



OFF-SITE DRAINAGE AREA

SWALE HYDRAULIC COMPS.
 See Sheet 2 for Typical Section

$TQ\ Capacity = \frac{1.486}{n} (A) (R^{\frac{2}{3}}) (S^{\frac{1}{2}})$

$A = 3$
 $WP = 6.32' @ 1' Depth$
 $R = \frac{A}{WP} = 0.4747$
 $R^{\frac{2}{3}} = 0.6085$
 $S\frac{1}{2} = 0.21$

$TQ\ Cap = \frac{1.486}{.05} (3) (.6085) (.21) = 11.61\ c.f.s.$
 $V = \frac{1.486}{.05} \left(\frac{A}{WP}\right)^{\frac{1}{2}} (S\frac{1}{2}) = 3.87\ f.p.s.$

$S\frac{1}{2} = 0.14$
 $TQ\ Cap = \frac{1.486}{.05} (3) (.6085) (.14) = 7.46\ c.f.s.$
 $V = \frac{1.486}{.05} \left(\frac{A}{WP}\right)^{\frac{1}{2}} (S\frac{1}{2}) = 2.49\ f.p.s.$

Swale @ 3.66%
 $S\frac{1}{2} = 0.19$
 $TQ\ Cap = \frac{1.486}{.05} (3) (.6085) (.19) = 10.38\ c.f.s.$
 $V = \frac{1.486}{.05} \left(\frac{A}{WP}\right)^{\frac{1}{2}} (S\frac{1}{2}) = 3.46\ f.p.s.$

NOTE:
 This plan to be used for drainage area purposes only. See construction plans for all improvements, profiles, details, etc.

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