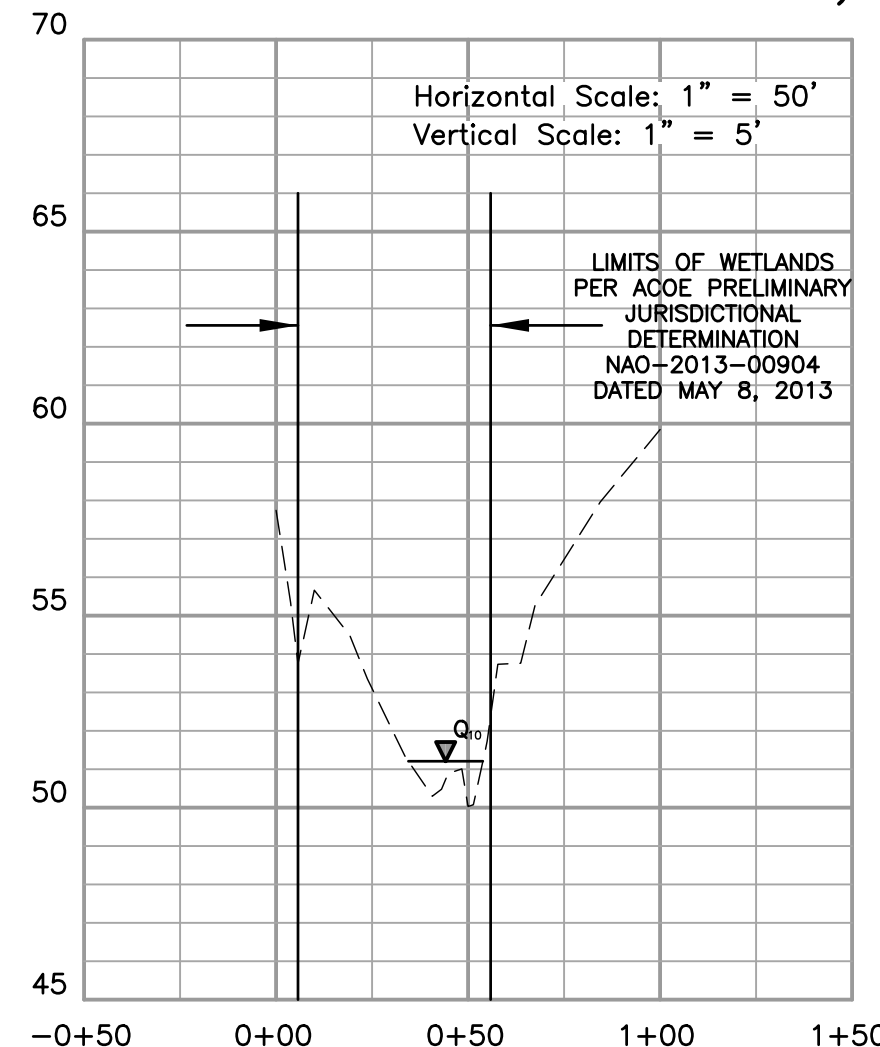


NOTE: ALL STORM STRUCTURES/OUTLETS ARE TO HAVE RIPRAP OUTLET PROTECTION EXTENDING TO 0.0% GRADE AS SPECIFIED IN THE VESCH STANDARDS AND SPECIFICATIONS

NOTE: THE ENTIRE RIVERBEND APARTMENTS STORM SEWER SYSTEM WAS DESIGNED USING THE 10-YR STORM EVENT TO CONTAIN THE RUNOFF WITHIN THE PIPE AND STRUCTURES. IN ADDITION, THE 100-YR STORM EVENT WAS ROUTED THROUGH THE STORM SYSTEM. THE STORM SEWER SYSTEM ADEQUATELY CONTAINED THE 100-YR STORM HGL WITH LITTLE TO NO PONDING OUTSIDE OF STRUCTURES AND DOES NOT IMPACT THE APARTMENT BUILDINGS.

CROSS SECTION G-G : (WETLANDS HEADWATER @ CARRIAGE POINT RD & RIVERBEND APARTMENTS ENTRANCE)



D.A. = 17.56 AC.
C_w = 0.59
T_{total} = 17.4 MIN.
I₂ = 3.54 IN/HR
I₁₀ = 4.72 IN/HR
Q₂ = (0.59)(3.54)(17.56) = 36.68 CFS
Q₁₀ = (0.59)(4.72)(17.56) = 48.90 CFS
V₂ = 3.97 FPS < V_{allowable} = 4.00 FPS (PER VESCH TABLE 5-14)
V₁₀ = 4.38 FPS
D₂ = 1.08'
D₁₀ = 1.18'

PROPOSED 12" C900 PVC WATERLINE BY ZANDLER DEVELOPMENT CO, LLC PER CARRIAGE POINT ENTRANCE PLAN DATED 7/18/18

PROPOSED 12" C900 PVC PER CARRIAGE POINT ENTRANCE PLAN BY ZANDLER DEVELOPMENT CO, LLC DATED 7/18/18

"ZANDLER WAY" (TO BE INSTALLED BY ZANDLER DEVELOPMENT CO, LLC PER CARRIAGE POINT ENTRANCE PLAN DATE 7/18/18)

BEGIN RIVERBEND DRIVE WITH CONNECTION TO CARRIAGE POINT DRIVE

PROPOSED 8" SANITARY SEWER EXTENSION BY ZANDLER DEVELOPMENT CO, LLC PER CARRIAGE POINT ENTRANCE PLAN DATED 7/18/18

END CONSTRUCTION RIVERBEND APARTMENTS SEWER AND BEGIN UPSTREAM SEWER EXTENSION BY ZANDLER DEVELOPMENT CO, LLC PER CARRIAGE POINT ENTRANCE PLAN DATED 7/18/18

PROPOSED 6'x12'x14'x2.0'D CLASS 1 RIPRAP @ EL. 54.0

PROPOSED 6'x6' E-3, TYPE B MATTING OUTLET PROTECTION

PROPOSED TEMPORARY RESIDENT PARKING AREA FOR MAIL PICK-UP

18'x21' CONCRETE PAD FOR ACCESSIBLE MAIL BOXES

MONUMENT SIGNS (SEE LANDSCAPE ARCHITECT PLANS PREPARED BY SISKIA AURAND LANDSCAPE ARCHITECTS DATED 02/16/2018)

PROPOSED BERM PER REZONING APPLICATION Z-13-01 (SEE SHEETS L1 & L2 FOR LANDSCAPING AT BERM CREST)

TAX MAP 39A(2) PARCEL 4H
JOHN W. & ANGELA M. SWISHER
INST. #07-6547
C.P.B. 3 @ PG. 52

TAX MAP 39A(2) PARCEL 3H
JOHN W. & ANGELA M. SWISHER
INST. #07-6547
C.P.B. 3 @ PG. 52

RFI #8 - GRADING AND DRAINAGE MODIFICATIONS 12/11/18

ADA GRADING MODIFICATIONS 03/15/19

TAX MAP 39A(2) PARCEL 2H
JOHN W. & ANGELA M. SWISHER
INST. #07-6547
C.P.B. 3 @ PG. 52

ALL SIDEWALKS SHALL HAVE A MAXIMUM RUNNING SLOPE OF 5% AND A MAXIMUM CROSS SLOPE OF 2%.

TAX MAP 39A(2) PARCEL 1H
RANDALL R. WILLIAMS LIVING TRUST
INST. #07-6709
C.P.B. 3 @ PG. 52

LEGEND:
IRON ROD FOUND OR
IRON PIPE FOUND
CONCRETE MONUMENT FOUND
IRON ROD OR PIPE SET
CONCRETE MONUMENT SET
POWER POLE
TJB
OUL
N/F
R/W
PP
EXISTING OVERHEAD UTILITY LINES
EDGE OF PAVEMENT
FACE OF CURB
TOP OF CURB
SIDEWALK
DOWNSPOUT
ROOF DRAIN
EDGE OF CONCRETE

Scale: 1" = 20'

JOB NO. 12211-14

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PROJECT MANAGER: GLJ

DESIGNED: WAS

CAD: WAS

CHECKED: WBB

FILED:

DATE: JANUARY 10, 2018

REVISED: APRIL 20, 2018

REVISED: JUNE 25, 2018

REVISED: JULY 13, 2018

REVISED: JULY 18, 2018

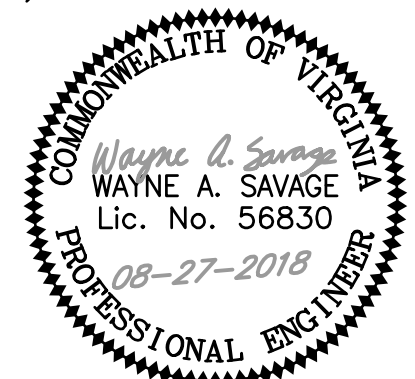
REVISED: AUGUST 27, 2018



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40 CROSS ST., SUITE 100
P.O. BOX 51
URBANA, VA 23175
(804) 693-2993



PROJECT:

RIVERBEND APARTMENTS

ABINGDON DISTRICT
GLOUCESTER, VIRGINIA

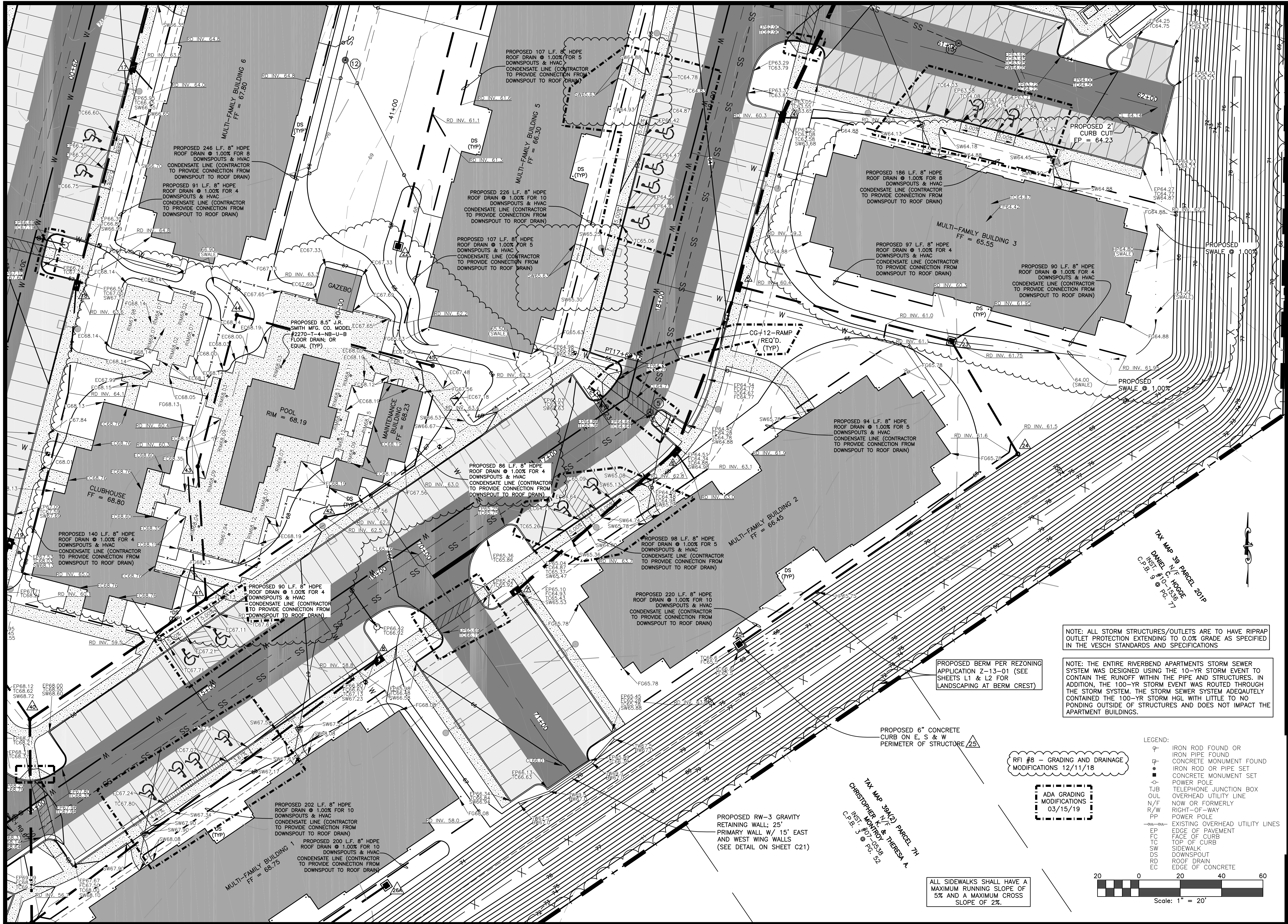
SHEET:

DETAILED GRADING PLAN

SHEET NO:

C7

JOB NO. 12211-14



JOB NO. 12211-14

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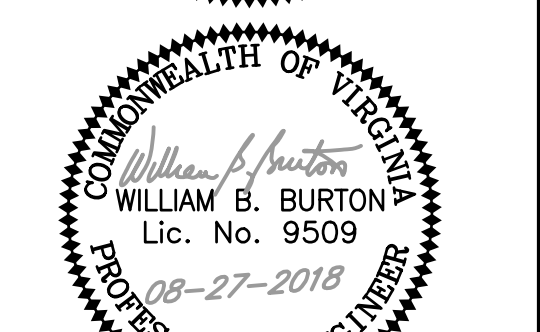
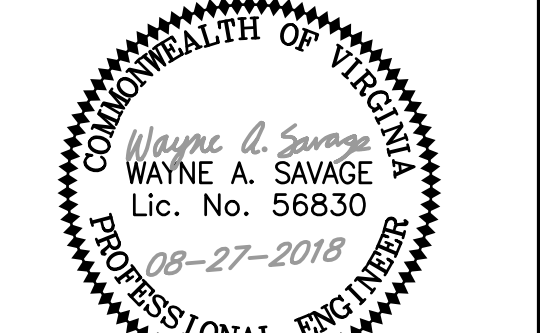
REVISED: JULY 13, 2018

REVISED: JULY 18, 2018

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PROJECT:

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GLOUCESTER, VIRGINIA

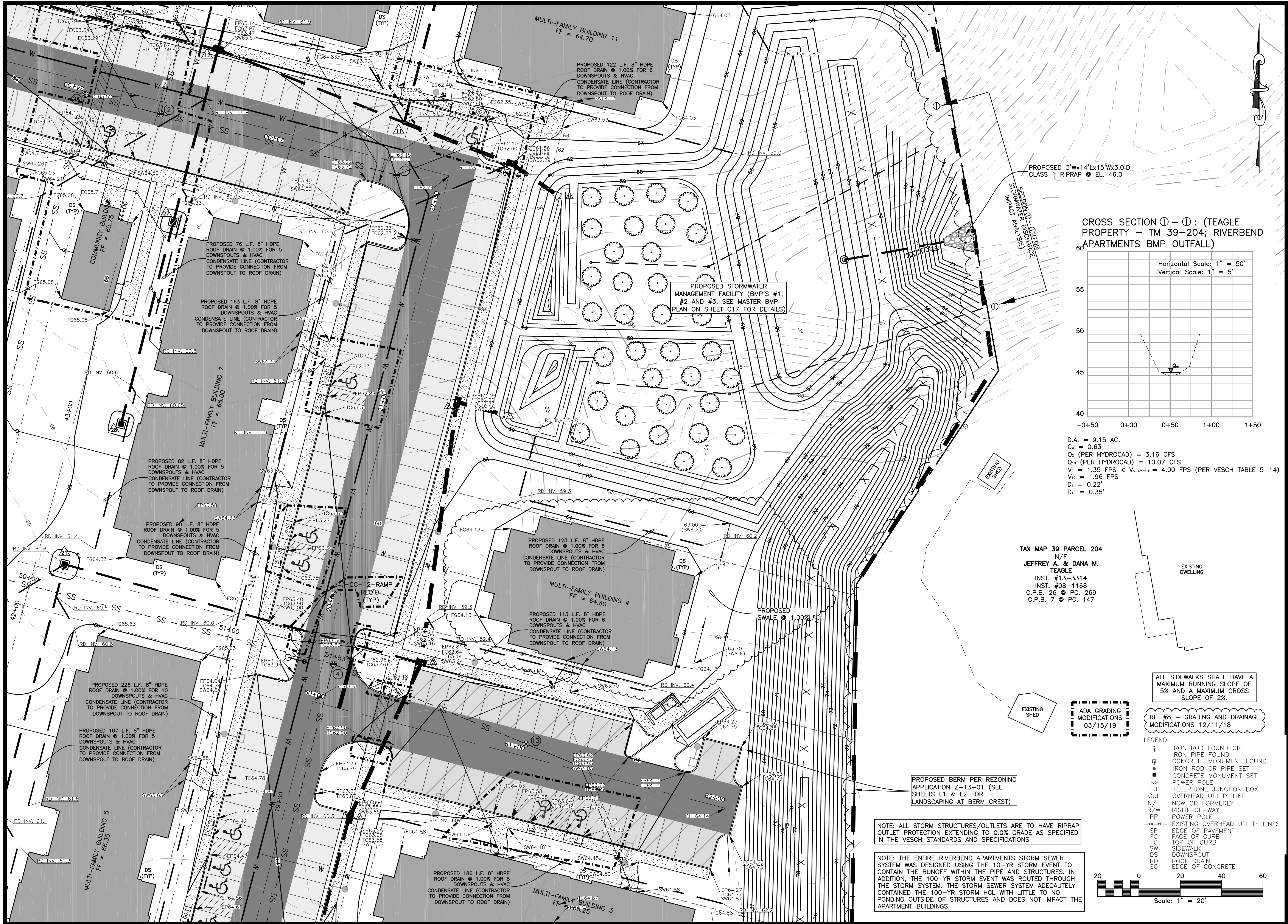
SHEET:

DETAILED GRADING PLAN

SHEET NO:

C8

JOB NO. 12211-14



JOB NO. 12211-14

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GLJ

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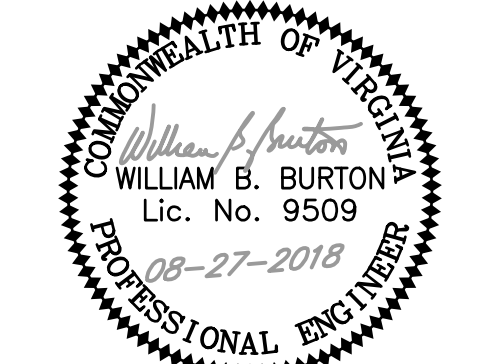
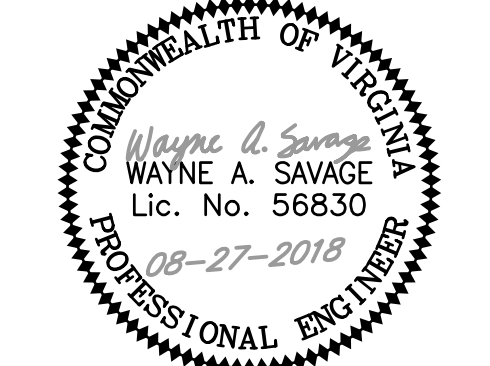
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ABINGDON DISTRICT
GLOUCESTER, VIRGINIA

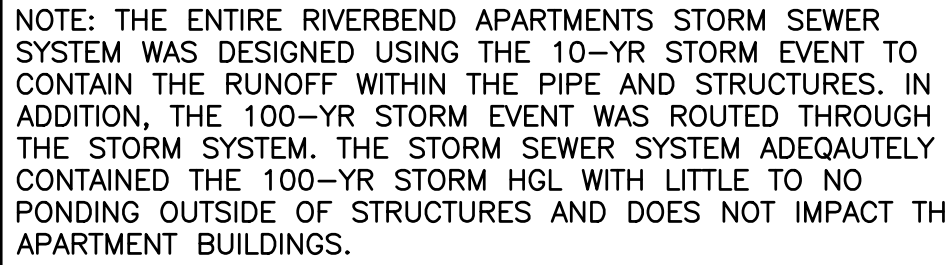
SHEET:

DETAILED GRADING PLAN

SHEET NO:

C9

JOB NO. 12211-14



JOB NO. 12211-14

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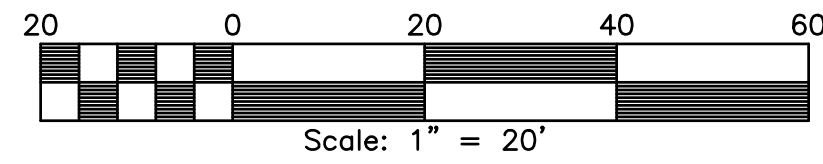
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ADA GRADING
MODIFICATIONS
03/15/19

RFI #8 - GRADING AND DRAINAGE
MODIFICATIONS 12/11/18

ALL SIDEWALKS SHALL HAVE A
MAXIMUM RUNNING SLOPE OF
5% AND A MAXIMUM CROSS
SLOPE OF 2%.

- LEGEND:
- ⊕ IRON ROD FOUND OR
 - ⊕ IRON PIPE FOUND
 - ⊕ CONCRETE MONUMENT FOUND
 - ⊕ IRON ROD OR PIPE SET
 - ⊕ CONCRETE MONUMENT SET
 - ⊕ TELEPHONE JUNCTION BOX
 - ⊕ OVERHEAD UTILITY LINE
 - N/F NOW OR FORMERLY
 - R/W RIGHT-OF-WAY
 - PP POWER POLE
 - EXISTING OVERHEAD UTILITY LINES
 - EP EDGE OF PAVEMENT
 - FC FACE OF CURB
 - TC TOP OF CURB
 - SW SIDEWALK
 - DS DOWNSPOUT
 - RD ROOF DRAIN
 - EC EDGE OF CONCRETE

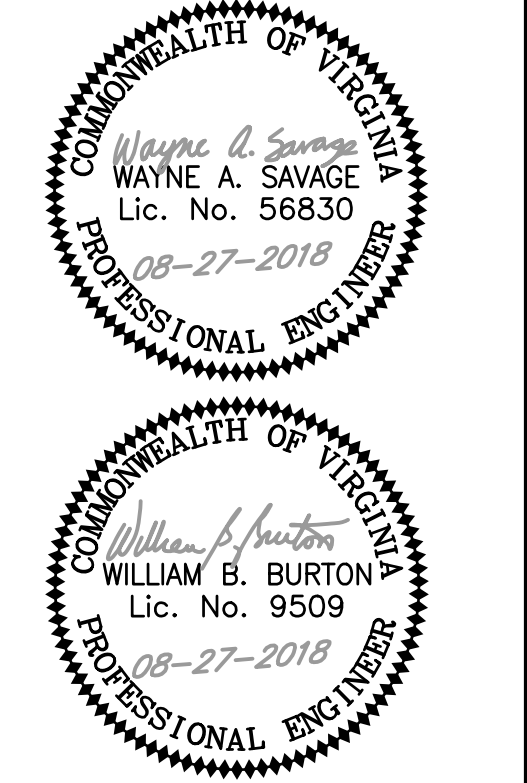


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PROJECT: RIVERBEND APARTMENTS

ABINGDON DISTRICT
GLOUCESTER, VIRGINIA

SHEET: DETAILED GRADING PLAN

SHEET NO: C11
JOB NO. 12211-14