

HOPE TOWNSHIP SCHOOL

RAIN GARDEN IMPLEMENTATION PROJECT
 320 JOHANSONBURG ROAD, HOPE TOWNSHIP
 WARREN COUNTY, NEW JERSEY
 BLOCK: 2700 LOT: 700

PROJECT DESCRIPTION:

A RAIN GARDEN (460 S.F.) IS TO BE INSTALLED ON THE EASTERN SIDE TO HELP CAPTURE, FILTER, AND INFILTRATE STORMWATER RUNOFF FROM THE ROOF (795 S.F.)

LOCATION MAP (N.T.S):



LEGEND:

	EXISTING DRAINAGE AREA
	EDGE OF PAVEMENT
	EXISTING CENTERLINE
	EXISTING FENCE
	EXISTING TREELINE
	EXISTING TREE/SHRUB
	EXISTING BUILDING
	EXISTING UTILITY POLE
	EXISTING LIGHT POLE
	EXISTING CATCH BASIN
	EXISTING CONTOURS
	EXISTING SPOT ELEVATIONS
<small>SPOT ELEVATION CODES: GS - GROUND SHOT BL - BUILDING LINE MH - MANHOLE CB - CATCH BASIN SW - SIDEWALK EP - EDGE OF PAVEMENT UP - UTILITY POLE F - FENCE DS - DOWNSPOUT TC - TOP OF CURB P - METAL PIPE</small>	
	LIMIT OF WORK
	LIMIT OF DISTURBANCE
	PROPERTY LINES
	PROPOSED GREEN INFRASTRUCTURE
	PROPOSED TOP OF BERM
	PROPOSED CONTOURS

LIST OF DRAWINGS:

SHEET NAME	TITLE
COVER	COVER SHEET
P-1	EXISTING CONDITIONS
P-2	PROPOSED SITE PLAN
P-3	PLANTING PLAN
DT-1	RAIN GARDEN DETAILS

GENERAL NOTES:

- SURVEY CONDUCTED BY RUTGERS COOPERATIVE EXTENSION WATER RESOURCES PROGRAM. ALL ELEVATIONS ARE RELATIVE TO THE 100.00' BENCHMARK POINT.
- EXISTING SOILS ARE UDORTHENTS WHICH ARE CLASSIFIED AS HYDROLOGIC SOIL GROUP D WHICH HAVE POOR INFILTRATION RATES BASED ON THE NRCS WEB SOIL SURVEY (websoilsurvey.sc.egov.usda.gov). INFILTRATION TEST REQUIRED PRIOR TO MOBILIZATION.
- ANY OVERHEAD AND UNDERGROUND UTILITIES SHOWN ARE FROM FIELD OBSERVATIONS AND ARE NOT A COMPLETE REPRESENTATION. A UTILITY MARKOUT NEEDS TO BE CONDUCTED PRIOR TO MOBILIZATION BY THOSE RESPONSIBLE FOR EXCAVATION. NJ ONE CALL: 811 OR 800-272-1000

PLAN REVISIONS		
REV. DATE	REV. SUMMARY	REV. SHEETS
9/29/2023	AS-BUILT	COVER, P-1, P-2, P-3, DT-1

CHRISTOPHER C. OBROPTA, Ph.D., P.E.
 PROFESSIONAL ENGINEER - NJ LICENSE # 37532

 DATE 05/18/2023

SHEET REVISIONS	
No.	DESCRIPTION
1	AS-BUILT

HOPE TOWNSHIP SCHOOL
 RAIN GARDEN IMPLEMENTATION PROJECT
 320 JOHANSONBURG ROAD, HOPE TOWNSHIP
 WARREN COUNTY, NJ
 COVER SHEET



SHEET NAME
COVER

JOHNSONBURG ROAD

- PLAN NOTES:**
1. CONTRACTOR SHALL SCHEDULE MEETING WITH ENGINEER AND PROPERTY OWNER PRIOR TO MOBILIZATION.
 2. CONTRACTOR SHALL VERIFY ALL INFORMATION INCLUDING ELEVATIONS AND UTILITIES PRIOR TO MOBILIZATION.
 3. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING REQUIRED APPROVALS FROM AUTHORITIES WITH JURISDICTION OVER PROPOSED WORK.
 4. CONTRACTOR SHALL COORDINATE AND CONFIRM PROJECT SCHEDULE AND WORKING HOURS WITH ENGINEER AND PROPERTY OWNER AND PROCEED IN ACCORDANCE WITH LOCAL REQUIREMENTS.
 5. CONTRACTOR SHALL COORDINATE UTILITY MARK OUT PRIOR TO MOBILIZATION. NJ ONE CALL: 811 OR 800-272-1000
 6. CONTRACTOR SHALL HAUL REMOVED DEBRIS OFF SITE UNLESS OTHERWISE NOTED BY PROPERTY OWNER.
 6. CONTRACTOR SHALL CONDUCT PERMEABILITY TESTING TO VERIFY ADEQUATE INFILTRATION RATES IF NOT PREVIOUSLY PERFORMED.

CHRISTOPHER C. OBROPTA, Ph.D., P.E.
 PROFESSIONAL ENGINEER - NJ LICENSE # 37532
Christopher C. Obropta
 DATE 05/18/2023
 APPROVED GCS
 CHECKED MFL
 DRAWN KAS

SHEET REVISIONS	
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1	AS-BUILT

**HOPE TOWNSHIP SCHOOL
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 WARREN COUNTY, NJ**

EXISTING CONDITIONS AND DEMOLITION PLAN



RUTGERS
 New Jersey Agricultural
 Experiment Station

14 COLLEGE FARM ROAD, NEW BRUNSWICK, NJ

SHEET NAME
P-1

BL 104.28
 DS 104.10

**HOPE
 TOWNSHIP
 SCHOOL**

**DRAINAGE AREA
 (795 SF)**

**LIMIT OF WORK
 (860 SF)**

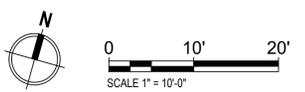
**LIMIT OF DISTURBANCE
 DESOD GRASS AREA (860 SF)**

EXISTING DOWNSPOUTS

EXISTING SIGNS
 TO REMAIN

EXISTING METAL PIPE
 TO REMAIN

EXISTING DETENTION BASIN



EXISTING PLAN

PLAN NOTES:

1. CONTRACTOR SHALL SCHEDULE MEETING WITH ENGINEER AND PROPERTY OWNER PRIOR TO MOBILIZATION AND CONSTRUCTION.
2. CONTRACTOR SHALL VERIFY ALL INFORMATION INCLUDING ELEVATIONS AND UTILITIES PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL VERIFY ALL PROPOSED MATERIALS WITH PROPERTY OWNER AND ENGINEER PRIOR TO CONSTRUCTION.
4. CONTRACTOR SHALL STAKE OUT LOCATIONS OF PROPOSED BMPs AND OBTAIN APPROVAL FROM ENGINEER PRIOR TO INSTALLATION.
5. CONTRACTOR SHALL GRADE SITE AS SHOWN ON PLAN. CUT SOIL SHALL BE REUSED ON SITE FOR FILL LOCATIONS.
6. CONTRACTOR SHALL HAUL EXCESS SOIL OFF SITE UNLESS OTHERWISE NOTED BY PROPERTY OWNER.
7. ALL FINISHED ELEVATIONS SHALL MATCH ADJOINING PAVEMENT ENSURING SMOOTH TRANSITIONS AND NO TRIPPING HAZARDS.
8. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ALL AREAS DISTURBED DURING CONSTRUCTION TO ORIGINAL CONDITIONS.

NOTE 1: STONE SHALL BE COMPRISED OF 3"-5" DIAMETER CLEAN, WASHED RIVER STONE. ALL AREAS OF EROSION PROTECTION STONE SHALL BE UNDERLAIN WITH GEOTEXTILE FABRIC (GEOTEX 801 BY PROPEX OR APPROVED EQUIVALENT).

NOTE 2: UNDERDRAIN MAY BE OMITTED BY ENGINEER'S DISCRETION IF THE TESTED INFILTRATION RATE EXCEEDS 1 IN/HR PER NJDEP BMP MANUAL.

STORMWATER CALCULATIONS*				
GREEN INFRASTRUCTURE PROJECT	SMP SIZE (SF)	TOTAL IMPERVIOUS DRAINAGE AREA MANAGED [WATER QUALITY STORM]** (SF)	TOTAL AREA MANAGED INCLUDING SMP [WATER QUALITY STORM]** (SF)	ANNUAL RUNOFF VOLUME MANAGED (GAL.)
RAIN GARDEN	460	795	1,255	19,186

* SEE DETAIL SHEET FOR MORE DETAILED STORMWATER CALCULATIONS
 ** WHILE A LARGER DRAINAGE AREA MAY ENTER THE SYSTEM, IT IS DESIGNED TO MANAGE THE AREA CALCULATED HERE
 SMP = STORMWATER MANAGEMENT PRACTICE (THE FUNCTIONAL PORTION OF THE PROJECT).

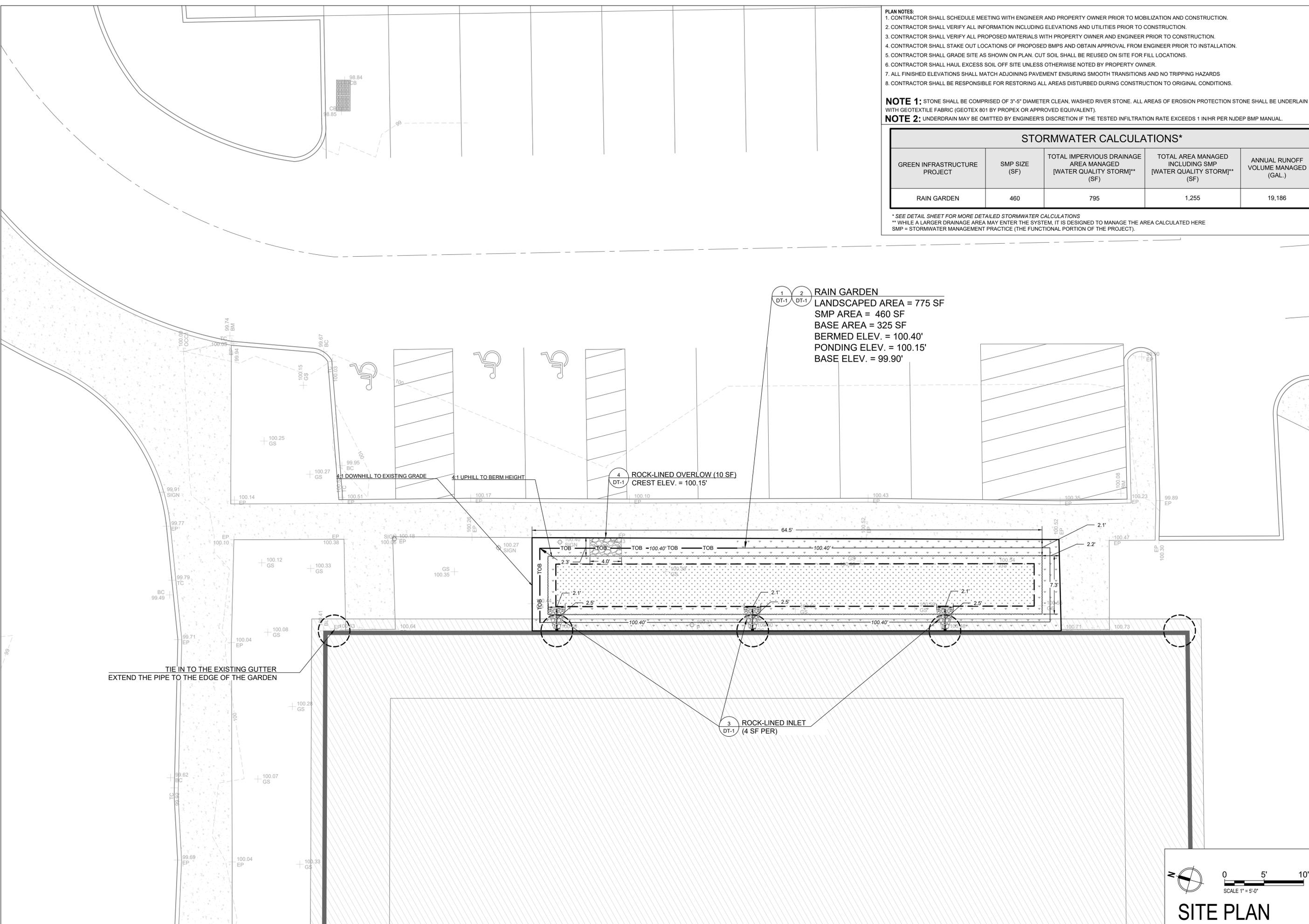
CHRISTOPHER C. OBROPTA, Ph.D., P.E.
 PROFESSIONAL ENGINEER - NJ LICENSE # 37532
 DATE 05/18/2023
 APPROVED
 CHECKED
 DRAWN

SHEET REVISIONS	DATE	DESCRIPTION
No. 1	9/29/2023	AS-BUILT

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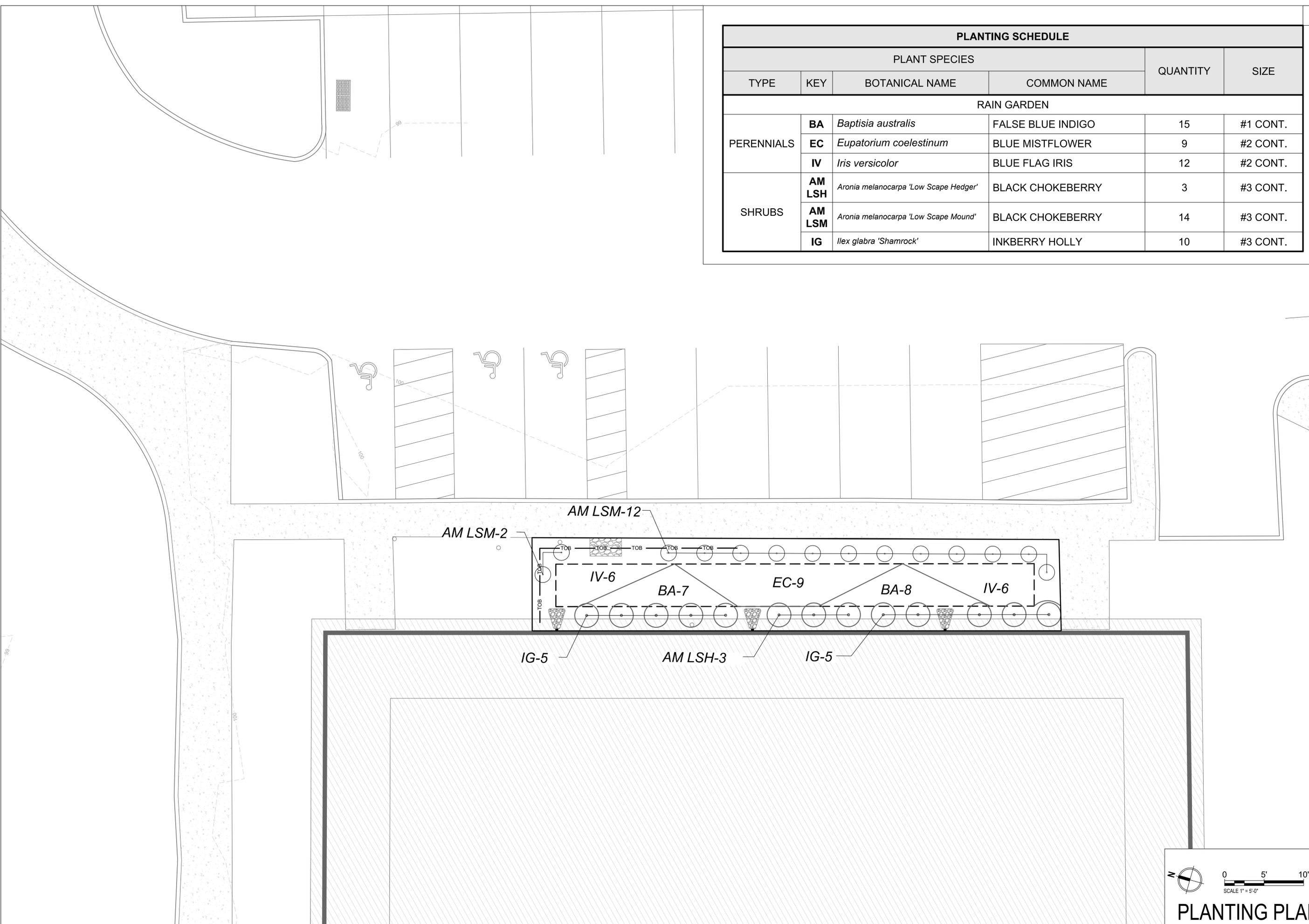
RUTGERS
 New Jersey Agricultural
 Experiment Station
 14 COLLEGE FARM ROAD, NEW BRUNSWICK, NJ

SHEET NAME
 P-2



SCALE 1" = 5'-0"

SITE PLAN



PLANTING SCHEDULE						
PLANT SPECIES					QUANTITY	SIZE
TYPE	KEY	BOTANICAL NAME	COMMON NAME			
RAIN GARDEN						
PERENNIALS	BA	<i>Baptisia australis</i>	FALSE BLUE INDIGO	15	#1 CONT.	
	EC	<i>Eupatorium coelestinum</i>	BLUE MISTFLOWER	9	#2 CONT.	
	IV	<i>Iris versicolor</i>	BLUE FLAG IRIS	12	#2 CONT.	
SHRUBS	AM LSH	<i>Aronia melanocarpa</i> 'Low Scape Hedger'	BLACK CHOKEBERRY	3	#3 CONT.	
	AM LSM	<i>Aronia melanocarpa</i> 'Low Scape Mound'	BLACK CHOKEBERRY	14	#3 CONT.	
	IG	<i>Ilex glabra</i> 'Shamrock'	INKBERRY HOLLY	10	#3 CONT.	

CHRISTOPHER C. OBROPTA, Ph.D., P.E.
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DATE: 05/18/2023

CHECKED: [Signature]

APPROVED: [Signature]

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PLANTING PLAN

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SHEET NAME

P-3

0 5' 10'

SCALE 1" = 5'-0"

PLANTING PLAN

