



WATER  
WASTEWATER  
STORMWATER  
PUBLIC WORKS

May 4, 2018

TN Dept. of Env. & Conservation

Mr. Vojin Janjic  
Tennessee Department of Environment and Conservation  
Division of Water Resources  
William R. Snodgrass – Tennessee Tower  
312 Rosa L. Parks Avenue, 11<sup>th</sup> Floor  
Nashville, TN 37243

**MAY 24 2018**

**Division of Water Resources**

Reference: City of Kingsport, Tennessee  
Bays Mountain Sanitary Sewer System Improvements  
LDA Project No. CKP705

Dear Mr. Janjic:

Enclosed please find documentation supporting an application for a construction permit for the Bays Mountain Sanitary Sewer System Improvements located in Kingsport, Tennessee. The proposed improvements will consist of the construction of two (2) new packaged submersible pump stations and appurtenances, approximately 60 linear feet of new gravity sewer line, and approximately 7,375 linear feet of new high-density polyethylene (HDPE) pipe force main. We are submitting this application on behalf of the City of Kingsport, Tennessee. The following documents are included with this submittal:

- Four (4) sets of construction plans dated April 2018
- Four (4) copies of the Project Manual dated April 2018
- Four (4) copies of Pump Station and Force Main Design Calculations
- Four (4) copies of the Wastewater Plans Review Fee Worksheet
- One (1) check in the amount of \$125.00 for the Plans Review Fee

We trust that the information provided will be sufficient for your review and approval. If you should have any questions or comments regarding this matter, please do not hesitate to contact us.

Best Regards,

William R. Witcher, P.E.  
Project Manager

Enclosures

**WPN 18 0345**

CKP705\Permitting\Janjic\_2018.05.04



**STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION**

Division of Water Resources  
William R. Snodgrass – Tennessee Tower  
312 Rosa L. Parks Avenue, 11<sup>th</sup> Floor  
Nashville, TN 37243-1102

**WASTEWATER PLANS REVIEW FEE WORKSHEET**

<u>Activity</u>	<u>Fee Paid</u>	<u>Fee Due</u>
<b>1. <u>Wastewater Plants:</u></b>		
Major Industrial Facility w/flow $\geq$ 5 MGD	= \$ _____	\$1,500.00
Major Industrial Facility w/flow $<$ 5 MGD	= \$ _____	\$1,000.00
Minor Industrial Facility w/flow $\geq$ 0.1 MGD	= \$ _____	\$ 500.00
Minor Industrial Facility w/flow $<$ 0.1 MGD	= \$ _____	\$ 250.00
Sewage Treatment Facility w/design flow $\geq$ 5 MGD	= \$ _____	\$1,500.00
Sewage Treatment Facility w/design flow $\geq$ 1 but $<$ 5 MGD	= \$ _____	\$1,000.00
Sewage Treatment Facility w/design flow $\geq$ 0.075 MGD but $<$ 1 MGD	= \$ _____	\$ 500.00
Sewage Treatment Facility w/design flow $\leq$ 0.075 MGD	= \$ _____	\$ 250.00
<b>2. <u>Collection Systems:</u></b>		
Collection Lines - \$25.00 per 250 feet (or portion thereof) of sewage collection line not to exceed \$1,500.00	= \$ <u>25.00</u>	
<b>3. <u>Equalization Basins:</u></b>		
Holding Capacity $\geq$ 5 million gallons (MG)	= \$ _____	\$ 300.00
$\geq$ 1 MG but $<$ 5 MG	= \$ _____	\$ 200.00
$\geq$ 0.075 MG but $<$ 1 MG	= \$ _____	\$ 100.00
$<$ 0.075 MG	= \$ _____	\$ 50.00
<b>4. <u>Pumping Stations:</u></b>		
Design Capacity $\geq$ 5 MGD (3473 GPM)	= \$ _____	\$ 300.00
$\geq$ 1 MGD but $<$ 5 MGD (695 GPM – 3473 GPM)	= \$ _____	\$ 200.00
$\geq$ 0.075 MGD but $<$ 1 MGD (52 GPM – 695 GPM)	= \$ _____	\$ 100.00
$<$ 0.075 MGD (52 GPM)	= \$ <u>100.00</u>	\$ 50.00
<b>5. <u>Wastewater Plant and/or Collection System Modifications:</u></b>		
The plans review fee for modifications to wastewater plants and/or collection systems shall be 20% of the full review fee based on the category and size of the resulting facility.	= \$ _____	
<b>6. <u>Engineering Report Review</u></b>		
Major Industrial Facility w/flow $\geq$ 5 MGD	= \$ _____	\$1,500.00
Major Industrial Facility w/flow $<$ 5 MGD	= \$ _____	\$1,000.00
Minor Industrial Facility w/flow $\geq$ 0.1 MGD	= \$ _____	\$ 500.00
Minor Industrial Facility w/flow $<$ 0.1 MGD	= \$ _____	\$ 250.00
Sewage Treatment Facility w/design flow $\geq$ 5 MGD	= \$ _____	\$1,500.00
Sewage Treatment Facility w/design flow $\geq$ 1 but $<$ 5 MGD	= \$ _____	\$1,000.00
Sewage Treatment Facility w/design flow $\geq$ 0.075 MGD but $<$ 1 MGD	= \$ _____	\$ 500.00
Sewage Treatment Facility w/design flow $\leq$ 0.075 MGD	= \$ _____	\$ 250.00
<b>TOTAL PLANS REVIEW FEE (sum of all individual fees)</b>	= \$ <u>125.00</u>	

**STATE ENGINEER USE ONLY**

Wastewater Project No.: \_\_\_\_\_

NPDES/SOP No.: \_\_\_\_\_

Minimum 4 Copies Submitted: YES/NO: \_\_\_\_\_

**FOR OFFICE USE ONLY**

Postmark Date: \_\_\_\_\_

Date Received: \_\_\_\_\_

Check No.: \_\_\_\_\_

Check Amount: \_\_\_\_\_

Receipt No.: \_\_\_\_\_

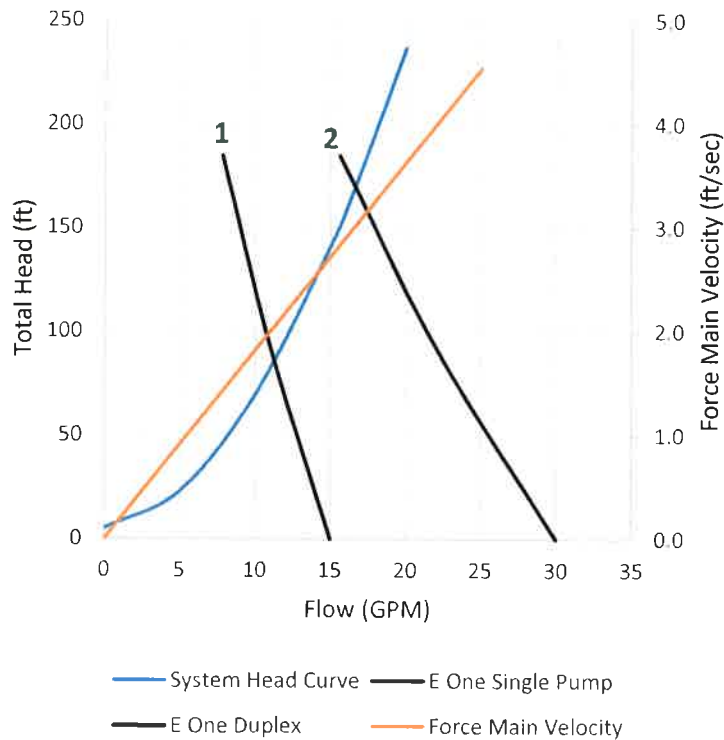
CKP705

Bays Mountain Packaged Sewer Lift Station and Force Main  
Sewer Lift Station "A"

C 150 (HDPE Pipe)  
 Force Main Diameter 1.5 in  
 Force Main Length 6650 ft  
 Design Flow 16.5 gpm

System Curve

Q	Static Head	Friction Head	Total Head	Velocity
(gpm)	(ft)	(ft)	(ft)	(ft/sec)
0	5	0	5	0.0
5	5	18	23	0.9
10	5	64	69	1.8
15	5	136	141	2.7
<b>16.5</b>	5	162	<b>167</b>	3.0
20	5	232	237	3.6
25	5	350	355	4.5

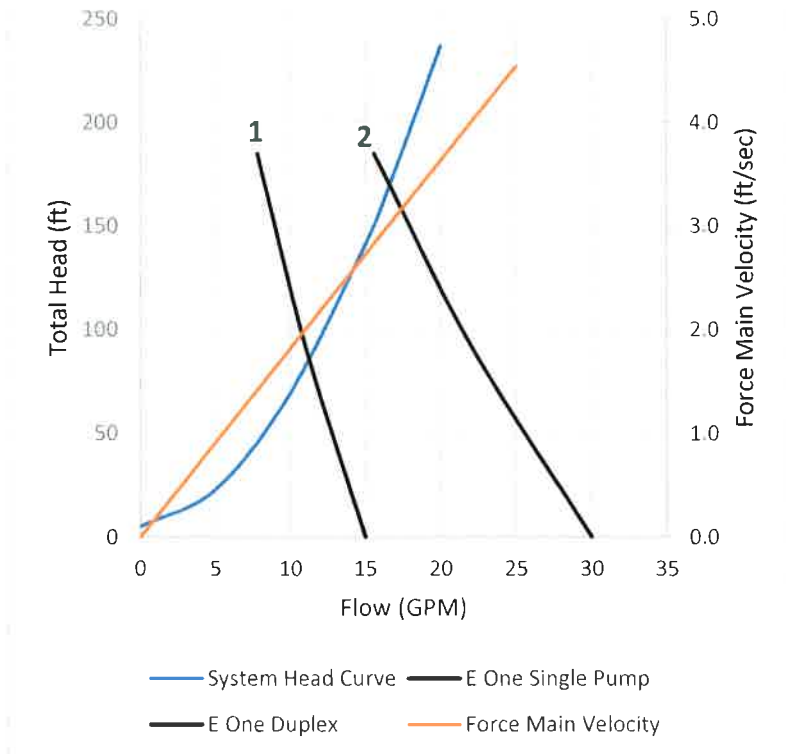


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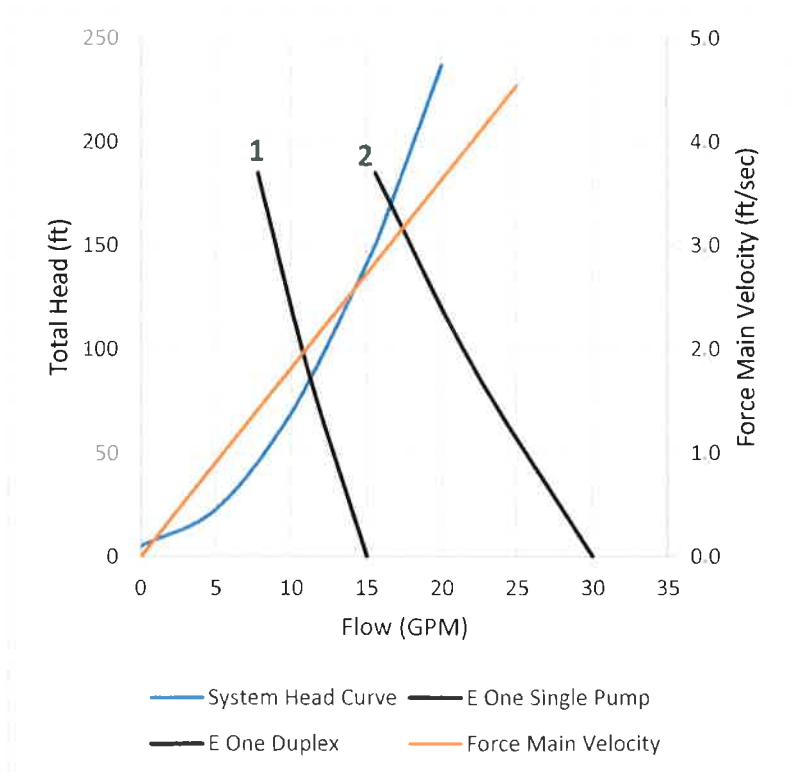


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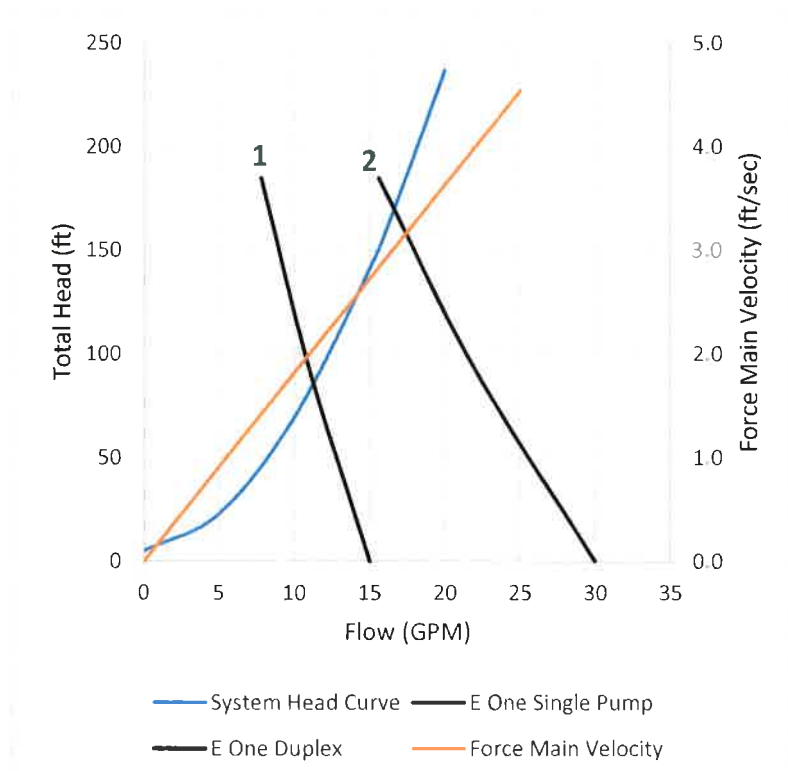


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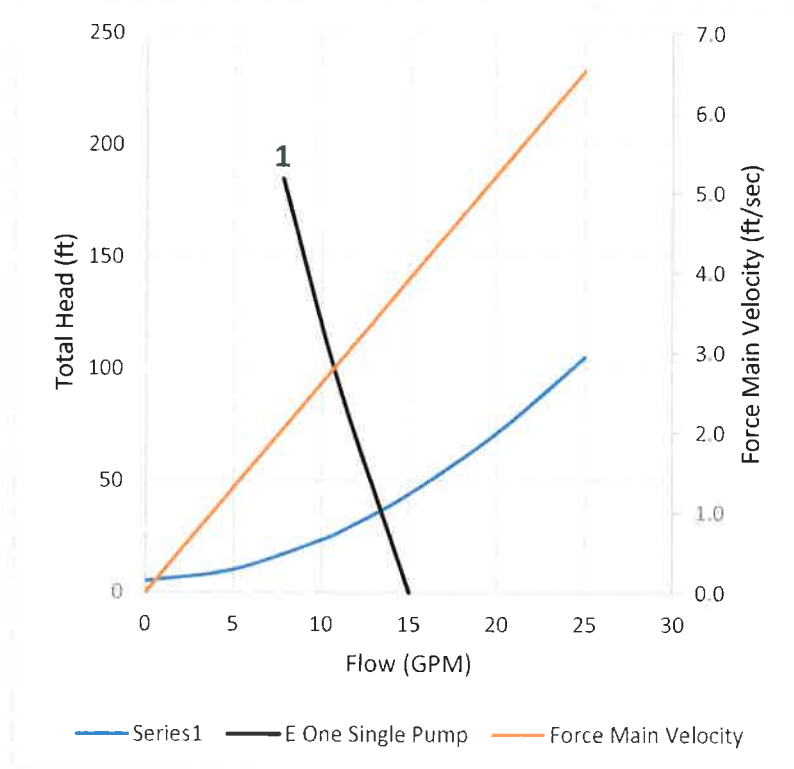


CKP705  
 Bays Mountain Packaged Sewer Lift Station and Force Main  
 Sewer Lift Station "B"

C 150 (HDPE Pipe)  
 Force Main Diameter 1.25 in  
 Force Main Length 783 ft  
 Design Flow 11.5 gpm

System Curve

Q (gpm)	Static Head (ft)	Friction Head (ft)	Total Head (ft)	Velocity (ft/sec)
0	5	0	5	0.0
5	5	5	10	1.3
10	5	18	23	2.6
<b>11.5</b>	5	24	<b>29</b>	<b>3.0</b>
15	5	39	44	3.9
20	5	66	71	5.2
25	5	100	105	6.5

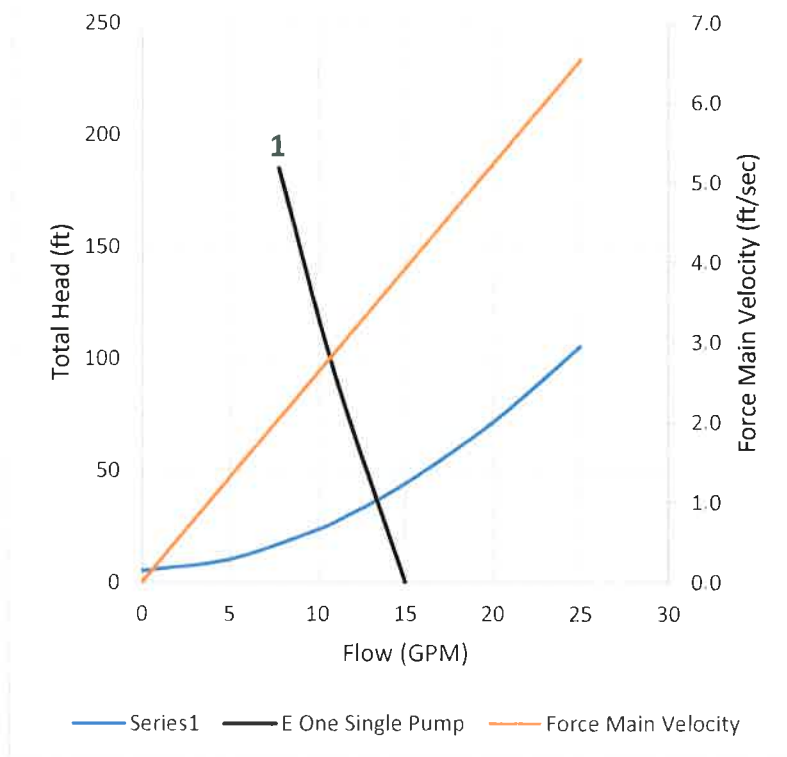


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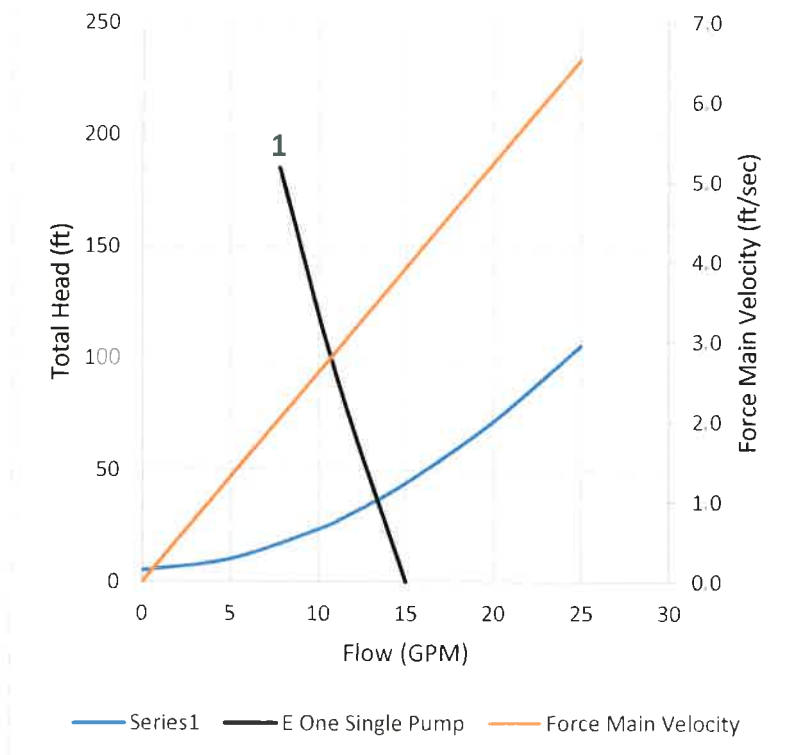


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