

James V. Fitzgerald ASBS Pollution Reduction Program
Upland BMPs: LID Projects
Approved by Selection Committee June 9, 2014

LID Site #3 – Cooperator ID #: 202.0829.01

Site Information:

Property is in Montara and drains to Montara Creek. Residence is on less than 1 acre and structures include a house and small, uncovered chicken coop. There are large amounts of impervious surface on the property and runoff discharges to a nearby drainage ditch. Water from an uphill neighbor also runs off onto this property.

Integrated Project BMPs:

- Add clear roof (50 square feet) to chicken coop to keep feces separated from stormwater
- Remove concrete patio and replace with earthen swale (350 square foot area) and brick pavers (230 square feet) to increase infiltration
- Remove concrete driveway, asphalt paving and a tree stump. Replace with permeable asphalt (480 square feet) and traditional asphalt (380) square feet and a vegetated slope to narrow the driveway, increase infiltration and keep runoff on the property
- Install a battery of three 205 gallon storage tanks to capture roof runoff (1,570 square feet) and direct overflow to existing French drain which will be routed to a rain garden
- Construct a 12x22 foot rain garden to capture and filter runoff from existing and proposed drains and water from roof

Treatment Description:

Roof runoff is directed through the existing gutters to a downspout that attaches to a set of rainwater storage tanks. Overflow from these tanks is outlet into an existing perforated pipe drain which will be redirected to a rain garden. The concrete patio in the backyard is replaced with pervious pavers and earth to reduce runoff. A new perforated pipe drain collects water from this area and the north side yard and directs it to the rain garden. The rain garden provides infiltration as primary treatment and will overflow into a drainage pipe that outlets to the public road. The existing driveway and asphalt paving in the right of way is removed and replaced with a traditional asphalt driveway in the right of way and a permeable asphalt driveway on the property. The permeable asphalt provides infiltration as primary treatment and will overflow into an underdrain that outlets to the public road.

Stormwater Capture/Treatment:

Rain Garden/Tank System: 71%

Permeable Asphalt: 82%

PROJECT 202.0829.01

WATER QUALITY IMPROVEMENT PLAN

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH FINAL DESIGN DRAWINGS AND ATTACHED SPECIFICATIONS: 02 40 10 DEMOLITION, 03 30 20 PERVIOUS CONCRETE, 04 00 10 BRICK PAVER, 07 65 00 GUTTERS AND DOWNSPOUTS, 31 00 10 FINE GRADING, 32 30 20 GRAVEL EROSION PROTECTION, 33 40 00 STORM DRAINAGE UTILITIES, 33 40 10 RAINWATER CATCHMENT.
2. SAN MATEO RESOURCE CONSERVATION DISTRICT SHALL BE RESPONSIBLE FOR OBTAINING ANY NEEDED PERMITS, EASEMENTS, AND/OR RIGHT-OF-WAYS, AND MEETING ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITIES AND SHALL CALL NORTHERN CALIFORNIA UNDERGROUND SERVICE ALERT AT '811' AT LEAST 3 DAYS PRIOR TO START OF CONSTRUCTION. SPECIAL SAFETY PRECAUTIONS SHALL BE TAKEN WHEN WORKING IN THE VICINITY OF GAS, OIL, AND ELECTRICAL LINES.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING LOCATIONS OF TEMPORARY ACCESS, STAGING AREAS, AND OTHER FACILITIES TO PRECONSTRUCTION CONDITION. DISTURBANCE OF EXISTING STRUCTURES AND VEGETATION MUST BE AVOIDED OR MINIMIZED TO THE FULLEST POSSIBLE EXTENT.
5. LANDOWNER SHALL BE RESPONSIBLE FOR THE SUCCESSFUL ESTABLISHMENT AND MAINTENANCE OF VEGETATION PRACTICES.
6. CONTRACTOR SHALL ENSURE THAT THE USE AND/OR STORAGE OF PETROLEUM POWERED EQUIPMENT SHALL BE ACCOMPLISHED IN A MANNER TO PREVENT THE POTENTIAL RELEASE OF PETROLEUM MATERIALS INTO WATERS OF THE STATE.
7. CAL-OSHA SAFETY REQUIREMENTS SHALL BE IN EFFECT DURING ALL CONSTRUCTION.
8. CONTACT THE SAN MATEO RESOURCE CONSERVATION DISTRICT AT LEAST 7 DAYS PRIOR TO START OF CONSTRUCTION. PHONE: (650) 726-4660.

AS-BUILT NOTES

1. THIS AS-BUILT PLAN REPRESENTS THE STATUS OF THE PROJECT AS INSTALLED IN THE FIELD. IT IS NOT A CERTIFICATION OF THE COMPLETENESS OF THE WORK OR THE CONSISTENCY OF THE WORK WITH THE ORIGINAL DESIGN DOCUMENTS. IN SOME CASES DEVIATIONS FROM THE ORIGINAL DESIGN DOCUMENTS MAY LEAD TO OPERATIONS OR MAINTENANCE ISSUES. THE ENGINEER ACCEPTS NO LIABILITY FOR FAILURES OR PROBLEMS ARISING FROM DEVIATIONS FROM THE ORIGINAL DESIGN DOCUMENTS.

SHEET INDEX

1. TITLE SHEET AND GENERAL NOTES
2. LAYOUT PLAN
3. CONSTRUCTION DETAILS
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VICINITY MAP

NOT TO SCALE



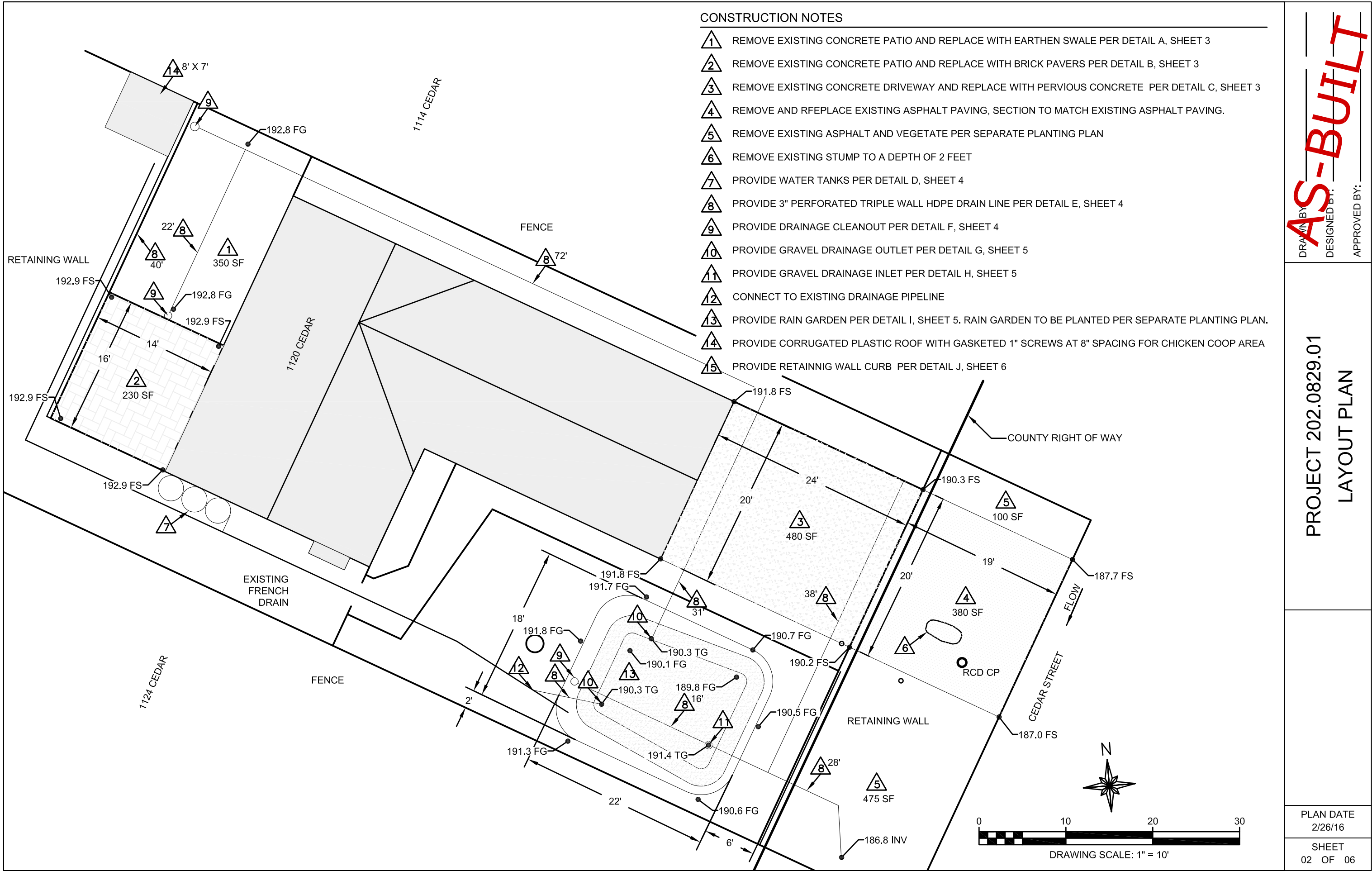
AS-BUILT

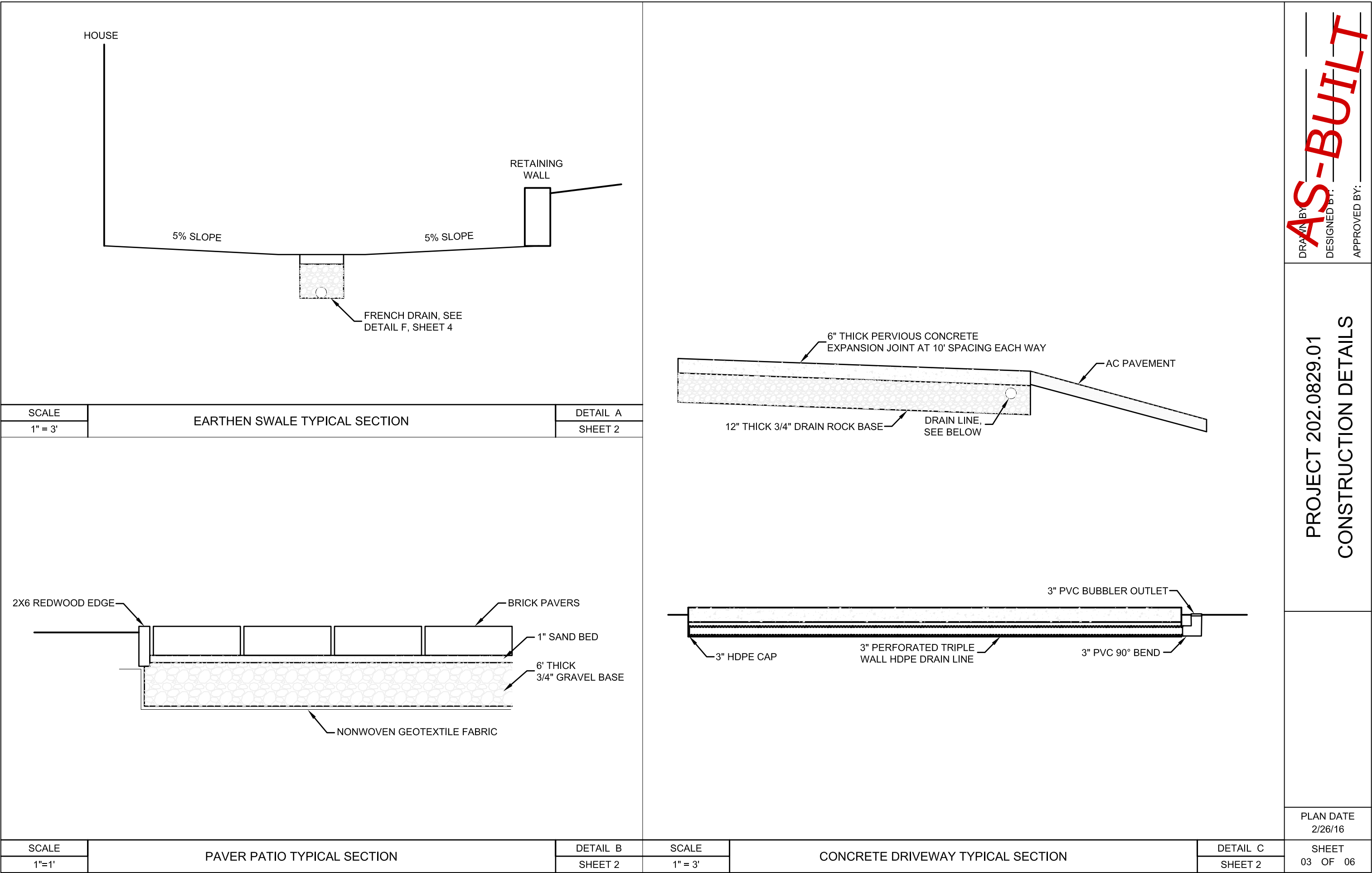
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DESIGNED BY: _____
APPROVED BY: _____

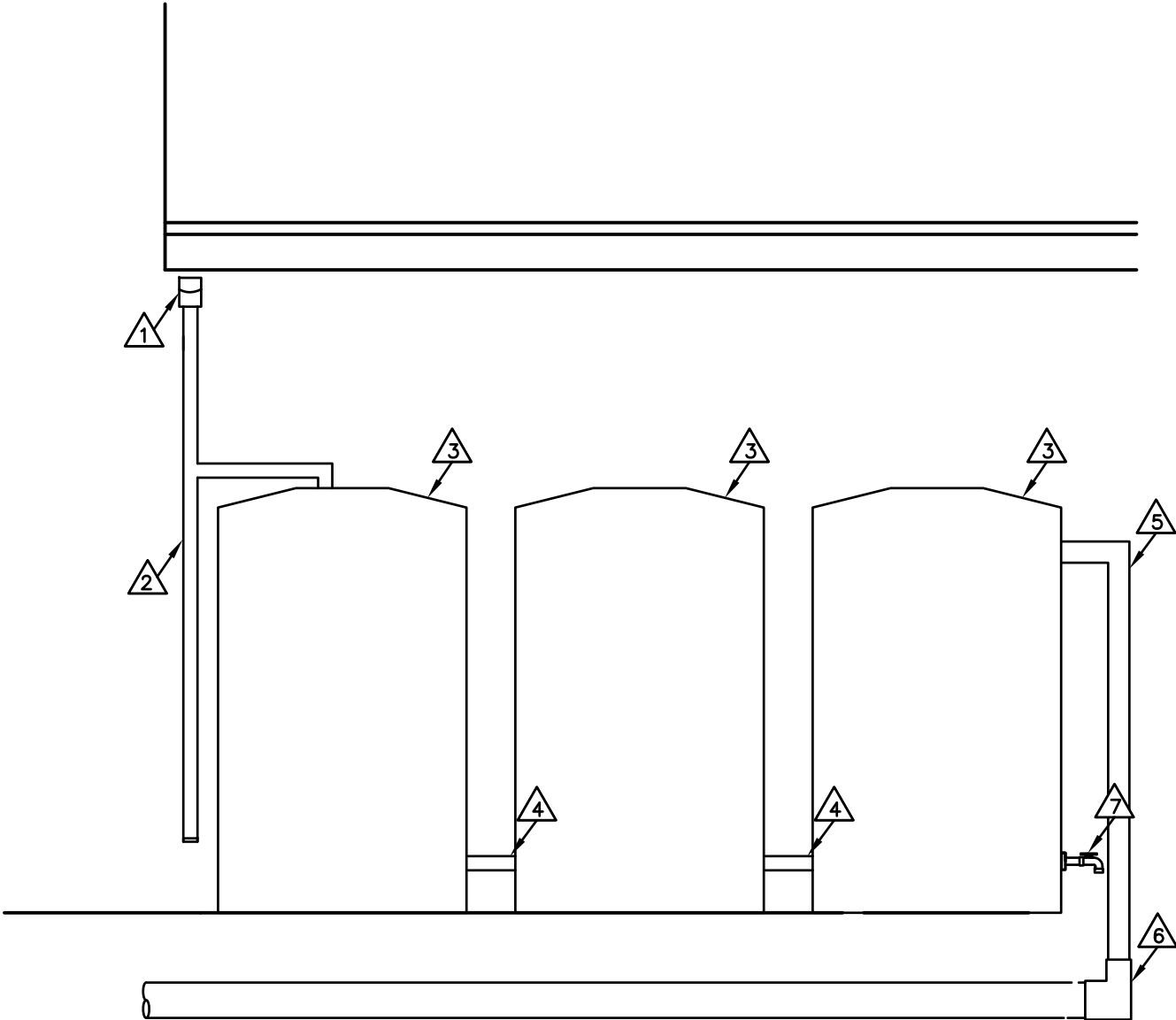
PROJECT 202.0829.01
TITLE SHEET & GENERAL NOTES

PLAN DATE
2/26/16

SHEET
01 OF 06







- 1

PROVIDE 2" SQUARE GUTTER OUTLET WITH SLOPED SCREEN INLET
- 2

PROVIDE BUSHMAN FIRST FLUSH SYSTEM OR APPROVED EQUAL
- 3

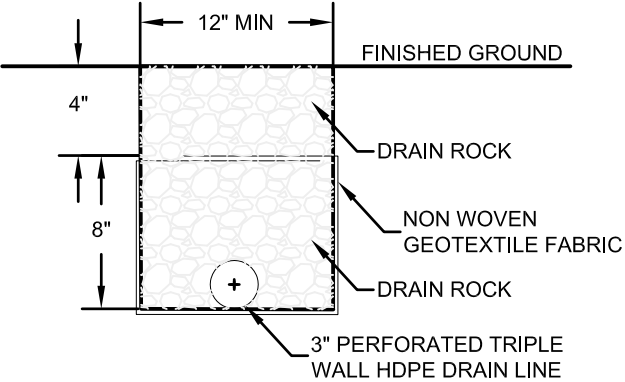
PROVIDE BUSHMAN 205 GALLON TANK OR APPROVED EQUAL
- 4

PROVIDE 1" CONNECTION PIPELINE
- 5

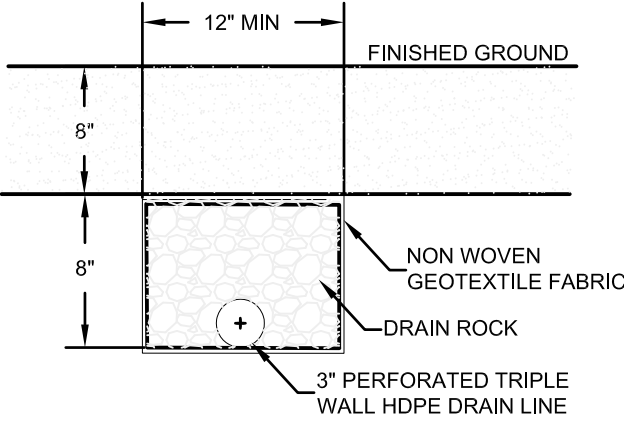
PROVIDE 3" OVERFLOW PIPELINE
- 6

PROVIDE 3"x5" PVC BEND
- 7

PROVIDE 3/4" IRRIGATION SPIGOT



YARD DRAIN

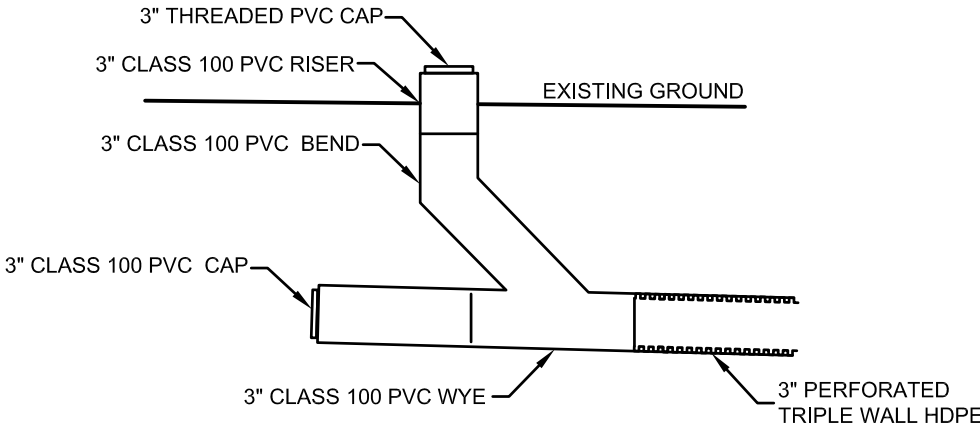


RAIN GARDEN DRAIN

SCALE
1" = 1'

PERFORATED DRAIN LINE TYPICAL TRENCH SECTION

DETAIL E
SHEET 2



SCALE
1" = 1'

PERFORATED DRAIN LINE CLEANOUT DETAIL

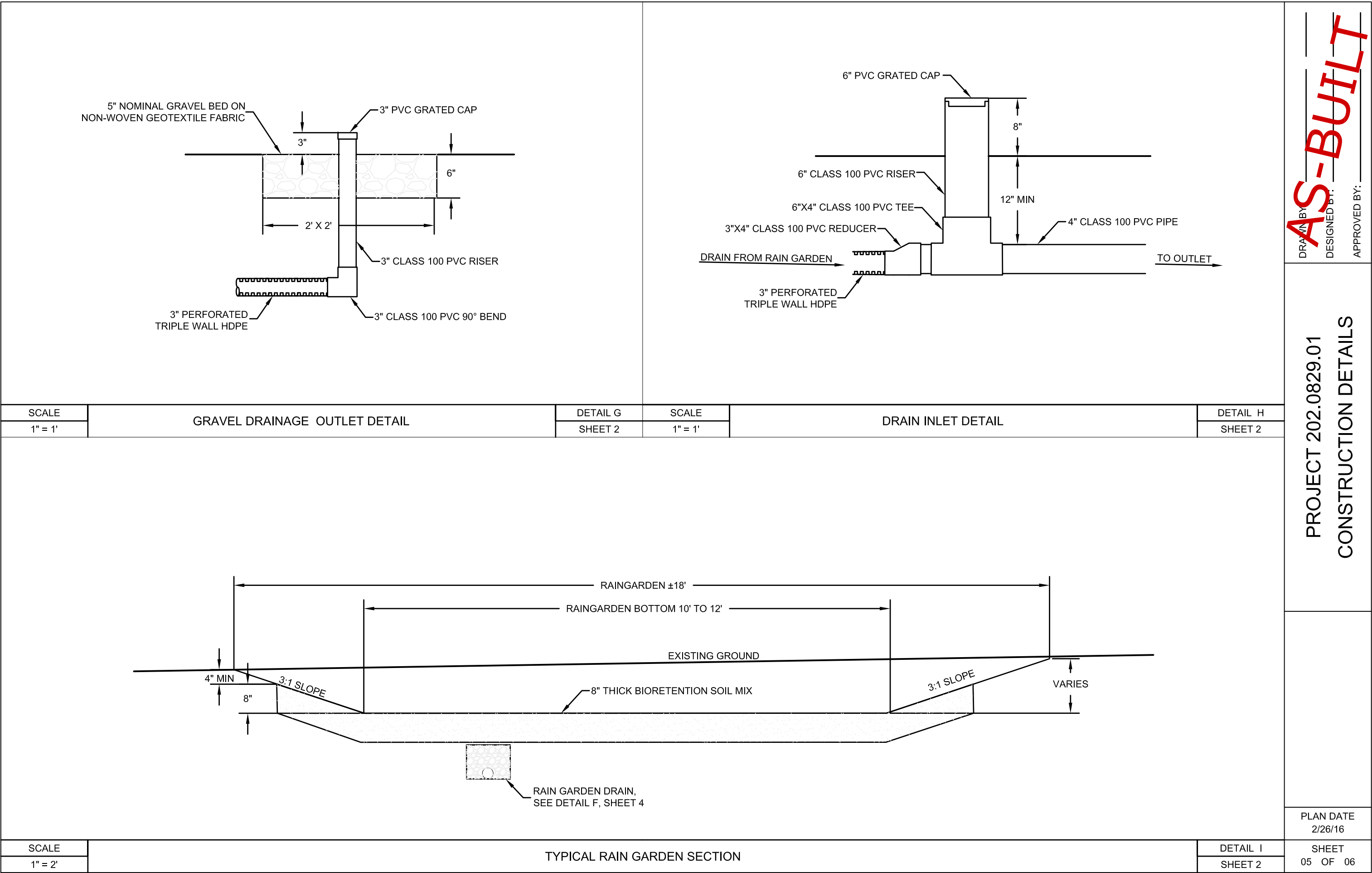
DETAIL F
SHEET 2

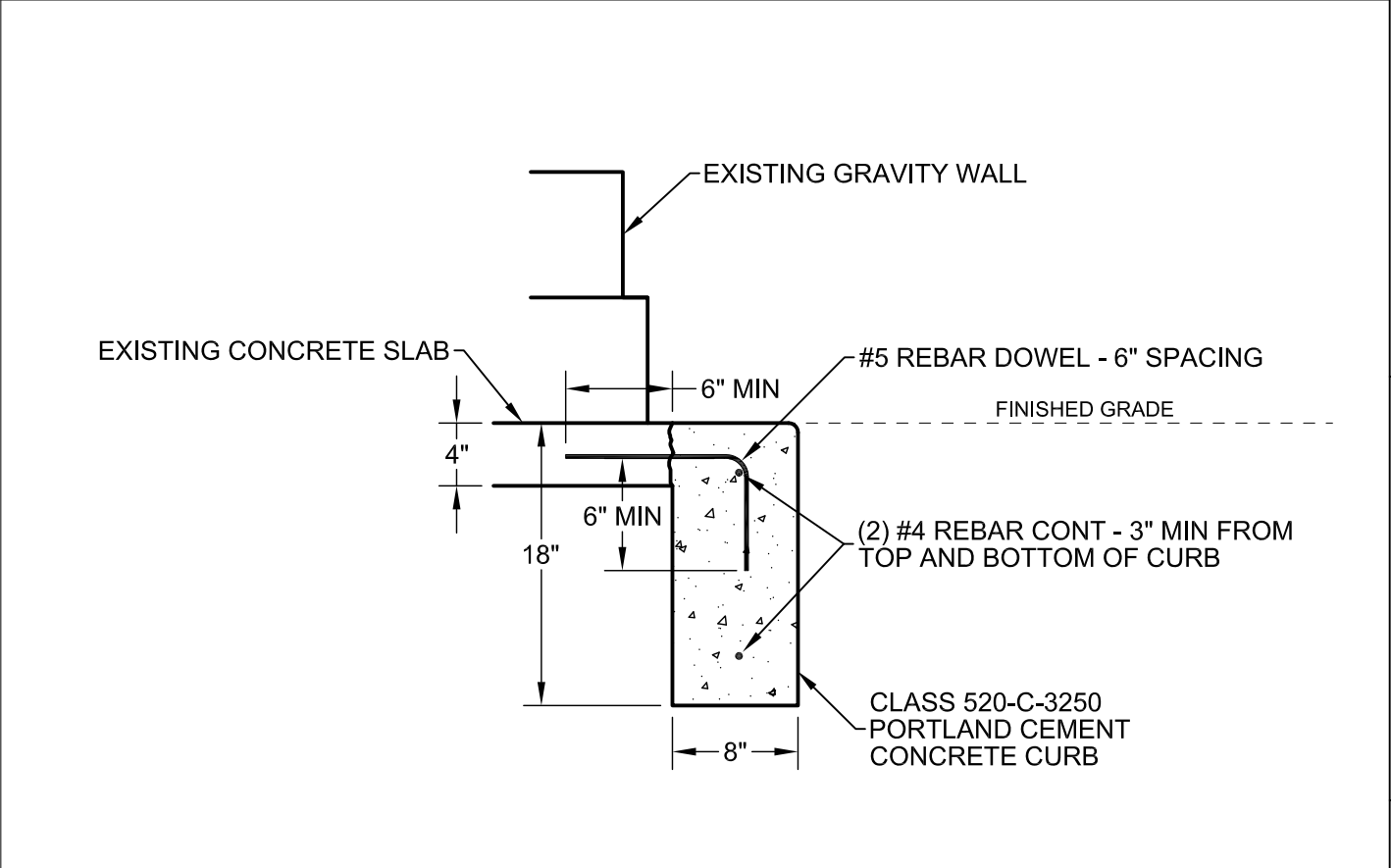
AS-BUILT

PROJECT 202.0829.01
CONSTRUCTION DETAILS

PLAN DATE
2/26/16

SHEET
04 OF 06





SCALE	RETAINING WALL FOOTING CURB DETAIL	DETAIL J	PLAN DATE
NTS		SHEET 2	2/26/16

SHEET
04 OF 06

PROJECT 202.0829.01
CONSTRUCTION DETAILS

AS-BUILT

DRAWN BY:	
DESIGNED BY:	
APPROVED BY:	



ECOLOGICAL CONCERNS, INC.
10000 COUNTRY CENTER DRIVE
SUITE 100, SAN MATEO, CA 94403
TEL: 650.991.1111 FAX: 650.991.1112
WWW.ECOCONCERNS.COM

FITZGERALD ASBS - STORM WATER QUALITY BMPs

SAN MATEO COUNTY RESOURCE CONSERVATION DISTRICT
COUNTY OF SAN MATEO | CA STATE WATER RESOURCES CONTROL BOARD

DATE	REVISION OR DESCRIPTION

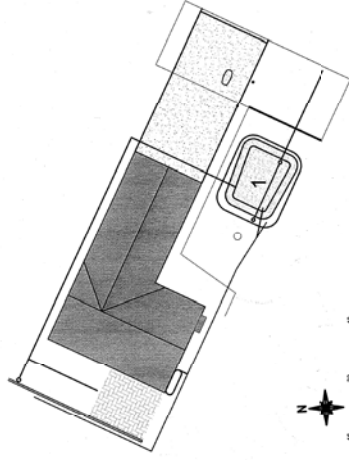
APPROVAL

SHEETCONTENTS
PLANTING PLAN
SITE 3 2022-08-01
10000 COUNTRY CENTER DRIVE
SAN MATEO, CALIFORNIA 94403

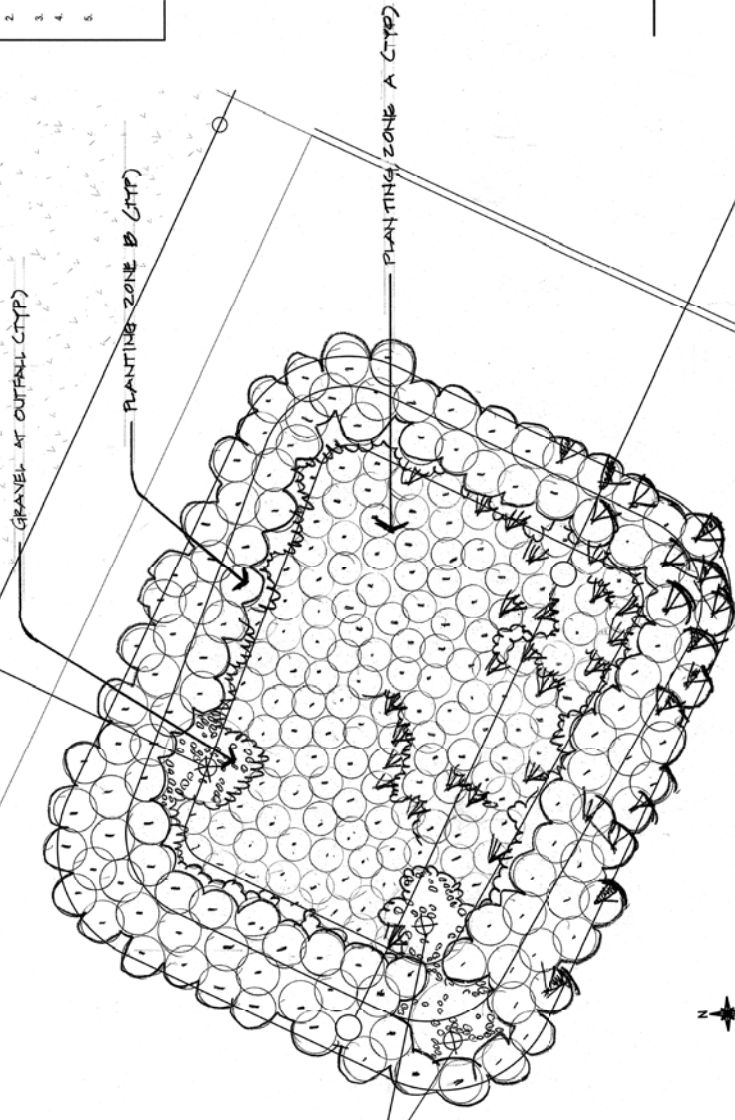
SHEET
L3.0
OF ALL SHEETS
LATEST REVISION

PLANTING PLAN GENERAL NOTES

1. ECI LANDSCAPE DRAWINGS ARE BASED ON PLAN DOCUMENTS PREPARED BY BRUCE QUINN-JONES P.E. REFER TO ENGINEERING DRAWINGS FOR ALL SITE MEASUREMENTS.
2. SEE ENGINEERING DRAWINGS AND SPECIFICATIONS FOR ALL CONSTRUCTION DETAILS OF BEST MANAGEMENT PRACTICES, INCLUDING GRAVEL AND PLANTING ZONE.
3. ALL PLANTS SHALL BE INSPECTED AND APPROVED BY ECI LANDSCAPE DESIGNER PRIOR TO INSTALLATION.
4. PLANTS SHALL BE PLANTED IN SOIL MIX SPECIFIED, AND PLANTED TO THE DEPTH OF THE ROOT CROWN, AND ALL PLANTS SHALL BE WATERED THROUGHOUT AT TIME OF PLANTING.
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REFERENCE MAP
1/16"=1'-0"



RAIN GARDEN 1
1/16"=1'-0"

PLANTING LEGEND

Zone	Botanical Name	Common Name	Total Count
A	Carex tumulicola	foxtail sedge	135 (total all plants in Zone A)
	Juncus patens	California grey rush	
	Leymus triticoides	creeping wildrye	
	Calamagrostis foliosa	Mendocino reed grass	
	Achillea millefolium	yarrow	
B	Aster chilensis	California aster	115 (total all plants in Zone B)
	Epilobium canum	California fuchsia	
	Eriogonum glaucum	seaside daisy	
	Fragaria chiloensis	beach strawberry	
	Iris douglasiana	Douglas iris	
	Salvia spathacea	hummingbird sage	

1. Final plant selection, locations and placement shall be verified in field by Ecological Concerns Incorporated prior to installation.
2. Plant spacing at 1 foot On-Center
3. All plants 1 gallon container size