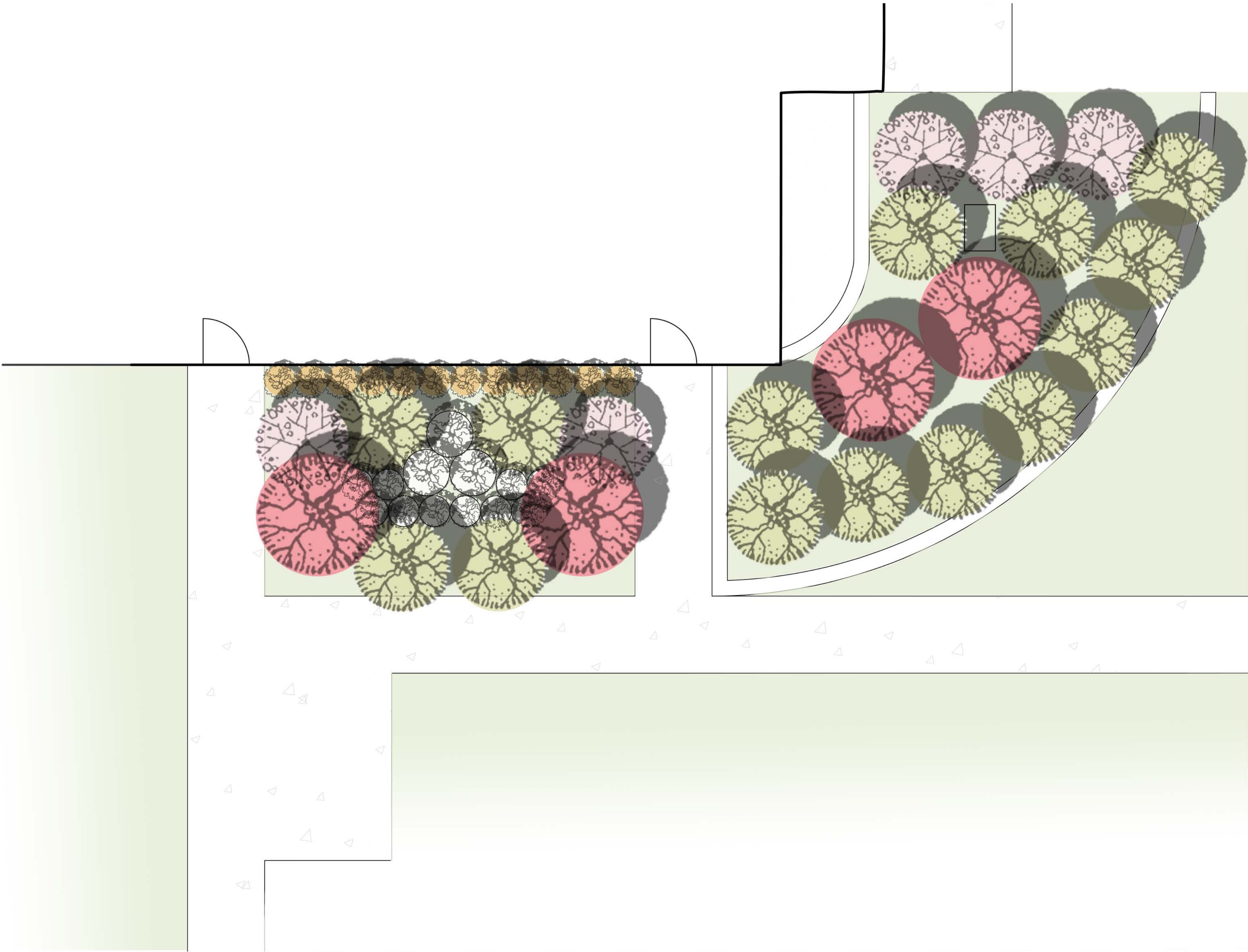


# METZGER RESIDENCE HALL RAIN GARDEN DESIGN

BUCSH CAMPUS, RUTGERS UNIVERSITY  
New Brunswick, NJ 08901



**PLANTING DESIGN**  
Submission Date: 12/07/2017  
Submitted by: Bo Peng





SITE DESCRIPTION

1. GRADING OF THE NORTHEAST LANDSCAPE SLOPES TOWARD THE BUILDING, GENERALLY TOWARD THE SOUTHEAST.
2. STORMWATER FROM THE BUILDING'S ROOD IS CAPTURED BY 5 DRAINAGE PIPE AND DRAINED TO THE LAWN AREA IN FRONT OF THE METZGER HALL.
3. LARGE RIVER ROCKS SERVE AS GROUNDCOVER ON THE POTENTIAL RAIN GARDEN AREA.
4. ACCORDING TO USDA SOIL SURVEY, THE SOIL ON-SITE IS KLINEVILLE- URBAN LAND COMPLEX SOILS.
5. THE INFILTRATION TESTS INDICATE THE SOIL ON-SITE IS RALETIVELY COMPACTED, ONLY MODERATE TO SLOW INFILTRATION RATES OF 1.5" PER HOUR.
6. EXISTING PLANTINGS INCLUDE 5 MAGNOLIA TREES, SEVERAL SHRUBS AND GRASSES NEAR THE BUILDING AND LAWN AREA.

GENERAL NOTES

1. THE CATCHMENT AREAS OF THE RAIN GARDEN CONSIDERED FOR THE SITE INCLUDE THE  NORTHEAST SIDE OF THE BUILDING ROOF, LAWN AREAS ON THE NORTHEAST SIDE OF THE BUILDING, THE IMPERVIOUS SURFACE AND THE EXISTING DRAINAGE AREA.
2. THE VOLUME OF THE CAPTURED STORMWATER ON SITE IS BASED ON A 2" RAIN FALL DEPTH PER DAY.
3. CONSIDERING THE EXISTING SOIL CONDITION, THE DEPTH OF RAIN GARDEN SHOULD BE 6". CALCULATIONS OF THE SIZE OF RAIN GARDEN ARE INCLUDED ON THIS SHEET.
4. CONSIDERING THE CATCHMENT AREA FOR THE SITE, SUGGESTED RAIN GARDEN SIZE AND AREA ARE SHOWN IN DIAGRAM ON SHEET L-001.
5. PRESERVE ALL EXISTING CONCRETE PAVING.
6. PRESERVE THE BRICK RETAINING WALL FROM DEMOLISHED WALLS TO REUSE IN NEW DESIGN RETAINING WALL.
7. CONSIDERING THE EXISTING SOIL CONDITION, ALL SOIL OF PLANTING AREAS SHOULD BE AMENDED. THE AMENDED PLANTING SOIL SHOULD BE 18" DEEP MINIMUM. CERTAIN DETAIL IS INCLUDED ON THIS SHEET.

Catchment Area	Catchment Area sqft	Infiltration	Runoff	Rainfall Depth (ft)	Rain Garden Depth (ft)	Rain Garden Size sqft
Building Roof	4875	0%	100%	0.167	0.5	1628.25
Paved Area	804	0%	100%	0.167	0.5	268.536
Lawn	8260	20%	80%	0.167	0.5	2758.84
Total Area						4655.626

3

L001

CATCHMENT AREA CALCULATION



4

L001

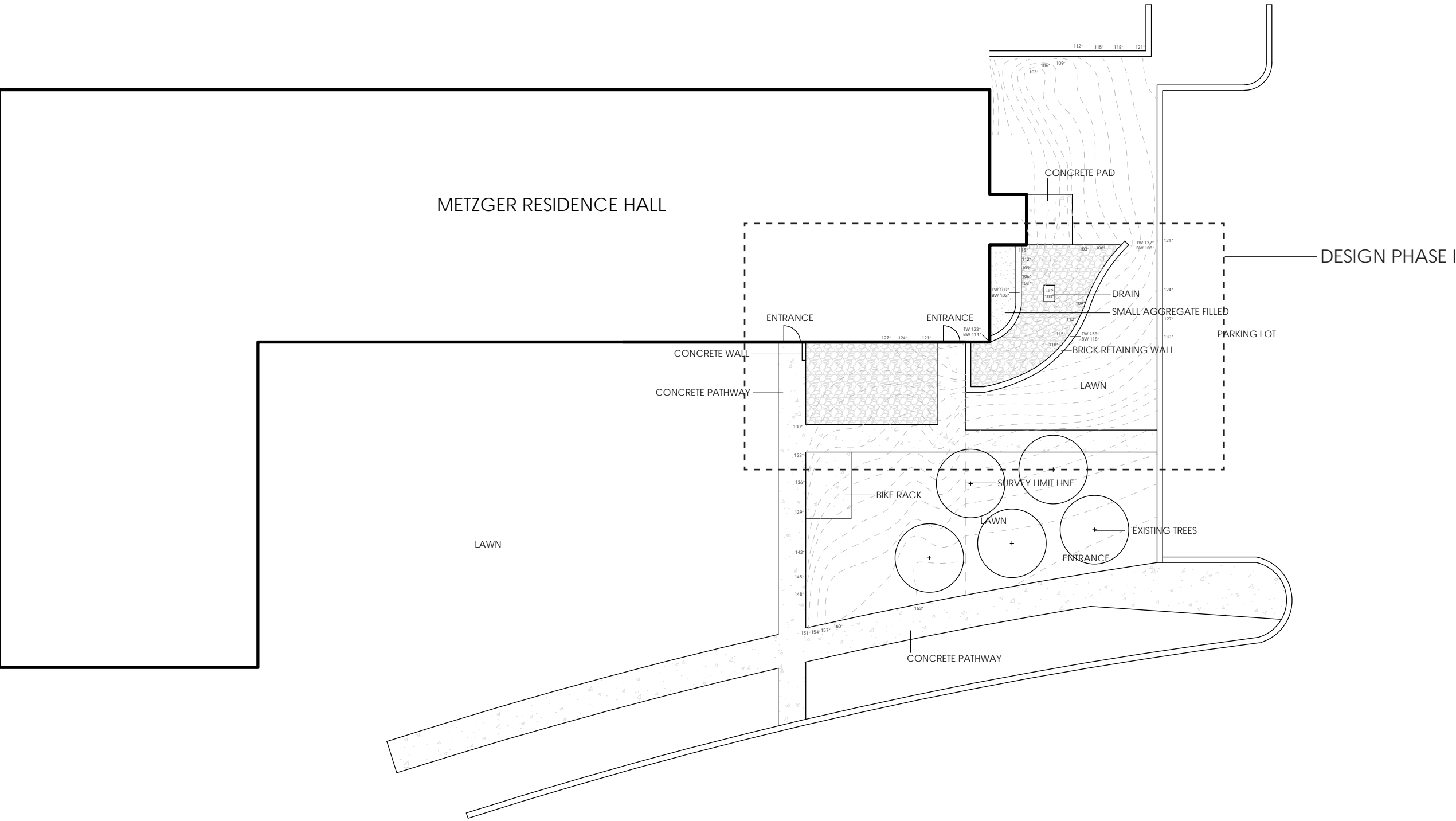
CATCHMENT AREA DIAGRAM  
NTS



5

L001

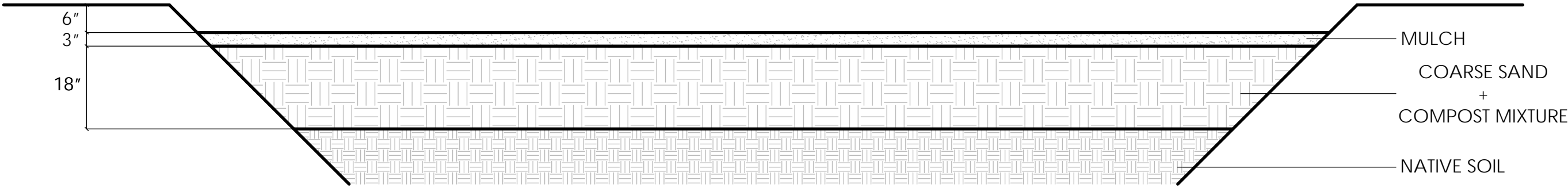
SUGGESTED RAIN GARDE AREA DIAGRAM  
NTS



1

L001

EXISTING CONDITION PLAN  
SCALE: 1"=20'



2

L001

SOIL AMENDMENT  
SCALE: 1/4"=1'-0"

LA

DEPARTMENT OF LANDSCAPE ARCHITECTURE  
School of Environmental & Biological Sciences  
Rutgers University  
New Brunswick, New Jersey

COURSE

LANDSCAPE PLANTS II  
16:550:548  
JEAN MARIE HART-  
MAN

DRAWN BY

BO PENG

PROJECT

METZGER RESIDENCE HALL  
PLANTING DESIGN

LOCATION

RUTGERS UNIVERSITY  
BUCSH CAMPUS

SHEET TITLE

EXISTING CONDITION

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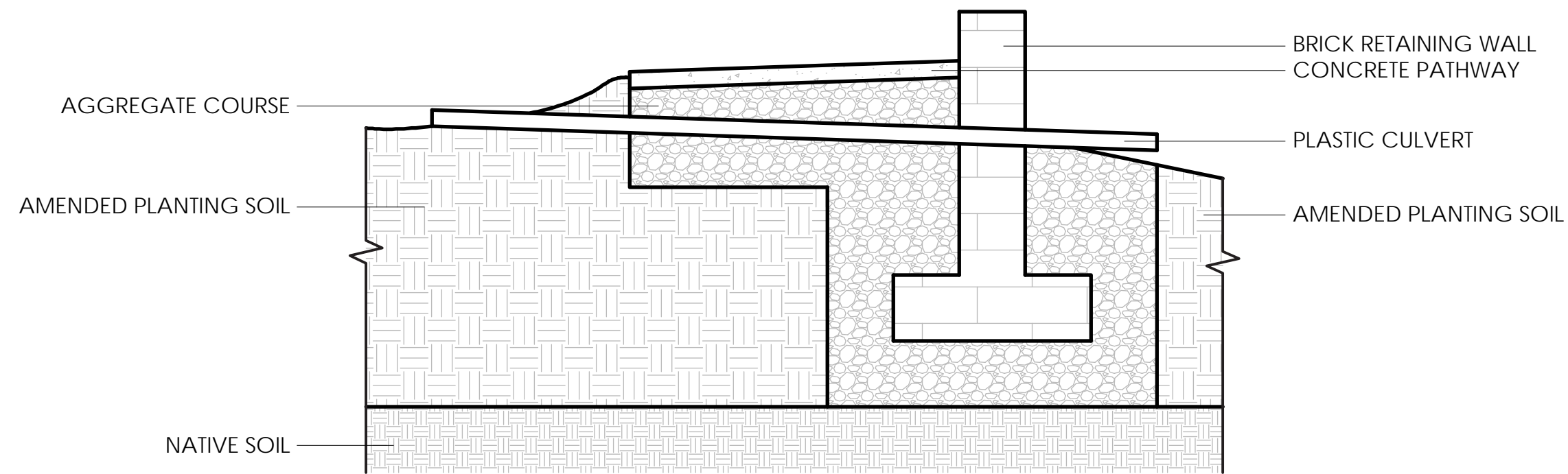


L-001

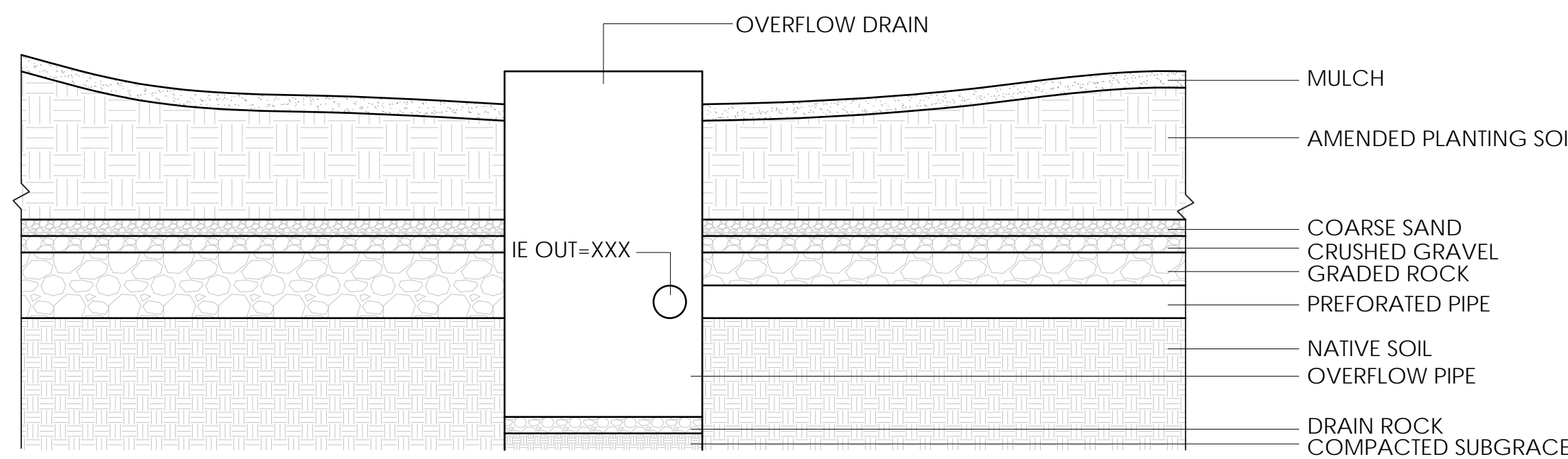




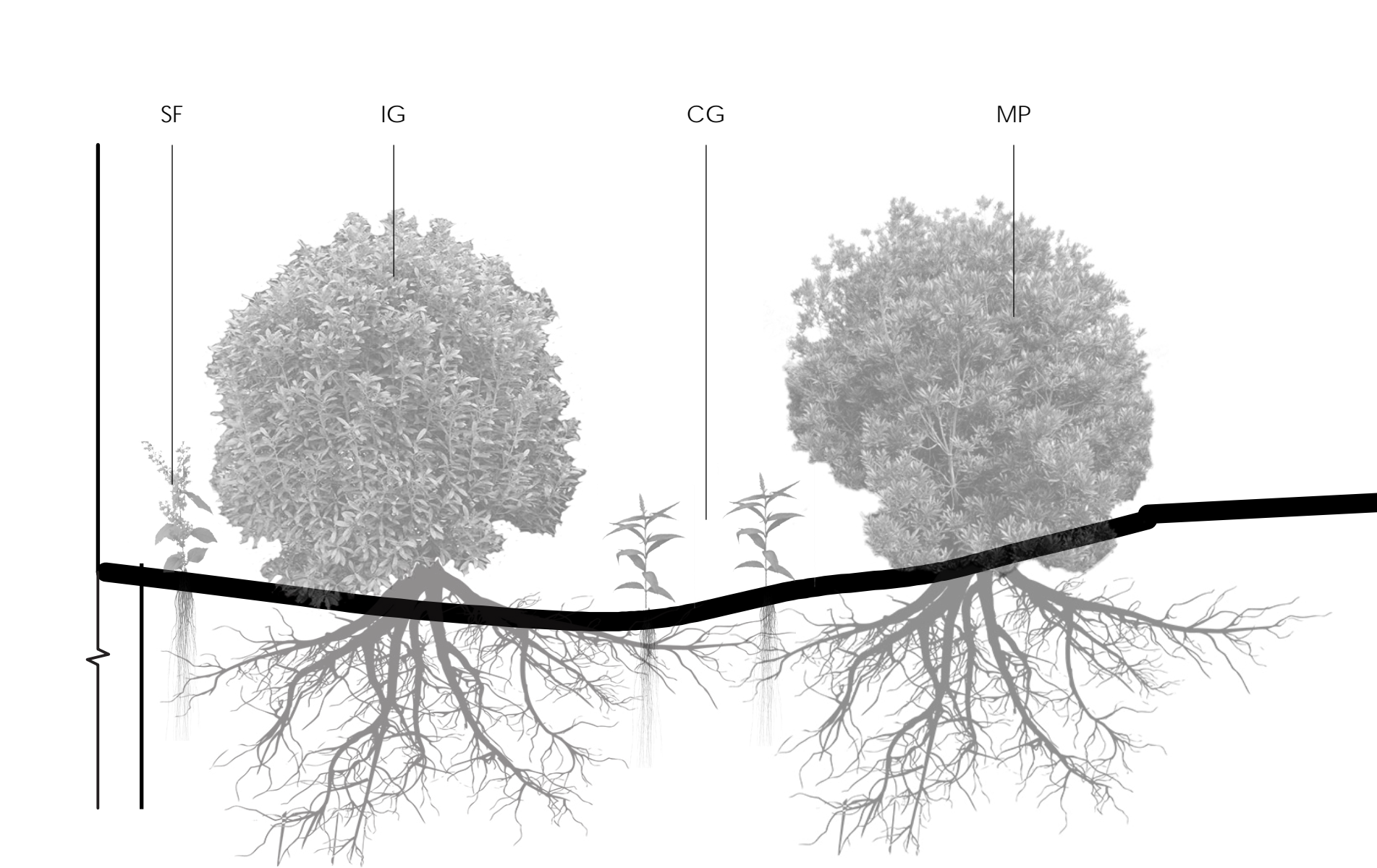




1  
L003 CULVERT & RETAINING WALL DETAIL  
SCALE: 1/2"=1'-0"



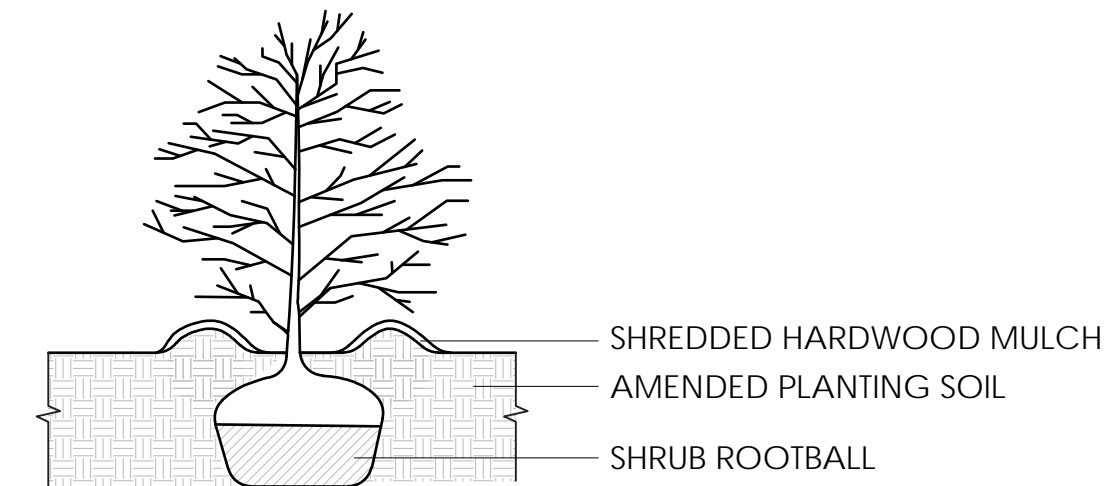
2  
L003 OVERFLOW DRAIN DETAIL  
SCALE: 1/2"=1'-0"



4  
L003 RAIN GARDEN PLANTS SECTION  
SCALE: 1/2"=1'-0"

### SHRUB PLANTING DETAIL NOTES (TYP.)

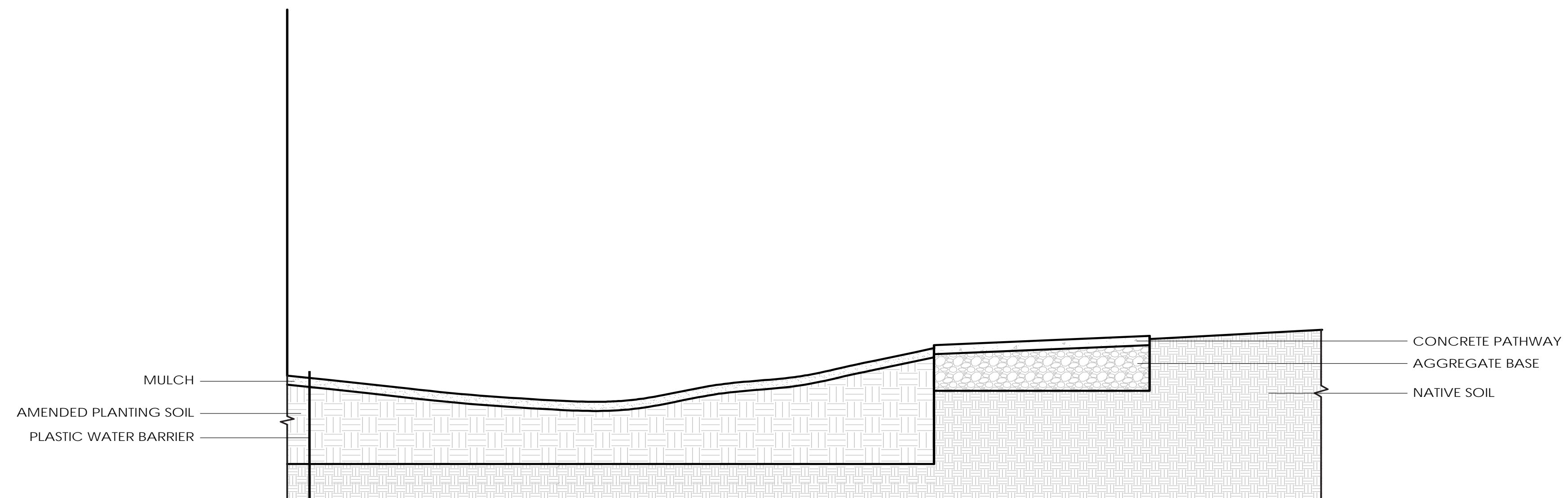
1. FOR CONTAINER GROWN TREES FINGERS OR SMALL HAND TOOLS TO PULL THE ROOTS OUT OF THE OUTER LAYER OF POTTING SOIL, THEN CUT OR PULL APART ANY ROOT CIRCLING THE PERIMETER OF THE CONTAINER.
2. INCORPORATE COMMERCIALLY PREPARED MYCORRHIZAE SPORES AND FERTILIZER TABLETS IN THE SOIL IMMEDIATELY AROUND THE ROOT BALL AT RATE SPECIFIED BY THE MANUFACTURER.
3. PRIOR TO INSTALLATION CONFIRM THE SOILS WILL DRAIN PROPERLY. IF NECESSARY PROVIDE PROPER DRAINAGE.
4. THOROUGHLY SOAK THE ROOT BALL AND THE ADJACENT PREPARED SOIL SEVERAL TIMES DURING THE FIRST MONTH AND REGULARLY THROUGHOUT THE FOLLOWING TWO SUMMERS.



3  
L003 SHRUB PLANTING DETAIL  
SCALE: 1/2"=1'-0"

### PLANTING NOTES

1. THE LANDSCAPE CONTRACTOR WILL STAKE OUT PLANT LOCATIONS IN THE FIELD. THE LANDSCAPE DESIGNER AND OWNER RESERVE THE RIGHT TO OBSERVE THESE LOCATIONS PRIOR TO COMMENCING PLANT PIT EXCAVATION. THE CONTRACTOR WILL MAKE ADJUSTMENTS AS REQUIRED BY LANDSCAPE DESIGNER AND/OR OWNER.
2. NO SUBSTITUTIONS OF PLANT MATERIALS SHALL BE ALLOWED WITHOUT THE WRITTEN PERMISSION OF THE LANDSCAPE DESIGNER. THIS SHALL APPLY TO SUBSTITUTIONS OF SPECIES, SIZE AND QUANTITY.
3. ALL TREES AND SHRUBS SHALL BE OF HEALTHY VIGOROUS STOCK GROWN IN A RECOGNIZED NURSERY IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE AND THE AMERICAN ASSOCIATION OF NURSERYMEN STANDARDS, FREE OF DISEASE AND DEFECTS.
4. PLANTS WITH UNDERSIZED OR BROKEN ROOT BALLS, EXCESSIVE CULLING AND/OR GIRDLING OF ROOTS, INJURY FROM ROUGH TREATMENT, OR DROUGHT STRESS WILL WITH UNDERSIZED OR BROKEN ROOT BALLS. EXCESSIVE CURLING AND/OR DROUGHT STRESS WILL BE REJECTED.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO GUARANTEE THAT ROOT BALLS ARE PROPERLY SIZED. PLEASE BE AWARE THAT FOR PROPER SIZING, EXCESS ALIEN SOIL SHALL BE REMOVED PRIOR TO DIGGING, SEE DIAGRAM 1.A
6. ROOT BALLS SHALL BE KEPT MOIST AT ALL TIMES.
7. PLANTS SHALL BE COVERED DURING TRANSPORT TO PREVENT DESICCATION FROM WIND. IN WARM WEATHER PLANTS SHALL BE COVERED JUST PRIOR TO TRAVEL AND UNCOVERED IMMEDIATELY UPON REACHING DESTINATION TO AVOID HEAT BUILD UP UNDER THE TARP. PLANT MATERIAL SHALL NOT BE LEFT IN DIRECT SUNLIGHT OR ON HEAT ABSORPTION MATERIALS, SUCH AS BUT NOT LIMITED TO, ASPHALT AND/ OR METAL TRUCK BEDS TO PREVENT THE WILTING OF MATERIAL.
8. TREES SHALL BE MOVED BY THEIR ROOT BALL NOT THEIR TRUNK. TREES LARGER THAN 6" SHALL BE MOVED WITH PROPER STRAPPING SECURING ROOT BALL TO EQUIPMENT. WEAVE STRAPPING THROUGH THE LACING, NOT AROUND THE TRUNK. TREE TRUNK SHALL BE PROTECTED AT ALL TIME FROM COMPRESSION AND SEARING.
9. IF PLANTS ARE NOT PLANTED IMMEDIATELY ON SITE, PROPER CARE SHALL BE TAKEN:
  - A. PLACE IN PARTIAL SHADE WHEN POSSIBLE.
  - B. COVER ROOT BALL WITH MOISTENED MULCH OR AGED WOODCHIPS.
  - C. SUPPLY PROPER IRRIGATION AS NOT TO ALLOW THE ROOT BALL TO DRY OUT.
  - D. UNTIE PLANT MATERIAL AND ALLOW PROPER SPACING OF PLANTS FOR AIR CIRCULATION TO PREVENT DIS-EASE, WILTING, LEAF LOSS AND GENERAL HEATH OF PLANTS.



5  
L003 RAIN GARDEN SECTION  
SCALE: 1/2"=1'-0"

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L-003