

## Department of Public Works

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June 3, 2010

Legistar Item: 10-5196

TO: Alderman Greg Holding, Chairman  
Public Works and Services Committee

FROM: John Rooney, *JR*  
Assistant Commissioner of Public Works/Engineering

SUBJECT: Intergovernmental Agreement for the Design, Construction and Maintenance of the Stewart-McBride Pond Retrofit Project between the Village of Mt. Pleasant and the City of Racine

The City of Racine and the Village of Mt. Pleasant, through a joint effort are desirous to retrofit a pond in the Village limits next to Stewart-McBride Park.

The Village desires to provide adequate capacity for a 100-year 24-hour design storm under 2030 land use conditions for the drainage area and the City of Racine is desirous of capturing the Total Suspended Solid (TSS) reduction for the watershed and using it as credit towards the City's NPDES permit with the Wisconsin Department of Natural Resources under the terms of that permit.

The agreement would include the City of Racine only paying for those costs in the pond construction that were associated with total suspended solid reduction for water quality purposes. The balance of the pond construction for flood capacity would be paid for by the Village of Mt. Pleasant. These costs would be delineated to each municipality after the project has been constructed. Additional items in the agreement would be for pond maintenance for the City of Racine to pay the Village of Mt. Pleasant to maintain the pond to ensure adequate total suspended solid removal. There are some costs that are to be shared between the City of Racine and the Village of Mt. Pleasant for the construction of the pond. The Village of Mt. Pleasant will serve as the lead agency for all aspects of the project and will invoice the City of Racine for the TSS portion of the project.

It is estimated that the retrofit of the Stewart-McBride Park would net the City of Racine approximately 30 tons of TSS reduction at a cost of approximately \$10,000.00 per ton TSS removed.

The funding for the City's share of this capital project would be placed in the 2011 Storm Water Utility budget and subsequent maintenance cost for the pond would be placed in the budget as well.

If the Committee agrees, the appropriate action would be to authorize the Mayor and City Clerk to enter into a municipal agreement with the Village of Mount Pleasant.

CC: Mayor Dickert  
Tom Friedel  
Rick Jones

**Summary of Estimated Sediment Loading to Stewart-McBride (SM) Pond**

	Mt. Pleasant		Racine		Total	
Drainage Area (ac) (%)	174	67%	87	33%	261	100%
Raw Sediment Load to SM pond (tons) (%)	20	45%	22	55%	42	100%
Sediment Removed by High Ridge Pond (tons)	0	-	4	-	-	-
Net Sediment Load to SM pond (tons) (%)	20	53%	18	47%	38	100%

**Preliminary Construction Cost Estimate**

Item	Item Description	Unit	Quantity	Unit Cost	Total
1	Tracking Pad	EA	1	\$2,500.00	\$2,500
2	Silt Fence	LF	1,000	\$3.00	\$3,000
3	Erosion Control Allowance	LS	1	\$2,000.00	\$2,000
4	Dewatering	LS	1	\$20,000.00	\$20,000
5	Excavations / Grading	CY	8,400	\$7.00	\$58,800
6	Excavations for Channel	CY	741	\$7.00	\$5,185
7	Hauling excavation offsite	CY	9,141	\$10.00	\$91,407
8	Landscape Disturbed Areas	SY	4,444	\$3.00	\$13,333
9	Outlet Structure Retrofit	EA	1	\$5,000.00	\$5,000
10	Restore/Construct Pathway/Access way	LF	1,000	\$20.00	\$20,000
	Sub-Total				\$221,226
	20% Design / Management Contingency				\$44,245
	10% Construction Contingency				\$22,123
	<b>TOTAL COST</b>				<b>\$287,594</b>

**Summary of BMP Costs (Costs and Sediment values are rounded)**

Project	Description	Sediment Removed (Tons)	Cost	Cost / Ton Sed. Removed
Pritchard/Reservoir	Pond Retrofit	35*	\$400,000	\$11,000*
Ave. Pond Retrofit in other communities (2 projects)	Retrofit	na	na	\$12,000
Steward-McBride Retrofit	Retrofit	30**	\$290,000	\$9,700

\*The amount of sediment removed is estimated assuming that the retrofit project doubled the amount of sediment that the ponds removed from pre-project conditions

\*\*Sediment removed based on modeled pond w/ 80% sediment removal rate applied to the net sediment load into pond.

← Denotes costs associated with flood storage w/o TSS reduction.