

MEMO

TO: Marvin E. Carter, Michael O’Haire and David Gunter

FROM: George A. Simons, P.E.

RE: IRFWCD – Clarifications Regarding:
 Pipe Material Requirements for the Culverting of IRFWCD Sub-laterals under Public Roadways and Private Lands.
 Pipe Material Requirements for Driveways Crossing IRFWCD Sub-Laterals

DATE: June 30, 2020

Pipe failures (due to corrosion and metal loss) in IRFWCD Canals cause significant impacts to drainage service and must be removed immediately, sometimes by District crews. Removal and repair costs are especially high if the pipe failure is under a ditch crossing with expensive embellishments such as road improvements, headwalls, signs, paver, and etc. These failures usually present an unexpected and unbudgeted expense for the responsible maintenance entity which may cause delays in funding the removal and replacement. District crews may be required to remove the pipe in order to maintain the drainage service for the landowner’s upstream. District equipment, labor, and dump fee costs to remove these improvements are excessive and difficult to get reimbursed.

District staff recommends the adoption of a resolution requiring reinforced concrete pipe (RCP) for future pipe installations involving expensive embellishments such as impervious road improvements, headwalls, signs, paver, and etc. in all District canals as a condition of permit approval.

Canal crossings throughout the District may utilize CMP or Aluminum Corrugated pipe material with the end treatments of rock rubble or broken concrete over filter fabric provided no expensive embellishments such as impervious surface, headwalls, signs, pavers, etc. are constructed. If the driveway is off a paved road the County typically requires a paved apron. If the proposed canal crossing includes any asphalt that extends over the canal cross section the pipe must be RCP.

Culverting District Canals with HDPE type pipe material may be acceptable for areas such as a golf course. Approval will be on a case by case basis with consideration to wheel loads from construction traffic, pole trucks, IRFWCD maintenance equipment, etc.

In Summary see the matrix below:

Location	Pipe Material	
	CMP/Aluminum	RCP
Private Driveway Stabilized Only - No Embellishment	Permitted	Optional
Private Driveway With Embellishment (See Note #1)	N/A	Required
Private Canal Culverting Golf Course, Grass Areas	Permitted (See Note #2)	Optional
Public Use Driveway Stabilized Only - No Embellishment	Permitted	Optional
Public Use Driveway With Embellishment (See Note #1)	N/A	Required
Public Use Canal Culverting	N/A	Required

1. Embellishments such as impervious road improvements, headwalls, signs, paver, and etc.
2. HDPE pipe may be permitted on a case by case basis.

