PRELIMINARY & FINAL MAJOR SITE PLAN

PREPARED FOR

SRS ENTERPRISES

156 BOUNDARY ROAD
BLOCK 214; LOT 50

TOWNSHIP OF MARLBORO, MONMOUTH COUNTY, NEW JERSEY

COMPLIANCE
Per Resolution Dated 9-16-2020

INDEX OF DRAWINGS

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9	SOIL EROSION & SEDIMENT CONTROL PLAN
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SUPPLEMENTAL DRAWINGS

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SK-6B	PROPOSED ARCHITECTURAL SECOND FLOOR PLAN
SK-6C	PROPOSED ARCHITECTURAL EXTERIOR ELEVATIONS
SK-6D	PROPOSED ARCHITECTURAL EXTERIOR ELEVATIONS
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S-2	N.DEP FLOOD HAZARD AREA VERIFICATION PLAN
S-3	N.DEP EXISTING CONDITIONS PLAN
S-4	N.DEP FLOOD HAZARD INDIVIDUAL PERMIT PLAN
S-5	N.DEP WETLAND & TRANSITION AVERAGE PLAN
S-6	N.DEP FLOOD HAZARD INDIVIDUAL PERMIT: MITIGATION PLAN

PROPERTY OWNERS WITHIN 200 FEET OF BLOCK 10, LOTS 11 & 11.01

TOWNSHIP OF MARLBORO

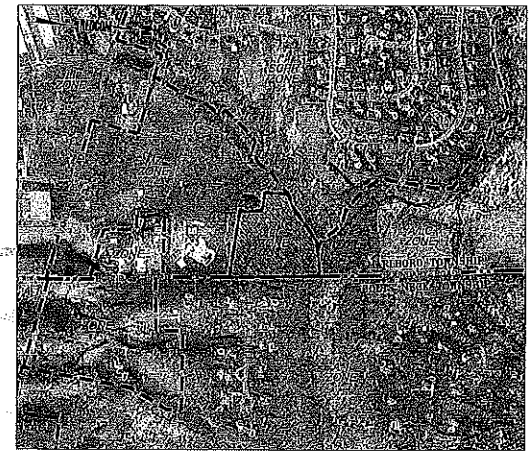
BLOCK	LOT	PROPERTY USE	PROPERTY ADDRESS	PROPERTY OWNER
214	49	RESIDENTIAL	150 BOUNDARY ROAD	BARONE, FRANK & CHARLOTTE 150 BOUNDARY ROAD MARLBORO, NJ 07746
214	51.03	PUBLIC PARK	VANDERBURG ROAD	TWP OF MARLBORO 1979 TOWNSHIP DRIVE MARLBORO, NJ 07746
214.03	18	PUBLIC PARK	STEVENSON DRIVE	TWP OF MARLBORO 1979 TOWNSHIP DRIVE MARLBORO, NJ 07746

TOWNSHIP OF COLTS NECK

BLOCK	LOT	PROPERTY USE	PROPERTY ADDRESS	PROPERTY OWNER
6	10.01	PUBLIC GREEN ACRES	BOUNDRY ROAD	TOWNSHIP OF COLTS NECK 124 CEDAR DRIVE COLTS NECK, NJ 07722
6	10.12	RESIDENTIAL	BERKELEY PLACE	PATEL, DEEP & LOPA 1 BERKELEY PLACE COLTS NECK, NJ 07722
6	10.13	RESIDENTIAL	2 BERKELEY PLACE	NIZAMEN, OSAMA & NOHA AWAD P.O. BOX 351 HOLMDEL, NJ 07733
6	13	RESIDENTIAL	175 BOUNDARY ROAD	BRAND, CHARLES S JR & PEGGY 175 BOUNDARY ROAD COLTS NECK, NJ 07722
6	14	PUBLIC GREEN ACRES	BOUNDRY ROAD	TOWNSHIP OF COLTS NECK 124 CEDAR DRIVE COLTS NECK, NJ 07722

PUBLIC UTILITIES

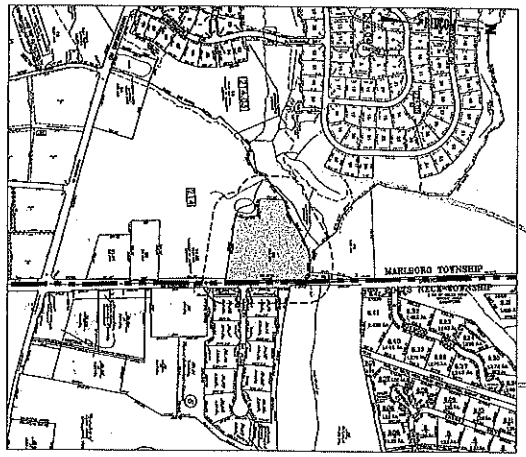
MONMOUTH COUNTY PLANNING BOARD PO BOX 1255 FREEHOLD, NJ 07728	NJ NATURAL GAS COMPANY 1415 WYCOFF ROAD WALL, NJ 07719 ATTENTION: FRANK CRAF
JCP&L 100 PENHORN ROAD ENGLISHTOWN, NJ 07726 ATTENTION: RANDY LEATHERMAN	CABLEVISION OF MONMOUTH 49 PINE STREET TINTON FALLS, NJ 07753
MARLBORO TOWNSHIP WATER UTILITY 1979 TOWNSHIP DRIVE MARLBORO, NJ 07746	VERIZON NEW JERSEY INC. 219 PARKER ROAD NEPTUNE, NJ 07753
GORDONS CORNER WATER UTILITY 37 VANDERBURG ROAD MARLBORO, NJ 07746	JERSEY CENTRAL POWER AND LIGHT COMPANY 101 COMMERCE CORNER ROAD HOLMDEL, NJ 07733
	TOWNSHIP OF COLTS NECK PO BOX 7 COLTS NECK, NJ 07722



VICINITY & ZONING MAP

SOURCES: HTTP://NJGIS.STATE.NJ.US, 2015 HIGH RES. ORTHOPHOTOGRAPHY, ZONING MAP: MARLBORO AND COLTS NECK TOWNSHIPS.

SCALE: 1"=500'



TAX MAP

SOURCE: TOWNSHIP OF MARLBORO & COLTS NECK

SCALE: 1"=500'

AREA YARD AND ZONING BULK REQUIREMENTS (BLOCK 214, LOT 50)
ORDINANCE 220-69: ZONING DISTRICT LI (LIGHT INDUSTRIAL ZONE DISTRICT)

ORD.	ITEM	REQUIRED	EXISTING	COMPLY	PHASE I PROPOSED	PHASE I COMPLY	PHASE II PROPOSED	PHASE II COMPLY
220-93.A(1) 220-93.A(3)	PERMITTED USES: PRINCIPAL BLDG.	LIGHT MANUFACTURING & WAREHOUSE	(VACANT)	N/A	LIGHT MANUFACTURING & WAREHOUSE	YES YES	LIGHT MANUFACTURING & WAREHOUSE	YES YES
220-93.C (TABLE I)	MINIMUM LOT AREA	3 AC.	10.003 AC.	YES	9.396 AC.	YES	(NO CHANGE)	YES
	MINIMUM LOT FRONTAGE	300 FEET	782± FEET	YES	782± FEET	YES	(NO CHANGE)	YES
	MINIMUM LOT WIDTH	300 FEET	782± FEET	YES	782± FEET	YES	(NO CHANGE)	YES
	MINIMUM LOT DEPTH	300 FEET	588± FEET	YES	588± FEET	YES	(NO CHANGE)	YES
	MINIMUM FRONT YARD SETBACK	80 FEET	(VACANT)	N/A	150.0 FEET	YES	(NO CHANGE)	YES
	MINIMUM SIDE YARD SETBACK	70 FEET	(VACANT)	N/A	218.8 FEET	YES	70.0 FEET	YES
	MINIMUM REAR YARD SETBACK	80 FEET	(VACANT)	N/A	250.3 FEET	YES	(NO CHANGE)	YES
	MAXIMUM BUILDING HEIGHT	50 FEET	(VACANT)	N/A	42 FEET	YES	(NO CHANGE)	YES
	MAXIMUM BUILDING COVERAGE	35%	(VACANT)	N/A	7.3%	YES	11.7%	YES
	MAXIMUM IMPERVIOUS COVERAGE	60%	12.7%	YES	19.4%	YES	25.9%	YES
	FLOOR AREA RATIO (FAR)	0.35	(VACANT)	N/A	0.10	YES	0.16	YES
220-93.E.(1)	PARKING SETBACK FROM STREET LINE	80 FEET	(VACANT)	N/A	20.0 FEET	NO (*)	(NO CHANGE)	NO (*)

(*) VARIANCE REQUESTED

VARIANCES REQUESTED

220-93E(1) MINIMUM PARKING LOT SETBACK FROM STREET LINE IS 80 FEET; 20.0 FEET IS PROPOSED

220-97D REQUIRED OFF-STREET PARKING SPACE SIZE IS 10 FEET BY 20 FEET; PROPOSED PARKING SPACES ARE 9 FEET BY 20 FEET; HOWEVER, TEN (10) PARKING STALLS WITH 10 FEET BY 20 FEET IN DIMENSION HAVE BEEN PROVIDED FOR CUSTOMERS AND VISITORS.

220-97E(4) ALL PARKING AREAS FOR 20 OR MORE VEHICLES SHALL CONTAIN GRASSED OR LANDSCAPED ISLAND AREAS OF AT LEAST SIX FEET BY WIDTH SEPARATING ROWS OF PARKING SPACES IN ACCORDANCE WITH THE PROVISIONS OF § 220-112F. SUCH ISLAND AREAS SHALL BE SPREAD THROUGHOUT THE PARKING AREA IN ACCORDANCE WITH A SITE PLAN APPROVED BY THE PLANNING BOARD AND SHALL OCCUPY A MINIMUM OF 10% OF THE AREA FORMED BY THE OUTER PERIMETER OF THE PAVED PARKING AREA. THE ISLAND AREAS SHALL CONTAIN A MINIMUM OF ONE SHADE TREE FOR EACH 10 PARKING SPACES IN THE PARKING AREA AND SHALL BE LANDSCAPED IN ACCORDANCE WITH A LANDSCAPING PLAN APPROVED BY THE PLANNING BOARD. NO LANDSCAPED ISLANDS ARE PROPOSED WITHIN THE PARKING AREA.

DESIGN WAIVERS REQUESTED

337-23A(3) LANDSCAPING SHALL INCLUDE FOUNDATION PLANTINGS IN PLANT BEDS NOT LESS THAN THREE (3) FEET ON THE FRONT, SIDES AND REAR OF THE BUILDING; THERE ARE NO FOUNDATION PLANTING ON THE SOUTH AND WEST FACE OF THE PROPOSED BUILDING.

337-23A(4) ONE TREE SHADE TREE OR ORNAMENTAL TREE SHALL BE PLANTED FOR EVERY FIVE (5) PARKING SPACES. SIXTEEN (16) TREES ARE REQUIRED; TEN (10) TREES ARE PROPOSED WITHIN THE PARKING LOT.

ZONING DISTRICTS IN PROXIMITY TO PROJECT SITE

MARLBORO TOWNSHIP ZONE	DESCRIPTION	COLTS NECK TOWNSHIP ZONE	DESCRIPTION
I-2	INDUSTRIAL (9 ACRES)	A-1	AGRICULTURAL RESIDENTIAL DISTRICT
LD	LOW-DENSITY/1 ACRE RESIDENTIAL	A-5	RURAL RESIDENTIAL DISTRICT
R/S-1	RETAIL SERVICE 1	AG	AGRICULTURAL DISTRICT
CF	COMMUNITY FACILITIES		

PARKING TABULATION

PARKING REQUIREMENTS PER SECTION 220-97F(1a): MANUFACTURING = 1 PARKING SPACE PER 800 S.F. GFA; WAREHOUSE = 1 PARKING SPACE PER 1,800 S.F. GFA; OFFICE – 1 PARKING SPACE PER 250 S.F. GFA

OFF-STREET PARKING CALCULATIONS (PHASE I)

MANUFACTURING AREA	(7,148 S.F./800 S.F.) = 8.9
WAREHOUSE AREA	(18,145 S.F./1,800 S.F.) = 10
TOTAL OFFICE AREA	(12,558 S.F./250 S.F.) = 50.2
TOTAL	= 69.0
TOTAL PARKING SPACES REQUIRED (PHASE I)= 70 SPACES	

OFF-STREET PARKING CALCULATIONS (PHASE II)

MANUFACTURING AREA	(9,004 S.F./800 S.F.) = 11.3
WAREHOUSE AREA	(18,074 S.F./1,800 S.F.) = 10
TOTAL OFFICE AREA	(12,558 S.F./250 S.F.) = 50.2
TOTAL	= 71.5
TOTAL PARKING SPACES REQUIRED (PHASE II)= 72 SPACES	

OFF-STREET PARKING CALCULATIONS (PHASE III)

MANUFACTURING AREA	(13,145 S.F./800 S.F.) = 16.5
WAREHOUSE AREA	(36,219 S.F./1,800 S.F.) = 20.1
TOTAL OFFICE AREA	(12,133 S.F./250 S.F.) = 48.5
TOTAL	= 85.1
TOTAL PARKING SPACES REQUIRED (PHASE III)= 100 SPACES	

PHASE I & II: OFF-STREET PARKING PROVIDED	PHASE III: OFF-STREET PARKING PROVIDED
TOTAL PARKING SPACES PROVIDED = 80 SPACES	TOTAL PARKING SPACES PROVIDED = 80 SPACES + 20 BANKED = 100 SPACES
REQUIRED HANDICAP PARKING SPACES = 4 SPACES; PROVIDED HANDICAP PARKING SPACES = 4 SPACES (3 OF WHICH IS VAN ACCESSIBLE)	REQUIRED HANDICAP PARKING SPACES = 4 SPACES; PROVIDED HANDICAP PARKING SPACES = 4 SPACES (3 OF WHICH IS VAN ACCESSIBLE)

FLOOR AREA CALCULATION

PROPOSED LOT 50: (PHASE I)

FIRST FLOOR	23,926 S.F.
SECOND FLOOR	9,153 S.F.
TOTAL	33,151 S.F.

FLOOR AREA RATIO = (33,151 S.F./409,281 S.F.=0.081) SAY: 0.10

PROPOSED LOT 50: (PHASE II & III)

FIRST FLOOR	52,170 S.F.
SECOND FLOOR	9,153 S.F.
TOTAL	61,323 S.F.

FLOOR AREA RATIO = (61,323 S.F./409,281 S.F.=0.15) SAY: 0.15

IMPERVIOUS LOT COVERAGE CALCULATION

EXISTING LOT 50		PROPOSED LOT 50: (PHASE I)		PROPOSED LOT 50: (PHASE II)		PROPOSED LOT 50: (PHASE III)	
BUILDING	0 S.F. (0%)	BUILDING	30,398 S.F. (7.3%)	BUILDING	30,170 S.F. (7.3%)	BUILDING	36,170 S.F. (8.8%)
PAVEMENT	48,969 S.F. (11.9%)	PAVEMENT	47,011 S.F. (11.5%)	PAVEMENT	47,011 S.F. (11.5%)	PAVEMENT	53,500 S.F. (13.1%)
PATH/SIDEWALKS	2,343 S.F. (0.6%)	PATH/SIDEWALKS	2,539 S.F. (0.6%)	PATH/SIDEWALKS	2,539 S.F. (0.6%)	PATH/SIDEWALKS	2,539 S.F. (0.6%)
TOTAL	51,312 S.F.	TOTAL	79,951 S.F.	TOTAL	109,243 S.F.	TOTAL	112,209 S.F.
(51,312 S.F./409,281 S.F.=0.125) 12.5%		(79,951 S.F./409,281 S.F.=0.195) 19.5%		(109,243 S.F./409,281 S.F.=0.267) 26.6%		(112,209 S.F./409,281 S.F.=0.274) 27.4%; REQUIRES 0.04 SF ADDITIONAL PAVEMENT FOR 20-BANKED PARKING SPACES	

REQUIRED OUTSIDE APPROVALS

- FREEHOLD SOIL CONSERVATION DISTRICT
- MONMOUTH COUNTY PLANNING BOARD
- NJDEP WETLANDS LETTER OF INTERPRETATION
- NJDEP DETERMINATION
- NJDEP FHA INDIVIDUAL PERMIT

APPROVED BY THE PLANNING BOARD OF THE TOWNSHIP OF MARLBORO

BOARD CHAIRMAN — DATE 9/16/2020

BOARD SECRETARY — DATE 9/16/2020

TOWNSHIP ENGINEER — DATE

500 250 0 500 1000

HORIZONTAL SCALED 1"=500'

GENERAL NOTES

1. OWNER: 156 BOUNDARY ROAD, LLC, 14 LEONARDVILLE ROAD, MIDDLETOWN, NJ 07748
2. APPLICANT: SRS PARTNERS, LLC, 14 LEONARDVILLE ROAD, MIDDLETOWN, NJ 07748, PHONE: (732) 706-0094 FAX: (732) 706-0329
3. LOCATION: BLOCK 214, LOT 50, 156 BOUNDARY ROAD, TAX MAP SHEET #02 (REV. 12/2009), TOWNSHIP OF MARLBORO, MONMOUTH COUNTY, NEW JERSEY
4. AREA: EXISTING: 10.003 ACRES (435,731 S.F.); PROPOSED: 9.396 ACRES (409,281 S.F.)
5. ZONE: LI: LIGHT INDUSTRIAL ZONE DISTRICT
6. EXISTING USE: VACANT
7. PROPOSED USE: INDUSTRIAL (MANUFACTURING/WAREHOUSE)
8. ATTORNEY: SALVATORE ALZERO, ESQ., CLEARY GIACOBBE ALFIERI JACOBS LLC, 955 STATE ROUTE 34, SUITE 200, MATAWAN, NJ 07747, PHONE: (732) 583-7474 FAX: (732) 290-0755
9. ENGINEER: GREGORY J. REDINGTON, PE, REDCOM DESIGN & CONSTRUCTION, LLC, PO BOX 140, WESTFIELD, NJ 07090, PHONE: (908) 233-9339 FAX: (908) 233-8837
10. INFORMATION SHOWN HEREON TAKEN FROM A MAP ENTITLED "BOUNDARY AND TOPOGRAPHIC SURVEY, 156 BOUNDARY ROAD, BLOCK 214, LOT 50, TOWNSHIP OF MARLBORO, MONMOUTH COUNTY, NEW JERSEY" PREPARED BY MASER CONSULTING, P.A. DATED 01/18/2018.
11. UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE. THEIR ACCURACY OR COMPLETENESS ARE NOT GUARANTEED BY THE ENGINEER. MARK OUTS FROM UTILITY COMPANIES AND FIELD CONFIRMATION BY CONTRACTOR MUST BE MADE PRIOR TO CONSTRUCTION SO THAT DISTURBANCE OR DISRUPTION TO THESE UTILITIES MAY BE AVOIDED.
12. FRESHWATER WETLANDS WERE FIELD DELINEATED BY EASTERN STATES ENVIRONMENTAL IN JUNE OF 2018. WETLAND BUFFERS SHOWN ARE ANTICIPATED AND ARE TO BE VERIFIED BY THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION VIA A LETTER OF INTERPRETATION.
13. ALL ELEVATIONS SHOWN ON THESE PLANS ARE REFERENCED TO NAVD 1929 DATUM.
14. THE SITE IS LOCATED WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE OF 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP FOR THE TOWNSHIP OF MARLBORO, MONMOUTH COUNTY, NJ, COMMUNITY PANEL NUMBER 3402080030C, EFFECTIVE DATE SEPTEMBER 19, 2006, PREPARED BY FEDERAL EMERGENCY MANAGEMENT AGENCY.
15. ANY IMPORTED FILL NEEDS TO MEET THE DEFINITION OF CLEAN FILL PURSUANT TO THE TECHNICAL REQUIREMENTS FOR SITE REMEDIATION (AS FOUND AT NJAC 7:26E-1.8).

PROJECT PHASE DESCRIPTION

PROPOSED PHASE I:
CONSTRUCTION 33,615 S.F. TWO-STORY BUILDING & 80-PARKING SPACES

FIRST FLOOR:	OFFICE AREA	3,465 S.F.
	WAREHOUSE AREA	19,145 S.F.
	MANUFACTURING AREA	7,148 S.F.
	TOTAL BUILDING FOOTPRINT AREA	23,926 S.F.
SECOND FLOOR: OFFICE AREA		9,153 S.F.

PROPOSED PHASE II:
CONSTRUCTION 25,172 S.F. ONE-STORY BUILDING ADDITION

FIRST FLOOR:	WAREHOUSE AREA	18,445 S.F.
	MANUFACTURING AREA	7,148 S.F.
	TOTAL ADDITION FOOTPRINT AREA	25,172 S.F.

PROPOSED PHASE III:
CONVERT 8,315 S.F. OF FIRST FLOOR AREA TO OFFICE USE & 20-BANKED PARKING SPACES

FIRST FLOOR:	OFFICE AREA	10,009 S.F.

THIS SET OF PLANS HAS BEEN ISSUED ALONG WITH NJDEP FHA INDIVIDUAL PERMIT, & FHA VERIFICATION & FRESHWATER WETLANDS WAIVER PERMIT No.: 1526-20-0003.1 LUP210001

FRESHWATER WETLANDS LOI: FILE No.: 1526-20-0003.1 ACTIVITY No.: FWW200001

GREGORY J. REDINGTON, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. No. 27543

SRS ENTERPRISES
BLOCK 214; LOT 50
MARLBORO TOWNSHIP
MONMOUTH COUNTY, NEW JERSEY

156 BOUNDARY ROAD

NJDEP FHA VERIFICATION & INDIVIDUAL PERMIT APPLICATION PLAN

COVER SHEET

REDCOM
DESIGN & CONSTRUCTION LLC

STATE OF NEW JERSEY CERTIFICATE OF AUTHORIZATION 24GA28036100 & 24GB280100

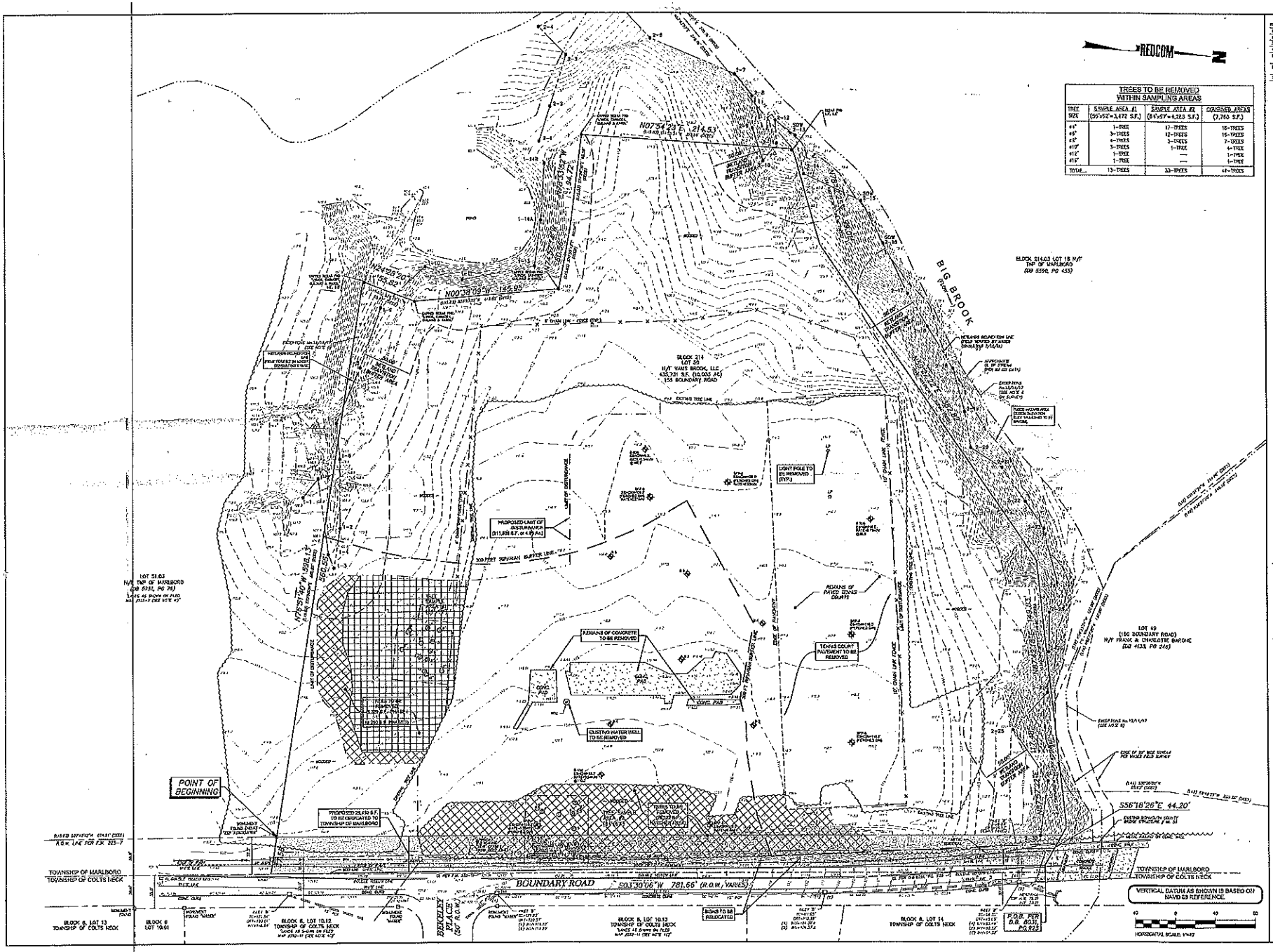
133 NORTH AVE EAST
PO BOX 140
WESTFIELD, NJ 07090

T. 908.233.9339
F. 908.233.8837

DRAWN: AR
CHECKED: GJR
DATE: 09.09.20
SCALE: AS NOTED

WWW.REDCOMLLC.COM

1



TREES TO BE REMOVED WITHIN SAMPLING AREAS

TREE SIZE	SAMPLE AREA #1 (55'x52'=3,472 S.F.)	SAMPLE AREA #2 (61'x57'=4,253 S.F.)	COMBINED AREAS (7,760 S.F.)
4"	1-TREE	17-TREES	18-TREES
6"	3-TREES	12-TREES	15-TREES
8"	4-TREES	3-TREES	7-TREES
10"	3-TREES	1-TREE	4-TREE
12"	1-TREE	—	1-TREE
16"	1-TREE	—	1-TREE
TOTAL	13-TREES	33-TREES	46-TREES

REVISIONS
1. 03.31.2023 REVISED PER DEL MEYER & NJDEP OF 03/30/23
2. 07.03.2023 REVISED PER DEL MEYER & NJDEP OF 06/30/23 & 07/03/23
3. 08.14.2023 REVISED PER NJDEP DATED OF 08/08/23 & 08/14/23
4. 09.25.2023 REVISED PER NJDEP EMAIL OF 09/25/23 & 09/26/23
5. 12.11.2023 REVISED PER NJ. COUNTY OFFICE OF CONFORM AND TOWNSHIP REVISIONS OF 12/08/23
6. 01.29.2024 REVISED PER NJ. COUNTY OFFICE OF CONFORM AND TOWNSHIP REVISIONS OF 01/29/2024
7. 07.08.2024 REVISED PER NJDEP PER REVIEW OF 06/06/24

THIS SET OF PLANS HAS BEEN ISSUED ALONG WITH NJDEP F.H.A. PROVISIONAL PERMIT, F.H.A. VERIFICATION & FRESHWATER W.T.A. WAIVER PERMIT No.: 1323-20-0005.1 LUF230001

FRESHWATER WETLANDS LLC:
FILE No.: 1323-20-0005.1
ACTIVITY No.: FWW200001

GREGORY J. REDYCZION, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. No. 27513

SRS ENTERPRISES
BLOCK 314, LOT 50
MARLBORO TOWNSHIP
MONMOUTH COUNTY, NEW JERSEY

156 BOUNDARY ROAD
NJDEP FHA VERIFICATION & INDIVIDUAL PERMIT APPLICATION PLAN

EXISTING CONDITIONS & DEMOLITION PLAN

REDCOM DESIGN & CONSTRUCTION LLC

STATE OF NEW JERSEY CERTIFICATE OF AUTHORIZATION ENGINEERING & PLANNING

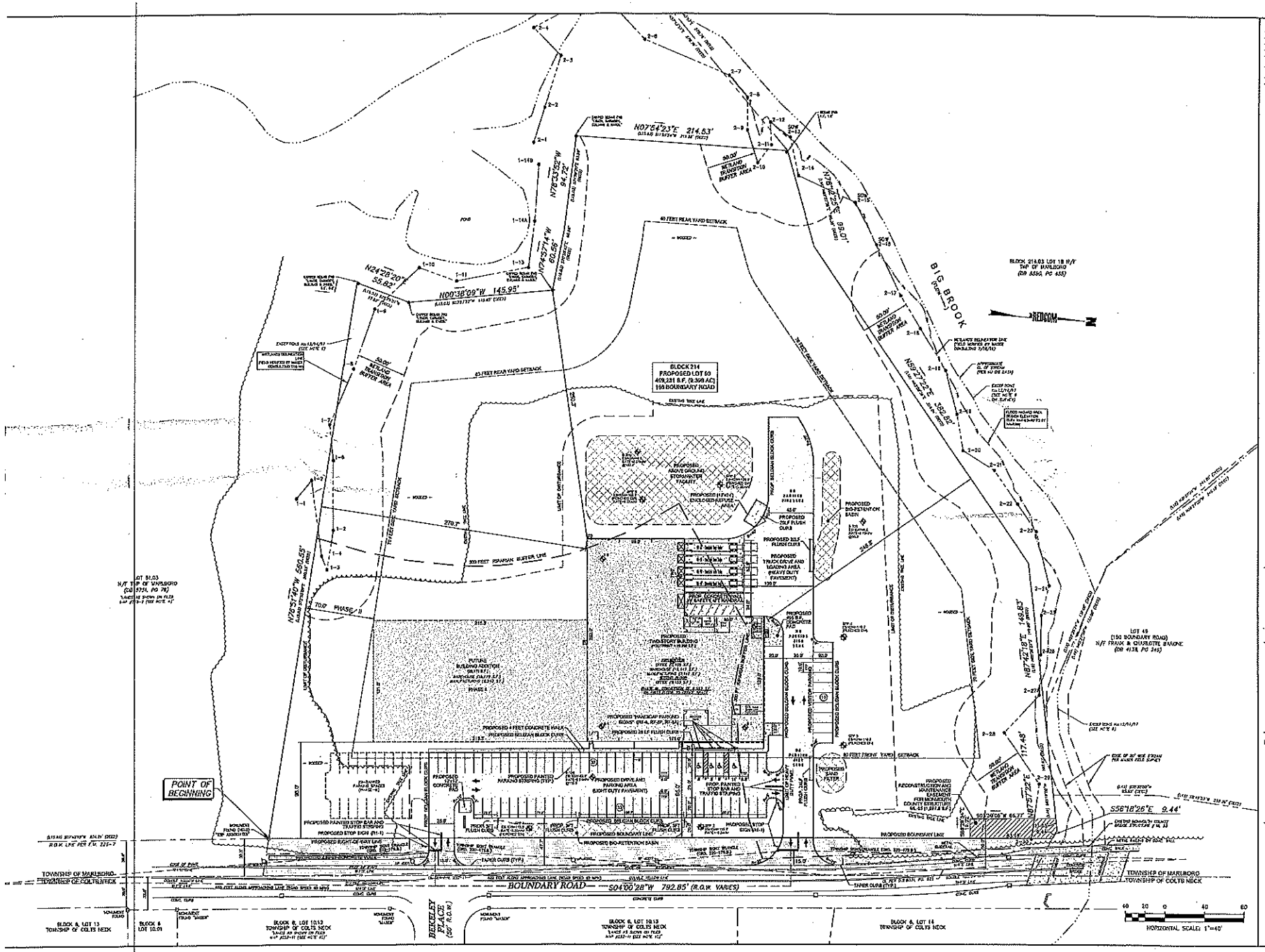
131 NORTH 2ND EAST
P.O. BOX 757
MANASQUAN, NJ 07740

T. 908.531.1000
F. 908.531.1037

DRAWN: AR
CHECKED: JR
DATE: 04.03.23
SCALE: 1"=40'

WWW.REDCOMLLC.COM

2



REVISIONS

1. 01/01/2025 REVISED PER NJ WETLANDS & LETTER OF COMMENTS
2. 01/01/2025 REVISED PER NJ WETLANDS & LETTER OF COMMENTS
3. 01/01/2025 REVISED PER NJ WETLANDS & LETTER OF COMMENTS
4. 01/01/2025 REVISED PER NJ WETLANDS & LETTER OF COMMENTS
5. 01/01/2025 REVISED PER STATE SHPO & LETTER OF COMMENTS AND SUBMISSION OF COMPLIANCE
6. 01/01/2025 REVISED PER STATE SHPO & LETTER OF COMMENTS AND SUBMISSION OF COMPLIANCE
7. 01/01/2025 REVISED PER TOWNSHIP FIRE DEPARTMENT COMMENTS

THIS SET OF PLANS HAS BEEN ISSUED ALONG WITH NJDEP F.H.A. INDIVIDUAL PERMIT, F.H.A. VERIFICATION & FRESHWATER W.L.A. WAIVER
PERMIT No.: 1526-20-0005.1 IND200001

FRESHWATER WETLANDS, LLC
FILE No.: 1526-20-0005.1
ACTIVITY No.: FWW200001

GREGORY J. REDINGTON, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. No. 37511

SRS ENTERPRISES

BLOCK 214, LOT 60
MARLBORO TOWNSHIP
MONMOUTH COUNTY, NEW JERSEY

155 BOUNDARY ROAD

NJDEP FHA VERIFICATION & INDIVIDUAL PERMIT APPLICATION PLAN

LAYOUT & DIMENSIONING PLAN

REDCOM
DESIGN & CONSTRUCTION LLC

STATE OF NEW JERSEY CERTIFICATE OF AUTHORIZATION
TRADESMEN & B-2000001000

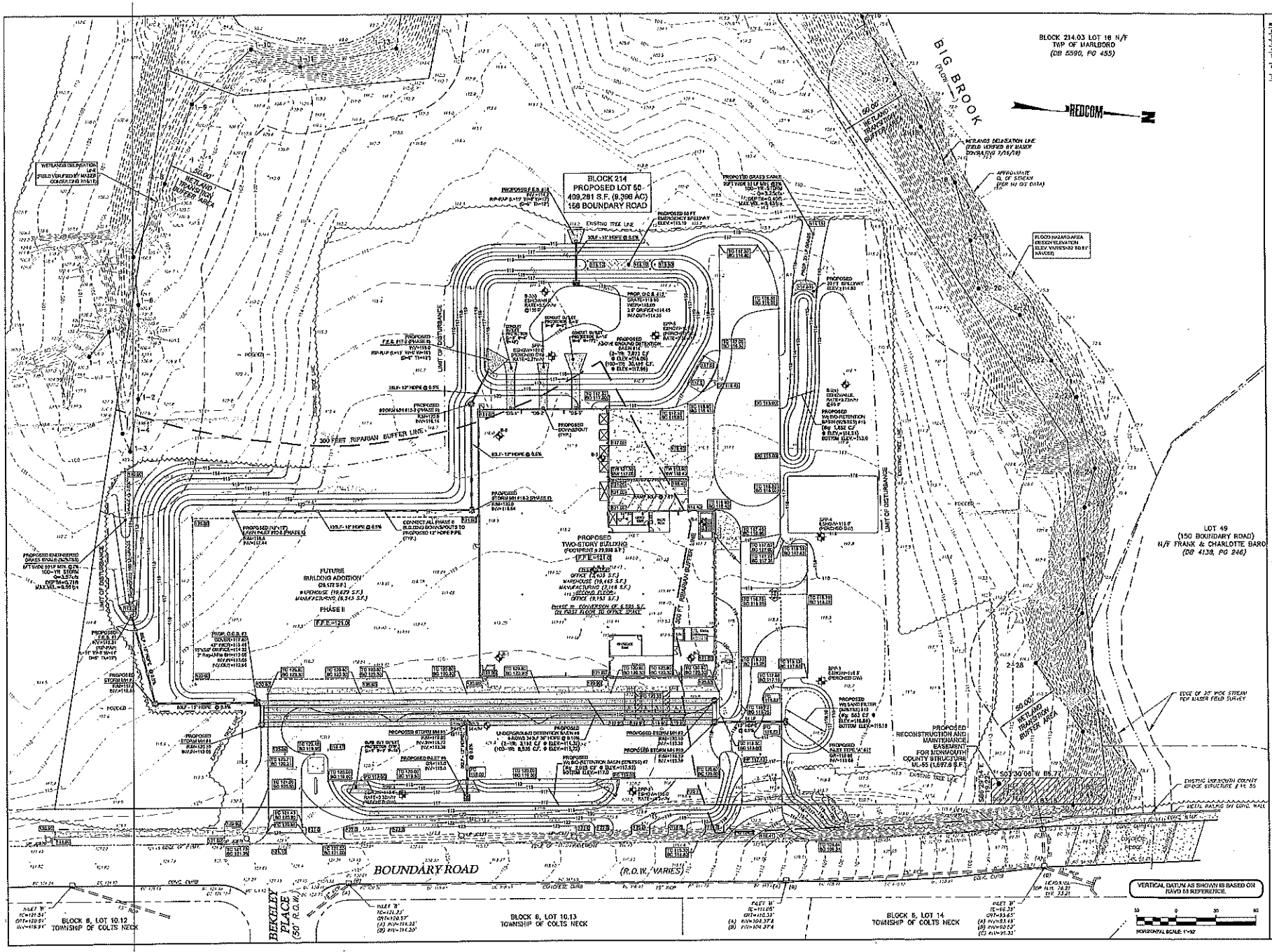
PO BOX 1, I-C EAST
ROOM 1-C-1
BELMAR, NJ 07719

T. 908.313.0370
F. 908.313.0377

DRAWN: JK
CHECKED: JJ
DATE: 06.05.20
SCALE: 1"=40'

WWW.REDCOMLLC.COM

3



THIS SET OF PLANS HAS BEEN ISSUED ALONG WITH NJDEP F.H.A. INDIVIDUAL PERMIT, F.H.A. VERIFICATION & FRESHWATER W.T.A. WAIVER
PERMIT No.: 1323-20-0006.1 LUP200001

FRESHWATER WETLANDS LOI:
FILE No.: 1323-20-0006.1
ACTIVITY No.: FWW200001

GREGORY J. REDINGTON, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. No. 34143

SRS ENTERPRISES

BLOCK 214, LOT 50
MARLBORO TOWNSHIP
MONMOUTH COUNTY, NEW JERSEY

156 BOUNDARY ROAD

NJDEP FHA VERIFICATION & INDIVIDUAL PERMIT APPLICATION PLAN

GRADING & DRAINAGE PLAN

REDCOM
DESIGN & CONSTRUCTION LLC

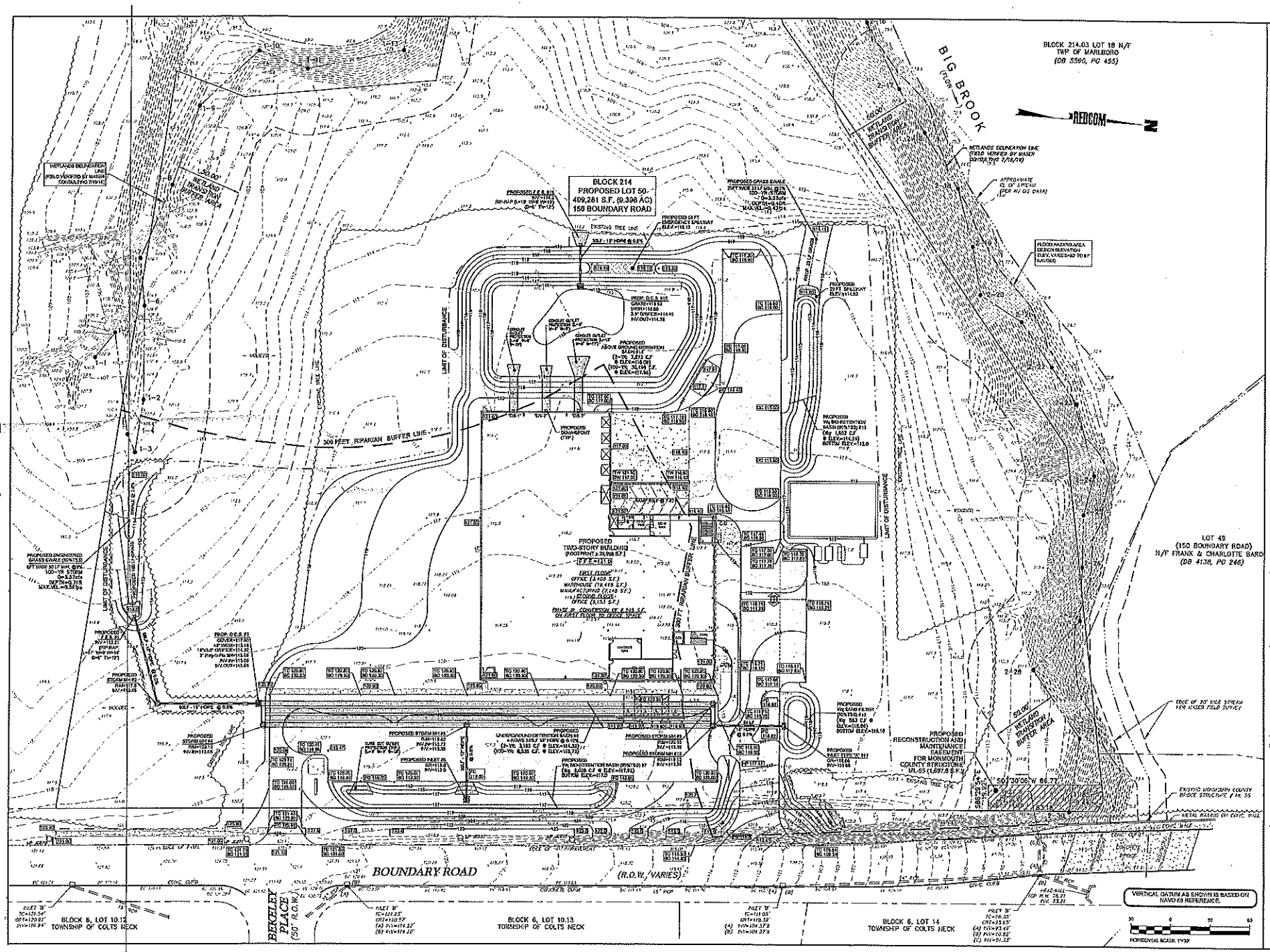
STATE OF NEW JERSEY CERTIFICATE OF AUTHORIZATION
ENGINEERING & SURVEYING

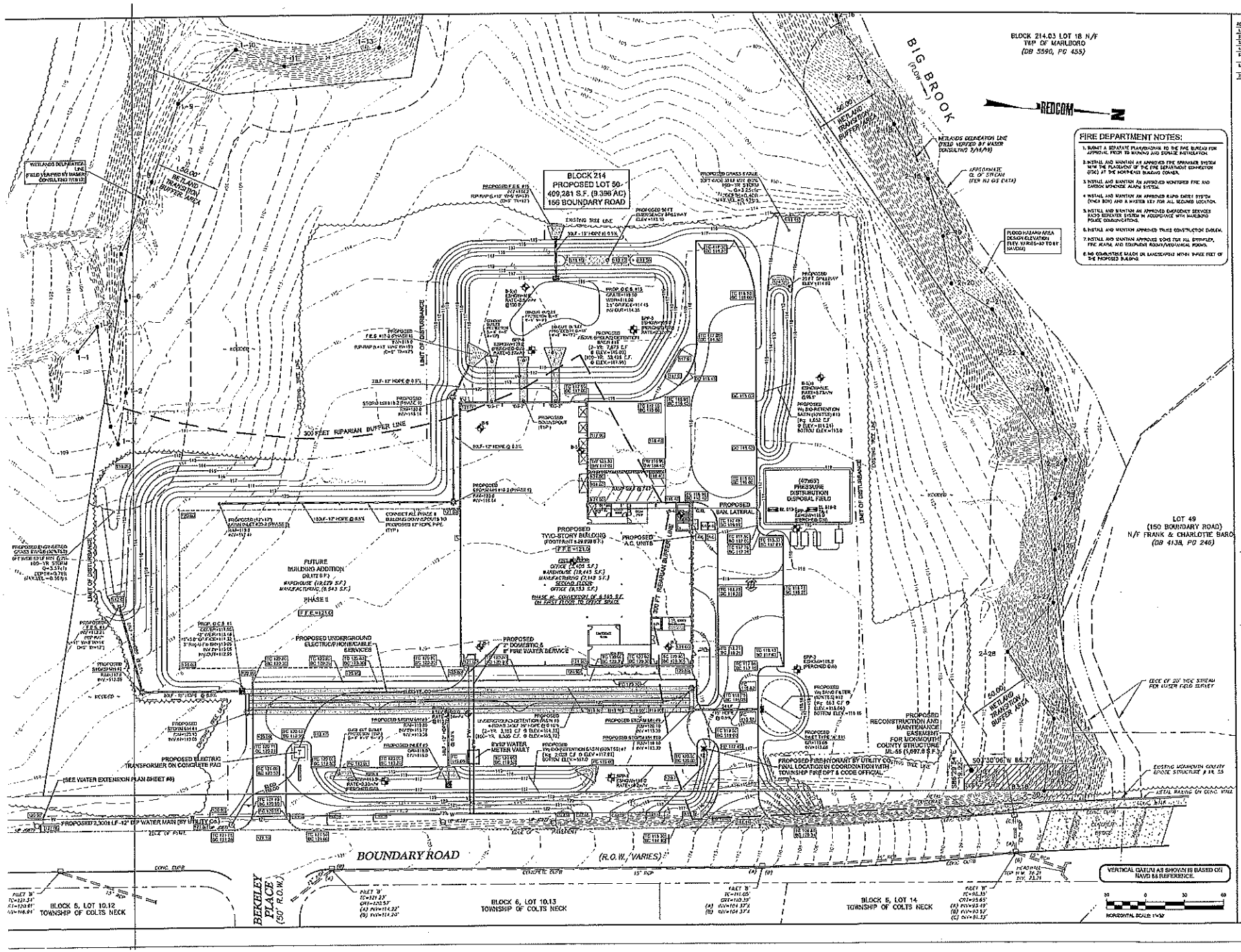
433 NORTH AVE EAST
AVENEL, NJ
WESTFIELD, NJ 07090

T. 908.232.4230
F. 908.232.8817

DRAWN: JR
CHECKED: JR
DATE: 06.05.20
SCALE: 1"=30'

4


BLOCK 214.03 LOT 18 N/F
TWP OF MARLBORO
(DB 5590, PG 455)
BIG BROOK
REDCOM
BLOCK 214
PROPOSED LOT 50
409,281 S.F. (9.396 AC)
150 BOUNDARY ROAD
LOT 49
(150 BOUNDARY ROAD)
N/F FRANK & CHARLOTTE BARO
(DB 4138, PG 246)
PROPOSED
TWO-STORY BUILDING
(FOOTPRINT = 29,998 S.F.)
300 FEET RIPARIAN BUFFER LINE
LIMIT OF DISTURBANCE
PROPOSED
RECONSTRUCTION AND
MAINTENANCE
EASEMENT
FOR MONMOUTH
COUNTY STRUCTURE
BOUNDARY ROAD
(R.O.W. VARIES)
BERKELEY
PLACE
(50' R.O.W.)
BLOCK 6, LOT 10.12
TOWNSHIP OF COLTS NECK
BLOCK 6, LOT 10.13
TOWNSHIP OF COLTS NECK
BLOCK 6, LOT 14
TOWNSHIP OF COLTS NECK
VERTICAL DATUM AS SHOWN IS BASED ON
NAVD 88 REFERENCE.
HORIZONTAL SCALE: 1"=30'
THIS SET OF PLANS HAS BEEN ISSUED
ALONG WITH UNDER
F.H.A. INDIVIDUAL PERMIT,
F.H.A. VERIFICATION &
FRESHWATER WETLANDS WAIVER
PERMIT No.: 1828-20-0001.1 IUP200001
FRESHWATER WETLANDS LOI:
FILE No.: 1828-20-0001.1
ACTIVITY No.: FWW200001
GREGORY J. REDINGTON, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. No. 37510
SRS
ENTERPRISES
BLOCK 214, LOT 50
MARLBORO TOWNSHIP
MONMOUTH COUNTY, NEW JERSEY
150 BOUNDARY ROAD
NJDEP FHA VERIFICATION &
INDIVIDUAL PERMIT APPLICATION PLAN
GRADING &
DRAINAGE PLAN
PHASE - I
REDCOM
DESIGN & CONSTRUCTION LLC
4a



THIS SET OF PLANS HAS BEEN ISSUED ALONG WITH NJDEP F.H.A. INDIVIDUAL PERMIT, F.H.A. VERIFICATION & FRESHWATER WETLANDS LOI/WAIVER PERMIT No.: 1325-20-0002.1 LUP200001

FRESHWATER WETLANDS LOI: FILE No.: 1325-20-0002.1 ACTIVITY No.: FWW200001

GREGORY J. REDINGTON, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. No. 27149

SRS ENTERPRISES

BLOCK 214, LOT 50
MARLBORO TOWNSHIP
MONMOUTH COUNTY, NEW JERSEY

156 BOUNDARY ROAD

NJDEP FHA VERIFICATION & INDIVIDUAL PERMIT APPLICATION PLAN

UTILITY PLAN

REDCOM DESIGN & CONSTRUCTION LLC

STATE OF NEW JERSEY CERTIFICATE OF AUTHORIZATION FIRM/LICENSE # 24GA28021600

430 NORTH 4th EAST
P.O. BOX 193
MANTOLOKING, NJ 07750

T. 908.334.4030
F. 908.334.0429

DRAWN: JS
CHECKED: JS
DATE: 07.09.20
SCALE: 1"=30'

www.redcomdesign.com

5

EXISTING WATERMAIN STUB TO BE FIELD VERIFIED

VANDERBURG ROAD

INSTALLATION OF WATERMAIN BY GORDON'S CORNER WATER COMPANY

BLOCK 214 LOT 61.03

BLOCK 214 LOT 61.01

BLOCK 214 LOT 62

2,300± LF 12" DIP WATERMAIN

MARLBORO TOWNSHIP

COLTS NECK TOWNSHIP

BOUNDARY ROAD

CRINE RD.

BLOCK 6 LOT 10.03

BLOCK 6 10.02

BLOCK 6 LOT 10

MATCH LINE (STA 16+00)

N

REDCOM

PROPOSED WATERMAIN EXTENSION PLAN (BY OTHERS) (STA 0+00 TO STA 15+00)

SCALE 1"=40'

MATCH LINE (STA 16+00)

BLOCK 214 LOT 51.03

INSTALLATION OF WATERMAIN BY GORDON'S CORNER WATER COMPANY

2,300± LF 12" DIP WATERMAIN

BLOCK 214 LOT 60

PROPOSED HYDRANT

PROPOSED WATER SERVICE

BOUNDARY ROAD

MARLBORO TOWNSHIP

COLTS NECK TOWNSHIP

BERKLEY PLACE

BLOCK 6 LOT 10.13

BLOCK 6 LOT 10.01

BLOCK 6 LOT 14

PROPOSED WATERMAIN EXTENSION PLAN (BY OTHERS) (STA 15+00 TO STA 24+00)

SCALE 1"=40'

HORIZONTAL SCALE: 1"=40'

REVISIONS

1. 03.08.22 REVISED AS PER NJDEP & LETTER OF COMMENTS
2. 03.18.22 REVISED AS PER NJDEP & LETTER OF COMMENTS DATED 03.11.22
3. 04.04.22 REVISED PER NJDEP LETTER OF COMMENTS DATED 03.31.22
4. 05.05.22 REVISED PER NJDEP SUBMITTAL COMMENTS
5. 05.06.22 REVISED PER N.A. OWN'S LETTER OF COMMENTS AND TOWNSHIP RESOLUTION OF COMMENTS
6. 05.09.22 REVISED PER N.A. OWN'S LETTER OF COMMENTS AND TOWNSHIP RESOLUTION OF COMMENTS
7. 07.06.22 REVISED PER NJDEP SUBMITTAL COMMENTS

THIS SET OF PLANS HAS BEEN ISSUED ALONG WITH NJDEP F.H.A. INDIVIDUAL PERMIT, F.H.A. VERIFICATION & PRESERVATION WITH WAIVER PERMIT No.: 1323-22-0003.1 LUP220001

FRESHWATER WETLANDS LOI: FILE No.: 1323-22-0003.1 ACTIVITY No.: FWW220001

GREGORY J. REDINGTON, P.E.
NJ REG. PROFESSIONAL ENGINEER LIC. No. 27510

SRS ENTERPRISES

BLOCK 214, LOT 60
MARLBORO TOWNSHIP
MONMOUTH COUNTY, NEW JERSEY

158 BOUNDARY ROAD

NJDEP FHA VERIFICATION & INDIVIDUAL PERMIT APPLICATION PLAN

WATERMAIN EXTENSION PLAN

REDCOM DESIGN & CONSTRUCTION LLC

STATE OF NEW JERSEY CERTIFICATE OF AUTHORIZATION ENGINEERING & SURVEYING

433 NORTH FIFTH STREET
RED BANK, NJ 07701

P. 908.933.4420
F. 908.933.8377

DRAWN: AR
CHECKED: AR
DATE:
SCALE: 1"=40'

6

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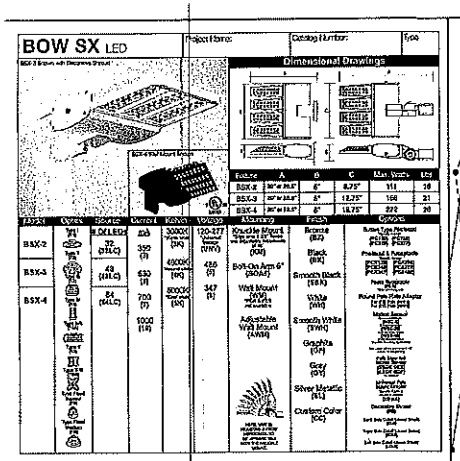
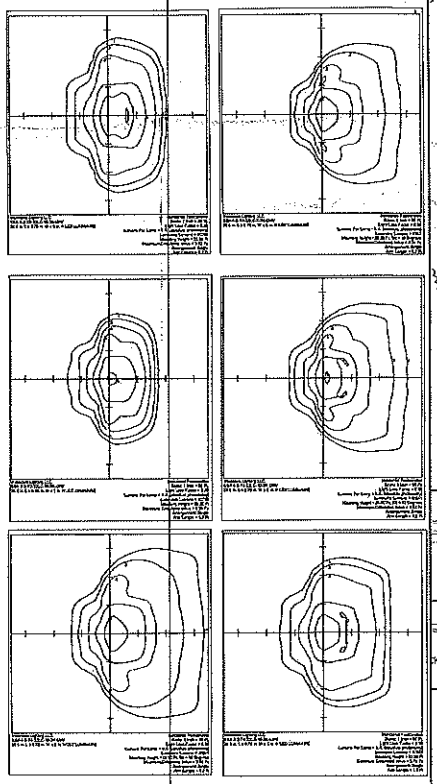
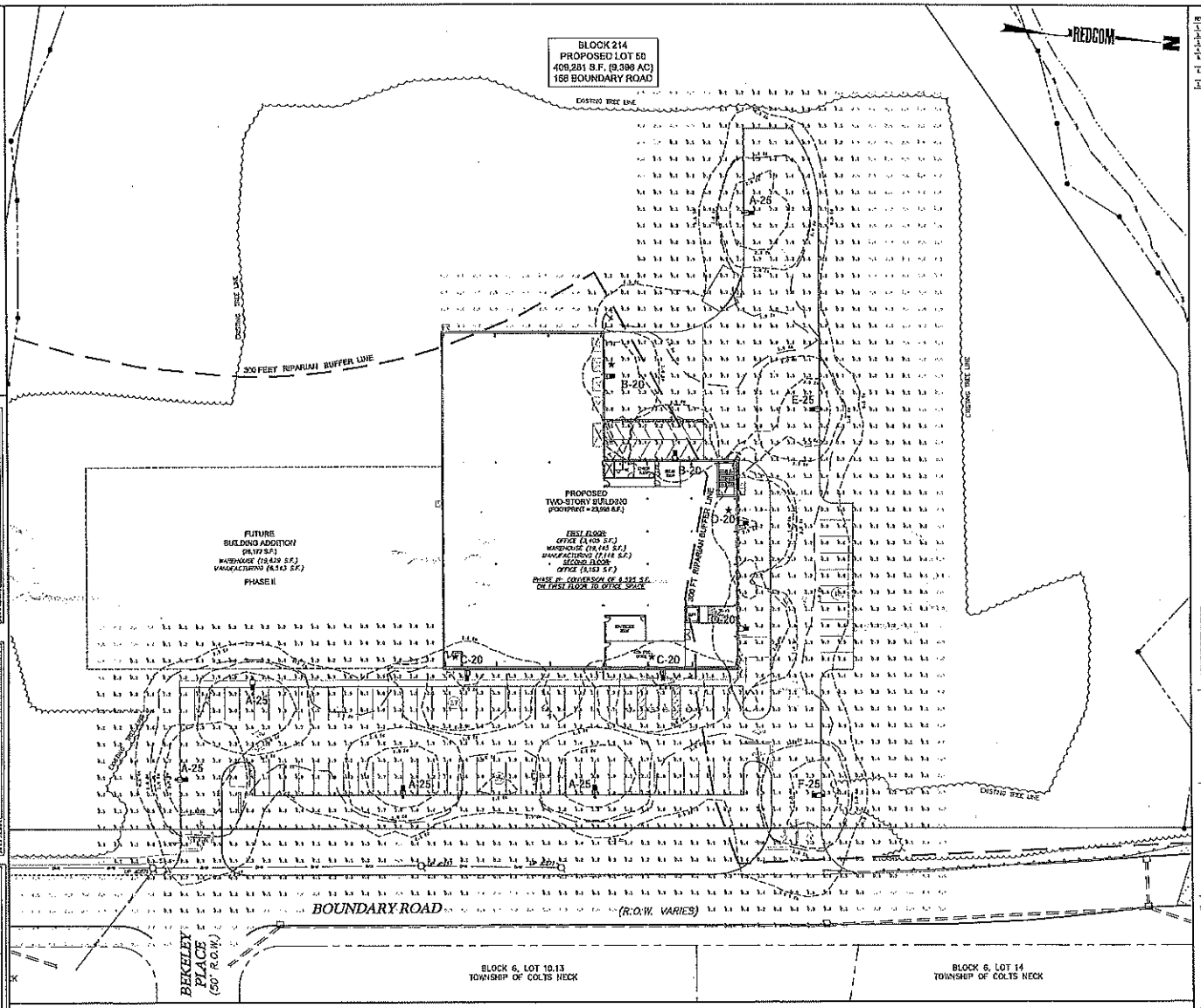




PROPOSED ISOLUX PATTERN DETAILS

SCALE 1"=60'



LIGHTING DESIGN CALCULATION SUMMARY: (ORDINANCE 220-164)			
DESCRIPTION	UNITS	REQUIRED	PROPOSED
MINIMUM FOOTCANDLES	FOOTCANDLE (FC)	0.5 FC	0.5 FC
AVERAGE MINIMUM FOOTCANDLE	FOOTCANDLE (FC)	0.5 FC	0.85 FC
MAXIMUM FIXTURE MOUNTING HEIGHT	FEET (FT)	25 FT	20 TO 25 FT
LIGHT FIXTURE SPACING NOT TO EXCEED 5x MOUNTING HEIGHT	FEET (FT)	125 FT	104 FT MAX.

LEGEND

A-20 — MOUNTING HEIGHT (FEET)
— LIGHT FIXTURE
— SECURITY LIGHT (TO REMAIN ON ALL NIGHT)

LUMINAIRE SCHEDULE

SYMBOL	QTY	LABEL	ARRANGEMENT	LLF	DESCRIPTION	LUM. WATTS	TOTAL WATTS
	6	A	SINGLE	0.950	VISIONAIRE BSX-R-2-T3-33LC-10-3K-VOLT-SINGLE @ 25' MTG. HT. (N)	109	545
	2	B	SINGLE	0.950	VISIONAIRE BSX-R-2-T4-33LC-7-3K-VOLT-AWM @ 20' MTG. HT. 10° TILT	72	144
	2	C	SINGLE	0.950	VISIONAIRE BSX-R-2-T3-33LC-10-3K-VOLT-AM @ 20' MTG. HT.	109	218
	2	D	SINGLE	0.950	VISIONAIRE BSX-R-2-T4-33LC-10-3K-VOLT-AWM @ 20' MTG. HT 10° TILT	109	218
	1	E	SINGLE	0.950	VISIONAIRE BSX-R-2-T4-33LC-10-3K-VOLT-AM SINGLE @ 25' MTG. HT. 10° TILT (N)	109	109
	1	F	SINGLE	0.950	VISIONAIRE BSX-R-2-T4-33LC-10-3K-VOLT- SINGLE @ 25' MTG. HT. (N)	109	109

GENERAL NOTE

1. ALL LIGHT SHALL BE EXTINGUISHED 1 HOUR AFTER FACILITY CLOSES WITH THE EXCEPTION OF SECURITY LIGHTING DESIGNATED WITH A STAR.

VERTICAL DATUM AS SHOWN IS BASED ON NAVD 88 REFERENCE.

30 0 30 60

HORIZONTAL SCALE, FEET

REVISIONS

1. 03.30.2021 REVISED PER NJ HEPA & LETTER OF COMMENTS
2. 07.14.2021 REVISED PER NJ HEPA LETTER OF COMMENTS DATED 06.15.21
3. 10.14.2021 REVISED PER NJ HEPA LETTER OF COMMENTS 10.12.2021
4. 11.01.2021 REVISED PER NJ HEPA LETTER OF COMMENTS DATED 11.01.2021
5. 12.06.2021 REVISED PER NJ HEPA LETTER OF COMMENTS AND TOWNSHIP RESOLUTION OF COMPLIANCE
6. 03.03.2022 REVISED PER NJ HEPA LETTER OF COMMENTS AND TOWNSHIP RESOLUTION OF COMPLIANCE
7. 03.28.2022 REVISED PER TOWNSHIP FIRE DEPARTMENT COMMENTS

THIS SET OF PLANS HAS BEEN SIGNED ALONG WITH NJDEP F.H.A. INDIVIDUAL PERMIT, F.H.A. VERIFICATION & FRESHWATER E.G.A. WAIVER PERMIT No.: 1323-20-0002.1 | IND20000001

FRESHWATER WETLANDS LOI:
FILE No.: 1323-20-0002.1
ACTIVITY No.: FWW200001

GREGORY J. REDINGTON, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. No. 27541

SRS ENTERPRISES

BLOCK 214, LOT 50
MARLBORO TOWNSHIP
MONMOUTH COUNTY, NEW JERSEY

158 BOUNDARY ROAD

NJDEP F.H.A. VERIFICATION & INDIVIDUAL PERMIT APPLICATION PLAN

LIGHTING PLAN & DETAILS

REDCOM
DESIGN & CONSTRUCTION LLC

STATE OF NEW JERSEY CERTIFICATE OF AUTHORIZATION DESIGN FIRM & PROFESSIONAL

437 NORTH ARC EAST
P.O. BOX 215
WEYMOUTH, NJ 07440

2. 908.849.0400
F. 908.849.0401

DRAWN: JG
CHECKED: JG
DATE: 03.28.22
SCALE: 1"=20'

7

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GENERAL LANDSCAPE NOTES:

1. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE TOWNSHIP ENGINEER, TOWNSHIP PLANNER AND DESIGN ENGINEER FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION.
2. SITE PLAN SHALL MAINTAIN THE LANDSCAPING AS SHOWN ON THESE APPROVED PLANS.
3. IN THE EVENT THAT PLANT QUANTITY DISCREPANCIES OR MATERIAL OMISSIONS OCCUR IN THE PLANTING SCHEDULE, THE PLAN SHALL GOVERN.

PLANTING NOTES:

1. ALL PLANTS PROVIDED FOR THE LANDSCAPE INSTALLATION SHALL BE HEALTHY AND OF ATTRACTIVE APPEARANCE. ALL PLANTS SHALL BE APPROVED BY REDCOM AT THE SITE OR LANDSCAPERS NURSERY ON FARM. LARGE SPECIMENS MAY REQUIRE INSPECTION AND APPROVAL AT THEIR NURSERY LOCATION. UNSUITABLE PLANTS WILL BE REPLACED WITH LIKE MATERIAL OF SUITABLE QUALITY. ANY PLANTS DAMAGED DURING INSTALLATION SHALL BE REPLACED WITH LIKE MATERIAL. ALL PLANTS SHALL CONFORM TO A.A.N. STANDARDS FOR THEIR SIZE, SHAPE AND ROOT CONDITION.
2. THE LANDSCAPER SHALL COLLECT AND STOCK AT LEAST ENOUGH MATERIAL TO OCCUPY HIS CREW FOR A FULL DAY. HE SHALL CONTACT REDCOM TWO DAYS PRIOR TO DELIVERY TO THE SITE. REDCOM WILL ASSIST THE CREW IN THE PLACEMENT OF PLANTS UPON BEDS TO INSURE THE MAXIMUM EXECUTION OF THE DESIGN. IF ADDITIONAL DAYS OF PLANTING ARE REQUIRED, THE CREW CHIEF OR CONTRACTOR MAY PLACE PLANTS IN BEDS UPON THE APPROVAL OF REDCOM.
3. THE LANDSCAPE PLAN IS FLEXIBLE AND MODIFICATIONS WHICH WILL IMPROVE THE FINISHED INSTALLATION WILL BE CONSIDERED BY REDCOM. SPECIES WHICH ARE NOT AVAILABLE MAY BE SUBSTITUTED, BUT ONLY AT THE APPROVAL OF THE TOWNSHIP ENGINEER.
4. THE LANDSCAPER SHOULD EXAMINE ALL ENGINEER DRAWINGS FOR THE EXACT LOCATION OF UTILITIES, DRAINS, ETC., AND ADJUST THE PLANTING ACCORDINGLY. THE LANDSCAPER AND CREW FOREMAN SHOULD VISIT THE SITE TO FAMILIARIZE THEMSELVES WITH ALL EXISTING CONDITIONS AND NOTIFY REDCOM IF ANY CONFLICTS APPEAR.
5. EXISTING TREES WHICH ARE NOT SHOWN ON THE PLAN AND ARE TO BE RETAINED WILL BE FLAGGED AND PROTECTED IF NECESSARY. PLANTING AND BERMS OR MOUNDS SHALL BE ADJUSTED ACCORDINGLY AT THE DIRECTION OF REDCOM.
6. THE LANDSCAPER SHALL NOT INTERFERE WITH THE WORK OF OTHER SUB-CONTRACTORS ON THE JOB. ANY CONFLICT IN THE EXECUTION OF THE INSTALLATION SHOULD BE BROUGHT TO THE IMMEDIATE ATTENTION OF REDCOM.
7. LANDSCAPER WILL ACCEPT THE SITE AS BEING ROUGH GRADED WHEN THEY BEGIN WORK AND WILL BE RESPONSIBLE FOR ALL REMAINING FINE GRADING AND PLACEMENT OF TOPSOIL WHERE NECESSARY.
8. ALL SHRUB BEDS WILL BE MULCHED WITH WEED RETARDANT FABRIC (WEED CHECK, OR EQUAL) USE 3" SHREDDED HARDWOOD BARK OVER WEED RETARDANT FABRIC. NO MULCH SHALL COME INTO CONTACT CONTACT WITH THE ROOT FLARE.
9. PLANT HOLES SHALL BE DUG WITH VERTICAL WALLS AND SHALL BE TWICE THE DIAMETER OF THE BALL OR CONTAINER AND A MINIMUM OF 8" DEEPER THAN THE BALL OR CONTAINER HEIGHT.
10. BACKFILL ALL PLANTS WITH A INCORPORATED MIXTURE OF ONE (1) PART PEAT MOSS AND FIVE (5) PARTS SCREENED TOPSOIL (NOT SHREDDED).
11. ALL AREAS TO BE SEEDED OR SODDED SHALL CONFORM TO THE REQUIREMENTS OF THE APPROVED SOIL EROSION AND SEDIMENT CONTROL PLAN.
12. ALL STAKES AND GUYING SHALL BE REMOVED AFTER ONE YEAR.
13. ALL PLANTINGS ARE GUARANTEED FOR TWO YEAR OF THE DATE OF PLANTING, HOWEVER, IT IS UNDERSTOOD THAT THE OWNER WILL PROVIDE ADEQUATE AND TIMELY CARE AT ALL TIMES TO MAINTAIN THE LANDSCAPING AS SHOWN IN THE APPROVED LANDSCAPE PLAN.
14. PROVIDE #200 PLASTIC OPEN MESH FENCE GUARD A.M. LEGUARD (OR APPROVED EQUAL) TO PROPOSED TREES TO BE PLANTED.
15. TREE REMOVAL PERMIT SHALL BE OBTAINED PRIOR TO ANY SITE DISTURBANCE.

SEEDING NOTES:

PERMANENT STABILIZATION SPECIFICATIONS:

A. APPLY TOPSOIL TO A DEPTH OF 5 INCHES (UNSETTLED).
B. APPLY GROUND LIMESTONE AT A RATE OF 89 LBS PER 1000 S.F. AND WORK FOUR INCHES INTO SOIL.
C. APPLY FERTILIZER (10-20-10) AT A RATE OF 11 LBS PER 1000 S.F.
D. APPLY HARD FESCUE SEED AT 2.7 LBS PER 1000 S.F. AND CREEPING RED FESCUE SEED AT 0.7 LBS PER 1000 S.F. AND PERENNIAL RYEGRASS SEED AT 0.25 LBS PER 1000 S.F.
E. MULCH STOCKPILE WITH STRAW OR HAY AT A RATE OF 60 LBS PER 1000 S.F.
F. APPLY A LIQUID MULCH BINDER ON TOP OF STRAW OR HAY MULCH.
G. ABOVE RETENTION BASIN AREAS WILL BE PLANTED WITH NATIVE WET MIX RECOMMENDED FOR THIS USE AS PER TABLE 4-2 IN THE "STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY" FOR USDA PLANT HARDINESS ZONE 6b.

MIX #:	OCCURRENCE	SIZE	SUITABLE FOR
	53 lbs/ac.	BOTTOM	2 lbs/ac.
	MILD WET (SLYMAS) 15 lbs/ac.	SWITCHGRASS	25 lbs/ac.

WITH OPTIMAL PLANTING PERIOD BETWEEN 3/1 AND 4/30
MAINTENANCE LEVEL (D): IMPLEMENT ON NO MOWING, FERTILIZATION AND LIME THE FIRST YEAR OF ESTABLISHMENT (EXAMPLES: ROADSIDES, RESTORATION AREAS, PUBLIC OPEN SPACES)

LANDSCAPE MAINTENANCE PROCEDURES:

A. WEEDS AND WEED CONTROL
LANDSCAPE LITTER, WEEDS AND LITTER SHALL BE REMOVED FROM ALL LANDSCAPED AREAS TO PROVIDE A NEAT, ORDERLY AND WELL-MAINTAINED APPEARANCE. PAVED AREAS SHALL BE SWEPT AT REGULAR INTERVALS TO REMOVE DEBRIS AND LITTER AND PREVENT THEIR TRANSPORT TO THE DRAINAGE SYSTEM.

B. MULCHING
ALL PLANTING BEDS WITH EXISTING OR SPECIFIED ORGANIC MULCH SHALL BE MAINTAINED WITH A MINIMUM TWO-INCH DEPTH OF SHREDDED BARK MULCH ON AN EQUIVALENT TO MAINTAIN THIS LEVEL. NEW MULCH SHALL BE APPLIED EACH SPRING AS NEEDED. CARE SHALL BE TAKEN TO PREVENT NEWLY APPLIED MULCH FROM BEING SWEPT AWAY BY OVERLAND DRAINAGE FLOWS.

C. DECORATIVE STONE AREAS
AREAS WITH DECORATIVE STONE OR OTHER MATERIALS SHALL BE MAINTAINED WITH A NEAT APPEARANCE. WEEDS, BARE GROUND OR EXPOSED LANDSCAPE FABRIC SHALL REQUIRE ACTION TO REPAIR DAMAGED AREAS AND REMOVE UNSIGHTLY WEEDS OR LITTER.

D. PLANTINGS
LANDSCAPE MAINTENANCE SHALL INCLUDE THE RE-SEEDING OR REPLANTING OF LANDSCAPE AREAS THAT ARE DAMAGED, DESTROYED OR FAILING DUE TO INSECTS, DISEASE, WEATHER OR PHYSICAL DAMAGE. ALL LANDSCAPED AREAS WHICH ARE DAMAGED, DESTROYED OR ARE FAILING AS DESCRIBED ABOVE, SHALL BE REPLANTED OR REPAIRED AS SOON AS POSSIBLE.

E. WATERING
THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR WATERING THE NEW PLANTINGS TILL IT HAS BEEN DETERMINED THE PLANTS HAVE BEEN ESTABLISHED TO THE SATISFACTION OF THE TOWNSHIP. AFTER THE PLANTS HAVE BEEN ESTABLISHED THE PROPERTY OWNER IS RESPONSIBLE FOR WATERING THE NEW PLANTINGS ON A REGULARLY BASIS AS NEEDED AND CONDITIONS REASONABLY PERMIT.

LANDSCAPING INSTALLATION NOTES:

1. THE TOP 1/3 OF ANY WIRE BASKETS ARE TO BE REMOVED IN ADDITION TO CUTTING WIRE BANDS ON THE REMAINING 2/3 OF BALL.
2. BURLAP IS TO BE REMOVED FROM THE TOP 1/3 OF THE ROOT BALL. REMAINING BURLAP ON THOSE ARE TO BE CUT.
3. ALL STRINGS ARE TO BE REMOVED FROM THE ROOT BALL.
4. THE PREPARATION HOLE MUST BE AT LEAST 12" LARGER AROUND THE ENTIRE ROOT BALL.
5. ALL TREES WILL HAVE ONE CENTRAL LEADER.
6. TREES SHALL BE HEAVY AND NOT BE PRUNED, EXCEPT FOR SPECIFIC APPROVAL OF THE TOWNSHIP ENGINEER.
7. TREES OF 3 1/2" CALIPER SHALL BE STAKED, NEW PLASTIC GUY TIES.
8. HOLE PREPARATION SHOULD BE 1 PART PEAT MOSS, 1 PART COW MANURE, 3 PARTS TOPSOIL.
9. A NOTATION SHOULD STATE THAT THE ROOT BALL SHOULD BE PLACED ON "A 2" MOUND OF COMPACTED BACKFILL MIXTURE".
10. ROOT FLARE SHALL BE PLACED FLUSH WITH GRADE OR SEVERAL INCHES HIGHER IN POORLY DRAINED SOIL.
11. PROPOSED LANDSCAPING LOCATED ADJACENT TO CURB OR PAVEMENT SHALL BE INSTALLED MINIMUM 3 FEET FROM THE EDGE OF CURB OR PAVEMENT.

TREE REMOVAL AND REPLACEMENT CALCULATIONS:

PER SECTION 337-12C.1.-
SEE SHEET #2 "EXISTING CONDITIONS & EVALUATION PLAN" FOR WOODED AREAS TO BE CLEARED WITHIN THE LIMIT OF DISTURBANCE.
SAMPLE AREA #1 (S.A. #1): (56'x52'=2,912 S.F.) SAMPLE AREA #2 (S.A. #2): (64'x67'=4,288 S.F.)

TREE REPLACEMENT SCHEDULE WITHIN SAMPLING AREAS

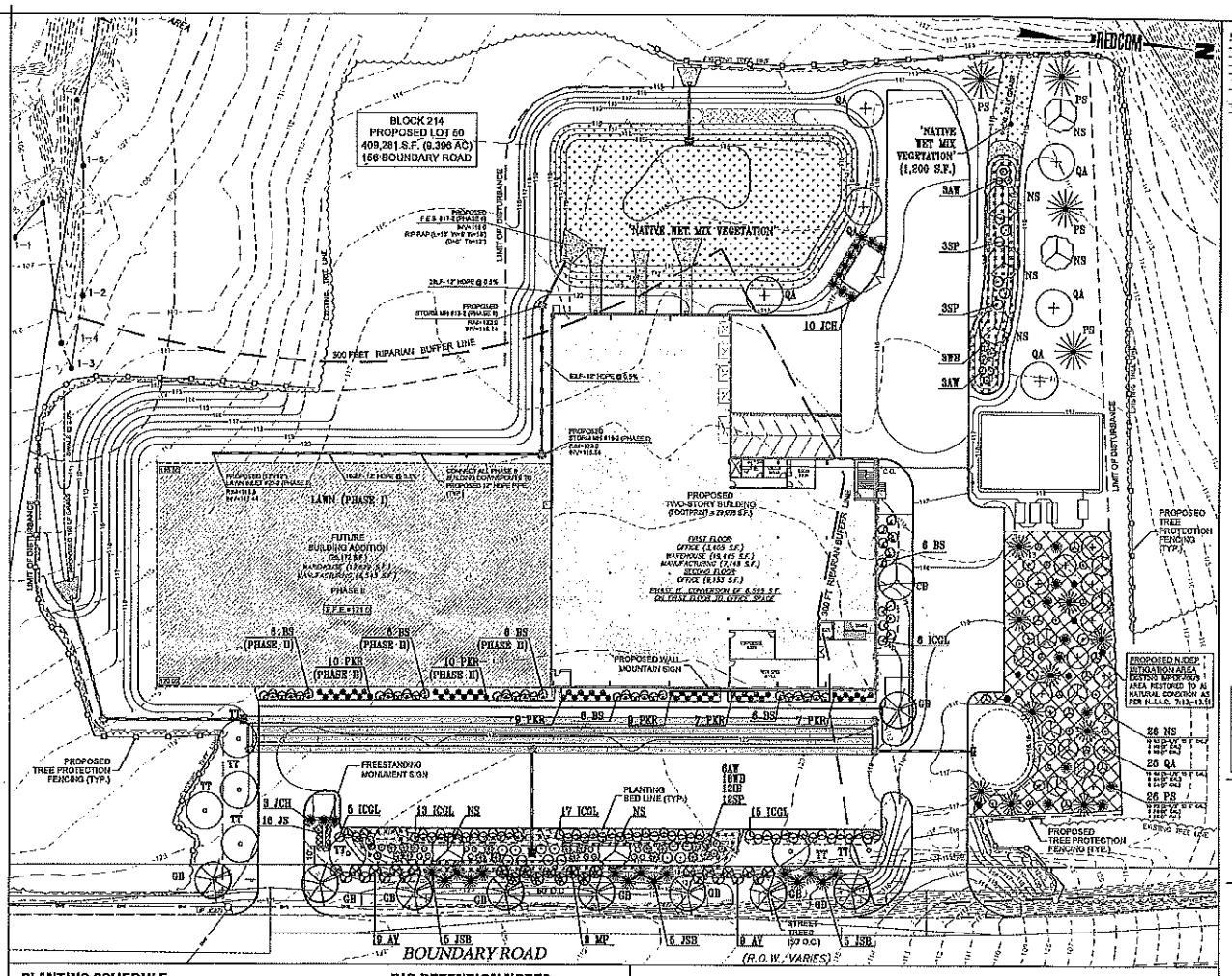
TREE SIZE	CRITERIA (Ord. 237-12.C.1)	CONSTRUCTION PHASE-I: SAMPLE AREA #1 SAMPLE INVENTORY	SAMPLE AREA #1 AREA TO BE CLEARED 5,339 S.F. (5,339/2,912=1.5)	SAMPLE AREA #2 SAMPLE INVENTORY	SAMPLE AREA #2 AREA TO BE CLEARED 19,332 S.F. (19,332/4,288=4.5)	CONSTRUCTION PHASE-II: SAMPLE AREA #1 SAMPLE INVENTORY	SAMPLE AREA #1 AREA TO BE CLEARED (14,260 S.F.) (14,260/2,912=4.9)
4"	1-TREE	1-TREE	2-TREES	17-TREES	154-TREES	1-TREE	5-TREES
6"	(2" to 3-1/2")	3-TREES	5-TREES	12-TREES	24-TREES	3-TREES	16-TREES
8"	OR	6-TREES	6-TREES	3-TREES	18-TREES	6-TREES	31-TREES
10"	6.5 TREE	3-TREES	5-TREES	1-TREE	8-TREE	3-TREES	16-TREES
12"	(3-1/2" to 4")	1-TREE	2-TREES	0-TREES	0-TREES	1-TREE	5-TREES
	SUBTOTAL:		20-TREES	SUBTOTAL:	202-TREES	SUBTOTAL:	83-TREES
18"	2 (3" to 3-1/2")	1-TREE	2-TREES	0-TREES	0-TREES	1-TREE	5-TREES
			22-TREES AVERAGE LESS 20% (*) TOTAL 179-TREES x 412" 179=TREES REPLANTED			83-TREES AVERAGE LESS 20% (*) TOTAL 64-TREES x 412" 64-TREES REQUIRED	

NOTE: (*) TREE REDUCTION FACTOR FOR DEAD AND DYING TREES IS ALLOWED.

REPLACEMENT TREES PROVIDED: (PHASE I)
83-TREES (3-1/2" CALIPER MINIMUM) ARE PROVIDED VS. REQUIRED 179-TREES

REPLACEMENT TREES HAVE NOT BEEN MET. APPLICANT AGREES TO PROVIDE MONETARY CONTRIBUTION IN ACCORDANCE WITH SECTION 337-18.C. FOR DEFICIENCY OF 87-TREES (2" to 2 1/2" CALIPER). @ $240 EA. = TOTAL $20,880

REPLACEMENT TREES PROVIDED: (PHASE II)
MONETARY CONTRIBUTION OR PROPOSED PLANTING PLAN FOR 64-TREES (2" to 2 1/2" CALIPER) WILL BE PROVIDED TO THE TOWNSHIP PRIOR TO CONSTRUCTION OF PHASE II IMPROVEMENTS. 64-TREES @ $240 EA. = $15,360. THIS PLAN DOES NOT PROVIDE TREE CONFIGURATION FOR PHASE II



PLANTING SCHEDULE

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
SHADE TREES					
TT	7	Tilia tomentosa	SILVER LINDEN	3 1/2" CAL.	B&B
DECIDUOUS TREES					
CB	1	Carpinus betulus 'fastigiata'	PYRAMIDAL HORNBEAM	2-1/2 to 3" CAL.	B&B
GB	8	Ginkgo biloba 'autumn gold'	SENTRY GINKGO (MALE)	2-1/2 to 3" CAL.	B&B
NS	17	Nyssa sylvatica	BLACK GUM	2-1/2 to 3" CAL.	B&B
QA	16	Quercus alba	WHITE OAK	2-1/2 to 3" CAL.	B&B
EVERGREEN TREES					
JCH	13	Juniperus chinensis 'hetzii columnaris'	HETZI COLUMN JUNIPER	6'-8'	B&B
JSJ	13	Juniperus scopulorum 'Wichita Blue'	WICHITA BLUE JUNIPER	6'-8'	B&B
PS	14	Pinus strobus	EASTERN WHITE PINE	6'-8'	B&B
SHRUBS & ORNAMENTAL GRASSES					
AV	18	Viburnum x dentatum 'Chicago Lustre'	ALLEGANY VIBURNUM	36" TALL	CANS
BS	36 (*)	Buxus sempervirens	BOXWOOD	15" TALL	CANS
ICG	58	Ilex verticillata 'Green Gold'	GREEN GOLD HOLLY	15" TALL	CANS
NP	9	Nyssa sylvatica	NORTHERN BAYBERRY	36" TALL	CANS
PCK	32 (*)	Pennisetum alopecuroides 'Hameln'	HAMELN DWARF FOUNTAIN GRASS	24" TALL	CANS
GROUND COVERS					
JS	13	Juniperus sargentii	SARGENT JUNIPER	18 CAN 18"-15"	CANS
BIORETENTION BASIN (see NJDEP BMP Manual chart 9-4)					
AR	13	Viburnum dentatum	ARROWWOOD	3'-4'	B&B
HD	12	Ilex glabra	INKBERRY	18"-36" TALL	B&B
SP	18	Clethra alnifolia	SWEET PEPPERBUSH	36" TALL	B&B
WS	21	Ilex verticillata	WINTERBERRY	36" TALL	B&B
NE		Herbs sandarcanicus	NEW YORK BONWEED	1,800 S.F.	N/A

(*) INCLUDES PHASE II PLANTING

BIO-RETENTION NOTES

1. VEGETATIVE STABILIZATION COVER SHALL BE PROVIDED THROUGHOUT THE PROPOSED BIO-RETENTION BASIN PER THE NEW JERSEY STORMWATER BEST MANAGEMENT PRACTICES MANUAL, CHAPTER 9, LANDSCAPING AND CHAPTER 8.5, BIORETENTION SYSTEMS. THE PROPOSED BIO-RETENTION BASIN SHALL BE LANDSCAPED TO MEET THE REQUIREMENTS THAT EMULATE A TERRESTRIAL FORESTED COMMUNITY (SEE BIORETENTION BASIN PLANTING SCHEDULE ABOVE)
2. ADDITIONAL VEGETATIVE COVER OUTSIDE THE BASIN AREA AS LANDSCAPING AREAS SHALL BE IN ACCORDANCE WITH THE STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY AND APPROVED BY THE DISTRICT SOIL CONSERVATION DISTRICT.

NJDEP MITIGATION AREA NOTES:

1. REQUIRED RESTORATION RATIO RANGE AS PER 7:13-11.1(b)3 IS 2:1, PROVIDED 2.0:1
2. ALL VEGETATION PROPOSED COMPLIES WITH NATIVE NON-INVASIVE CHARACTERISTICS
3. AFTER TREES HAVE BEEN ESTABLISHED THE PROPERTY OWNER IS RESPONSIBLE FOR REMOVING THE NON PLANTED TREE & WEEDS AS SEASONS AND CONDITIONS REASONABLY PERMIT.
4. PROVIDE HIGH PLANTED OPEN MESH FENCE GUARD A.M. LEGUARD (OR APPROVED EQUAL) TO PROPOSED TREES TO BE PLANTED.
5. TREES TO BE PLANTED IN GROUPS AND INTERSPERSE THE NATIVE WET MATERIAL THROUGHOUT THE MITIGATION AREA THEN SEED WITH NATIVE SEED MIX TO FACILITY UNDERSTORY ESTABLISHMENT.

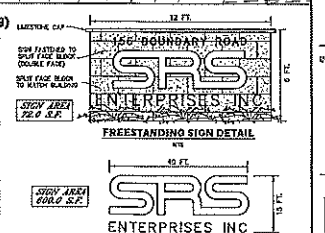
ADDITIONAL PLANTING IN INCREASE ON NJDEP MITIGATION AREA

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
QA	8	Quercus alba	WHITE OAK	2" CAL.	B&B
	8	Quercus alba	WHITE OAK	1" CAL.	CAN
NS	8	Nyssa sylvatica	BLACK GUM	2" CAL.	B&B
	8	Nyssa sylvatica	BLACK GUM	1" CAL.	CAN
PS	6	Pinus strobus	EASTERN WHITE PINE	1'-1'-6"	CAN
	6	Pinus strobus	EASTERN WHITE PINE	12"-18"	CAN

SEE ADDITIONAL NOTES, DETAILS AND PLANTING ALTERNATIVES ON "NJDEP FLOOD HAZARD AREA INDIVIDUAL PERMIT, MITIGATION PLAN (9-4)" INCLUDED IN THIS SET

SIGNAGE CONFORMANCE (CH. 220, SEC. 99)

REQUIRED:	PROPOSED:
GENERAL PROVISIONS - SECTION 99-3	
(2) FREESTANDING SIGNS SHALL BE 10 FEET OR A DISTANCE EQUAL TO THE HEIGHT OF THE SIGN FROM THE LOT LINE.	FREESTANDING SIGN SETBACK IS 10 FEET.
(3) BUILDING SIGNS SHALL NOT EXCEED MORE THAN 12 INCH FROM FACE OF BUILDING.	PROPOSED WALL SIGNS WILL HAVE A MAXIMUM DEPTH OF 12 INCH MEASURED FROM FACE OF BUILDING
PERMITTED SIGN - SECTION 99-8	
WALL SIGNS (1) SIGNS WITHIN INDUSTRIAL ZONES SHALL HAVE ONE OR MORE SIGNS NOT EXCEEDING 10% OF THE AREA OF EACH SIDE OF THE BUILDING FRONTING ON PUBLIC STREET.	BUILDING FACADE (49' X 179' - 8,760 SF) MAXIMUM ALLOWED 7,160 SF X 10% = 716 SF PROPOSED: 40 FT WIDE x 15 FT HIGH = 600 SF
FREESTANDING SIGN (10) FOR STREET FRONTAGE OF 400 FEET OR MORE, MAXIMUM HEIGHT OF SIGN IS 25 FEET AND SIZE OF SIGN FACE IS 140 SQUARE FEET.	FREESTANDING SIGN PROPOSED SIZE IS 8 FEET HIGH X 12 FEET WIDE (72 SQUARE FEET) FLOOD ELIMINATED



SEE ADDITIONAL PLANTING DETAILS ON SHEET-11

THIS SET OF PLANS HAS BEEN ISSUED ALONG WITH NJDEP F.H.A. INDIVIDUAL PERMIT, F.H.A. VERIFICATION & FRESHWATER WETLA. WAIVER PERMIT No.: 1323-25/0028 & 1LUW200001

FRESHWATER WETLANDS LOI: FILE No.: 1323-00-0006.1 ACTIVITY No.: FWW220001

GREGORY J. REDINGTON, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. No. 27510

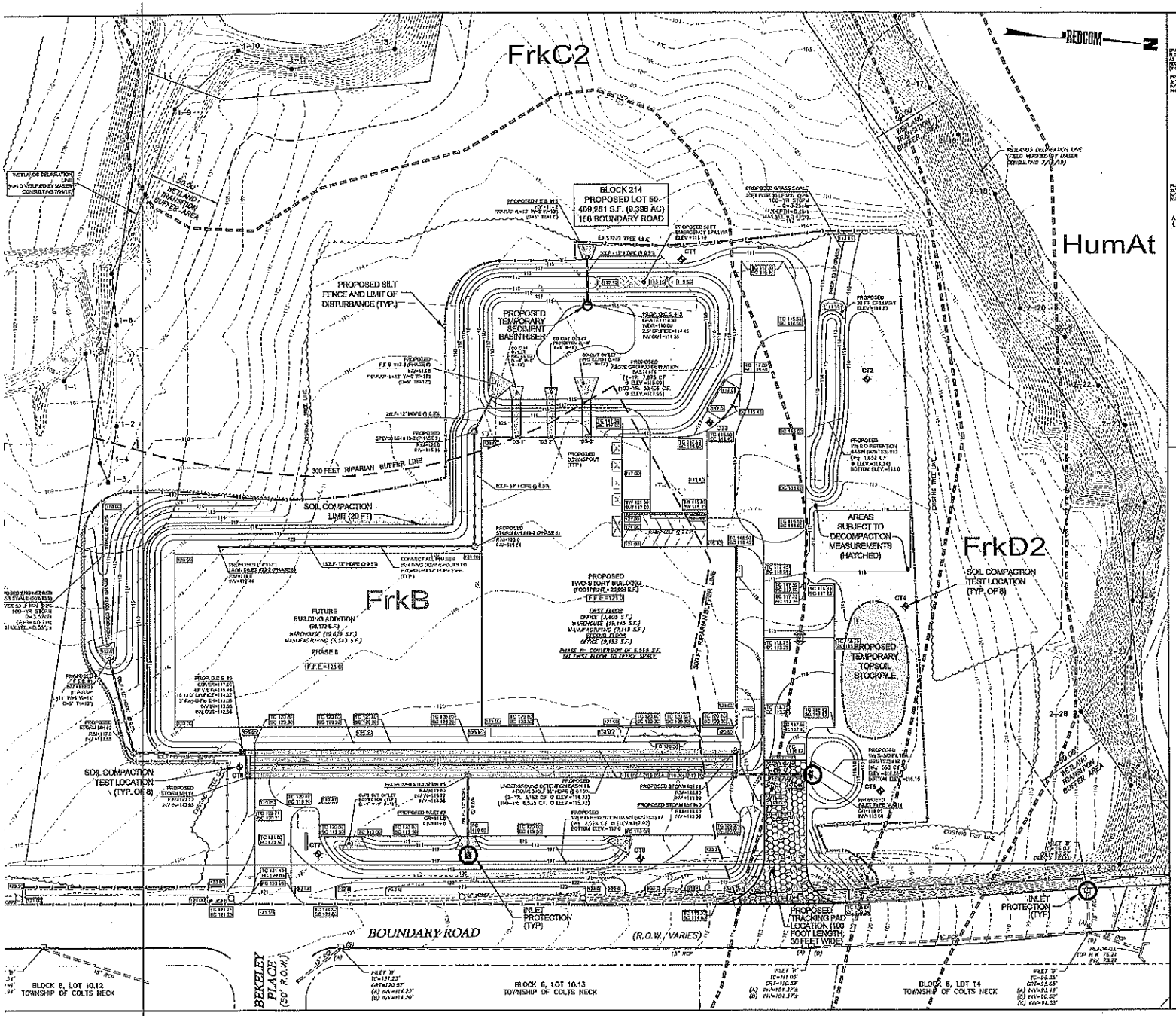
SRS ENTERPRISES
BLOCK 214, LOT 50
MARLBORO TOWNSHIP
MONMOUTH COUNTY, NEW JERSEY

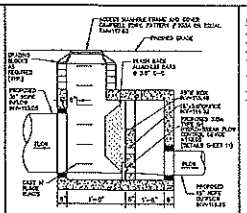
156 BOUNDARY ROAD
NJDEP FHA VERIFICATION & INDIVIDUAL PERMIT APPLICATION PLAN

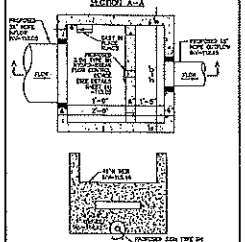
LANDSCAPING, SIGNAGE & TREE RESTORATION PLAN

REDCOM
DESIGN & CONSTRUCTION LLC
STATE OF NEW JERSEY CERTIFICATE OF AUTHORIZATION
3 MARKETPLACE & STUDIO CLUB
420 NORTH AVE EAST
WESTFIELD, NJ 07090
T: 908.233.1420
F: 908.233.0237
DRAWN: JK
CHECKED: JK
DATE: 04.01.20
SCALE: 1"=30'
WWW.REDCOMLLC.COM

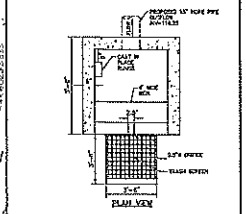
8

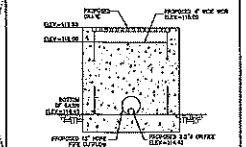


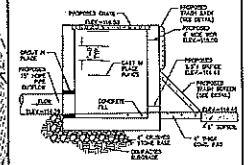




OUTLET CONTROL STRUCTURE #3 DETAIL
NTS







OUTLET CONTROL STRUCTURE #5 DETAIL
NTS

VERTICAL DATUM AS SHOWN IS BASED ON NAVD 88 REFERENCE.

HORIZONTAL SCALE: 1"=30'

THIS SET OF PLANS HAS BEEN ISSUED
ALONG WITH NJDEP
F.W.A. INDIVIDUAL PERMIT,
F.W.A. VERIFICATION &
FRESHWATER W.F.A. WAIVER
PERMIT No.: 1328-23-0005.1 LUP200001

FRESHWATER WETLANDS L.O.I.:
FILE No.: 1328-20-0025.1
ACTIVITY No.: FW200001

GREGORY J. REDINGTON, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. No. 37510

SRS ENTERPRISES
BLOCK 214; LOT 50
MANALAPAN TOWNSHIP
MONMOUTH COUNTY, NEW JERSEY

166 BOUNDARY ROAD
NJDEP FWA VERIFICATION & INDIVIDUAL PERMIT APPLICATION PLAN

SOIL EROSION & SEDIMENT CONTROL PLAN

REDCOM DESIGN & CONSTRUCTION LLC

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STANDARD FOR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

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 DRAINAGE SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING, PG. 19-1.
   B. INSTALL NEEDED EROSION CONTROL PRACTICES OR FACILITIES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, LINED WATERWAYS, CHANNEL STABILIZATION MEASURES, SEDIMENT BASINS, AND WATERWAYS. SEE STANDARDS 13 THROUGH 42.
   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 SQUARE FEET OF 10-20-10 OR EQUIVALENT WITH SOME WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE. LIMING RATES SHALL BE ESTABLISHED VIA 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 SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
   C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED IN ACCORDANCE WITH THE ABOVE.
   D. SOILS HIGH IN SULFIDES OR HAVING A pH OF 4 OR LESS REFER TO STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS.

3. SEEDING:
   TEMPORARY SEEDING SHALL CONSIST OF SPRING OATS APPLIED AT A RATE OF 2.0 LBS. PER 1,000 SF OR PERENNIAL RYEGRASS APPLIED AT A RATE OF 1.0 LBS. PER 1,000 SF. TEMPORARY SEEDING TO BE MAINTAINED UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED WITH PERMANENT SEEDING.
   OPTIMAL DATE: 3/20 TO 4/30
   ACCEPTABLE DATE: 8/01 TO 8/14
   ACCEPTABLE DATE: 8/15 TO 10/15

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

   A. STRAW OR HAY, UNWOVEN SMALL GRAIN STRAW, HAY FREE OF SEEDS, APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET). EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHMENT OF TURF ON LAWNS DUE TO THE PRESENCE OF WEED SEEDS.
   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 DISTRIBUTE 70 TO 90 POUNDS PER SECTION. DASH SECTIONS. ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSSES 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 STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS AND A SQUARE PATTERN. ENSURE TWINE IS WOUND EACH PEG WITH TWO OR MORE ROUND TURNS.
   2. MULCH NETTING. STAPLE PLASTIC NETTING TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
   3. CRIMPER (MULCH ANCHORING TOOL). A TRACTOR-DRAWN IMPLEMENT, SOMETIMES LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH ON CUT EDGES AND A SQUARE PATTERN. SECURE THAT ANCHOR 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 2 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.
   4. LIQUID MULCH-BINDERS. - MAY BE USED TO ANCHOR HAY OR STRAW MULCH.

      a. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH IN WINDROWS AND AT CREST OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE.
      b. USE ONE OF THE FOLLOWING:
         (1) ORGANIC AND VEGETABLE BASED BINDERS - NATURALLY OCCURRING POWDER-BASED, HYDROPHILIC MATERIALS WHICH MIXED WITH WATER FORMULATES A GEL AND WHICH APPLIED TO MULCH UNDER SATISFACTORY DRYING CONDITIONS WILL FORM MOISTURE-RESISTANT METHODS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT REPULSIVE TO A PHYTOTOXIC EFFECT ON SURFACE GROWTH OF TURFGRASSES. 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 RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS.

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

   B. WOOD-FIBER OR PAPER-FIBER MULCH: SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS. USED AT THE RATE OF 1,000 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.

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

TEMPORARY SEDIMENT BASIN INSPECTION SCHEDULE

TEMPORARY SEDIMENT BASIN SHALL BE MAINTAINED BY THE PROPERTY OWNER OR CONTRACTOR. THE BASIN REQUIRE REGULAR MAINTENANCE TO ENSURE PROPER OPERATION. THE FOLLOWING MAINTENANCE PLAN SHOULD BE IMPLEMENTED AND MODIFIED ACCORDINGLY BASED ON ACTUAL FIELD CONDITIONS. ROUTINE INSPECTIONS SHOULD BE CONDUCTED AFTER THE FIRST THREE SIGNIFICANT RAIN STORMS AND EVERY MONTH AFTER.

ACTIVITY

1. ROUTINE INSPECTION OF THE SEDIMENT BASIN TO IDENTIFY DEPTH OF SEDIMENT ACCUMULATION, DAMAGE TO VEGETATION, SEDIMENT, OR LITTER BEHIND BUILD UP.
2. ROUTINE INSPECTION OF INLET AND OUTLET POINTS TO IDENTIFY ANY AREAS OF SCOUR, LITTER BUILD UP, AND BLOCKAGES.
3. REMOVAL OF LITTER AND DEBRIS.
4. REMOVAL AND MANAGEMENT OF INVASIVE WEEDS.
5. EXAMINE BANKS FOR SEEPAGE AND STRUCTURAL SOUNDNESS.
6. VERIFY BOTTOM INVERT.
7. VERIFY TOP OF RISER ELEVATION.
8. VERIFY ORIFICE CONNECTION.
9. VERIFY SPILLWAY BERM ELEVATION.
10. VERIFY 1 FOOT FREEBOARD BETWEEN TOP OF RISER AND SPILLWAY.

STANDARD FOR PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION

(NJ STANDARDS FOR SOIL EROSION AND SEDIMENT CONTROL" 7th EDITION, JANUARY 2014)

STANDARD FOR PERMANENT 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 DRAINAGE SHOULD BE DONE IN ACCORDANCE WITH STANDARDS FOR LAND GRADING.
   B. IMMEDIATELY PRIOR TO SEEDING AND TOPSOIL APPLICATION, THE SUBSOIL SHALL BE EVALUATED FOR COMPACTION IN ACCORDANCE WITH THE STANDARD FOR LAND GRADING.
   C. TOPSOIL SHOULD BE HANDLED ONLY WHEN IT IS DRY ENOUGH TO WORK WITHOUT DAMAGING THE SOIL STRUCTURE. A UNIFORM APPLICATION TO A DEPTH OF 5 INCHES (UNSETTLED) IS REQUIRED ON ALL SITES. TOPSOIL SHALL BE AMENDED WITH ORGANIC MATTER, AS NEEDED, IN ACCORDANCE WITH THE STANDARD FOR TOPSOILING.
   D. INSTALL NEEDED EROSION CONTROL PRACTICES 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 FRIABLE, 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://LANDEAS.RUTGERS.EDU/COUNTYS). FERTILIZER SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE OR 11 POUNDS PER 1,000 SQUARE FEET OF 10-10-10 OR EQUIVALENT WITH SOME WATER INSOLUBLE NITROGEN UNLESS A SOIL TEST INDICATES OTHERWISE AND LIMING RATES SHALL BE ESTABLISHED VIA 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 SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLE UNIFORM SEEDBED IS PREPARED.
   C. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RETILLED IN ACCORDANCE WITH THE ABOVE.
   D. SOILS HIGH IN SULFIDES OR HAVING A pH OF 4 OR LESS REFER TO STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS.

3. SEEDING:
   PERMANENT SEEDING SHALL CONSIST OF THE FOLLOWING MIXTURE OR APPROVED EQUAL.

   SITE CONTAINS SOIL FOR FREEHOLD SANDY LOAM, 2 TO 5 PERCENT SLOPES AND CLASSIFIED AS "WELL DRAINED" AS PER NJ MSE SOIL SURVEY DATA

   PLANTING MIXTURE TO BE USED: MIX-13 (PERENNIAL/COMMERCIAL USE)
   TALL FESCUE (TURF TYPE) @ 215 LB/AC
   PERENNIAL RYEGRASS @ 25 LB/AC
   OR
   WHITE CLOVER @ 5 LB/AC (WHITE CLOVER CAN BE EXCLUDED ON LAWN SITES)

   SITE IS LOCATED WITHIN USDA PLANT HARDINESS ZONE 6B, PLANTING DATES:
   OPTIMAL DATE: 8/20 TO 9/20
   ACCEPTABLE DATE: 3/01 TO 4/14 (**)
   ACCEPTABLE DATE: 8/15 TO 10/15 (**)

   (**) SUMMER SEEDINGS SHOULD ONLY BE CONDUCTED WHEN THE SITE IS IRRIGATED. MOST INCLUDING WHITE CLOVER PROVIDE (NATURAL) MULCH BY DEATH OF SUMMER GROWN REGROW AFTER SEEDING TO ENSURE ESTABLISHMENT BEFORE FREEZING CONDITIONS.

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

   A. STRAW OR HAY, UNWOVEN SMALL GRAIN STRAW, HAY FREE OF SEEDS, TO BE APPLIED AT THE RATE OF 1-1/2 TO 2 TONS PER ACRE (70 TO 90 POUNDS PER 1,000 SQUARE FEET), EXCEPT THAT WHERE A CRIMPER IS USED INSTEAD OF A LIQUID MULCH-BINDER (TACKIFYING OR ADHESIVE AGENT), THE RATE OF APPLICATION IS 3 TONS PER ACRE. MULCH CHOPPER-BLOWERS MUST NOT GRIND THE MULCH. HAY MULCH IS NOT RECOMMENDED FOR ESTABLISHMENT OF TURF ON LAWNS DUE TO THE PRESENCE OF WEED SEED.
   APPLICATION - SPREAD MULCH UNIFORMLY BY HAND OR MECHANICALLY SO THAT AT LEAST 95% OF THE SOIL SURFACE IS COVERED. FOR UNIFORM DISTRIBUTION OF HAND-SPREAD MULCH, DIVIDE AREA INTO APPROXIMATELY 1,000 SQUARE FEET SECTIONS AND DISTRIBUTE 70 TO 90 POUNDS PER SECTION. DASH SECTIONS.
   ANCHORING SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PLACEMENT TO MINIMIZE LOSSES 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 STRETCHING TWINE BETWEEN PEGS IN A CRISS-CROSS AND A SQUARE PATTERN. ENSURE TWINE IS WOUND EACH PEG WITH TWO OR MORE ROUND TURNS.
   2. MULCH NETTING. STAPLE PLASTIC NETTING TO THE SOIL SURFACE. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
   3. CRIMPER (MULCH ANCHORING TOOL). A TRACTOR-DRAWN IMPLEMENT, SOMETIMES LIKE A DISC HARROW, ESPECIALLY DESIGNED TO PUSH ON CUT EDGES AND A SQUARE PATTERN. SECURE THAT ANCHOR 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 2 TONS PER ACRE. NO TACKIFYING OR ADHESIVE AGENT IS REQUIRED.
   4. LIQUID MULCH-BINDERS - MAY BE USED TO ANCHOR SALT HAY, HAY OR STRAW MULCH.

      a. APPLICATIONS SHOULD BE HEAVIER AT EDGES WHERE WIND MAY CATCH THE MULCH IN WINDROWS AND AT CREST OF BANKS. THE REMAINDER OF THE AREA SHOULD BE UNIFORM IN APPEARANCE.
      b. USE ONE OF THE FOLLOWING:
         (1) ORGANIC AND VEGETABLE BASED BINDERS - NATURALLY OCCURRING POWDER-BASED, HYDROPHILIC MATERIALS WHICH MIXED WITH WATER FORMULATES A GEL AND WHICH APPLIED TO MULCH UNDER SATISFACTORY DRYING CONDITIONS WILL FORM MOISTURE-RESISTANT METHODS OF INSOLUBLE POLYMERS. THE VEGETABLE GEL SHALL BE PHYSIOLOGICALLY HARMLESS AND NOT REPULSIVE TO A PHYTOTOXIC EFFECT ON SURFACE GROWTH OF TURFGRASSES. 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 RECOMMENDED BY THE MANUFACTURER AND REMAIN TACKY UNTIL GERMINATION OF GRASS.
         NOTE: ALL NAMES GIVE ABOVE ARE REGISTERED TRADE NAMES. THIS DOES NOT CONSTITUTE A COMMENDATION OF THESE PRODUCTS TO THE EXCLUSION OF OTHER PRODUCTS.

   B. WOOD-FIBER OR PAPER-FIBER MULCH: SHALL BE MADE FROM WOOD, PLANT FIBERS OR PAPER CONTAINING NO GROWTH OR GERMINATION INHIBITING MATERIALS. USED AT THE RATE OF 1,000 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.

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

SOIL EROSION AND SEDIMENT CONTROL NOTES

(FREEHOLD CONSERVATION DISTRICT NOTES 03/2014)

1. THE FREEHOLD SOIL CONSERVATION DISTRICT 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 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 IN 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, BUILDING PROVIDED 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 PROHIBITS THE ESTABLISHMENT OF TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF 2 TO 2 ½ TONS PER ACRE, ACCORDING TO THE STANDARD FOR STABILIZATION WITH MULCH ONLY.
6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. SOIL STOCKPILES, STEEP SLOPES AND DRAINAGE DISCHARGE POINTS) 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 COARSE 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 AS POINTS WHERE VEHICLES ENTER OR LEAVE THE CONSTRUCTION SITE. AFTER INTERIOR ROADWAYS ARE PAVED, INDIVIDUAL LOTS REQUIRE A STABILIZED CONSTRUCTION ACCESS CONSISTING OF ONE INCH (1" - 2") STONE FOR A MINIMUM LENGTH OF TEN FEET (10') EQUAL TO THE LOT DRIVEWAY 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 VEGETATION PLANTING IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT HAS BEEN COMPACTED BY A TRACTOR OR EQUIPMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER SHALL BE REMOVED OR BROKEN IN SUCH A WAY THAT IS WILL PERMANENTLY ALLEVIATE THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER. IF THE REMOVAL OR BREAKING OF THE SOIL WILL NOT PROVIDE SUITABLE CONDITIONS, NON-VEGETATIVE MEANS OF PERMANENT SOIL 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 POR SULFIDES SHALL BE ULTIMATELY PLACED OR BURIED NOT LONGER THAN ONE WEEK AFTER THE DATE OF ITS EXCAVATION, FOR EXPOSURE TO PH OF BELOWER ESTABLISHED. AN pH LEVEL OF 6 OR MORE IS REQUIRED TO BE STABILIZED WITH VEGETATION. FAILURE TO ACHIEVE THE MINIMUM COVERAGE MAY REQUIRE ADDITIONAL WORK TO BE PERFORMED BY THE CONTRACTOR TO INSURE ON ALL OF THE FOLLOWING SUPPLEMENTAL METHODS: RE-APPLICATION OF LIME AND FERTILIZER, AND/OR THE ADDITION OF ORGANIC MATTER (U.E. COMPOST) AS A TOP DRESSING. SUCH ADDITIONAL MEASURES SHALL BE BASED ON SOIL TESTS SUCH AS THOSE OFFERED BY RUTGERS COOPERATIVE EXTENSION SERVICE OR OTHER APPROVED LABORATORY FACILITIES QUALIFIED TO TEST SOIL SAMPLES FOR ANSWERING PURPOSES.

DUST CONTROL NOTES:

THE FOLLOWING METHODS SHOULD BE CONSIDERED FOR CONTROLLING DUST:

MULCHES – SEE STANDARD FOR STABILIZATION WITH MULCHES ONLY (PG. 5-1)

VEGETATIVE COVER – SEE STANDARD FOR TEMPORARY VEGETATIVE COVER (PG. 7-1), PERMANENT VEGETATIVE COVER FOR SOIL STABILIZATION (PG. 4-1), AND PERMANENT STABILIZATION WITH SOD (PG. 8-1).

SPRAY-ON ADHESIVES – ON MINERAL SOILS (NOT EFFECTIVE ON BLACK SOILS). KEEP TRAFFIC OFF THOSE AREAS.

TABLE 16-1 : DUST CONTROL MATERIALS

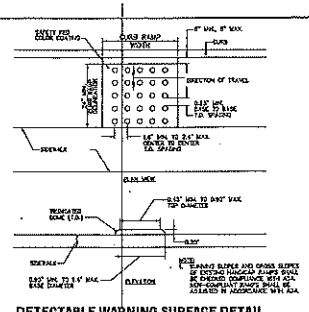
MATERIAL	WATER DILUTION	TYPE OF NOZZLE	APPLY GALLONS/ACRE
ANIONIC ASPHALT EMULSION	3:1	COARSE SPRAY	1200
LATEX EMULSION	12.5:1	FINE SPRAY	250
RESIN IN WATER	4:1	FINE SPRAY	300
POLYVINYLACETATE (PVA)-SPRAY ON USED	APPLY ACCORDING TO MANUFACTURER'S INSTRUCTIONS. MAY ALSO BE AS AN ADDITIVE TO SEDIMENT BASING TO FLOCCULATE AND PRECIPITATE		
POLYVINYLACETATE (PVA)-DRY SPRAY	DISPERSED COLLOIDS. SEE SEDIMENT BASIN STANDARD (PG. 28-1)		
ASPHALTIC SALT BREAK SOAP STICK	NONE	COARSE SPRAY	1920

SEQUENCE OF CONSTRUCTION:

ACTIVITY	DURATION
1. NOTIFY THE SOIL CONSERVATION DISTRICT WITH WRITTEN NOTIFICATION 48 HOURS PRIOR TO ANY LAND DISTURBANCE AND CONDUCT PRE-CONSTRUCTION MEETING.	
2. INSTALL SILT FENCE & OTHER PROTECTION FENCING AS SHOWN ON SOIL EROSION CONTROL & LANDSCAPING PLANS.	3 DAYS
3. CLEAR SITE AND TOPSOIL STORE FOR FUTURE USE.	1 MONTH
4. ROUGH GRADE AREAS FOR PROPOSED BUILDING, DRIVEWAY AND PARKING LOT.	1 MONTH
5. CONSTRUCT TEMPORARY SEDIMENT BASIN AND SEDIMENT RISER DETAIL.	1 WEEK
6. CONSTRUCT STORM DRAINAGE SYSTEMS ALONG WITH DOWNSTREAM CONNECTION PRIOR TO ANY STORM DRAINAGE PIPE INSTALLED TO THE SYSTEM.	1 WEEK
7. STABILIZE ALL CRITICAL AREAS SUBJECT TO EROSION.	ONGOING
8. INSTALL ALL REMAINING STORM PIPING AND STORM STRUCTURES.	3 WEEKS
9. CONSTRUCT BUILDING, DRIVING AND PAVEMENT BASE COURSE.	10 MONTHS
10. FINE GRADE, PLACE TOPSOIL, INSTALL LANDSCAPE PLANTINGS, SEED AND MULCH IN ACCORDANCE WITH PERMANENT SEEDING AND MULCHING STANDARDS.	1 WEEK
11. AFTER LANDSCAPE STABILIZATION, REMOVE ALL SILT AND TREE PROTECTION FENCING.	2 DAYS
12. STABILIZATION OF GRASS SWALE BELOW PIPE OUTLET UPON COMPLETION AND PHASE 8.	3 DAYS
13. FINAL PAVE ALL DRIVEWAY AND PARKING AREAS.	3 DAYS
TOTAL DURATION:	342 WORKING

SOIL DE-COMPACTION AND TESTING REQUIREMENTS

A. SOIL COMPACTION TESTING REQUIREMENTS:
1. SUBSOIL AND TOPSOIL (AFTER APPLICATION OF TOPSOIL (SEE PERMANENT SEEDING AND STABILIZATION NOTES FOR TOPSOIL REQUIREMENTS) SHALL BE FREE OF EXCESSIVE COMPACTION TO A DEPTH OF 8.0 INCHES TO ENHANCE THE ESTABLISHMENT OF PERMANENT VEGETATIVE COVER.
2. AREAS OF THE SITE WHICH ARE SUBJECT TO COMPACTION TESTING AND/OR MITIGATION ARE GRAPHICALLY DEPICTED ON THE CERTIFIED SOIL EROSION CONTROL PLAN.
3. COMPACTION TESTING LOCATIONS ARE DEPICTED ON THE PLAN. A COPY OF THE PLAN OR PORTION OF THE PLAN SHALL BE USED TO MAKE LOCATIONS OF TESTS AND ATTACHED TO THE COMPACTION PENETRATION FORM, AVAILABLE FROM TH



DETECTABLE WARNING SURFACE DETAIL
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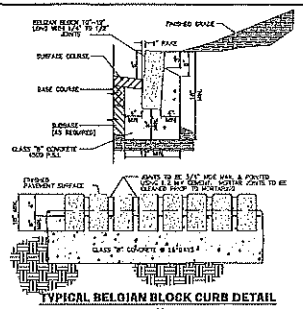

TYPICAL BELGIAN BLOCK CURB DETAIL
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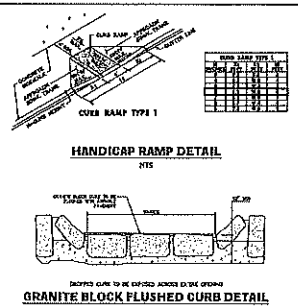

HANDICAP RAMP DETAIL
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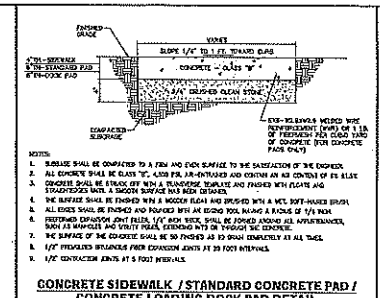
GRANITE BLOCK FLUSHED CURB DETAIL
NTS



CONCRETE SIDEWALK / STANDARD CONCRETE PAD / CONCRETE LOADING DOCK PAD DETAIL
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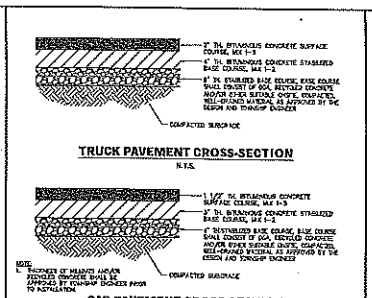
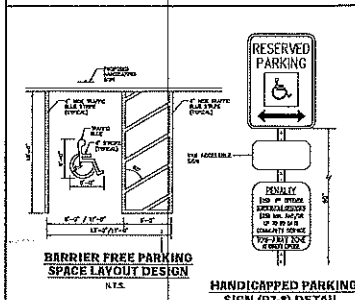


TRUCK PAVEMENT CROSS-SECTION
N.T.S.

CAR PAVEMENT CROSS-SECTION
N.T.S.

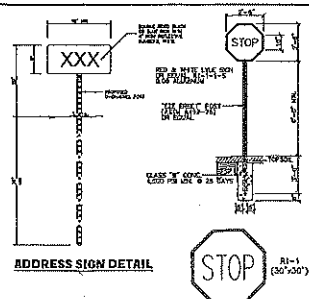
REVISIONS

1. 10/18/22	REVISED PER NJ DEP METHOD & LETTER OF COMMENTS
2. 11/18/22	REVISED PER DEP LETTER OF COMMENTS DATED 10/18/22
3. 12/14/22	REVISED PER DEP LETTER OF COMMENTS DATED 12/14/22
4. 12/16/22	REVISED PER DEP LETTER OF COMMENTS DATED 12/16/22
5. 12/19/22	REVISED PER DEP LETTER OF COMMENTS DATED 12/19/22
6. 12/21/22	REVISED PER DEP LETTER OF COMMENTS AND TOWNSHIP RESOLUTION OF COMMENTS
7. 12/28/22	REVISED PER DEP LETTER OF COMMENTS AND TOWNSHIP RESOLUTION OF COMMENTS



BARRIER FREE PARKING SPACE LAYOUT DESIGN
N.T.S.

HANDICAPPED PARKING SIGN (R7-8) DETAIL
NTS



ADDRESS SIGN DETAIL

SIGN POST DETAILS
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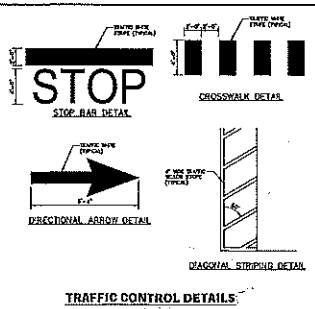


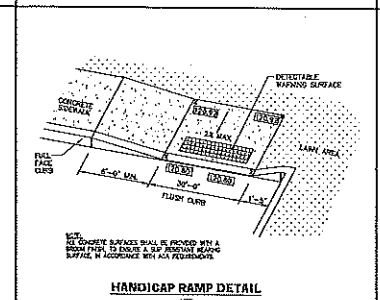
STOP BAR DETAIL

CROSSWALK DETAIL

DIRECTIONAL ARROW DETAIL

DIAGONAL STRIPING DETAIL

TRAFFIC CONTROL DETAILS
NTS



HANDICAP RAMP DETAIL
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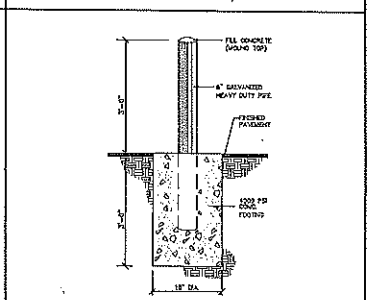

PIPE BOLLARD
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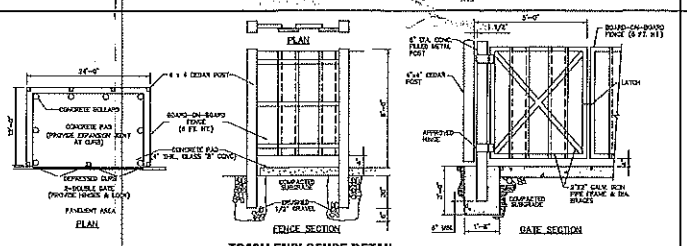

TRASH ENCLOSURE DETAIL
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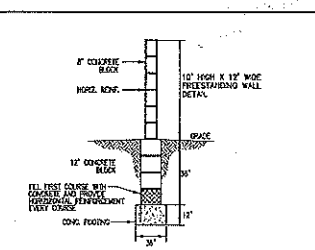

FREESTANDING SIGNAGE FOOTING DETAIL
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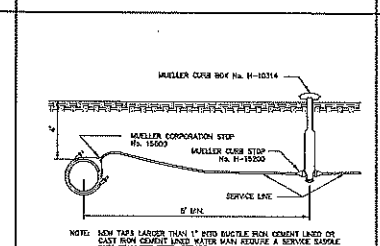

TYPICAL WATER SERVICE INSTALLATION DETAIL
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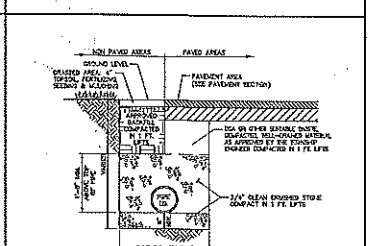


ON-SITE PIPE BEDDING DETAIL
NTS

THIS SET OF PLANS HAS BEEN ISSUED ALONG WITH NJDEP F.W.A. INDIVIDUAL PERMIT, F.W.A. VERIFICATION & FRESHWATER WLTA WAIVER PERMIT No.: 1328-20-0005.1 LU220001

FRESHWATER WETLANDS LLC
FILE No.: 1328-20-0005.1
ACTIVITY No.: FW220001

GREGORY J. REDINGTON, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. No. 37341

SRS ENTERPRISES
BLOCK 314, LOT 30
MARLBORO TOWNSHIP
MONMOUTH COUNTY, NEW JERSEY

158 BOUNDARY ROAD
NJDEP FWA VERIFICATION & INDIVIDUAL PERMIT APPLICATION PLAN

CONSTRUCTION DETAILS 1

REDCOM
DESIGN & CONSTRUCTION LLC

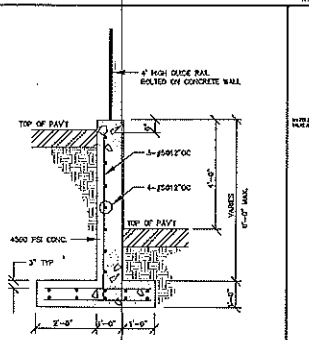
STATE OF NEW JERSEY CERTIFICATE OF AUTHORIZATION 24GA28279100 & 27TA00295600

43 NORTH AVE EAST
P.O. BOX 1142
WESTFIELD, NJ 07091

T: 908.233.4300
F: 908.233.4399

DRAWN: JB
CHECKED: GJR
DATE: 10/18/22
SCALE: NTS

11



CONCRETE WALL W/ SAFETY HANDRAIL DETAIL
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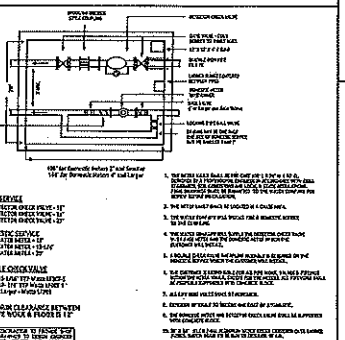

WATER METER VAULT DETAIL
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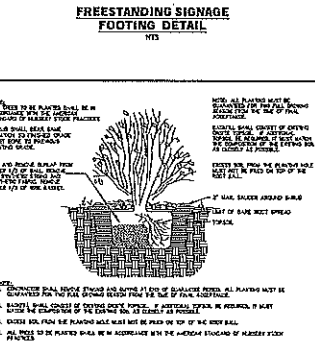

SHRUB PLANTING
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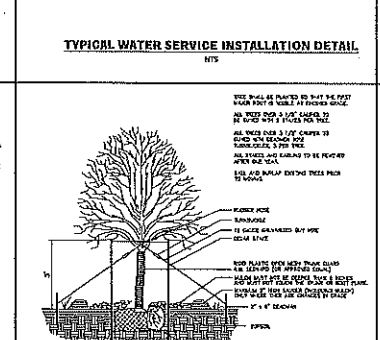

TREE PLANTING
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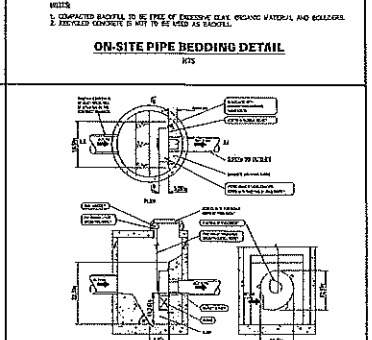

FOR REPRESENTATIVE PURPOSES ONLY

2.0 SM HYDRO-BRAKE FLOW CONTROL DETAIL
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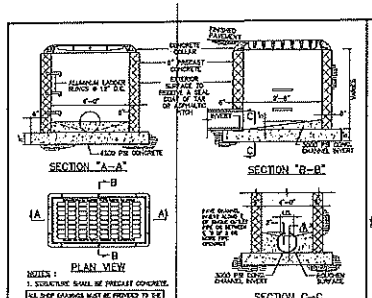

TYPE "A" INLET DETAIL
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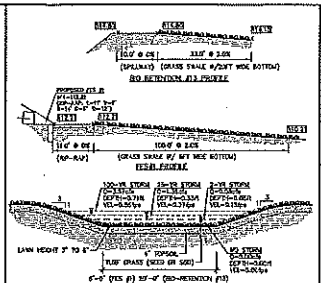

TYPICAL SECTION GRASSED SWALE
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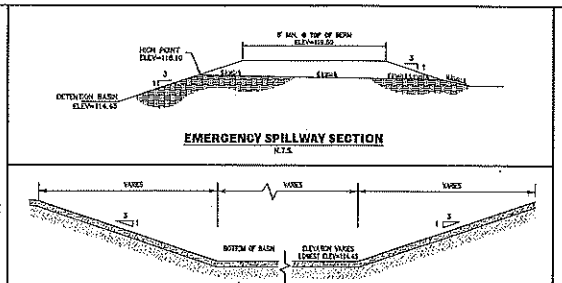
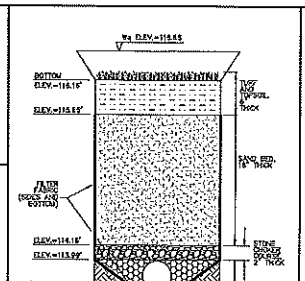
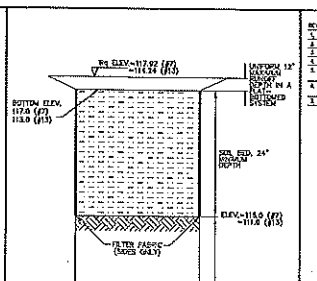




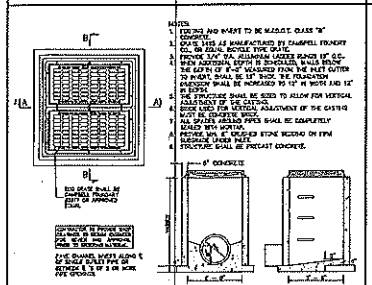
NOTE:
ALL CONSTRUCTION MATERIALS AND METHODS SHALL BE IN ACCORDANCE WITH NJDEP BMP MANUAL CHAPTER 8.3 (SAND FILTERS)

Wq SAND FILTER #12 CONSTRUCTION DETAIL
N.T.S.



NOTE:
ALL CONSTRUCTION MATERIALS AND METHODS SHALL BE IN ACCORDANCE WITH NJDEP BMP MANUAL CHAPTER 9.1 (BIORETENTION SYSTEMS)

Wq BIORENTENTION SYSTEM #7 AND #13 CONSTRUCTION DETAIL
N.T.S.



TYPE "E" INLET DETAIL
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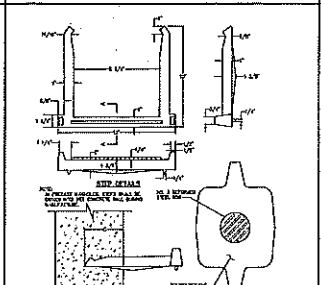

LADDER RUNG DETAIL
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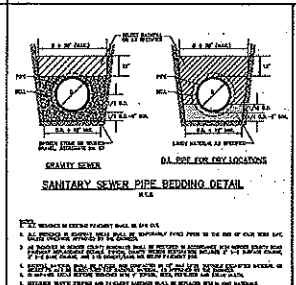

SANITARY SEWER PIPE BEDDING DETAIL
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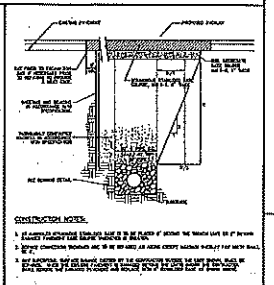
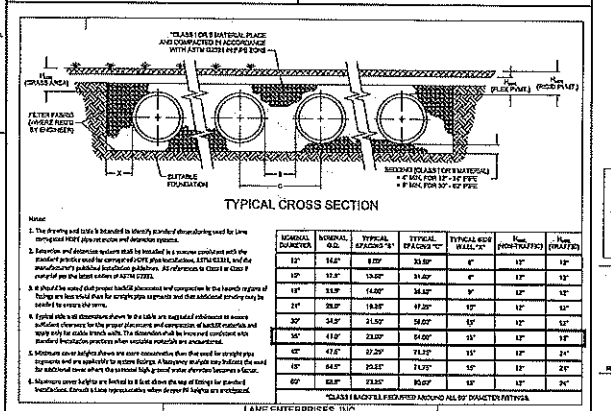


SANITARY SEWER TRENCH DETAIL
N.T.S.

TRENCH AND TEMPORARY PAVEMENT REPAIR
N.T.S.

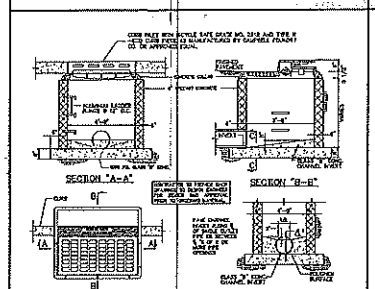


NOMINAL DIAMETER	NOMINAL O.D.	TYPICAL SPACING "B"	TYPICAL SPACING "C"	TYPICAL SIDE WALL "A"	K_{min} (NON-TRAFFIC)	K_{min} (TRAFFIC)
12"	14.0"	9.00"	33.00"	6"	12"	12"
15"	17.5"	10.00"	31.00"	6"	12"	12"
18"	21.0"	14.00"	34.00"	9"	12"	12"
21"	24.0"	19.00"	47.00"	12"	12"	12"
30"	34.0"	21.50"	54.00"	15"	12"	12"
36"	41.0"	23.00"	61.00"	15"	12"	18"
42"	47.0"	27.00"	71.00"	15"	12"	24"
48"	54.0"	29.00"	74.00"	15"	12"	24"
60"	68.0"	33.00"	80.00"	18"	12"	24"

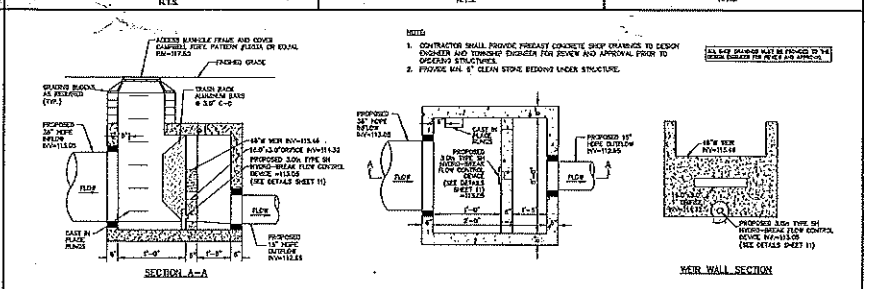
*CLASS I BACKFILL REQUIRED AROUND ALL BY DIMENSION PATTERN.

NOTE:
1. UNDERGROUND DETENTION BASIN AS SHOWN IS A PRODUCT OF LANE ENTERPRISES, INC. SUBSTITUTION SHALL BE APPROVED EQUAL.

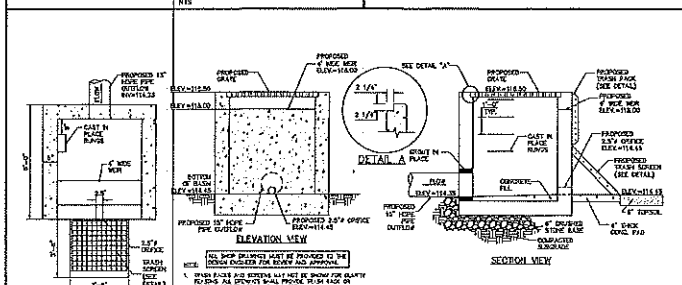
UNDERGROUND DETENTION BASIN DETAIL
NTS



TYPE 'B' INLET DETAIL
NTS



OUTLET CONTROL STRUCTURE #3 DETAIL
NTS



OUTLET CONTROL STRUCTURE #15 DETAIL
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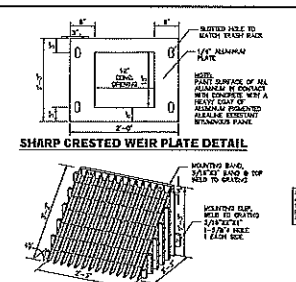
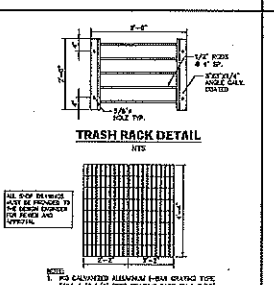


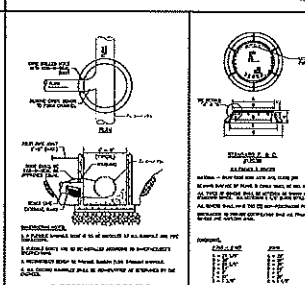
SHARP CRESTED WEIR PLATE DETAIL

TRASH SCREEN DETAIL
NTS

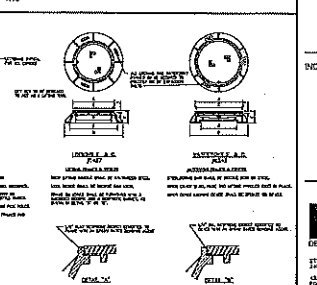


TRASH RACK DETAIL
NTS

OUTLET STRUCTURE GRATE DETAIL
NTS



CONNECTION TO EXISTING MANHOLE
N.T.S.



STANDARD FRAME & COVER DETAIL
N.T.S.

THIS SET OF PLANS HAS BEEN ISSUED ALONG WITH NJDEP F.H.A. INDIVIDUAL PERMIT, F.H.A. VERIFICATION & FRESHWATER W.T.A. WAIVER PERMIT No.: 1323-23-0006.1 LUP200001

FRESHWATER WETLANDS L.O.I.:
FILE No.: 1323-20-0003.1
ACTIVITY No.: FWW220001

GREGORY J. REDINGTON, P.E.
NJ #24351 PROFESSIONAL ENGINEER

SRS ENTERPRISES
BLOCK 214, LOT 50
MARLBORO TOWNSHIP
MONMOUTH COUNTY, NEW JERSEY

126 BOUNDARY ROAD
NJDEP FHA VERIFICATION & INDIVIDUAL PERMIT APPLICATION PLAN

CONSTRUCTION DETAILS 2

REDCOM DESIGN & CONSTRUCTION LLC

STATE OF NEW JERSEY CERTIFICATE OF AUTHORIZATION FOR ENGINEERING PURPOSES

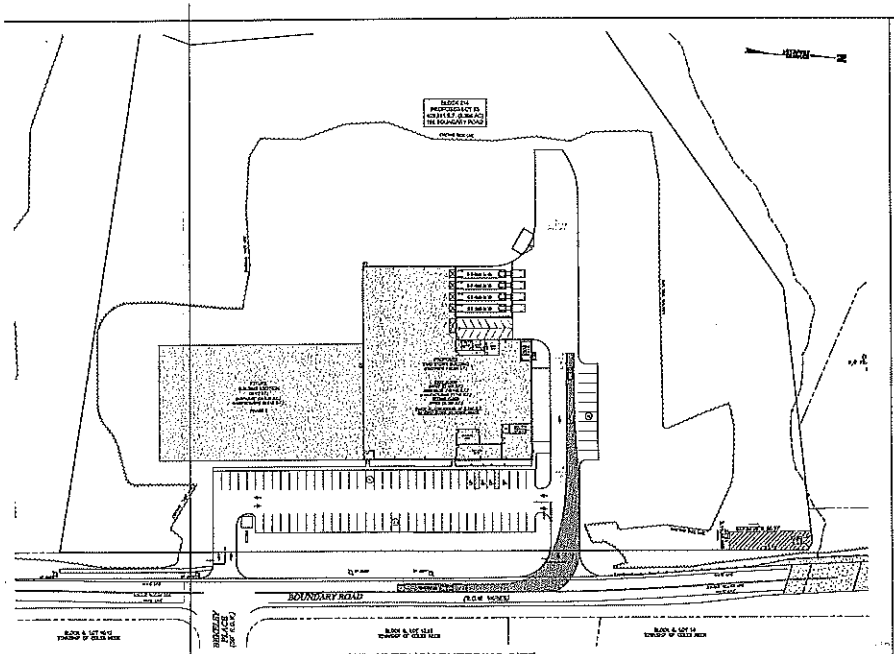
430 NORTH AVE EAST
P.O. BOX 188
WESTFIELD, NJ 07091

P: 908.233.6300
F: 908.233.6307

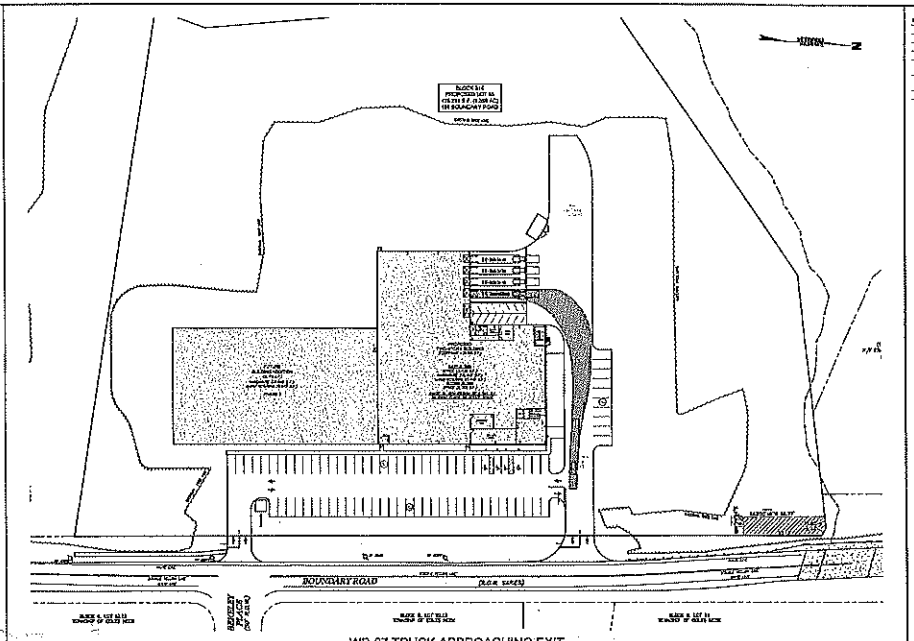
DRAWN: JG
CHECKED: JG
DATE: 06.01.22
SCALE: AS NOTED

12

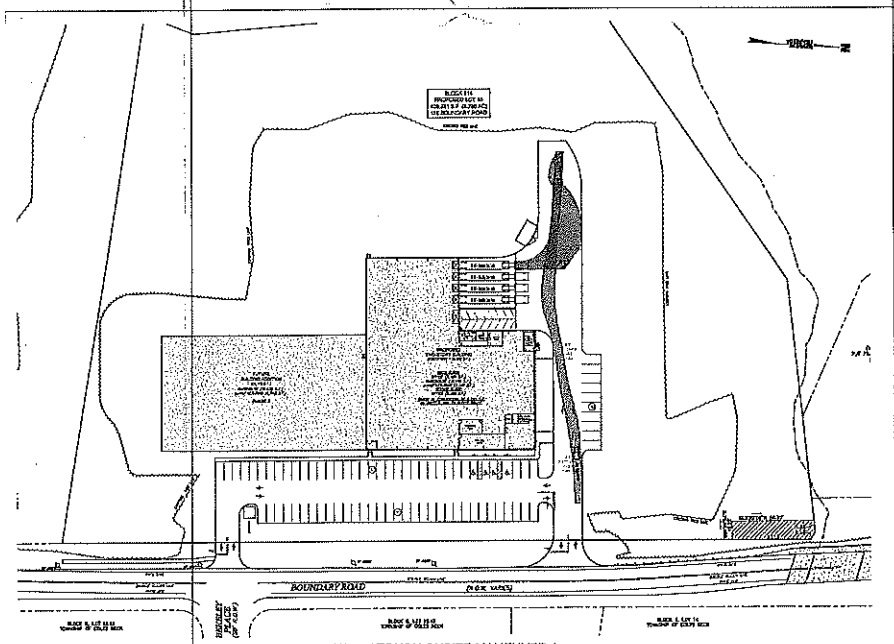
WWW.REDCOMLLC.COM



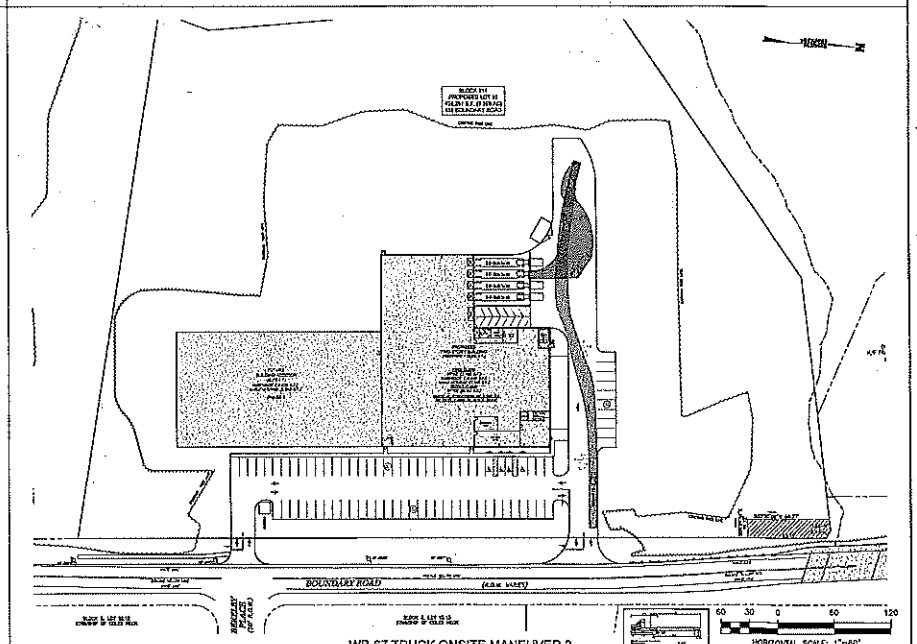
WB-67 TRUCK ENTERING SITE



WB-67 TRUCK APPROACHING EXIT



WB-67 TRUCK ONSITE MANEUVER 1



WB-67 TRUCK ONSITE MANEUVER 2

REVISIONS

1	03.30.2020	REVISED PER NJDEP & LETTER OF COMMENTS
2	04.20.2020	REVISED PER LETTER OF COMMENTS (4-20-20)
3	10.05.2020	REVISED PER NJDEP LETTER OF COMMENTS (10-5-20)
4	12.28.2020	REVISED PER NJDEP EMAIL OF COMMENTS (12-28-20)
5	01.28.2021	REVISED PER SITE COMMENTS LETTER OF COMMENTS AND TOWNSHIP REVIEW LETTER OF COMMENTS
6	02.09.2021	REVISED PER TOWNSHIP REVIEW LETTER OF COMMENTS AND NJDEP LETTER OF COMMENTS
7	07.30.2021	REVISED PER TOWNSHIP FIRE DEPARTMENT COMMENTS

THIS SET OF PLANS HAS BEEN ISSUED ALONG WITH NJDEP F.H.A. INDIVIDUAL PERMIT, F.H.A. VERIFICATION & FRESHWATER WETLANDS LOI
PERMIT No.: 1319-20-0005.1 LUP200001

FRESHWATER WETLANDS LOI:
FAE No.: 1319-20-0005.1
ACTIVITY No.: FWW200001

GREGORY J. REDINGTON, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. No. 37545

SRS ENTERPRISES
BLOCK 314, LOT 53
HAZLEWOOD TOWNSHIP
MONMOUTH COUNTY, NEW JERSEY

156 BOUNDARY ROAD
NJDEP FHA VERIFICATION & INDIVIDUAL PERMIT APPLICATION PLAN

TRUCK TURNING PLAN

REDCOM DESIGN & CONSTRUCTION LLC

STATE OF NEW JERSEY CERTIFICATE OF AUTHORIZATION ENGINEERING & PLANNING

133 NORTH AVE EAST
PO BOX 183
WESTfIELD, NJ 07090

E: 908.233.4200
F: 908.233.4207

DESIGN: JS
CHECKED: JS

DATE: 03.30.20
SCALE: 1"=40'

S-1

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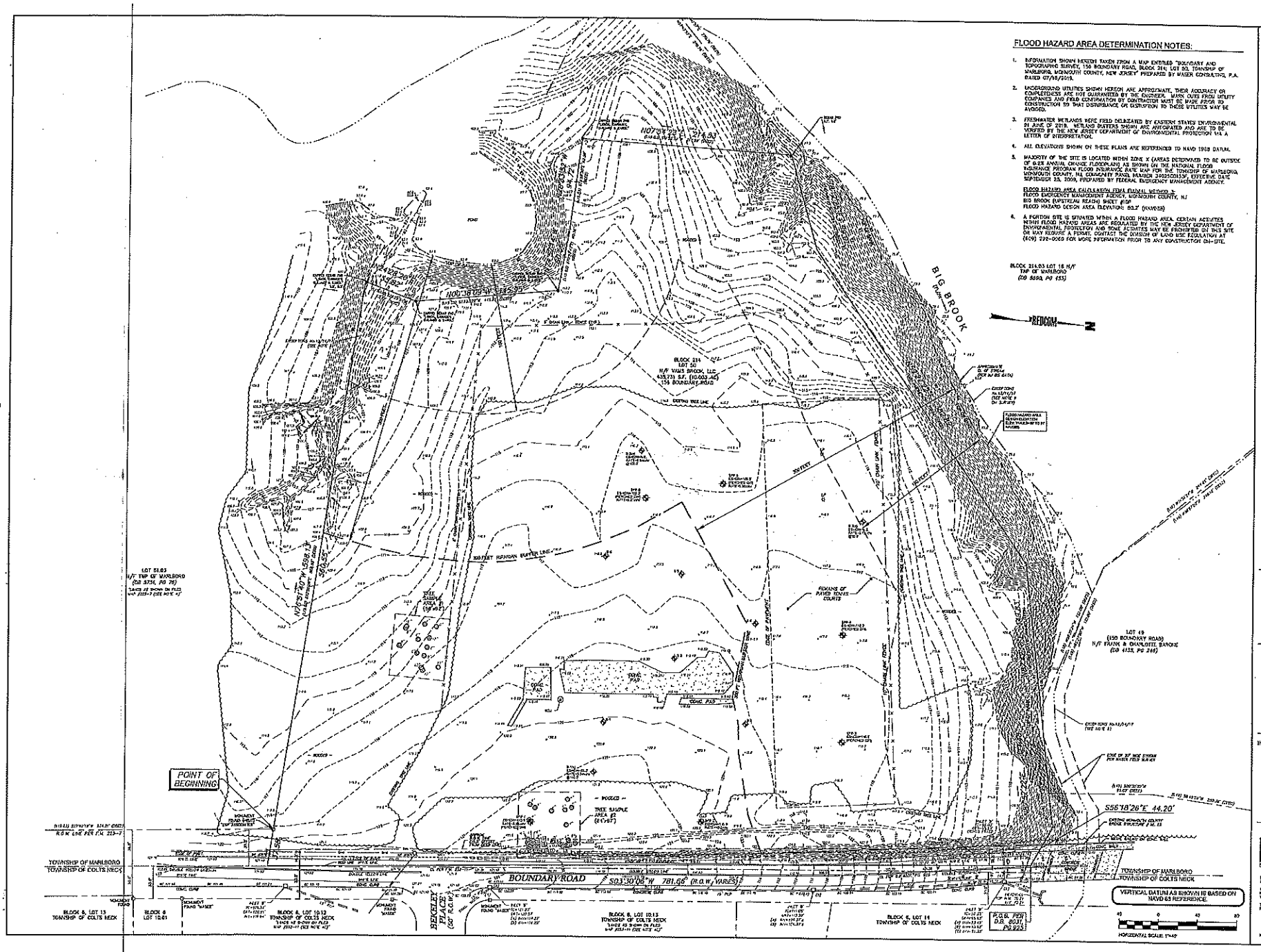

FLOOD HAZARD AREA DETERMINATION NOTES:

1. INFORMATION SHOWN HEREON TAKEN FROM A MAP ENTITLED "BOUNDARY AND TOPOGRAPHIC SURVEY, 154 BOUNDARY ROAD, BLOCK 314, LOT 50, TOWNSHIP OF MARLBORO, MONMOUTH COUNTY, NEW JERSEY PREPARED BY MASER CONSULTING, P.A. DATED 07/05/2019.
2. UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE, THEIR ACCURACY OR COMPLETENESS ARE NOT GUARANTEED BY THE ENGINEER. MARK OUTS FROM UTILITY COMPANIES AND FIELD CONFIRMATION BY CONTRACTOR MUST BE MADE PRIOR TO CONSTRUCTION SO THAT DISTURBANCE OR DISRUPTION TO THESE UTILITIES MAY BE AVOIDED.
3. FRESHWATER WETLANDS WERE FIELD DELINEATED BY EASTERN STATES ENVIRONMENTAL 21 JUNE OF 2019. WETLAND BUFFERS SHOWN ARE ANTICIPATED AND ARE TO BE VERIFIED BY THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION VIA A LETTER OF INTERPRETATION.
4. ALL ELEVATIONS SHOWN ON THESE PLANS ARE REFERENCED TO NAVD 1988 DATUM.
5. MAJORITY OF THE SITE IS LOCATED WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE OF 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP FOR THE TOWNSHIP OF MARLBORO, MONMOUTH COUNTY, NJ, COMMUNITY PANEL NUMBER 3402500015C, EFFECTIVE DATE SEPTEMBER 23, 2009, PREPARED BY FEDERAL EMERGENCY MANAGEMENT AGENCY.

   FLOOD HAZARD AREA CALCULATION ITEM FLOWAL METHOD 3.
   FLOOD EMERGENCY MANAGEMENT AGENCY, MONMOUTH COUNTY, NJ
   BIG BROOK (UPSTREAM REACH) SHEET #10P
   FLOOD HAZARD DESIGN AREA ELEVATION: 55.7' (NAVD83)
6. A PORTION SITE IS SITUATED WITHIN A FLOOD HAZARD AREA. CERTAIN ACTIVITIES WITHIN FLOOD HAZARD AREAS ARE REGULATED BY THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SOME ACTIVITIES MAY BE PROHIBITED ON THIS SITE OR MAY REQUIRE A PERMIT. CONTACT THE DIVISION OF LAND USE REGULATION AT (609) 292-0060 FOR MORE INFORMATION PRIOR TO ANY CONSTRUCTION ON-SITE.

REVISIONS

1. 05.29.2020	REVISED PER DEP MEETING & LETTER OF COMMENTS
2. 07.30.2020	REVISED PER LETTER OF COMMENTS DATED 06.30.20
3. 10.16.2020	REVISED PER DEP MEETING OF COMMENTS 09/30/20
4. 11.09.2020	REVISED PER DEP LETTER OF COMMENTS 07/14/20
5. 12.04.2020	REVISED PER DEP MEETING OF COMMENTS AND CHANGE DESCRIPTION OF CHANGES
6. 01.28.2021	REVISED PER DEP LETTER DATED 01 COMMENTS AND TOWNSHIP DESCRIPTION OF CHANGES
7. 02.26.2021	REVISED PER TOWNSHIP PRE-TECHNICAL COMMENTS

THIS SET OF PLANS HAS BEEN ISSUED ALONG WITH NJDEP
F.W.A. INDIVIDUAL PERMIT,
F.W.A. VERIFICATION &
FRESHWATER WETLANDS WAIVER
PERMIT No.: 1323-23-0000.1 LU210001

FRESHWATER WETLANDS LOI:
FILE No.: 1323-23-0000.1
ACTIVITY No.: FWW200001

GREGORY J. REDINGTON, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. No. 39143

SRS ENTERPRISES

BLOCK 314, LOT 50
MARLBORO TOWNSHIP
MONMOUTH COUNTY, NEW JERSEY

154 BOUNDARY ROAD

NJDEP FWA VERIFICATION & INDIVIDUAL PERMIT APPLICATION PLAN

NJDEP FLOOD HAZARD VERIFICATION PLAN

REDCOM
DESIGN & CONSTRUCTION LLC

ESTATE OF NEW JERSEY CERTIFICATE OF AUTHORIZATION
ENGINEERING & SURVEYING

430 NORTH AVE EAST
PO BOX 339
WESTFIELD, NJ 07090

T: 908.518.1000
F: 908.518.0877

DATE: 05.29.20
SCALE: 1"=40'

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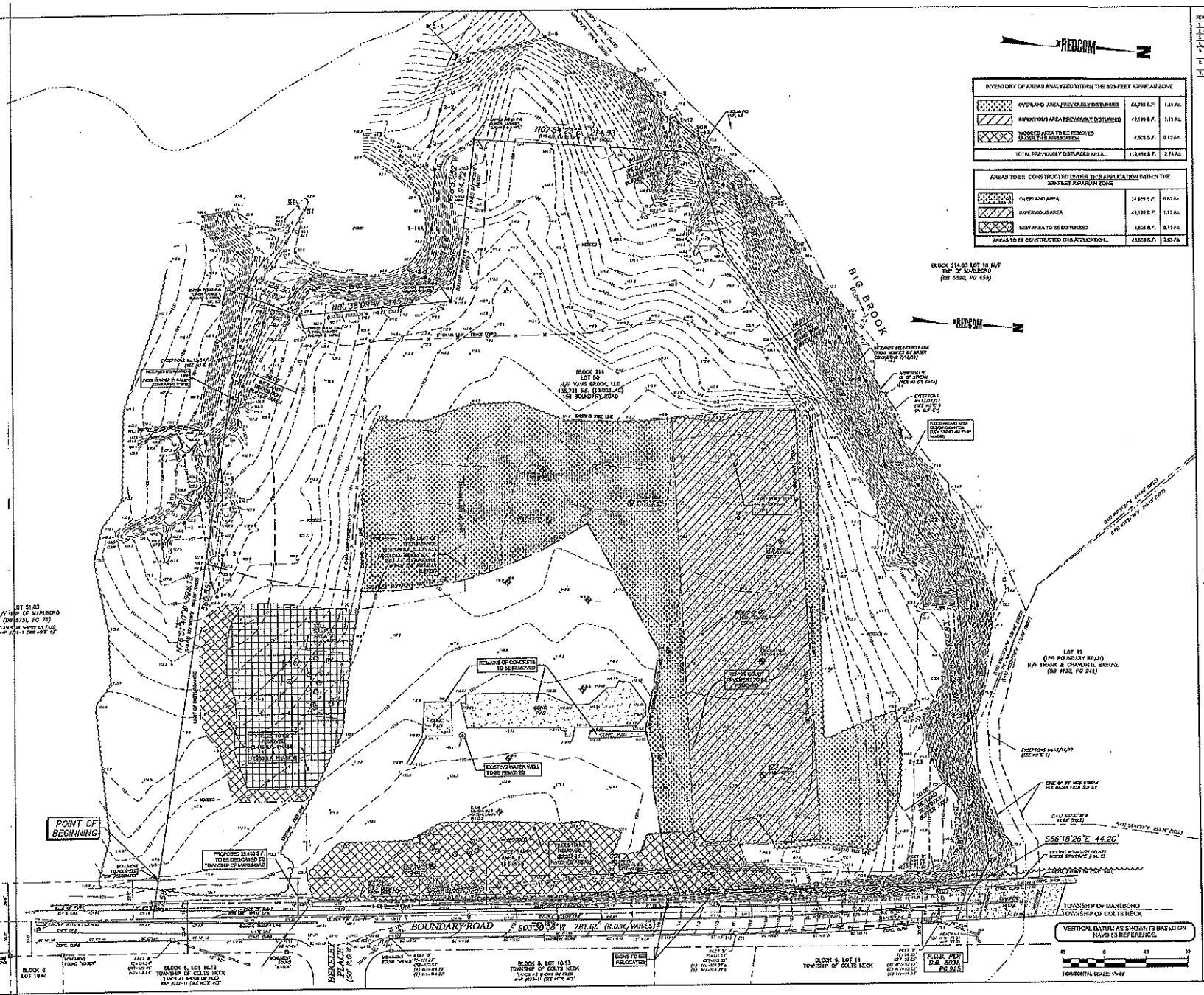
S-2



INVENTORY OF AREAS ANALYZED WITHIN THE 300-FEET RIPARIAN ZONE		
OVERLAND AREA PREVIOUSLY DISTURBED	48,715 S.F.	1.11 Ac.
IMPERVIOUS AREA PREVIOUSLY DISTURBED	48,110 S.F.	1.11 Ac.
WOODED AREA TO BE REMOVED UNDER THIS APPLICATION	4,305 S.F.	0.10 Ac.
TOTAL PREVIOUSLY DISTURBED AREA...	119,494 S.F.	2.74 Ac.

AREAS TO BE CONSTRUCTED UNDER THIS APPLICATION WITHIN THE 300-FEET RIPARIAN ZONE		
OVERLAND AREA	24,555 S.F.	0.53 Ac.
IMPERVIOUS AREA	48,120 S.F.	1.10 Ac.
NEW AREA TO BE DISTURBED	4,605 S.F.	0.10 Ac.
AREAS TO BE CONSTRUCTED THIS APPLICATION...	49,880 S.F.	1.63 Ac.

REVISIONS

1. 03.25.2020 REVISED PER NJDEP REPORT & LETTER OF COMMENTS
2. 07.14.2021 REVISED PER NJDEP REPORT & LETTER OF COMMENTS DATED 06.09.21
3. 10.04.2021 REVISED PER NJDEP REPORT & LETTER OF COMMENTS DATED 09.13.2021
4. 11.29.2021 REVISED PER NJDEP EMAIL OF COMMENTS DATED 11/17/21
5. 12.08.2021 REVISED PER NJDEP EMAIL OF COMMENTS DATED 12/7/21
6. 03.23.2022 REVISED PER NJDEP LETTER OF COMMENTS DATED 03/17/22 AND TOWNSHIP REVIEW LETTER OF COMMENTS
7. 07.08.2022 REVISED PER NJDEP LETTER OF COMMENTS DATED 06/27/22 AND TOWNSHIP REVIEW LETTER OF COMMENTS
8. 09.23.2022 REVISED PER NJDEP LETTER OF COMMENTS DATED 09/16/22 AND TOWNSHIP REVIEW LETTER OF COMMENTS
9. 07.28.2023 REVISED PER NJDEP FIRE OFFICIAL COMMENTS

THIS SET OF PLANS HAS BEEN ISSUED ALONG WITH NJDEP F.W.A. INDIVIDUAL PERMIT, F.W.A. VERIFICATION & FRESHWATER WETLANDS WAIVER
PERMIT No.: 1310-20-0005.1 IWP200001

FRESHWATER WETLANDS L.O.I.:
FILE No.: 1310-20-0005.1
ACTIVITY No.: FWW200001

GREGORY J. REDINGTON, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. No. 29313

SRS ENTERPRISES

BLOCK 214, LOT 50
MARLBORO TOWNSHIP
MONMOUTH COUNTY, NEW JERSEY

158 BOUNDARY ROAD

NJDEP FWA VERIFICATION & INDIVIDUAL PERMIT APPLICATION PLAN

NJDEP EXISTING CONDITIONS

REDCOM
DESIGN & CONSTRUCTION LLC

STATE OF NEW JERSEY CERTIFICATE OF AUTHORIZATION ENGINEERING & SURVEYING

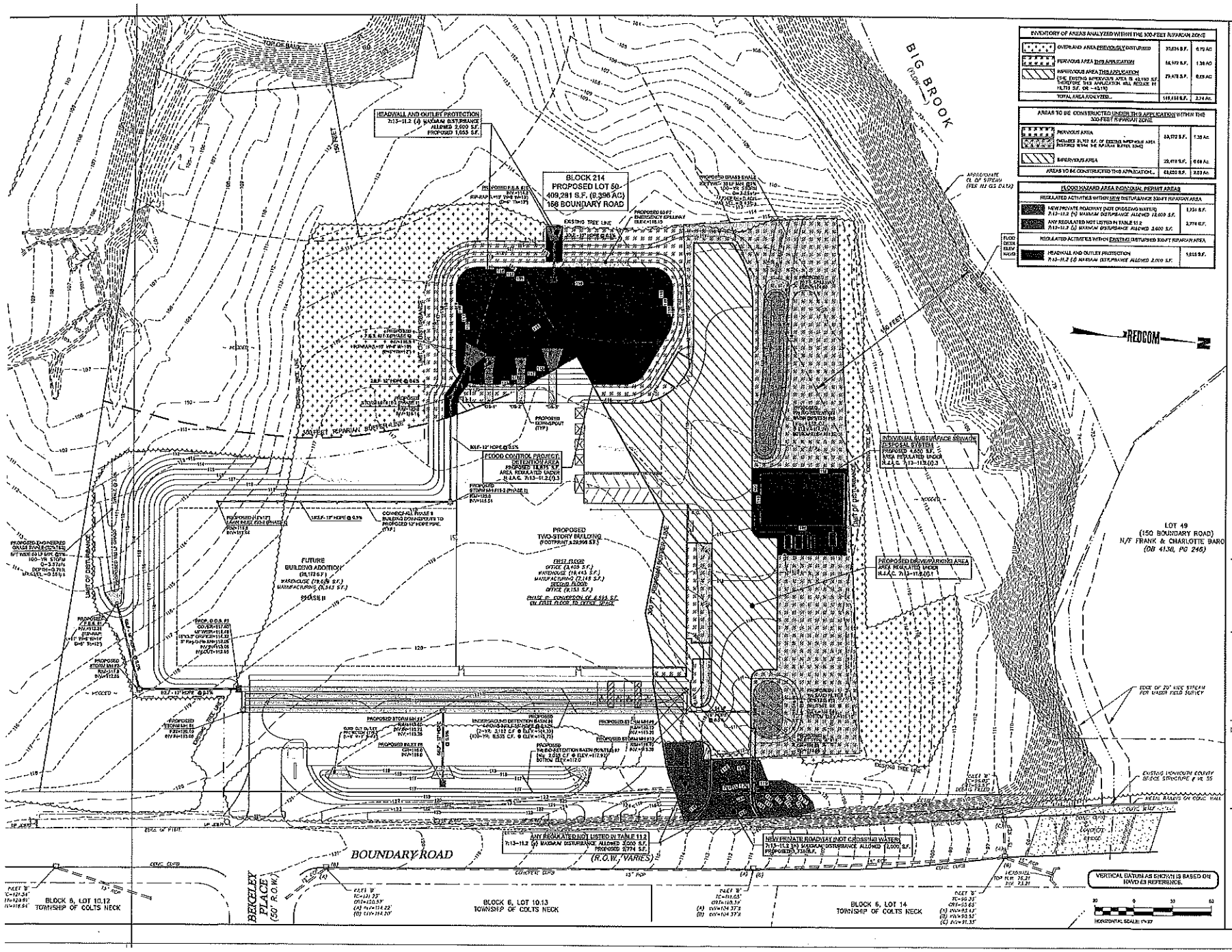
132 NORTH LINE EAST
P.O. BOX 1
NEPTUNE, NJ 07753

T. 908.533.4230
F. 908.533.0377

DRAWN: KB
CHECKED: RR
DATE: 08.08.2023
SCALE: 1"=40'

WWW.REDCOMLLC.COM

S-3



INVENTORY OF AREAS ANALYZED WITHIN THE 300-FEET RIPARIAN ZONE		
OVERLAND AREA PREVIOUSLY DISTURBED	30,634 S.F.	0.70 AC
PERVIOUS AREA THIS APPLICATION	54,173 S.F.	1.24 AC
IMPERVIOUS AREA THIS APPLICATION (INC. EXISTING IMPERVIOUS AREA IS 43,192 S.F. HOWEVER THIS APPLICATION WILL REDUCE IT 19,713 S.F. OR -45%)	23,479 S.F.	0.54 AC
TOTAL AREA ANALYZED	108,286 S.F.	2.48 AC

AREAS TO BE CONSTRUCTED UNDER THIS APPLICATION WITHIN THE 300-FEET RIPARIAN ZONE		
PERVIOUS AREA (INCLUDES 23,713 S.F. OF EXISTING IMPERVIOUS AREA REMOVED WITHIN THE RIPARIAN BUFFER ZONE)	53,772 S.F.	1.23 AC
IMPERVIOUS AREA	28,478 S.F.	0.65 AC
AREAS TO BE CONSTRUCTED THIS APPLICATION	82,250 S.F.	2.03 AC

FLOOD HAZARD AREA INDIVIDUAL PERMIT AREAS		
REGULATED ACTIVITIES WITHIN NEW DISTURBANCE 300-FT RIPARIAN AREA		
NEW PRIVATE ROADWAY (NOT CROSSING WATER) 7:13-11.2 (c) MAXIMUM DISTURBANCE ALLOWED 18,000 S.F.	1,931 S.F.	
ANY REGULATED NOT LISTED IN TABLE 11.2 7:13-11.2 (d) MAXIMUM DISTURBANCE ALLOWED 3,600 S.F.	2,774 S.F.	
REGULATED ACTIVITIES WITHIN EXISTING DISTURBED 100-FT RIPARIAN AREA		
HEADWALL AND OUTLET PROTECTION 7:13-11.2 (d) MAXIMUM DISTURBANCE ALLOWED 2,000 S.F.	1,053 S.F.	

FLOOD DESIGN ELEV. NAVD

REVISIONS
1. 03.24.2020 REVISED PER NJ DEP & LETTER OF COMMENTS
2. 05.15.2020 REVISED PER NJ DEP LETTER OF COMMENTS DATED 05.13.20
3. 06.16.2020 REVISED PER NJ DEP LETTER OF COMMENTS DATED
4. 10.30.2020 REVISED PER TOWN PLAN OF COMMENTS DATED 10.28
5. 12.14.2020 REVISED PER NJ DEP LETTER OF COMMENTS DATED 12.10.20 AND TOWNSHIP RESOLUTION OF COMPLIANCE
6. 03.25.2021 REVISED PER NJ DEP LETTER OF COMMENTS DATED 03.23.21 AND TOWNSHIP RESOLUTION OF COMPLIANCE
7. 07.26.2021 REVISED PER TOWNSHIP ENGINEER COMMENTS DATED

THIS SET OF PLANS HAS BEEN ISSUED PLEASE WITH NJDEP F.H.A. INDIVIDUAL PERMIT, F.H.A. VERIFICATION & FRESHWATER WETLANDS GENERAL WAIVER PERMIT No.: 1328-20-0008.1 LUF220001

FRESHWATER WETLANDS L.O.I.: FILE No.: 1328-20-0008.1 ACTIVITY No.: FWW200001

GREGORY J. REDINGTON, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. No. 37543

SRS ENTERPRISES

BLOCK 214, LOT 50
MANALAPAN TOWNSHIP
MONMOUTH COUNTY, NEW JERSEY

158 BOUNDARY ROAD

NJDEP FHA VERIFICATION & INDIVIDUAL PERMIT APPLICATION PLAN

NJDEP FLOOD HAZARD AREA INDIVIDUAL PERMIT PLAN

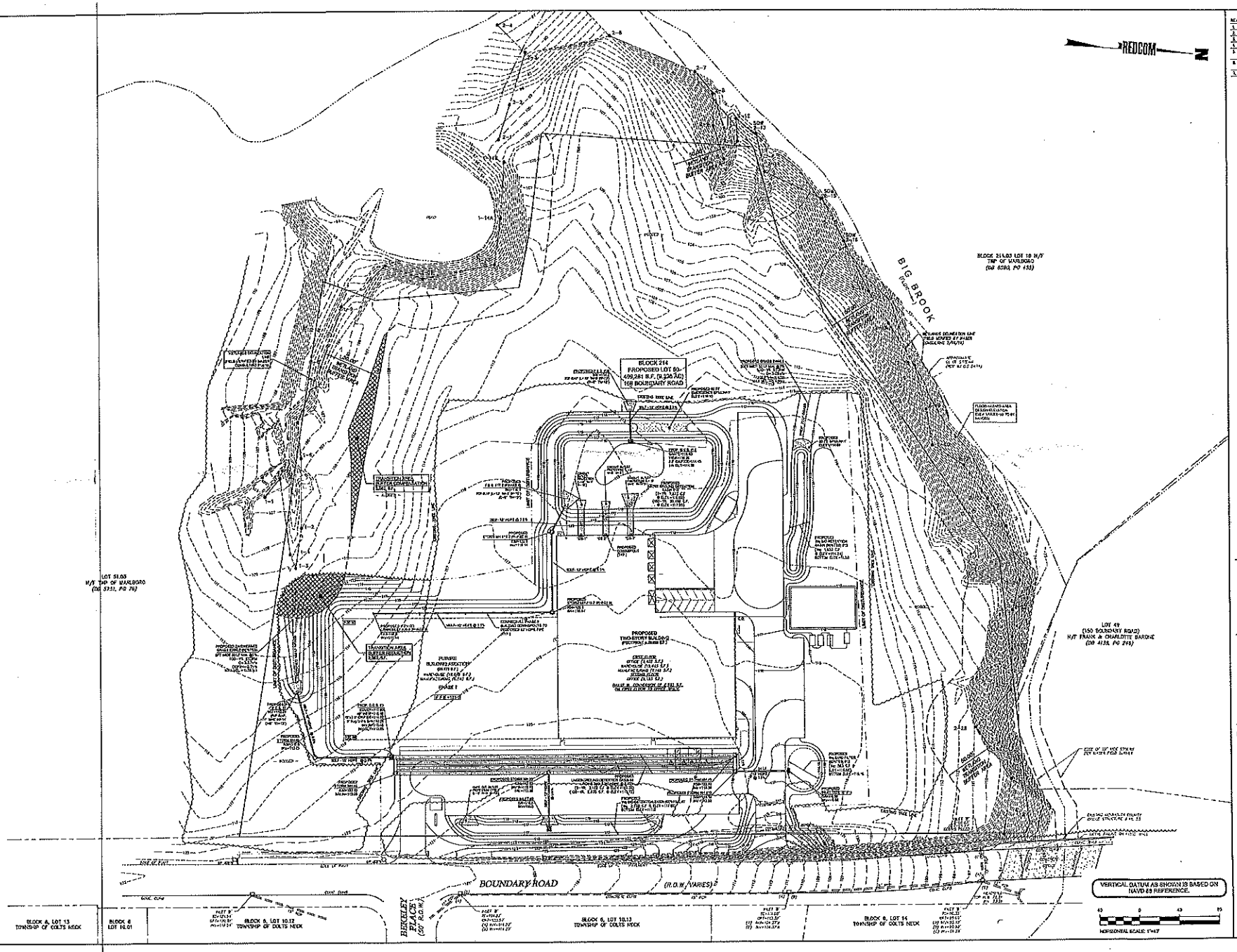
REDCOM
DESIGN & CONSTRUCTION LLC

STATE OF NEW JERSEY CERTIFICATE OF AUTHORIZATION
ENGINEERING & PLANNING
433 NORTH MAIN EAST
P.O. BOX 115
MANASQUAN, NJ 07750
P. 908.226.0300
F. 908.226.0301

DRAWN: AB
CHECKED: AB
DATE: 03.06.20
SCALE: 1"=30'

WWW.REDCOMLLC.COM

S-4



REVISIONS

1. 08.06.2021 REVISED PER NJDEP & LETTER OF COMMENTS
2. 07.01.2022 REVISED PER LETTER OF COMMENTS DATED 06.08.22
3. 10.18.2022 REVISED PER LETTER OF COMMENTS (10/12/22)
4. 11.08.2022 REVISED PER LETTER DATED OF COMMENTS (11/8/22)
5. 12.06.2022 REVISED PER NJDEP LETTER OF COMMENTS NO SHOW RESPONSE OF COMMENTS
6. 01.05.2023 REVISED PER NJDEP LETTER OF COMMENTS NO SHOW RESPONSE OF COMMENTS
7. 01.09.2023 REVISED PER SHOW THE DEPARTMENT COMMENTS

THIS SET OF PLANS HAS BEEN ISSUED
ALONG WITH NJDEP
FHA & INDIVIDUAL PERMIT,
FHA VERIFICATION &
FRESHWATER WTA WAIVER
PERMIT No.: 1325-20-0006.1 LUP200001

FRESHWATER WETLANDS LOI:
FILE No.: 1325-20-0006.1
ACTIVITY No.: FWW200001

GREGORY J. REDINGTON, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. NO. 27543

SRS ENTERPRISES

BLOCK 214, LOT 50
MARLBORO TOWNSHIP
MONMOUTH COUNTY, NEW JERSEY

155 BOUNDARY ROAD

NJDEP FHA VERIFICATION &
INDIVIDUAL PERMIT APPLICATION PLAN

NJDEP WETLAND & TRANSITION AVERAGE PLAN

REDCOM
DESIGN & CONSTRUCTION LLC

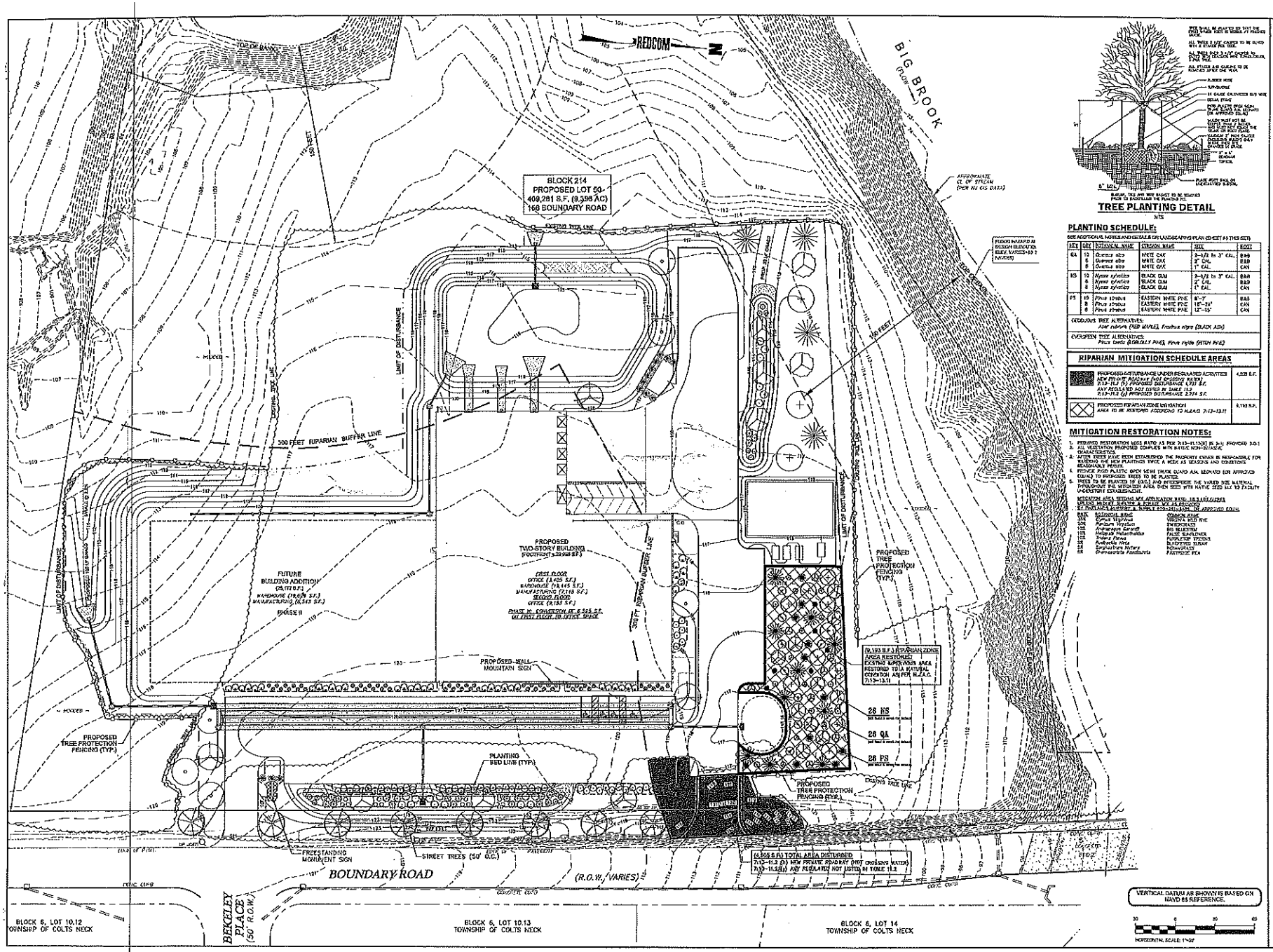
133 N. NEW JERSEY AVE SUITE 1F
ATLANTIC CITY, NJ 08401
P: 609.339.4439
F: 908.233.8237

133 NORTH AVE EAST
PO BOX 105
WESTfIELD, NJ 07090

DRAWN: AB
CHECKED: AB
DATE: 06.14.21
SCALE: 1"=40'

S-5

WWW.REDCOMLLC.COM



TREE PLANTING DETAIL

NTS

PLANTING SCHEDULE:

SEE ADDITIONAL NOTES AND DETAILS ON LANDSCAPING PLAN (SHEET #3 THIS SET)

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	ROOT
QA	10	*Quercus alba*	WHITE OAK	2-1/2 to 3" CAL.	B&B
	6	*Quercus alba*	WHITE OAK	2" CAL.	B&B
	8	*Quercus alba*	WHITE OAK	1" CAL.	CAN
NS	10	*Nyssa sylvatica*	BLACK GUM	2-1/2 to 3" CAL.	B&B
	6	*Nyssa sylvatica*	BLACK GUM	2" CAL.	B&B
	8	*Nyssa sylvatica*	BLACK GUM	1" CAL.	CAN
PS	19	*Pinus strobus*	EASTERN WHITE PINE	6'-7'	B&B
	8	*Pinus strobus*	EASTERN WHITE PINE	18'-24'	CAN
	8	*Pinus strobus*	EASTERN WHITE PINE	12'-15'	CAN
DECIDUOUS TREE ALTERNATIVES: *Acer rubrum* (RED MAPLE), *Fraxinus nigra* (BLACK ASH)					
EVERGREEN TREE ALTERNATIVES: *Pinus taeda* (LOBLOLLY PINE), *Pinus rigida* (PITCH PINE)					

RIPARIAN MITIGATION SCHEDULE AREAS

	PROPOSED DISTURBANCE UNDER REGULATED ACTIVITIES NEW PRIVATE ROADWAY (NOT CROSSING WATER) 7:13-11.2 (b) PROPOSED DISTURBANCE 1,137 S.F. ANY REGULATED NOT LISTED IN TABLE 11.2 7:13-11.2 (d) PROPOSED DISTURBANCE 2,574 S.F.	4,508 S.F.
	PROPOSED RIPARIAN ZONE MITIGATION AREA TO BE RESTORED ACCORDING TO N.J.A.C. 7:13-13.11	8,193 S.F.

MITIGATION RESTORATION NOTES:

1. REQUIRED RESTORATION (4:1 RATIO) AS PER 7:13-11.1(b)1 IS 9,016 PROVIDED 3.0:1
2. ALL VEGETATION PROPOSED COMPLIES WITH NATIVE NON-INVASIVE DOMINATORS.
3. AFTER SITES HAVE BEEN ESTABLISHED THE PROPERTY OWNER IS RESPONSIBLE FOR WATERING THE NEW PLANTINGS TWICE A WEEK AS SEASONS AND CONDITIONS REASONABLY PERMIT.
4. REPLACE DEAD PLANTS UPON NEXT PLANTING SEASON AS DEEMED FOR APPROVED COUNCIL TO REPLACE TREES TO BE PLANTED.
5. TREES TO BE PLANTED 10 (6-8') AND INTERSPERSE THE VARIED SIZE MATERIAL THROUGHOUT THE MITIGATION AREA THEN SEED WITH NATIVE SEED MIX TO PROMOTE UNDERSTORY ESTABLISHMENT.

MITIGATION AREA REQUIRED NEW APPROXIMATE SIZE: 18,193 (1,137 PLANTS)
SEE PLANTING SCHEDULE & DETAILS ON LANDSCAPING PLAN (SHEET #3 THIS SET)
SEE PLANTING SCHEDULE & DETAILS ON LANDSCAPING PLAN (SHEET #3 THIS SET)

KEY	BOTANICAL NAME	COMMON NAME
[illegible]	*Pinus virginiana*	VIRGINIA RED PINE
[illegible]	*Fraxinus pennsylvanica*	GREEN ASH
[illegible]	*Amelanchier canadensis*	BIG SERVICEBERRY
[illegible]	*Hamamelis virginiana*	FALSE SUNFLOWER
[illegible]	*Polystichum acrostichoides*	PUNCTUATED SPRINGS
[illegible]	*Carex pensylvanica*	BLACKFOOT SEDGE
[illegible]	*Symphyotrichum novae-angliae*	NEW ENGLAND ASTER
[illegible]	*Chamaecrista fasciculata*	PARTRIDGE PEA

THIS SET OF PLANS HAS BEEN ISSUED ALONG WITH NJDEP F.H.A. INDIVIDUAL PERMIT, F.H.A. VERIFICATION & FREESHWATER WETLANDS PERMIT No.: 1323-20-0003.1 (UPDATED)

FREESHWATER WETLANDS L.O.I.:
FILE No.: 1323-20-0003.1
ACTIVITY No.: FW2200001

GREGORY J. REDINGTON, P.E.
NEW JERSEY PROFESSIONAL ENGINEER LIC. No. 37410

SRS ENTERPRISES

BLOCK 214; LOT 50
MARLBORO TOWNSHIP
MONMOUTH COUNTY, NEW JERSEY

168 BOUNDARY ROAD

NJDEP FHA VERIFICATION & INDIVIDUAL PERMIT APPLICATION PLAN

NJDEP FLOOD HAZARD AREA INDIVIDUAL PERMIT: MITIGATION PLAN

REDCOM DESIGN & CONSTRUCTION LLC

STATE OF NEW JERSEY CERTIFICATE OF AUTHORIZATION
[illegible]

[illegible] NORTH, 4-E EAST
P.O. BOX 1[illegible]
HOPEWELL, NJ 07[illegible]
T. 908.[illegible]
F. 908.[illegible]

DRAWN: JS
CHECKED: JS
DATE: 08.01.23
SCALE: 1"=30'

S-6

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