| DEC Permit Number | NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION | Issuance Date |
|---|---|---|
| | | |
| Facility Name | | Expiration Date |
| | APPLICATION FOR PERMIT<br>Under the Environmental Conservation Law<br>Article 16 Flood Control Land Use | |

**Shaded Boxes For Office Use Only: Type of Permit (check all that apply)**

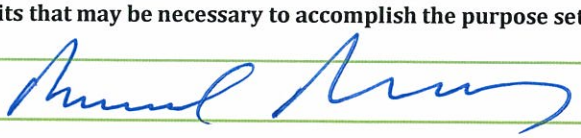
☐ New Permit ☐ Renewal of Permit ☐ Modification to Permit ☐ Extension to Permit
☐ Major Permit ☐ Minor Permit ☐ Temporary Permit

| | | | | | | |
|---|---|---|---|---|---|---|
| **1. Name of Applicant:** | Corning Incorporated | | | | | |
| **2. Mailing Address:** | One River Front Plaza | | | | | |
| **3. City/Post Office:** | Corning | **4.State:** | NY | **5. Zip:** | 14831 | |
| **6. Telephone #:** | +1 (607) 974-6923 | **7. Email:** | hallta@corning.com | | | |
| **8. Location of State Maintained Flood Control Land:** | | | | | | |
| **City/Town/Village:** | Corning | **County:** | Steuben County | | | |
| **Location:** | See Attachment | | | | | |

**9. Project Description/Reason for use of flood control land (attach supporting materials):**
See Attachment for description of permanent closure of Drainage Structures 9, 10 & 10A and associated pipes in Flood Control Lands.

| | | | | | |
|---|---|---|---|---|---|
| **10. Design Engineer Information:** | | | | | |
| **Company or Name:** | Haley & Aldrich of New York | | | | |
| **Mailing Address:** | 200 Town Centre Drive, Suite 2 | | | | |
| **City/Post Office:** | Rochester | **State:** | NY | **Zip:** | 14623 |
| **Telephone #:** | +1 (585) 321-4213 | **Email** | jbabcock@haleyaldrich.com | | |
| **PE License #:** | 66582 | **Title:** | Senior Engineer | | |
| **11. Construction Engineer Information:** | Same as above | | | | |
| **Company or Name:** | | | | | |
| **Mailing Address:** | | | | | |
| **City/Post Office:** | | **State:** | | **Zip:** | |
| **Telephone #:** | | **Email:** | | | |
| **PE License #:** | | **Title:** | | | |

**12. The above named applicant hereby applies to use State maintained flood control lands as indicated above in accordance with the attached plans, and pursuant to the conditions and regulations, whether general or special, which are hereinafter set forth; all forming a part hereof, and will obtain any other consents or permits that may be necessary to accomplish the purpose set forth herein.**

| | | | |
|---|---|---|---|
| **Date:** | 4 JAN 2013 | **Signature:** |  |
| **Name, Title, and Company (please print or type):** | Michael W. Donnelly, Vice President - Business Services, Corning Incorporated | | |

| **Flood Control Regional Office Approval** | | **US Army Corps Of Engineers Approval** (Corps approval not required for minor or temporary permits) | |
|---|---|---|---|
| | | | |
| **Date** | **Signature** | **Date** | **Signature** |

**ATTACHMENT TO APPLICATION FOR PERMIT UNDER ECL ARTICLE 16 FLOOD CONTROL LAND USE**

**Permanent Closure of Existing Outfall Pipes and Associated Discharge Structures #9, #10 and #10A to the Chemung River**

**Corning Incorporated Former Fallbrook & Related Facilities Manufacturing Plant**

**City of Corning, Steuben County, New York**

**Item 9: Project Description/Reason for Use of Flood Control Land**

Closure of Former Fallbrook WWTP, Flood Control Valve #9 Structure and Associated Discharge Pipe

Corning Incorporated has removed the former Fallbrook manufacturing plant located in the City of Corning, New York and is currently redeveloping the property. The property location is shown on Figure 1. This project includes the permanent closure of the Corning Incorporated waste water treatment facilities (WWTF) along with water discharge conveyances that formerly serviced industrial activities on the this property and which are no longer needed. These facilities and discharge activities have remained regulated under the Corning Incorporated NYSDEC SPDES Permit #NY0003981. SPDES Permit #NY0003981 will be permanently deactivated following closure of these facilities as approved by the NYSDEC Division of Water. Corning Incorporated has initiated dismantling of the WWTF in accordance with NYSDEC approval of October 23, 2012.

A component of the work for this project will involve permanent closure of a portion of the18-inch diameter discharge pipe identified as "003" along with the interconnected valve identified as "Flood Control Valve #9" from the former Fallbrook industrial property to the Chemung River to which this application for access for Flood Control Land Use (ECL Article 16 permit) applies along with the valve structures describe below. The Flood Control Valve #9 Structure is comprised of an approximate 8 foot square concrete structure located within the flood control levee and which extends vertically downward from ground surface to the discharge pipe and gate valve. The location of the discharge pipe and valve structure relative to the levee, flood control easement, outfall location, and river are shown in plan view on Figure 2. A profile is shown on Figure 3. This discharge pipe, flood control valve, and valve structure will be permanently sealed and closed to terminate future flow of liquids within the pipe. Closure procedures will involve these steps:

1. The pipes will be filled with flowable fill between the Lagoon Hut and Flood Control Valve #9 and from there to the discharge end of Outfall 003 on the river side of the levee, see Figure 3. Note that a portion (about 40 feet) of the pipe from the Lagoon Hut to Flood Control Valve #9 is located south of (outside) the Flood Control Easement. The length of pipe inside the Flood Control Easement, including the valve structure, is about 115 ft.

2. Flowable will be introduced at the Lagoon Hut and at the structure for Flood Control Valve #9. Before filling the section from the valve structure to the discharge end of the pipe, the concrete currently on top of the pipe outlet will be removed and the exposed pipe end will be cut back as far as practical without disturbing the adjacent levee bank. A metal end cap

will be welded to the discharge end of the outfall pipe. A port will be left in the end cap (or cut into the top of the exposed discharge pipe) to expel air during injection of flowable fill and to observe the presence of flowable fill at the top of pipe. The port will be sealed after the flowable fill has been placed. The valve will be open position during placement of flowable fill.

3. The flowable fill will be comprised of approximately 16% Portland cement, 63% sand, and 21% water plus air entrainment and water reducing additives as applicable. This mixture will have a 28 day compressive strength between 500 psi and 750 psi.

4. The upper part of the concrete valve structure will be removed to about 2 feet below the surrounding grade. The metal manhole frame and grate and the above-grade valve stem and operator will be removed. The structure will be filled with flowable fill to within approximately 2 feet of the existing grade. The valve will be open for introducing the flowable fill and will remain in that position during filling of the structure with flowable fill. After the flowable fill has cured, the area will be backfilled with embankment soil placed and compacted in 6-inch lifts to 92 percent of the Modified Proctor to within approximately 6 inches of the surrounding ground surface and then topsoil will be placed and seeded with grass.

5. Rip rap similar to NYSDOT Item 620.03 Light Stone Filling (about half greater than 6-inches diameter and less than 10% by weight with smaller than ½-inch diameter) will be placed over the end of the pipe. The pipe outlet is located within a depression in the levee bank allowing the exposed pipe end to be covered with rip-rap which will blend to the surrounding levee bank surface. The rip rap will be more resistant to erosion than the typical grassed earth slopes of the levee bank in this part of the Chemung River.

6. The stairsteps which lead from the top of the flood control levee to the discharge end of outfall pipe "003" will be removed and disposed offsite.

Permanent Closure of Inactive Flood Control Valve Structures #10 and #10A, and Associated Discharge Pipes

Structures housing Flood Control Valves #10 and #10A and their associated outlet pipes are located in the flood control levee and were formerly used for stormwater management at the GMS and Trades Shop facilities adjacent to the former Fallbrook plant. Like the Flood Control Valve #9 Structure described above, these structures house a gate valve and interconnected pipes at the base of a vertical concrete vault within the flood control levee between the Fall Brook property and the Chemung River as shown in plan view on Figure 2. Profiles are shown on Figures 4 and 5. These features were previously removed from service sometime in the past and inactivated by plugging and/or sealing of the pipes south of the valve structures when the stormwater system for these facilities was redirected and these valves and outfall pipes were removed from service. This project will involve re-visiting these two valve structures and conduct permanent closure of these structures comparable to the procedures for permanent closure of the Flood Control Valve #9 Structure as described above. The closure process will involve the following procedures:

1. Previous closure of the pipes between Flood Control Valves #10 and #10A and the former Fallbrook property will be verified and additional closure of these pipes conducted if necessary. Pipes leading to these valve structures will be field identified at locations south of (outside) the Flood Control Easement boundary shown on Figure 2. At a convenient location, these pipes will be excavated and exposed and the conditions observed will warrant either of the following means for permanent closure:

    a. If the pipes are determined to be previously filled then it will not be necessary to fill them with flowable fill from the flood control valve to the excavated and opened pipe as part of the work, or

    b. If pipes are found to be open, they will need to be filled between the flood control valve and the excavated and opened pipe.

2. Pipes shown on Figures 4 and 5 for Flood Control Valves #10 and #10A will be filled will flowable fill. The pipes will be filled between the excavated and opened pipe south of the Flood Control Easement and the Flood Control Valve (if necessary) and from there to the discharge end of the outlet pipe on the river side of the levee. For each Flood Control Valve, the length of pipes inside the Flood Control Easement is estimated to be 110 to 130 feet, including the valve structure.

3. Flowable fill will be introduced at the excavated open end of the pipes (if necessary) and at the valve structures. Before filling the section from the valve structure to the discharge end of the pipe, the following will take place. Accumulated sediment at the discharge ends of the pipes will be physically removed as is practical and reasonable. At the outlet pipe for Flood Control Valve #10A, the concrete headwall structure will be removed and the exposed pipe end will be cut back about two feet into the bank. At the outlet pipe for Flood Control Valve #10, the existing concrete on top of the outlet pipe will be removed and the exposed pipe end will be cut back about two feet into the bank. For each remaining pipe end, a metal cap will be welded to the discharge end of the outfall pipe. A port will be left in the end cap (or cut into the top of the exposed discharge pipe) to expel air during injection of flowable fill and to observe the presence of flowable fill at the top of pipe. The port will be sealed after the flowable fill has been placed. The valve will be open position during placement of flowable fill.

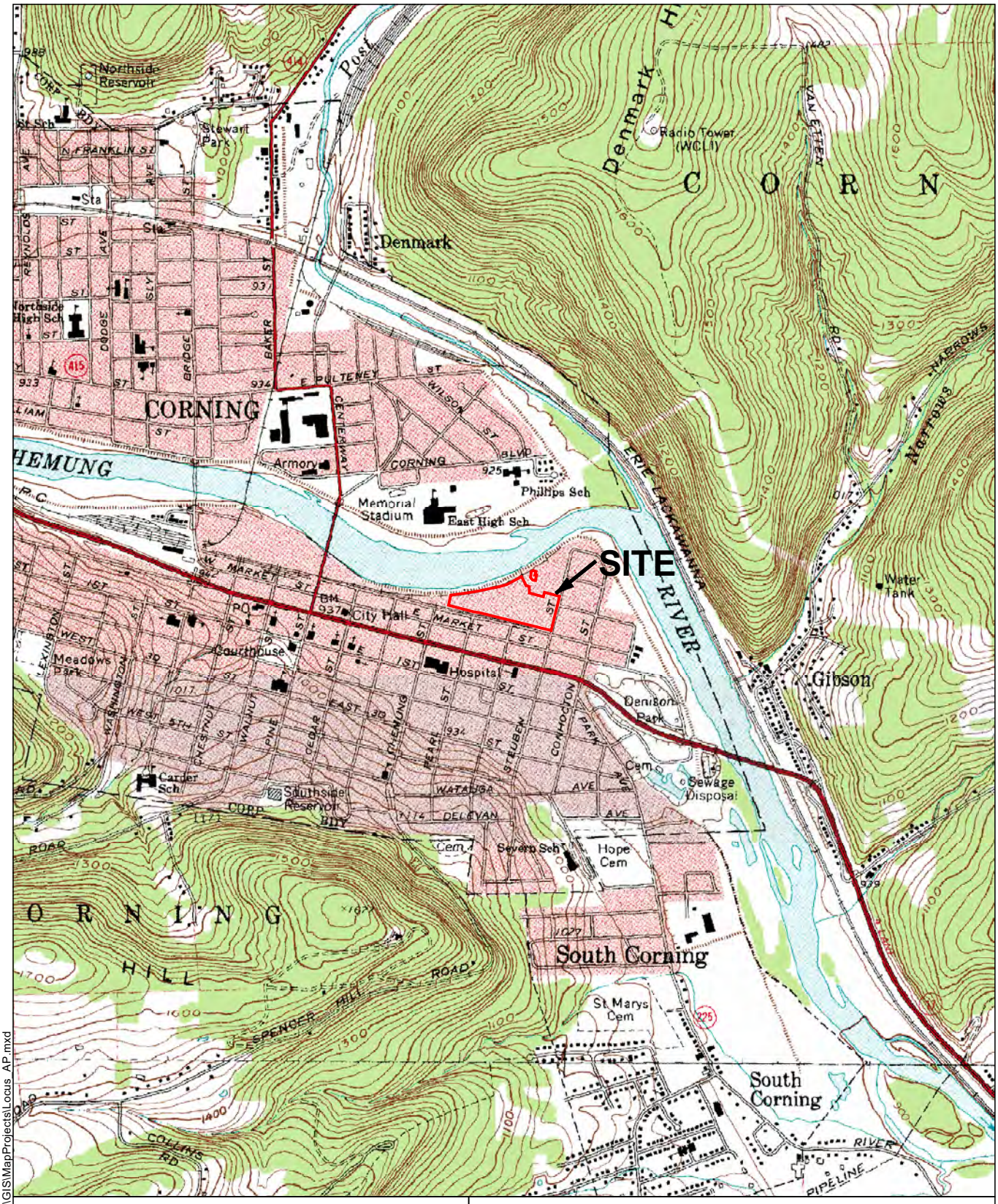
4. The flowable fill will be comprised of approximately 16% Portland cement, 63% sand, and 21% water plus air entrainment and water reducing additives as applicable. This mixture is will have a 28 day compressive strength between 500 psi and 750 psi.

5. The upper part of the concrete valve structures will be removed to about 2 feet below the surrounding grade. The metal manhole frame and grate and the above-grade valve stem and operator will be removed. The structure will be filled with flowable fill to within approximately 2 feet of the existing grade. The valve will be open for introducing the flowable fill and will remain in that position during filling of the structure with flowable fill. After the flowable fill has cured, the area will be backfilled with embankment soil placed and compacted in 6-inch lifts to 92 percent of the Modified Proctor to within approximately 6 inches of the surrounding ground surface. At the structure for Flood Control Valve #10 topsoil will be placed and seeded with grass. At the structure for Flood Control Valve #10A, due to the steep slope, a filter fabric will be put down and then rip rap will be placed and blended to the surrounding grades.

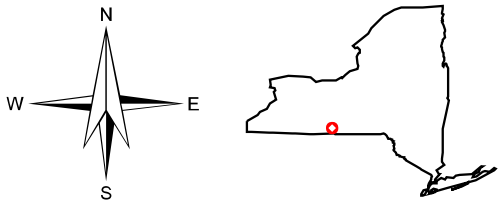
6. At each outlet, rip rap similar to NYSDOT Item 620.03 Light Stone Filling (about half greater than 6-inches diameter and less than 10% by weight with smaller than ½-inch diameter) will be placed over the end of the pipe and will be blended to the surrounding levee bank surface. Filter fabric will be put down prior to placement of rip rap. The rip rap will be more resistant to erosion than the typical grassed earth slopes of the levee bank in this part of the Chemung River.

Schedule

This work will be conducted within an approximate 4-6 week time period and will be initiated promptly on approval of this Article 16 permit application and as contracting and weather conditions permit. Closure of structures for Flood Control Valves #9, #10 and #10A, and associated outfall pipes will be permanent as requested by NYSDEC; no future operation or maintenance of these pipes or structures is planned or necessary following closure. The duration of the Article 16 Flood Control Land Use Permit being requested is 6 weeks. These activities will be conducted under USACE Nationwide Permit #3a and associated General Conditions.




SITE COORDINATES: 42°08'35"N 77°02'39"W




U.S.G.S. QUADRANGLE: CORNING, NEW YORK

HALEY & ALDRICH

CORNING INCORPORATED
TIOGA AVENUE SITE
CORNING, NEW YORK

# SITE LOCATION

SCALE: 1:24000
JULY 2007

FIGURE 1

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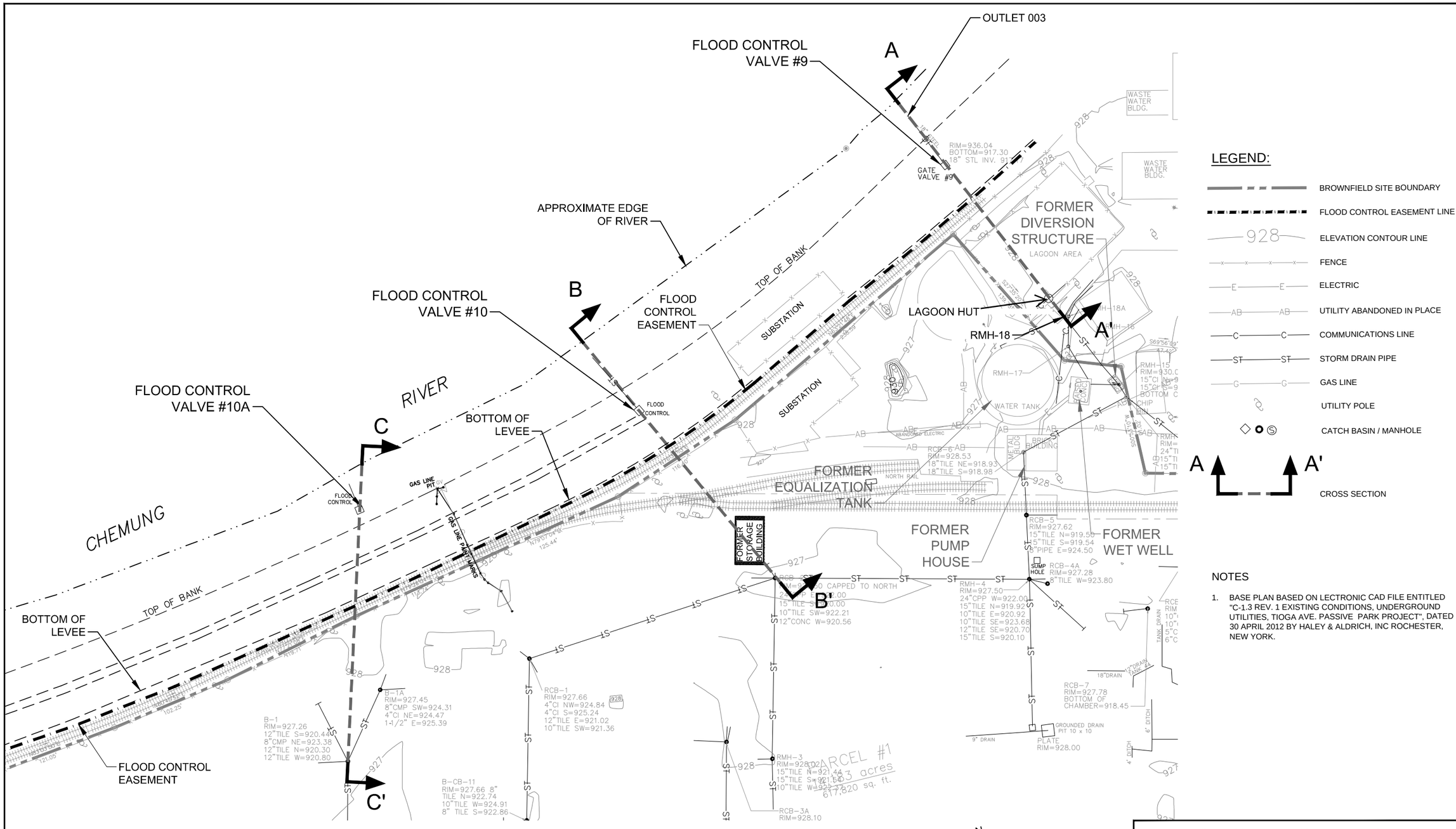



NOTES

1. BASE PLAN BASED ON LECTRONIC CAD FILE ENTITLED "C-1.3 REV. 1 EXISTING CONDITIONS, UNDERGROUND UTILITIES, TIOGA AVE. PASSIVE PARK PROJECT", DATED 30 APRIL 2012 BY HALEY & ALDRICH, INC ROCHESTER, NEW YORK.

NOTES:

1. MANHOLE B-1 WAS SELECTED AS THE MOST LIKELY UPSTREAM LOCATION OF THE PIPE GOING TO VALVE #10A BECAUSE IT HAS A 12-INCH TILE PIPE GOING OUT TO THE NORTH, WHICH HAS THE LOWEST INVERT OF ALL THE PIPES AT B-1. AT BOTH MH B-1A AND RCB-1, THE PIPES GOING OUT TO THE NORTH ARE 4-INCH CAST IRON PIPES WHICH DO NOT HAVE THE LOWEST INVERTS IN THE STRUCTURE. LOCATIONS OF THE PIPE CONNECTING TO VALVES #10A and #10 SOUTH OF THE FLOOD CONTROL EASEMENT WILL BE FIELD VERIFIED.

HALEY & ALDRICH

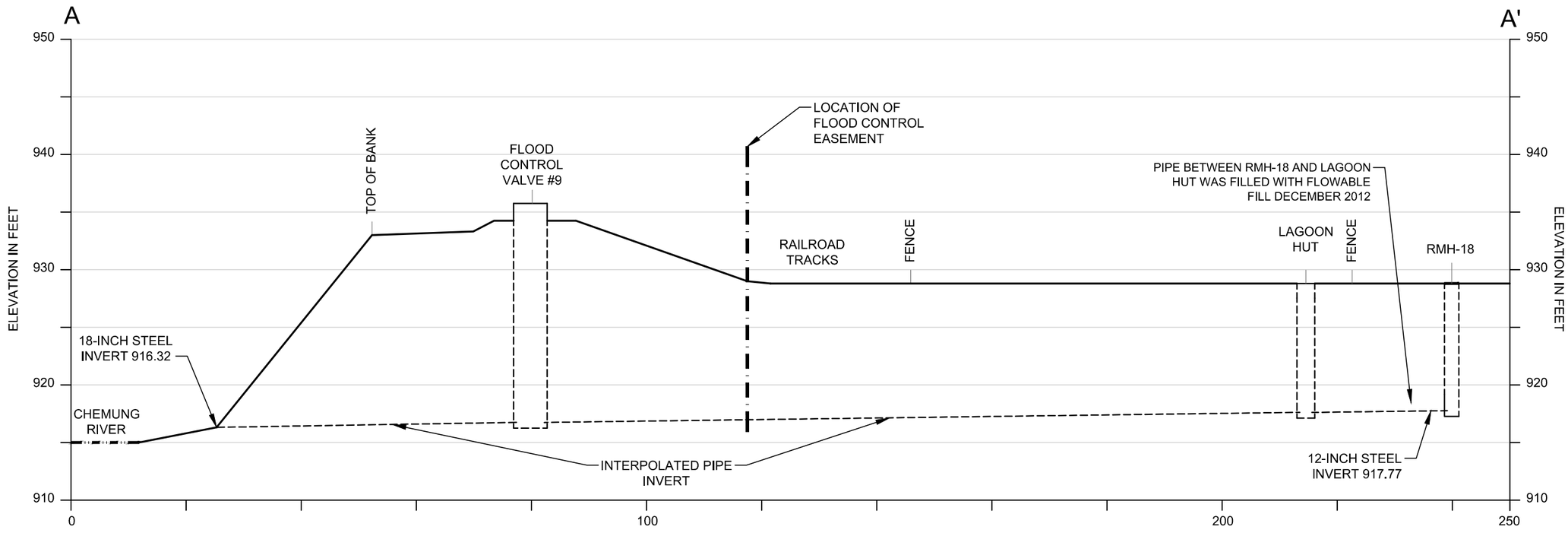
TIOGA AVENUE PASSIVE PARK DEVELOPMENT
NEW YORK STATE BCA SITE
No. C851031
CORNING, NEW YORK

# LOCATION PLAN FOR FLOOD CONTROL VALVES #9, #10 AND #10A

SCALE: AS SHOWN
DECEMBER 2012

FIGURE 2

T:\PROJECTS\33123\CAD\025 LEVEE STRUCTURES\BACKGROUND FILES\33123-025-0002 LEVEE STRUCTURES.DWG




NOTES:

1. INFORMATION TO CREATE THIS FIGURE WAS TAKEN FROM A VARIETY OF SOURCES OF EXISTING INFORMATION. MEASURMENTS SHOULD BE VERIFIED IN THE FIELD PRIOR TO WORK.

HALEY & ALDRICH

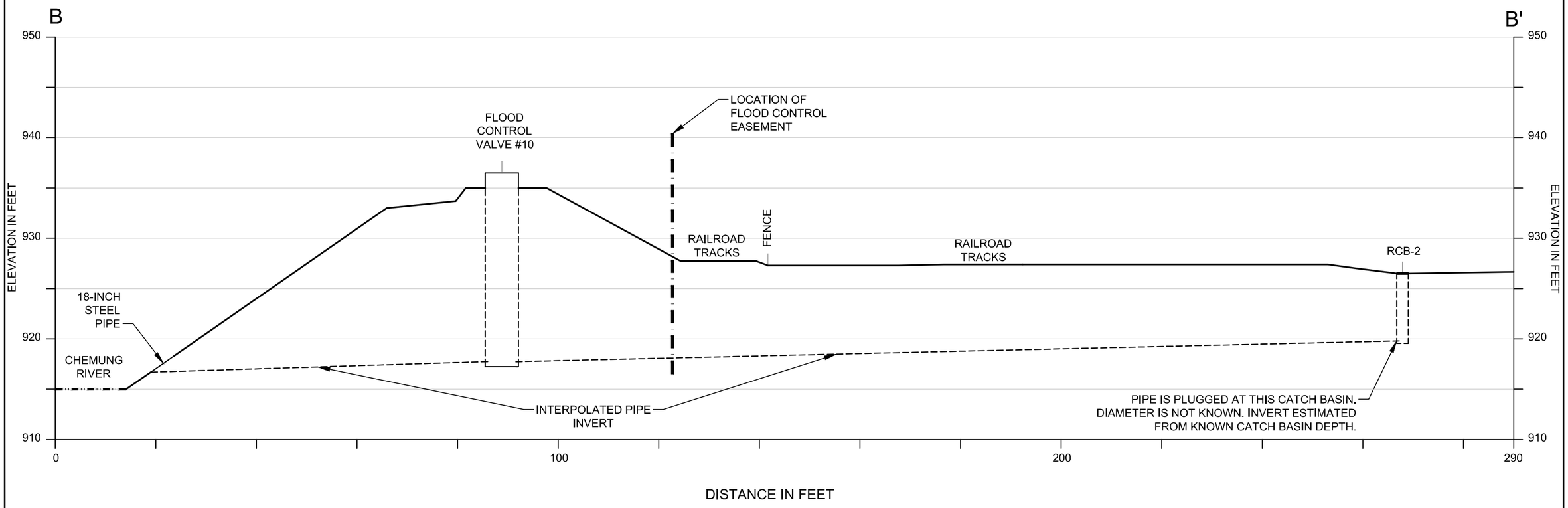
TIOGA AVENUE PASSIVE PARK DEVELOPMENT
NEW YORK STATE BCA SITE
No. C851031
CORNING, NEW YORK

# FLOOD CONTROL VALVE #9 TYPICAL CROSS SECTION A-A'

SCALE: NOT TO SCALE
DECEMBER 2012

FIGURE 3

T:\PROJECTS\33123\CAD\025 LEVEE STRUCTURES\BACKGROUND FILES\33123-025-0002 LEVEE STRUCTURES.DWG




NOTES:

1. INFORMATION TO CREATE THIS FIGURE WAS TAKEN FROM A VARIETY OF SOURCES OF EXISTING INFORMATION. MEASURMENTS SHOULD BE VERIFIED IN THE FIELD PRIOR TO WORK.

HALEY & ALDRICH

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NEW YORK STATE BCA SITE
No. C851031
CORNING, NEW YORK

# FLOOD CONTROL VALVE #10 TYPICAL CROSS SECTION B-B'

SCALE: NOT TO SCALE
DECEMBER 2012

FIGURE 4

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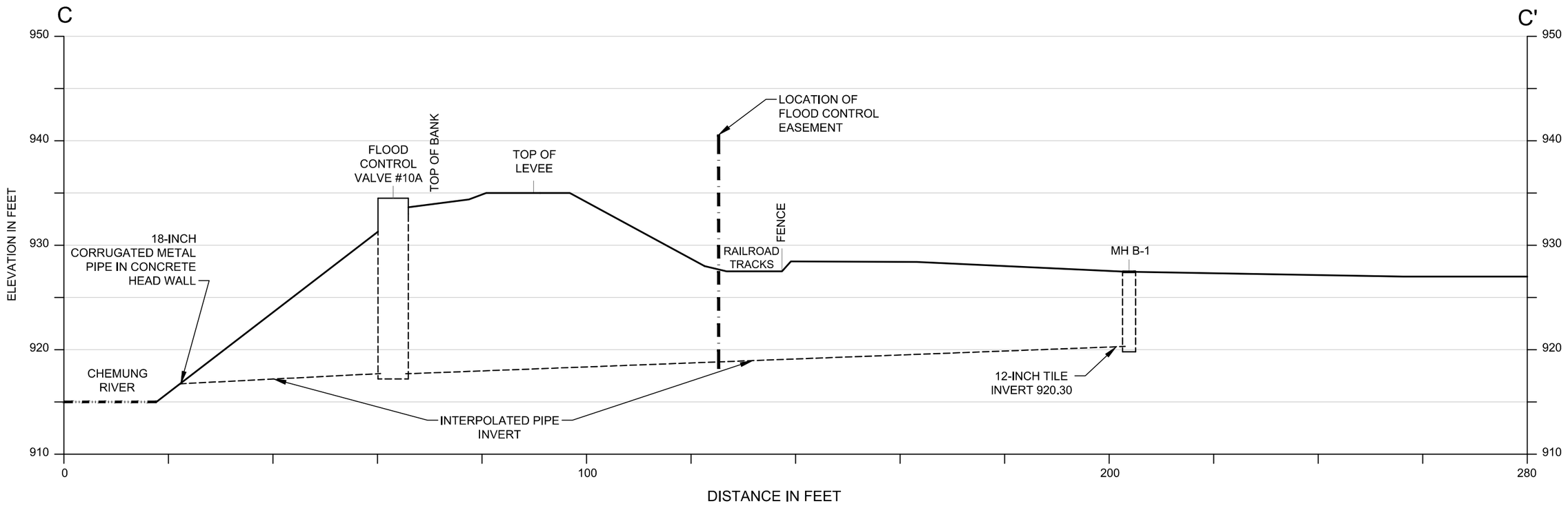


NOTES:

1. INFORMATION TO CREATE THIS FIGURE WAS TAKEN FROM A VARIETY OF SOURCES OF EXISTING INFORMATION. MEASURMENTS SHOULD BE VERIFIED IN THE FIELD PRIOR TO WORK.

HALEY & ALDRICH

TIOGA AVENUE PASSIVE PARK DEVELOPMENT
NEW YORK STATE BCA SITE
No. C851031
CORNING, NEW YORK

# FLOOD CONTROL VALVE #10A TYPICAL CROSS SECTION C-C'

SCALE: NOT TO SCALE
DECEMBER 2012

FIGURE 5

T:\PROJECTS\33123\CAD\025 LEVEE STRUCTURES\BACKGROUND FILES\33123-025-0002 LEVEE STRUCTURES.DWG