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ALCO WATERFRONT REDEVELOPMENT PROJECT

FLOODPLAIN DEVELOPMENT HYDRAULICS REPORT

CITY OF SCHENECTADY, NEW YORK

February 27, 2013

28 East Main Street // 200 First Federal Plaza // Rochester, NY 14614-1909

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1 Overview

The ALCO Waterfront Redevelopment is a mixed use development proposed by Maxon-ALCO Holdings, LLC. At full build out, the project will include roughly 304 residential apartment units, 25 condominium units, a 124 room hotel, a 30,000 square-foot banquet facility, 141,000 square-foot of retail space, 203,800 square-foot of movie and television studio space, a 40,000 square-foot supermarket, 35,000 square foot of general office space and 72,000 square-foot of light industrial use.

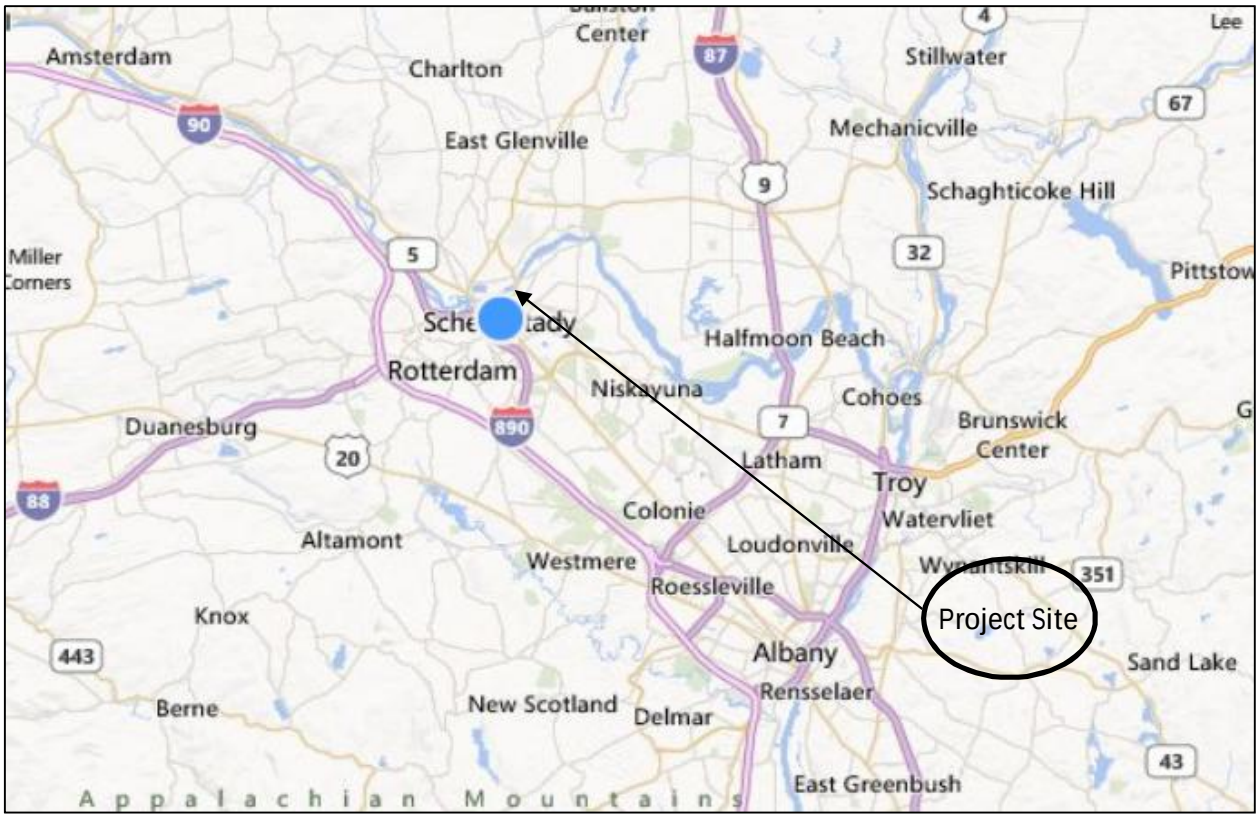

Figure 1-1: Site Location Map

The project site is located on the Mohawk River in the City of Schenectady, NY which is part of the Erie-Barge Canal system between locks 7 and 8. The Mohawk River begins in Oneida County where the East and West branches meet and flows about 140 miles south where it meets the Hudson River in Waterford, just north of Troy. The Mohawk is the largest tributary of the Hudson River. A section of the Erie Canal, from Rome to the river's mouth, runs parallel to the river but has been abandoned and has been replaced by the river itself, which has been straightened and deepened to allow the passage of commercial ships. The river, and the supporting New York

Barge Canal system, basically connects New York Harbor to the Great Lakes, which, during the nineteenth century, cut down on shipping costs to Lake Erie by 95 percent.

The proposed ALCO Redevelopment project will be constructed in the floodplains of the Mohawk River. All work will end approximately 30 feet before the effective floodway of the Mohawk River. Therefore, hydraulic analysis was conducted to determine if this project will have any impacts on the Base Flood Elevations (BFE) shown on the effective Flood Insurance Rate Map (FIRM) of the City of Schenectady.

This report outlines the development of up to four hydraulic models required to distinguish between changes resulting from updates to the software model algorithms or topography since the existing effective FEMA FIS from those directly related to the project plan. They are defined as:

Duplicate Effective Model is a copy of the hydraulic analysis used in the effective FIS. The effective model is obtained from the FEMA Library and duplicated in the same software package that will be used to conduct the Post-Conditions Analysis. This is required to ensure all data from the effective model has been translated correctly and to provide for seamless integration into the effective floodplain boundaries outside of the project area.

Corrected Effective Model is a model that corrects any errors in the Duplicate Effective Model or adds additional cross sections or revised topographic data.

Existing Conditions Model is a modification of the Duplicate Effective or Corrected Effective Model that reflects any changes to the floodplain since the Effective Model was developed but does not include any of the proposed changes.

Post-Conditions Model is a modification to the one of the aforementioned models that reflects the proposed modifications to the river and/or floodplain.

2 Mohawk River

The water elevation in the Mohawk River, during the navigation season from April 20th till approximately November 25th is controlled by the New York State Canal Corporation. The typical elevation during the navigation season is 209 (ft) NAVD 1988 and the Mean Annual non-Navigation elevation is 207 (ft) NAVD 1988. This is an elevation difference of 2 foot between the

Navigation Season and the Non-navigation Season. According to the New York State Canal Corporation Movable Dams 4-11 Design Report by Bergmann Associates.

The Duplicate Effective, Corrected Effective, Existing Conditions, and Post Condition models, as outlined in Section 1.0 of this Report were developed for the Mohawk River. The starting water surface elevation used for the HEC-RAS models was kept the same as that used for the Effective model. The following sections detail the procedures used to develop each of these models and the results.

2.1 Duplicate Effective Model

The Effective Model of the Mohawk River was developed as part of the FEMA map modernization for Schenectady County, NY. The preliminary Flood Insurance Study (FIS), that was a result of this effort, will replace the current effective FIS (1983) in January 2014. Therefore, this model was used in place of the 1983 analysis. The Duplicate Effective Model, developed for this report, is a reproduction of the preliminary effective FIS model executed in HEC-RAS version 4.1.0.

The Duplicate Effective Model must reproduce the Effective Model results within 0.1 feet if the same modeling program used in the effective model is available. Table 2-1 compares the results of the preliminary FIS results to the Duplicate Effective Model and indicates that it does reproduce the Effective Model results within the 0.1 foot tolerance.

Table 2-1: 100-year Duplicate Effective Model Results

HEC-RAS Station ID	Effective Model WSEL, ft (NAVD 88)	Duplicate Effective Model WSEL, ft (NAVD 88)	Difference feet
5883, XS-22	231.2	231.2	0.0
5298, XS-21	231.1	231.1	0.0
4669, XS-20	231.0	231.0	0.0
4276, XS-19	230.9	230.9	0.0
3765, XS-18	230.7	230.7	0.0
3667, XS-17	230.3	230.3	0.0
3387, XS-16	230.3	230.3	0.0
3057, XS-15	230.2	230.2	0.0
2745, XS-14	229.8	229.8	0.0
2674, XS-13	229.4	229.4	0.0
2275, XS-12	229.3	229.3	0.0
1828, XS-10	228.8	228.8	0.0
1533, XS-8	228.7	228.7	0.0
1359, XS-7	227.9	227.9	0.0
1297, XS-6	226.4	226.4	0.0
1035, XS-5	225.8	225.8	0.0
848, XS-4	225.6	225.6	0.0
791, XS-3	225.4	225.4	0.0
430, XS-2	225.1	225.1	0.0
32, XS-1	225.1	225.1	0.0

2.2 Corrected Effective Model

The Corrected Effective Model adds 2 additional cross sections (XS-9 and XS-11) to the Duplicate Effective Model and revises the existing terrain at cross sections XS-8, XS-10 and XS-12 based on updated survey mapping at the project site. Table 2-2 compares the results of the Corrected Effective Model to the Duplicate Effective Model. The table shows no change in water surface elevations (WSEL) between the Corrected Effective Model and the Duplicate Effective Model.

Table 2-2: 100-year Corrected Effective Model Results

HEC-RAS Station ID	Duplicate Effective Model WSEL, ft (NAVD 88)	Corrected Effective Model WSEL, ft (NAVD 88)	Difference feet
5883, XS-22	231.2	231.2	0.0
5298, XS-21	231.1	231.1	0.0
4669, XS-20	231.0	231.0	0.0
4276, XS-19	230.9	230.9	0.0
3765, XS-18	230.7	230.7	0.0
3667, XS-17	230.3	230.3	0.0
3387, XS-16	230.3	230.3	0.0
3057, XS-15	230.2	230.2	0.0
2745, XS-14	229.8	229.8	0.0
2674, XS-13	229.4	229.4	0.0
2275, XS-12	229.3	229.3	0.0
2054, XS-11*	n/a	229.1	n/a
1828, XS-10	228.8	228.9	0.0
1663, XS-9*	n/a	228.8	n/a
1533, XS-8	228.7	228.7	0.0
1359, XS-7	227.9	227.9	0.0
1297, XS-6	226.4	226.4	0.0
1035, XS-5	225.8	225.8	0.0
848, XS-4	225.6	225.6	0.0
791, XS-3	225.4	225.4	0.0
430, XS-2	225.1	225.1	0.0
32, XS-1	225.1	225.1	0.0
* Additional Cross Sections added to model at project site			

2.3 Existing Conditions Model

The Existing Conditions Model is the same as the Corrected Effective Model since the geometry and flow conditions have not changed. Table 2-3 compares the results of the Existing Conditions Model to the Corrected Effective Model. As noted in Section 3.0 of this report, the Base Flood Elevation (BFE) on the river in the vicinity of the project is 229 feet, NAVD 88 as shown on the preliminary Flood Insurance Rate Map (FIRM). The results shown in Table 2-3 at XS-8 to XS-12,

representing the project location, have water surface elevations (WSEL) that are less than the preliminary effective BFE. Base Flood Elevations are whole foot elevations, therefore the water surface elevations in the range from 228.6 to 229.4 ft result in a BFE of 229 ft.

Table 2-3: 100-year Existing Conditions Model Results

HEC-RAS Station ID	Corrected Effective Model WSEL, ft (NAVD 88)	Existing Conditions Model WSEL, ft (NAVD 88)	Difference feet
5883, XS-22	231.2	231.2	0.0
5298, XS-21	231.1	231.1	0.0
4669, XS-20	231.0	231.0	0.0
4276, XS-19	230.9	230.9	0.0
3765, XS-18	230.7	230.7	0.0
3667, XS-17	230.3	230.3	0.0
3387, XS-16	230.3	230.3	0.0
3057, XS-15	230.2	230.2	0.0
2745, XS-14	229.8	229.8	0.0
2674, XS-13	229.4	229.4	0.0
2275, XS-12	229.3	229.3	0.0
2054, XS-11*	229.1	229.1	0.0
1828, XS-10	228.9	228.9	0.0
1663, XS-9*	228.8	228.8	0.0
1533, XS-8	228.7	228.7	0.0
1359, XS-7	227.9	227.9	0.0
1297, XS-6	226.4	226.4	0.0
1035, XS-5	225.8	225.8	0.0
848, XS-4	225.6	225.6	0.0
791, XS-3	225.4	225.4	0.0
430, XS-2	225.1	225.1	0.0
32, XS-1	225.1	225.1	0.0
* Additional Cross Sections added to model at project site			

2.4 Post-Conditions Model

The Post Condition Model represents the placement of fill, associated with the project, in the floodplain of the river. These modifications are based on the proposed site plan for the ALCO Waterfront Redevelopment project. Table 2-4 compares the results of the Existing Conditions

Model to the Post-Conditions Model and shows that the proposed development will not adversely impact the Mohawk River Floodplain or raise the preliminary BFE above 229 ft., NAVD88.

Table 2-4: 100-year Post-Conditions Model Results

HEC-RAS	100-yr Water Surface Elevation			Channel Velocity		
	Existing Conditions Model	Post-Conditions Model	Difference	Existing Conditions Model	Post-Conditions Model	Difference
Station ID	WSEL, ft (NAVD 88)	WSEL, ft (NAVD 88)	feet	ft/sec	ft/sec	ft/sec
5883, XS-22	231.2	231.2	0.0	5.7	5.7	0.0
5298, XS-21	231.1	231.1	0.0	4.3	4.3	0.0
4669, XS-20	231.0	231.0	0.0	4.2	4.2	0.0
4276, XS-19	230.9	230.9	0.0	3.6	3.6	0.0
3765, XS-18	230.7	230.7	0.0	4.4	4.4	0.0
3667, XS-17	230.3	230.3	0.0	4.6	4.6	0.0
3387, XS-16	230.3	230.3	0.0	2.8	2.8	0.0
3057, XS-15	230.2	230.2	0.0	3.5	3.5	0.0
2745, XS-14	229.8	229.8	0.0	4.8	4.8	0.0
2674, XS-13	229.4	229.4	0.0	5.1	5.1	0.0
2275, XS-12	229.3	229.3	0.0	4.4	4.2	0.2
2054, XS-11*	229.1	229.1	0.0	5.4	5.4	0.0
1828, XS-10	228.9	228.9	0.0	5.9	5.9	0.1
1663, XS-9*	228.8	228.8	-0.1	6.1	5.8	0.2
1533, XS-8	228.7	228.7	0.0	6.2	6.1	0.0
1359, XS-7	227.9	227.9	0.0	8.2	8.2	0.0
1297, XS-6	226.4	226.4	0.0	7.7	7.7	0.0
1035, XS-5	225.8	225.8	0.0	8.6	8.6	0.0
848, XS-4	225.6	225.6	0.0	8.6	8.6	0.0
791, XS-3	225.4	225.4	0.0	8.6	8.6	0.0
430, XS-2	225.1	225.1	0.0	7.7	7.7	0.0
32, XS-1	225.1	225.1	0.0	6.0	6.0	0.0

2.5 Conclusions

The Duplicate Effective Model demonstrates that Bergmann Associates successfully recreated the preliminary FIS model which serves as the effective model of the Mohawk River in the project vicinity. Additionally, the Existing Conditions Model, with the addition of two new cross sections, produces the same results as the Duplicate Effective Model. Finally, the Post-Conditions Model demonstrates that the project will not adversely impact the Mohawk River floodplain or raise the BFE above 229 ft., NAVD88 .

3 References

Bergmann Associates. New York State Canal Corporation Movable Dams 4-11 Design Report. April 2011.

Shearman, J.O., 1976, Computer applications for step-backwater and floodway analysis: U.S. Geological Survey Open-File Report 76-499.

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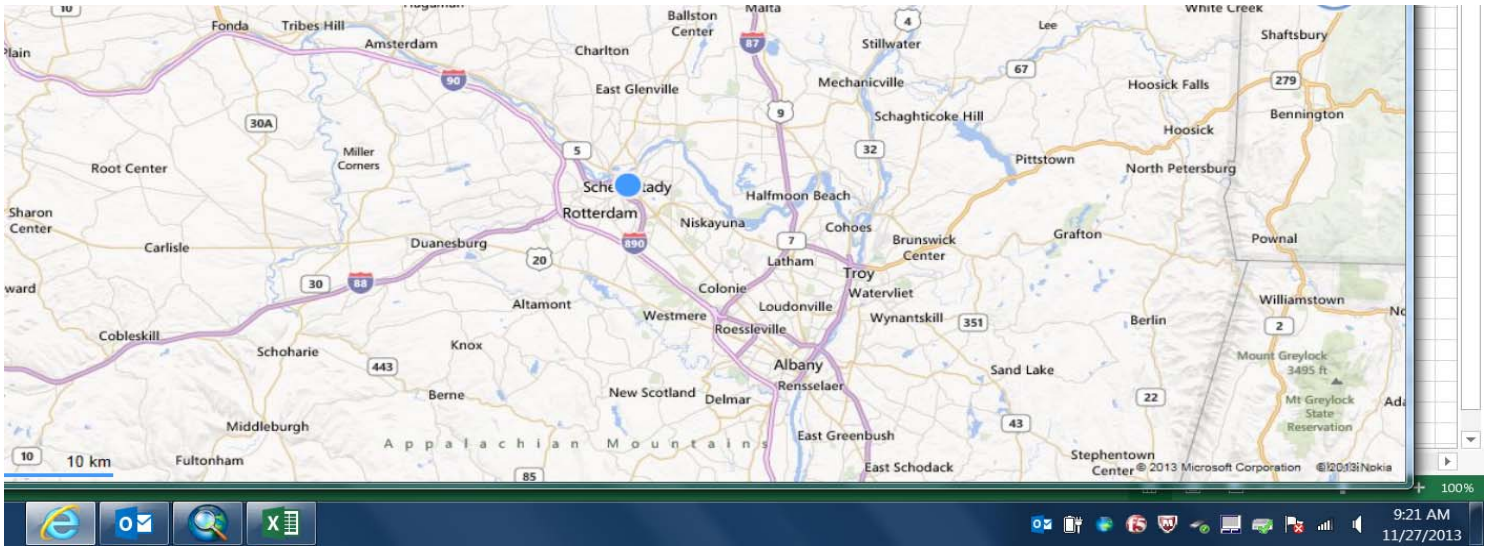
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Hoosick
Miller Corners
Root Center
Pittstown
North Petersburg
Halfmoon Beach
Rotterdam
Niskayuna
Cohoes
Brunswick Center
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Pownal
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Altamont
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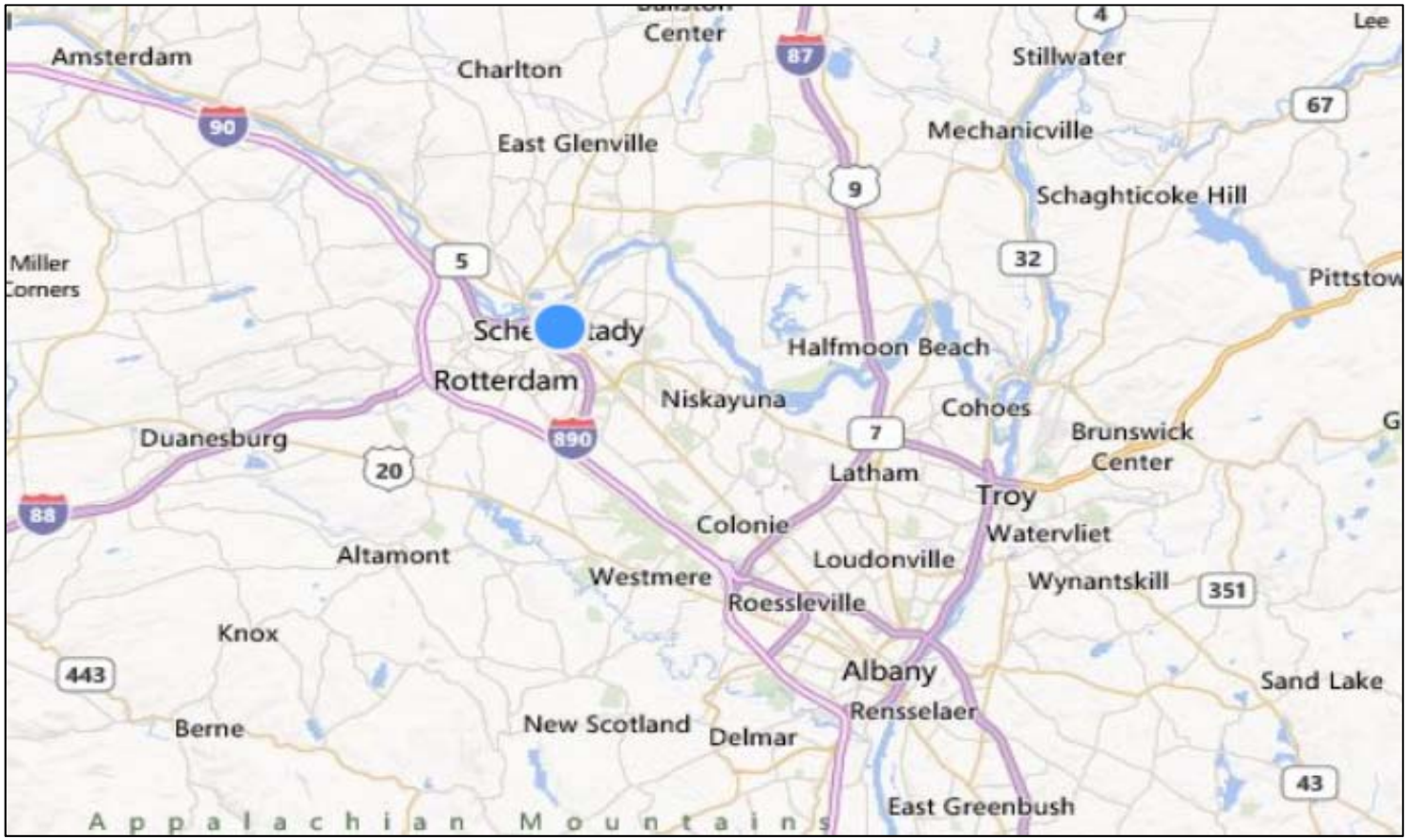
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Brunswick
Center
Duanesburg
Latham
Troy
Colonie
Watervliet
Altamont
Loudonville
Westmere
Wynantskill
Roessleville
Knox
Albany
Sand Lake
Rensselaer
Berne
New Scotland
Delmar
East Greenbush
Appalachian Mountains
90
87
4
67
9
32
5
890
7
20
88
443
351
43

HEC-RAS Station ID	Duplicate Effective Model WSEL, ft (NAVD 88)	Corrected Effective Model WSEL, ft (NAVD 88)	Difference feet
5883, XS-22	231.2	231.2	0.0
5298, XS-21	231.1	231.1	0.0
4669, XS-20	231.0	231.0	0.0
4276, XS-19	230.9	230.9	0.0
3765, XS-18	230.7	230.7	0.0
3667, XS-17	230.3	230.3	0.0
3387, XS-16	230.3	230.3	0.0
3057, XS-15	230.2	230.2	0.0
2745, XS-14	229.8	229.8	0.0
2674, XS-13	229.4	229.4	0.0
2275, XS-12	229.3	229.3	0.0
2054, XS-11*	n/a	229.1	n/a
1828, XS-10	228.8	228.9	0.0
1663, XS-9*	n/a	228.8	n/a
1533, XS-8	228.7	228.7	0.0
1359, XS-7	227.9	227.9	0.0
1297, XS-6	226.4	226.4	0.0
1035, XS-5	225.8	225.8	0.0
848, XS-4	225.6	225.6	0.0
791, XS-3	225.4	225.4	0.0
430, XS-2	225.1	225.1	0.0
32, XS-1	225.1	225.1	0.0

* Additional Cross Sections added to model at project site

HEC-RAS Station ID	Corrected Effective Model WSEL, ft (NAVD 88)	Existing Conditions Model WSEL, ft (NAVD 88)	Difference feet
5883, XS-22	231.2	231.2	0.0
5298, XS-21	231.1	231.1	0.0
4669, XS-20	231.0	231.0	0.0
4276, XS-19	230.9	230.9	0.0
3765, XS-18	230.7	230.7	0.0
3667, XS-17	230.3	230.3	0.0
3387, XS-16	230.3	230.3	0.0
3057, XS-15	230.2	230.2	0.0
2745, XS-14	229.8	229.8	0.0
2674, XS-13	229.4	229.4	0.0
2275, XS-12	229.3	229.3	0.0
2054, XS-11*	229.1	229.1	0.0
1828, XS-10	228.9	228.9	0.0
1663, XS-9*	228.8	228.8	0.0
1533, XS-8	228.7	228.7	0.0
1359, XS-7	227.9	227.9	0.0
1297, XS-6	226.4	226.4	0.0
1035, XS-5	225.8	225.8	0.0
848, XS-4	225.6	225.6	0.0
791, XS-3	225.4	225.4	0.0
430, XS-2	225.1	225.1	0.0
32, XS-1	225.1	225.1	0.0

* Additional Cross Sections added to model at project site

HEC-RAS Station ID	100-yr Water Surface Elevation			Channel Velocity		
	Existing Conditions Model WSEL, ft (NAVD 88)	Post-Conditions Model WSEL, ft (NAVD 88)	Difference feet	Existing Conditions Model ft/sec	Post-Conditions Model ft/sec	Difference ft/sec
5883, XS-22	231.2	231.2	0.0	5.7	5.7	0.0
5298, XS-21	231.1	231.1	0.0	4.3	4.3	0.0
4669, XS-20	231.0	231.0	0.0	4.2	4.2	0.0
4276, XS-19	230.9	230.9	0.0	3.6	3.6	0.0
3765, XS-18	230.7	230.7	0.0	4.4	4.4	0.0
3667, XS-17	230.3	230.3	0.0	4.6	4.6	0.0
3387, XS-16	230.3	230.3	0.0	2.8	2.8	0.0
3057, XS-15	230.2	230.2	0.0	3.5	3.5	0.0
2745, XS-14	229.8	229.8	0.0	4.8	4.8	0.0
2674, XS-13	229.4	229.4	0.0	5.1	5.1	0.0
2275, XS-12	229.3	229.3	0.0	4.4	4.2	0.2
2054, XS-11*	229.1	229.1	0.0	5.4	5.4	0.0
1828, XS-10	228.9	228.9	0.0	5.9	5.9	0.1
1663, XS-9*	228.8	228.8	-0.1	6.1	5.8	0.2
1533, XS-8	228.7	228.7	0.0	6.2	6.1	0.0
1359, XS-7	227.9	227.9	0.0	8.2	8.2	0.0
1297, XS-6	226.4	226.4	0.0	7.7	7.7	0.0
1035, XS-5	225.8	225.8	0.0	8.6	8.6	0.0
848, XS-4	225.6	225.6	0.0	8.6	8.6	0.0
791, XS-3	225.4	225.4	0.0	8.6	8.6	0.0
430, XS-2	225.1	225.1	0.0	7.7	7.7	0.0
32, XS-1	225.1	225.1	0.0	6.0	6.0	0.0

River Sta	Profile	Duplicate Effective Conditions Results		Corrected Effective Conditions Results		Post-Conditions Results	
		W.S. Elev (ft)	Difference (ft)	W.S. Elev (ft)	Difference (ft)	W.S. Elev (ft)	Difference (ft)
5883	100yr FW	231.2 231.5	0.3	231.2 231.5	0.3	231.2 231.5	0.3
5298	100yr FW	231.1 231.5	0.4	231.1 231.5	0.4	231.1 231.5	0.4
4669	100yr FW	231.0 231.4	0.4	231.0 231.4	0.4	231.0 231.4	0.4
4276	100yr FW	230.9 231.3	0.4	230.9 231.3	0.4	230.9 231.3	0.4
3765	100yr FW	230.7 231.1	0.4	230.7 231.1	0.4	230.7 231.1	0.4
3667	100yr FW	230.3 231.0	0.7	230.3 231.0	0.7	230.3 231.0	0.7
3387	100yr FW	230.3 230.8	0.6	230.3 230.8	0.6	230.3 230.8	0.6
3057	100yr FW	230.2 230.4	0.2	230.2 230.4	0.2	230.2 230.4	0.2
2745	100yr FW	229.8 230.3	0.5	229.8 230.3	0.5	229.8 230.3	0.5
2674	100yr FW	229.4 229.9	0.5	229.4 229.9	0.5	229.4 229.9	0.5
2275	100yr FW	229.3 229.7	0.4	229.3 229.7	0.4	229.3 229.7	0.4
2055*			na	229.1 229.5	0.4	229.1 229.5	0.5
1828	100yr FW	228.8 229.3	0.4	228.9 229.3	0.4	228.9 229.3	0.4
1663*			na	228.8 229.2	0.4	228.8 229.2	0.3
1533	100yr FW	228.7 229.1	0.4	228.7 229.1	0.4	228.7 229.1	0.4
1359	100yr FW	227.9 228.5	0.6	227.9 228.5	0.6	227.9 228.5	0.6
1297	100yr FW	226.4 226.9	0.5	226.4 226.9	0.5	226.4 226.9	0.5
1035	100yr FW	225.8 226.4	0.5	225.8 226.4	0.5	225.8 226.4	0.5
848	100yr FW	225.6 226.2	0.5	225.6 226.2	0.5	225.6 226.2	0.5
791	100yr FW	225.4 225.9	0.6	225.4 225.9	0.6	225.4 225.9	0.6
430	100yr FW	225.1 225.7	0.6	225.1 225.7	0.6	225.1 225.7	0.6
32	100yr FW	225.1 225.6	0.5	225.1 225.6	0.5	225.1 225.6	0.5

Duplicate Effective Conditions Results

River Sta	Profile	Q Total (cfs)	W.S. Elev (ft)	Vel Chnl (ft/s)
5883	100yr	126546.6	231.15	5.73
5883	FW	126546.6	231.47	6.12
5298	100yr	126546.6	231.09	4.33
5298	FW	126546.6	231.49	4.28
4669	100yr	126546.6	230.97	4.17
4669	FW	126546.6	231.37	4.09
4276	100yr	126546.6	230.91	3.64
4276	FW	126546.6	231.29	3.79
3765	100yr	126546.6	230.7	4.41
3765	FW	126546.6	231.09	4.47
3711	Western Gate	Mult Open		
3667	100yr	126546.6	230.25	4.61
3667	FW	126546.6	230.98	4.5
3387	100yr	126546.6	230.26	2.83
3387	FW	126546.6	230.82	4.62
3057	100yr	126546.6	230.16	3.53
3057	FW	126546.6	230.35	6.16
2745	100yr	126546.6	229.82	4.77
2745	FW	126546.6	230.3	5.1
2717	Conrail and D	Mult Open		
2674	100yr	126546.6	229.36	5.05
2674	FW	126546.6	229.87	5.15
2275	100yr	126546.6	229.3	4.4
2275	FW	126546.6	229.67	5.34
1828	100yr	126546.6	228.84	6.03
1828	FW	126546.6	229.27	6.37
1533	100yr	126546.6	228.66	6.14
1533	FW	126546.6	229.1	6.39
1359	100yr	126546.6	227.92	8.21
1359	FW	126546.6	228.49	8.11
1324	Freeman Brid	Mult Open		
1297	100yr	126546.6	226.38	7.74
1297	FW	126546.6	226.87	7.71
1035	100yr	126546.6	225.83	8.55
1035	FW	126546.6	226.37	8.42
848	100yr	126546.6	225.61	8.59
848	FW	126546.6	226.16	8.44
824	D and H RR	Bridge		
791	100yr	126546.6	225.36	8.55
791	FW	126546.6	225.92	8.42
430	100yr	126546.6	225.11	7.72
430	FW	126546.6	225.68	7.61
32	100yr	126546.6	225.1	5.99
32	FW	126546.6	225.62	6.14

Corrected Effective Conditions Results

River Sta	Profile	Q Total (cfs)	W.S. Elev (ft)	Vel Chnl (ft/s)
5883	100yr	126546.6	231.16	5.73
5883	FW	126546.6	231.49	6.12
5298	100yr	126546.6	231.11	4.33
5298	FW	126546.6	231.5	4.28
4669	100yr	126546.6	230.98	4.17
4669	FW	126546.6	231.39	4.08
4276	100yr	126546.6	230.92	3.64
4276	FW	126546.6	231.31	3.78
3765	100yr	126546.6	230.72	4.41
3765	FW	126546.6	231.11	4.47
3711	Western Gate	Mult Open		
3667	100yr	126546.6	230.26	4.61
3667	FW	126546.6	231	4.49
3387	100yr	126546.6	230.28	2.83
3387	FW	126546.6	230.83	4.62
3057	100yr	126546.6	230.18	3.52
3057	FW	126546.6	230.37	6.16
2745	100yr	126546.6	229.83	4.76
2745	FW	126546.6	230.32	5.09
2717	Conrail and D	Mult Open		
2674	100yr	126546.6	229.37	5.05
2674	FW	126546.6	229.88	5.15
2275	100yr	126546.6	229.31	4.41
2275	FW	126546.6	229.68	5.35
2055.54*	100yr	126546.6	229.05	5.43
2055.54*	FW	126546.6	229.5	5.79
1828	100yr	126546.6	228.87	5.94
1828	FW	126546.6	229.28	6.39
1663.33*	100yr	126546.6	228.75	6.05
1663.33*	FW	126546.6	229.16	6.45
1533	100yr	126546.6	228.66	6.15
1533	FW	126546.6	229.1	6.41
1359	100yr	126546.6	227.92	8.21
1359	FW	126546.6	228.49	8.11
1324	Freeman Brid	Mult Open		
1297	100yr	126546.6	226.38	7.74
1297	FW	126546.6	226.87	7.71
1035	100yr	126546.6	225.83	8.55
1035	FW	126546.6	226.37	8.42
848	100yr	126546.6	225.61	8.59
848	FW	126546.6	226.16	8.44
824	D and H RR	Bridge		
791	100yr	126546.6	225.36	8.55
791	FW	126546.6	225.92	8.42
430	100yr	126546.6	225.11	7.72
430	FW	126546.6	225.68	7.61
32	100yr	126546.6	225.1	5.99
32	FW	126546.6	225.62	6.14

Post-Conditions Results

River Sta	Profile	Q Total (cfs)	W.S. Elev (ft)	Vel Chnl (ft/s)
5883	100yr	126546.6	231.16	5.73
5883	FW	126546.6	231.5	6.12
5298	100yr	126546.6	231.11	4.33
5298	FW	126546.6	231.51	4.27
4669	100yr	126546.6	230.99	4.16
4669	FW	126546.6	231.4	4.08
4276	100yr	126546.6	230.93	3.64
4276	FW	126546.6	231.31	3.78
3765	100yr	126546.6	230.72	4.4
3765	FW	126546.6	231.11	4.46
3711	Western Gate	Mult Open		
3667	100yr	126546.6	230.27	4.61
3667	FW	126546.6	231.01	4.49
3387	100yr	126546.6	230.28	2.83
3387	FW	126546.6	230.84	4.62
3057	100yr	126546.6	230.18	3.52
3057	FW	126546.6	230.38	6.16
2745	100yr	126546.6	229.84	4.76
2745	FW	126546.6	230.32	5.09
2717	Conrail and D	Mult Open		
2674	100yr	126546.6	229.38	5.05
2674	FW	126546.6	229.89	5.15
2275	100yr	126546.6	229.33	4.22
2275	FW	126546.6	229.69	5.33
2055.54*	100yr	126546.6	229.05	5.38
2055.54*	FW	126546.6	229.54	5.65
1828	100yr	126546.6	228.87	5.87
1828	FW	126546.6	229.31	6.27
1663.33*	100yr	126546.6	228.81	5.83
1663.33*	FW	126546.6	229.16	6.47
1533	100yr	126546.6	228.66	6.13
1533	FW	126546.6	229.1	6.39
1359	100yr	126546.6	227.92	8.21
1359	FW	126546.6	228.49	8.11
1324	Freeman Brid	Mult Open		
1297	100yr	126546.6	226.38	7.74
1297	FW	126546.6	226.87	7.71
1035	100yr	126546.6	225.83	8.55
1035	FW	126546.6	226.37	8.42
848	100yr	126546.6	225.61	8.59
848	FW	126546.6	226.16	8.44
824	D and H RR	Bridge		
791	100yr	126546.6	225.36	8.55
791	FW	126546.6	225.92	8.42
430	100yr	126546.6	225.11	7.72
430	FW	126546.6	225.68	7.61
32	100yr	126546.6	225.1	5.99
32	FW	126546.6	225.62	6.14