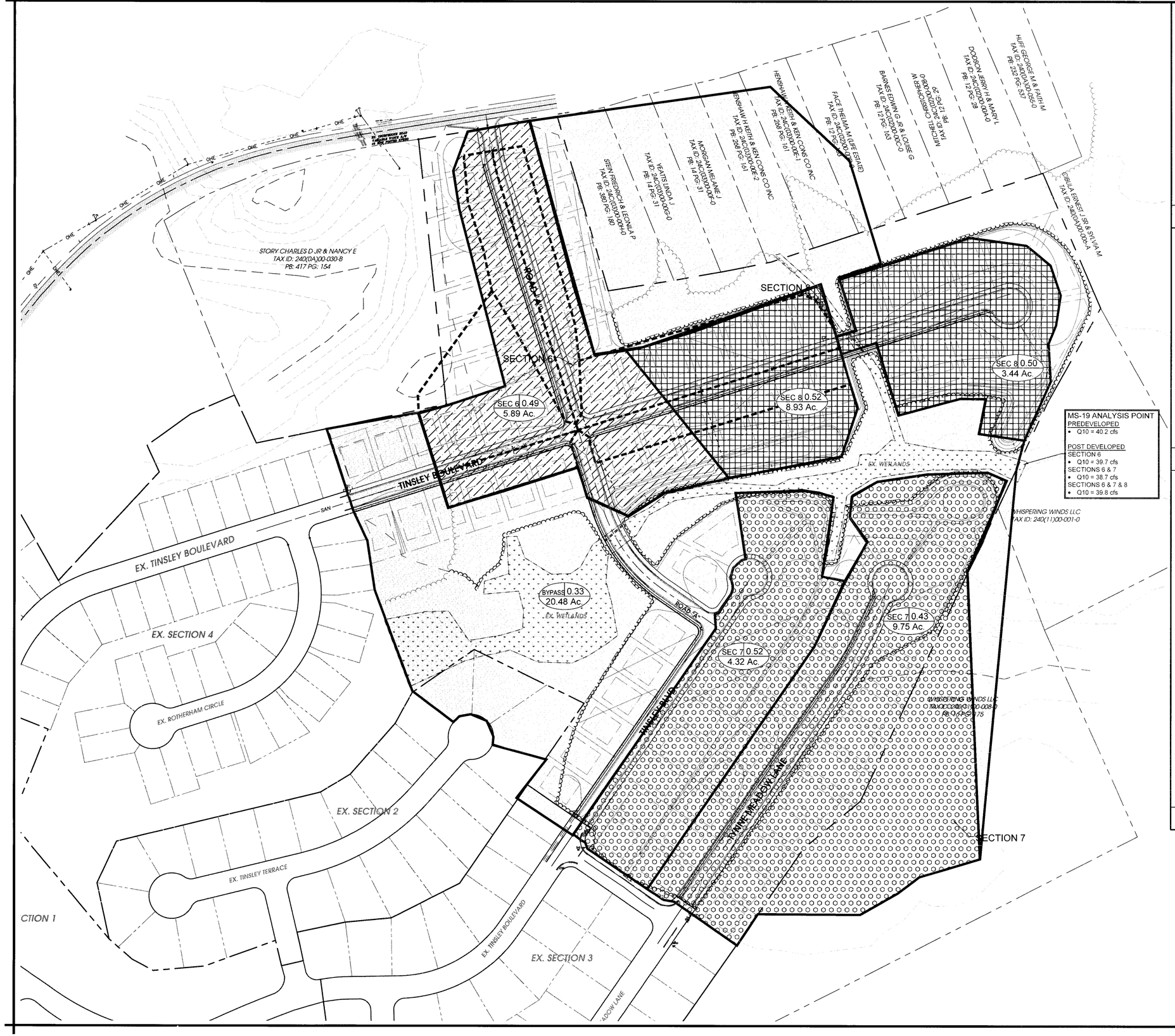

DENOTES SECTION 6 DRAINAGE AREA TO ASSOCIATED SECTION 6 POND

DENOTES SECTION 7 DRAINAGE AREA TO ASSOCIATED SECTION 7 PONDS

DENOTES SECTION 8 DRAINAGE AREA TO ASSOCIATED SECTION 8 PONDS

DENOTES BYPASS DRAINAGE AREA THAT IS NOT DRAINING TO ANY PROPOSED PONDS

PROPOSED DRAINAGE DIVIDE

INLET C / AREA — DRAINAGE AREA DATA

NOTE:
REFER TO C11.0 FOR A DETAILED SUMMARY OF THE INDIVIDUAL SECTION DRAINAGE AREA AND COORESPONDING POND ROUTING CALCULATIONS

1 DRAINAGE AREA MAP LEGEND

No Scale

WATER QUANTITY

POST DEVELOPMENT STORMWATER RUNOFF WILL BE CAPTURED IN DETENTION BASINS THAT WILL REDUCE THE POST DEVELOPED RUNOFF TO LESS THAN OR EQUAL TO THE PREDEVELOPMENT RUNOFF RATES. THE ANALYSIS PERFORMED AND DESIGN PREPARED ASSUMES PHASED CONSTRUCTION OF THE SUBDIVISION BEGINNING WITH SECTION 6 AND PROCEEDING IN SEQUENTIAL ORDER WITH REMAINING SECTIONS. AS PART OF EACH SECTION OF ANALYSIS, A BYPASS AREA THAT IS NOT TREATED IS ACCOUNTED FOR AND ADDED TO THE POST DEVELOPMENT RUNOFF RATE FROM THE POND. THE ADDITION OF THE BYPASS AND POND DISCHARGE RATE ASSUMES THE WORST CASE SCENARIO THAT BOTH WATERSHEDS EXPERIENCE PEAK FLOWS AT THE SAME TIME. REFER TO C11.0 FOR DETAILED CALCULATIONS FOR EACH SECTION OF THE PROPOSED SUBDIVISION INCLUDED WITH THIS PLAN SET.

WATER QUALITY

THE PROPERTY DOES NOT LIE WITHIN A PRINCE GEORGE COUNTY DESIGNATED CHESAPEAKE BAY PRESERVATION AREA. THIS PROPERTY OUTFALLS INTO THE CHOWAN BASIN WHICH CURRENTLY DOES NOT REQUIRE TREATMENT FOR WATER QUALITY.

2 STORMWATER MANAGEMENT SUMMARY

No Scale

DA: PRE Developed Entire Parcel

	C-factor	Area (Ac.)	CA
Woods	0.25	40.55	10.138
Grass	0.30	3.550	1.065
Gravel	0.65	0.480	0.312
Conc	0.80		0.000
Pavement	0.90		0.000
		Area	**Total C-factor**
		44.58	**0.26**

Tc:

Overland:
Length = 200 ft
Slope = 1.0 %
c-factor = 0.30
tc = 16.7 minutes

Concentrated:
Length = 1283 ft
H = 8 ft
14.3 minutes
Tc = 31.0 minutes

I_2 =	2.63	Q_2 =	30.28 cfs
I_{10} =	3.49	Q_{10} =	40.19 cfs
I_{100} =	4.89	Q_{100} =	56.33 cfs

3 PREDEVELOPED RUNOFF CONDITIONS

No Scale

sekivsolutions
OPTIMIZING YOUR DEVELOPMENT WORLD
14207 POND CHASE PLACE | MIDLOTHIAN, VA | 23113
TELEPHONE NO. 804.938.8864 | www.sekivsolutions.com

SCALE : AS SHOWN | PROJECT NO. : 10106 | PROJECT MANAGER : CHRIS THOMPSON | QUALITY ASSURANCE : STUART LITTLE

COMMONWEALTH OF VIRGINIA
Stuart G. Little
Lic. No. 39974
04/7/14
PROFESSIONAL ENGINEER

DATE : APRIL 7, 2014

REVISION BLOCK

DATE	DESCRIPTION
-	-

MWC DEVELOPMENT, LLC
P.O. BOX 694
PRINCE GEORGE, VA 23875
CONTACT: KRIS CUTLER

TINSLEY CHARTER SUBDIVISION - SECTIONS 6, 7 AND 8

DRAINAGE AREA MAP AND MS-19 ANALYSIS PLAN

SHEET NO.

C10.0