COUNTY AGENDA REQUEST

Department:	Water System	Presenter(s):	Tony Parrott
Meeting Date:	Wednesday, May 2, 2012	Type of Request:	New Business

Wording for the Agenda:

Discussion concerning a request from the Director of the Water System to allow Mallett Consulting to prepare specifications and to issue bids for the Flint River pump station at a cost of $19,750.00.

Background/History/Details:

At the time the Flint River pump station was designed, its permitted withdrawal rate was about 8 million gallons a day. Today, the Flint River pump station is withdrawing 14 million gallons daily, meaning raw water is being withdrawn from the creek at a higher velocity and with more debris. Although the original design has worked well in the past, it is now causing an overburden of debris into the base of the pump station. Strainer baskets on the bottom of the pumps clog up and collapse due to the pump trying to pull water with too much debris in it.

A long term solution to this problem is to install a traveling screen that will continuously remove debris from the water flow. It would be mounted at the floor level of the pump station and would extend into the wet well. It would in constant movement any time the pump is running, and the debris wou8ld be pulled along the screen. At the top of the screen would be a wash system that would wash the debris into a drain pipe which would flow back to the creek.

There is an equipment cost estimate that ranges from between $200,000 to $225,000. A second estimated cost, ranging from between $100,000 to $150,000, has been factored for installation of the equipment, an electrical upgrade, and other related work.

What action are you seeking from the Board of Commissioners?

Staff requests permission to allow Mallett Consulting to develop specifications and to bid out this project. If the Board concurs with staff's request, staff will place this request on the May 10 Consent Agenda for formal approval.

If this item requires funding, please describe:

Funding for this request is available in the Renewal & Extension Fund. Mallett Consulting's Design Fee for this request is $19,750.00

Has this request been considered within the past two years?	No	If so, when?	
Is Audio-Visual Equipment Required for this Request?*	No	Backup Provided with Request?	Yes

**** All audio-visual material must be submitted to the County Clerk's Office no later than 48 hours prior to the meeting. It is also your department's responsibility to ensure all third-party audio-visual material is submitted at least 48 hours in advance.***

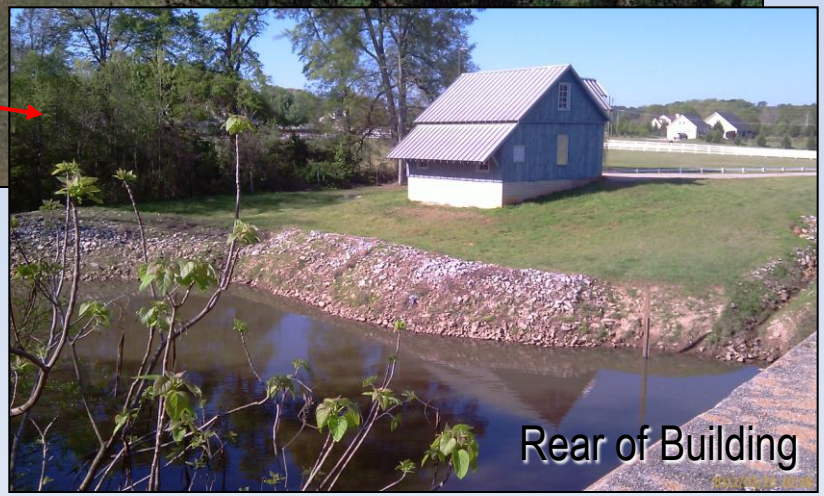
Approved by Finance	Yes	Reviewed by Legal	Yes
Approved by Purchasing	Not Applicable	County Clerk's Approval	Yes
Administrator's Approval	Yes		

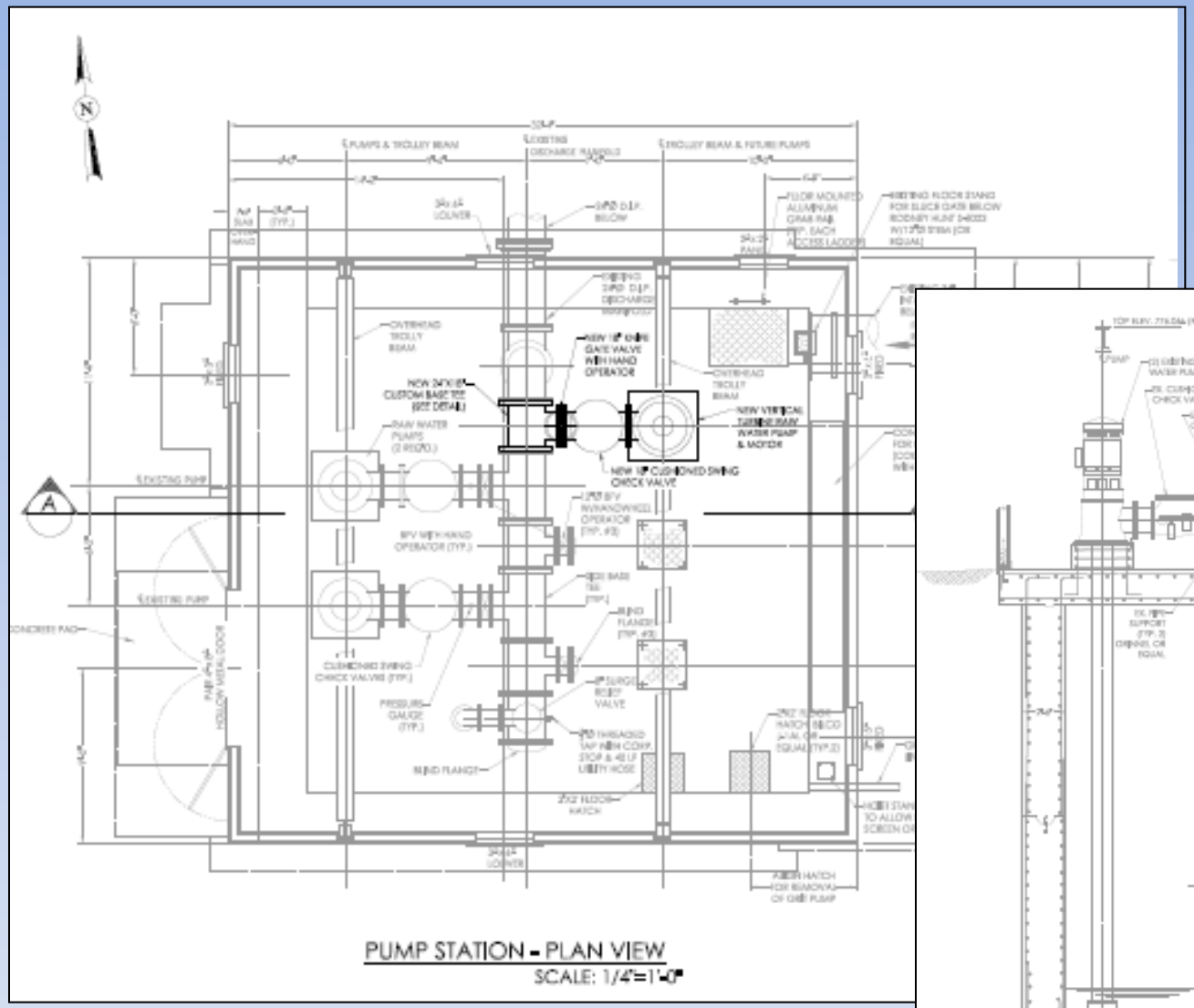
Staff Notes:

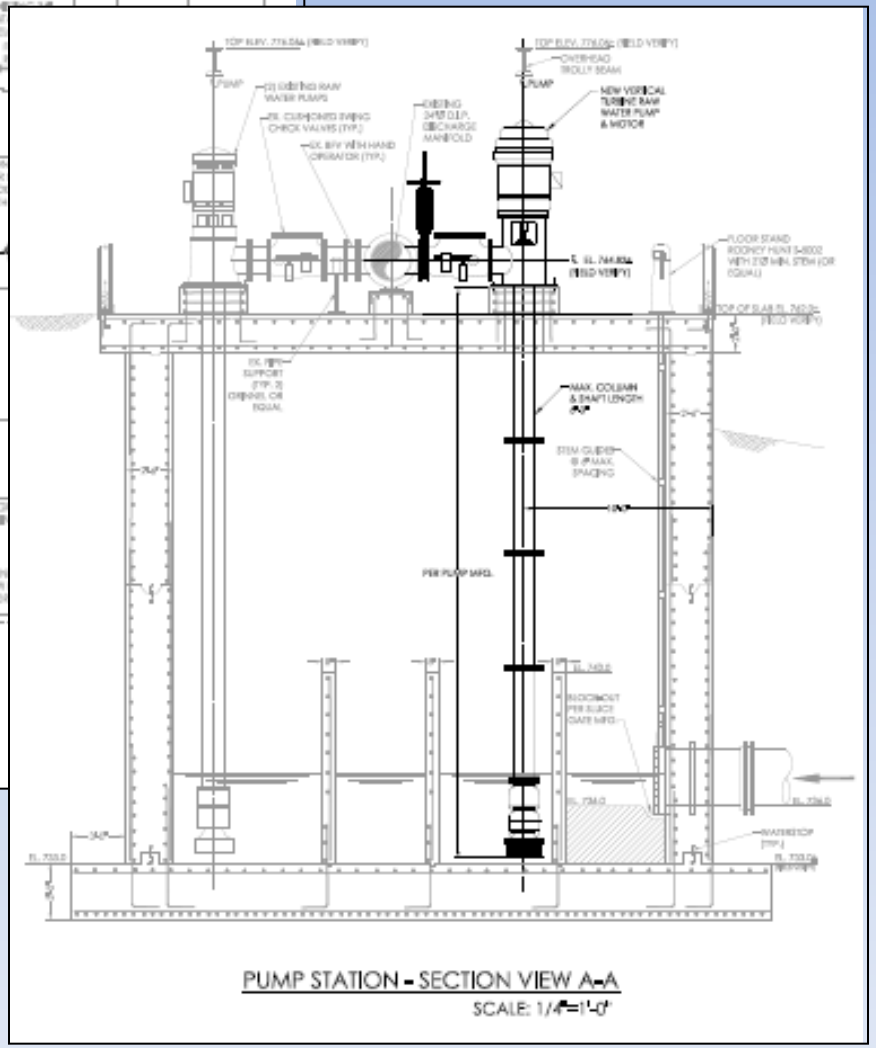
Flint River Pump Station

From Bridge

Front







Flint River Pump Station Floor Plan

Flint River Pump Station

Triden™ Screens

- Low headloss
- All stainless steel construction
- Grid opening options from 1 to 75 mm

No submerged drive parts

Large particle removal

Continuously cleaned

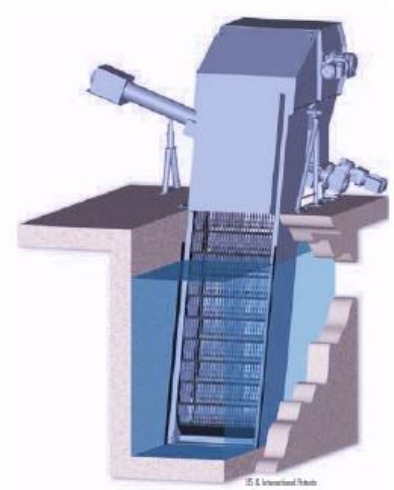
Excellent for prison applications

Easy installation and maintenance with all mounting and access above channel

Low profile bottom shoe and brush limit headloss and screen bypass

Low friction UHMWPE surfaces reduce wear and operation costs

Stainless steel links and panels are significantly stronger than plastic hooks or molded panels



STANDARD - Features & Benefits

Practical design and material selection provide reliable and efficient operation

Direct drive uses no chains or sprockets

No rotating brushes required

Pivots from channel for easy flow bypass

Neoprene channel seals

Only two grease fittings per screen

Fully enclosed for operator safety

Custom designed per application

OPTIONAL - Products & Accessories

Low Flow, Original, Heavy Duty and Super Duty models

T316 and specialty stainless steel construction

Stainless steel laced links, wire mesh, and perforated panel or UHMWPE perforated panel grid openings

Cold weather protection

Spray wash or dry unloading

Controls are offered from basic operation to sophisticated automation

Electric, hydraulic, or explosion proof drives

ADDITIONAL - Compactors & Conveyors

for dewatering and conditioning of screenings

Shafted and shaftless flights

Returns organics and wash water to channel

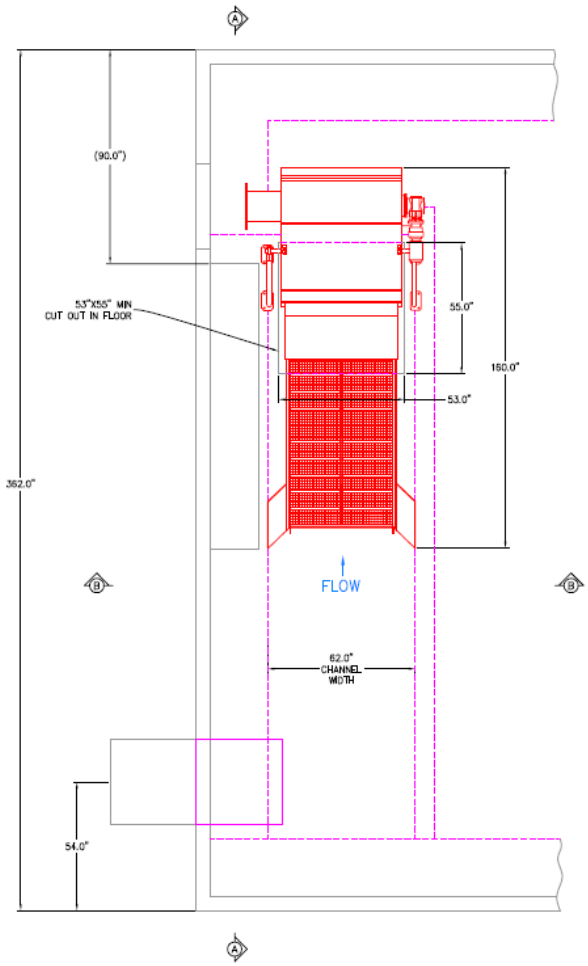
Collects and conveys screenings for disposal

Compactors reduce disposal weight and volume, while bagging units can contain odor

Screenings meet strict landfill requirements

HYDRO-DYNE Engineering, Inc.

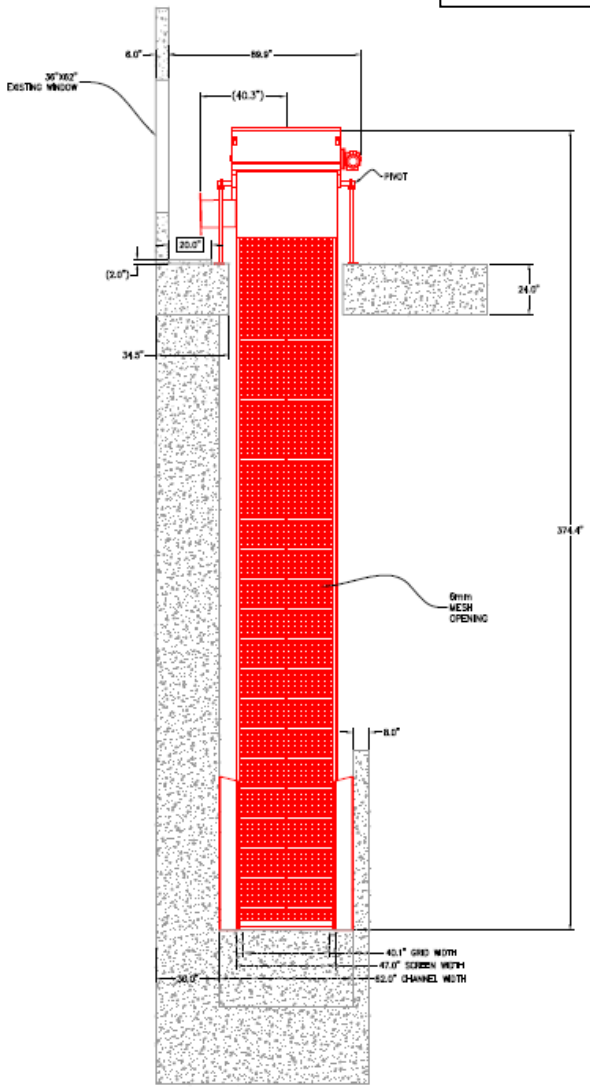
www.hydro-dyne.com



PLAN VIEW

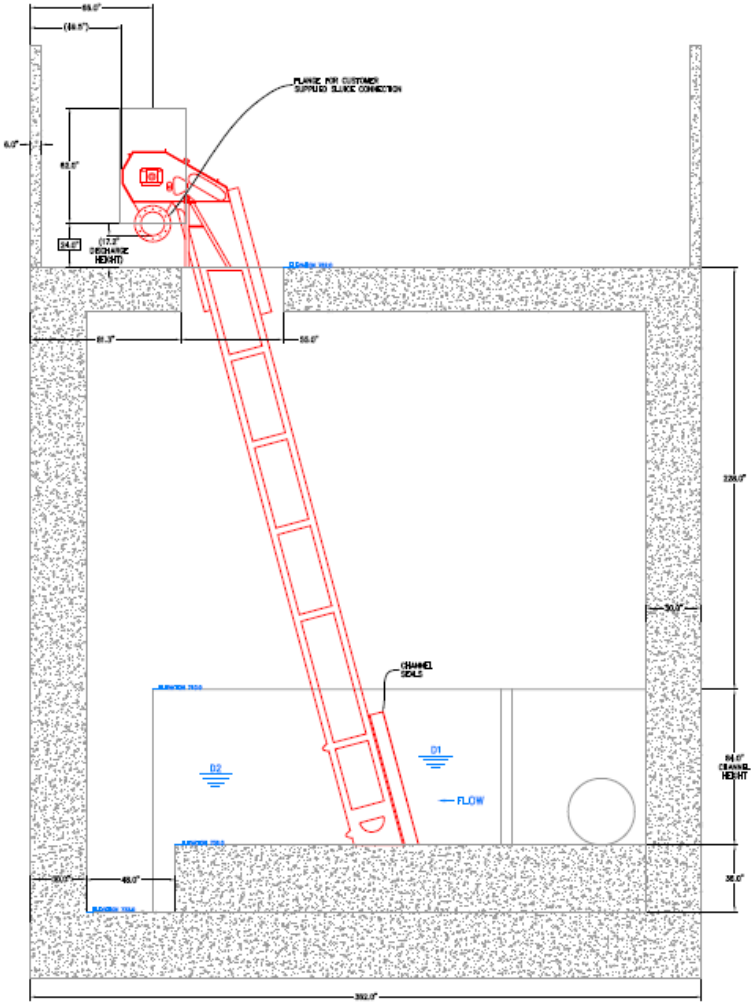
UNLESS NOTED TOLERANCE .X ± .030 .XX ± .015 .XXX ± .005 .XXXX ± .0005	HYDRO-DYNE Engineering, Inc. www.hydro-dyne.com	TRIDEN STR PROPOSED LAYOUT	
		DRAWING #: STR-47-374-6M-FLANGE	SHT.: 1/3 REV.: –
		DRAWN BY/DATE: J. BOGGESS 12/19/2011	SCALE: NTS
		CHECKED BY/DATE: T. HUNT 12/19/2011	SIZE: A

Flint River Pump Station



SECTION B-B

UNLESS NOTED		TRIDEN STR PROPOSED LAYOUT		
TOLERANCE .X ± .030 .XX ± .015 .XXX ± .005 .XXXX ± .0005	HYDRO-DYNE Engineering, Inc. www.hydro-dyne.com	DRAWING #: STR-47-374-6M-FLANGE	SHT.: 3/3	REV.: –
		DRAWN BY/DATE: J. BOGGESS 12/19/2011	SCALE: NTS	
		CHECKED BY/DATE: T. HUNT 12/19/2011		SIZE: A



SECTION A-A

UNLESS NOTED		TRIDEN STR PROPOSED LAYOUT		
TOLERANCE .X ± .030 .XX ± .015 .XXX ± .005 .XXXX ± .0005	HYDRO-DYNE Engineering, Inc. www.hydro-dyne.com	DRAWING #: STR-47-374-6M-FLANGE	SHT.: 2/3	REV.: –
		DRAWN BY/DATE: J. BOGGESS 12/19/2011	SCALE: NTS	
		CHECKED BY/DATE: T. HUNT 12/19/2011		SIZE: A