

BELFIELD DR. FLOOD IMPROVEMENTS

BELFIELD DRIVE · JOHNSTON · RHODE ISLAND

PERMITTING DOCUMENTS

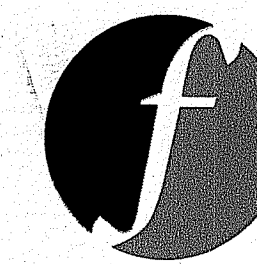
SEPTEMBER 2019

PREPARED FOR
**RHODE ISLAND ASSOCIATION
OF CONSERVATION DISTRICTS**
2283 HARTFORD AVENUE
JOHNSTON, RHODE ISLAND

SHEET INDEX

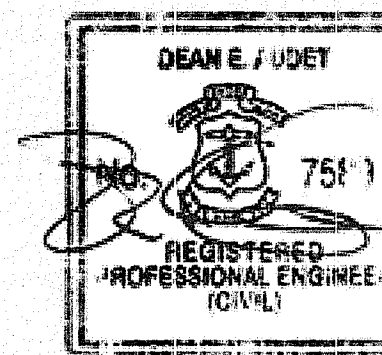
<u>SHEET No.</u>	<u>SHEET TITLE</u>
GI-001	COVER SHEET
CN-001	GENERAL NOTES AND LEGEND
RC-101	EXISTING CONDITIONS PLAN
CP-101	SOIL EROSION AND SEDIMENT CONTROL PLAN
CP-102	DEMOLITION AND SITE PREPARATION PLAN
CS-101	PROPOSED SITE PLAN
LP-101	SITE RESTORATION PLAN
CR-301	PROFILE AND SECTIONS
CD-501	DETAILS

PREPARED BY



FUSS & O'NEILL

317 IRON HORSE WAY, SUITE 204
PROVIDENCE, RI 02908
401.861.3070
www.fando.com



PROJECT TEAM

PROJECT PARTNER

TOWN OF JOHNSTON
1385 HARTFORD AVENUE
JOHNSTON, RI 02919
(401)351-6618

PROJECT SPONSOR

NATURAL RESOURCES CONSERVATION SERVICE
60 QUAKER LANE, SUITE 40
WARWICK, RI 02886
(401) 828-1300

WETLAND SCIENTIST

NATURAL RESOURCE SERVICES, INC.
P.O. BOX 311
HARRISVILLE, RI 02830
(401) 568-7390

LAND SURVEYOR

ALPHA SURVEY GROUP, LLC
695 WAREHAM STREET
MIDDLEBORO, MA 02346
(508) 295-5505



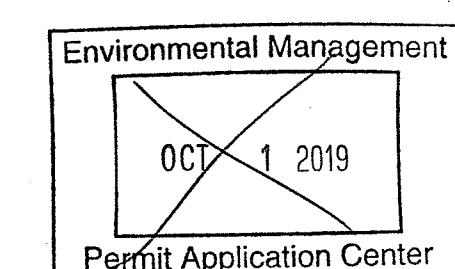
LOCATION MAP

SCALE: 1" = 1000'

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED OCT 25 2019 FILE # 19-0287
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

James A. Harty

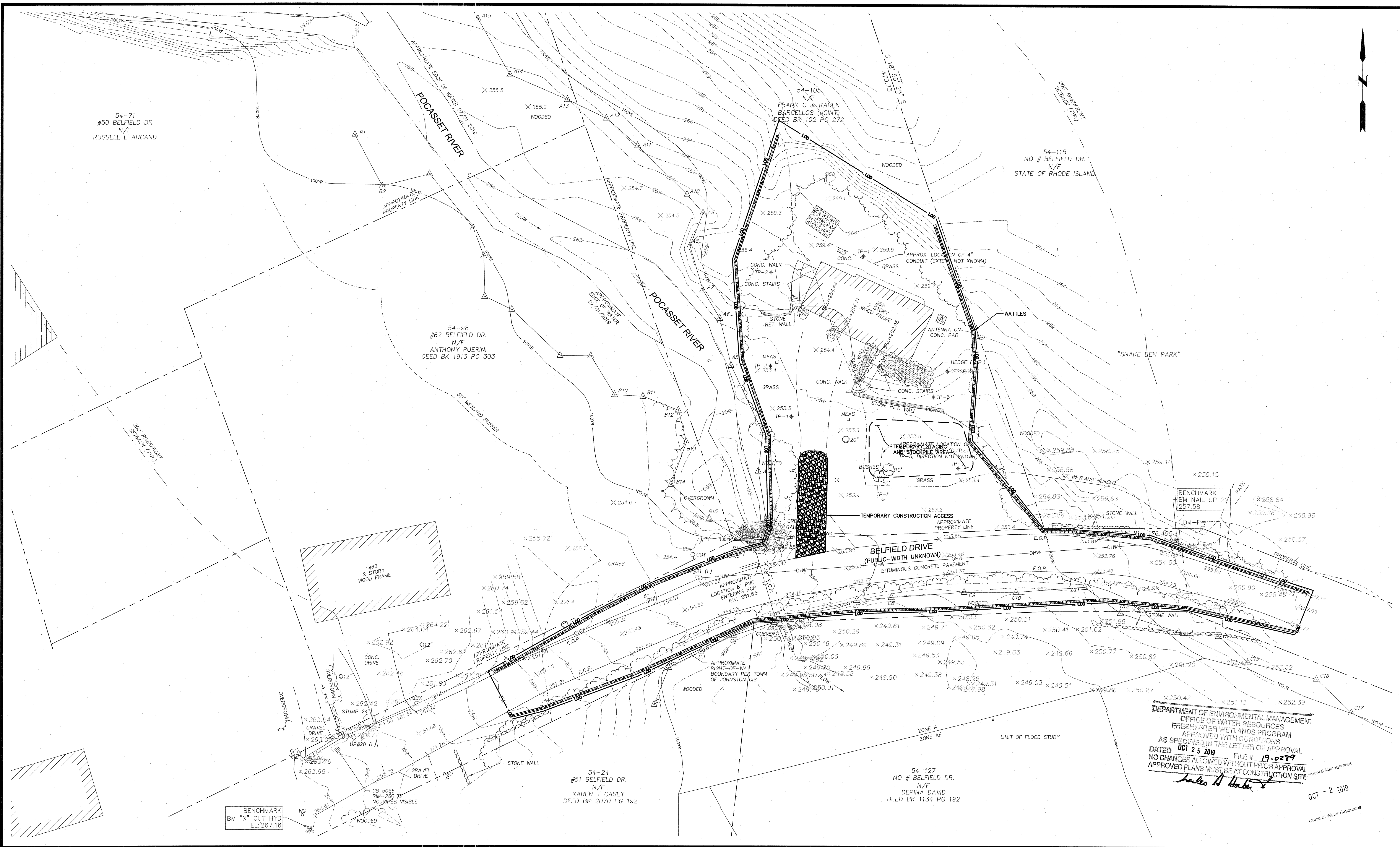
Environmental Justice
OCT - 2 2019
Water Resources



PROJ. No.: 20190051.A10
DATE: SEPTEMBER 2019

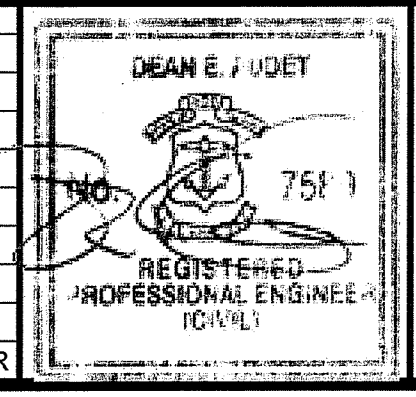
GI-001

File Path: J:\DWG\2019\05\1A10\CP101.dwg Plotted: Mon, September 30, 2019 - 7:34 AM User: stions
 Plotter: AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CTB File: FO.STB
 MS VIEW: LAYER STATE:



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED **OCT 25 2019** FILE # **19-0289**
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Julia A. Haber
 OCT - 2 2019
 Office of Water Resources

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
0.	9/25/2019	ISSUED FOR PERMIT APPLICATIONS	NT/AG	AJ



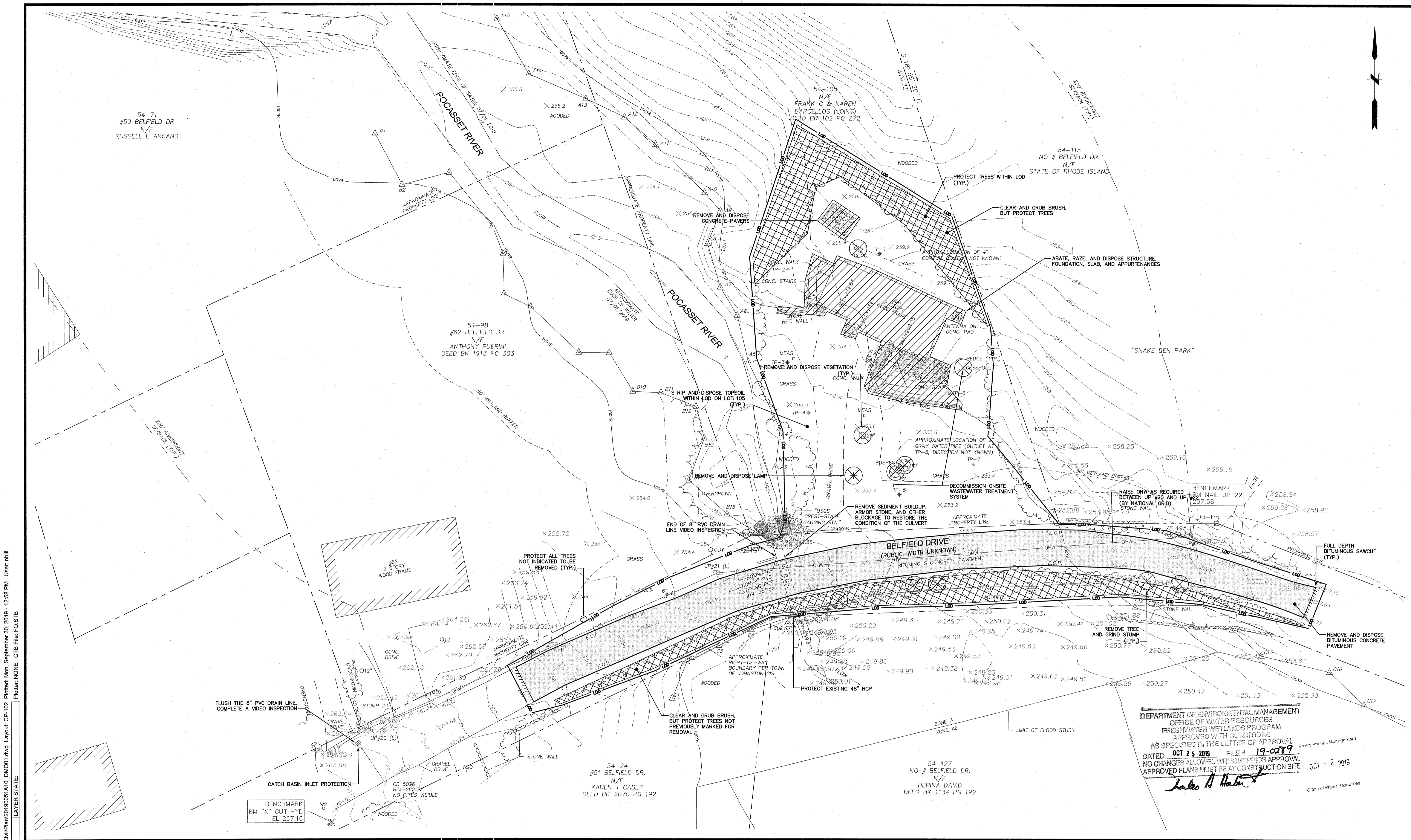
SEAL

SCALE:
 HORIZ.: 1" = 20'
 VERT.: N/A
 DATUM:
 HORIZ.: NAD83
 VERT.: NAVD88
 GRAPHIC SCALE

f **FUSS & O'NEILL**
 317 IRON HORSE WAY, SUITE 204
 PROVIDENCE, RI 02908
 401.861.3070
 www.fando.com

RI ASSOCIATION OF CONSERVATION DISTRICTS
 SOIL EROSION AND SEDIMENT CONTROL PLAN
 BELFIELD DRIVE FLOOD IMPROVEMENTS
 JOHNSTON RHODE ISLAND

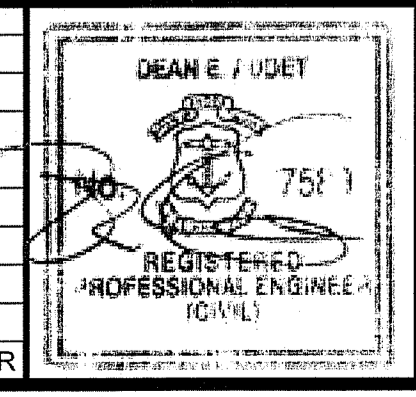
PROJ. No.: 20190051.A10
 DATE: SEPTEMBER 2019
CP-101



File Path: J:\DWG\IP2019\0051A10\CivilPlan20190051A10.DWG User: ntlul
 Plotted: Mon, September 30, 2019 - 12:58 PM
 Layer State: CTB File: FO.STB

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED OCT 25 2019 FILE # 19-0289
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE
 October 2, 2019
Shirley A. Harter
 Office of Water Resources

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
0.	9/25/2019	ISSUED FOR PERMIT APPLICATIONS	NT/AG	AJ



SEAL	
------	--

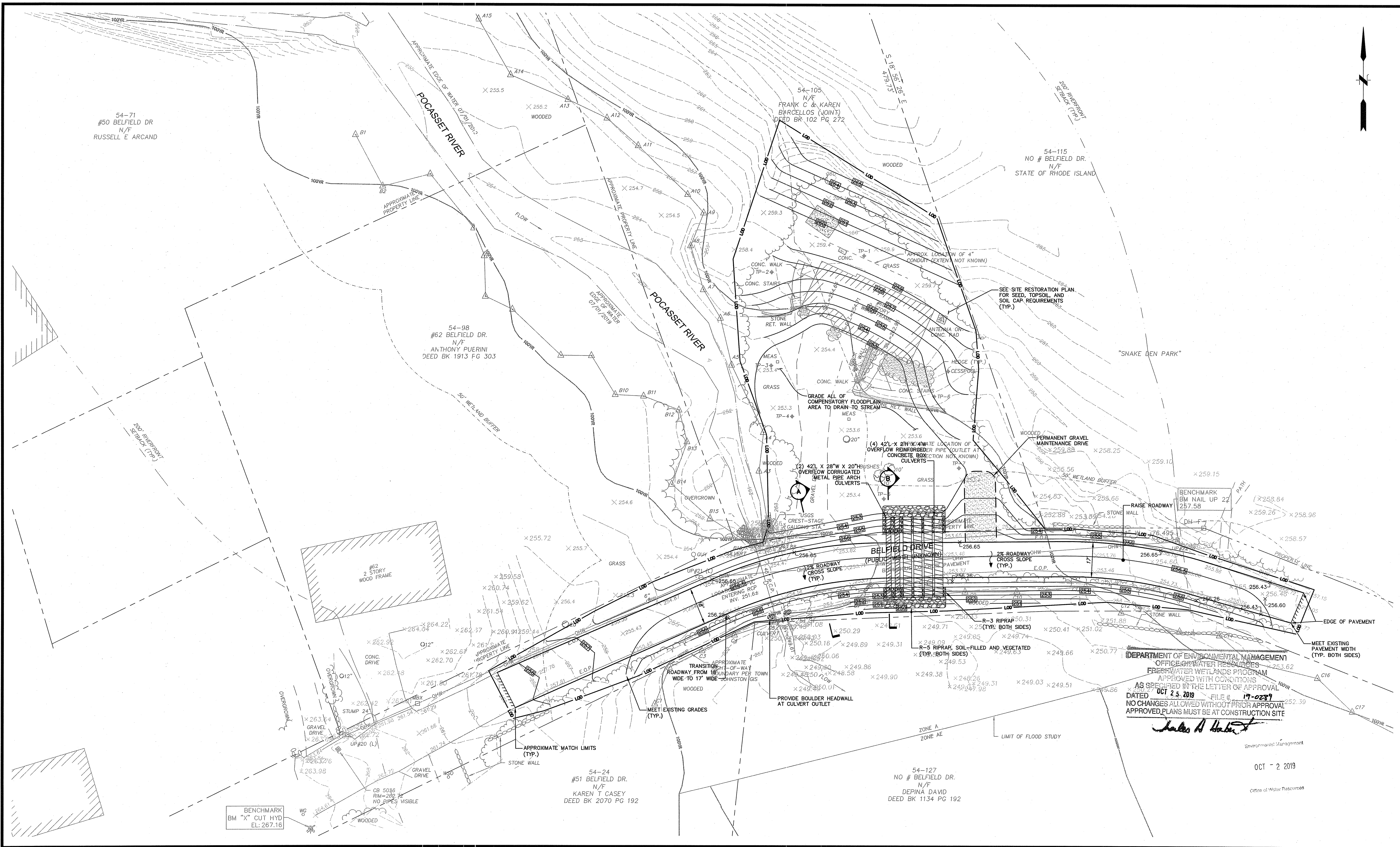
SCALE:	HORIZ.: 1"= 20'
	VERT.: N/A
DATUM:	HORIZ.: NAD83
	VERT.: NAVD88
GRAPHIC SCALE	

FUSS & O'NEILL
 317 IRON HORSE WAY, SUITE 204
 PROVIDENCE, RI 02908
 401.861.3070
 www.fando.com

RI ASSOCIATION OF CONSERVATION DISTRICTS
 DEMOLITION AND SITE PREPARATION PLAN
 BELFIELD DRIVE FLOOD IMPROVEMENTS
 JOHNSTON RHODE ISLAND

PROJ. No.: 20190051A10
 DATE: SEPTEMBER 2019
CP-102

File Path: J:\DWG\2019\05\1A10\Chw\Plan\2019051A10_STP01.dwg Layout: CS-101 Plotted: Mon, September 30, 2019 - 7:34 AM User: stions
 MS VIEW: LAYER STATE: PLOTTER: AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CTB File: FO.STB

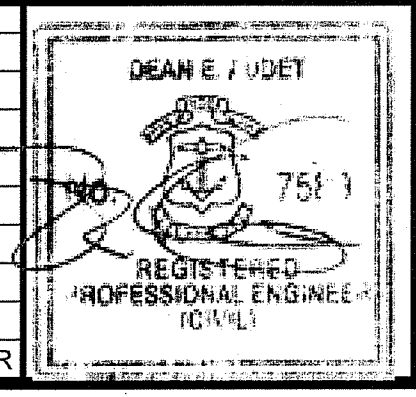


DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED OCT 25, 2019 FILE # 17-0287
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE

James A. Hester
 Environmental Management
 Office of Water Resources

OCT - 2 2019
 Office of Water Resources

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
0.	9/25/2019	ISSUED FOR PERMIT APPLICATIONS	NT/AG	AJ



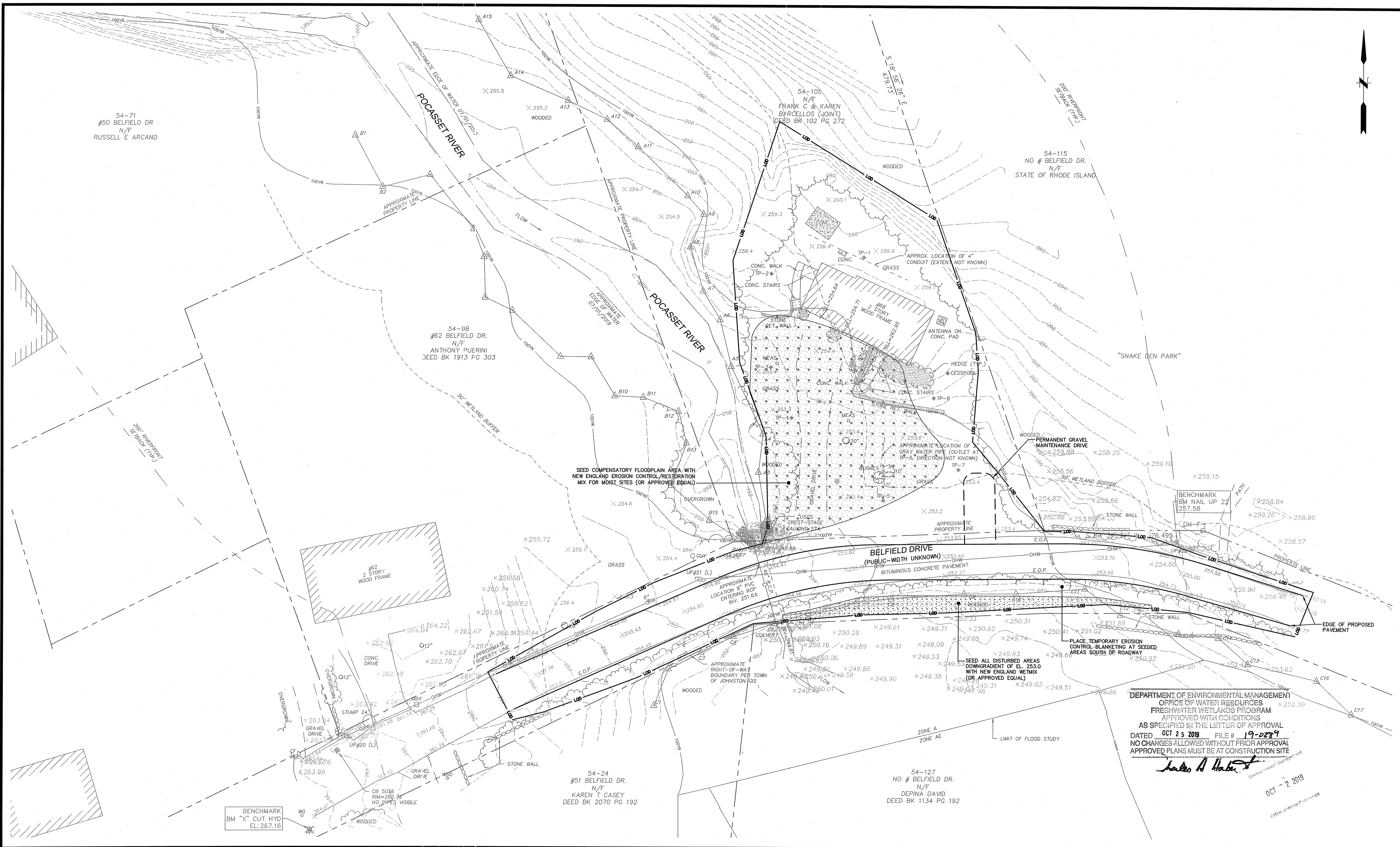
SEAL	SCALE: HORIZ.: 1"= 20' VERT.: N/A
	DATUM: HORIZ.: NAD83 VERT.: NAVD88
	GRAPHIC SCALE 20 10 0 20

FUSS & O'NEILL
 317 IRON HORSE WAY, SUITE 204
 PROVIDENCE, RI 02908
 401.861.3070
 www.fando.com

RI ASSOCIATION OF CONSERVATION DISTRICTS
 PROPOSED SITE PLAN
 BELFIELD DRIVE FLOOD IMPROVEMENTS
 JOHNSTON RHODE ISLAND

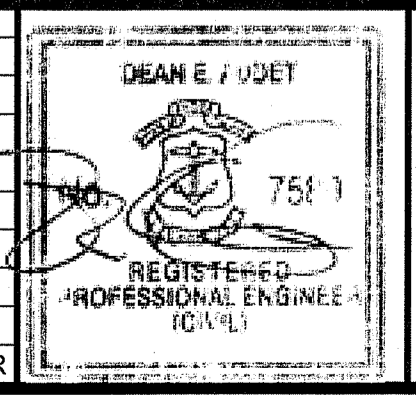
PROJ. No.: 20190051A10
 DATE: SEPTEMBER 2019
CS-101

File Path: J:\DWG\2019\05\1A\10\civil\plan\2019051A10_RESOR.dwg Layout: LP-101 Plotted: Mon, September 30, 2019 - 7:34 AM User: sironis
 PLOTTER: AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CTB File: FO.STB
 LAYER STATE:



DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED OCT 25 2019 FILE # 19-0289
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Julius A. Haber
 OCT - 2 2019
 Office of Water Resources

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
0.	9/25/2019	ISSUED FOR PERMIT APPLICATIONS	NT/AG	AJ



SEAL

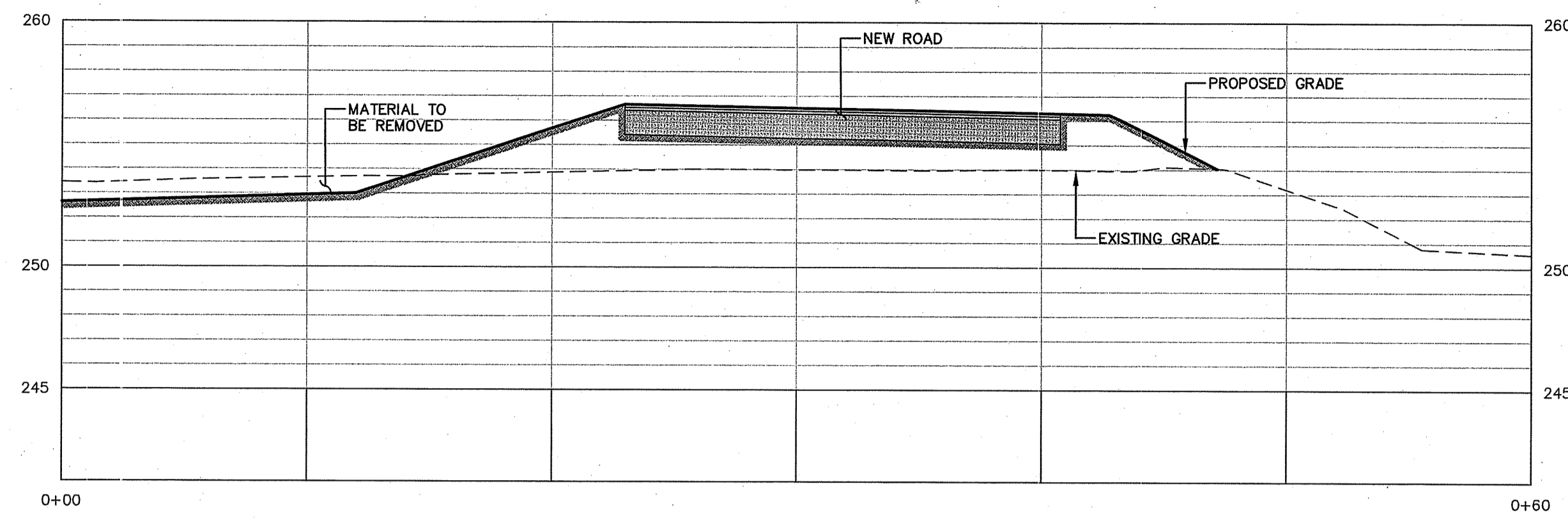
SCALE:
 HORZ.: 1" = 20'
 VERT.: N/A
 DATUM:
 HORZ.: NAD83
 VERT.: NAVD88
 GRAPHIC SCALE

f **FUSS & O'NEILL**
 317 IRON HORSE WAY, SUITE 204
 PROVIDENCE, RI 02908
 401.861.3070
 www.fandoc.com

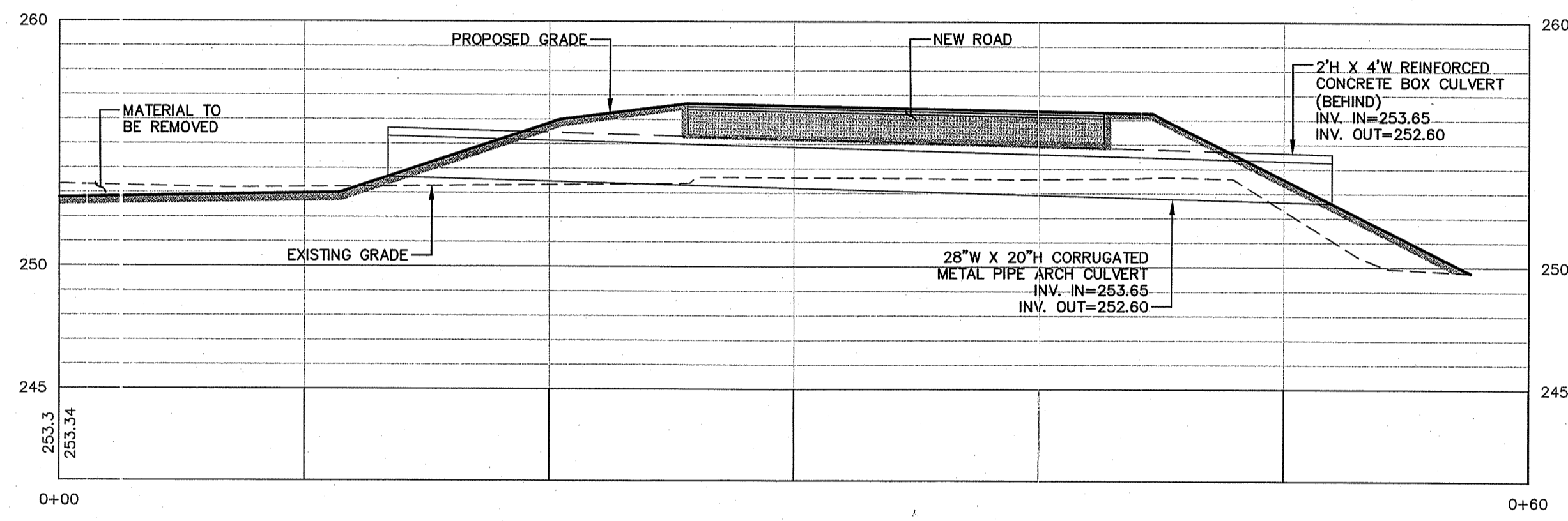
RI ASSOCIATION OF CONSERVATION DISTRICTS
 SITE RESTORATION PLAN
 BELFIELD DRIVE FLOOD IMPROVEMENTS
 JOHNSTON RHODE ISLAND

PROJ. No.: 20190051.A10
 DATE: SEPTEMBER 2019
 LP-101

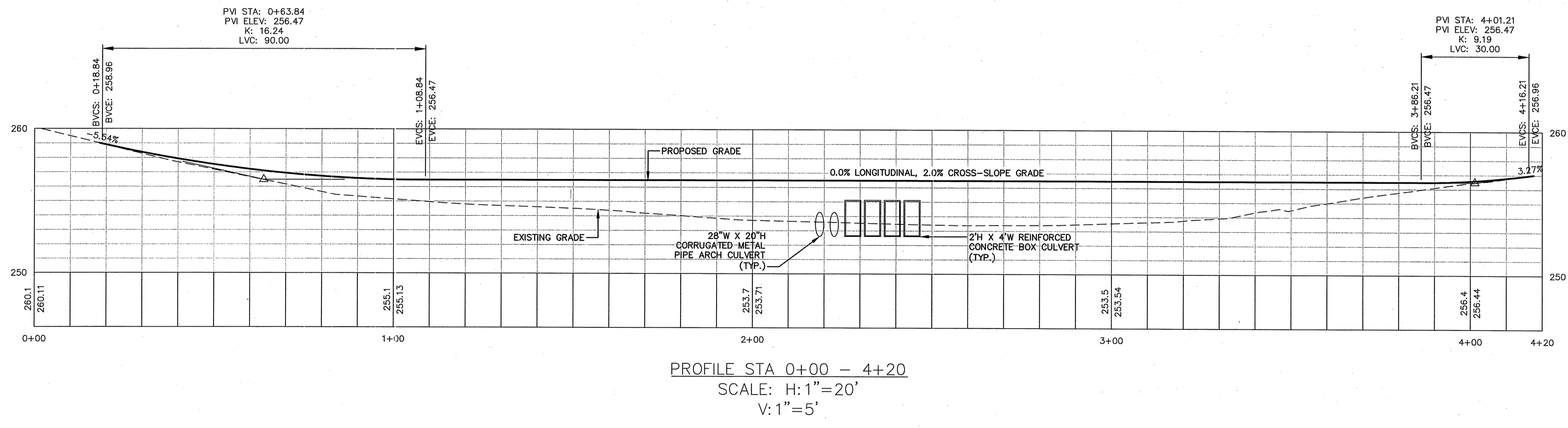
File Path: J:\DWG\20190051A10_STP01.dwg Layout: CR-301 Plotted: Mon, September 30, 2019 - 7:35 AM User: sironis
 Plotter: AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CTB File: FO.STB
 MS VIEW: LAYER STATE:



(A) SECTION
 SCALE: H: 1"= 5'; V: 1"= 5'



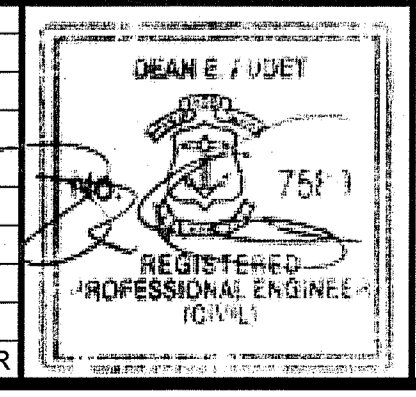
(B) SECTION
 SCALE: H: 1"= 5'; V: 1"= 5'



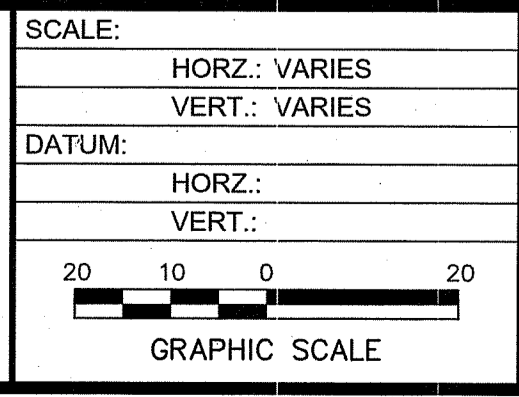
PROFILE STA 0+00 - 4+20
 SCALE: H: 1"=20'
 V: 1"=5'

Environmental Management
 DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF WATER RESOURCES
 FRESHWATER WETLANDS PROGRAM
 APPROVED WITH CONDITIONS
 AS SPECIFIED IN THE LETTER OF APPROVAL
 DATED **OCT 25 2019** FILE # **19-0289**
 NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
 APPROVED PLANS MUST BE AT CONSTRUCTION SITE
Charles A. Hatten

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
0.	9/25/2019	ISSUED FOR PERMIT APPLICATIONS	NT/AG	AJ



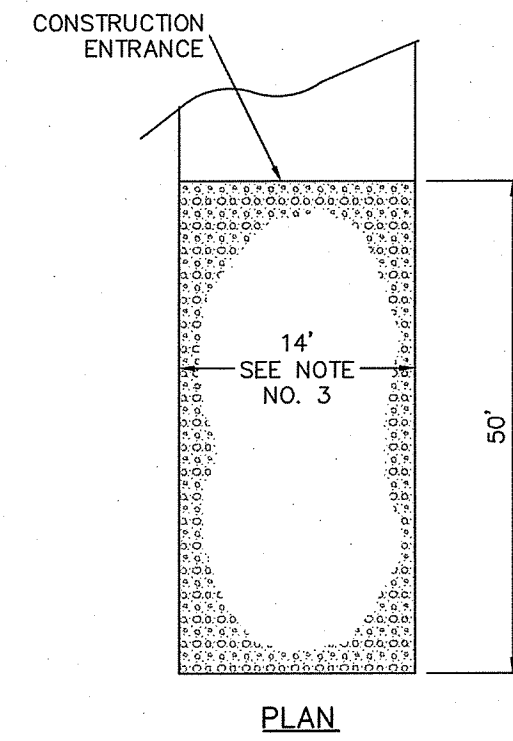
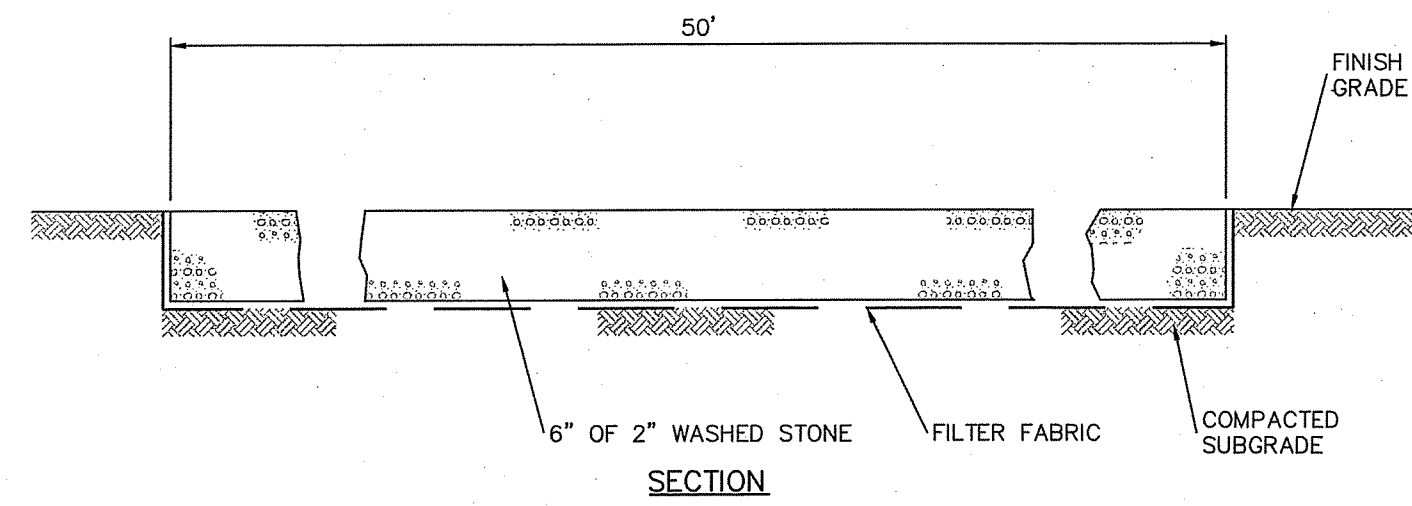
SEAL



f **FUSS & O'NEILL**
 317 IRON HORSE WAY, SUITE 204
 PROVIDENCE, RI 02908
 401.861.3070
 www.fando.com

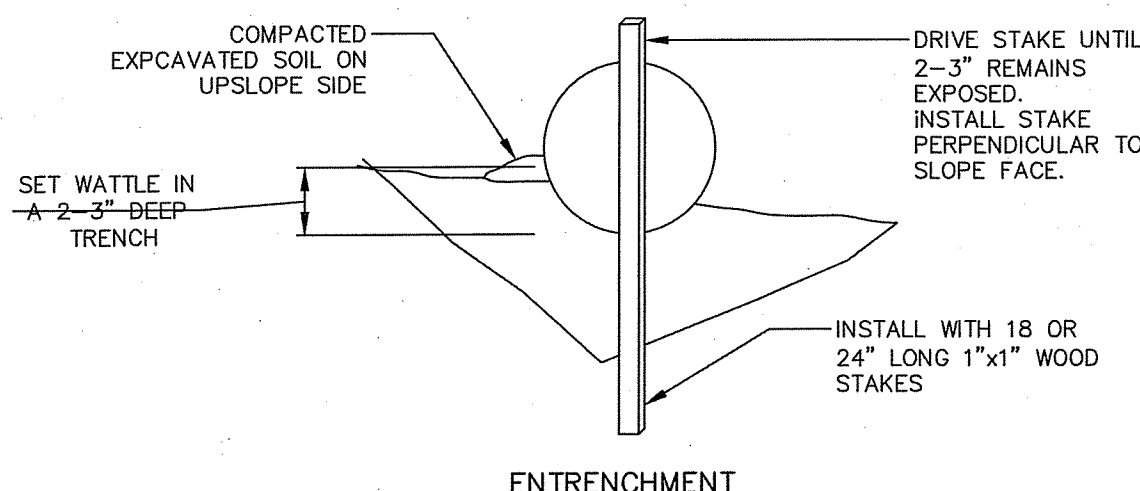
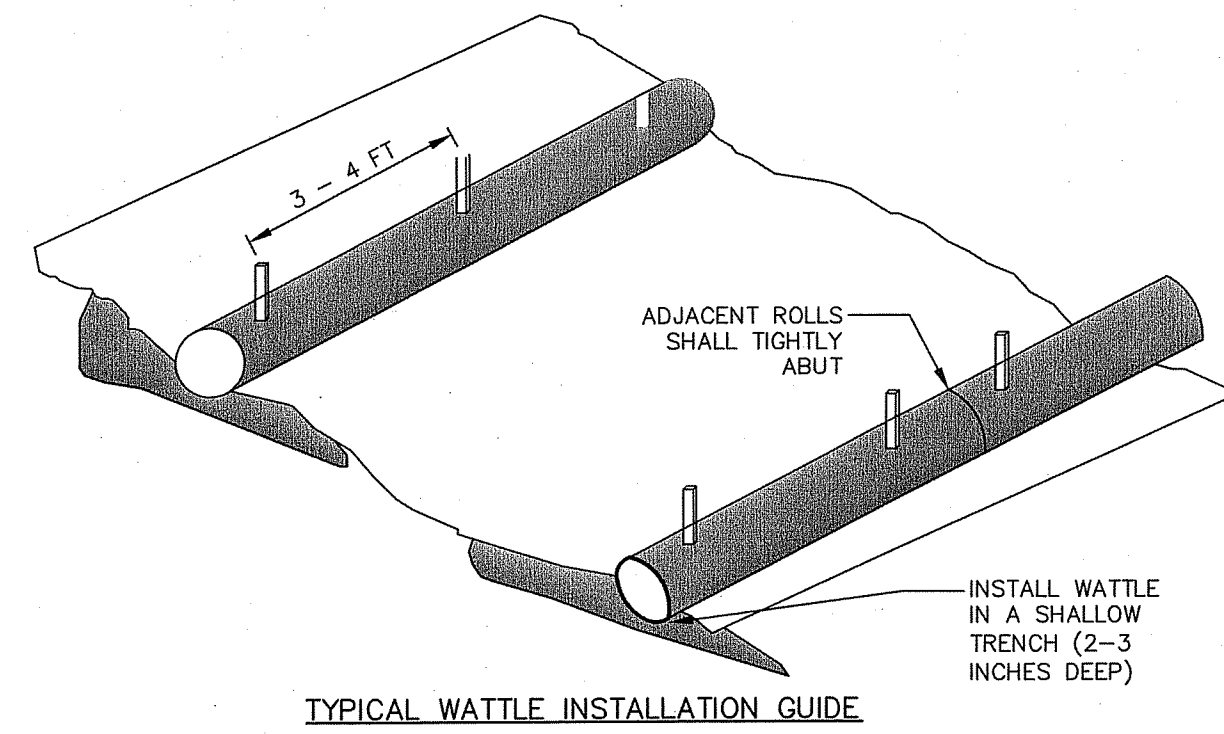
RI ASSOCIATION OF CONSERVATION DISTRICTS
 PROFILE AND SECTIONS
 BELFIELD DRIVE FLOOD IMPROVEMENTS
 JOHNSTON RHODE ISLAND

PROJ. No.: 20190051.A10
 DATE: SEPTEMBER 2019
CR-301



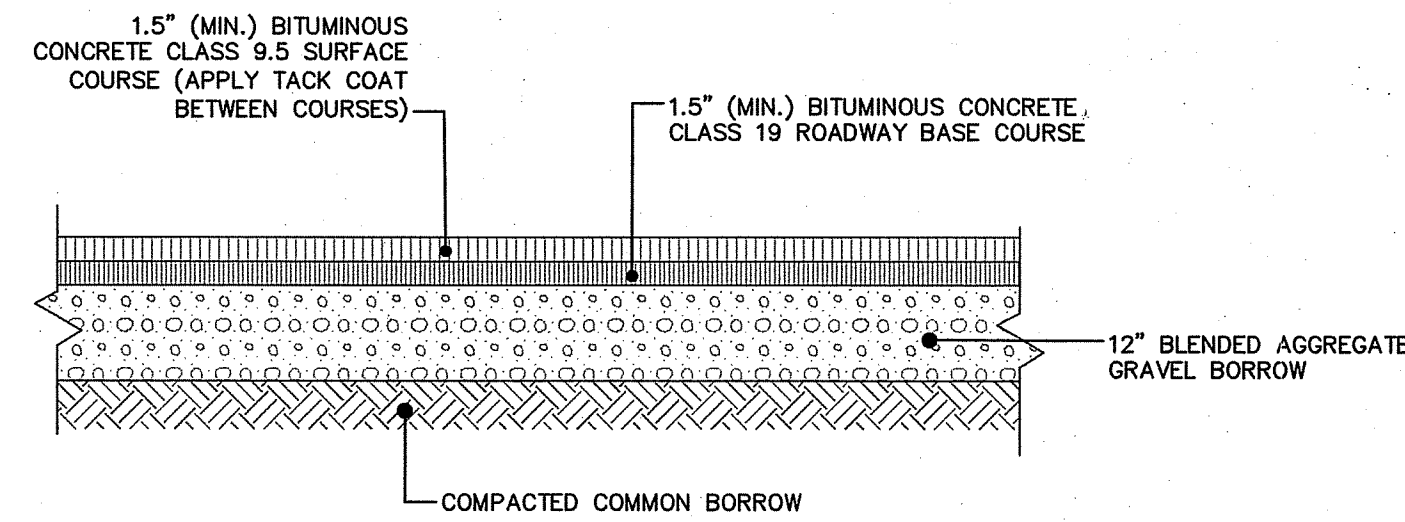
- NOTES:**
1. MAINTAIN ANTI-TRACKING APRON IN GOOD CONDITION THROUGHOUT CONSTRUCTION PERIOD.
 2. ADJACENT ROADWAY SHALL BE SWEEPED DAILY TO REMOVE ANY MATERIAL THAT MAY BE TRACKED ONTO PAVEMENT.
 3. WIDTH OF APRON SHALL NOT BE LESS THAN WIDTH OF INGRESS OR EGRESS.

CONSTRUCTION ENTRANCE
SCALE: NOT TO SCALE



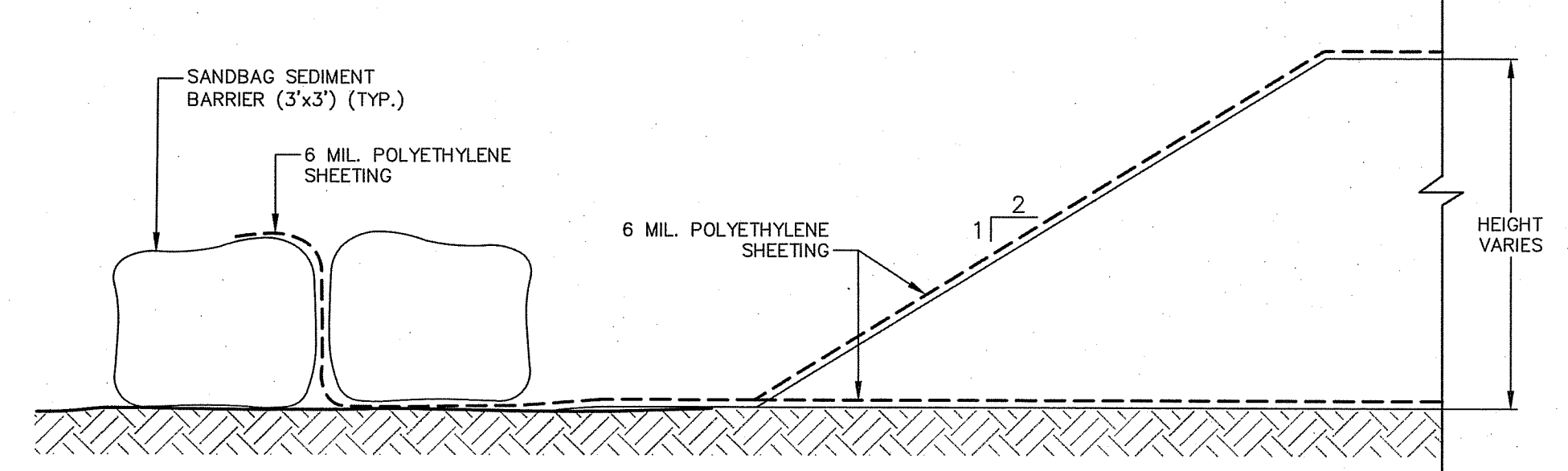
- NOTES:**
1. WATTLES SHALL BE INSTALLED AT LOCATIONS AS INDICATED ON THE DRAWINGS.
 2. WATTLES SHALL BE TRENCHED APPROXIMATE 2-3 INCHES AND STAKED SUCH THAT WATTLE'S DIRECTLY CONTACT SOIL AND PRECLUDE UNDERMINING OR BLOWOUTS. THE TRENCH SHALL BE APPROXIMATELY 9 INCHES WIDE. STAKES SHALL BE DRIVEN THROUGH THE CENTER OF THE WATTLE AT A SPACING OF 3-4 FEET ON CENTER AND NO GREATER THAN 8" FROM THE EACH END OF THE WATTLE. STAKES SHALL BE 1-INCH BY 1-INCH WOODEN STAKES WITH A LENGTH OF 18-24 INCHES. COMPACT SOIL EXCAVATED TO CREATE TRENCH ON UPHILL SIDE.
 3. ENDS OF ADJACENT WATTLES SHALL BE TIGHTLY BUTTED OR OVERLAPPED SO THAT NO OPENING EXISTS FOR WATER TO PASS THROUGH. WATTLES SHALL BE FREE OF DAMAGE OR DEFECTS WHEN DELIVERED TO THE SHIPPER. NO VEHICLES SHALL BE DRIVEN OVER WATTLES.
 4. WATTLES SHALL BE 12-INCH WS1210 MANUFACTURED BY NORTH AMERICAN GREEN, OR APPROVED EQUAL.

WATTLES
SCALE: NOT TO SCALE



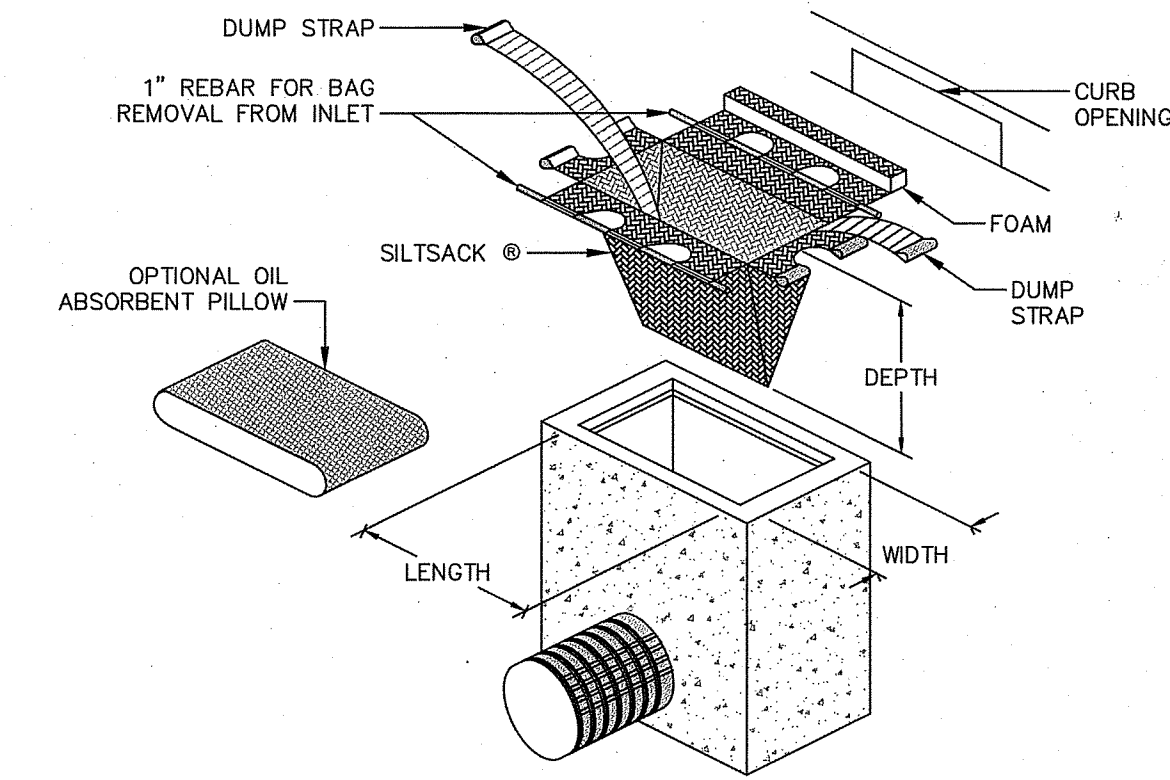
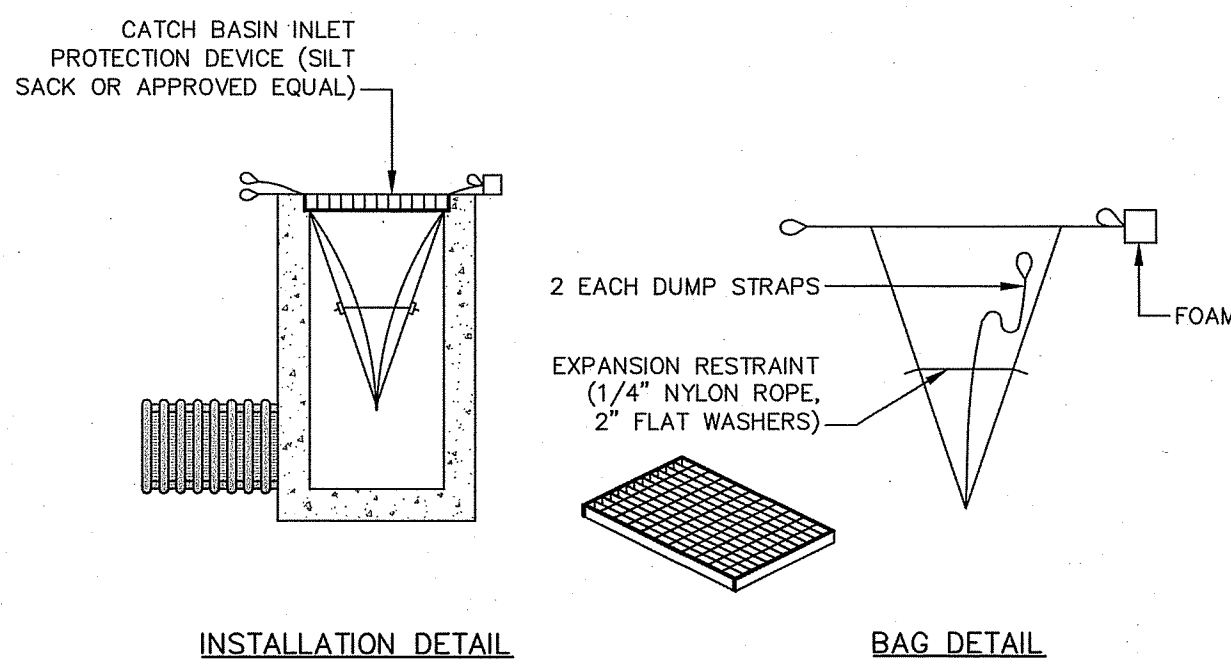
- NOTES:**
1. INSTALL A MINIMUM OF 12" OF GRAVEL BORROW
 2. COMMON BORROW AS REQUIRED TO BRING TO GRAVEL BORROW SUBGRADE

BITUMINOUS CONCRETE PAVEMENT
SCALE: NOT TO SCALE



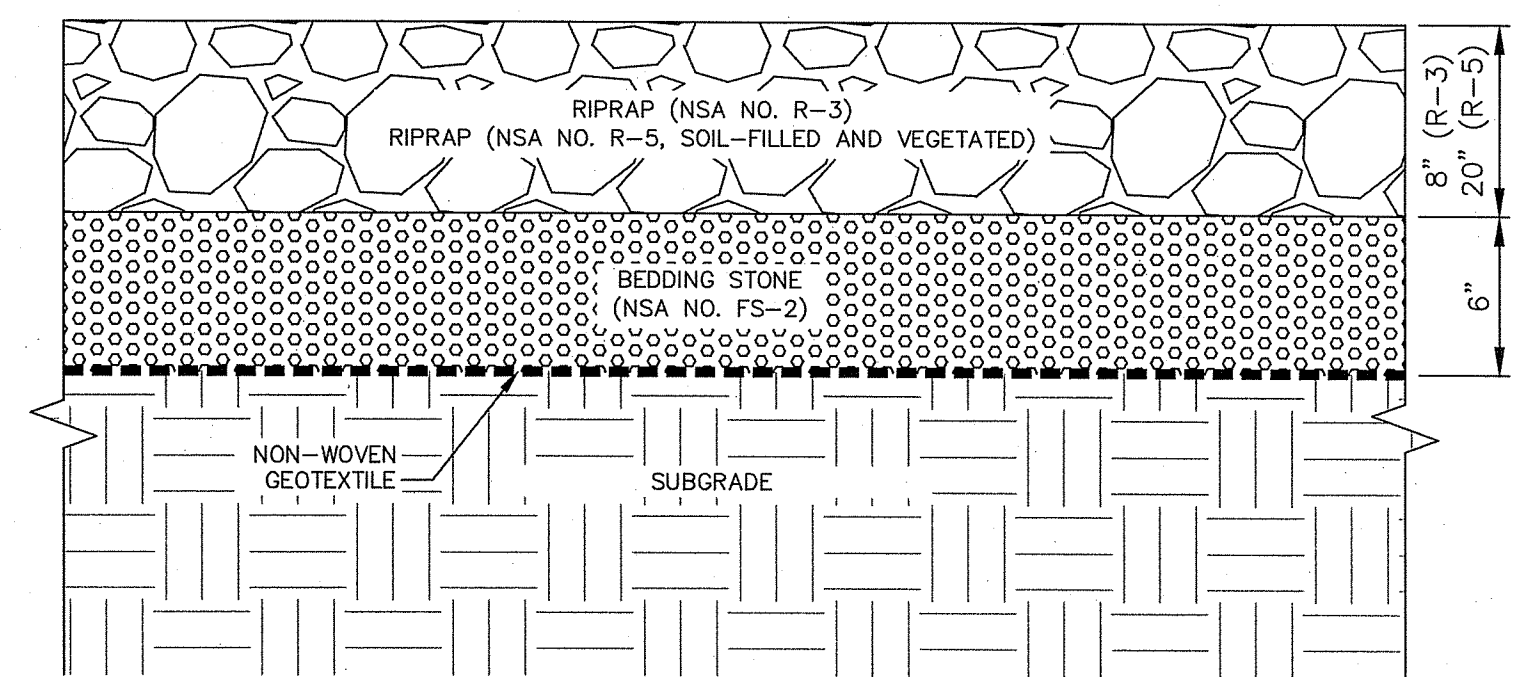
- NOTES:**
1. REMOVE AND DISPOSE ALL SANDBAGS AND ACCUMULATED SEDIMENT AFTER CONSTRUCTION IS COMPLETE.
 2. RIPPED OR TORN SHEETING MUST BE REPLACED AT THE END OF EACH WORK DAY.
 3. SHEETING SHALL BE HELD IN PLACE WITH WEIGHTS (E.G. ROCKS/SAND BAGS/BOARDS).

SOIL STOCKPILE
SCALE: NOT TO SCALE



- NOTES:**
1. CONTRACTOR SHALL MEASURE CATCH BASIN DIMENSIONS AND PROVIDE APPROPRIATELY-SIZED DEVICES PER MANUFACTURER'S REQUIREMENTS.
 2. INSTALL INLET PROTECTION IN CATCH BASIN BEFORE COMMENCING ANY ROADWORK.
 3. GRATE TO BE PLACED OVER INLET PROTECTION.
 4. INLET PROTECTION SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS. CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED WITH TOPSOIL AND GRASS.

CATCH BASIN INLET PROTECTION
SCALE: NOT TO SCALE



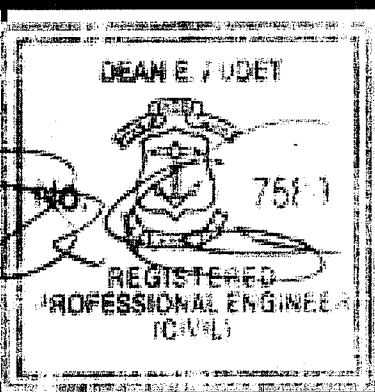
RIPRAP
SCALE: NOT TO SCALE

DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF WATER RESOURCES
FRESHWATER WETLANDS PROGRAM
APPROVED WITH CONDITIONS
AS SPECIFIED IN THE LETTER OF APPROVAL
DATED OCT 25 2019 FILE # 19-0289
NO CHANGES ALLOWED WITHOUT PRIOR APPROVAL
APPROVED PLANS MUST BE AT CONSTRUCTION SITE

James A. Harte

File Path: J:\DWG\20190051A10\CD\WIP\Plan\20190051A10_DET01.dwg Layout: CD-501 User: sironis
MS VIEW: PLOTTER: AUTOCAD PDF (GENERAL DOCUMENTATION).PC3 CTB File: FO.STB

No.	DATE	DESCRIPTION	DESIGNER	REVIEWER
0.	9/25/2019	ISSUED FOR PERMIT APPLICATIONS	NT/AC	AJ



SEAL

SCALE:

HORIZ.: NOT TO SCALE
VERT.:
DATUM:

HORIZ.:
VERT.:
0
GRAPHIC SCALE

FUSS & O'NEILL
317 IRON HORSE WAY, SUITE 204
PROVIDENCE, RI 02908
401.861.3070
www.fando.com

RI ASSOCIATION OF CONSERVATION DISTRICTS
DETAILS
BELFIELD DRIVE FLOOD IMPROVEMENTS
JOHNSTON RHODE ISLAND

PROJ. No.: 20190051.A10
DATE: SEPTEMBER 2019
CD-501