# 83 MYRTLE STREET SUPPORTIVE HOUSING

BLOCK 573, LOTS 9, 10 & 12.02 CRANFORD TOWNSHIP, UNION COUNTY, NEW JERSEY

# PRELIMINARY AND FINAL SITE PLANS



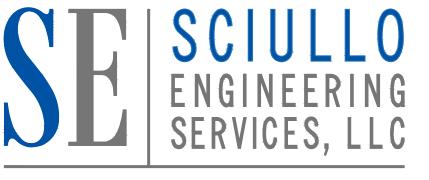
APPLICANT:

SCALE: 1" = 500'



92 BROADWAY, SUITE 101 DENVILLE, NEW JERSEY 07834

PREPARED BY:



137 SOUTH NEW YORK AVENUE, SUITE 2
ATLANTIC CITY, NEW JERSEY 08401
PHONE: (609) 300-5171

OWNE

CRANFORD TOWNSHIP

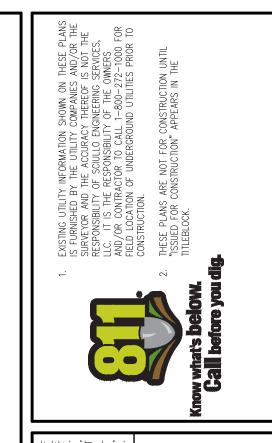
8 SPRINGFIELD AVENUE
CRANFORD, NEW JERSEY 0

# APPLICANT

AVIDD COMMUNITY SERVICE
92 BROADWAY, SUITE 10

# APPLICANT'S INTENT

LOTS FOR CONSTRUCTION OF COMMUNITY RESOURCES FOR THE DISABLED
ONE LOT TO BE LEFT VACANT AND UNDER OWNERSHIP OF THE TOWNSHI



THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE OF OTHER PROJECT OR ON ANY OTHER PROJECT OR OF A STRENGEN OF THE PROJECT OR ON ANY OTHER PROJECT ATTEN VERFICATION OR AND STRUCE STRYICES. LLC AND SHALD HARMLESS SCIULLO ENGINEERING SERVICES, LLC AND SHALD HARMLESS SCIULLO ENGINEERING SERVICES, LLC FROM ALL CLAMA AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM ENGINEER, NEW JERSEY LICENSE NO. 24GE04586000 PLANNER, NEW JERSEY LICENSE NO. 33L100628400

ENGINEERING

SERVICES, LLC

V YORK AVENUE, SUITE 2

CITY, NEW JERSEY 08401

IE: (609) 300-5171

SERV 137 S. NEW YORK AVEN ATLANTIC CITY, NEW JE PHONE: (609) 300 www.sciulloengineeri

BLOCK 573, LOTS 9, 10 & 12.02

NFORD TOWNSHIP, UNION COUNTY, NEW JERSEY

COVER SHEET

756 HADDON AVENUE

COLLINGSWOOD, NEW JERSEY 08108

7/2023 3 RESPONSE TO TOWNSHIP COMMENTS LAT DB 50/2022 2 TOWNSHIP COMPLETENESS REVIEW LAT JTS 3/2022 1 INITIAL SUBMISSION/REVISION BY APPR.

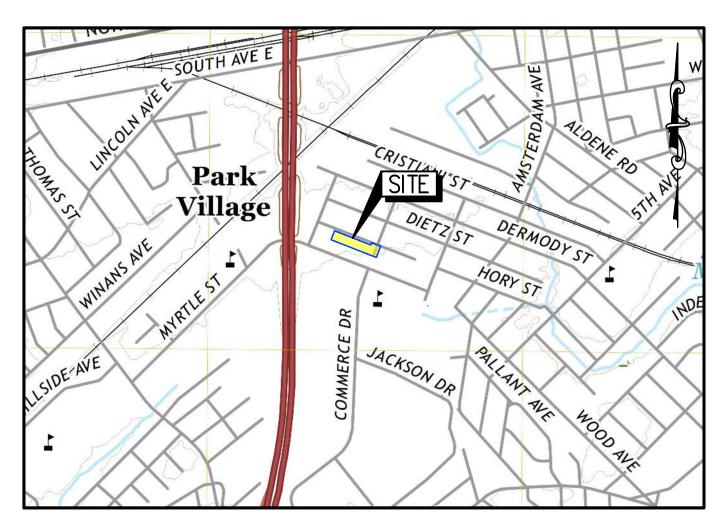
K&A 001.01

# CERTIFICATION OF APPROVALS

I HEREBY CERTIFY THAT THIS SITE PLAN HAS BEEN APPROVED BY RESOLUTION \_\_\_\_\_\_ OF CRANFORD TOWNSHIP PLANNING BOARD.

BOARD CHAIRPERSON	DATE
BOARD SECRETARY	DATE
TOWNSHIP ENGINEER	

SHEET INDEX				
SHEET NO.	DWG. NO.	SHEET TITLE		
1 OF 10	C0001	COVER SHEET		
2 OF 10	C0002	INFORMATION SHEET		
3 OF 10	C0101	SITE PLAN		
4 OF 10	C0301	GRADING PLAN		
5 OF 10	C0401	UTILITY PLAN		
6 OF 10	C0501	LANDSCAPE PLAN		
7 OF 10	C0701	LIGHTING PLAN		
8 OF 10	C1101	DETAIL SHEET		
9 OF 10	C1201	SECS PLAN		
10 OF 10	C1301	SECS NOTES AND DETAILS		



# U.S.G.S. ROSELLE QUAD SHEET LOCATION MAP

SCALE: 1" = 1,000'

# PROJECT NOTES

# A. GENERAL SITE NOTES

- 1. TRACT FOR DEVELOPMENT CONSISTS OF BLOCK 573, LOTS 9, 10 & 12.01, SHOWN ON SHEET 141, OF THE
- OFFICIAL TAX MAP OF CRANFORD TOWNSHIP. 2. TRACT FOR DEVELOPMENT IS ZONED R3 (RESIDENTIAL) AS INDICATED ON THE OFFICIAL ZONING MAP OF CRANFORD TOWNSHIP.
- 3. TOTAL AREA OF TRACT =  $1.20\pm$  ACRES OF LAND. 4. GRADING AROUND BUILDING AND FINISHED FLOOR ELEVATIONS ARE SUBJECT TO CHANGE UPON REVIEW OF
- CONSTRUCTION PLANS OF PROPOSED BUILDINGS UNITS. 5. ALL BARRIER FREE DESIGN AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST A.D.A. AND
- 6. ANY VARIATIONS FROM THE PLANS MUST BE AUTHORIZED BY THE DESIGN ENGINEER AND APPROVED BY THE TOWNSHIP ENGINEER
- 7. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL EACH PLAN HAS BEEN
- REVISED TO INDICATE "ISSUED FOR CONSTRUCTION". 8. CONSTRUCTION DETAILS/SHOP DRAWINGS UTILIZED BY THE CONTRACTOR SHALL BE REVIEWED AND APPROVED BY THE TOWNSHIP ENGINEER.
- 9. REFER TO COMPLETE SET OF PLANS FOR ADDITIONAL INFORMATION. 10. THIS SET OF DRAWINGS AND ALL INFORMATION CONTAINED HEREIN IS AUTHORIZED FOR THE USE ONLY BY THE PARTY FOR WHOM THE WORK IS CONTRACTED OR WHOM IT IS CERTIFIED. THIS SET OF DRAWINGS MAY

NOT BE COPIED, REUSED, DISCLOSED, DISTRIBUTED, OR RELIED UPON FOR ANY OTHER PURPOSE WITHOUT

11. ANY DEMOLITION MATERIAL SHALL BE PROPERLY DISPOSED OF AND NO ON-SITE BURIAL IS PERMITTED. 12. THE DEVELOPER AND/OR CONTRACTOR SHALL OBTAIN A STREET OPENING/ACCESS PERMIT FROM CRANFORD TOWNSHIP PRIOR TO THE START OF CONSTRUCTION.

### B. <u>SURVEY NOTES</u>

- 1. BEARINGS REFER TO THE NEW JERSEY PLANE COORDINATE SYSTEM NAD83. VERTICAL DATUM REFERS TO
- 2. BOUNDARY, TOPOGRAPHICAL, AND EXISTING CONDITIONS INFORMATION TAKEN FROM PLAN ENTITLED "BOUNDARY AND TOPOGRAPHIC SURVEY, TAX LOTS 9 & 10, BLOCK 573, CRANFORD TOWNSHIP, UNION COUNTY, NJ." BY VARGO ASSOCIATES SURVEYING AND MAPPING, PROJECT NUMBER 20006, SHEET 1 OF 1, DATED 1/24/2020, AND UNREVISED.

# C. <u>CONTRACTOR/OWNER RESPONSIBILITY NOTES</u>

THE WRITTEN CONSENT OF SCIULLO ENGINEERING SERVICES, LLC.

- 1. THE CONTRACTOR/OWNER SHALL DESIGNATE A PERSON THAT IS KNOWLEDGEABLE OF CONSTRUCTION SAFETY STANDARDS AND IS EXPECTED TO BE AT THE CONSTRUCTION SITE ON A REGULAR BASIS. THIS PERSON SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION, DISCHARGE, AND MONITORING OF SAFETY STANDARDS AND PRACTICES AT THE SITE. THE CONTRACTOR/OWNER SHALL PROVIDE DESIGN ENGINEER WITH NAME, ADDRESS AND TELEPHONE NUMBER OF DESIGNEE. IN LIEU OF THIS INFORMATION, THE REPRESENTATIVE PERSON FROM THE CONTRACTOR'S ORGANIZATION WHO SIGNED THE CONTRACT SHALL HEREBY BE RESPONSIBLE FOR THIS FUNCTION.
- 2. CONTRACTOR SHALL SCHEDULE ALL CONSTRUCTION TO BE IN ACCORDANCE WITH CURRENT O.S.H.A. STANDARDS.
- 3. SITE CONTRACTOR IS TO VERIFY WITH DESIGN ENGINEER ON WHAT PERMITS AND APPROVALS ARE PENDING OR HAVE BEEN APPROVED. 4. SITE CONTRACTOR IS TO VERIFY AND MATCH HORIZONTAL CONTROL AND VERTICAL ELEVATIONS.
- 5. CONTRACTOR SHALL PERFORM ALL WORK IN A WORKMANLIKE MANNER IN ACCORDANCE WITH ALL APPLICABLE CODES, ORDINANCES, AND MANUFACTURERS' RECOMMENDATIONS AND STANDARDS.
- 6. ALL DIMENSIONS AND EXISTING CONDITIONS MUST BE VERIFIED BY CONTRACTOR AND OWNER MUST BE NOTIFIED OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. 7. UNDERGROUND UTILITIES LOCATIONS ARE APPROXIMATE AND ARE TO BE VERIFIED IN THE FIELD BY THE CONTRACTOR AT THE TIME OF CONSTRUCTION.
- 8. THE CONTRACTOR SHALL VERIFY IN FIELD ALL CONDITIONS AS SHOWN ON THE PLANS AND SHALL BE RESPONSIBLE FOR FIELD MEASUREMENTS FOR ALL NEW CONSTRUCTION. REFER TO ARCHITECTURAL DRAWINGS FOR ANY INFORMATION NOT SHOWN HERE.
- 9. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL SHORING, UNDERPINNING AND STRUCTURAL STABILITY DURING CONSTRUCTION.
- 10. THE CONTRACTOR SHALL CALL 1-800-272-1000 FOR FIELD LOCATIONS OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.
- 11. IN THE EVENT CONDITIONS AT THE SITE ARE NOTICEABLY DIFFERENT (AT THE TIME OF CONSTRUCTION) FROM THE DOCUMENTS PROVIDED, THE CONTRACTOR AND/OR OWNER SHALL NOTIFY THE DESIGN ENGINEER. 12. THE PROPOSED SITE GRADING DEPICTED IN THESE PLANS IS INTENDED TO PROVIDE A GENERAL GUIDE FOR GRADING. THE GENERAL CONTRACTOR, CONSTRUCTION MANAGER OR OWNER SHALL INSTRUCT THE CONCRETE

CONTRACTOR TO TAKE CARE IN SETTING FORMS FOR PEDESTRIAN AREAS TO ENSURE THEY CONFORM TO THE

- NEW JERSEY BARRIER FREE SUBCODE. 13. THE CONTRACTOR SHALL COMPLY WITH ALL CONDITIONS OF APPROVAL IMPOSED BY ALL REGULATORY AGENCIES HAVING JURISDICTION AS IT RELATES TO THE CONSTRUCTION AND MAINTENANCE OF THE
- IMPROVEMENTS. 14. CONTRACTOR DAMAGE TO ANY EXISTING FEATURE SUCH AS, BUT NOT LIMITED TO, CONCRETE CURBS, CONCRETE WALKS, PAVING, LIGHTS, PLANTERS, SIGNS, UTILITIES OR BUILDINGS NOT SCHEDULED FOR REMOVAL SHALL BE RESTORED TO ORIGINAL CONDITION BY THE CONTRACTOR.
- 15. THE OWNER, OR HIS REPRESENTATIVE, IS TO DESIGNATE AN INDIVIDUAL RESPONSIBLE FOR CONSTRUCTION SITE SAFETY DURING THE COURSE OF SITE IMPROVEMENTS PURSUANT TO N.J.A.C. 5:23-2.21 (E) OF THE N.J. UNIFORM CONSTRUCTION CODE AND CFR 1926.32 (F) (OSHA COMPETENT PERSON).
- 16. THE CONTRACTOR SHALL PROVIDE AN AS-BUILT GRADING PLAN SHOWING FOUNDATION GRADES, ELEVATIONS AT FIFTY (50) FOOT INTERVALS ALONG PROPERTY LINES, HIGH POINT ELEVATIONS AND CENTERLINE OF SWALE ELEVATIONS AFTER COMPLETION OF CONSTRUCTION. SAID PLAN SHALL BE SUITABLE FOR SUBMISSION TO THE TOWNSHI PURSUANT TO ORDINANCE SECTION 506.C.1 IN ORDER TO OBTAIN A CERTIFICATE OF OCCUPANCY FROM THE TOWNSHIP.
- 17. PRIOR TO COMMENCEMENT OF ANY SITE WORK, THE CONTRACTOR SHALL COORDINATE WITH THE OWNER AND DESIGN ENGINEER TO SCHEDULE AND ATTEND A PRE-CONSTRUCTION MEETING WITH THE TOWNSHIP ENGINEER'S OFFICE.

# D. ROADWAY & SIGNAGE NOTES

- 1. ALL CONSTRUCTION UNDER THIS CONTRACT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION AS AMENDED.
- 2. ALL ROADWAY DESIGN AND CONSTRUCTION FOR MUNICIPAL ROADS SHALL BE IN ACCORDANCE WITH
- STANDARDS SET FORTH BY CRANFORD TOWNSHIP. 3. ALL TRAFFIC SIGN PLACEMENT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL ON



N.R.C.S. U.S. DEPARTMENT OF AGRICULTURE SOILS MAP

UNIFORM TRAFFIC CONTROL DEVICES, U.S. DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION AS AMENDED. ALL SIGNS SHALL BE MOUNTED ON BREAKAWAY SIGN POSTS AS DETAILED AND APPROVED BY NJDOT.

ANY ROAD CONSTRUCTION. 5. MATERIAL PLACED AS FILL SHALL BE FREE OF DETRIMENTAL AMOUNTS OF SOD, ROOTS, STONE (>6" DIAMETER), FROZEN SOIL AND OTHER OBJECTIONABLE MATERIALS.

4. THE APPLICANT SHALL NOTIFY THE TOWNSHIP ENGINEER A MINIMUM OF 24 HOURS PRIOR TO THE START OF

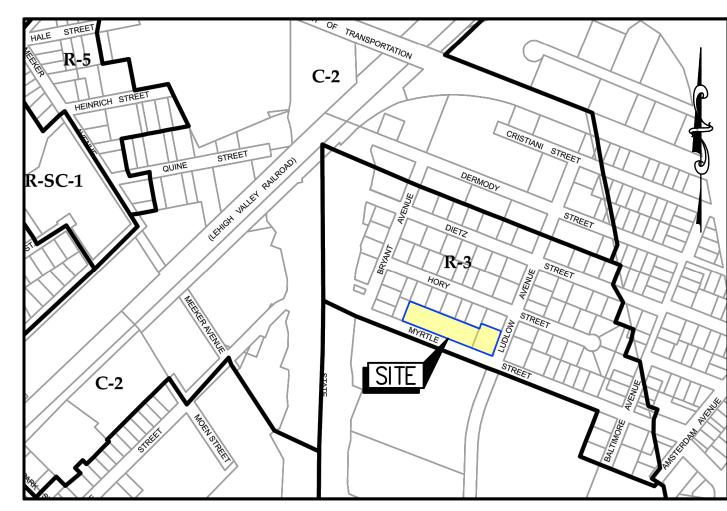
# E. <u>UTILITY NOTES</u>

SCALE: 1" = 500'

- PROPOSED UTILITIES SHALL BE INSTALLED UNDERGROUND WITHIN THE STREET RIGHT-OF-WAY. STORMWATER MANAGEMENT SHALL BE IN ACCORDANCE WITH STANDARDS SET FORTH BY CRANFORD TOWNSHIP, NEW JERSEY RESIDENTIAL SITE IMPROVEMENT STANDARDS AND THE STATE OF NEW JERSEY
- STORMWATER MANAGEMENT RULES. 3. DRAINAGE INLET STRUCTURES AND ENDWALLS SHALL BE CONSTRUCTED IN ACCORDANCE WITH NJDOT STANDARD DETAILS.
- 4. ALL INLETS TO HAVE BICYCLE SAFE GRATES.
- 5. T.C. DESIGNATIONS INDICATE TOP OF CURB ELEVATIONS, B.C. INDICATES BOTTOM OF CURB ELEVATIONS AND GUT. INDICATES GUTTER ELEVATIONS.
- 6. GAS, ELECTRIC AND TELEPHONE SERVICE SHALL BE INSTALLED UNDERGROUND THROUGHOUT THE DEVELOPMENT IN ACCORDANCE WITH REGULATIONS OF THE LOCAL UTILITY COMPANIES AND CRANFORD
- 7. WHERE IT IS NECESSARY TO CONNECT TO EXISTING UTILITIES WITHIN EXISTING ROADWAYS, THE CONTRACTOR SHALL PROVIDE ALL NECESSARY SAW CUTTING. TRENCHING, BACKFILL, COMPACTION AND PAVING SHALL BE IN ACCORDANCE WITH CRANFORD TOWNSHIP AND CAMDEN COUNTY SPECIFICATIONS, AS APPLICABLE.
- 8. BEDDING AND BACKFILL FOR THE REINFORCED CONCRETE PIPE SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. 9. PIPE LENGTHS AND GRADIENTS ARE CALCULATED TO THE CENTERLINE OF SANITARY AND STORM SEWER

STRUCTURES. ACTUAL PIPE LENGTH MAY BE LESS THAN CALCULATED LENGTH, AND SHOULD BE COMPUTED

BY CONTRACTOR PRIOR TO CONSTRUCTION. 10. EXISTING UTILITY INFORMATION SHOWN ON THIS PLAN IS FURNISHED BY THE UTILITY COMPANIES OR SURVEY PLAN BY SURVEYOR AND THE ACCURACY THEREOF IS NOT THE RESPONSIBILITY OF SCIULLO ENGINEERING SERVICES, LLC IT IS THE RESPONSIBILITY OF OWNER AND/OR CONTRACTOR TO CALL 1-800-272-1000 FOR FIELD LOCATION OF UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION.



OFFICIAL ZONING MAP OF CRANFORD TOWNSHIP

# SOILS DATA

UR URBAN LAND

BovB BOONTON-URBAN LAND-HALEDON COMPLEX 0-8% SLOPES HatB HALEDON-URBAN LAND-HASBROUCK COMPLEX 0-8% SLOPES

FORTH BY THE SOMERSET UNION SOIL CONSERVATION DISTRICT SOIL.

SOILS DATA OBTAINED FROM NATURAL RESOURCES CONSERVATION SERVICES (NRCS) U.S. DEPARTMENT OF ALL SOIL EROSION AND SEDIMENT CONTROL IMPLEMENTATION SHALL BE IN ACCORDANCE WITH STANDARDS SET

# UTILITIES

#### COMCAST C/O CORPORATION TRUST CO 820 BEAR TAVERN ROAD WEST TRENTON, NJ 08638

VERIZON EXECUTIVE OFFICES 1 VERIZON WAY ATT: CORPORATE SECRETARY BASKING RIDGE, NJ 07920

MANAGER- CORPORATE PROPERTIES 80 PARK PLAZA, T6B NEWARK, NJ 07101

NEW JERSEY AMERICAN WATER, INC. ATT: GIS SUPERVISOR 1025 LAUREL OAK ROAD VOORHEES, NJ 08043

ELIZABETHTOWN GAS COMPANY ENGINEERING DEPARTMENT 520 GREEN LANE UNION, NJ 07083

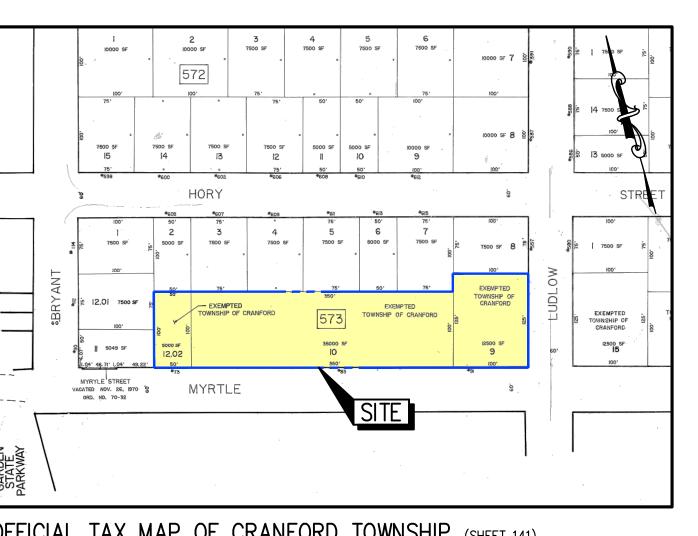
RAHWAY VALLEY SEWAGE AUTHORITY ATT: CHIEF ENGINEER 1050 EAST HAZELWOOD AVENUE RAHWAY, NJ 07065

# **ZONING SCHEDULE**

ORD. SECTION	R-3 RESIDENTIAL ZONING DISTRICT	PERMITTED OR REQUIRED	PROPOSED LOT 12.02	CONFORMITY STATUS	PROPOSED LOT 10	CONFORMITY STATUS	PROPOSED LOT 9	CONFORMITY STATUS
255-36A(1)	USE	COMMUNITY RESIDENCES FOR DEVELOPMENTALLY DISABLED FOR 1-6 RESIDENTS, EXCLUDING STAFF	VACANT	С	COMMUNITY RESIDENCES FOR DEVELOPMENTALLY DISABLED, 4 RESIDENTS	С	COMMUNITY RESIDENCES FOR DEVELOPMENTALLY DISABLED, 4 RESIDENTS	С
	MINIMUM LOT AREA	8,000 SF	10,000 SF	С	16,033 SF	С	26,467 SF	С
	MINIMUM LOT WIDTH	65'	100'	С	160.33'	С	239.67'	С
	MINIMUM LOT WIDTH (CORNER)	75'	N/A	N/A	N/A	N/A	239.67'	С
	MINIMUM FRONT YARD	25'/20' (SEE NOTE 1)	N/A	N/A	25 'TO HOME 17'TO PORCH	C <b>DNC</b>	25' TO HOME 17' TO PORCH	C DNC
	MINIMUM REAR YARD	7.5' (SEE NOTE 2)	N/A	N/A	36'	С	36'	С
<del>-</del>	MINIMUM SIDE YARD (ONE)	7'	N/A	С	13'	С	70'	С
MENT	MINIMUM SIDE YARD (BOTH)	19.5'	N/A	С	81'	С	N/A (CORNER)	С
255—34 AND 255 ATTACHMENT 1	MAXIMUM IMPERVIOUS COVERAGE	38%	0%	С	7,279 SF 45.4%	DNC (SEE NOTE 3)	7,800 SF 29.4%	С
ND 25	MAXIMUM BUILDING COVERAGE	28%	0%	С	16.7%	С	10.1%	С
-34 A	MAXIMUM BUILDING HEIGHT	2 1/2 STORIES/32'	N/A	С	1 STORY/32'	С	1 STORY/32'	С
255-	MAXIMUM ACCESS BUILDING	1 STORY/16'	N/A	N/A	NA	N/A	N/A	N/A
	MAXIMUM LOT DEPTH DISTANCE FOR LOT AREA MEASUREMENT	125'	100'	С	100'	С	125'	С
	MINIMUM LOT DEPTH	100'	100'	С	100'	С	125'	С
	MINIMUM DISTANCE TO GSP OR RAILROAD	100'	213' TO GSP 700' TO RR	С	225' TO GSP 712' TO RAILROAD	С	440' TO GSP 920' TO RAILROAD	С
	MINIMUM DISTANCE FROM BUILDING TO 1 OR 2 FAMILY RESIDENCE ZONE	N/A	N/A	N/A	N/A	N/A	N/A	N/A
255-35D(4)	GENERATOR LOCATION	SIDE OR REAR YARD 5' SETBACK	N/A	N/A	SIDE YARD 6' SETBACK	C C	FRONT YARD 83'SETBACK	DNC C
255-44D(5)	1 PARKING SPACE IN GARAGE	REQUIRED FOR SINGLE FAMILY HOME	N/A	N/A	NOT PROPOSED	DNC	NOT PROPOSED	DNC

# **ZONING SCHEDULE NOTES:**

- 1. WHERE PREVAILING SETBACKS WITHIN 200' OF LOT ARE LESS THAN 20', A MINIMUM 20' FRONT YARD IS
- 2. MINIMUM REAR YARD IS 30% OF REQUIRED FRONT YARD FOR SETBACKS LESS THAN 100'.
- 3. TOTAL COMBINED COVERAGE BETWEEN LOTS 9 & 10 IS 14,610 SF OR 34.4%



# OFFICIAL TAX MAP OF CRANFORD TOWNSHIP (SHEET 141)

# CRANFORD TOWNSHIP CERTIFIED OWNER'S LIST WITHIN 200'

		QUALIFIER	PROPERTY LOCATION	OWNER
572	8		587 LUDLOW AVE	CERCIELLO, VINCENT J 587 LUDLOW AVENUE CRANFORD, NJ 07016
874	15		101 MYRTLE ST	TOWNSHIP OF CRANFORD 8 SPRINGFIELD AVENUE CRANFORD, NJ 07016
571	14		588 LUDLOW AVE	GAUB, KEITH AND NOEL, SPIRITO 588 LUDLOW AVENUE CRANFORD, NJ 07016
572	10		610 HORY ST	LAFERRARA, GINA M 610 HORY ST CRANFORD, NJ 07016
573	6		613 HORY ST	BURKHARDT, MARK & FAEDE, ALYSSA L 613 HORY ST CRANFORD, NJ 07016
635	2.02		90 MYRTLE ST	GEBS ASSOC, INC 125 MOEN AVE CRANFORD, NJ 07016
573	10		83 MYRTLE ST	TOWNSHIP OF CRANFORD 8 SPRINGFIELD AVE CRANFORD, NJ 07016
571	13		586 LUDLOW AVE	KASH, THOMAS GERARD & KRISTINA 586 LUDLOW AVE CRANFORD, NJ 07940
573	8		577 LUDLOW AVE	MANCHERY, VARGHESE & JESSY MOL 577 LUDLOW AVE
572	9		612 HORY ST	CRANFORD, NJ 07016  PRICE, JOHN K & DIANE PINTO O 612 HORY ST
573	7		615 HORY ST	CRANFORD, NJ 07016  RAMOS, DIEGO 615 HORY ST
573	5		611 HORY ST	CRANFORD, NJ 07016  ROSHMANINHO, MIGUEL & PINTO, SANDY 611 HORY ST
574	14		105 MYRTLE ST	CRANFORD, NJ 07016  TOWNSHIP OF CRANFORD 8 SPANFORDELL AVE
637	1		1-3 COMMERCE DRVE	CRANFORD, NJ 07016  BNE CRANFORD LLC 1000 AIRPORT RD STE 205
574	1		580 LUDLOW AVE	LAKEWOOD, NJ 08701 LAFERRARA, REGINA 580 LUDDOW AVE
574	2		701 HORY ST	CRANFORD, NJ 07016 CEUS, ODANIA 701 HORY ST
572	13		602 HORY ST	CRANFORD, NJ 07016  TORRES, ALINA 602 HORY ST
573	1		114 BRYANT AVE	CRANFORD, NJ 07016  AGUIRRE, AXIA 114 BRYANT AVE
573	9		91 MYRTLE ST	CRANFORD, NJ 07016  TOWNSHIP OF CRANFORD 8 SPRINGFIELD AVE
572	11		608 HORY ST	CRANFORD, NJ 07016  ROLDAN, RONALD & CLARITA 608 HORY ST
572	15		598 HORY ST	CRANFORD, NJ 07016 VOLPE, RYAN 598 HORY ST
572	12		606 HORY ST	CRANFORD, NJ 07016  SEXTON, KATHERINE 606 HORY ST
573	4		609 HORY ST	CRANFORD, NJ 07016 MANCHENO, VICTOR & JEANINE D 609 HORY ST
573	11		110 BRYANT AVE	CRANFORD, NJ 07016 LEE BANGCHEN/YONG:QUI ET AL 110 BRYANT AVE
573	3		607 HORY ST	CRANFORD, NJ 07016 MAYER, MARK & MARIE 607 HORY ST
573	12.02		73 MYRTLE ST	CRANFORD, NJ 07016 TOWNSHIP OF CRANFORD 8 SPRINGFIELD AVE
573	12.01		112 BRYANT AVE	CRANFORD, NJ 07016  ERDODY, JOSEPH 112 BRYANT AVE
573	2		605 HORY ST	CRANFORD, NJ 07016  EZEWEPUTA, GODWIN I 605 HORY ST
572	14		600 HORY ST	CRANFORD, NJ 07016  ONOFRI, LEWIS & ANITA 600 HORY ST
560	1		BRYANT AVE	CRANFORD, NJ 07016 TOWNSHIP OF CRANFORD
561	1.01		115 BRYANT AVE	8 SPRINFIELD AVE CRANFORD, NJ 07016 CURTIS, CHAZ & NATASHA
JU1			Sammi Att	115 BRYANT AVE CRANFORD, NJ 07016

P.1 CIULL W JERSEY  $\mathcal{O}_{\mathbb{R}^{2}}$ 

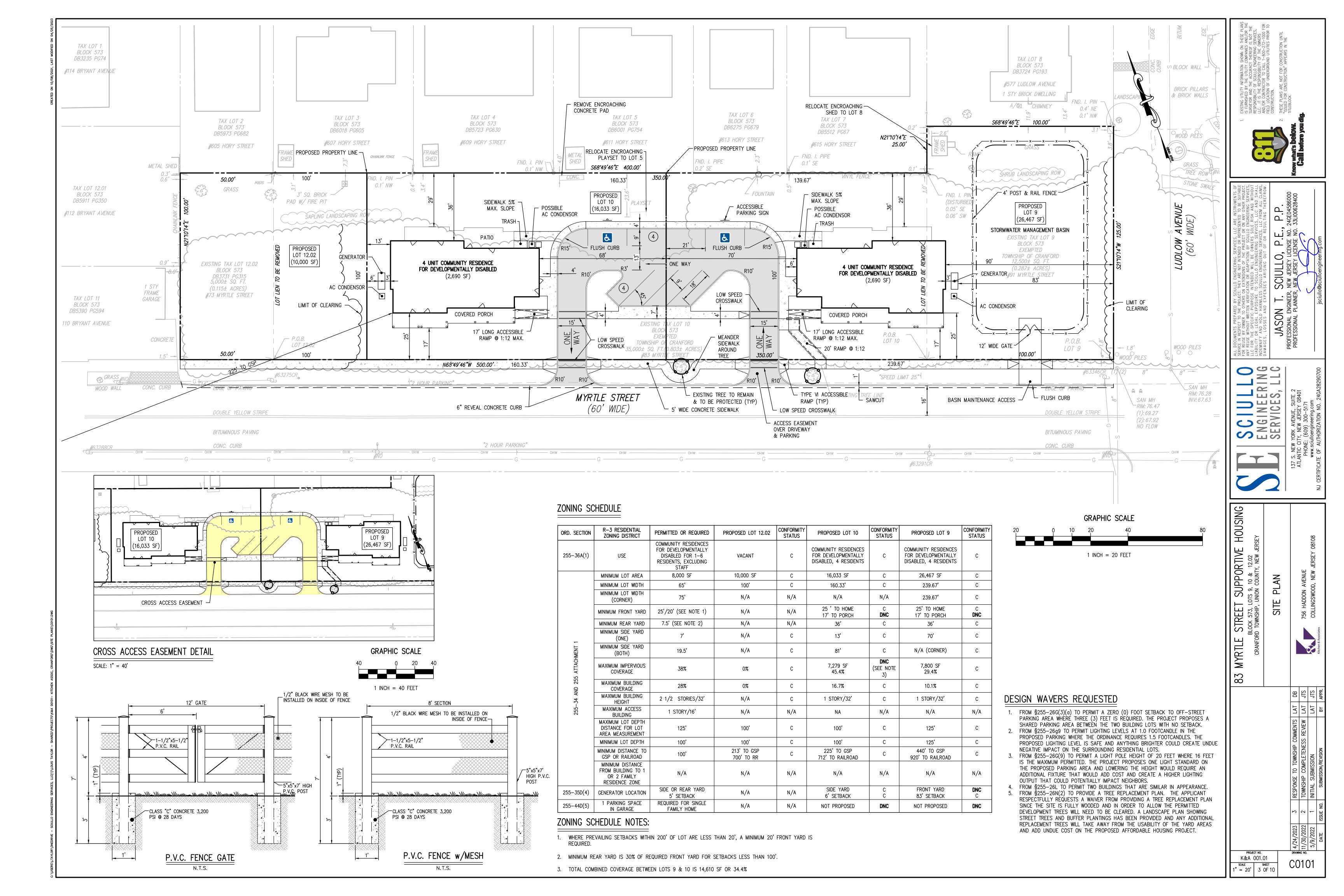
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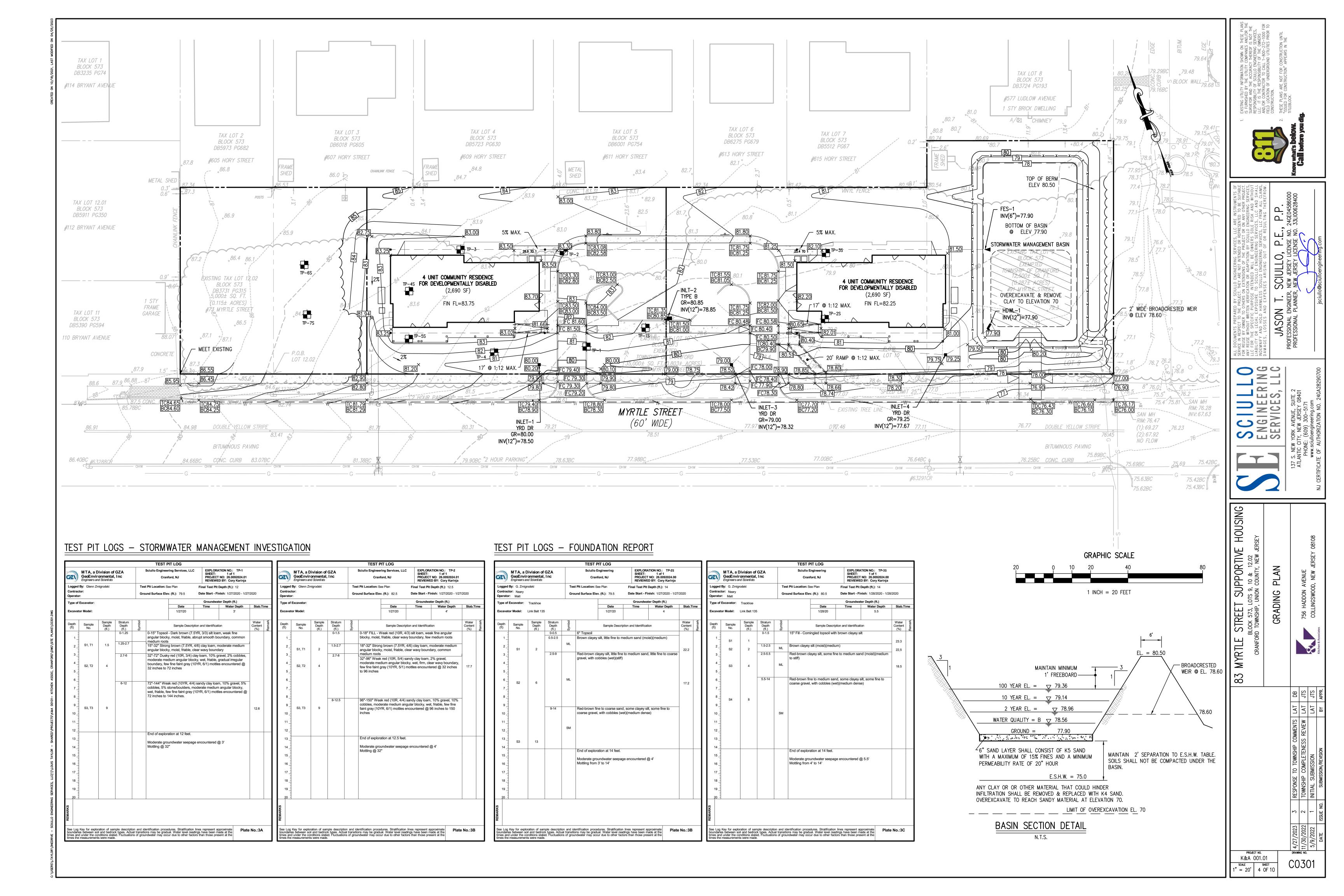
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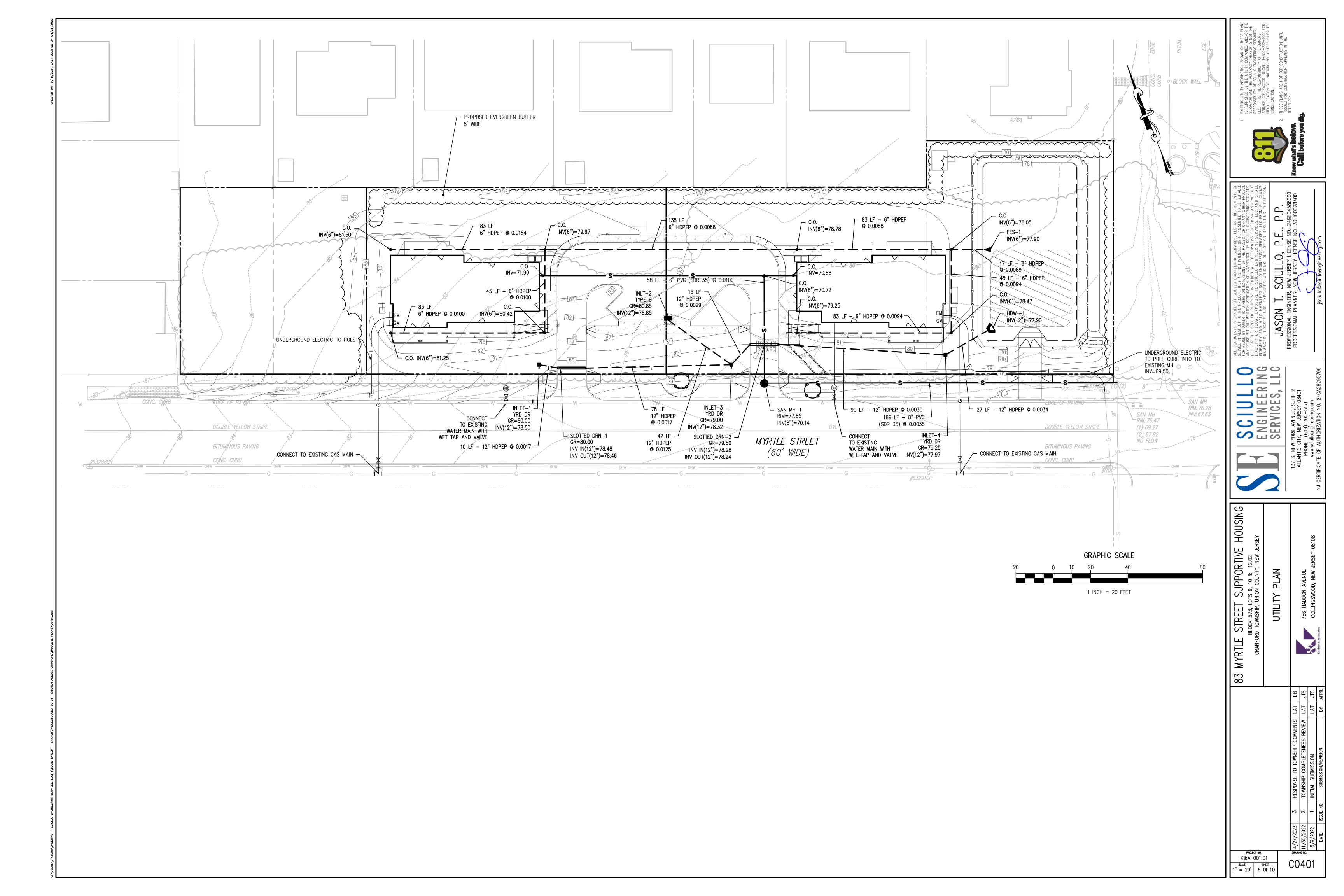
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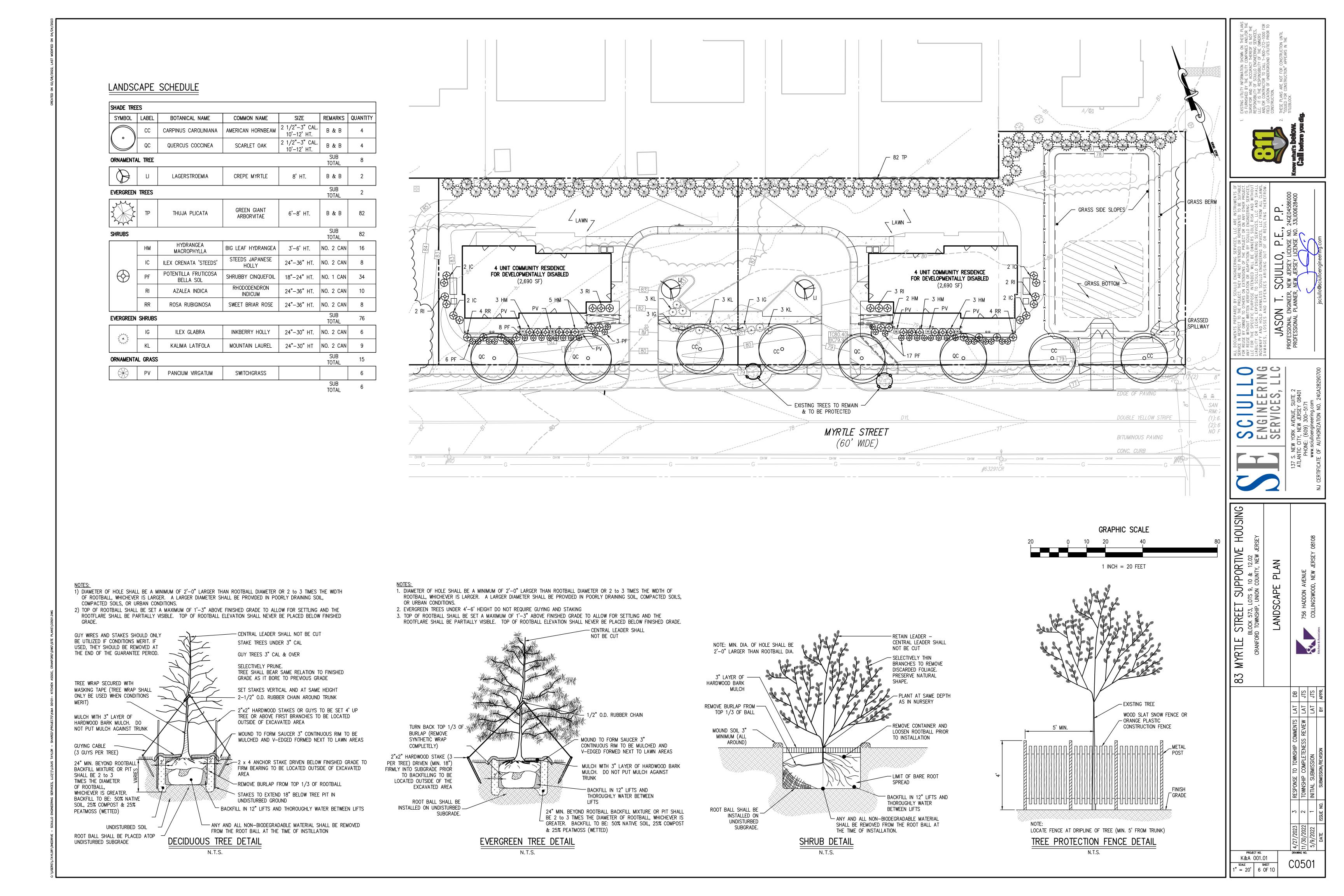
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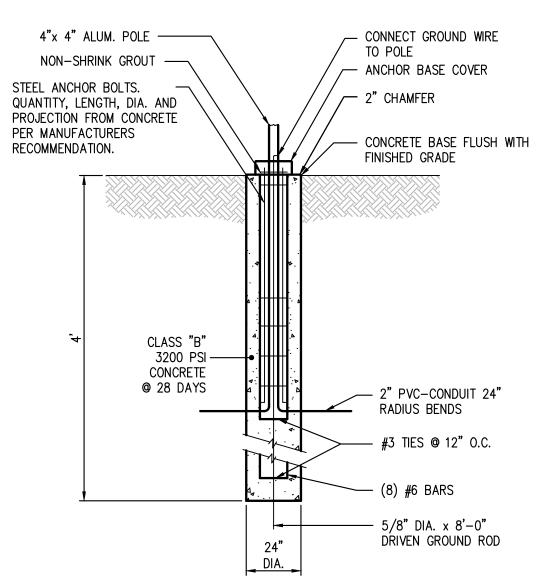




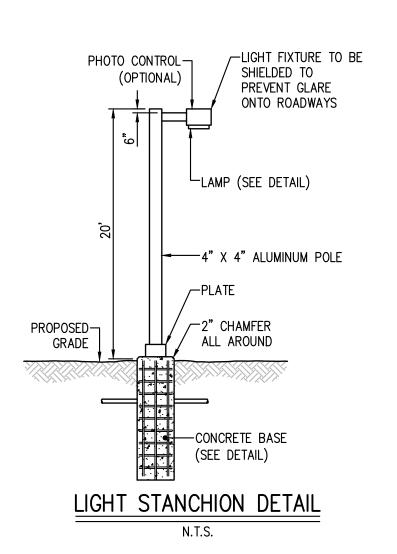
LIGHT A DETAIL

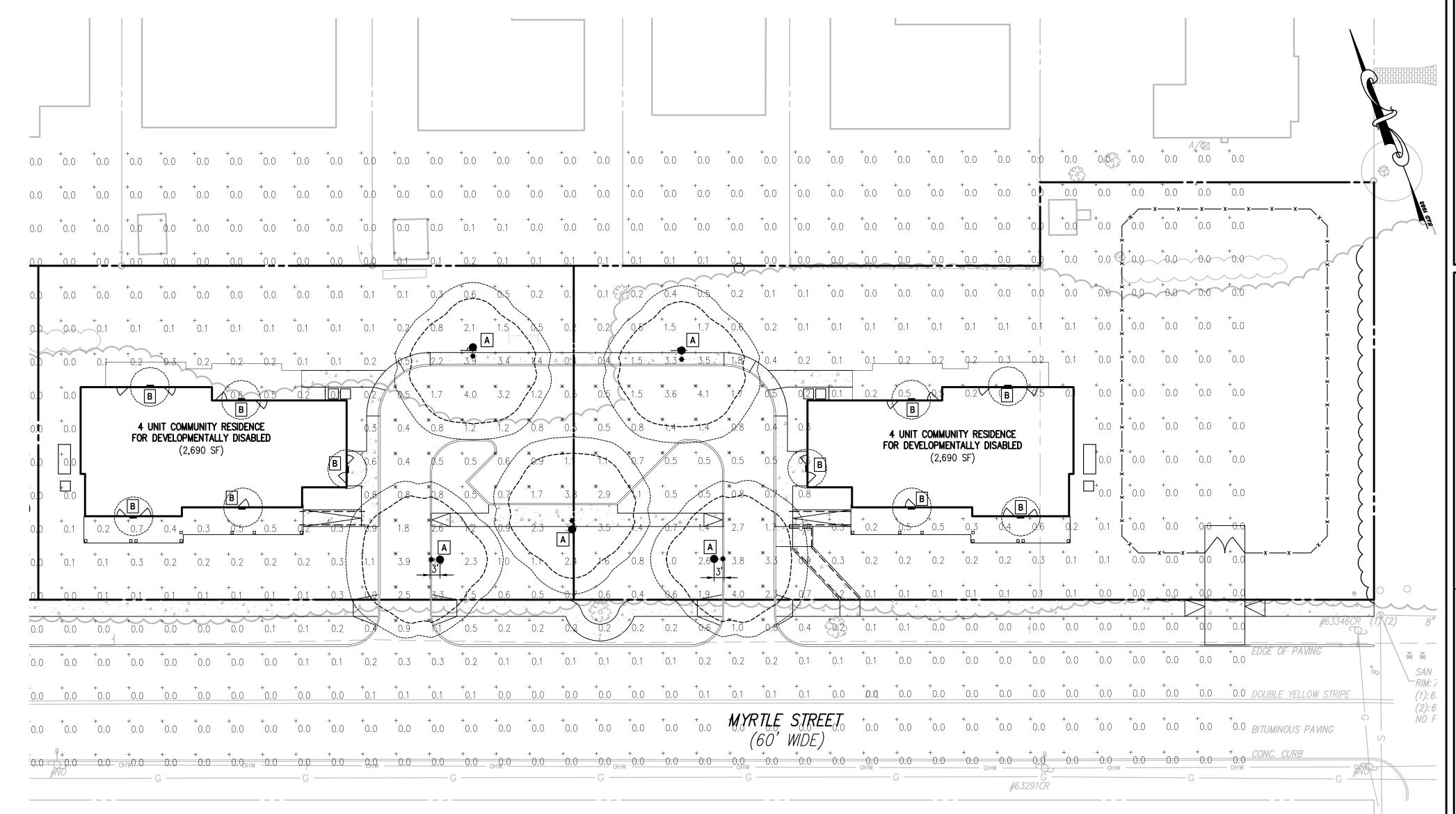


LIGHT B DETAIL



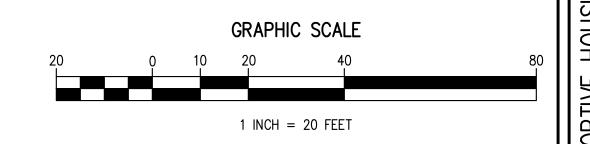
RAISED LIGHT POLE BASE DETAIL N.T.S.





# LIGHTING SCHEDULE

SYMBOL	LABEL	QUANTITY	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	NUMBER OF LAMPS
*	A	5	STERNBERG LIGHTING	SL660-12L27T4-MDL014-SV1	MEDIUM SIZE POST TOP MOUNT FIXTURE, T4 SOFT VUE 1 FLAT	1
	В	10	HUBBELL	P560110-020	WALL MOUNTED	1





S,E,E SCIU ENGINEE SERVICES

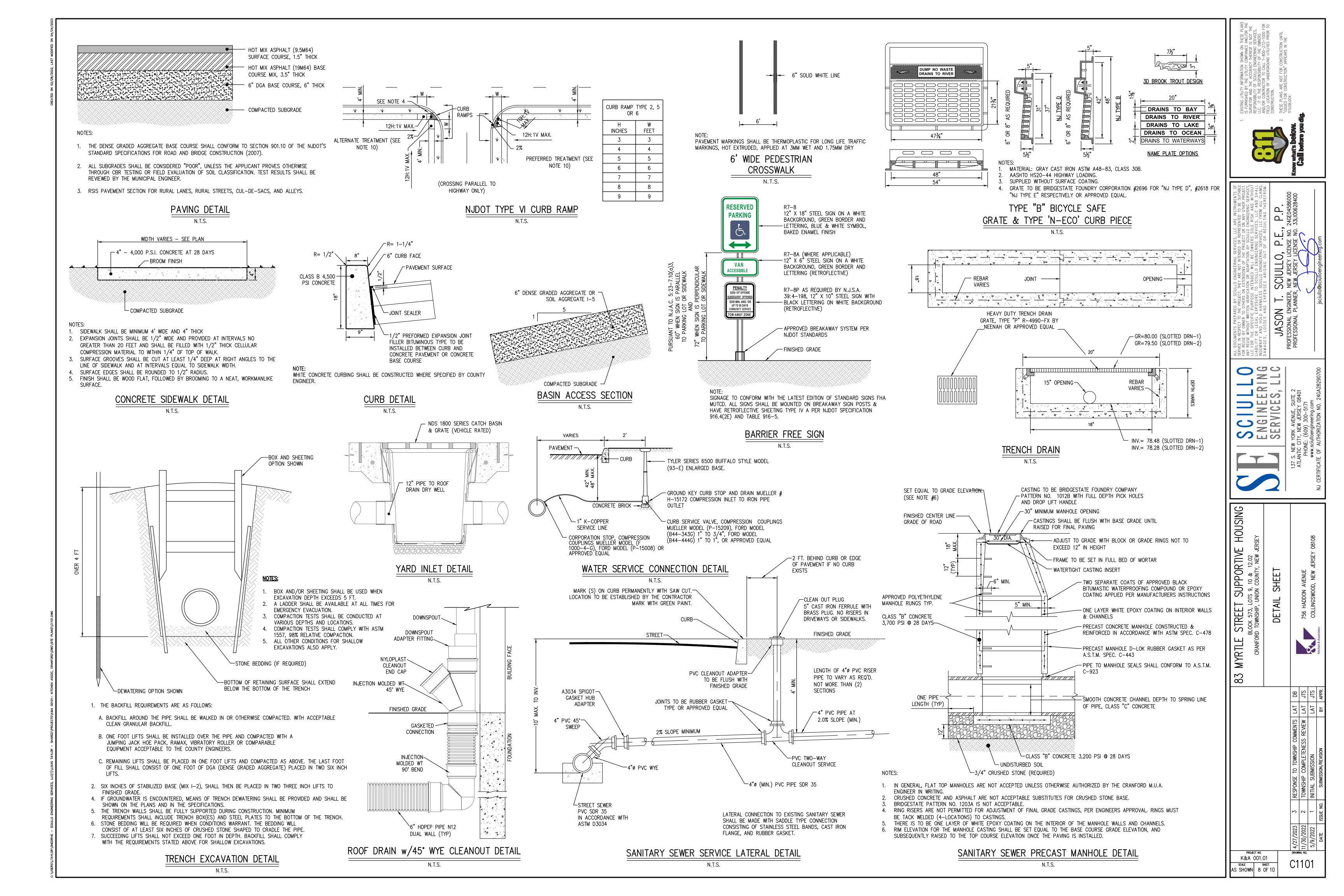
**LIGHTING** 

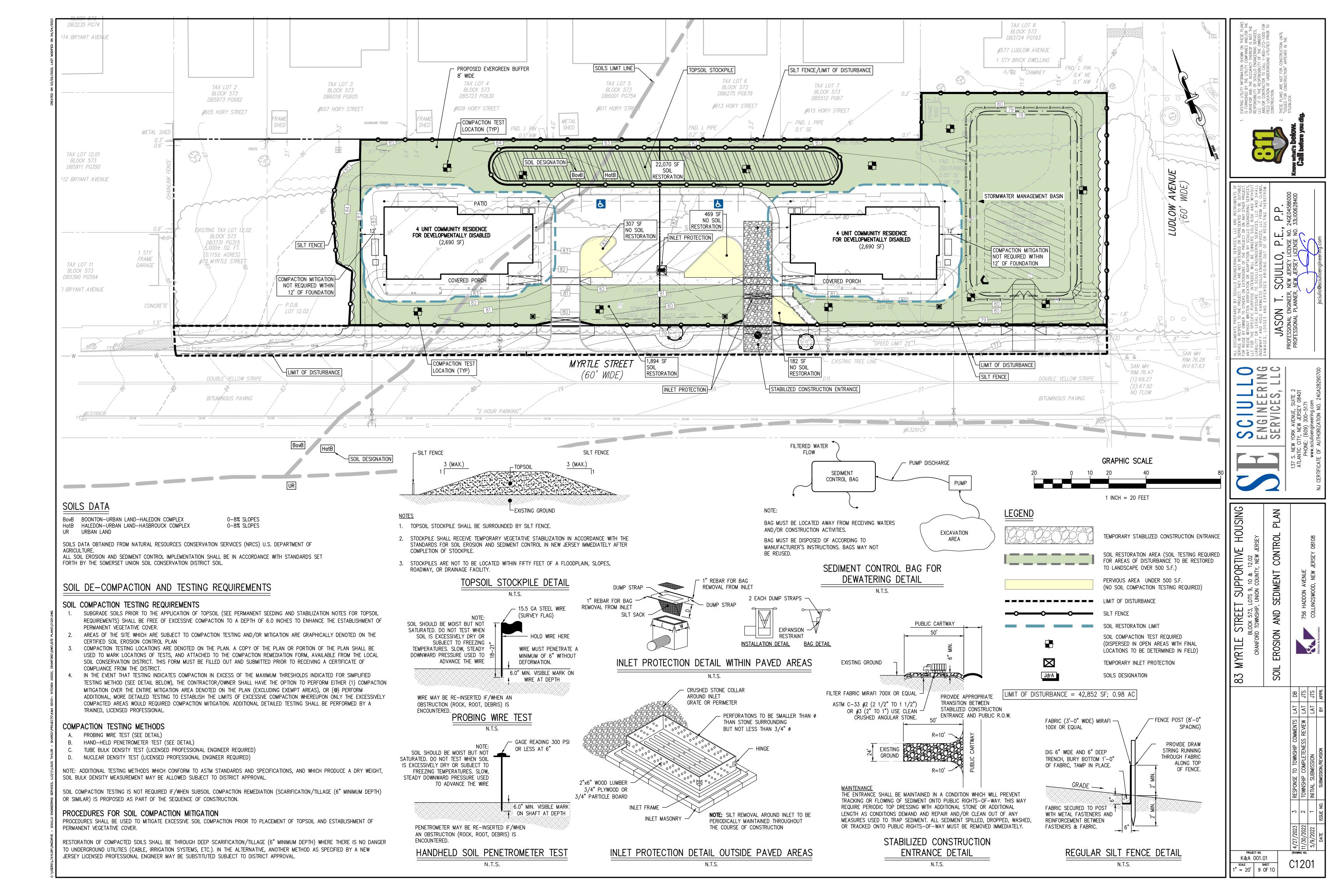
STREE1 BLOCK 573, 1

MYRTLE

83

K&A 001.01 SCALE SHEET 7 OF 10





SOMERSET UNION SOIL CONSERVATION DISTRICT 308 MILLTOWN ROAD BRIDGEWATER, NJ 08807

SOIL EROSION AND SEDIMENT CONTROL PRACTICES ON THIS PLAN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY.

(908) 526-2701

3. A COPY OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN INCLUDING REVISION THEREOF

MUST BE MAINTAINED ON THE PROJECT SITE DURING CONSTRUCTION.

- 4. IN NO CASE SHALL THE CERTIFICATION OF THE PROJECT BY THE DISTRICT EXTEND BEYOND THREE AND ONE HALF YEARS OF THE ORIGINAL CERTIFICATION DATE.
- 5. PRIOR TO ANY GRADING OPERATION AND/OR INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES. A NJPDES REQUEST FOR AUTHORIZATION ("RFA") FORM FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITY MUST BE FILED WITH NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION ("NJDEP") IF THE CONSTRUCTION WILL DISTURB MORE THAN ONE ACRE. THE APPLICATION MUST BE COMPLETED BY THE ENTITY RESPONSIBLE FOR MAINTENANCE OF SOIL EROSION CONTROL MEASURES DURING CONSTRUCTION, TYPICALLY THE DEVELOPER OR CONTRACTOR. THE APPLICATION IS A SIMPLE FORM FILED ON THE NJDEP WEBSITE USING PROJECT CODES PROVIDED BY THE SOIL CONSERVATION DISTRICT. IF REQUIRED, THE ENGINEER WILL ASSIST THE DEVELOPER OR CONTRACTOR BY PROVIDING TECHNICAL INFORMATION TO COMPLETE THE APPLICATION.
- 6. ALL APPLICABLE SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN PLACE PRIOR TO ANY GRADING OPERATION AND/OR INSTALLATION OF PROPOSED STRUCTURES OR UTILITIES.
- 7. ANY CHANGES TO THE SITE PLAN WILL REQUIRE THE SUBMISSION OF A REVISED SOIL EROSION AND SEDIMENT CONTROL PLAN TO THE DISTRICT. THE REVISED PLAN MUST BE IN ACCORDANCE WITH THE CURRENT NEW JERSEY STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL.
- 8. THE CONTRACTOR SHALL PERFORM ALL WORK, FURNISH ALL MATERIALS AND INSTALL ALL MEASURES REQUIRED TO REASONABLY CONTROL SOIL EROSION RESULTING FROM CONSTRUCTION OPERATIONS AND PREVENT EXCESSIVE FLOW OF SEDIMENT FROM THE CONSTRUCTION SITE.
- 9. THE DISTRICT MAY REQUIRE ADDITIONAL SOIL EROSION MEASURES TO BE INSTALLED, AS DETERMINED BY THE DISTRICT
- 10. OFFSITE LAND DISTURBANCE MAY REQUIRE ADDITIONAL SOIL EROSION AND SEDIMENT CONTROL MEASURES TO BE DETERMINED BY THE DISTRICT.
- 11. STAGED CONSTRUCTION METHODS TO MINIMIZE EXPOSED SURFACES, WHERE APPLICABLE.
- 12. THE SITE SHALL AT ALL TIMES BE GRADED AND MAINTAINED SUCH THAT STORMWATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
- 13. SOIL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED AND MAINTAINED ON A REGULAR BASIS AND AFTER EVERY STORM EVENT.
- 14. APPLICABLE SOIL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE LEFT IN PLACE UNTIL CONSTRUCTION IS COMPLETED AND/OR THE AREA IS STABILIZED.
- 15. NJSA 4:24-39, ET SEQ. REQUIRES THAT NO CERTIFICATE OF OCCUPANCY, TEMPORARY OR PERMANENT. BE ISSUED BEFORE ALL PROVISIONS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN COMPLIED WITH PERMANENT MEASURES. ALL SITE WORK FOR THE PROJECT MUST BE COMPLETED PRIOR TO THE DISTRICT ISSUING A REPORT OF COMPLIANCE AS A PREREQUISITE TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY BY THE MUNICIPALITY. INSPECTION FOR THE CERTIFICATE OF OCCUPANCY MUST BE SCHEDULED AT LEAST A WEEK IN ADVANCE.
- 16. NJSA 4:24-39, ET SEQ., REQUIRES THAT UPON PERMANENT SITE STABILIZATION AND COMPLETION OF THE CONTRACTOR SHALL APPLY TO THE DISTRICT FOR FINAL COMPLIANCE INSPECTION TO CHECK THAT ALL THE PROVISIONS OF THE CERTIFIED SOIL EROSION AND SEDIMENT CONTROL PLAN HAVE BEEN COMPLIED WITH FOR PERMANENT MEASURES.
- 17. ANY CONVEYANCE OF THIS PROJECT, OR PORTION THEREOF, PRIOR TO ITS COMPLETION WILL TRANSFER FULL RESPONSIBILITY FOR COMPLIANCE WITH THE CERTIFIED PLAN TO ANY SUBSEQUENT OWNERS. THE DISTRICT MUST BE NOTIFIED IN WRITING OF ANY CHANGE IN OWNERSHIP.
- 18. A CRUSHED STONE, TIRE CLEANING PAD WILL BE INSTALLED WHEREVER A CONSTRUCTION ACCESS EXISTS. THE STABILIZED PAD WILL BE INSTALLED ACCORDING TO THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS. THE PAD MUST BE 100 FEET IN LENGTH AND THE STONE MUST BE 1.5 - 4 INCHES IN 5IZE. PLACED 12" THICK AND THE FULL WIDTH OF THE ENTRANCE. THE PAD SHALL BE UNDERLAIN WITH A SUITABLE SYNTHETIC FILTER FABRIC AND MAINTAINED. IF A CONSTRUCTION ACCESS IS TO BE USED AS AN EXIT ONTO A MAJOR HIGHWAY, A THIRTY (30) PAVED TRANSITION AREA SHALL BE INSTALLED. CONSTRUCTION ACCESS ONTO INDIVIDUAL LOTS MUST BE STABILIZED WITH 2.5" CRUSHED STONE OR
- 19. PAVED ROADWAYS MUST BE KEPT CLEAN AT ALL TIMES.
- 20. ALL CATCH BASIN INLETS WILL BE PROTECTED ACCORDING TO THE CERTIFIED PLAN.
- 21. ALL STORM DRAINAGE OUTLETS SHALL BE STABILIZED AS REQUIRED BEFORE THE DISCHARGE POINT BECOMES OPERATION.
- 22. NATURAL VEGETATION AND SPECIES SHALL BE RETAINED WHERE SPECIFIED ON THE LANDSwtf PLAN.

23. ADJOINING PROPERTIES SHALL BE PROTECTED FROM EXCAVATION AND FILLING OPERATIONS ON THE

- CONSTRUCTION SITE. 24. THE DEVELOPER SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW
- STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT. 25. IMMEDIATELY AFTER THE COMPLETION OF STRIPPING AND STOCKPILING OF TOPSOIL. THE STOCKPILE MUST
- BE STABILIZED ACCORDING TO THE STANDARD FOR TEMPORARY VEGETATIVE COVER. STABILIZE TOPSOIL PILE WITH STRAW MULCH FOR PROTECTION IF THE SEASON DOES NOT PERMIT THE APPLICATION AND ESTABLISHMENT OF TEMPORARY SEEDING.
- 26. ALL SOIL STOCKPILES ARE NOT TO BE LOCATED WITHIN FIFTY (50) FEET OF A FLOODPLAIN. SLOPE. ROADWAY OR DRAINAGE FACILITY AND THE BASE MUST BE PROTECTED WITH SEDIMENT BARRIER.
- 27. MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT BE CONSTRUCTED STEEPER THAN 3:1 UNLESS OTHERWISE APPROVED BY THE SOIL CONSERVATION DISTRICT.
- 28. ALL CRITICAL AREAS SUBJECT TO SOIL EROSION WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH AT A RATE OF 92 POUNDS PER 1000 SQUARE FEET ACCORDING TO THE NEW JERSEY STANDARDS IMMEDIATELY FOLLOWING ROUGH GRADING.
- 29. TEMPORARY AND PERMANENT SEEDING MEASURES MUST BE APPLIED ACCORDING TO THE NEW JERSEY STANDARDS, AND MULCHED WITH SALT HAY OR EQUIVALENT AND ANCHORED IN ACCORDANCE WITH THE NEW JERSEY STANDARDS (I.E. PEG AND TWINE, MULCH NETTING OR LIQUID MULCH BINDER)
- 30. MAXIMUM SIDE SLOPES OF ALL EXPOSED SURFACES SHALL NOT BE CONSTRUCTED STEEPER THAN 3:1 UNLESS OTHERWISE APPROVED BY THE SOIL CONSERVATION DISTRICT.
- 31. ANY DISTURBED AREA THAT IS TO BE LEFT EXPOSED FOR MORE THAN THIRTY (30) DAYS AND NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL IMMEDIATELY RECEIVE A TEMPORARY SEEDING AND FERTILIZATION IN ACCORDANCE WITH THE NEW JERSEY STANDARDS AND THEIR RATES SHOULD BE IN ACCORDANCE WITH THE TEMPORARY SEEDING SPECIFICATION. IF THE SEASON PROHIBITS TEMPORARY SEEDING, THE DISTURBED AREAS WILL BE MULCHED WITH SALT HAY OR THE EQUIVALENT AND ANCHORED IN ACCORDANCE WITH THE NEW JERSEY STANDARDS (I.E. PEG AND TWINE, MULCH NETTING OR LIQUID MULCH BINDER).
- 32. MULCHING IS REQUIRED ON ALL SEEDED AREAS TO ENSURE AGAINST SOIL EROSION BEFORE GRASS IS ESTABLISHED TO PROMOTE EARLIER VEGETATION COVER.
- 33. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO PROVIDE CONFIRMATION OF LIME, FERTILIZER AND SEED APPLICATION AND RATES OF APPLICATION AT THE REQUEST OF THE SOIL CONSERVATION DISTRICT.
- 34. ALL VEGETATIVE MATERIAL SHALL BE SELECTED IN ACCORDANCE WITH AMERICAN STANDARDS FOR NURSERY STOCK OF THE AMERICAN ASSOCIATION OF THE NURSERYMEN AND IN ACCORDANCE WITH THE NEW JERSEY STANDARDS.

- 35. ALL DEWATERING OPERATIONS MUST DISCHARGE DIRECTLY INTO A SEDIMENT FILTER AREA. THE SEDIMENT FILTER SHOULD BE COMPOSED OF A SUITABLE FILTER FABRIC. (SEE DETAIL) THE SEDIMENT FILTER MUST BE CAPABLE OF FILTERING THE SEDIMENT AND BE PLACED SO AS NOT TO CAUSE EROSION OF THE DOWNSTREAM AREA. FIELD PLACEMENT AND USE OF THE STRUCTURE MUST BE APPROVED BY THE DISTRICT PRIOR TO COMMENCEMENT OF DEWATERING ACTIVITIES. THE WATER QUALITY BASIN MUST BE DEWATERED TO NORMAL POOL WITHIN 10 DAYS OF THE DESIGN STORM.
- 36. DUST IS TO BE CONTROLLED BY AN APPROVED METHOD ACCORDING TO THE NEW JERSEY STANDARDS AND INCLUDE WATERING WITH A SOLUTION OF CALCIUM CHLORIDE AND WATER.
- 37. METHODS FOR THE MANAGEMENT OF HIGH ACID PRODUCING SOILS SHALL BE IN ACCORDANCE WITH THE NEW JERSEY STANDARDS. HIGH ACID PRODUCING SOILS ARE THOSE FOUND TO CONTAIN IRON SULFIDES OR HAVE A PH OF 4 OR LESS.

#### WORK HOURS AND NOISE CONTROL

- 1. CONSTRUCTION HOURS
- A. MONDAY THRU FRIDAY: 7:00AM-6:00PM
- B. SATURDAY: 8:00AM-4:30PM
- C. SUNDAY: NO WORK TO BE PERFORMED.
- D. THE HOURS STATED SHALL BE ADHERED TO UNLESS DUE TO WEATHER AND OR SCHEDULE CHANGES. THE MUNICIPALITY SHALL BE NOTIFIED OF ALL TIME CHANGES.
- 2. NOISE CONTROL EQUIPMENT TO BE UTILIZED SHALL BE STANDARD EARTH MOVING EQUIPMENT. CRANES. MIXERS, ETC. WHICH MEET STANDARDS ESTABLISHED BY STATE AND FEDERAL LAWS REGARDING THE AMOUNT OF NOISE PRODUCED.

## DETAILED CONSTRUCTION SEQUENCE

- 1. INSTALL TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES.
- A. PLACE STABILIZED CONSTRUCTION ENTRANCE WHERE INDICATED ON PLAN.
- B. PLACE SILT FENCE AND INLET PROTECTION FOR EXISTING INLETS WHERE INDICATED ON PLAN.
- 2. ROUGH GRADE PAVEMENT AREA BED AND BUILDING PADS
- CONSTRUCT CURBING AND SUBBASE FOR PAVEMENT AREAS.
- 4. CONSTRUCT BASE PAVEMENT COURSE.
- 5. ESTABLISH FINAL GRADING AND PERMANENT VEGETATIVE COVER.

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

- 6. LANDSCAPE AS NECESSARY.
- 7. CONSTRUCT FINAL PAVEMENT COURSE.
- 8. REMOVE SOIL CONSERVATION MEASURES WHEN CONSTRUCTION IS COMPLETED AND/OR SITE IS STABILIZED.
- 9. REQUEST REPORT OF COMPLIANCE FROM THE SOIL CONSERVATION DISTRICT.

### TEMPORARY AND PERMANENT STABILIZATION

STABILIZATION COVER SHALL BE ACCOMPLISHED BY THE FOLLOWING METHODS AND MATERIALS:

- B. SITE PREPARATION
- 1) PREPARE SUBGRADE AS NEEDED AND FEASIBLE TO ALLOW USE OF CONVENTIONAL EQUIPMENT FOR TOPSOILING, SEEDBED PREPARATION, SEEDING, MULCH APPLICATION, AND MULCH ANCHORING.
- 2) INSTALL NEEDED SOIL EROSION CONTROL PRACTICES OR MEASURES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES. CHANNEL STABILIZATION MEASURES. SEDIMENT BASINS. AND WATERWAYS.
- 3) THE SUBGRADE SHALL BE FREE OF EXCESSIVE COMPACTION TO A DEPTH OF 6 INCHES TO ENHANCE THE ESTABLISHMENT OF VEGETATIVE COVER. IF TESTING INDICATES EXCESSIVE SUBGRADE COMPACTION, THE SUBGRADE SHALL BE DE-COMPACTED TO A DEPTH OF 6 INCHES PRIOR TO THE APPLICATION OF TOPSOIL. THE SUBGRADE SHALL BE SCARIFIED TO A DEPTH OF 6" TO 12" WHERE THERE HAS BEEN EXCESSIVE SOIL COMPACTION. THIS PRACTICE IS PERMISSIBLE ONLY IN AREAS WHERE THERE IS NO DANGER TO UNDERGROUND UTILITIES (CABLES, IRRIGATION SYSTEMS, ETC.).
- 4) THE SUBGRADE SHALL BE TESTED TO DETERMINE WHETHER COMPACTION EXCEEDS THE MAXIMUM THRESHOLDS INDICATED FOR THE SIMPLIFIED TESTING METHODS. THE TEST SHALL BE PREFORMED AT ONE-HALF ACRE INTERVALS FOR SITES ONE ACRE OR MORE. FOR SITES LESS THAN ONE ACRE, AT LEAST TWO TESTS ARE REQUIRED REGARDLESS OF THE SIZE. CONTIGUOUS AREAS OF 500 SQUARE FEET OR LESS ARE EXEMPT FROM TESTING OR REMEDIATION. COMPACTION TESTING METHODS SHALL INCLUDE (1) PROBING WIRE TEST, (2) HAND-HELD PENETROMETER TEST, (3) TUBE BULK DENSITY TEST, OR (4) NUCLEAR DENSITY TEST. THE MAXIMUM THRESHOLD FOR THE PROBING WIRE TEST IS DETERMINED IF A 15 GAGE WIRE BENDS WHEN INSERTED INTO THE SUBGRADE TO A DEPTH OF 6 INCHES OR FOR THE PENETROMETER TEST IF THE PRESSURE AT A DEPTH OF 6 INCHES IS 300 PSI OR MORE. IF COMPACTION EXCEEDS THE MAXIMUM THRESHOLD, THE CONTRACTOR SHALL HAVE THE OPTION TO PERFORM EITHER (1) COMPACTION MITIGATION OVER THE ENTIRE MITIGATION AREA, OR (2) PERFORM ADDITIONAL MORE DETAILED TESTING TO ESTABLISH THE LIMITS OF EXCESSIVE COMPACTION WHEREUPON ONLY THE EXCESSIVELY COMPACTED AREAS WOULD REQUIRE COMPACTION MITIGATION. ADDITIONAL DETAILED TESTING SHALL BE PERFORMED BY A TRAINED, LICENSED PROFESSIONAL.
- B. STRIPPING AND STOCKPILING
- 1) FIELD EXPLORATION SHOULD BE MADE TO DETERMINE WHETHER QUANTITY AND/OR QUALITY OF SURFACE SOIL JUSTIFIES STRIPPING.
- 2) STRIPPING SHOULD BE CONFINED TO THE IMMEDIATE CONSTRUCTION AREA.
- 3) WHERE FEASIBLE, LIME MAY BE APPLIED BEFORE STRIPPING AT A RATE DETERMINED BY SOIL TEST TO BRING THE SOIL PH TO APPROXIMATELY 6.5. IN LIEU OF SOIL TEST, SEE LINE RATE GUIDE IN SEEDBED PREPARATION.
- 4) A 4 TO 6 INCH STRIPPING DEPTH IS COMMON, BUT MAY VARY DEPENDING ON THE PARTICULAR
- 5) STOCKPILES OF TOPSOIL SHOULD BE SITUATED SO AS NOT TO OBSTRUCT NATURAL DRAINAGE OR CAUSE OFF-SITE ENVIRONMENTAL DAMAGE.
- 6) STOCKPILES OF TOPSOIL SHOULD BE VEGETATED IN ACCORDANCE WITH STANDARDS FOR PERMANENT OR TEMPORARY STABILIZATION. WEEDS SHOULD NOT BE ALLOWED TO GROW ON
- C. TOPSOILING THE CONTRACTOR SHALL PREPARE AREAS TO BE STABILIZED WITH PERMANENT VEGETATIVE COVER BY APPLYING TOPSOIL TO A UNIFORM DEPTH OF 6 INCHES. TOPSOIL SHOULD BE FRIABLE, LOAMY, FREE OF DEBRIS, OBJECTIONABLE WEEDS AND STONES, AND CONTAIN NO TOXIC SUBSTANCE OR ADVERSE CHEMICAL OR PHYSICAL CONDITION THAT MAY BE HARMFUL TO PLANT

GROWTH. SOLUBLE SALTS SHOULD NOT BE EXCESSIVE (CONDUCTIVITY LESS THAN 0.5 MILLIMHOS PER CENTIMETER. MORE THAN 0.5 MILLIMHOS MAY DESICATE SEEDLINGS AND ADVERSELY IMPACT GROWTH ). TOPSOIL HAULED IN FROM OFFSITE SHOULD HAVE A MINIMUM ORGANIC MATTER CONTENT OF 2.75 PERCENT. ORGANIC MATTER CONTENT MAY BE RAISED BY ADDITIVES.

- TOPSOIL SUBSTITUTES MAY BE UTILIZED ON SITES WITH INSUFFICIENT TOPSOIL FOR ESTABLISHING PERMANENT VEGETATION. TOPSOIL SUBSTITUTE IS A SOIL MATERIAL WHICH MAY HAVE BEEN AMENDED WITH SAND, SILT, CLAY, ORGANIC MATTER, FERTILIZER OR LIME AND HAS THE APPEARANCE OF TOPSOIL. ALL TOPSOIL SUBSTITUTE MATERIALS SHALL MEET THE REQUIREMENTS OF TOPSOIL NOTED ABOVE. SOIL TESTS SHALL BE PERFORMED TO DETERMINE THE COMPONENTS OF SAND, SILT, CLAY, ORGANIC MATTER, SOLUBLE SALTS AND PH LEVEL.
- D. SEEDBED PREPARATION APPLY LIMESTONE AND FERTILIZER ACCORDING TO SOIL TESTS SUCH AS THOSE OFFERED BY RUTGERS UNIVERSITY SOIL TESTING LABORATORY. SOIL SAMPLE MAILERS ARE AVAILABLE FROM THE LOCAL COOPERATIVE EXTENSION SERVICE OFFICE. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, THE CONTRACTOR MAY APPLY PULVERIZED DOLOMITIC LIMESTONE AT THE RATE OF 90 POUNDS PER 1000 SQUARE FEET. APPLY 10-20-10 FERTILIZER OR EQUIVALENT AT THE RATE OF 11 POUNDS PER 1000 SQUARE FEET. IN ADDITION, 300 POUNDS 38-0-0 PER ACRE OR EQUIVALENT OF SLOW RELEASE NITROGEN MAY BE USED IN LIEU OF TOPDRESSING. APPLY LIMESTONE (EQUIVALENT TO 50 PERCENT CALCIUM PLUS MAGNESIUM OXIDES) AS FOLLOWS:

SOIL TEXTURE	TONS / ACRE
CLAY, CLAY LOAM & HIGH ORGANIC SOIL	4
SANDY LOAM, LOAM & SILT LOAM	3
LOAMY SAND, SAND	2

THE LIME AND FERTILIZER SHALL THEN BE "WORKED" INTO THE SOIL TO A DEPTH OF 4" WITH A DISC, SPRINGTOOTH HARROW OR OTHER SUITABLE EQUIPMENT.

- TEMPORARY VEGETATION SEEDING ESTABLISH TEMPORARY VEGETATIVE COVER ON SOILS EXPOSED FOR PERIODS OF TWO TO SIX MONTHS WHICH ARE NOT BEING GRADED, NOT UNDER ACTIVE CONSTRUCTION OR NOT SCHEDULED FOR PERMANENT SEEDING WITHIN 60 DAYS. SEEDING SHALL CONSIST OF PERENNIAL RYEGRASS APPLIED AT THE RATE OF 1 POUND PER 1000 SQUARE FEET DURING COOL SEASON OR WEEPING LOVEGRASS AT 5 LBS. PER ACRE DURING WARM SEASON PLANTING.
- PERMANENT VEGETATION SEEDING IMMEDIATELY FOLLOWING THE COMPLETION OF CONSTRUCTION ACTIVITIES AT THE SITE, THE CONTRACTOR SHALL STABILIZE WITH PERMANENT VEGETATIVE COVER, ALL EXPOSED AND DISTURBED SOILS.

#15 MIXTURE (LAWN)	LBS/ACRE	LBS/1000 S.F.
HARD FESCUE	130	3.00
CHEWING FESCUE	45	1.00
STRONG CREEPING RED FESCUE	45	1.00
PERENNIAL RYEGRASS	10	0.25
<u>#11 MIXTURE (SWALE)</u>	LBS/ACRE	LBS/1000 S.F.
KENTUCKY BLUEGRASS	45	1.00
TURF-TYPE TALL FESCUE	22	0.50

IF HYDROSEEDING IS USED ALL SEEDING RATES SHALL BE INCREASED BY 25%. IF SODDING IS USED SEE SOD SPECIFICATIONS.

- G. SEEDING DATES SEEDING DATES FOR VEGETATION SHALL OCCUR BETWEEN MARCH 1 AND APRIL 30 (OPTIMAL PLANTING PERIOD) OR BETWEEN AUGUST 15 AND NOVEMBER 15. IF SEED IS NOT PLANTED WITHIN THESE DATES, THE CONTRACTOR SHALL STABILIZE WITH MULCH AS SPECIFIED ABOVE.
- MULCHING THE CONTRACTOR SHALL MULCH ALL NEWLY SEEDED AREAS WITH UNROTTED SMALL GRAIN STRAW OR HAY FREE OF SEEDS AT THE RATE OF 70 TO 90 POUNDS PER 1,000 SQUARE FEET. IT SHALL BE ANCHORED THROUGH THE USE OF THE PEG AND TWINE METHOD. THE PEG AND TWINE METHOD OF MULCH ANCHORING SHALL CONSIST OF DRIVING 8-10 INCH WOODEN PEGS TO WITHIN 2-3 INCHES OF THE SOIL SURFACE EVERY 4 FEET IN ALL DIRECTIONS. STAKES MAY BE DRIVEN BEFORE OR AFTER APPLYING MULCH. SECURE MULCH TO SOIL SURFACE BY STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS AND A SQUARE PATTERN. SECURE TWINE AROUND EACH PEG WITH TWO OR MORE ROUND TURNS.

# F. SODDING

- 1) CULTIVATED SOD IS PREFERRED OVER NATIVE SOD. SPECIFY "CERTIFIED SOD", OR OTHER HIGH QUALITY CULTIVATED SOD. SOD SHOULD BE FREE OF WEEDS AND UNDESIRABLE COARSE WEEDY GRASSES. SOD SHOULD BE OF UNIFORM THICKNESS, APPROXIMATELY 5/8 INCH, PLUS OR MINUS 1/4 INCH, AT TIME OF CUTTING. (EXCLUDES TOP GROWTH). SOD SHOULD BE VIGOROUS AND DENSE AND BE ABLE TO RETAIN ITS OWN SHAPE AND WEIGHT WHEN SUSPENDED VERTICALLY WITH A FIRM GRASP FROM THE UPPER 10 PERCENT OF THE STRIP. BROKEN PADS OR TORN OR UNEVEN ENDS WILL NOT BE ACCEPTED. FOR DROUGHTY SITES, A SOD OF KENTUCKY 31 TALL FESCUE AND BLUEGRASS IS PREFERRED OVER A STRAIGHT BLUEGRASS SOD. ONLY MOIST, FRESH, UNHEATED SOD SHOULD BE USED. SOD SHOULD BE HARVESTED, DELIVERED AND INSTALLED WITHIN A PERIOD OF 36 HOURS.
- 2) REMOVE FROM THE SURFACE ALL OBJECTS THAT WOULD PREVENT GOOD SOD TO SOIL CONTACT AND REMOVE ALL OTHER DEBRIS SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS OR OTHER UNSUITABLE MATERIAL.
- 3) INSPECT SITE JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED AND FIRMED AS ABOVE.
- 4) SOD PLACEMENT:
- A) SOD STRIPS SHOULD BE LAID ON THE CONTOUR, NEVER UP AND DOWN THE SLOPE, STARTING AT THE BOTTOM OF THE SLOPE AND WORKING UP. ON STEEP SLOPES, THE USE OF LADDERS WILL FACILITATE THE WORK AND PREVENT DAMAGE TO THE SOD. DURING PERIODS OF HIGH TEMPERATURE, LIGHTLY IRRIGATE THE SOIL IMMEDIATELY PRIOR TO LAYING THE SOD.
- B) PLACE SOD STRIPS WITH SNUG, EVEN JOINTS THAT ARE STAGGERED. OPEN SPACES INVITE EROSION. C) ROLL OR TAMP SOD IMMEDIATELY FOLLOWING PLACEMENT TO INSURE SOLID CONTACT OF ROOT MAT AND SOIL SURFACE. DO NOT OVERLAP SOD. ALL JOINTS SHOULD BE BUTTED TIGHTLY IN ORDER TO PREVENT VOIDS WHICH WOULD CAUSE DRYING OF THE ROOTS.
- SPLIT SHINGLES (8" TO 10" LONG BY 3/4" WIDE). SURFACE WATER CANNOT ALWAYS BE DIVERTED FROM FLOWING OVER THE FACE OF THE SLOPE, BUT A CAPPING STRIP OF HEAVY JUTE OR PLASTIC NETTING, PROPERLY SECURED, ALONG THE CROWN OF THE SLOPE AND EDGES WILL PROVIDE EXTRA PROTECTION AGAINST LIFTING AND UNDERCUTTING OF SOD. THE SAME TECHNIQUE CAN BE USED TO ANCHOR SOD IN WATER- CARRYING CHANNELS AND OTHER CRITICAL AREAS. WIRE STAPLES MUST BE USED TO ANCHOR NETTING IN CHANNEL WORK.

D) ON SLOPES GREATER THAN 3:1, SECURE SOD TO SURFACE SOIL WITH WOOD PEGS, WIRE STAPLES, OR

- SOIL LAYER BENEATH SOD TO A DEPTH OF 4 INCHES. MAINTAIN OPTIMUM MOISTURE FOR AT LEAST F) TOPDRESSING - IF SLOW RELEASE NITROGEN (300 POUNDS 38-0-0 PER ACRE OR EQUIVALENT) IS USED IN ADDITION TO SUGGESTED FERTILIZER, THEN A FOLLOW-UP OF TOPDRESSING IS NOT
  - FALL INSTALLATION OF SOD WILL REQUIRE AN APPLICATION OF FERTILIZER SUCH AS 10-20-10 OR EQUIVALENT AT 400 POUNDS PER ACRE OR 10 POUNDS PER 1000 SQUARE FEET BETWEEN SEPTEMBER 1 AND OCTOBER 15.

IMMEDIATELY FOLLOWING INSTALLATION, SOD SHOULD BE WATERED UNTIL MOISTURE PENETRATES THE

# MANAGEMENT OF HIGH ACID-PRODUCING SOILS

HIGH ACID-PRODUCING SOILS ARE SOILS WITH A PH OF 4.0 OR LESS OR CONTAIN IRON SULFIDE. HIGH ACID-PRODUCING SOILS MAY BE PRESENT IN UNDISTURBED SOILS AT VARYING DEPTHS, INCLUDING NEAR THE SOIL SURFACE TO EXCAVATIONS OR DEEP DISTURBANCES. ITS PRESENCE ON A SITE MAY BE SIGNIFICANT OR LIMITED IN THE SOIL PROFILE. HIGH ACID-PRODUCING SOILS ARE COMMONLY BLACK, DARK BROWN, GRAY OR GREENISH WITH SILVERY PYRITE OR MARCASITE NUGGETS OR FLAKES. ALTERNATIVELY, SANDY SOILS OR REDDISH, YELLOWISH OR LIGHT TO MEDIUM BROWN SOIL MATERIALS ARE USUALLY FREE OF HIGH ACID-PRODUCING DEPOSITS.

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

#### METHODS AND MATERIALS OF MANAGING HIGH ACID-PRODUCING SOILS

- LIMIT THE EXCAVATION AREA AND EXPOSURE TIME WHEN HIGH ACID-PRODUCING SOILS ARE ENCOUNTERED. 2. TOPSOIL STRIPPED FROM THE SITE SHALL BE STORED SEPARATELY FROM TEMPORARILY STOCKPILED HIGH
- ACID-PRODUCING SOILS. 3. STOCKPILES OF HIGH ACID-PRODUCING SOIL SHOULD BE LOCATED ON LEVEL LAND TO MINIMIZE ITS MOVEMENT, ESPECIALLY WHEN THIS MATERIAL HAS A HIGH CLAY CONTENT.
- TEMPORARILY STOCKPILED HIGH ACID-PRODUCING SOIL MATERIAL TO BE STORED MORE THAN 48 HOURS SHOULD BE COVERED WITH PROPERLY ANCHORED, HEAVY GRADE SHEETS OF POLYETHYLENE WHERE POSSIBLE. IF NOT POSSIBLE, STOCKPILES SHALL BE COVERED WITH A MINIMUM OF 3 TO 6 INCHES OF WOOD CHIPS TO MINIMIZE EROSION OF THE STOCKPILE. SILT FENCE SHALL BE INSTALLED AT THE TOE OF THE SLOPE TO CONTAIN MOVEMENT OF THE STOCKPILED MATERIAL. TOPSOIL SHALL NOT BE APPLIED TO THE STOCKPILES TO PREVENT TOPSOIL CONTAMINATION WITH HIGH ACID-PRODUCING SOIL.
- 5. HIGH ACID-PRODUCING SOILS WITH A PH OF 4.0 OR LESS OR CONTAINING IRON SULFIDE (INCLUDING BORROW FROM CUTS OR DREDGED SEDIMENT) SHALL BE ULTIMATELY PLACED OR BURIED WITH LIMESTONE APPLIED AT THE RATE OF 10 TONS PER ACRE (OR 450 POUNDS PER 1,000 SQUARE FEET OF SURFACE AREA) AND COVERED WITH A MINIMUM OF 12 INCHES OF SETTLED SOIL WITH A PH OF 5.0 OR MORE EXCEPT AS FOLLOWS:
- A. AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED SHALL BE COVERED WITH A MINIMUM OF 24 INCHES OF SOIL WITH A PH OR 5 OR MORE.
- B. DISPOSAL AREAS SHALL NOT BE LOCATED WITHIN 24 INCHES OF ANY SURFACE OF A SLOPE OR BANK, SUCH AS BERMS, STREAM BANKS, DITCHES, AND OTHERS, TO PREVENT POTENTIAL LATERAL LEACHING DAMAGES.
- 6. EQUIPMENT USED FOR MOVEMENT OF HIGH ACID-PRODUCING SOILS SHOULD BE CLEANED AT THE END OF EACH DAY TO PREVENT SPREADING OF HIGH ACID-PRODUCING SOIL MATERIALS TO OTHER PARTS OF THE SITE, INTO STREAMS OR STORMWATER CONVEYANCES, AND TO PROTECT MACHINERY FROM ACCELERATED RUSTING.
- NON-VEGETATIVE EROSION CONTROL PRACTICES (STONE TRACKING PADS, STRATEGICALLY PLACED LIMESTONE CHECK DAM, SEDIMENT BARRIER, WOOD CHIPS) SHOULD BE INSTALLED TO LIMIT THE MOVEMENT OF HIGH ACID-PRODUCING SOILS FROM, AROUND, OR OFF THE SITE.
- 8. FOLLOWING BURIAL OR REMOVAL OF HIGH ACID-PRODUCING SOIL, TOPSOILING AND SEEDING OF THE SITE (SEE TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION, PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION, AND TOPSOILING), MONITORING MUST CONTINUE FOR A MINIMUM OF 6 MONTHS TO ENSURE THERE IS ADEQUATE STABILIZATION AND THAT NO HIGH ACID-PRODUCING SOIL PROBLEMS EMERGE. IF PROBLEMS STILL EXIST, THE AFFECTED AREA MUST BE TREATED AS INDICATED ABOVE TO CORRECT THE PROBLEM.

#### **DUST CONTROL:**

DUST CONTROL SHALL BE ACCOMPLISHED BY THE METHODS DESCRIBED BELOW.

MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/AC		
ANIONIC ASPHALT EMULSION	7:1	COARSE SPRAY	1200		
LATEX EMULSION	12,5:1	FINE SPRAY	235		
RESIN IN WATER	4:1	FINE SPRAY	300		
POLYACRYLAMIDE (PAM) — SPRAY ON POLYACRYLAMIDE (PAM) — DRY SPREAD	APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE USED AS AN ADDITIVE TO SEDIMENT BASINS TO FLOCCULATE AND PRECIPITATE SUSPENDED COLLOIDS. SEE SEDIMENT BASIN STANDARD, P. 26-1				
ACIDULATED SOY BEAN SOAP STICK	NONE	COARSE SPRAY	1200		

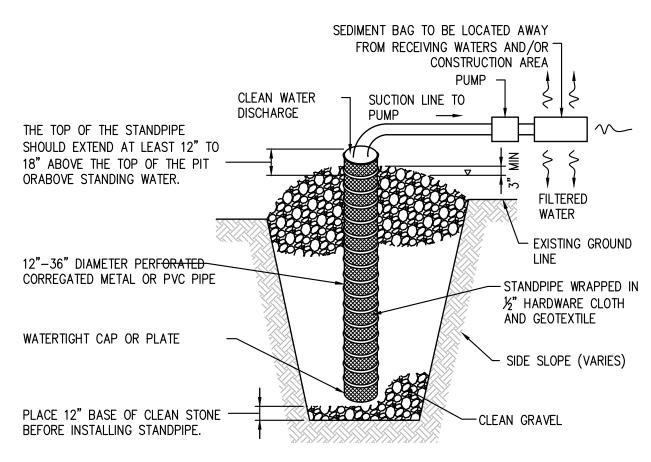
TILLAGE: TO ROUGHEN SURFACE AND BRING CLODS TO THE SURFACE. THIS IS A TEMPORARY EMERGENCY MEASURE WHICH SHOULD BE USED BEFORE SOIL BLOWING STARTS. BEGIN PLOWING ON WINDWARD SIDE OF SITE. CHISEL-TYPE PLOWS PLACED ABOUT 12 INCHES APART, AND SPRING TOOTHED HARROWS ARE EXAMPLES OF EQUIPMENT WHICH MAY PRODUCE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

SPRINKLING: SITE IS SPRINKLED UNTIL THE SURFACE IS WET.

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

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

STONE: COVER SURFACE WITH CRUSHED STONE OR COARSE GRAVEL.



# CONSTRUCTION SPECIFICATIONS

- PIT DIMENSIONS ARE VARIABLE, WITH THE MINIMUM DIAMETER BEING TWO TIMES THE STANDPIPE DIAMETER. 2. THE STANDPIPE SHOULD BE CONSTRUCTED BY PERFORATING A 12" TO 24" DIAMETER CORRUGATED OR PVC PIPE. THEN WRAPPING WITH 1/2" HARDWARE CLOTH AND GEATEXTILE FABRIC. THE PERFORATIONS SHALL BE 1/2" x 6" SLITS OR 1" DIAMETER HOLES.
- OF 12". AFTER INSTALLING THE STANDPIPE, THE PIT SURROUNDING THE STANDPIPE SHOULD THEN BE BACKFILLED WITH THE SAME FILTER MATERIAL. 4. THE STANDPIPE SHOULD EXTEND 12" TO 18" ABOVE THE LIP OF THE PIT OR THE RISER CREST ELEVATION (BASIN DEWATERING

3. A BASE FILTER MATERIAL CONSISTING OF CLEAN GRAVEL OR ASTM C 33 STONE SHOULD BE PLACED IN THE PIT TO A DEPTH

- ONLY) AND THE FILTER MATERIAL SHOULD EXTEND 3" MINIMUM ABOVE THE ANTICIPATED STANDING WATER ELEVATION. WATER SURFACE ELEVATION.
- SEDIMENT CONTROL BAGS MUST BE DISPOSED OF ACCORDING TO MANUFACTURER'S INSTRUCTIONS. BAGS MAY NOT BE REUSED.

TEMPORARY SUMP PIT DURING CONSTRUCTION N.T.S.

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