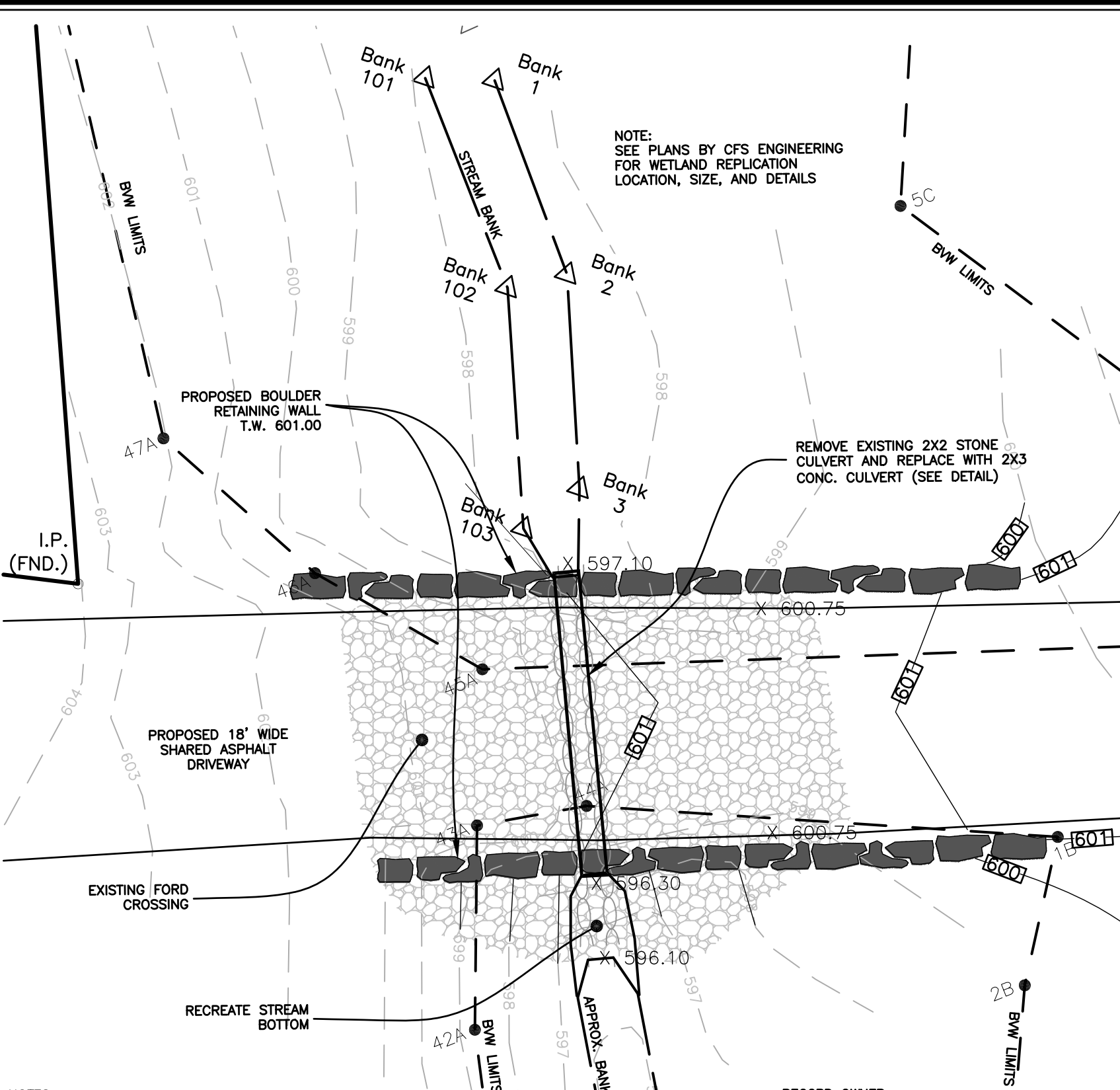




Peter C. Engle

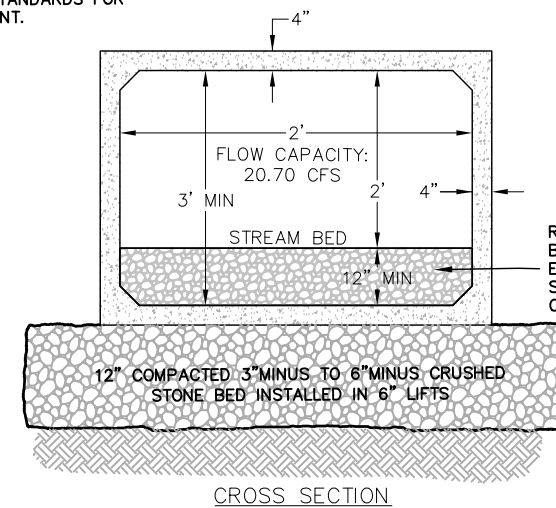
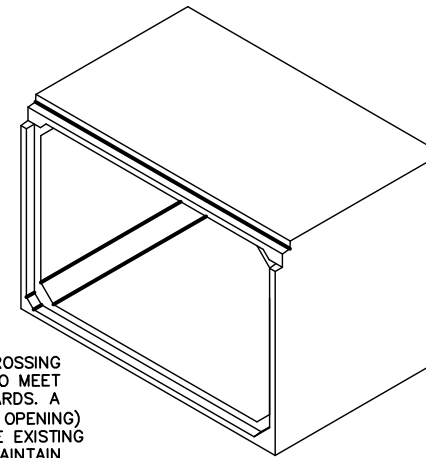


NOTE:
SEE PLANS BY CFS ENGINEERING
FOR WETLAND REPLICATION
LOCATION, SIZE, AND DETAILS

OPENESS RATIO
 $\frac{6 \text{ S.F.}}{24 \text{ FT.}} = 0.25^*$

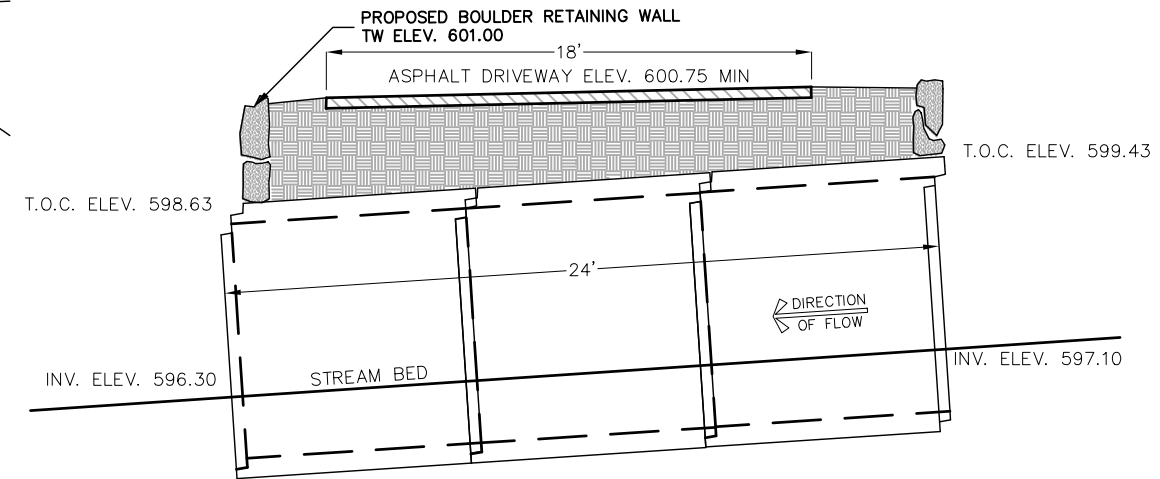
CROSSING SPAN RATIO
(4.8 AVG BANK WIDTH)
 $\frac{2 \text{ FT.}}{4.8 \text{ FT.}} = 0.42^*$

*NEITHER THE OPENESS OR CROSSING SPAN RATIO ARE PROPOSED TO MEET MA STREAM CROSSING STANDARDS. A 2X3 CONCRETE CULVERT (2X2 OPENING) IS PROPOSED TO REPLACE THE EXISTING 2X2 STONE CULVERT AS TO MAINTAIN STREAM STABILITY AND AS TO NOT INCREASE EROSION, HEAD CUTTING, OR DOWNSTREAM FLOODING PER THE MA STREAM CROSSING STANDARDS FOR CULVERT REPLACEMENT.



RE-CONSTRUCT THE NATURAL CHANNEL BOTTOM SUBSTRATE WITHIN STRUCTURE. EXCAVATE AND RE-USE WHERE FEASIBLE. STREAM BOTTOM CONSTRUCTION SHALL BE OVERSEEN BY ENVIRONMENTAL CONSULTANT.

CULVERT SHALL BE PRECAST CONCRETE SPECIFICATION: ASTM C1433 OR C1577 MATERIAL PROPERTIES: CONCRETE - 5000 PSI @ 28 DAYS STEEL REINFORCEMENT - REBAR ASTM A-615 GRADE 60 WELDED WIRE FABRIC ASTM A-185 GRADE 65



STREAM CROSSING DETAILS

NOT TO SCALE

NOTES:

- PURPOSE OF THIS PLAN IS TO SHOW PROPOSED STREAM CULVERT REPLACEMENT ALTERATION FOR PROPOSED SHARED DRIVEWAY LOCATED AT LOT 1 & LOT 2 HAMMOND HILL ROAD.
- EXISTING CONDITIONS SHOWN BASED ON AN IN FIELD SURVEY PERFORMED BY MCLURE ON APRIL 23, 2020. TOPOGRAPHY BASED ON IN FIELD SURVEY AND CURRENT MA GIS LIDAR INFORMATION.
- PROPERTY LINES AND WETLANDS SHOWN HEREON DEPICTED FROM RECORD PLAN BY LAPRAD LAND SURVEYING DATED 2/26/18 RECORDED AT THE WORCESTER COUNTY REGISTRY OF DEEDS PB 936 PL 117.
- WETLANDS AND BANK WERE DELINEATED BY E.B.T. ENVIRONMENTAL CONSULTANTS, INC.
- SITE IS CURRENTLY UNDER ORDER OF CONDITIONS FROM THE CHARLTON CONSERVATION COMMISSION FILE NUMBER 128-1692. ANY ADDITIONAL CONSERVATION COMMISSION/ MA DEP PERMITTING/ COORDINATION FOR COMPLIANCE WITH THE WETLANDS PROTECTION ACT IS THE RESPONSIBILITY OF THE PROPERTY OWNER.
- REFER TO ORIGINAL PERMIT PLANS PRODUCED BY CFS ENGINEERING DATED 1/4/18, REV 9/19/18.

RECORD OWNER:
PROPERTY SOLUTIONS REAL ESTATE
80 HAGGERTY ROAD
CHARLTON, MA 01507

TAX MAP REFERENCES:
PARCEL ID: 22-A-5

DEED REFERENCES:
(WORCESTER COUNTY REGISTRY OF DEEDS)
DEED BOOK 59948 PAGE 5

PLAN REFERENCES:
(WORCESTER COUNTY REGISTRY OF DEEDS)
PLAN BOOK 936 PLAN 117

REV	DATE	DESCRIPTION	REVISED NOTE #	MADE BY	APVD
1	5.13.20		#5	AB	PE

MCLURE ENGINEERING, INC
119 Worcester Road
Charlton, MA 01507
Tel: (508) 248-2005
Fax: (508) 248-4887
Email: chris@mclureengineers.com

CULVERT CROSSING AMENDMENT PLAN
HAMMOND HILL ROAD
CHARLTON, MA
PREPARED FOR
PROPERTY SOLUTIONS REAL ESTATE AND CONTRACTING, LLC
80 HAGGERTY ROAD, CHARLTON, MA 01507

DRAWN BY:	ARB
DATE:	5/6/20
CHK BY:	PCE
SCALE:	1"=10'
PROJ. NO.	054-2173-L