <u>MULCH SHALL NOT BE INCLUDED IN THE TANK WITH SEED.</u> SHORT—FINERED MULCH MAY BE APPLIED WITH A HYDROSEEDER FOLLOWING SEEDING. HYDROSEEDING IS NOT A PREFERRED SEEDING METHOD BECAUSE SEED AND FERTILIZER ARE APPLIED TO THE SURFACE AND NOT INCORPORATED INTO THE SOIL. WHEN POOR SEED TO SOIL CONTACT OCCURS, THERE IS A REDUCED SEED GERMINATION AND GROWTH. HYDROSEEDING MAY BE USED FOR AREAS TOO STEEP FOR CONVENTIONAL EQUIPMENT TO TRAVERSE OR TOO OBSTRUCTED WITH ROCKS, STUMPS, ETC.
- D. AFTER SEEDING, FIRMING THE SOIL WITH A CORRUGATED ROLLER WILL ASSURE GOOD SEED-TO-SOIL CONTACT, RESTORE CAPILLARITY. AND IMPROVE SEEDLING EMERGENCE. THIS IS THE PREFERRED METHOD. WHEN PERFORMED ON THE CONTOUR, SHEET EROSION WILL BE MINIMIZED AND WATER CONSERVATION ON SITE WILL BE MAXIMIZED.

4. MULCHING

REFER TO THE MULCH NOTES, NOTE 4 UNDER THE PERMANENT VEGETATIVE COVER SECTION.

OF SOIL EROSION AND SEDIMENT CONTROL MEASURES

CONSTRUCTION SCHEDULE AND PROCEDURE FOR IMPLEMENTATION

- 1. PROVIDE TEMPORARY STABILIZATION OF ALL DISTURBED AREAS AND INSTALL SILT FENCE, STABILIZED CONSTRUCTION ENTRANCE AND ALL OTHER NECESSARY SOIL EROSION MEASURES. (1 WEEK)
- 2. REMOVE FULL DEPTH PAVEMENT SECTION AND OTHER ITEMS NOTED WITHIN DEMOLITION LIMITS. (1 WEEK)
- 3. CLEAR AND ESTABLISH ROUGH GRADES AS NECESSARY TO CONSTRUCT SITE IMPROVEMENTS. (1 WEEK)
- 4. CONSTRUCT STORMWATER MANAGEMENT SYSTEM. (4 WEEKS)
- 5. CONSTRUCT SITE IMPROVEMENTS (4 WEEKS)
- 6. PROVIDE PERMANENT VEGETATIVE COVER. (2 DAYS)
- 7. REMOVE ACCESS PROTECTION, AND SILT FENCE AFTER ALL DISTURBED AREAS HAVE BEEN STABILIZED. (1

THE ABOVE SCHEDULE IS FOR THE IMPLEMENTATION AND INSTALLATION OF SOIL EROSION AND SEDIMENT CONTROL MEASURES ONLY. CONTRACTOR MAY MODIFY AND/OR CREATE HIS OWN SCHEDULE. IF THE CONSTRUCTION SCHEDULE IS MODIFIED, A REVISION TO THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN MAY BE REQUIRED.

2/18/20 REVISED PER BOROUGH OF SAYREVILLE COMMENTS LBB REVISED FOR COMPLETENESS KN LBB Date Revised By Checked B SCALE IN FEET



Corporate Office 1800 Rt 34, Suite 101 Wall, New Jersey 07719 732.312.9800

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JELENA BALORDA-BARONE. P.E. PROFESSIONAL ENGINEER, N.J. LIC. No. 44465

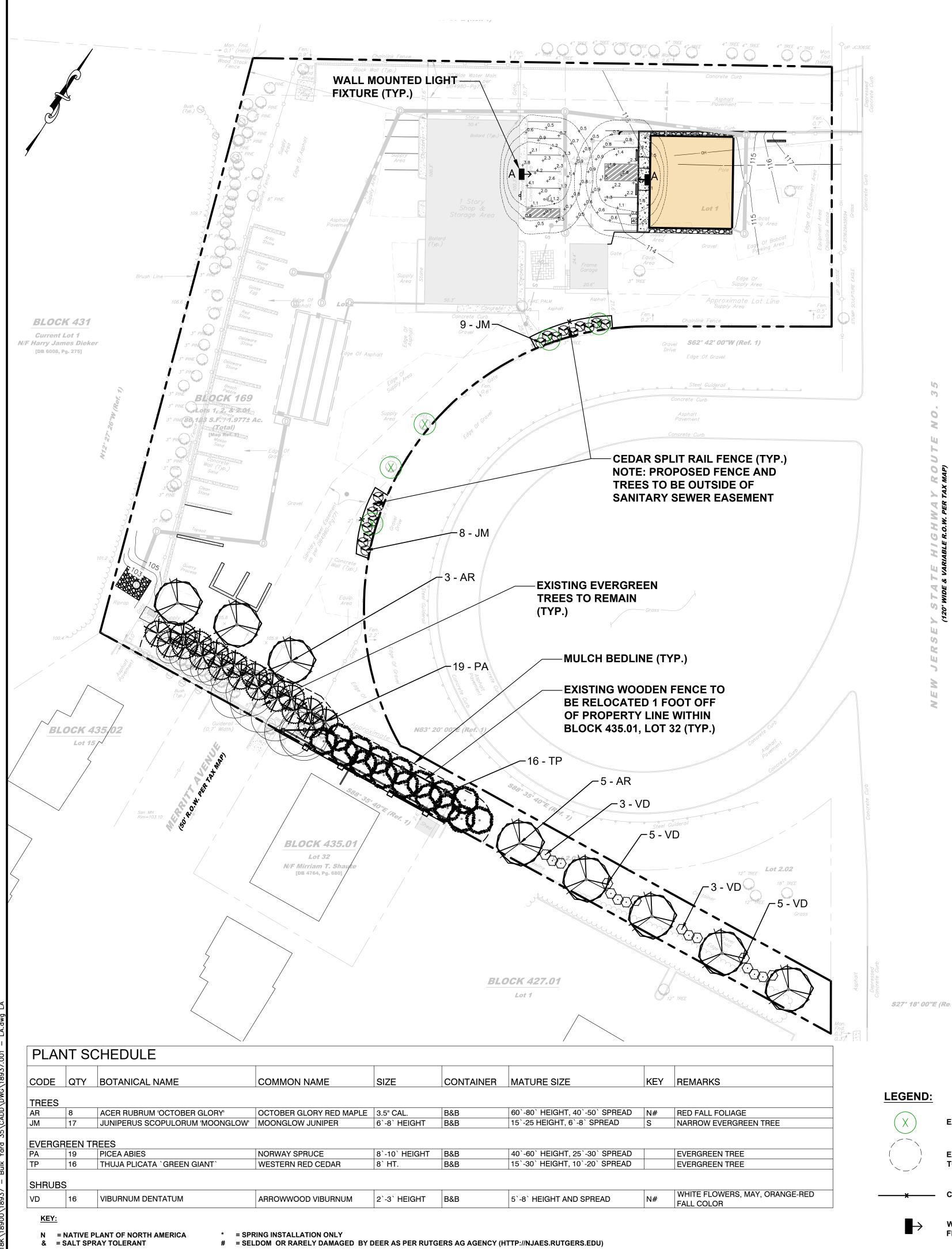
BLOCK 428, LOTS 1,2, & 2.01 BOROUGH OF SAYREVILLE MIDDLESEX COUNTY, NEW JERSEY

SOIL EROSION AND SEDIMENT CONTROL

DETAILS

BULK YARD 35

18937.001 9-15-2022 CHECKED BY: FIELD BOOK SHEET: LBB

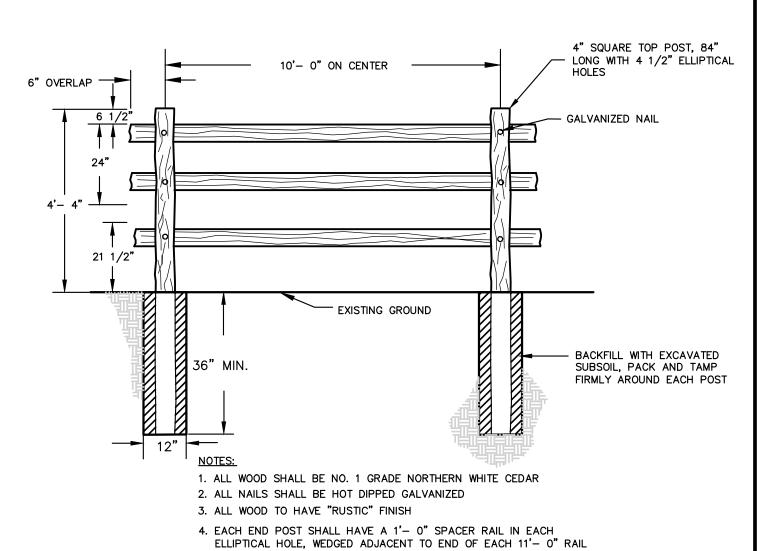


PLANTING NOTES

- 1. THE LANDSCAPE PLANS SHALL BE USED FOR LANDSCAPING PURPOSES ONLY. THE CONTRACTOR SHOULD EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR EXACT LOCATIONS OF UTILITIES, DRAINS, ETC., AND NOTIFY THE OWNER ABOUT ANY DISCREPANCIES BEFORE STARTING WORK.
- 2. ALL PLANTING SHALL BE IN CONFORMANCE WITH THE AMERICAN NURSERYMEN'S ASSOCIATION STANDARDS, CURRENT EDITION. ALL PLANT MATERIALS USED SHALL BE TRUE TO NAME AND SIZE IN CONFORMITY WITH THE CURRENT EDITION OF THE AMERICAN STANDARD OF NURSERY STOCK AND SHALL BE TYPICAL OF THEIR SPECIES OR VARIETY. ALL PLANTS SHALL HAVE NORMAL, WELL-DEVELOPED BRANCHES AND VIGOROUS ROOT SYSTEMS. THEY SHALL BE SOUND, HEALTHY, VIGOROUS, FREE FROM DEFECTS, DISFIGURING KNOTS, ABRASIONS OF THE BARK, SUN SCALD INJURIES, PLANT DISEASES, INSECT EGGS, BORERS. AND ALL OTHER FORMS OF INFECTION. ALL PLANTS SHALL BE NURSERY GROWN. ALL PLANT MATERIAL SHALL BE TAGGED AT THE NURSERY SOURCE AND APPROVED BY THE PROJECT LANDSCAPE ARCHITECT PRIOR TO PLANTING.
- 3. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES CAUSED BY ANY PERSON, VEHICLE, EQUIPMENT, OR TOOLS RELATED TO THE EXECUTION OF THIS CONTRACT.
- 4. EXCAVATION NEAR EXISTING UTILITIES TO BE CAREFULLY PERFORMED BY HAND.
- 5. ALL PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO EXISTING GRADE AT THE NURSERY. ALL PLANT MATERIAL SHALL BE PLANTED SO THAT THE TOP OF THE ROOTBALL IS NO HIGHER OR LOWER THAN THE EXISTING/FINISHED GRADE DEPENDENT UPON SOIL CONDITIONS.
- 6. IN THE EVENT THAT PLANTING DISCREPANCIES OR MATERIAL OMISSIONS OCCUR IN THE PLANT MATERIALS LIST, THE LANDSCAPING PLAN SHALL GOVERN. THE USE AND PLANTING OF BARE ROOT MATERIAL SHALL BE PROHIBITED.
- 7. ANY SUBSTITUTIONS OF PLANT MATERIAL WITH REGARDS TO SIZE, SPECIES, VARIETY, ETC., SHALL BE SUBJECT TO APPROVAL BY THE OWNER.
- 8. PLANTS SHALL ONLY BE INSTALLED WHEN THE SOIL IS FROST FREE.
- 9. UNDER NO CIRCUMSTANCES SHOULD THE MAIN LEADER OF A DECIDUOUS OR EVERGREEN TREE BE TOPPED. DECIDUOUS TREES SHALL BE PRUNED BY REMOVAL OF 1/3 OF THE INTERIOR BRANCHING STRUCTURE WITHOUT ALTERING THE ORIGINAL BRANCHING FORM OF THE TREE.
- 10. ALL DISTURBED AREAS, NOT BEING PLANTED, SHALL BE TOPSOILED 4" THICK, FERTILIZED, SEEDED, AND MULCHED WITH APPROVED MULCH. TOPSOIL SHALL BE NATURAL FRIABLE, FERTILE SOIL CHARACTERISTIC OF PRODUCTIVE SOIL IN THE VICINITY. IT SHALL BE FREE OF LUMPS OF CLAY, STONES, ROOTS, AND OTHER FOREIGN MATTER.
- 11. CUT AND LOOSEN SISAL HEMP CHOKE TIE AROUND TREE TRUNK. ALL PLASTIC MATERIAL SHALL NOT BE PERMITTED. ALL WIRE BASKETS AND PLASTIC LINERS OF CONTAINER GROWN TREES AND SHRUBS MUST BE COMPLETELY REMOVED. NO CONTAINER GROWN MATERIAL WILL BE ACCEPTED IF IT IS ROOT BOUND AND NOT ROOT PRUNED. THE USE OF NYLON TWINE ON ROOT BALLS IS PROHIBITED.
- 👔 12. THE DEPTH OF PLANT PITS SHALL BE INCREASED BY 12" THROUGH THE ADDITION OF LOOSE AGGREGATE (3/4" TO 1 1/2" DIAMETER) WHEREVER POOR DRAINAGE OCCURS OR WHERE DIRECTED BY THE TOWNSHIP
- 13. GUY WIRES SHALL BE LOCATED SO THAT THEY WILL NOT PULL CROTCH APART. GUY WIRES TO SECOND BRANCH (MINIMUM ONE-THIRD HEIGHT OF TREE). USE THREE GUYS PER TREE UNLESS OTHERWISE INDICATED. ALL TREE STAKES, GUY WIRES, TREE WRAPPING AND SAUCERS SHALL BE REMOVED AFTER ONE GROWING SEASON.
- 14. PLANTS PLANTED IN ROWS SHALL BE MATCHED SPECIMENS AND BE UNIFORM IN SIZE AND FORM.
- 15. IN THE EVENT THAT EXISTING VEGETATION IS REMOVED BEYOND THE CLEARING LIMITS SHOWN ON THE PLANS, ADDITIONAL PLANTING MUST BE PROVIDED AS APPROVED BY THE TOWNSHIP AND AT NO COST TO
- 16. PLANTING BACKFILL MIXTURE SHALL CONSIST OF ONE PART TOPSOIL, ONE PART NATIVE SOIL AND ONE PART PEAT MOSS. NOTE THAT PLANTING MIXTURE MAY CHANGE BASED UPON SOIL CONDITIONS.
- 17. MULCH, 4" IN DEPTH, SHALL BE TREATED SHREDDED HARDWOOD BARK NOT EXCEEDING 2" IN GREATEST DIMENSION. MULCH SHALL BE INSTALLED WITH A MAXIMUM OF ONE (1) INCH WITHIN ONE (1) FOOT ON THE TREE'S ROOT FLARE. A NON-PLASTIC WEED RETARDANT BARRIER SHALL BE USED IN ALL NON GRASSED AREAS. MULCH SHALL BE FINE GRADED FOR A PLEASING APPEARANCE. THE USE OF MARBLE OR PINE BARK CHIPS IS PROHIBITED. MULCH VOLCANOES ARE NOT PERMITTED.
- 18. ALL PLANT MATERIAL SHALL BE GIVEN A MINIMUM OF 5 GALLONS OF WATER AT THE TIME OF INSTALLATION AND SHALL BE WATERED AT INTERVALS DURING ESTABLISHMENT TO ENSURE ADAPTATION TO THE SITE. PRIOR TO THE INSTALLATION OF THE PLANT MATERIAL, THE CONTRACTOR SHALL FILL EACH PLANTING PIT WITH WATER AND ALLOW IT TO FULLY PERCOLATE INTO THE GROUND PRIOR TO PLACEMENT OF THE PLANT. THE CONTRACTOR SHALL NOTIFY EITHER THE TOWNSHIP OR PROJECT LANDSCAPE ARCHITECT OF ANY PERCOLATION PROBLEMS PRIOR TO INSTALLATION.
- 19. PREFERRED PLANTING TIME PERIODS ARE FROM SEPTEMBER 1 TO NOVEMBER 30 OR MARCH 20 TO MAY 31. NO PLANTING SHALL BE EXECUTED DURING ABNORMALLY HOT WEATHER NOR WHEN THE GROUND IS
- 20. THE CONTRACTOR SHALL REMOVE ALL DAMAGED BRANCHES AND NURSERY TAGS AT THE TIME OF INSTALLATION.
- 21. ALL TURF SHALL RECEIVE FERTILIZER CONSISTING OF 10-6-4 (50% ORGANIC) COMPOSITION, APPLIED AT 3 LB. PER 100 SQ. FT. SLOW RELEASE FERTILIZER TABLETS OR PACKETS OF 20-10-5 COMPOSITION SHALL BE ADDED TO ALL PLANTING PITS AT THE FOLLOWING RATIOS: 1 PER SHRUB, 2 PER DECIDUOUS OR EVERGREEN TREES UP TO 2" IN CALIPER AND 3 FOR DECIDUOUS AND EVERGREEN TREES ABOVE 2" IN CALIPER.
- 22. EACH TREE THAT IS PLANTED MUST BE TAGGED WITH A DURABLE LABEL BEARING THE GENUS, SPECIES, VARIETY, PLANT PATENT NUMBER (IF APPLICABLE) AND CULTURAL REQUIREMENTS AND MUST BE INSPECTED PRIOR TO REMOVAL.
- 23. CONTRACTOR TO BE RESPONSIBLE FOR SEEDING AREAS BEING DISTURBED BY CONSTRUCTION. SEED MIXTURE TO BE IN ACCORDANCE WITH SOIL CONSERVATION DISTRICT'S STANDARDS.
- 24. ALL TREES FOUR (4) FEET OR GREATER IN HEIGHT SHALL BE STAKED PER BOROUGH DESIGN STANDARDS.
- 25. ALL PLANT RELOCATIONS SHALL BE SUBMITTED TO THE OWNER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
- 26. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR PERIOD OF TWO YEARS FROM THE TIME OF PLANTING.

TREE CONSERVATION AND REFORESTATION NOTES:

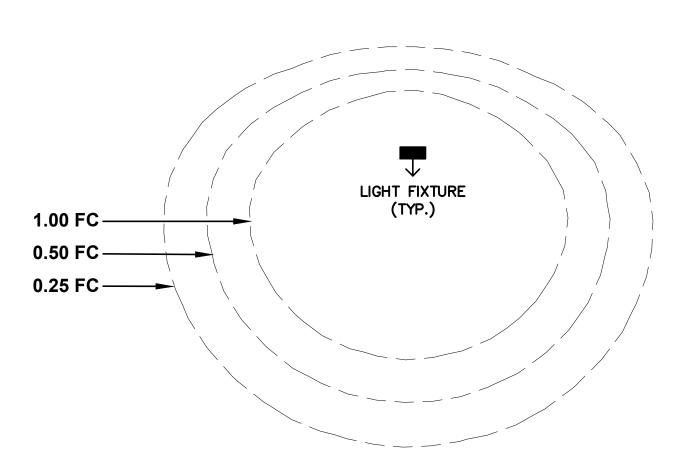
- 2001 APPROVED PLAN: 37 TREES REQUIRED -- 101 TREES PROPOSED PER APPROVED PLAN INTERIM 2001 TO CURRENT: 52 TREES CURRENTLY EXISTING
- 3. CURRENT PLAN: 52 TREES EXISTING -- 8 TREES PROPOSED, TOTAL = 60 TREES 4. (41 PROPOSED TREES IN OPEN SPACE TO MEET THE REQUIREMENTS OF THE 2001 APPROVED PLAN (101-8=93 TREES), 3 PROPOSED TREES FOR PARKING SPACES TREE REQUIREMENTS
- PER SECTION #242-92 S6) 5. IN ACCORDANCE WITH SECTION #242-92 S8.B FOR ANY TREE NOT REPLACED ON SITE A CONTRIBUTION OF \$250.00 PER REPLACEMENT TREE SHALL BE PAID BY THE APPLICANT AND DEPOSITED IN THE BOROUGH TREE BANK FUND. THEREFORE \$10,250.00 (41 REPLACEMENT TREES X \$250.00) SHALL BE DEPOSITED IN THE BOROUGH TREE BANK FUND.



CEDAR SPLIT RAIL FENCE DETAIL NOT TO SCALE

5. EACH POST SHALL HAVE A GALVANIZED STAPLE EMBEDDED IN ITS TOP

6. INSTALL ALONG FRESHWATER WETLANDS BUFFER LINE



TYPICAL LIGHTING FOOTCANDLES VALUES

NOT TO SCALE

STATISTIC	S					
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
Parking	+	1.4 fc	4.8 fc	0.5 fc	9.6:1	2.8:1

LUMINAIRE SCHEDULE Mounting Input Symbol Label Manufacturer Catalog Output Power Height LSI INDUSTRIES, INC. XWS-LED-03L-FTW-30-80CRI 3624 26 15 AFG WALL MOUNTED

LEGEND:

TO REMAIN

EXISTING TREE TO BE REMOVED

EXISTING EVERGREEN TREE

CEDAR SPLIT RAIL FENCE

WALL MOUNTED LIGHT FIXTURE

2 172//1178//2200223 REVISED REEKISBOROURCHROE SAYBERIVALIONOMMENTS ЫBI LBB REVISED FOR COMPLETENESS KN LBB Date Revised By Checked B **MICHAEL J. PIGA, L.L.A.**

SCALE IN FEET

FRENCH & PARRELLO ASSOCIATES

New Jersey ▲ New York ▲ Pennsylvania ▲ Georgia

LICENSED LANDSCAPE ARCHITECT, N.J. LIC. No. AS000909

Corporate Office 1800 Rt 34, Suite 10 Wall, New Jersey 07719 732.312.9800 FPAengineers.com

LANDSCAPING AND LIGHTING PLAN FOR

BULK YARD 35 BLOCK 428, LOTS 1,2, & 2.01

BOROUGH OF SAYREVILLE MIDDLESEX COUNTY, NEW JERSEY 1" = 30'18937.001 9-15-2022 JB

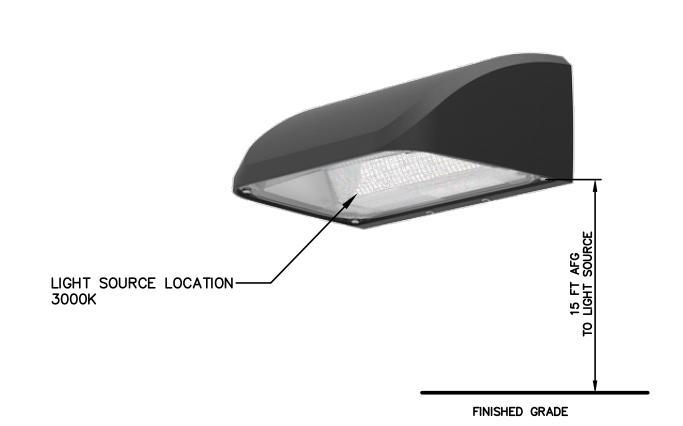
CHECKED BY:

LBB

FIELD BOOK

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DUE TO INHERENT ERRORS IN REPRODUCTION METHODS, ERRORS MAY OCCUR WHEN SCALING THIS DRAWING



1. LIGHT PRODUCT INFO:

NOT TO SCALE

MIRADA SMALL WALL SCONCE XWS OR APPROVED EQUAL COLOR TO BE BLACK OR AVAILABLE STANDARD COLOR AS APPROVED BY OWNER.

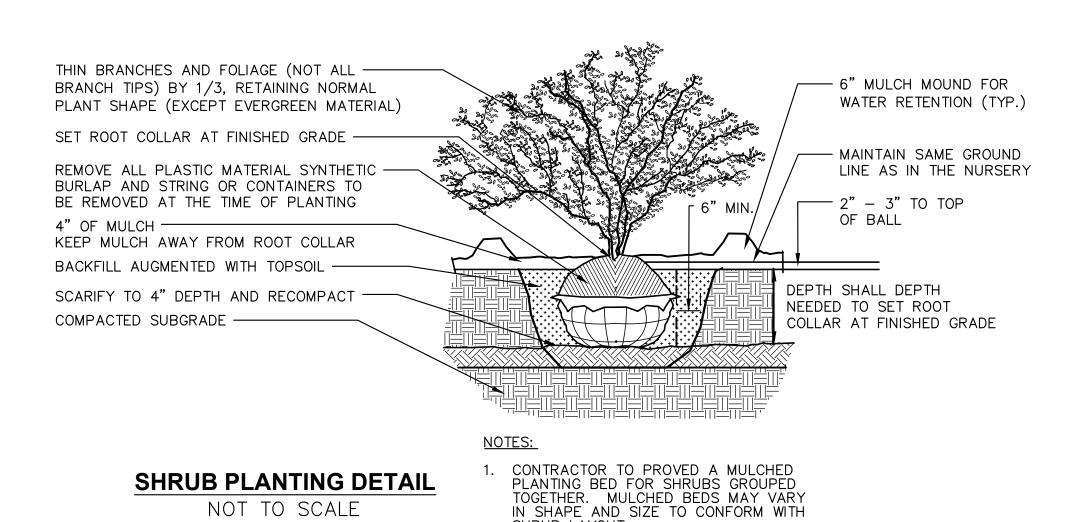
MANUFACTURER: LSI INDUSTRIES INC. CINCINNATI, OH WWW.LSICORP.COM PHONE: 513-372-3200

WALL MOUNTED LIGHT FIXTURE DETAIL (FIXTURE A)

NOT TO SCALE

- TYPICAL SHRUB TYPICAL MULCHED PLANTING BED

TYPICAL PLANTING BED PLAN VIEW



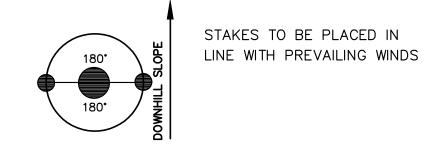
2. DO NOT PRUNE EVERGREEN SHRUBS

EXCEPT TO REMOVE DEAD AND BROKEN

1. ALL TREES UNDER 3" IN CALIPER SHALL BE STAKED ALL TREES 3" IN CALIPER AND GREATER SHALL BE GUYED 2. TREE SHALL BEAR SAME RELATION TO FINISHED GRADE AS IT BORE TO PREVIOUS 3. SET STAKES VERTICAL AND AT SAME HEIGHT 4. REMOVE ALL WIRE BASKETS PRIOR TO BACKFILLING THE PLANTING PIT. 5. ALL WIRE BASKETS SHALL BE REMOVED PRIOR TO BACKFILLING THE PLANTING PIT STAKES TO BE SET 2/3'RDS UP TREE OR JUST AT FIRST BRANCHES SEE TREE STAKING AND GUYING DETAIL TREE TRUNK PROTECTION -4" SHREDDED HARDWOOD MULCH- KEEP -MULCH AWAY FROM ROOT COLLAR AS DESCRIBED IN PLANTING NOTES. MULCH VOLCANOES ARE NOT PERMITTED 6" SOIL MOUND FOR -FOR WATER RETENTION REMOVE ALL PLASTIC -MATERIAL, BURLAP SYNTHETIC BURLAP, STRING OR CONTAINERS FROM ROOTBALL TO VARY AT THE TIME OF PLANTING BACKFILL AUGMENTED WITH -TOPSOIL PLANTING AREA SHALL ----STAKES TO EXTEND 18" BE 12" WIDER THAN BELOW TREE PIT IN ROOTBALL RADIUS UNDISTURBED GROUND

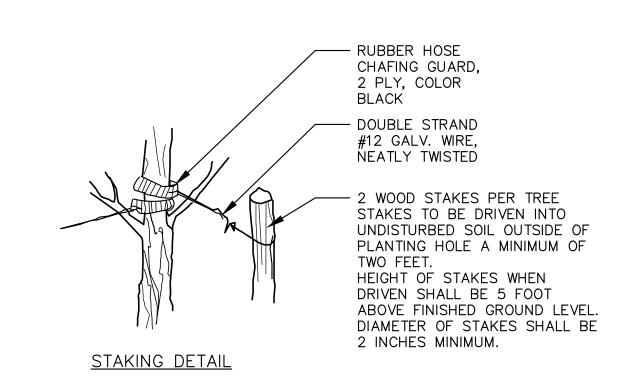
DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE

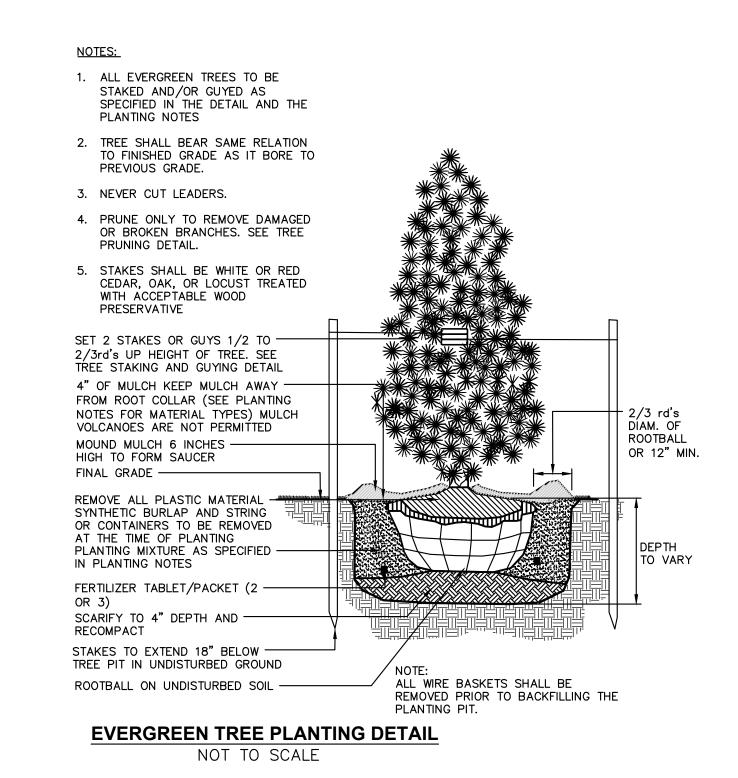


NOTES:

STAKING PLAN SCHEMATIC



TREE STAKING DETAIL NOT TO SCALE



2 12/18/202 REVISED PER BOROUGH OF SAYREVILLE COMMENTS REVISED FOR COMPLETENESS KN LBB Date Revision Revised By Checked B SCALE IN FEET



LANDSCAPING AND LIGHTING NOTES AND DETAILS Corporate Office: 1800 Rt 34, Suite 101 Wall, New Jersey 07719 732.312.9800

FPAengineers.com

FOR **BULK YARD 35** BLOCK 428, LOTS 1,2, & 2.01

BOROUGH OF SAYREVILLE MIDDLESEX COUNTY, NEW JERSEY

CHECKED BY: FIELD BOOK

LBB

18937.001

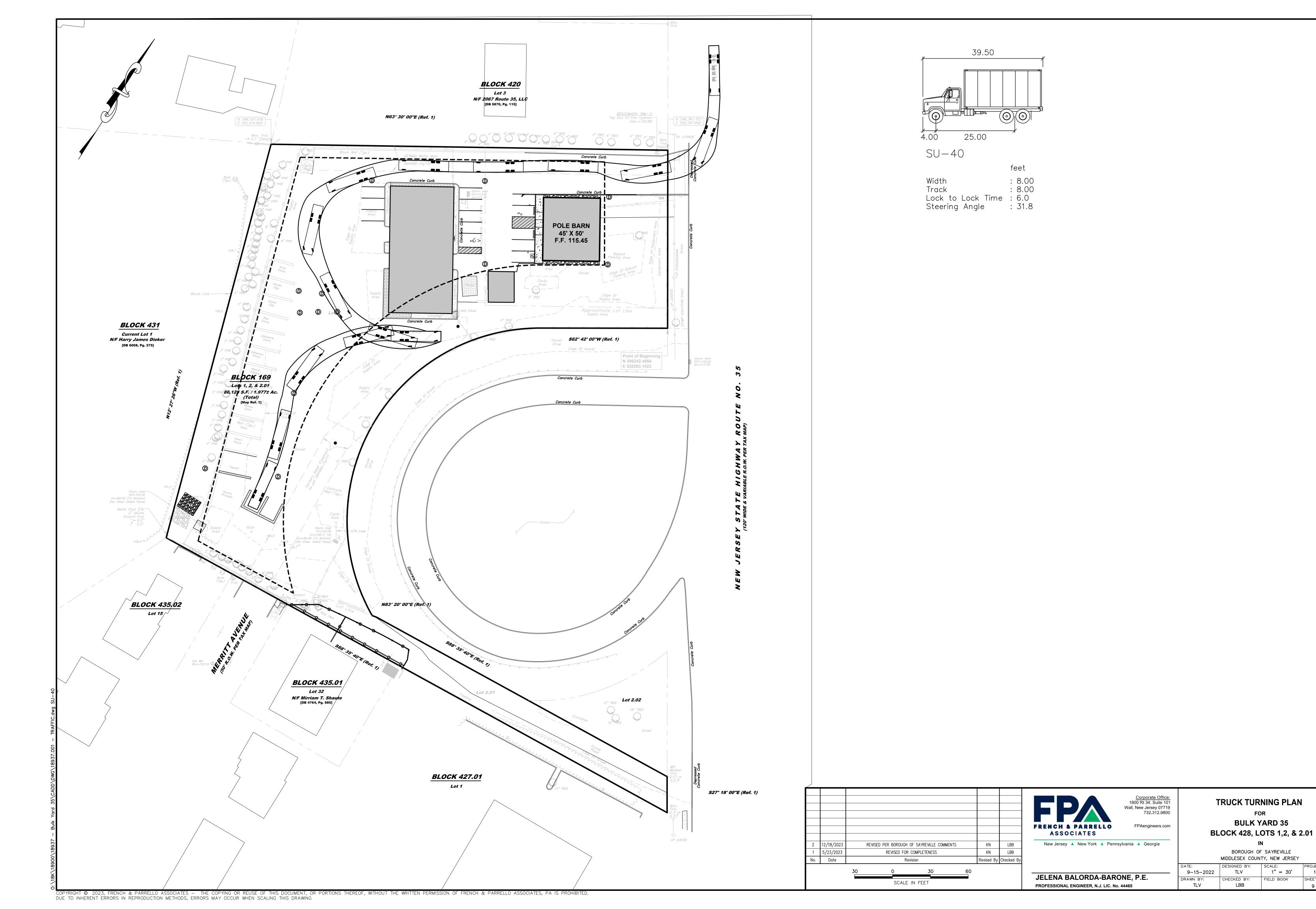
MICHAEL J. PIGA, L.L.A. LICENSED LANDSCAPE ARCHITECT, N.J. LIC. No. AS000909

New Jersey ▲ New York ▲ Pennsylvania ▲ Georgia

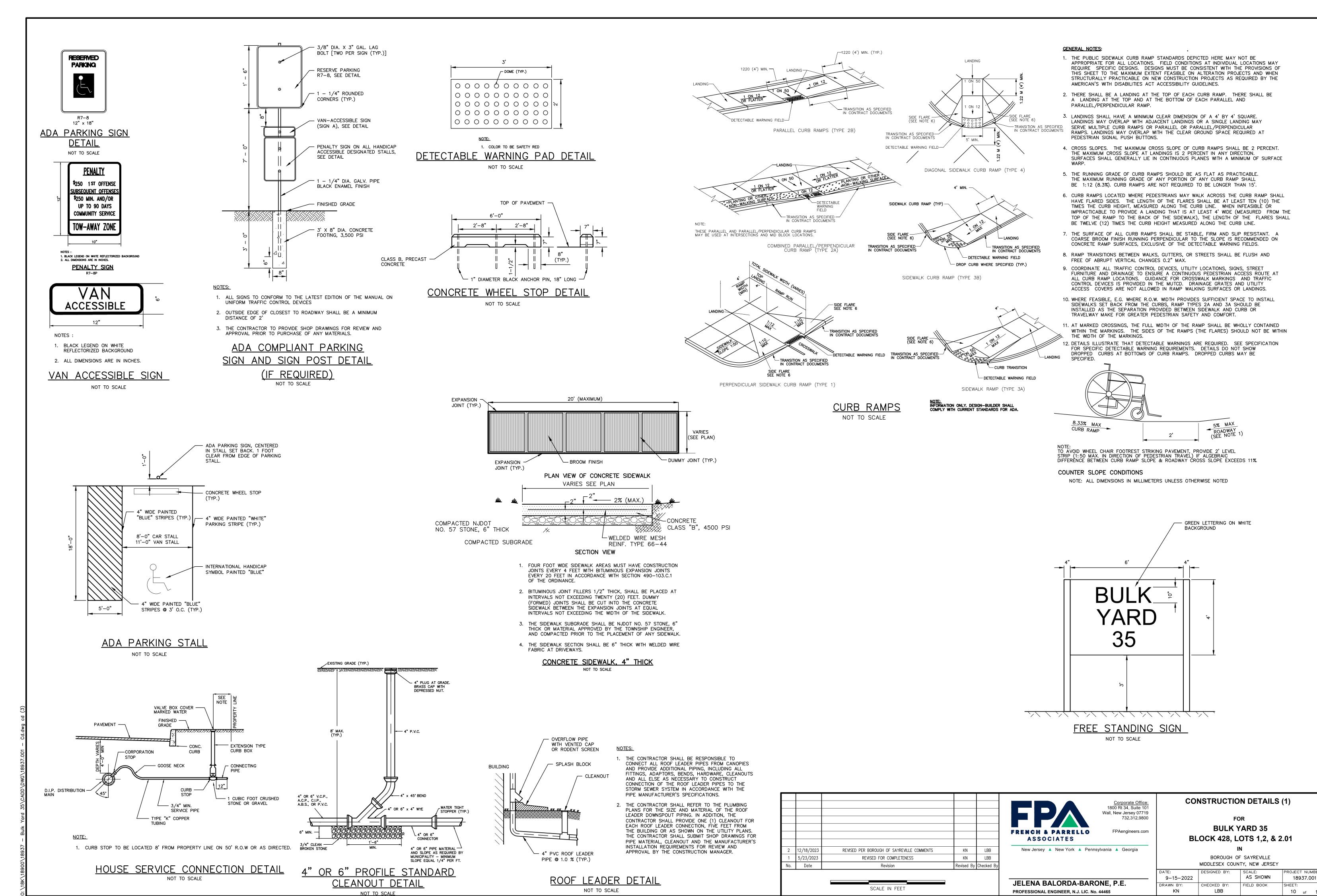
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9-15-2022



18937.001



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