



April 26, 2022 G:\08314.00\3.0_Working\3.3_Research\3.3_0_Calculations\Hydrology\SewerGEMS\Storm Drainage Analysis Existing.dwg

LEGEND

-  CATCHMENT BOUNDARY
-  CATCHMENT AREA

NOTE:
 EXISTING CONDITIONS AND EX-01 CATCHMENT AREA SHOWN ON THE FIGURE WERE PROVIDED TO SASAKI BY THE CITY OF NEWBURYPORT VIA DROPBOX ON JANUARY 18, 2022.



Project Title & Number:

NEWBURYPORT MARKET LANDING

Drawing Title:

EXISTING STUDY AREA MAP

SCALE 1" = 300'

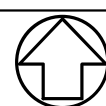
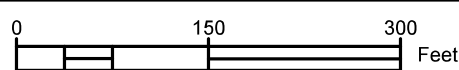
DRAWN BY **JV** APPROVED BY

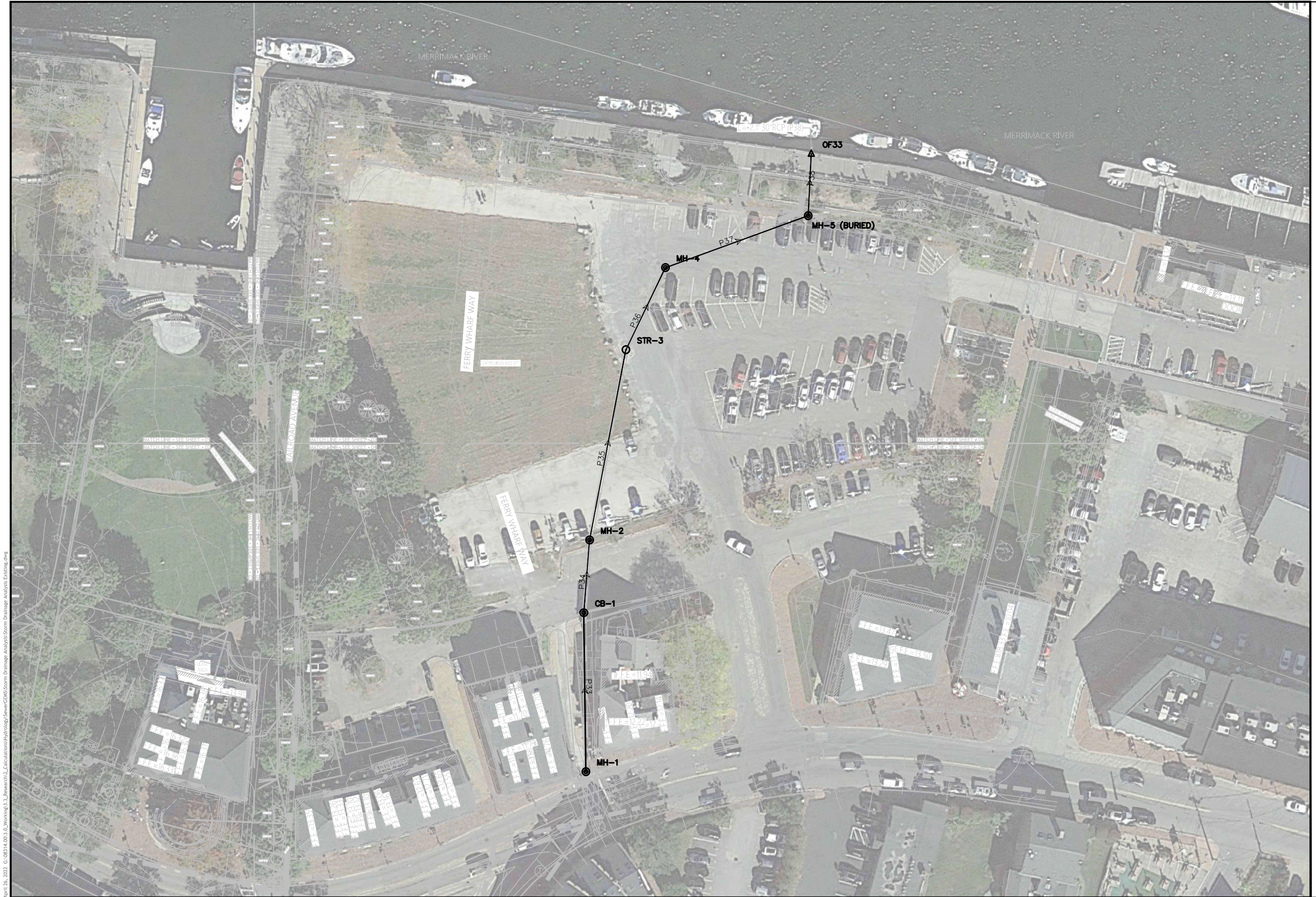
DATE **26 APRIL 2022**

REVISION NUMBER

DRAWING NUMBER

FIG 1.0





No.	Description	Date

DWG ISSUE & REVISION HISTORY

ISSUE

No.	Description	Date

STAMP

Project Title:

NEWBURYPORT MARKET LANDING

Drawing Title:

EXISTING DRAINAGE SYSTEM LAYOUT

Project No: 08314.00 Scale: 1" = 60'
 Drawn By: JV
 Checked By: SE, ZC
 Approved By: SE, ZC
 Date: APRIL 26, 2022

Drawing No: **FIG. 2.0**

April 26, 2022 G:\08314\00\3_0_Working\3_1_Research\2_Calculations\Hydrology\Sewer\GIS\Storm_Drainage_Analysis\Storm_Drainage_Analysis_Existing.dwg



4/27/22 8:39:59 AM G:\08314_003_0_Working\3_1_Research\2_Calculations\Hydrology\Sewer\GMS\Storm Drainage Analysis\Storm Drainage Analysis\Proposed.dwg

No.	Description	Date

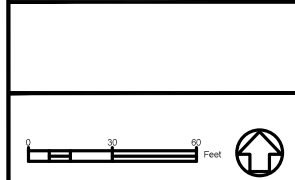
DWG ISSUE & REVISION HISTORY

ISSUE

No.	Description	Date

STAMP

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Project Title:
NEWBURYPORT MARKET LANDING

Drawing Title:
PROPOSED DRAINAGE SYSTEM LAYOUT

Project No: 08314.00 Scale: 1" = 60'
 Drawn By: JV
 Checked By: SE, ZC
 Approved By: SE, ZC
 Date: APRIL 26, 2022

Drawing No:
FIG. 3.0

APPENDIX A

Extreme Precipitation Tables

Northeast Regional Climate Center

Data represents point estimates calculated from partial duration series. All precipitation amounts are displayed in inches.

Smoothing	Yes
State	Massachusetts
Location	
Longitude	70.877 degrees West
Latitude	42.813 degrees North
Elevation	0 feet
Date/Time	Mon, 11 Jul 2022 09:49:08 -0400

Extreme Precipitation Estimates

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.27	0.41	0.51	0.67	0.83	1.06	1yr	0.72	0.99	1.24	1.59	2.06	2.70	2.99	1yr	2.39	2.87	3.30	4.01	4.69	1yr
2yr	0.33	0.51	0.63	0.83	1.04	1.33	2yr	0.90	1.21	1.54	1.97	2.52	3.23	3.60	2yr	2.86	3.46	3.98	4.72	5.39	2yr
5yr	0.39	0.60	0.76	1.01	1.29	1.66	5yr	1.12	1.52	1.95	2.50	3.20	4.12	4.63	5yr	3.65	4.45	5.12	6.04	6.80	5yr
10yr	0.43	0.68	0.86	1.17	1.52	1.98	10yr	1.31	1.80	2.33	3.00	3.85	4.96	5.60	10yr	4.39	5.38	6.20	7.27	8.10	10yr
25yr	0.51	0.81	1.03	1.42	1.89	2.47	25yr	1.63	2.26	2.93	3.80	4.92	6.34	7.20	25yr	5.61	6.92	7.98	9.31	10.23	25yr
50yr	0.57	0.91	1.17	1.64	2.23	2.96	50yr	1.92	2.68	3.52	4.58	5.93	7.63	8.72	50yr	6.75	8.38	9.68	11.23	12.21	50yr
100yr	0.65	1.05	1.36	1.92	2.62	3.51	100yr	2.26	3.19	4.19	5.48	7.12	9.20	10.55	100yr	8.14	10.15	11.73	13.55	14.58	100yr
200yr	0.74	1.21	1.57	2.25	3.09	4.17	200yr	2.67	3.79	5.00	6.57	8.56	11.09	12.78	200yr	9.81	12.29	14.22	16.35	17.42	200yr
500yr	0.89	1.46	1.90	2.75	3.85	5.25	500yr	3.33	4.76	6.32	8.36	10.94	14.21	16.46	500yr	12.57	15.83	18.35	20.97	22.04	500yr

Lower Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.24	0.37	0.45	0.60	0.74	0.87	1yr	0.64	0.86	0.99	1.31	1.64	2.51	2.62	1yr	2.22	2.52	2.97	3.57	4.26	1yr
2yr	0.32	0.49	0.61	0.82	1.01	1.21	2yr	0.88	1.19	1.39	1.83	2.34	3.18	3.54	2yr	2.81	3.40	3.89	4.62	5.31	2yr
5yr	0.37	0.56	0.70	0.96	1.22	1.45	5yr	1.05	1.42	1.64	2.13	2.73	3.86	4.33	5yr	3.42	4.16	4.79	5.66	6.39	5yr
10yr	0.41	0.63	0.77	1.08	1.40	1.67	10yr	1.21	1.63	1.85	2.39	3.06	4.47	5.03	10yr	3.96	4.84	5.59	6.54	7.32	10yr
25yr	0.47	0.71	0.89	1.27	1.67	2.00	25yr	1.44	1.95	2.16	2.77	3.55	5.41	6.14	25yr	4.79	5.91	6.83	7.87	8.76	25yr
50yr	0.52	0.79	0.99	1.42	1.91	2.30	50yr	1.65	2.25	2.43	3.09	3.97	6.24	7.13	50yr	5.52	6.85	7.94	9.06	10.01	50yr
100yr	0.59	0.89	1.11	1.61	2.20	2.64	100yr	1.90	2.58	2.73	3.44	4.42	7.18	8.26	100yr	6.35	7.94	9.24	10.41	11.39	100yr
200yr	0.66	0.99	1.26	1.82	2.53	3.03	200yr	2.19	2.96	3.06	3.82	4.91	8.25	9.59	200yr	7.30	9.22	10.73	11.92	12.97	200yr
500yr	0.77	1.15	1.48	2.16	3.07	3.66	500yr	2.65	3.58	3.57	4.39	5.67	9.85	11.64	500yr	8.72	11.20	13.07	14.16	15.38	500yr

Upper Confidence Limits

	5min	10min	15min	30min	60min	120min		1hr	2hr	3hr	6hr	12hr	24hr	48hr		1day	2day	4day	7day	10day	
1yr	0.29	0.45	0.55	0.74	0.91	1.08	1yr	0.78	1.06	1.31	1.71	2.17	2.88	3.18	1yr	2.55	3.06	3.55	4.35	4.99	1yr
2yr	0.34	0.53	0.65	0.88	1.08	1.30	2yr	0.94	1.27	1.50	1.97	2.51	3.31	3.69	2yr	2.93	3.55	4.09	4.90	5.56	2yr
5yr	0.42	0.64	0.80	1.09	1.39	1.68	5yr	1.20	1.64	1.93	2.54	3.24	4.40	4.94	5yr	3.90	4.75	5.48	6.45	7.24	5yr
10yr	0.50	0.76	0.94	1.32	1.70	2.06	10yr	1.47	2.02	2.35	3.11	3.93	5.49	6.17	10yr	4.86	5.94	6.89	8.05	8.91	10yr
25yr	0.62	0.95	1.18	1.68	2.21	2.70	25yr	1.91	2.64	3.05	4.06	5.09	7.37	8.32	25yr	6.53	8.00	9.31	10.81	11.74	25yr
50yr	0.74	1.12	1.40	2.01	2.70	3.31	50yr	2.33	3.24	3.73	4.97	6.22	9.24	10.43	50yr	8.18	10.03	11.74	13.53	14.46	50yr
100yr	0.88	1.33	1.67	2.41	3.30	4.06	100yr	2.85	3.97	4.56	6.11	7.60	11.61	13.09	100yr	10.28	12.59	14.77	17.01	17.83	100yr
200yr	1.04	1.57	1.99	2.88	4.02	4.98	200yr	3.47	4.87	5.59	7.50	9.28	14.62	16.45	200yr	12.93	15.82	18.65	21.35	21.99	200yr
500yr	1.32	1.97	2.53	3.67	5.22	6.52	500yr	4.51	6.37	7.31	9.88	12.12	19.86	22.25	500yr	17.57	21.40	25.30	28.85	29.12	500yr



APPENDIX B

Storm Data Detailed Report: IDF Table_July 2022

Element Details

ID	251	Notes
	IDF	
Label	Table_July 2022	

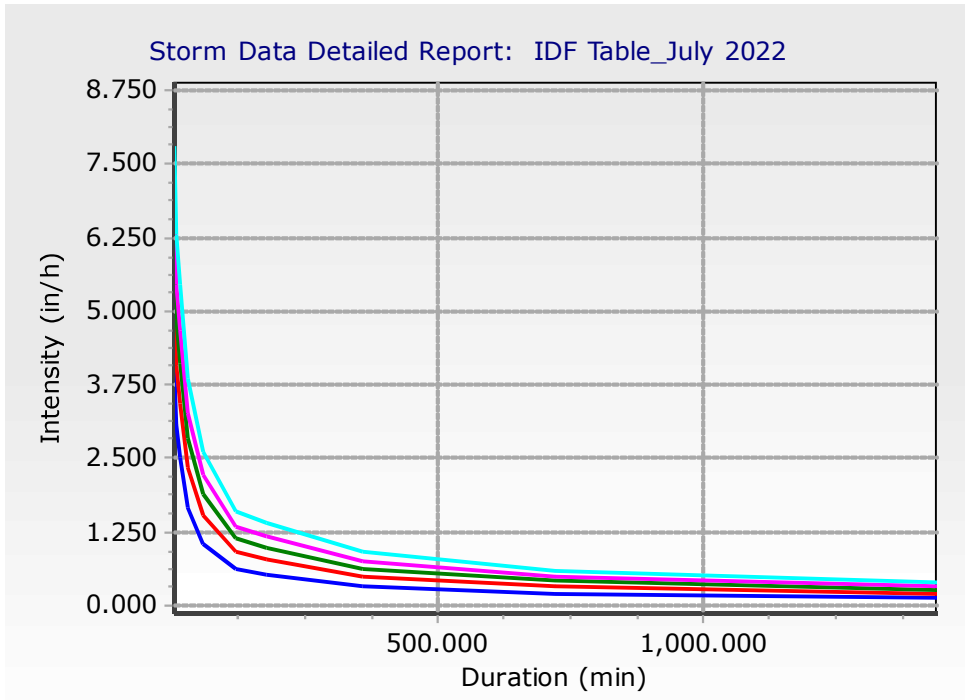
Duration (min)	2 Year (in/h)	10 Year (in/h)	25 Year (in/h)	50 Year (in/h)
5.000	3.960	5.160	6.120	6.840
10.000	3.060	4.080	4.860	5.460
15.000	2.520	3.440	4.120	4.680
30.000	1.660	2.340	2.840	3.280
60.000	1.040	1.520	1.890	2.230
120.000	0.610	0.900	1.130	1.340
180.000	0.510	0.780	0.980	1.170
360.000	0.330	0.500	0.630	0.760
720.000	0.210	0.320	0.410	0.490
1,440.000	0.130	0.210	0.260	0.320
100 Year (in/h)				
7.800				
6.300				
5.440				
3.840				
2.620				
1.600				
1.400				
0.910				
0.590				
0.380				

Library Status Summary

Synchronization Details

ID	251
Label	IDF Table_July 2022
Modified Date	7/11/2022 9:58:52 PM
Library Source	Orphan (local)
Library Modified Date	Orphan (local)
Synchronization Status	Orphan (local)
Engineering Reference Guid	Orphan (local)

Storm Data Detailed Report: IDF Table_July 2022



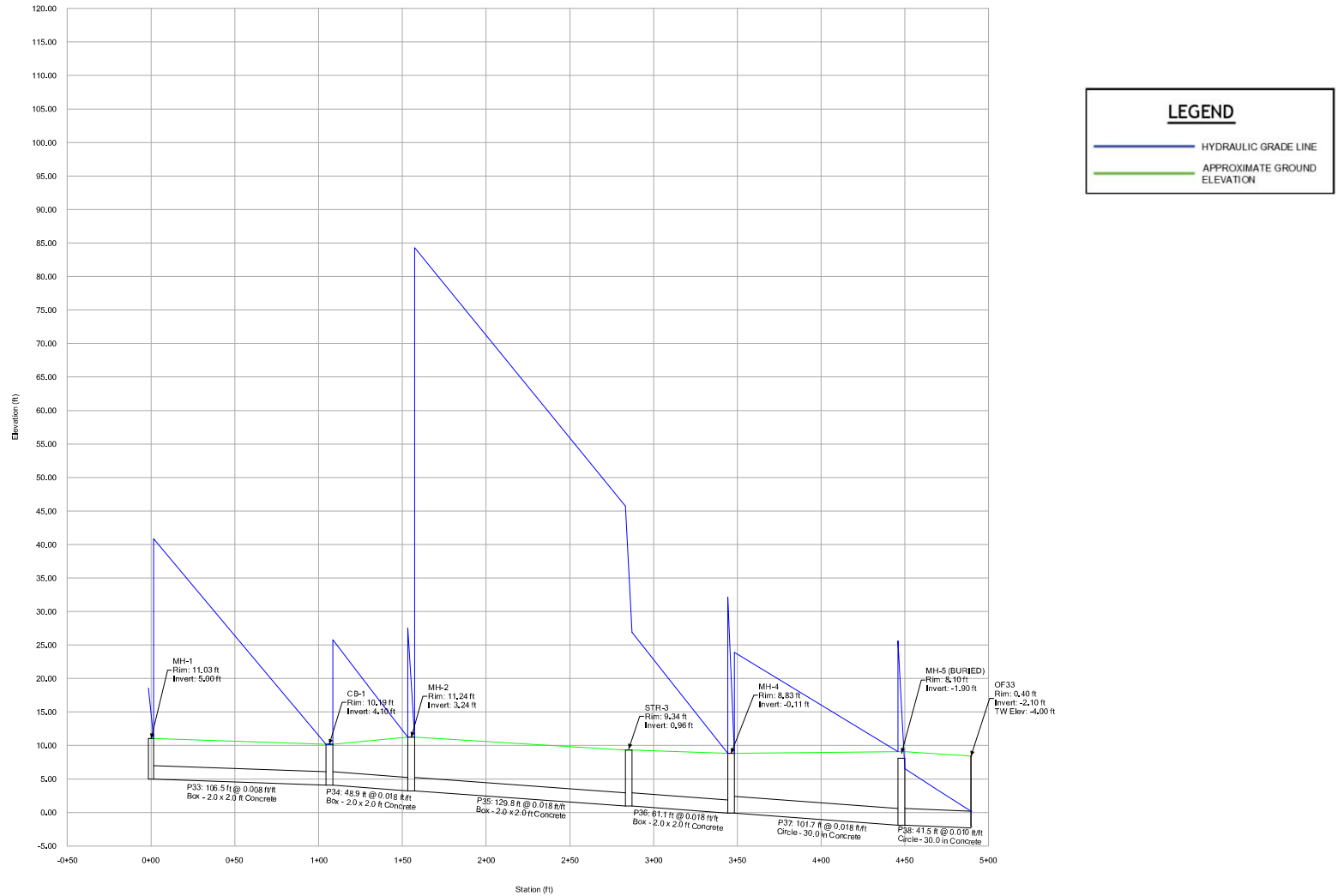
APPENDIX C

Existing Pipe Profiles

Existing 10-YR Storm Event, MLW

Profile Report

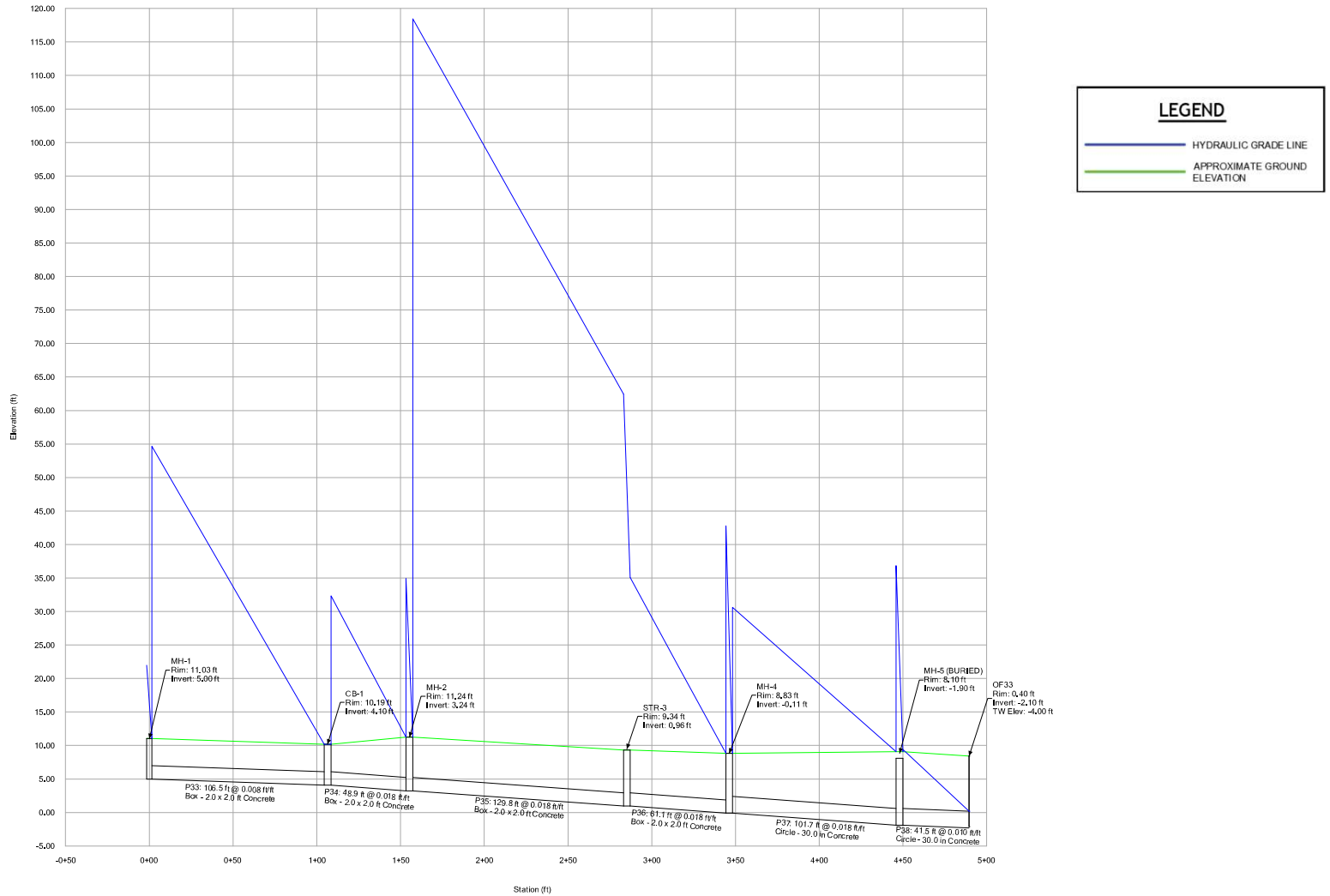
Engineering Profile - Existing Profile (Storm Drainage Analysis Existing.stsw)



Existing 25-YR Storm Event, MLW

Profile Report

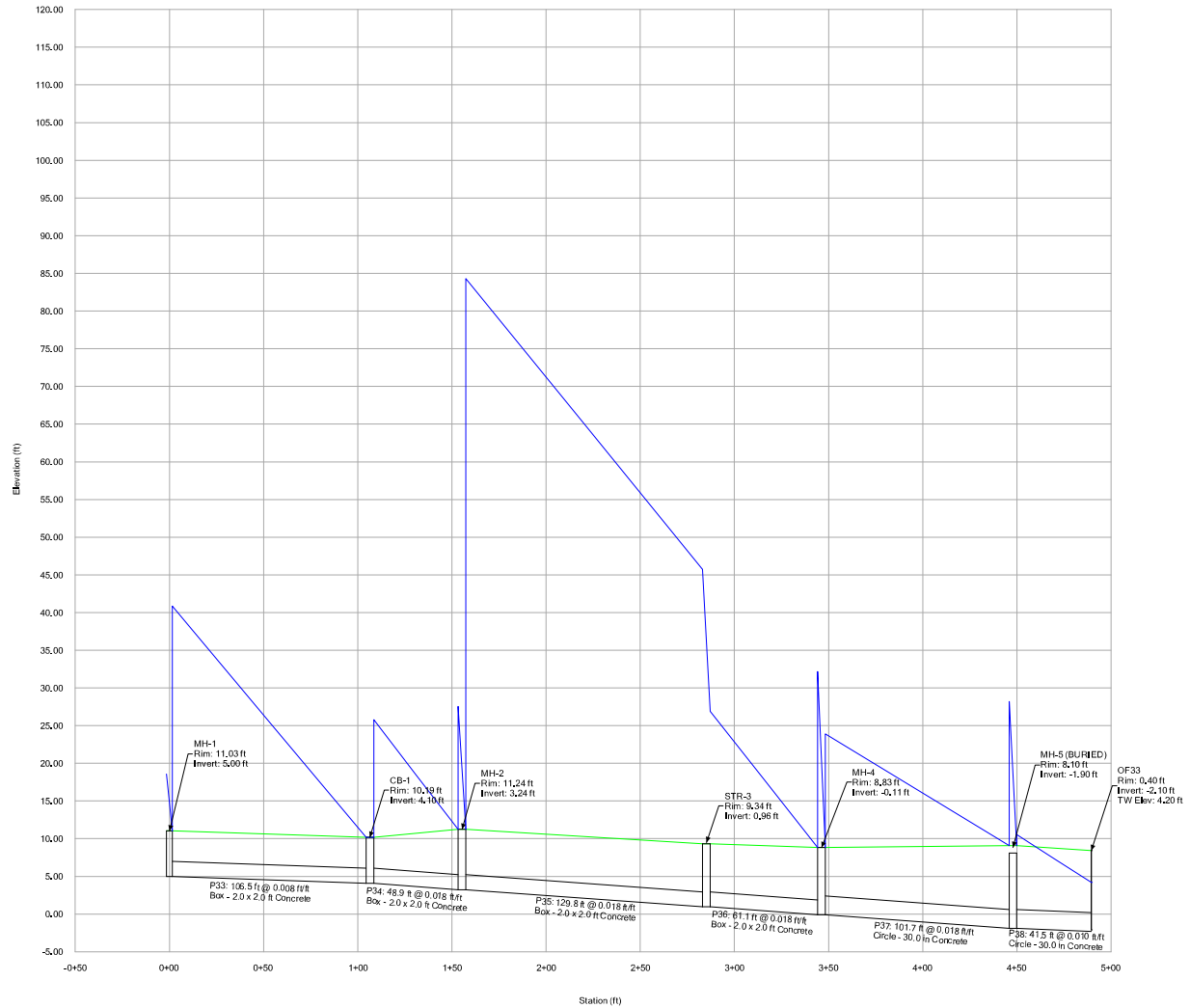
Engineering Profile - Existing Profile (Storm Drainage Analysis Existing.stsw)



Existing 10-YR Storm Event, MHW

Profile Report

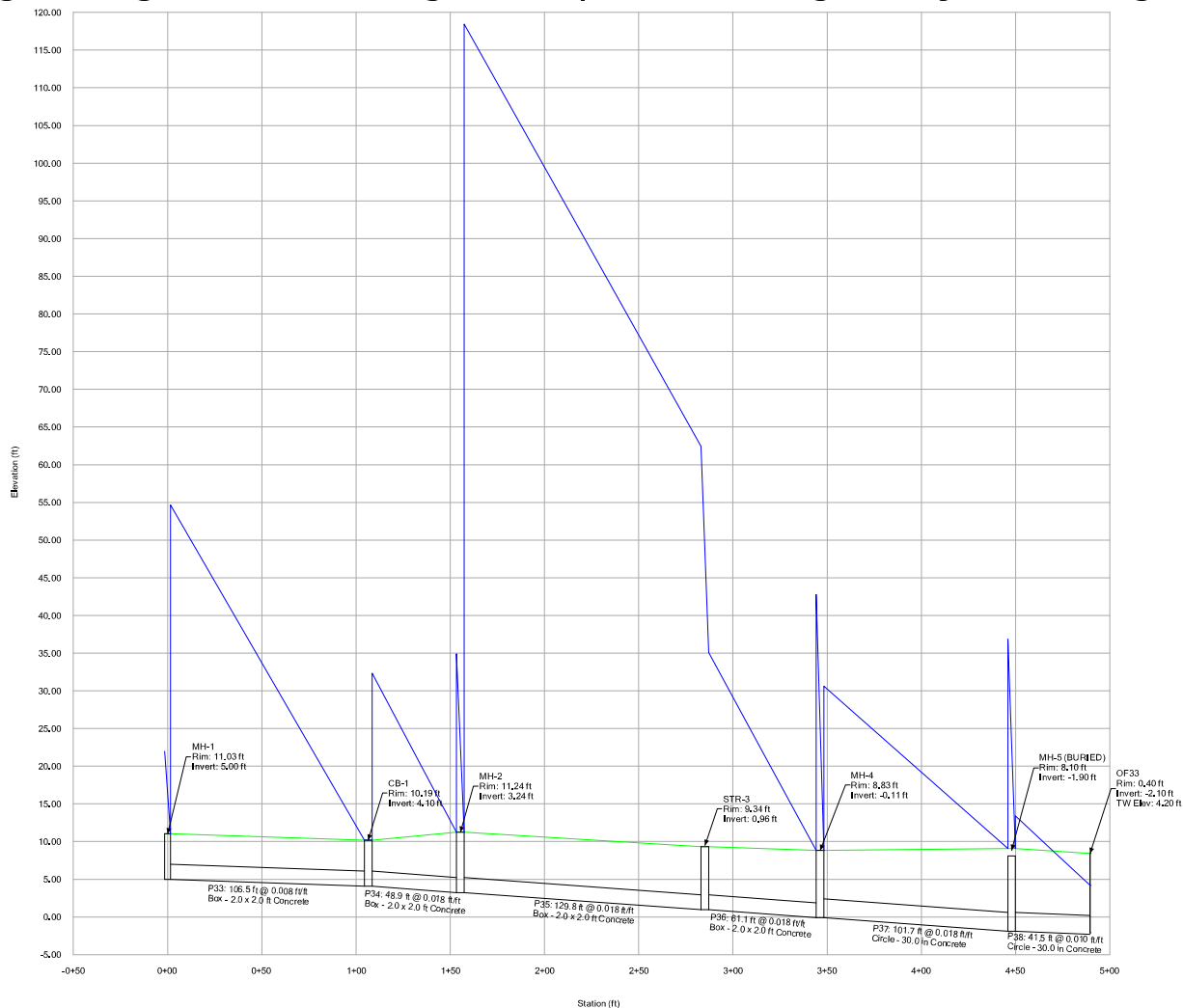
Engineering Profile - Existing Profile (Storm Drainage Analysis Existing.stsw)



Existing 25-YR Storm Event, MHW

Profile Report

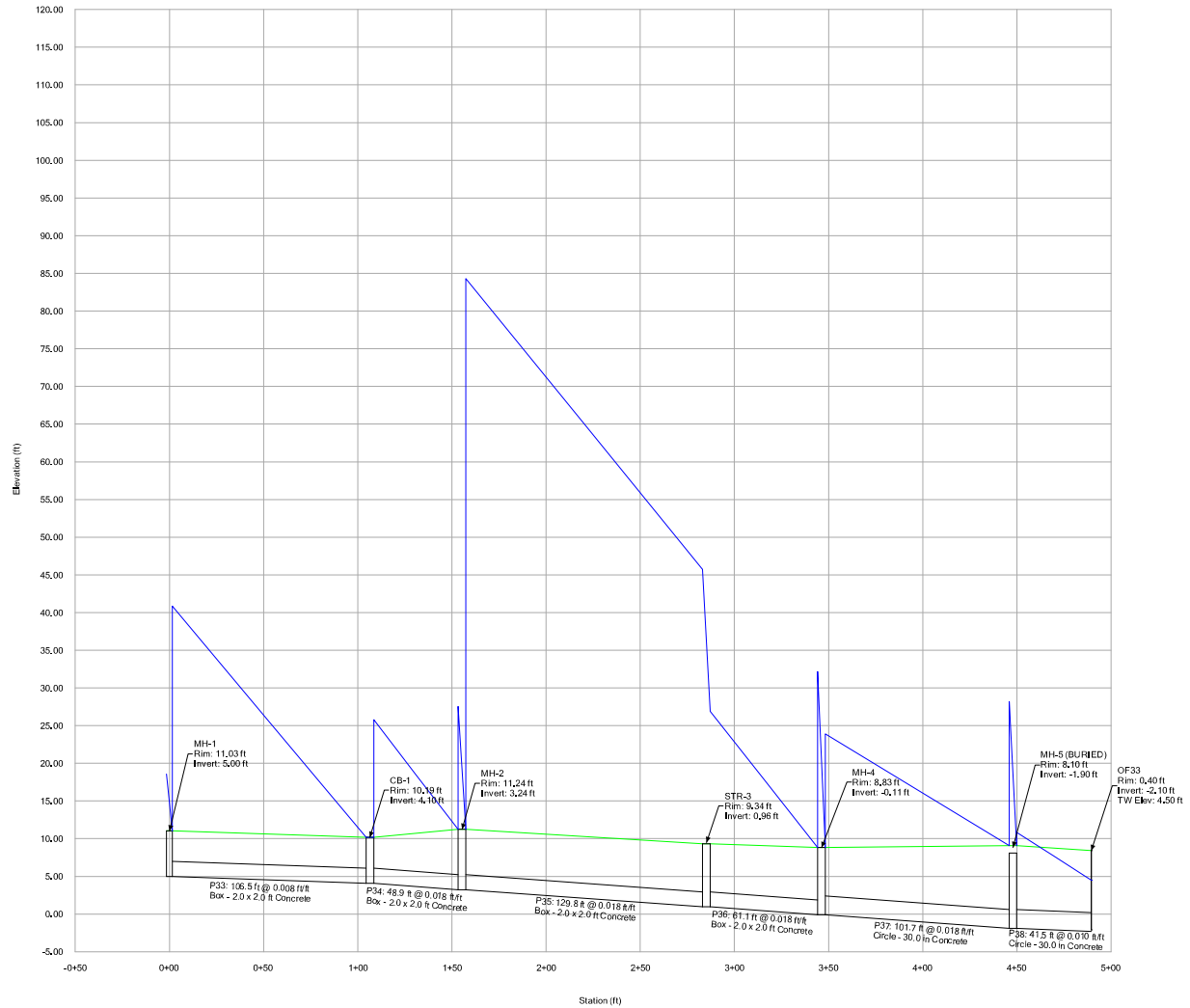
Engineering Profile - Existing Profile (Storm Drainage Analysis Existing.stsw)



Existing 10-YR Storm Event, MHHW

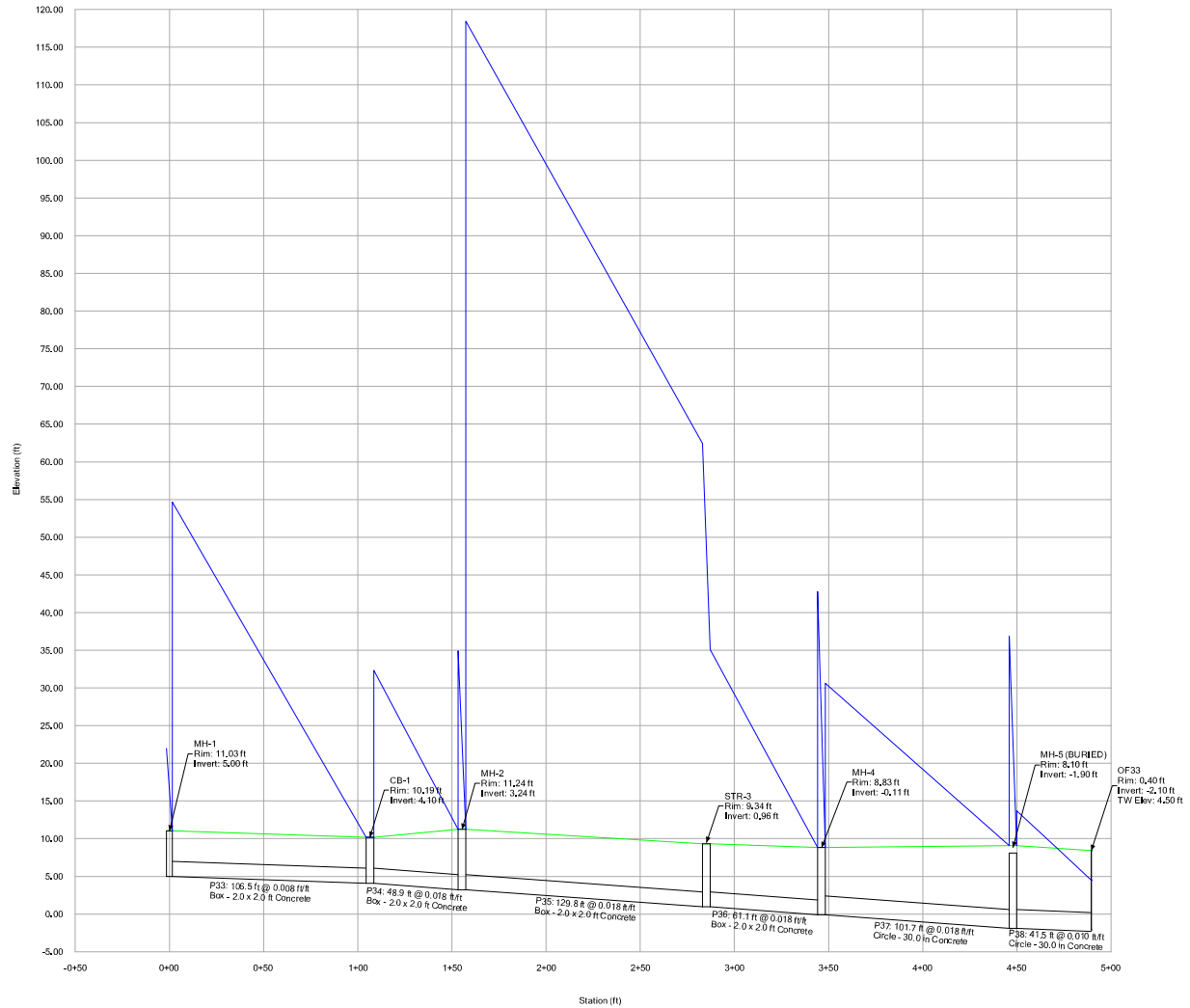
Profile Report

Engineering Profile - Existing Profile (Storm Drainage Analysis Existing.stsw)



Existing 25-YR Storm Event, MHHW

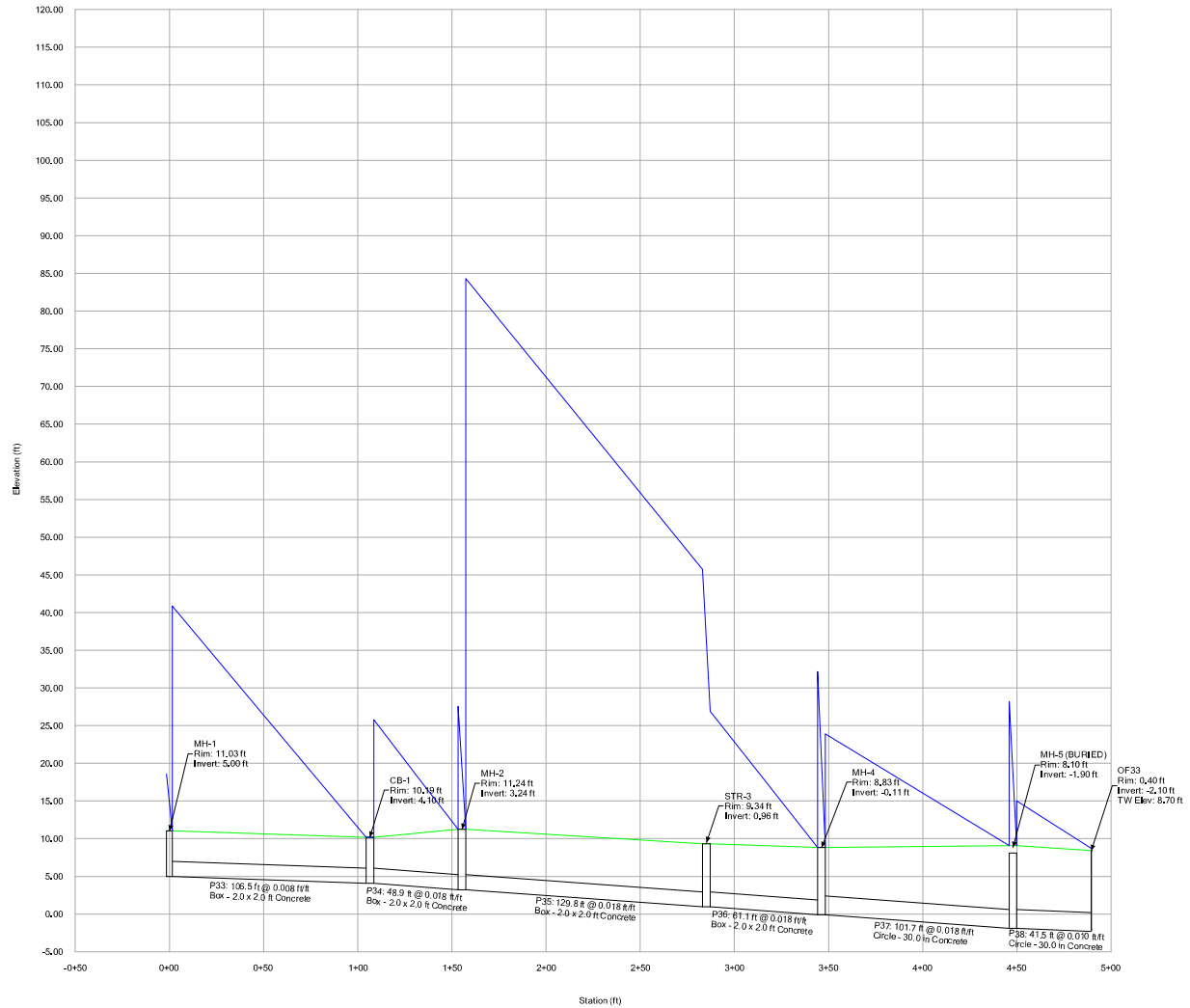
Profile Report Engineering Profile - Existing Profile (Storm Drainage Analysis Existing.stsw)



Existing 10-YR Storm Event, 2070 MHHW

Profile Report

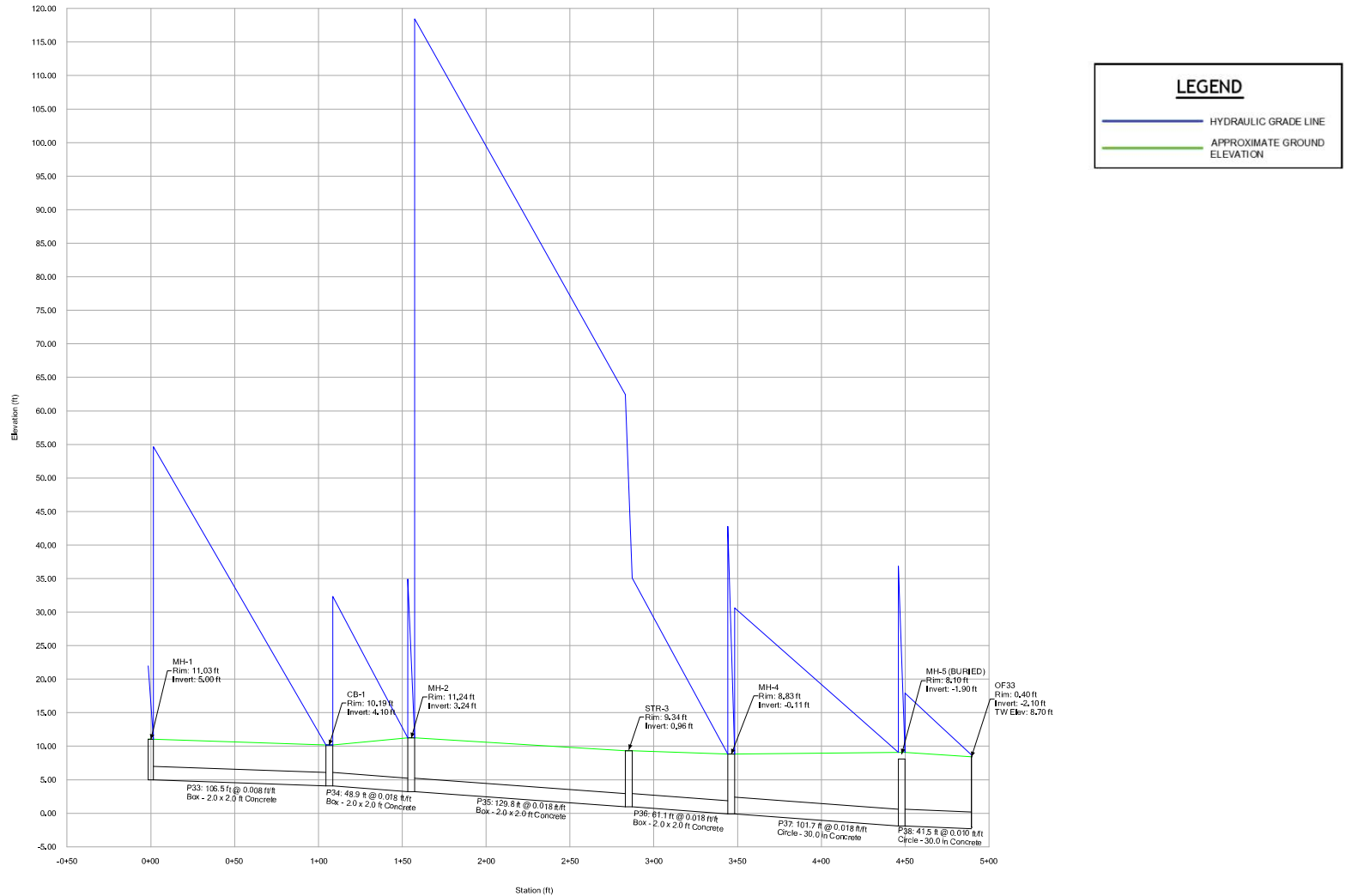
Engineering Profile - Existing Profile (Storm Drainage Analysis Existing.stsw)



Existing 25-YR Storm Event, 2070 MHHW

Profile Report

Engineering Profile - Existing Profile (Storm Drainage Analysis Existing.stsw)

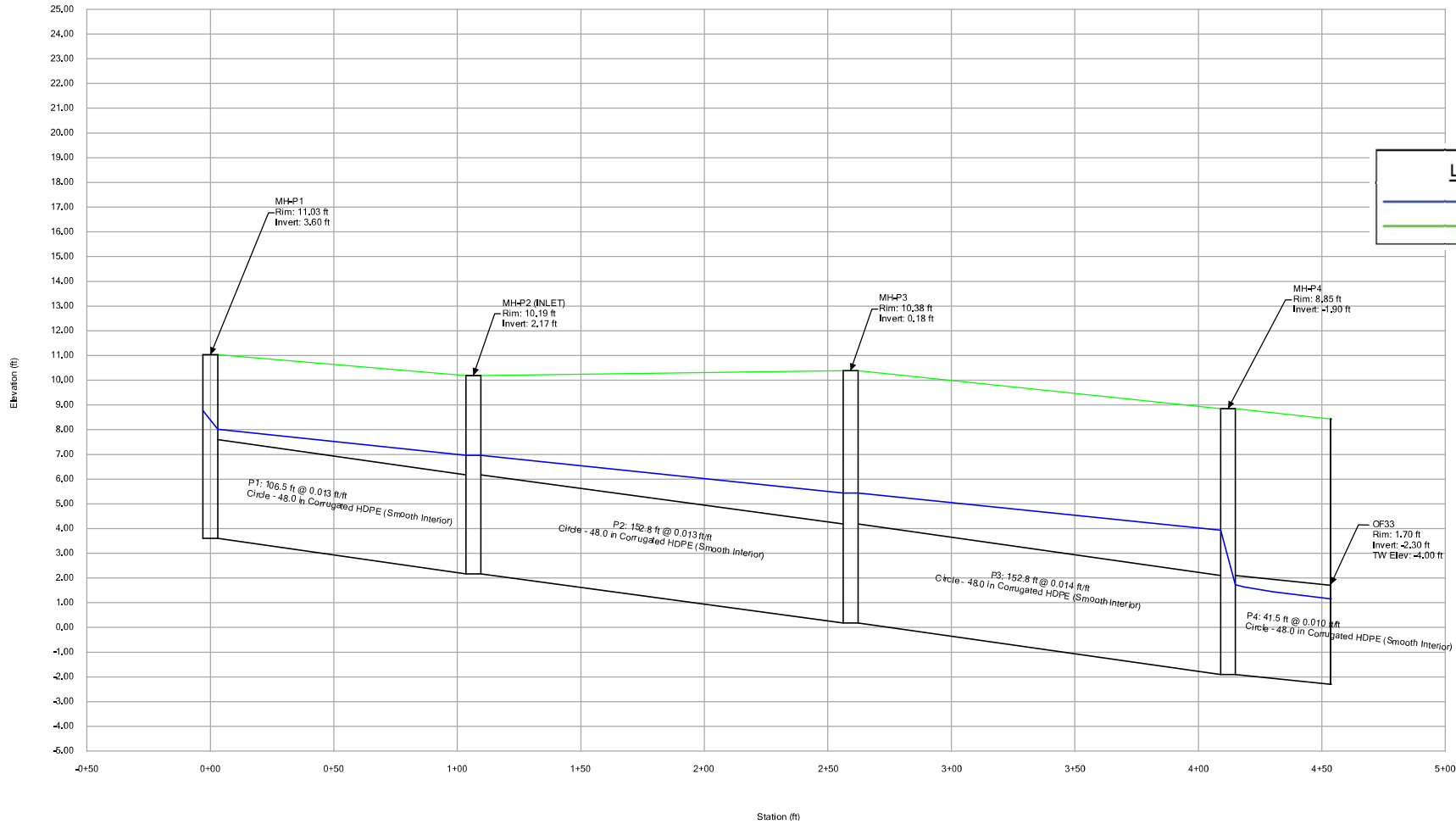


Proposed Pipe Profiles

ALTERNATIVE 1: 48" HDPE Pipe Profiles

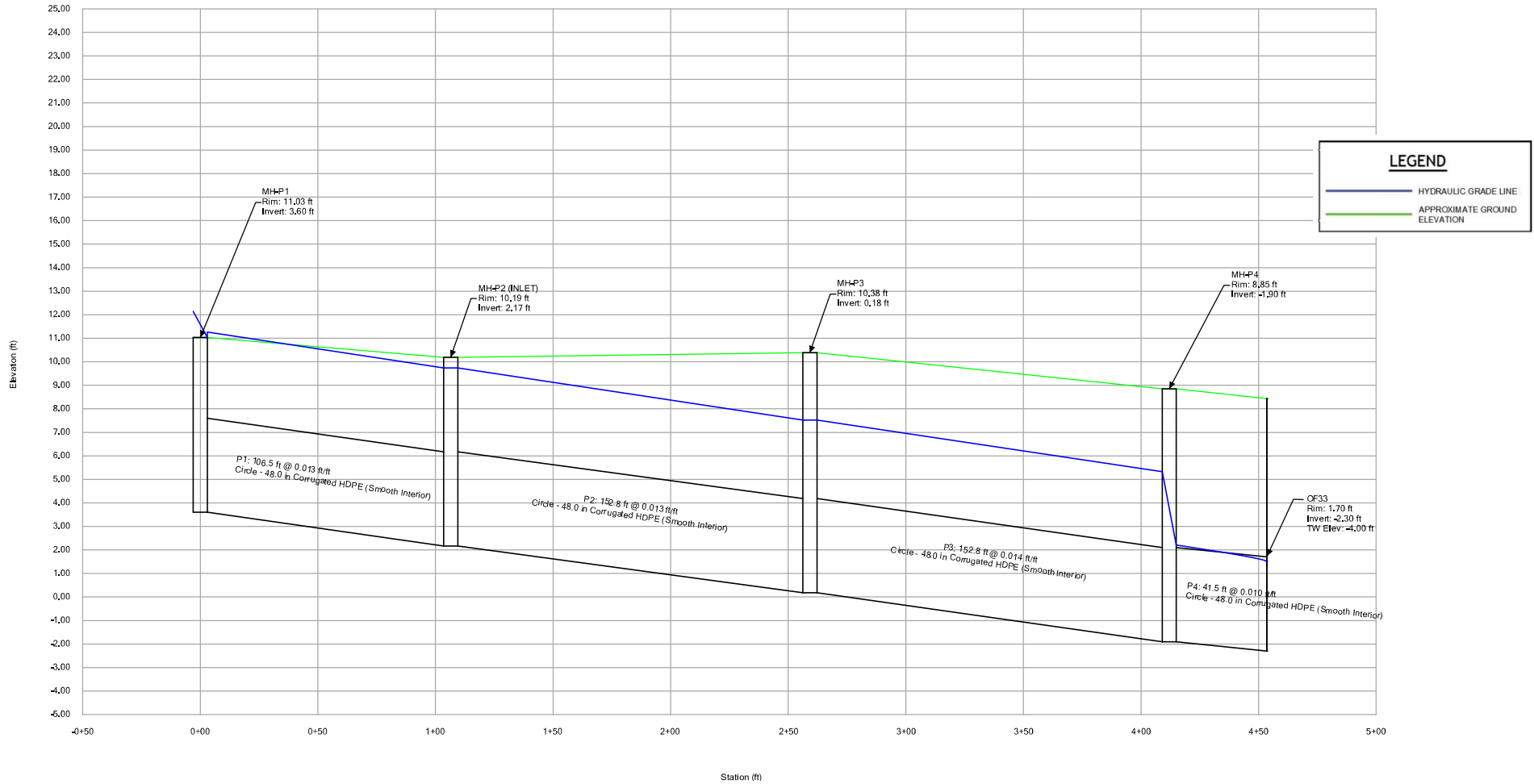
48-in HDPE, 10-YR Storm Event, MLW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



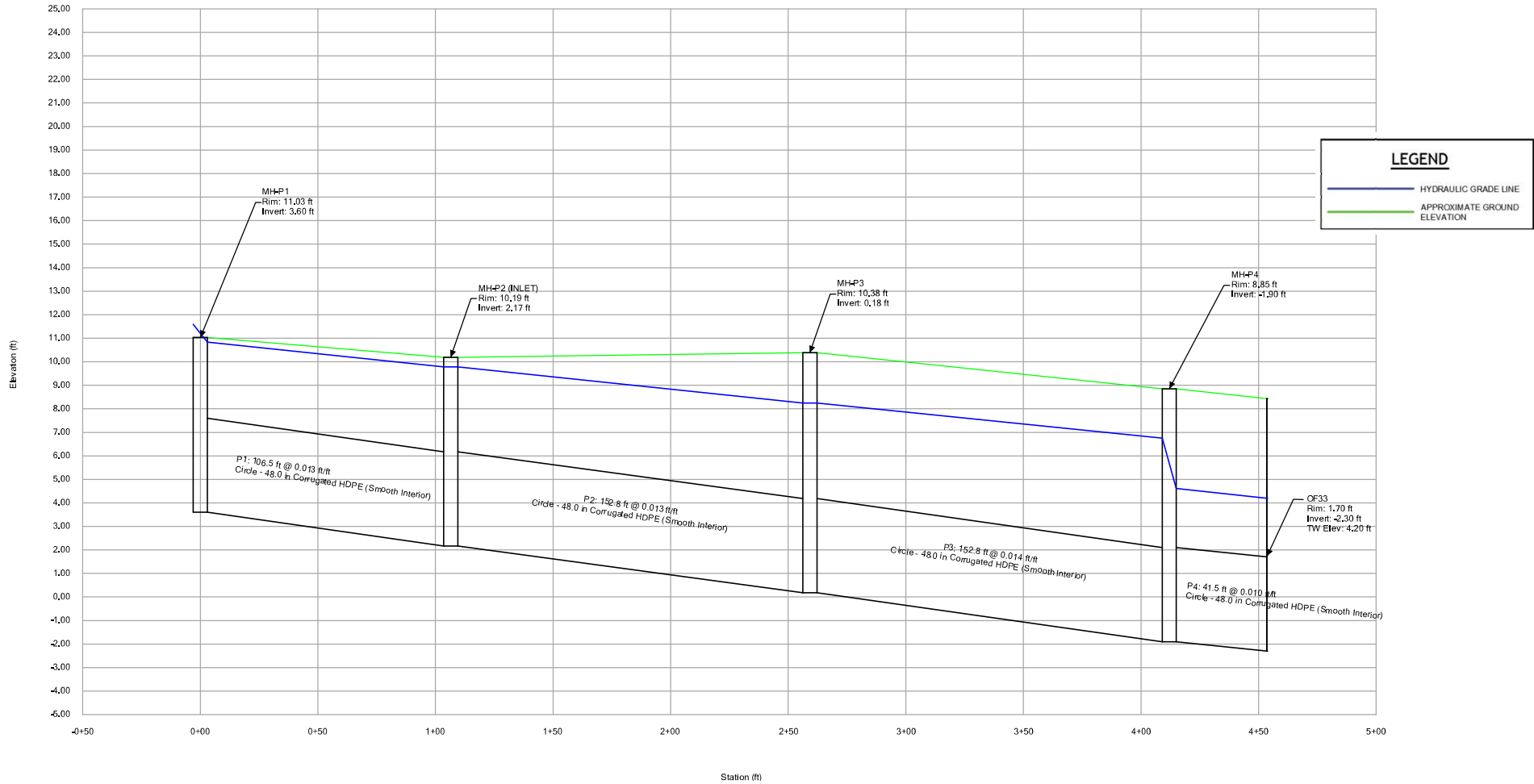
48-in HDPE, 25-YR Storm Event, MLW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



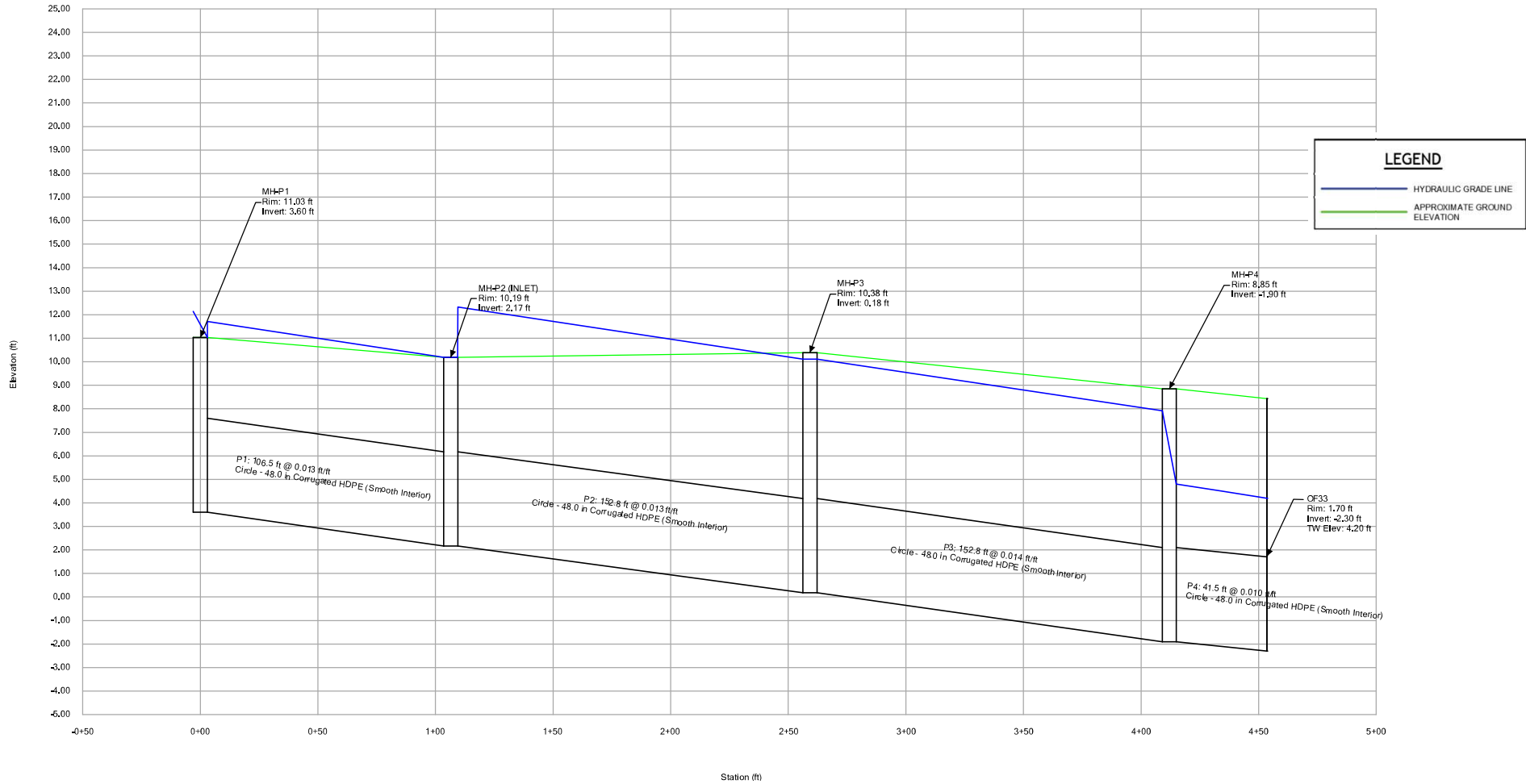
48-in HDPE, 10-YR Storm Event, MHW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



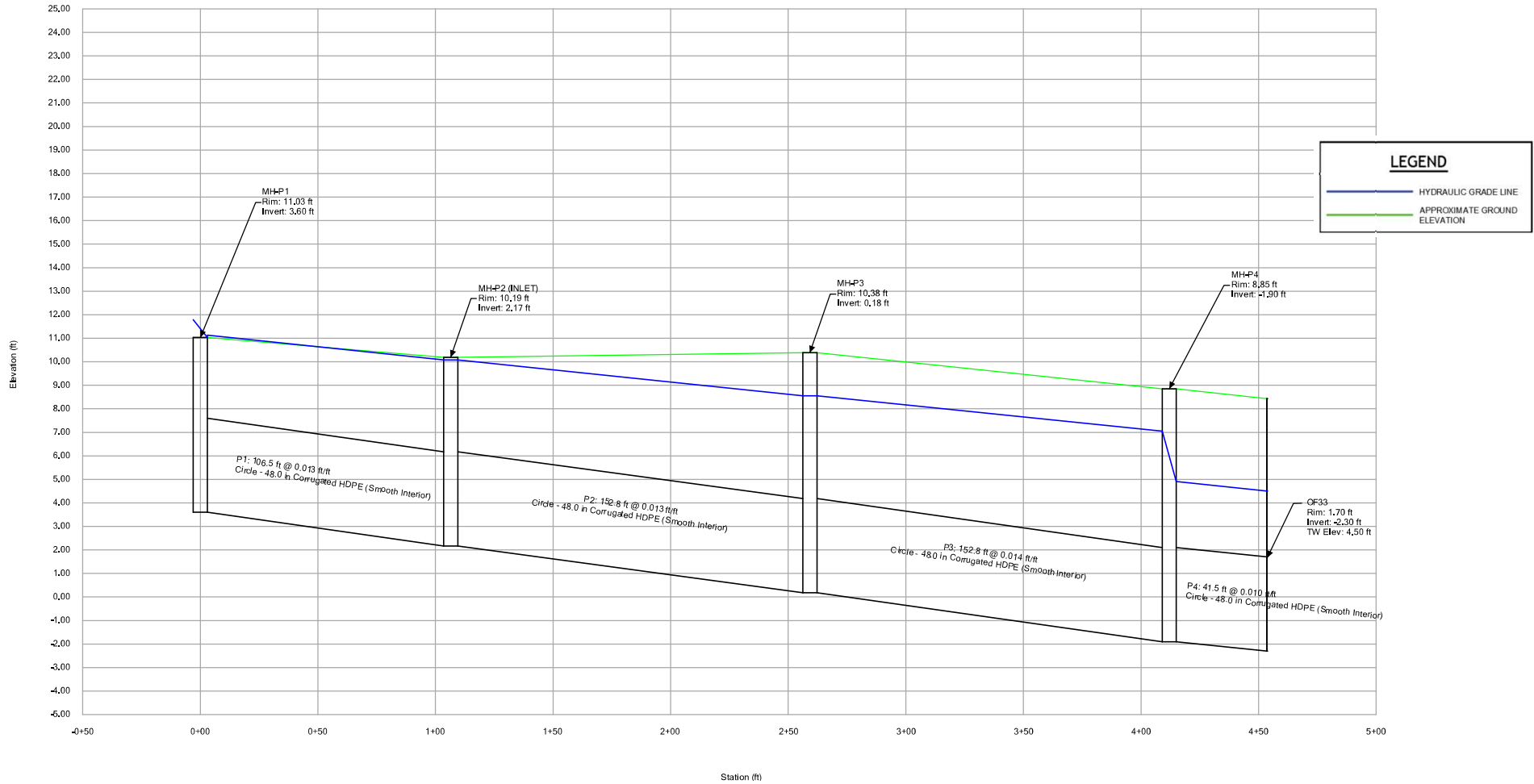
48-in HDPE, 25-YR Storm Event, MHW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



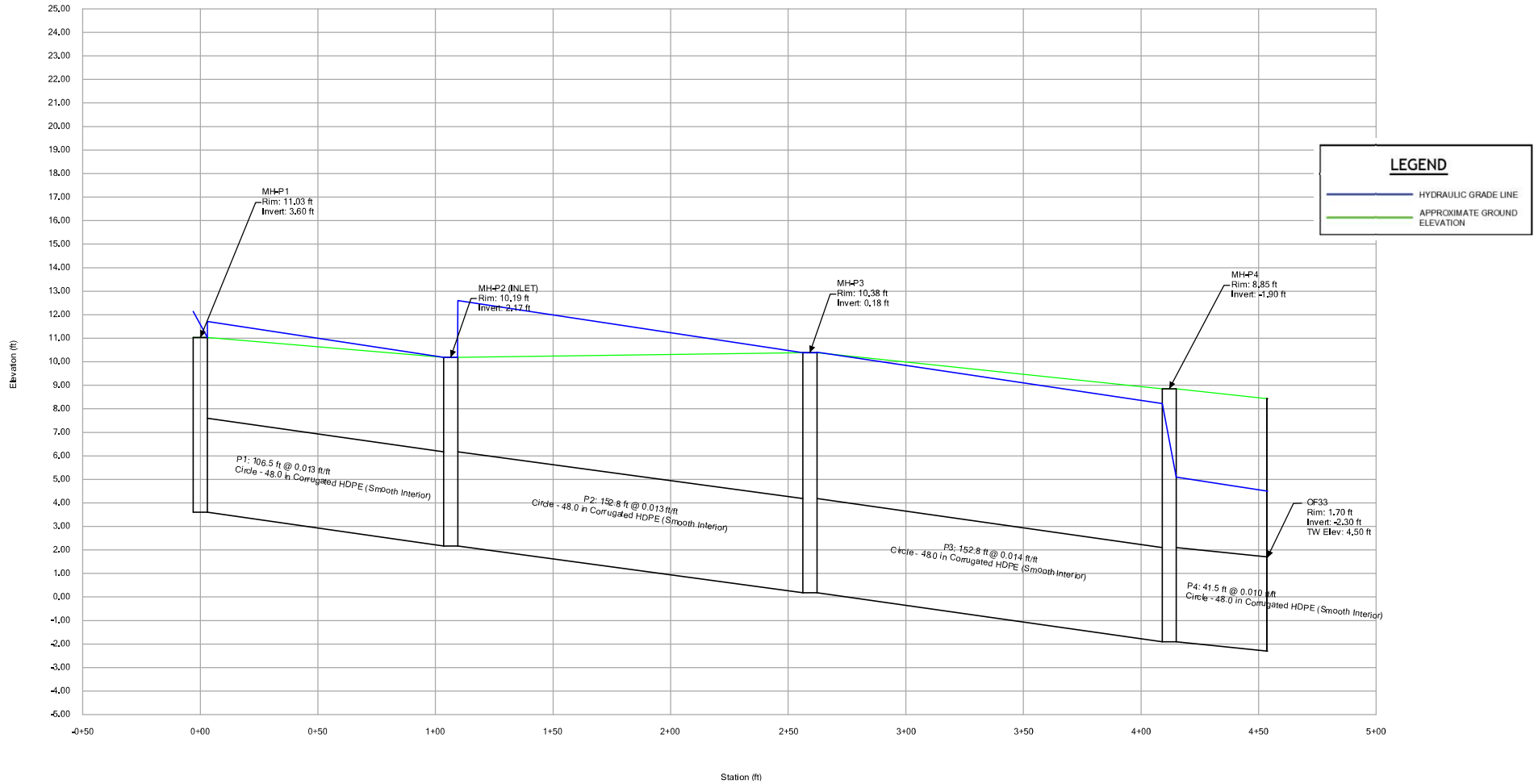
48-in HDPE, 10-YR Storm Event, MHHW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



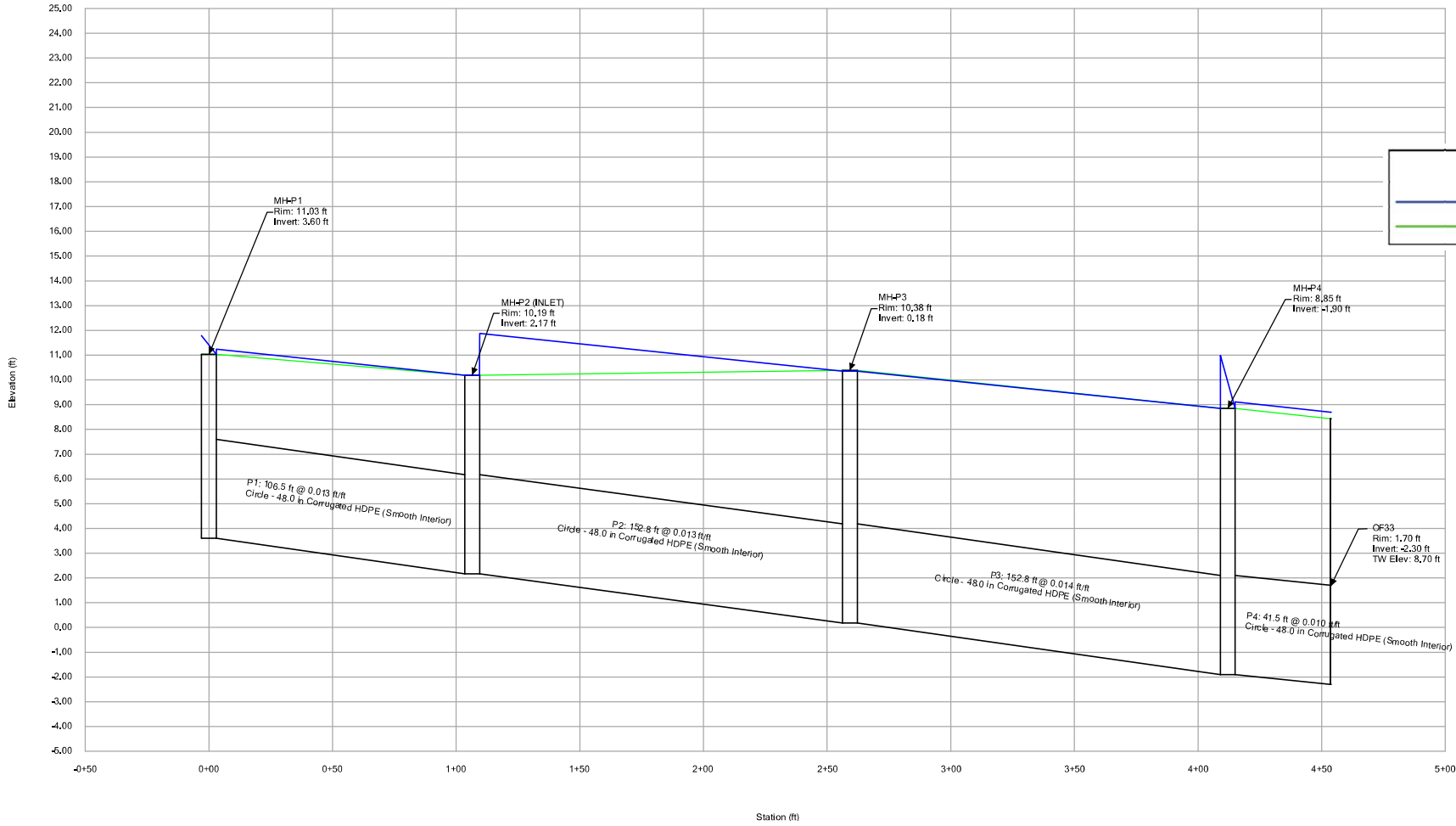
48-in HDPE, 25-YR Storm Event, MHHW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



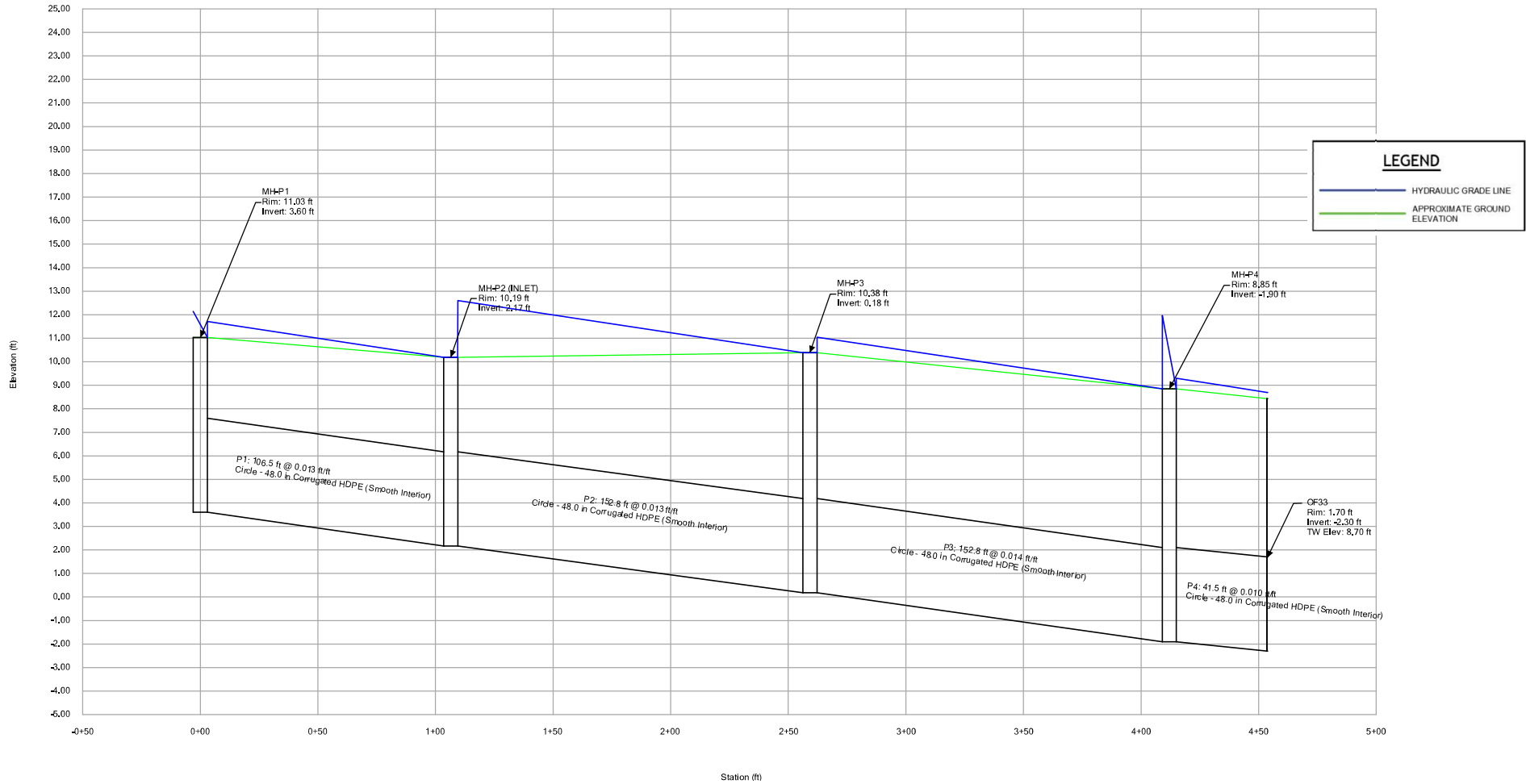
48-in HDPE, 10-YR Storm Event, 2070 MHHW

Profile Report
Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



48-in HDPE, 25-YR Storm Event, 2070 MHHW

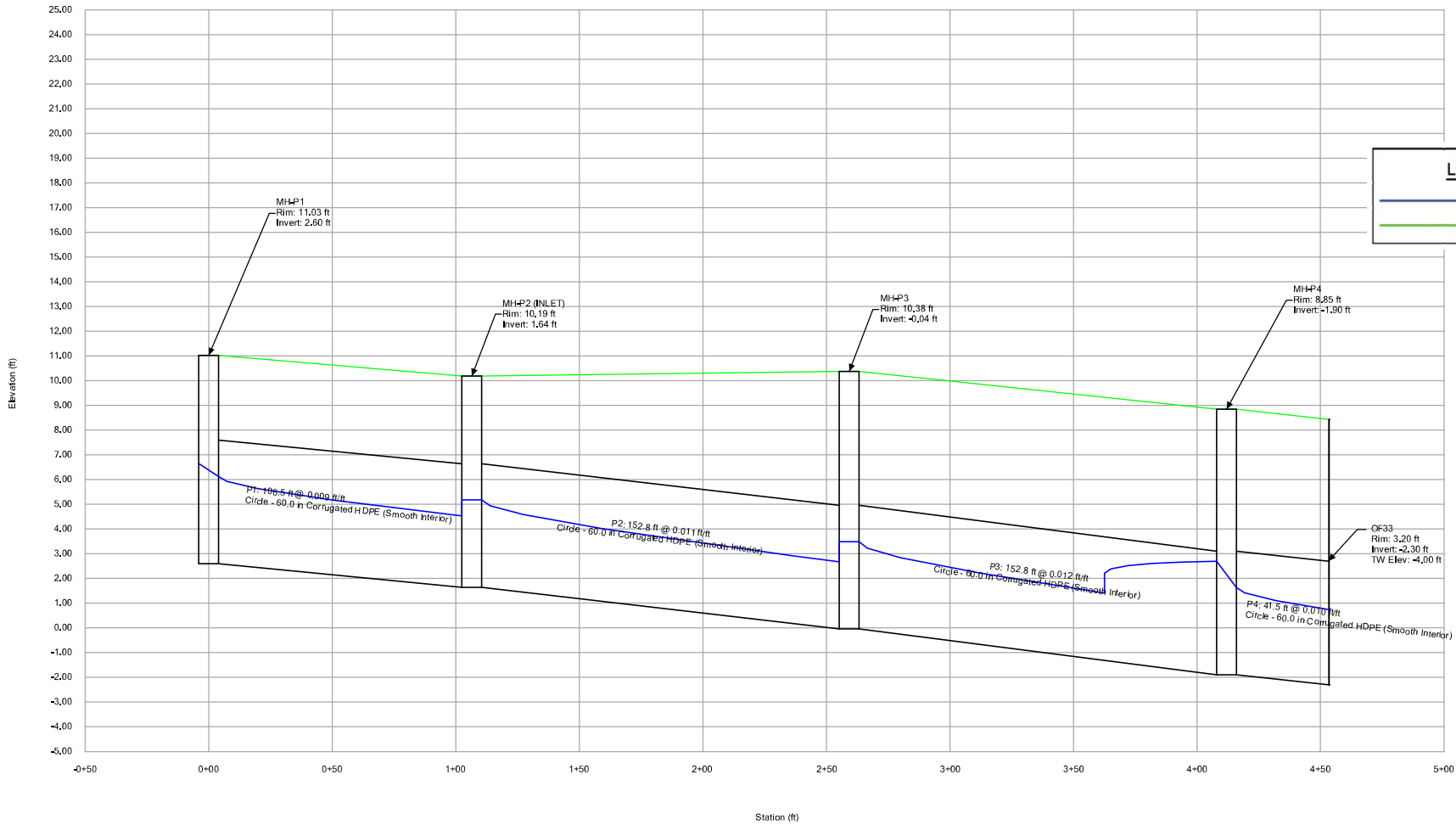
Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



ALTERNATIVE 2: 60" HDPE Pipe Profiles

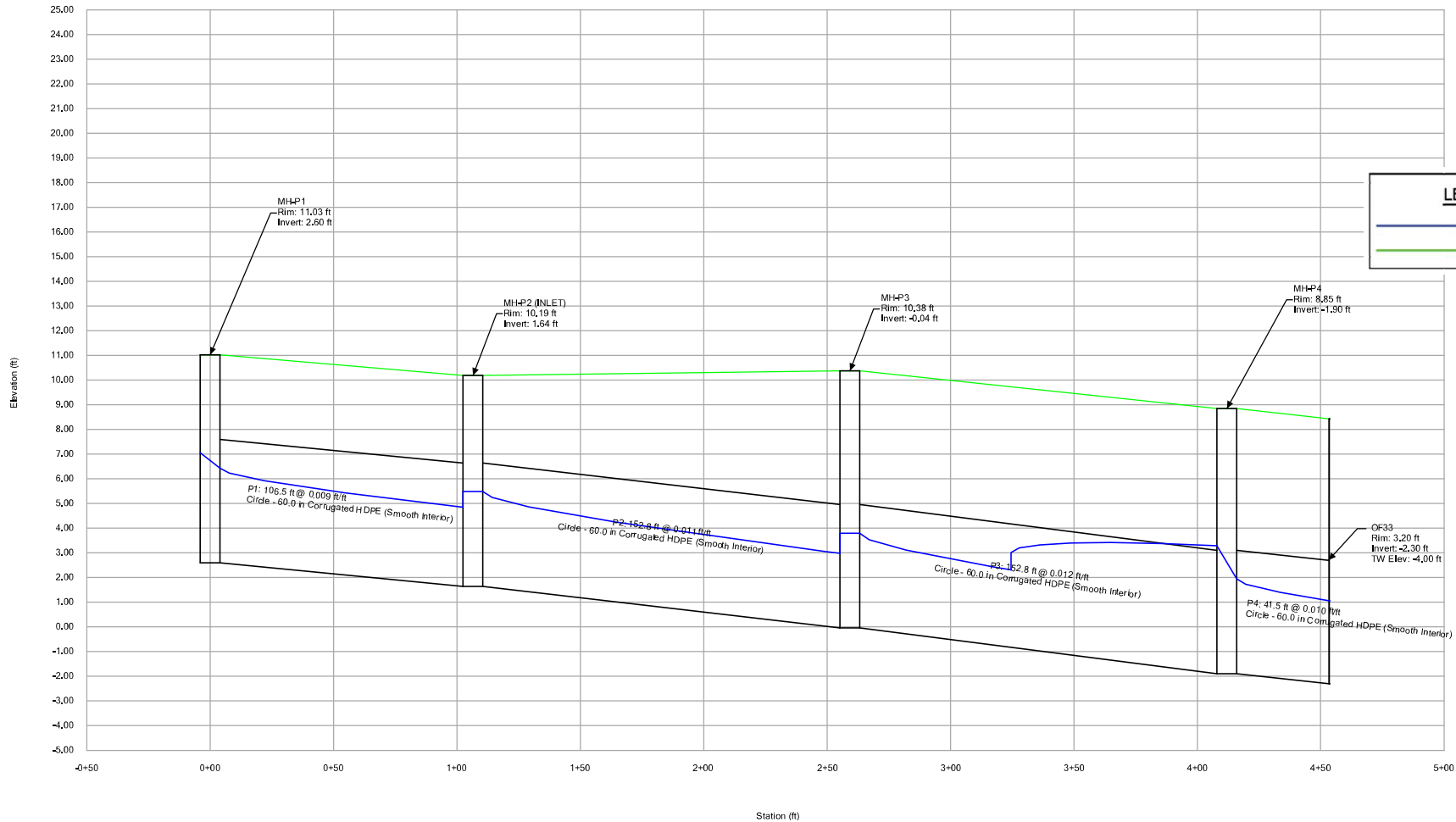
60-in HDPE, 10-YR Storm Event, MLW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



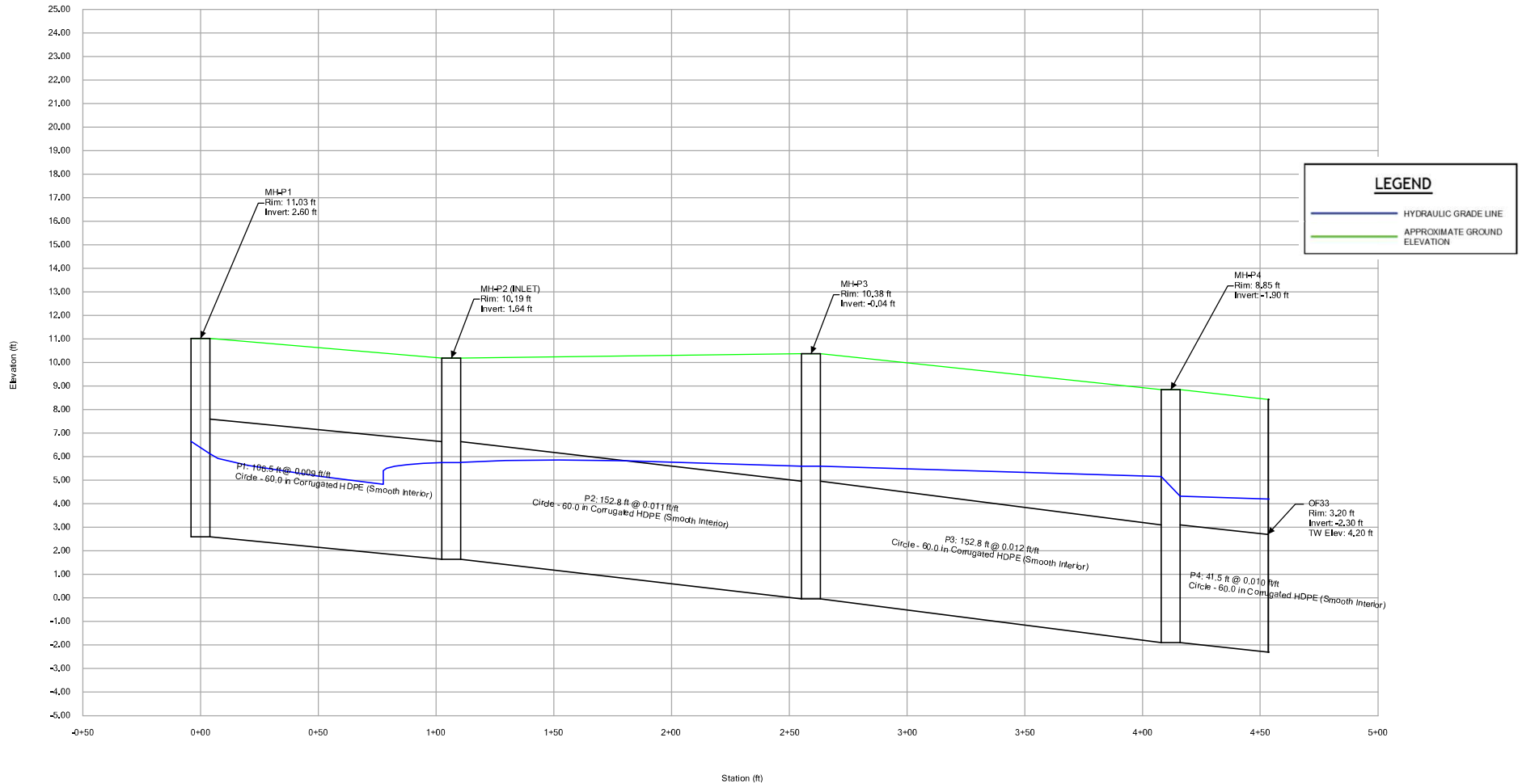
60-in HDPE, 25-YR Storm Event, MLW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



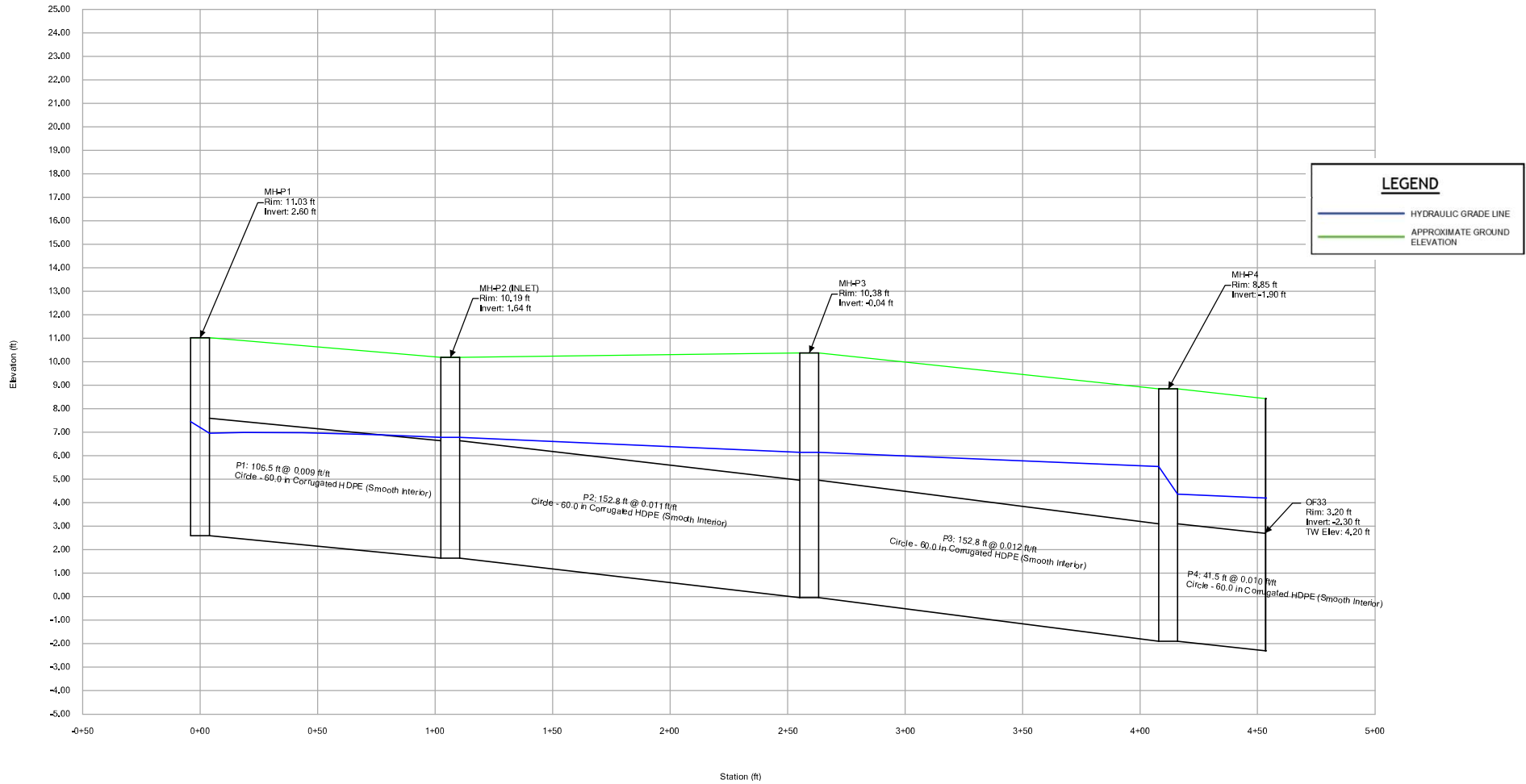
60-in HDPE, 10-YR Storm Event, MHW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



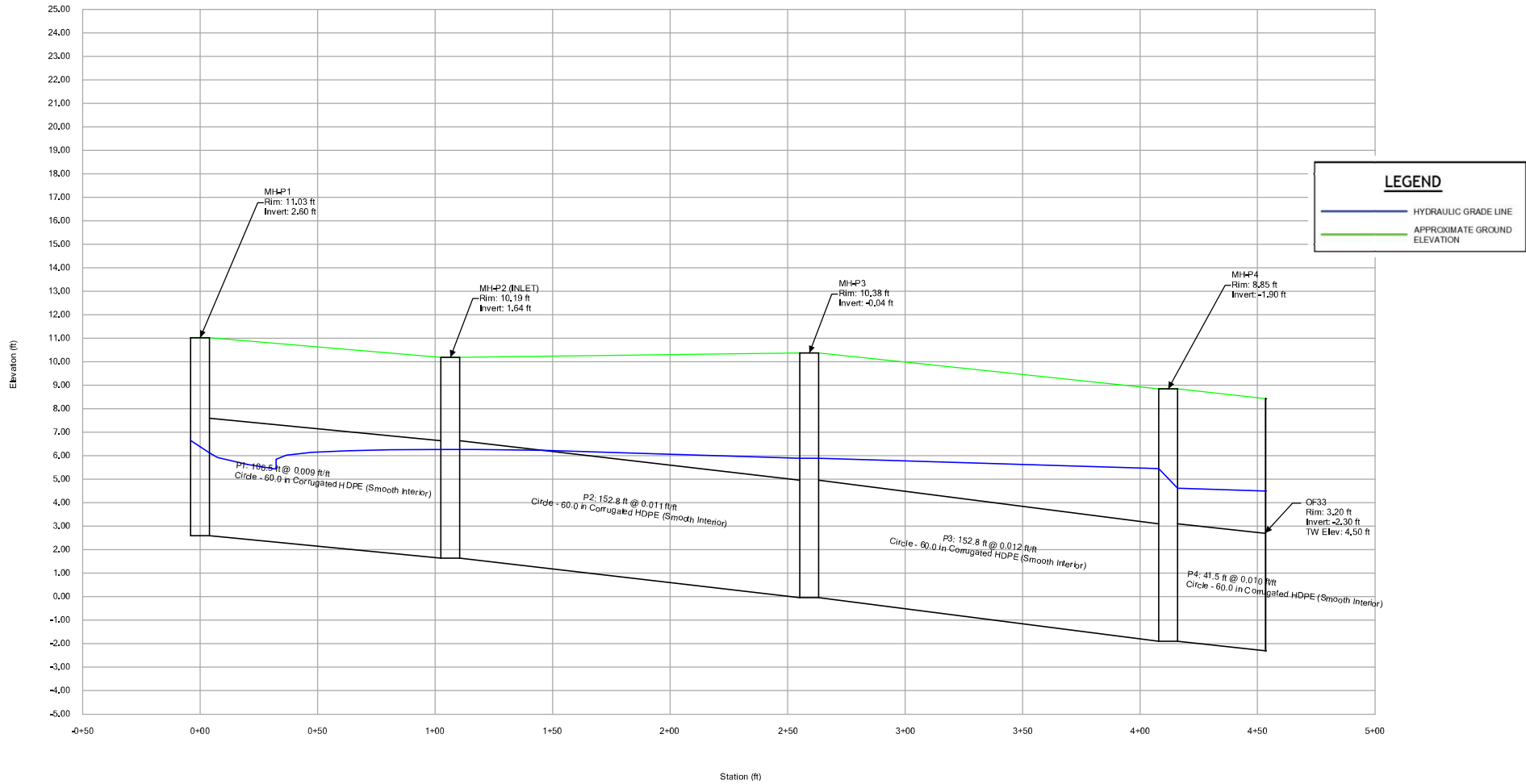
60-in HDPE, 25-YR Storm Event, MHW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



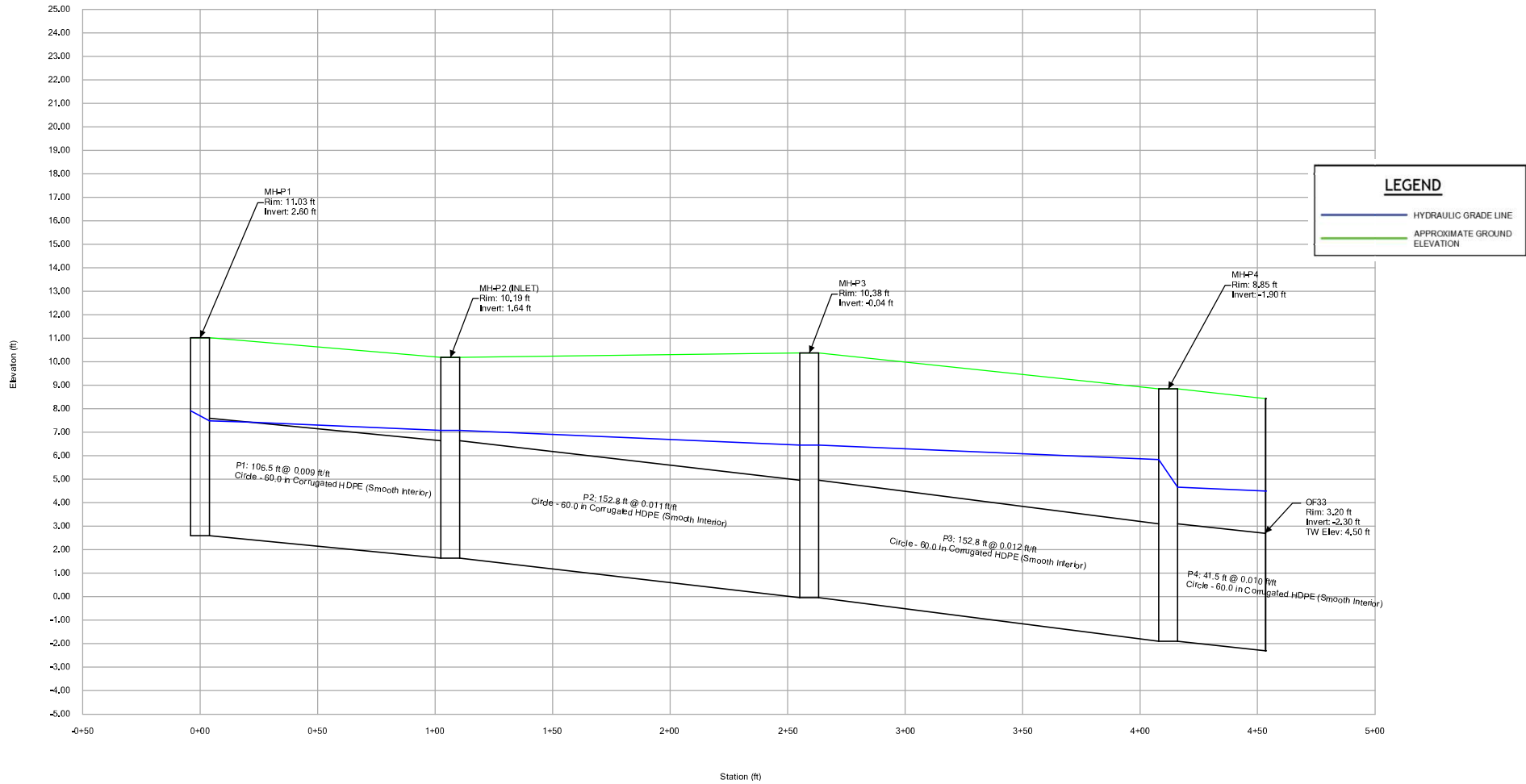
60-in HDPE, 10-YR Storm Event, MHHW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



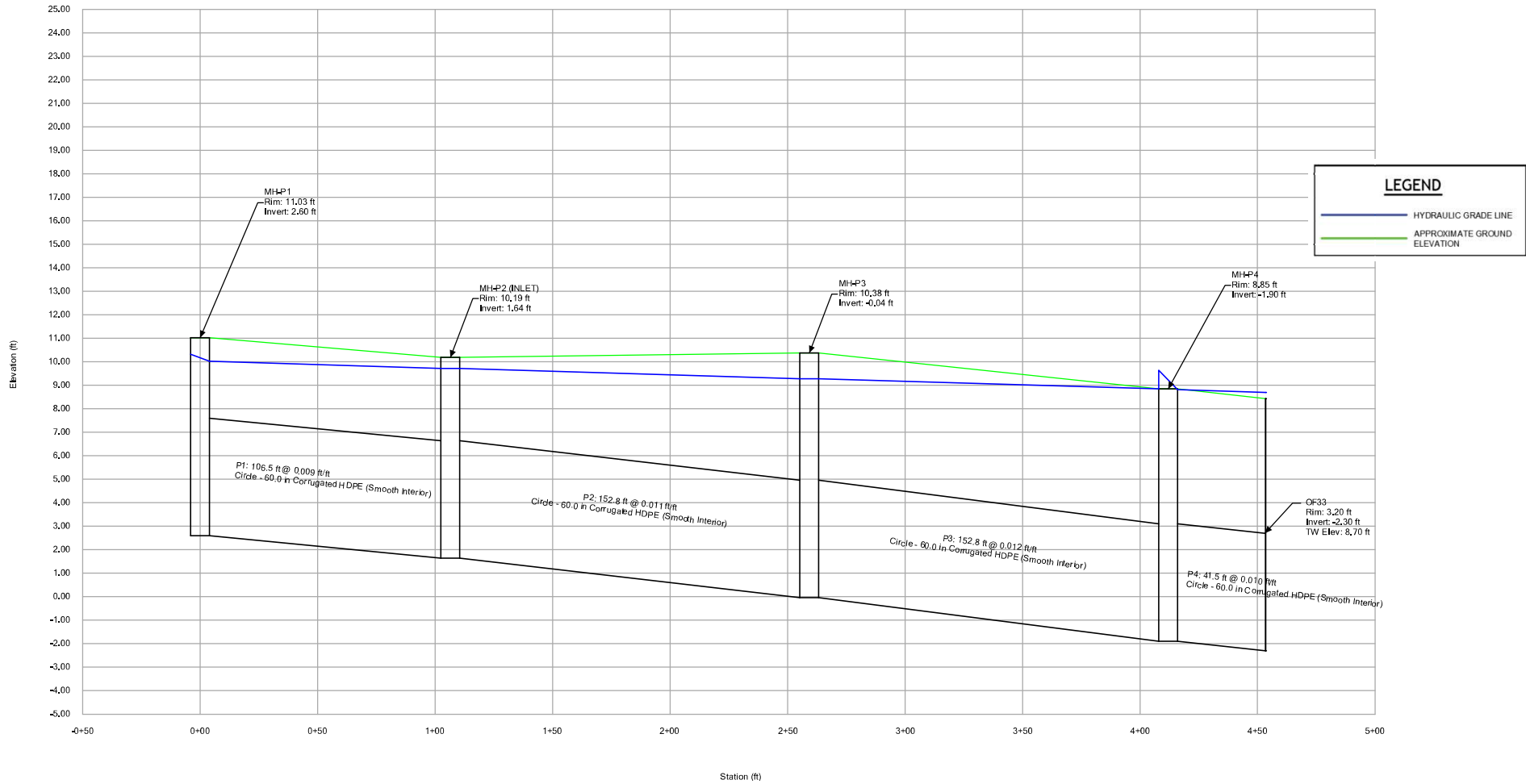
60-in HDPE, 25-YR Storm Event, MHHW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



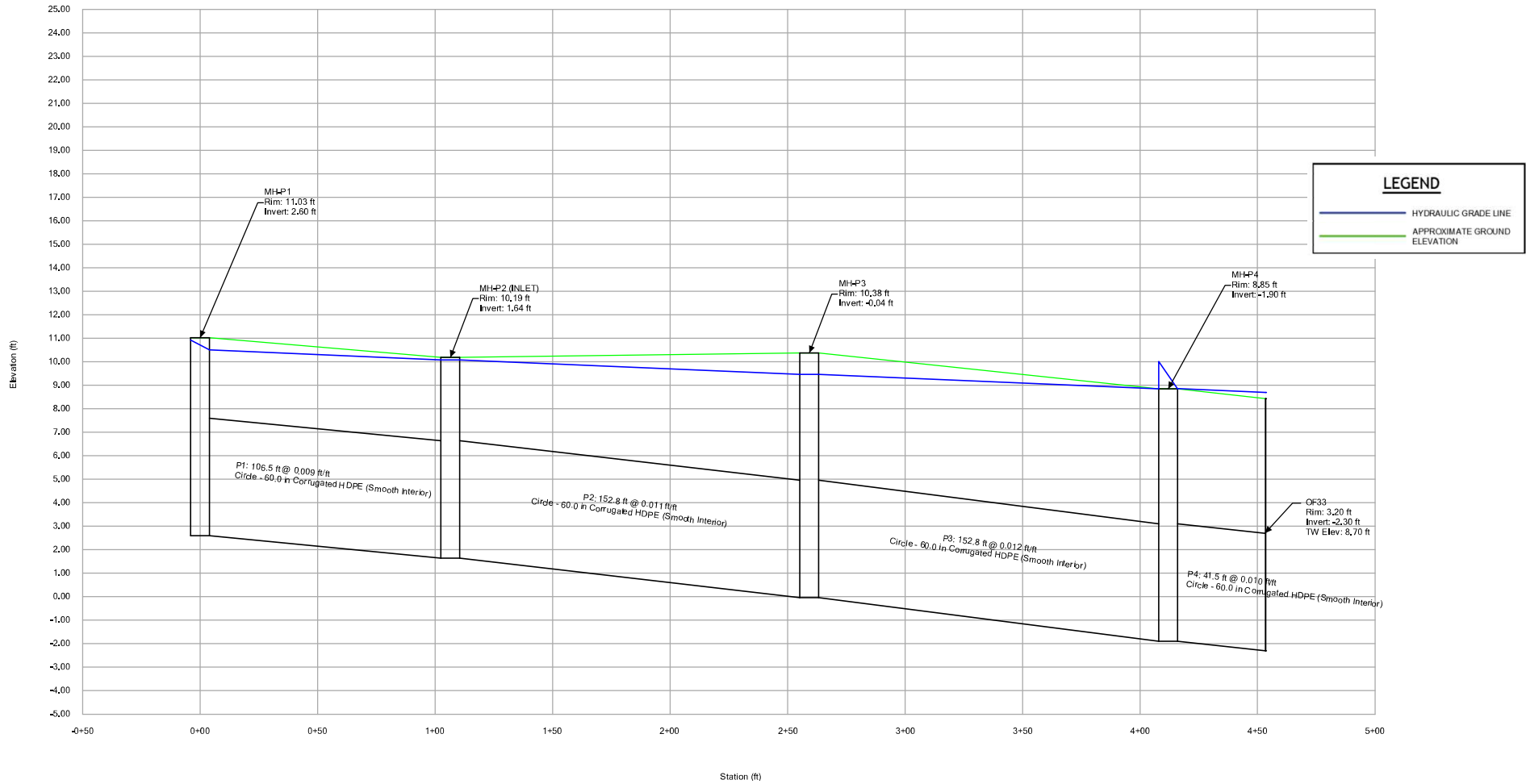
60-in HDPE, 10-YR Storm Event, 2070 MHHW

**Profile Report
Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)**



60-in HDPE, 25-YR Storm Event, 2070 MHHW

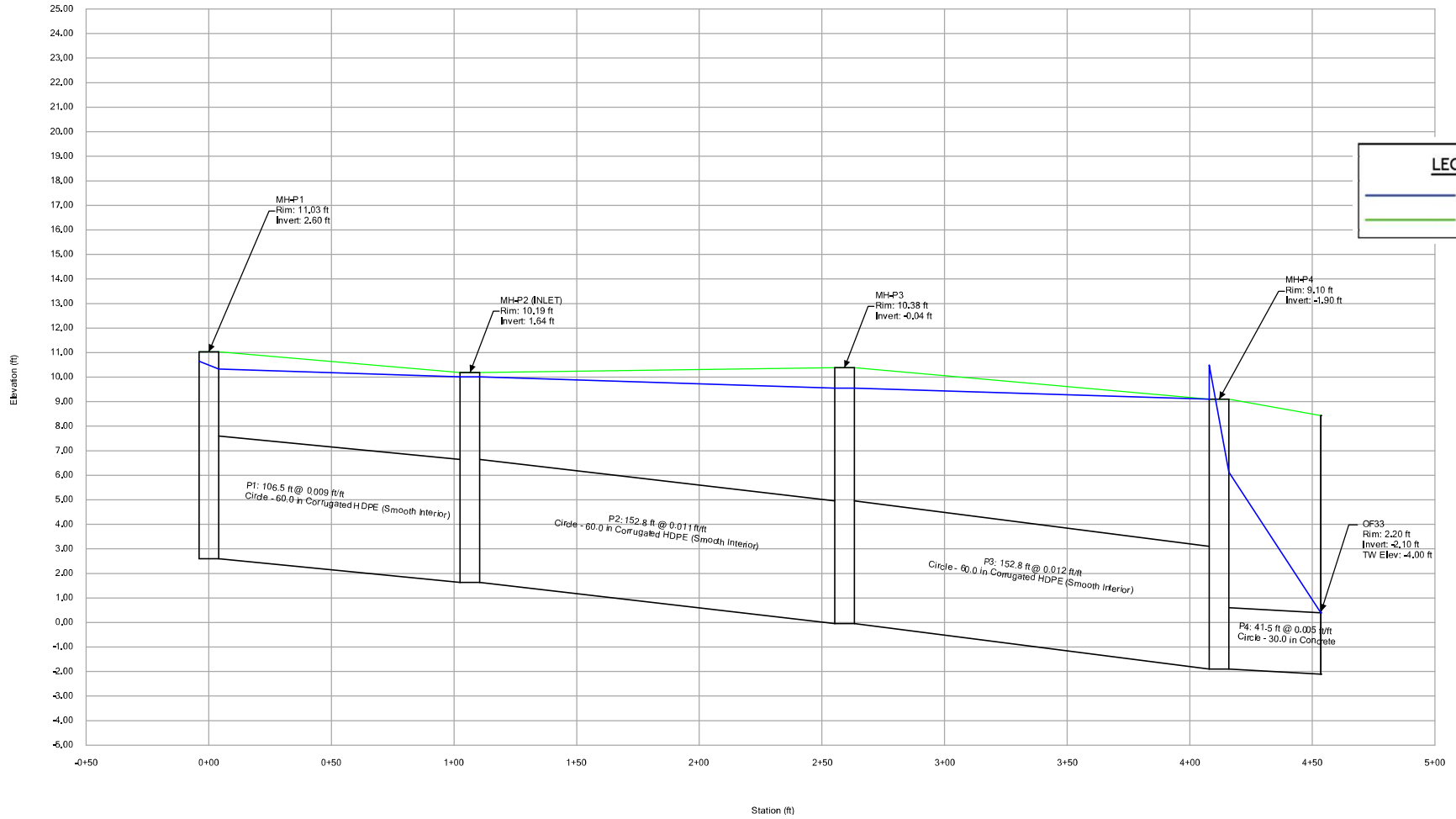
Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



**ALTERNATIVE 2A:
60" HDPE to 30" RCP
Pipe Profiles**

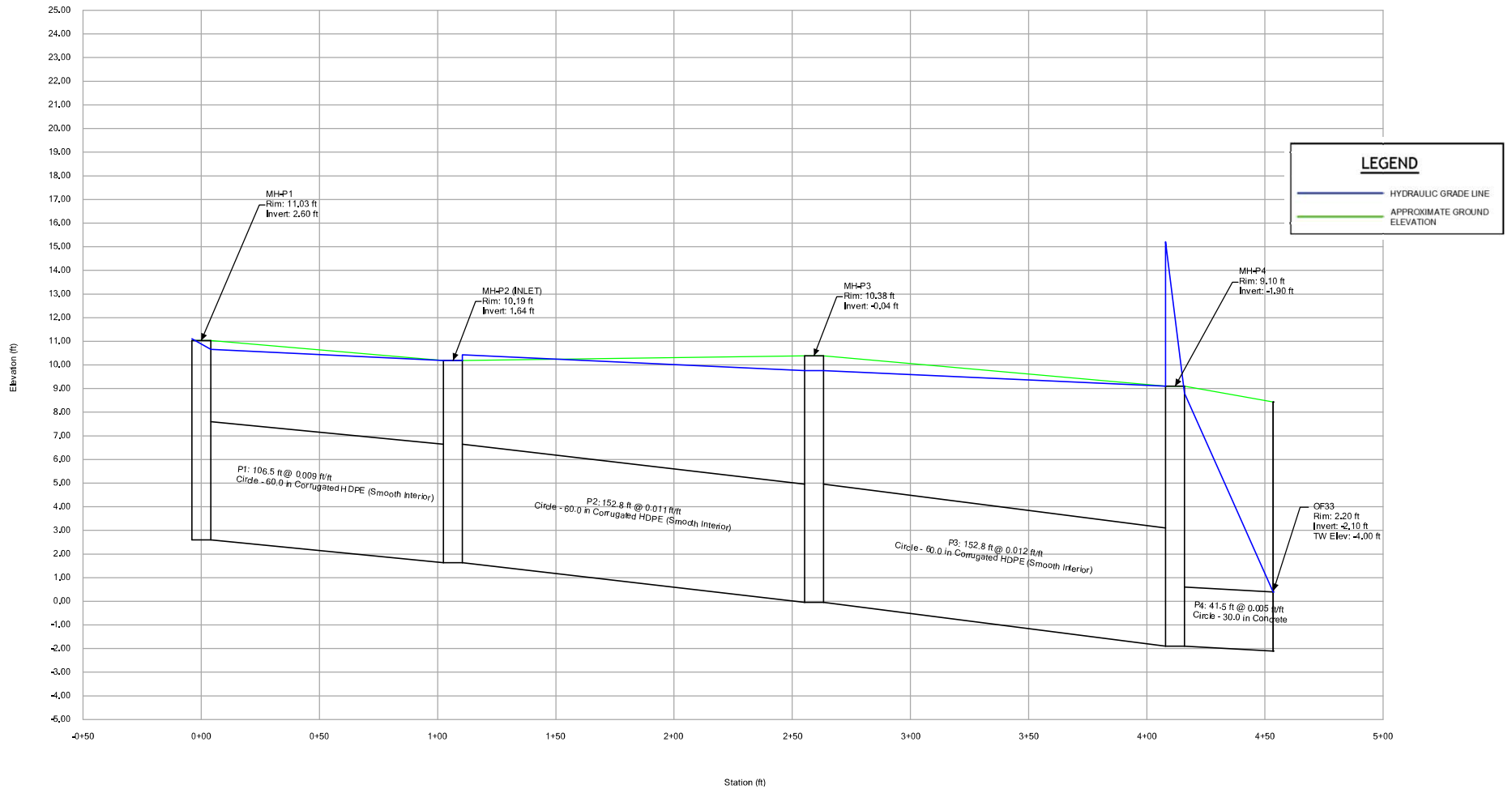
60-in HDPE to EX 30-in RCP, 10-YR Storm Event, MLW

Profile Report
Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



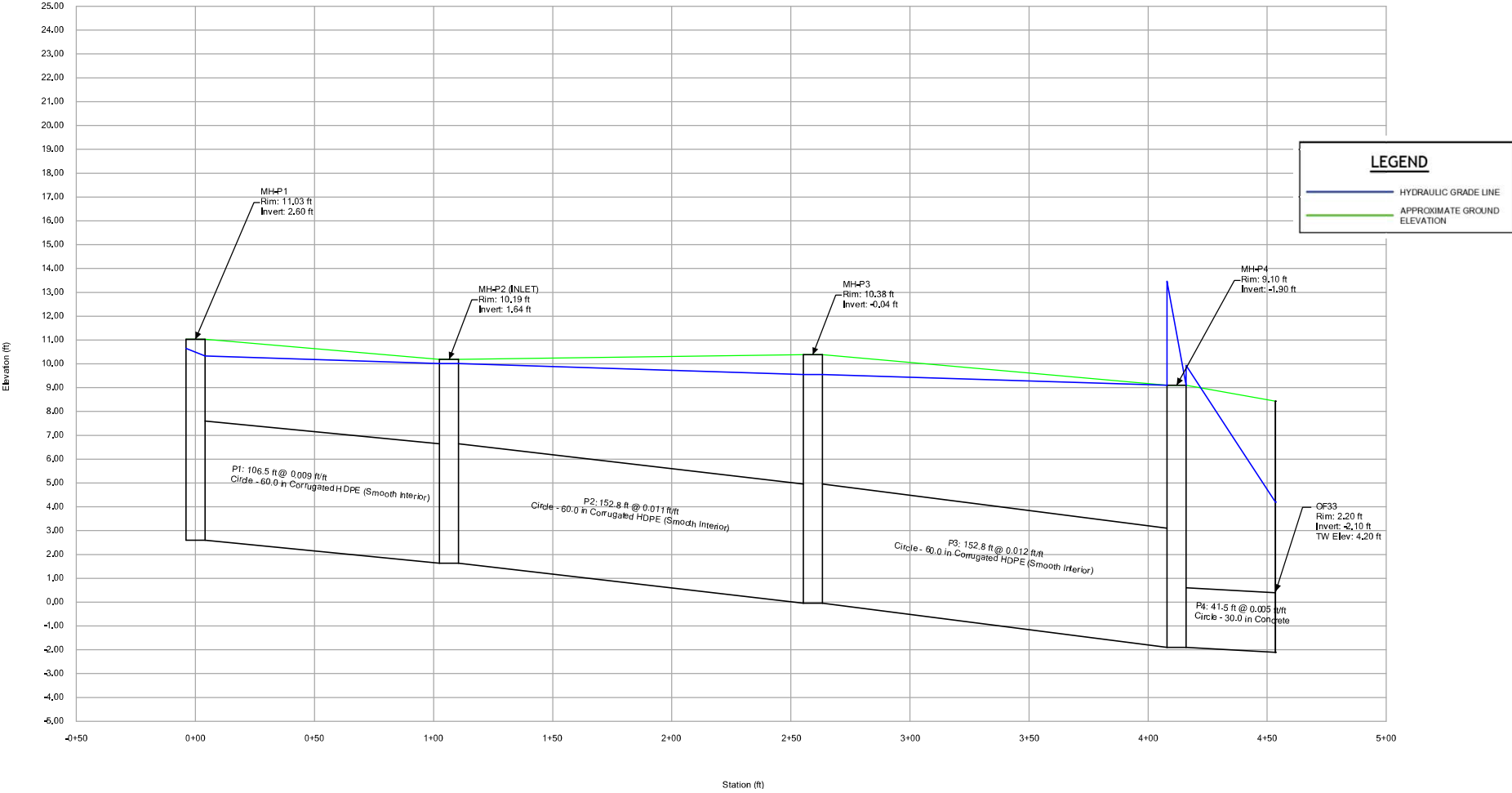
60-in HDPE to EX 30-in RCP, 25-YR Storm Event, MLW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



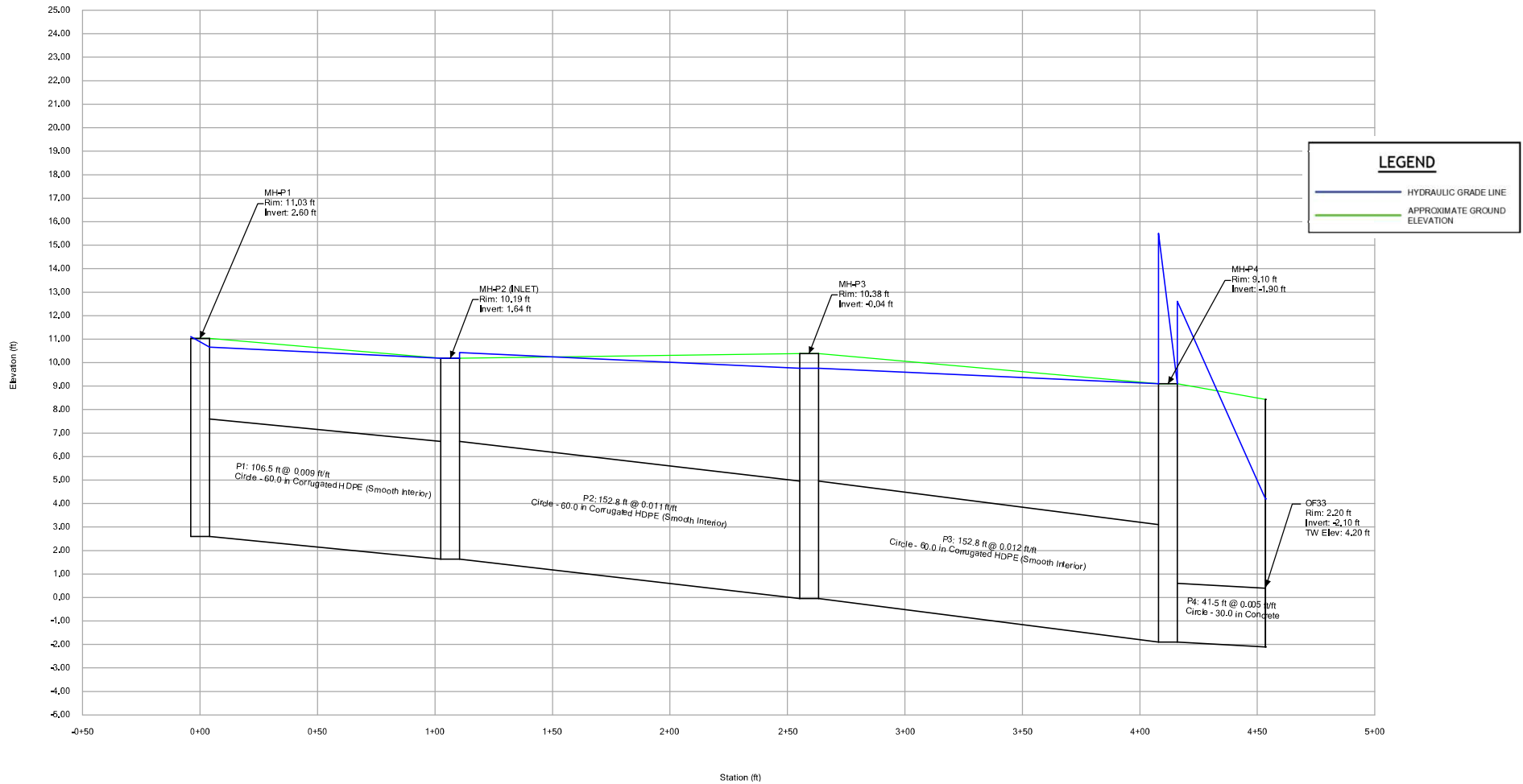
60-in HDPE to EX 30-in RCP, 10-YR Storm Event, MHW

Profile Report
Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



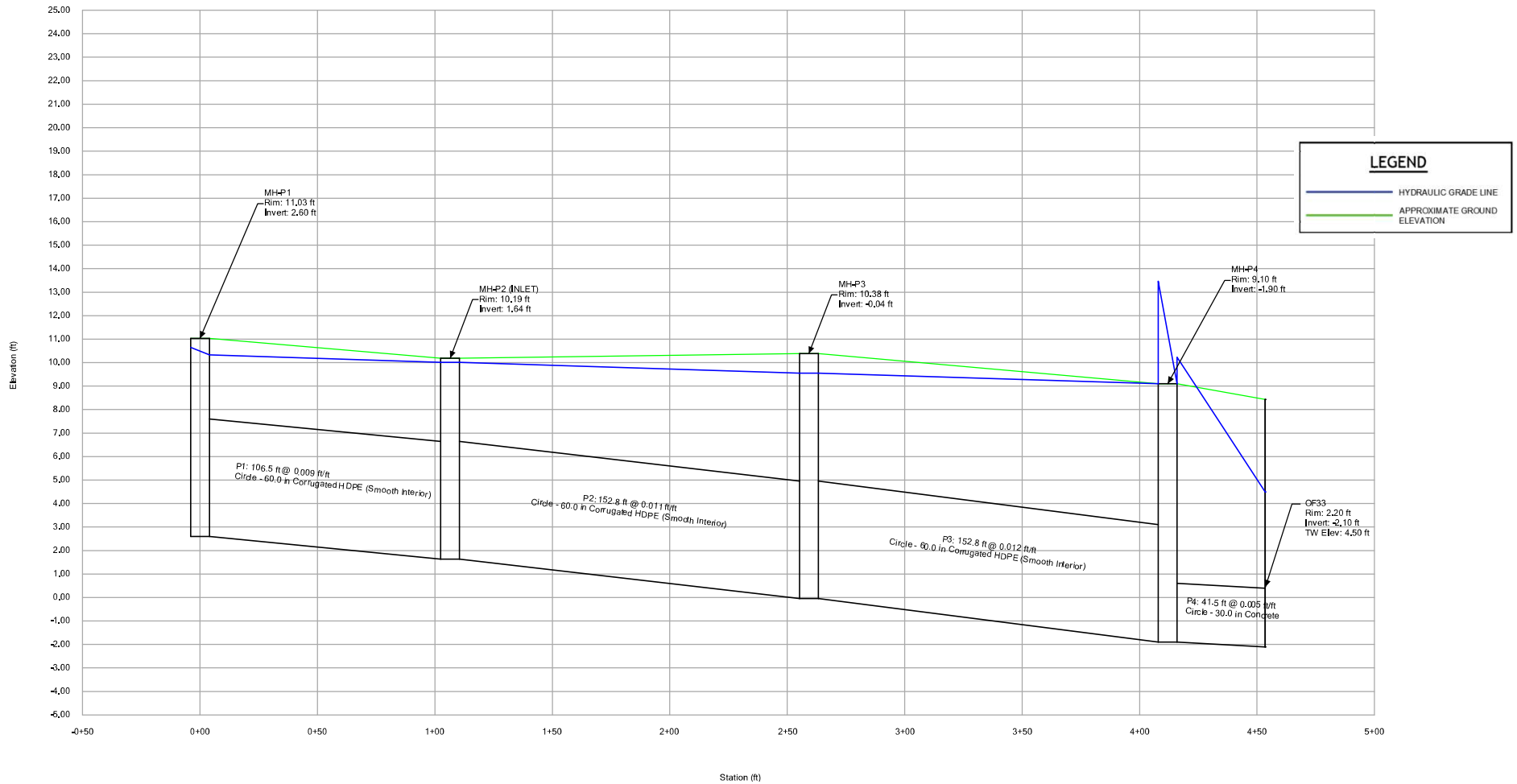
60-in HDPE to EX 30-in RCP, 25-YR Storm Event, MHW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



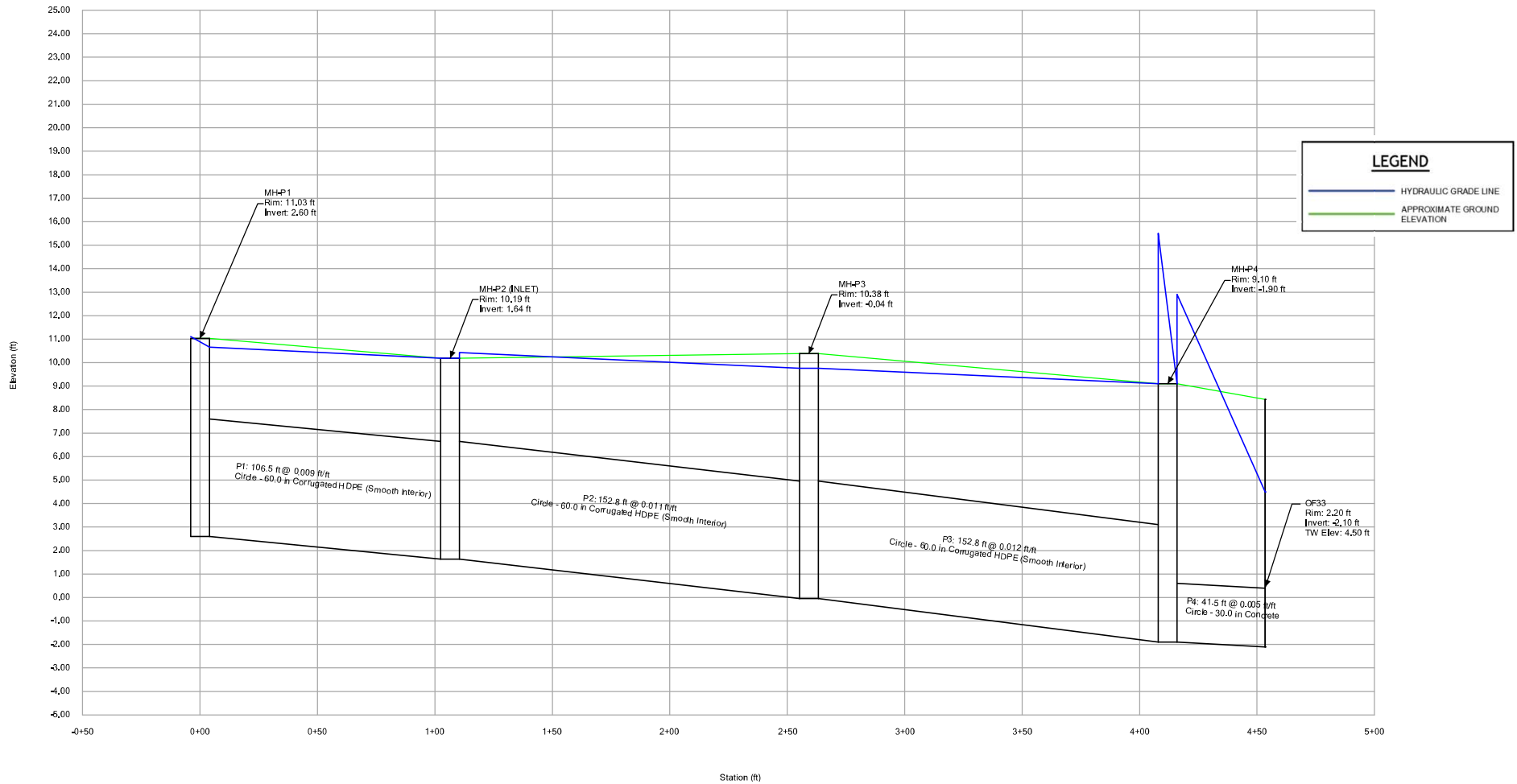
60-in HDPE to EX 30-in RCP, 10-YR Storm Event, MHHW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



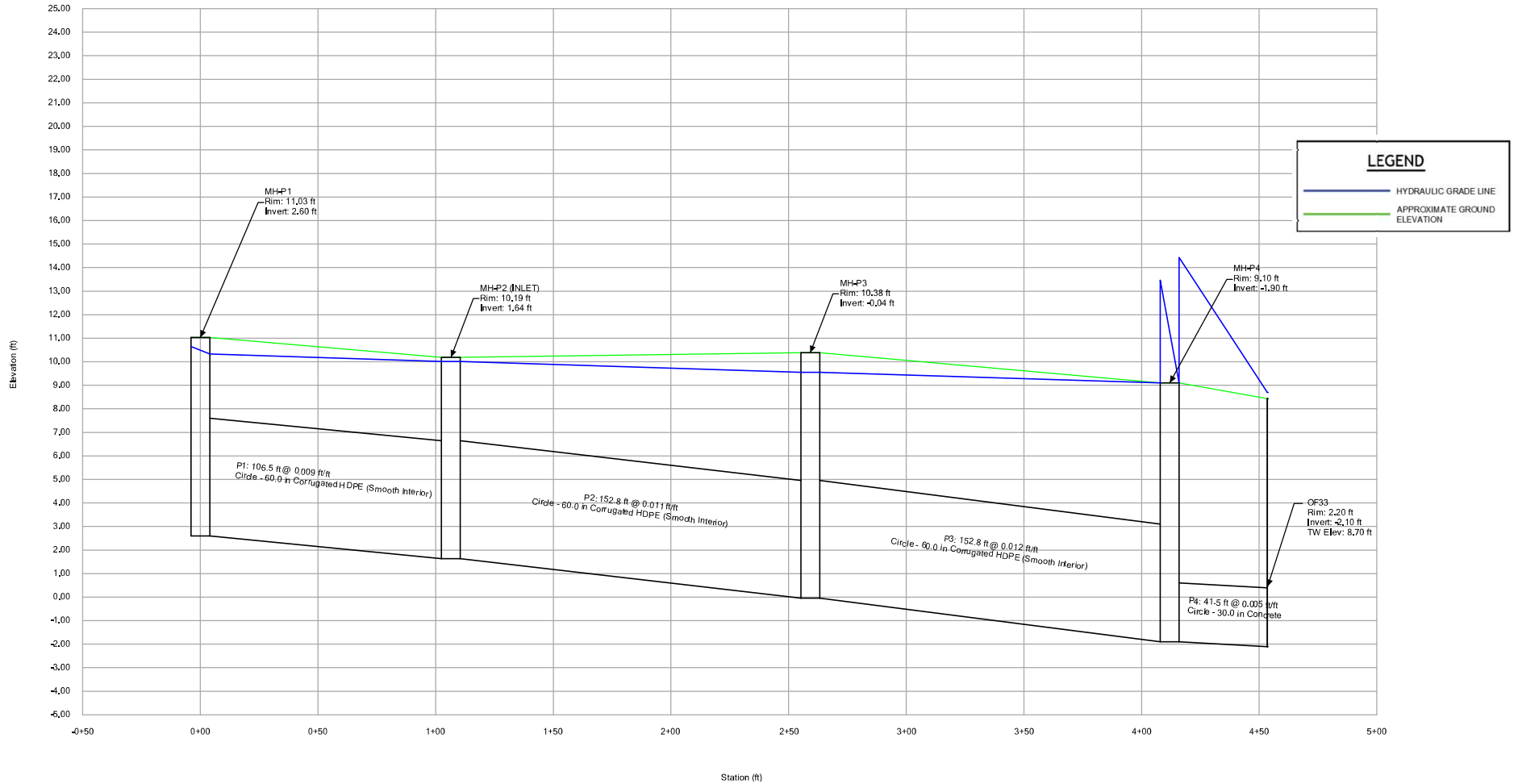
60-in HDPE to EX 30-in RCP, 25-YR Storm Event, MHHW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



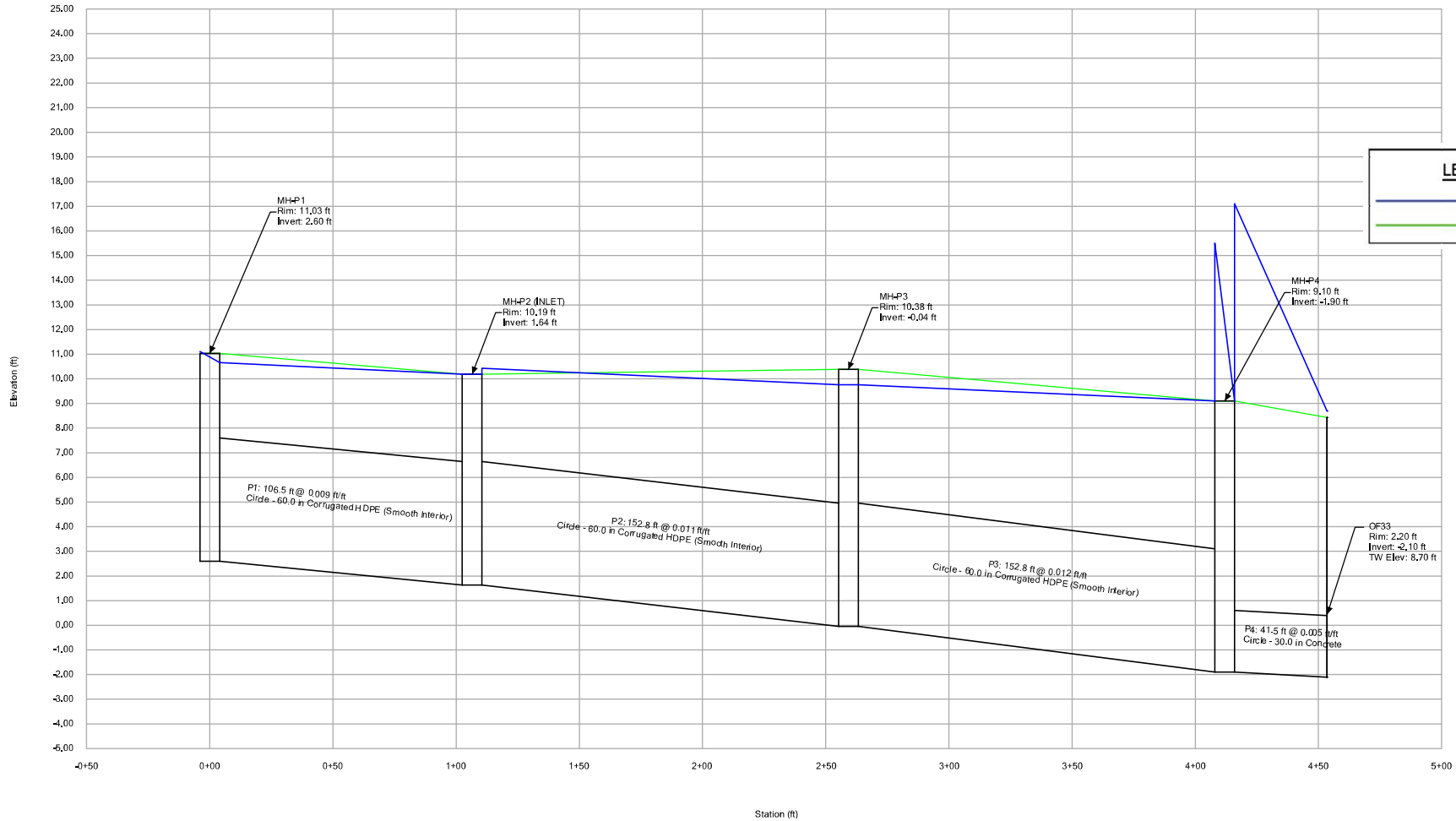
60-in HDPE to EX 30-in RCP, 10-YR Storm Event, 2070 MHHW

Profile Report
Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



60-in HDPE to EX 30-in RCP, 25-YR Storm Event, 2070 MHHW

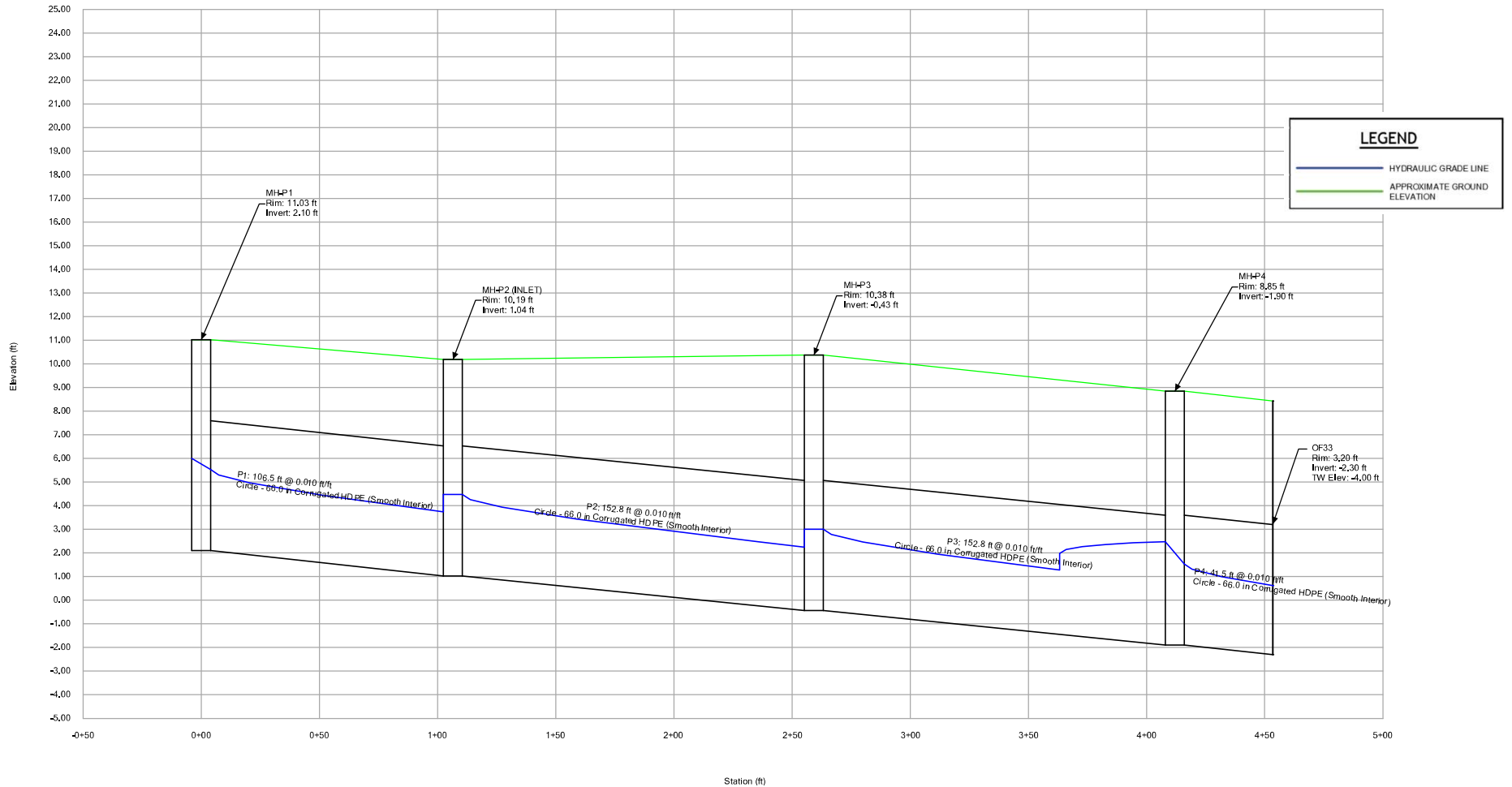
Profile Report
Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



ALTERNATIVE 3: 66" HDPE Pipe Profiles

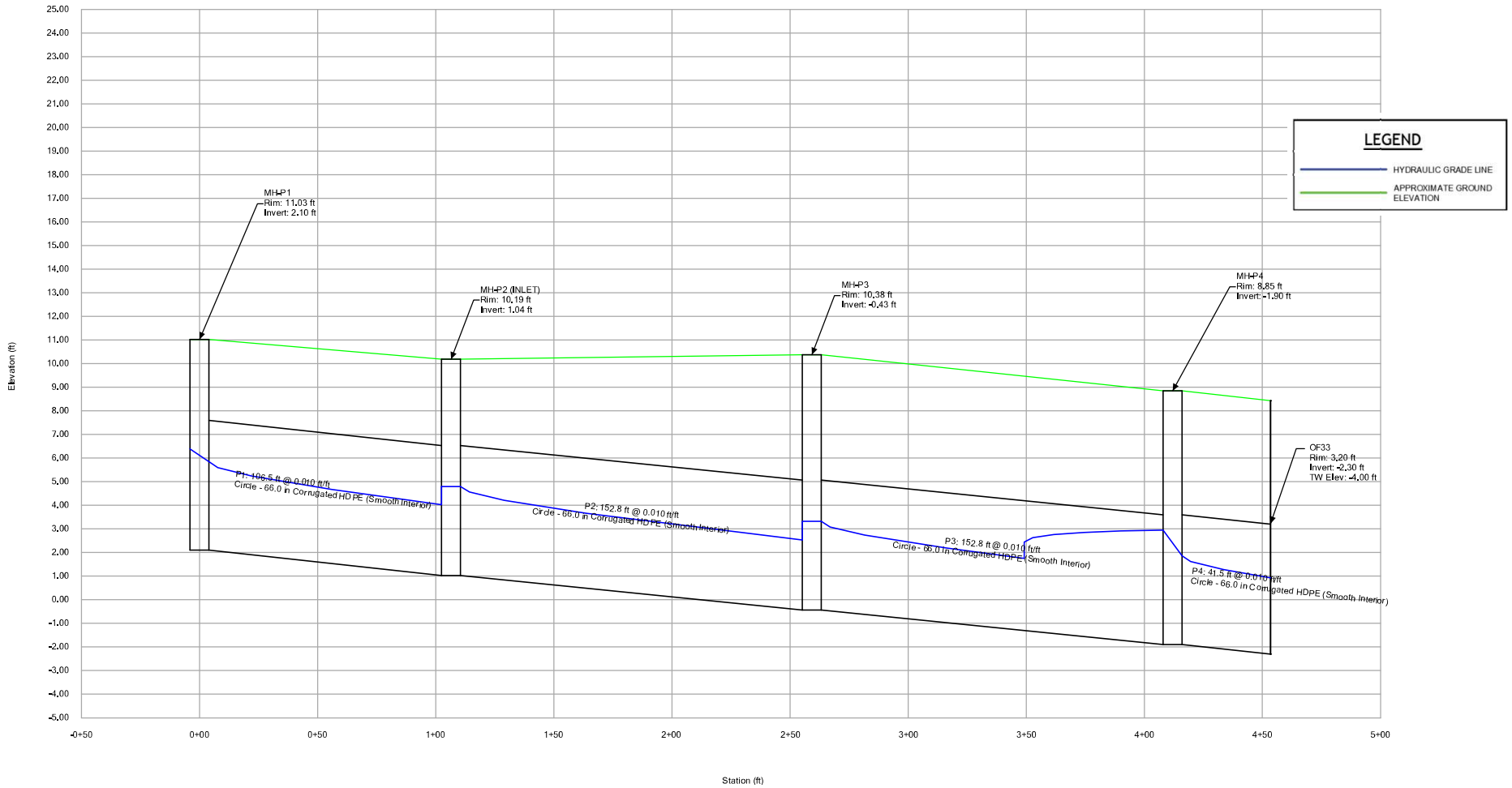
66-in HDPE, 10-YR Storm Event, MLW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



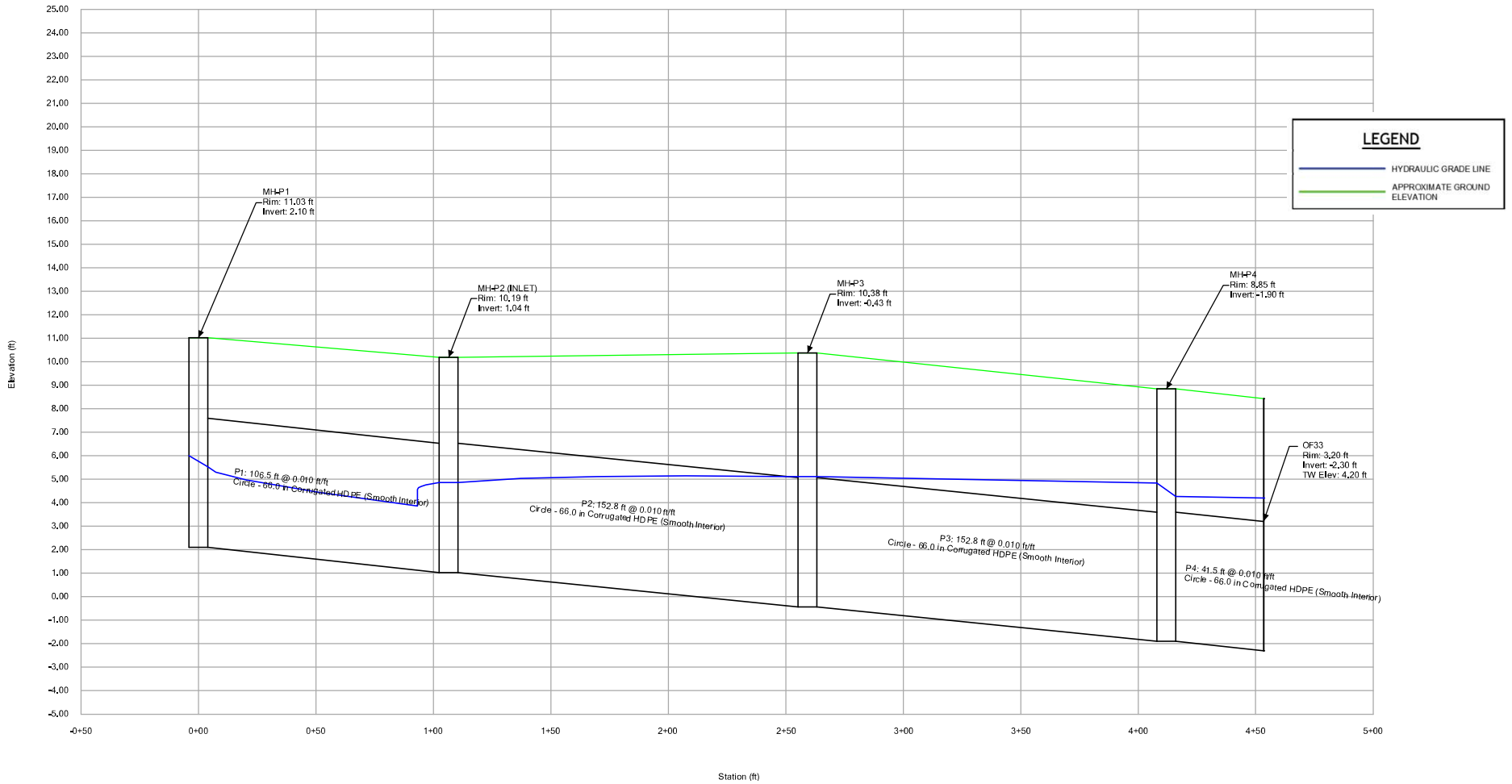
66-in HDPE, 25-YR Storm Event, MLW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



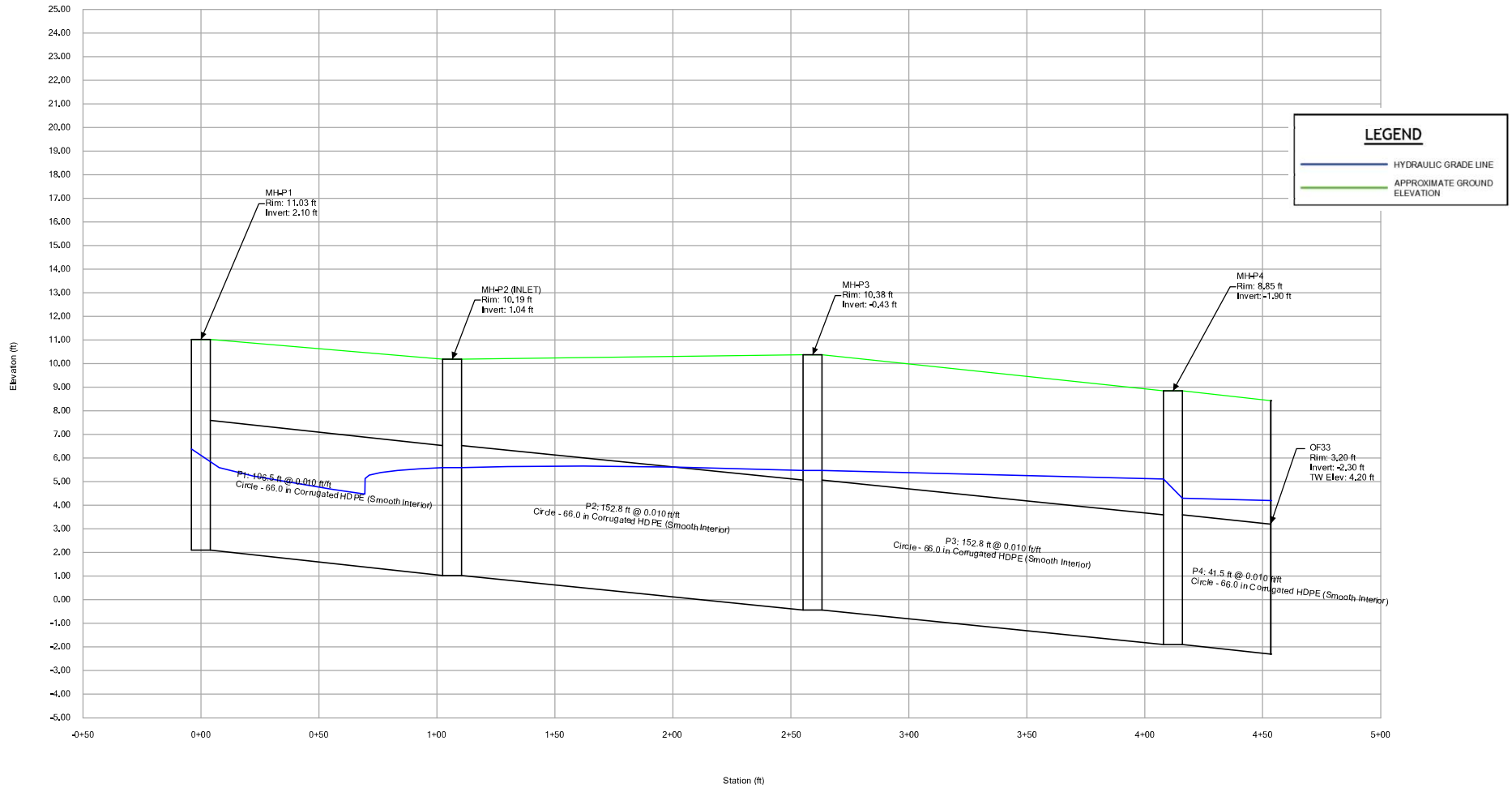
66-in HDPE, 10-YR Storm Event, MHW

Profile Report
Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



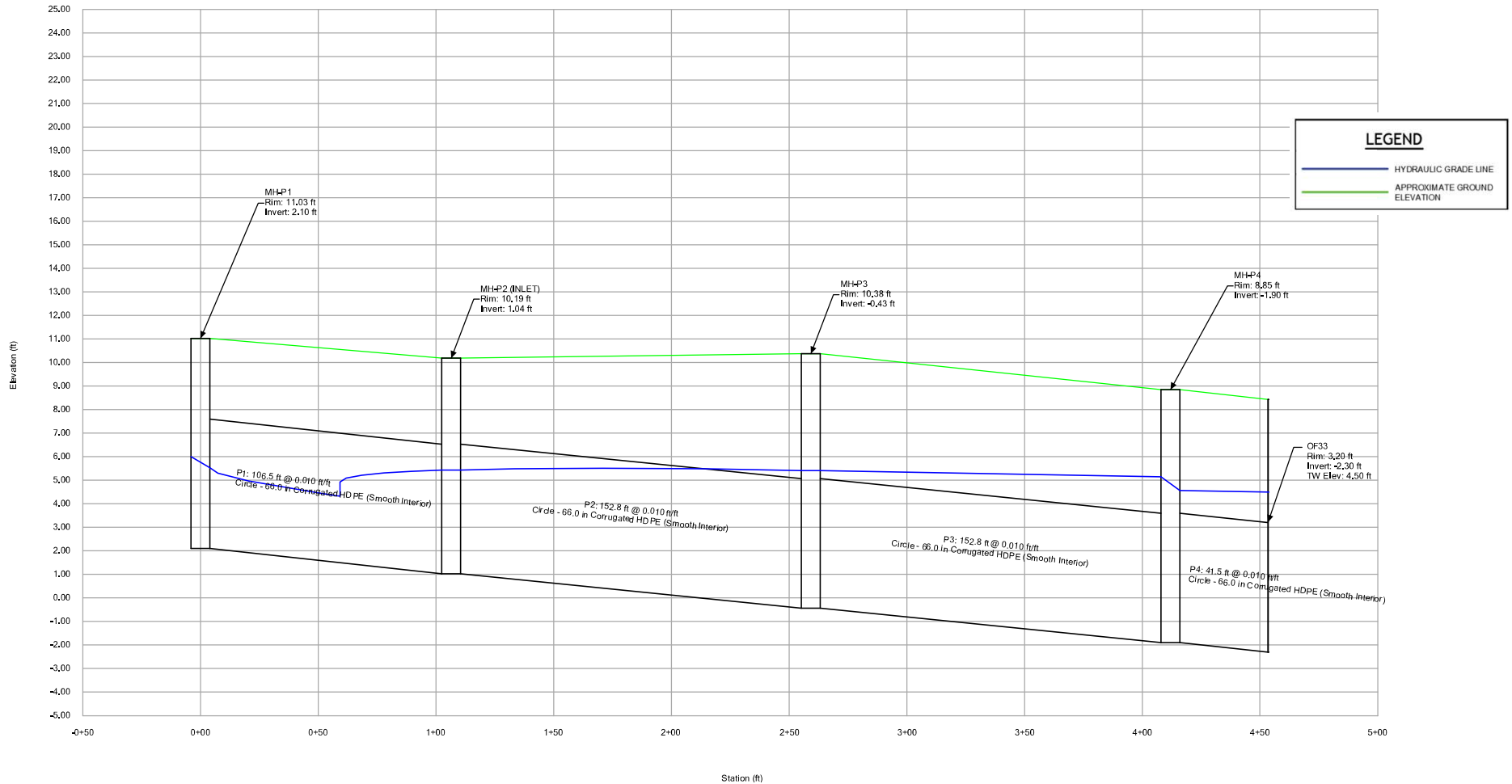
66-in HDPE, 25-YR Storm Event, MHW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



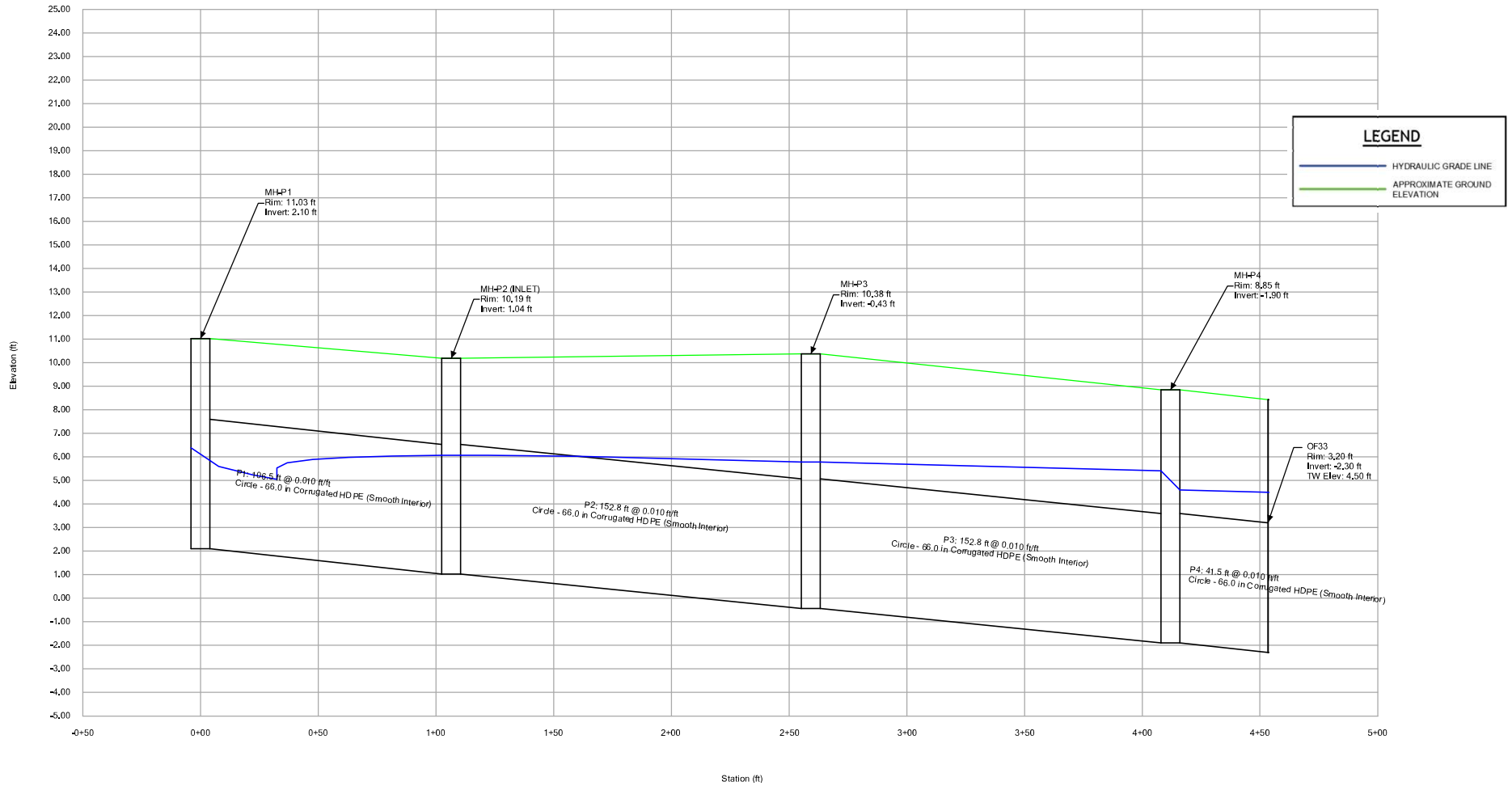
66-in HDPE, 10-YR Storm Event, MHHW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



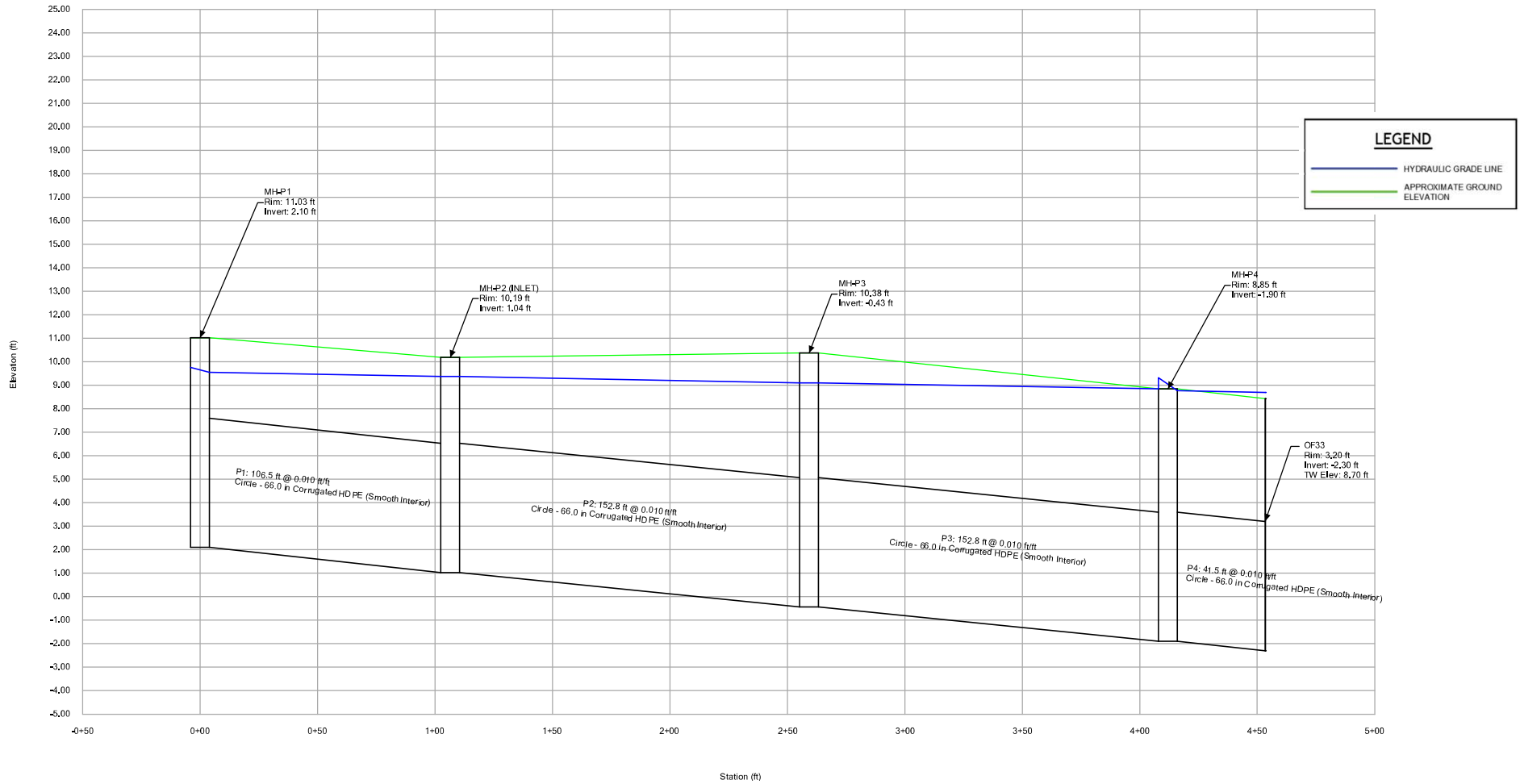
66-in HDPE, 25-YR Storm Event, MHHW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



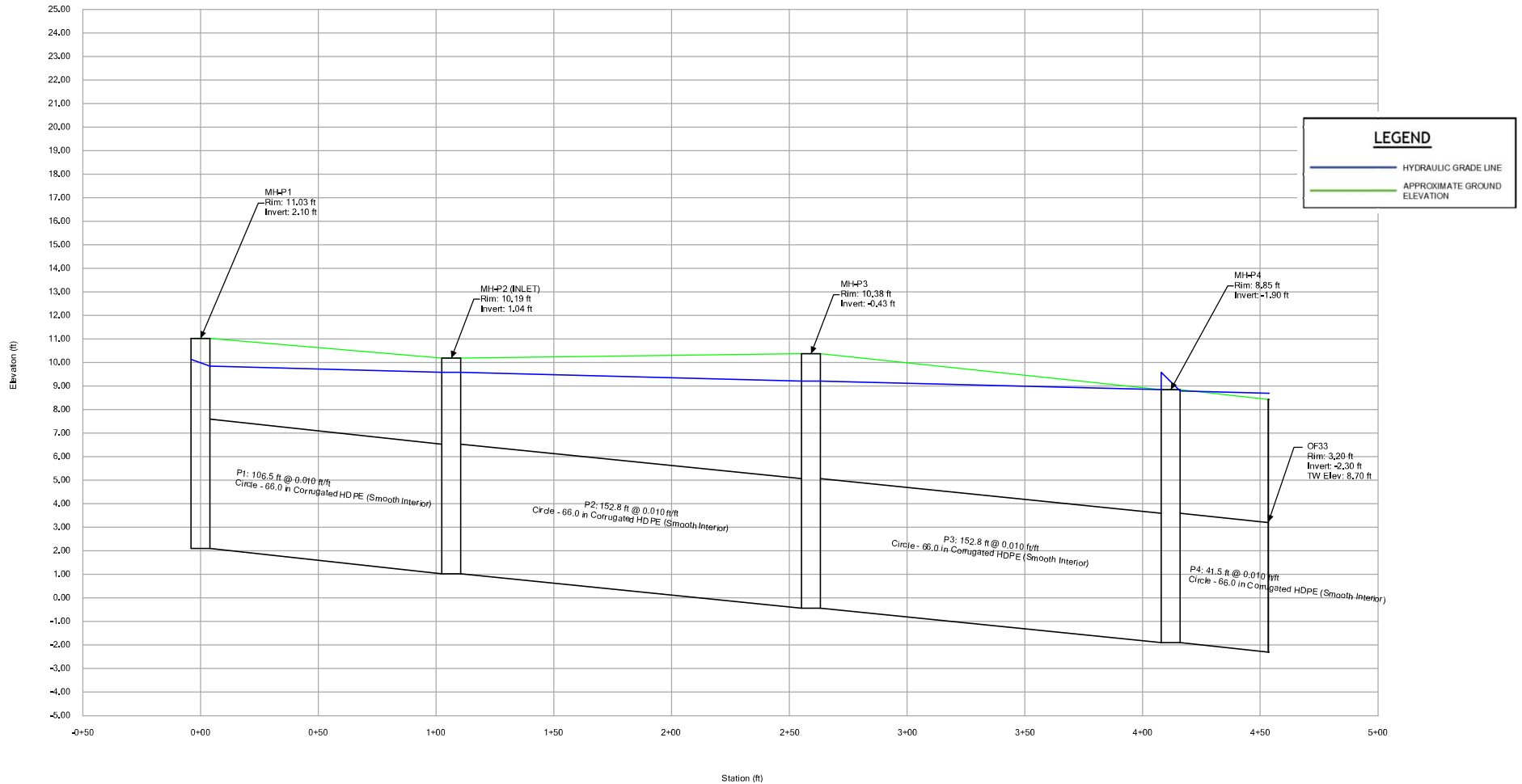
66-in HDPE, 10-YR Storm Event, 2070 MHHW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



66-in HDPE, 25-YR Storm Event, 2070 MHHW

Profile Report Engineering Profile - Proposed Profile (Storm Drainage Analysis Proposed.stsw)



Stormwater Management Report

Market Landing Park Expansion

APPENDIX F - SWPPP

Construction Stormwater Pollution Prevention Plan Template

To be covered under the U.S. Environmental Protection Agency's (EPA) Construction General Permit (CGP), all construction operators are required to develop a "Stormwater Pollution Prevention Plan" (or "SWPPP") prior to submitting a Notice of Intent (NOI) for permit coverage. EPA created this SWPPP Template to help you develop a SWPPP that is compliant with the minimum requirements of Part 7 of [EPA's 2022 Construction General Permit](#) ("2022 CGP"), and is customizable to your specific project and site.

Instructions for Using the SWPPP Template

Each section of the SWPPP Template includes instructions and space for your project and site information. Read the instructions for each section before you complete that section. Specific instructions on what information to include is indicated in each text field in [blue text](#). Click on the blue text and the instructions will disappear once you start typing. The SWPPP Template is an editable document file so that you can easily add tables and additional text and delete unneeded or non-applicable fields. Note that some sections may require only a brief description while others may require several pages of explanation.

The following tips for using this template will help ensure that you meet the minimum permit requirements:

- Read the [2022 CGP](#) thoroughly before you begin preparation of your SWPPP to ensure that you have a working understanding of the permit's underlying requirements. You will also need to consult Part 9 of the permit to determine if your State or Tribe has included additional requirements that affect you.
- Complete the SWPPP prior to submitting your NOI for permit coverage. This is required in Parts 1.4 and 7.1.
- If you prepared a SWPPP under a previous version of EPA's CGP, you must update your SWPPP to ensure that the 2022 CGP requirements are addressed prior to submitting your NOI.
- If there is more than one construction operator for your project, consider coordinating development of your SWPPP with the other operators.
- Once EPA has provided your site with coverage under the CGP, include your NOI, your authorization email, and a copy of the CGP as attachments to the SWPPP. See Appendices B and C of the SWPPP Template.

While EPA has made every effort to ensure the accuracy of all instructions contained in the SWPPP Template, it is the permit, not the template, that determines the actual obligations of regulated construction stormwater discharges. In the event of a conflict between the SWPPP Template and any corresponding provision of the 2022 CGP, you must abide by the requirements in the permit. EPA welcomes comments on the SWPPP Template at any time and will consider those comments in any future revision of this document. You may contact EPA for CGP-related inquiries at cgp@epa.gov.

Stormwater Pollution Prevention Plan (SWPPP)

For Construction Activities At:

Market Landing Park
24 Merrimac Street
Newburyport, MA 01950

SWPPP Prepared For:

City of Newburyport
Andrew Port
60 Pleasant Street
Newburyport, MA 01950
978-465-4400
aport@cityofnewburyport.com

SWPPP Prepared By:

Sasaki
Steven Engler, PE
64 Pleasant Street
Watertown, MA 02472
617-923-7199
sengler@sasaki.com

SWPPP Preparation Date:

07/11/2022

Estimated Project Dates:

Project Start Date: 04/01/2023

Project Completion Date: 09/01/2025

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SECTION 1: CONTACT INFORMATION/RESPONSIBLE PARTIES

1.1 Operator(s) / Subcontractor(s)

Instructions (see definition of “operator” at CGP Part 1.1.1):

- Identify all site operators who will be engaged in construction activities at the site and the areas of the site over which each operator has control (Part 7.2.1). Indicate respective responsibilities, where appropriate. Also include the 24-hour emergency contact.
- List subcontractors expected to work on-site. Notify subcontractors of stormwater requirements applicable to their work.
- Consider using Subcontractor Agreements such as the type included as a sample in Appendix G of this Template.

Operator(s):

Operator to be determined

[Repeat as necessary.]

Subcontractor(s):

Subcontractor(s) to be determined

Emergency 24-Hour Contact:

Emergency contact to be determined

1.2 Stormwater Team

Instructions (see CGP Parts 6 and 7.2.2):

- Identify the individuals (by name and position) that you have made part of the project's stormwater team pursuant to CGP Part 6.1, their individual responsibilities, and which members are responsible for inspections. At a minimum the stormwater team is comprised of individuals who are responsible for the design, installation, maintenance, and/or repair of stormwater controls; the application and storage of treatment chemicals (if applicable); conducting inspections as required in CGP Part 4.1; and taking corrective actions as required in Part 5.
- Each member of the stormwater team must have ready access to either an electronic or paper copy of applicable portions of the 2022 CGP and the SWPPP.
- Each member of the stormwater team must understand the requirements of the 2022 CGP and their specific responsibilities with respect to those requirements, including the information in Part 6.2.
- For projects that receive coverage under the 2022 CGP on or after February 17, 2023, to be considered a qualified person under Part 4.1 to conduct inspections under Part 4, you must, at a minimum, either:
 - ✓ Have completed the [EPA construction inspection course](#) developed for this permit and have passed the exam; or
 - ✓ Hold a current valid construction inspection certification or license from a program that, at a minimum, covers the following:
 - Principles and practices of erosion and sediment control and pollution prevention practices at construction sites;
 - Proper installation, and maintenance of erosion and sediment controls and pollution prevention practices used at construction sites; and
 - Performance of inspections, including the proper completion of required reports and documentation, consistent with the requirements of Part 4.

Note that if one of the following topics (e.g., installation and maintenance of pollution prevention practices) is not covered by the non-EPA training program, you may consider supplementing the training with the analogous module of the EPA course (e.g., Module 4) that covers the missing topic.
- Include documentation showing completion of trainings in Appendix I of this SWPPP template.
- For projects that receive coverage under the 2022 CGP prior to February 17, 2023, any personnel conducting site inspections pursuant to Part 4 on your site must, at a minimum:
 - ✓ Be knowledgeable in the principles and practice of erosion and sediment controls and pollution prevention,
 - ✓ Possess the appropriate skills and training in conditions at the construction site that could impact stormwater quality, and
 - ✓ Possess the appropriate skills and training in the effectiveness of any stormwater controls selected and installed to meet the requirements of this permit.

Stormwater Team

Name and/or Position, and Contact	Responsibilities	I Have Completed Training Required by CGP Part 6.2	I Have Read the CGP and Understand the Applicable Requirements
Steven Engler, PE Sasaki Senior Associate 617-923-7199 sengler@sasaki.com	SWPPP Preparer	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes Date: 7/11/2022
Zachary Chrisco, PE Insert Position Insert Telephone Number Insert Email	Principal Engineer	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Yes Date: 7/11/2022
Other responsible people to be determined		<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes Date:

Stormwater Team Members Who Conduct Inspections Pursuant to CGP Part 4

Name and/or Position and Contact	Training(s) Received	Date Training(s) Completed	If Training is a Non-EPA Training, Confirm that it Satisfies the Minimum Elements of CGP Part 6.3.b
Names of responsible people to be determined		Date:	<input type="checkbox"/> Principles and practices of erosion and sediment control and pollution prevention practices at construction sites <input type="checkbox"/> Proper installation and maintenance of erosion and sediment controls and pollution prevention practices used at construction sites <input type="checkbox"/> Performance of inspections, including the proper completion of required reports and documentation, consistent with the requirements of Part 4
		Date:	<input type="checkbox"/> Principles and practices of erosion and sediment control and pollution prevention practices at construction sites <input type="checkbox"/> Proper installation and maintenance of erosion and sediment controls and pollution prevention practices used at construction sites <input type="checkbox"/> Performance of inspections, including the proper completion of required reports and documentation, consistent with the requirements of Part 4
		Date:	<input type="checkbox"/> Principles and practices of erosion and sediment control and pollution prevention practices at construction sites <input type="checkbox"/> Proper installation and maintenance of erosion and sediment controls and pollution prevention practices used at construction sites <input type="checkbox"/> Performance of inspections, including the proper completion of required reports and documentation, consistent with the requirements of Part 4

[Insert or delete rows as necessary.]

SECTION 2: SITE EVALUATION, ASSESSMENT, AND PLANNING

2.1 Project/Site Information

Instructions (see "Project/Site Information," Section IV of Appendix H – NOI Form and Instructions):

- In this section, compile basic site information that will be helpful when you file your NOI.

Project Name and Address

Project/Site Name: [Market Landing Park](#)

Street/Location: [24 Merrimac Street](#)

City: [Newburyport](#)

State: [MA](#)

ZIP Code: [01950](#)

County or Similar Government Division: [Essex County](#)

Project Latitude/Longitude

Latitude: [42.81210](#)° N

(decimal degrees)

Longitude: - [70.87165](#)° W

(decimal degrees)

Latitude/longitude data source: Map GPS Other (please specify):

Horizontal Reference Datum: NAD 27 NAD 83 WGS 84

Additional Site Information

Is your site located on Indian country lands, or on a property of religious or cultural significance to an Indian Tribe? Yes No

If yes, provide the name of the Indian Tribe associated with the area of Indian country (including the name of Indian reservation if applicable), or if not in Indian country, provide the name of the Indian Tribe associated with the property:

2.2 Discharge Information

Instructions (see “Discharge Information,” Section V of Appendix H – NOI Form and Instructions):

- In this section, include information relating to your site's discharge. This information corresponds to the “Discharge Information” section of the NOI form.
- List all of the stormwater points of discharge from your site. Identify each point of discharge with a unique 3-digit ID (e.g., 001, 002).
- For each unique point of discharge you list, specify the name of the first receiving water that receives stormwater directly from the point of discharge and/or from the MS4 that the point of discharge discharges to. You may have multiple points of discharge that discharge to the same receiving water. For assistance in identifying the receiving water to which you discharge, you may use [EPA's Stormwater Discharge Mapping Tool](#).
- Next, specify whether any waters of the U.S. that you discharge to are listed as “impaired” as defined in [Appendix A](#), and the pollutants causing the impairment. Identify any Total Maximum Daily Loads (TMDL) that have been completed for any of the waters of the U.S. that you discharge to and the pollutants for which there is a TMDL. For more information on impaired waters and TMDLs, including a list of TMDL contacts and links by State, visit <https://www.epa.gov/tmdl>. For assistance in identifying any impaired waters or applicable TMDLs, you may use [EPA's Stormwater Discharge Mapping Tool](#).
- Finally, indicate whether any receiving water that you discharge to is designated as a Tier 2, Tier 2.5, or Tier 3 water and if so, what the designation is (2, 2.5, or 3). A list of Tier 2, 2.5, and 3 waters located in the areas eligible for coverage under this permit can be found at <https://www.epa.gov/npdes/construction-general-permit-resources-tools-and-templates>.

Does your project/site discharge stormwater into a Municipal Separate Storm Sewer System (MS4)?

Yes No

Are there any waters of the U.S. within 50 feet of your project's earth disturbances?

Yes No

For each point of discharge, provide a point of discharge ID (a unique 3-digit ID, e.g., 001, 002), the name of the first receiving water that receives stormwater directly from the point of discharge and/or from the MS4 that the point of discharge discharges to, and the following receiving water information, if applicable:

Point of Discharge ID	Name of receiving water that receives stormwater discharge:	Is the receiving water impaired (on the CWA 303(d) list)?	If yes, list the pollutants that are causing the impairment:	Has a TMDL been completed for this receiving waterbody?	If yes, list TMDL Name and ID:	Pollutant(s) for which there is a TMDL:	Is this receiving water designated as a Tier 2, Tier 2.5, or Tier 3 water?	If yes, specify which Tier (2, 2.5, or 3)?
001	Merrimack River	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Enterococcus, Fecal Coliform, PCB's in fish tissue	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
002	Merrimack River	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Enterococcus, Fecal Coliform, PCB's in fish tissue	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
003	Merrimack River	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Enterococcus, Fecal Coliform, PCB's in fish tissue	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

2.3 Nature of the Construction Activities

Instructions (see CGP Parts 1.2.1.c and 7.2.3):

- Provide a general description of the nature of the construction activities at your site.
- Describe the size of the property (in acres or length in miles if a linear construction site), the total area expected to be disturbed by the construction activities (to the nearest quarter acre or quarter mile if a linear construction site), and the maximum area expected to be disturbed at any one time.
- A description of any on-site and off-site construction support activity areas covered by this permit;
- Indicate the type of construction site, whether there will be certain demolition activities, and whether the predevelopment land use was for agriculture.
- Provide a list and description of all pollutant-generating activities (e.g., paving operations; concrete, paint, and stucco washout and waste disposal; solid waste storage and disposal; and dewatering operations) and indicate for each activity the associated pollutants or pollutant constituents (e.g., sediment, fertilizers, pesticides, paints, caulks, sealants, fluorescent light ballasts, contaminated substrates, solvents, fuels) which could be discharged in stormwater from your construction site.
- Describe the construction support activities covered by this permit (see Part 1.2.1.c of the permit).

General Description of Project

Provide a general description of the nature of your construction activities, including the age or dates of past renovations for structures that are undergoing demolition:

The proposed site development involves demolition of the existing information booth and restrooms and construction of a new visitor center with public restrooms, pedestrian walkways and plazas. The redevelopment of the park will also include reducing the impervious parking areas, expanding the public green space, and implementing resilient grading. The project will include new utility services and relocation of existing services to accommodate park construction. The proposed stormwater management system consists of deep-sump catch basins, drainage manholes, conveyance piping, and stormwater treatments units to manage runoff quality and quantity. Roof drainage from the proposed visitor center will be provided via the roof water collection system that will be directed to an existing drainage structure along Merrimac Street.

If you are conducting earth-disturbing activities in response to a public emergency, document the cause of the public emergency (e.g., mud slides, earthquake, extreme flooding conditions, widespread disruption in essential public services), information substantiating its occurrence (e.g., State disaster declaration or similar State or local declaration), and a description of the construction necessary to reestablish affected public services:

The project is not being conducted in response to a public emergency.

Business days and hours for the project: Sunday through Saturday 7 AM – 10 PM

Size of Construction Site

Size of Property	9.00 acres
Total Area Expected to be Disturbed by Construction Activities	6.75 acres
Maximum Area Expected to be Disturbed at Any One Time, Including On-site and Off-site Construction Support Areas	2.50 acres

[Repeat as necessary for individual project phases.]

Type of Construction Site (check all that apply):

- Single-Family Residential
 Multi-Family Residential
 Commercial
 Industrial
 Institutional
 Highway or Road
 Utility
 Other _Municipal Park_____

Will you be discharging dewatering water from your site? Yes No

If yes, will you be discharging dewatering water from a current or former Federal or State remediation site? Yes No

Pollutant-Generating Activities

List and describe all pollutant-generating activities and indicate for each activity the associated pollutants or pollutant constituents that could be discharged in stormwater from your construction site. Take into account where potential spills and leaks could occur that contribute pollutants to stormwater discharges, and any known hazardous or toxic substances, such as PCBs and asbestos, that will be disturbed during construction.

Pollutant-Generating Activity	Pollutants or Pollutant Constituents
(e.g., paving operations; concrete, paint, and stucco washout and waste disposal; solid waste storage and disposal; and dewatering operations)	(e.g., sediment, fertilizers, pesticides, paints, caulks, sealants, fluorescent light ballasts, contaminated substrates, solvents, fuels)
Insulation Demolition	Asbestos
Concrete Paving	Limestone, Sand, pH, metals
Asphalt Paving	Oils
Masonry Work	Limestone, Sand, pH, metals
Tree and Planting Work	Fertilizer, nutrients, pH
Solid Waste Disposal	Dust, sediment, metals
Pile Auguring	Fuel
Demolition work	Dust, sediment, metals
Traffic Paint	Paint

Pollutant-Generating Activity	Pollutants or Pollutant Constituents
(e.g., paving operations; concrete, paint, and stucco washout and waste disposal; solid waste storage and disposal; and dewatering operations)	(e.g., sediment, fertilizers, pesticides, paints, caulks, sealants, fluorescent light ballasts, contaminated substrates, solvents, fuels)
Dewatering	Sediment, metals, lead, PAHs

Construction Support Activities *(only provide if applicable)*

Describe any construction support activities for the project (e.g., concrete or asphalt batch plants, equipment staging yards, material storage areas, excavated material disposal areas, borrow areas):

Not applicable

Contact information for construction support activity:

2.4 Sequence and Estimated Dates of Construction Activities

<p>Instructions (see CGP Part 7.2.3):</p> <ul style="list-style-type: none"> - Describe the intended construction sequence and duration of major activities. - For each portion or phase of the construction site, include the following: <ul style="list-style-type: none"> ✓ Commencement and duration of construction activities, including clearing and grubbing, mass grading, demolition activities, site preparation (i.e., excavating, cutting and filling), final grading, and creation of soil and vegetation stockpiles requiring stabilization; ✓ Temporary or permanent cessation of construction activities in each portion of the site; ✓ Temporary or final stabilization of exposed areas for each portion of the site. The dates for stabilization must reflect the applicable deadlines to which you are subject to in Part 2.2.14; and ✓ Removal of temporary stormwater controls and construction equipment or vehicles, and cessation of any construction-related pollutant-generating activities. - The construction sequence must reflect the following requirements: <ul style="list-style-type: none"> ✓ Part 2.1.3 (installation of stormwater controls); and ✓ Parts 2.2.14 (stabilization deadlines).
--

Phase I

Path and waterfront construction	
Estimated Start Date of Construction Activities for this Phase	4/1/2023
Estimated End Date of Construction Activities for this Phase	6/15/2024
Estimated Date(s) of Application of Stabilization Measures for Areas of the Site Required to be Stabilized	6/1/2024
Estimated Date(s) when Stormwater Controls will be Removed	6/8/2024

Phase II

Parking area reconstruction	
Estimated Start Date of Construction Activities for this Phase	4/1/2024
Estimated End Date of Construction Activities for this Phase	11/15/2024
Estimated Date(s) of Application of Stabilization Measures for Areas of the Site Required to be Stabilized	10/15/2024
Estimated Date(s) when Stormwater Controls will be Removed	11/1/2024

Phase II

Visitor center and plaza construction	
Estimated Start Date of Construction Activities for this Phase	6/1/2024
Estimated End Date of Construction Activities for this Phase	9/1/2025
Estimated Date(s) of Application of Stabilization Measures for Areas of the Site Required to be Stabilized	8/25/2025
Estimated Date(s) when Stormwater Controls will be Removed	8/30/2025

2.5 Authorized Non-Stormwater Discharges

Instructions (see CGP Parts 1.2.2 and 7.2.5):

- Identify all authorized non-stormwater discharges. The authorized non-stormwater discharges identified in Part 1.2.2 of the 2022 CGP include:
 - ✓ Discharges from emergency fire-fighting activities;
 - ✓ Fire hydrant flushings;
 - ✓ Landscape irrigation;
 - ✓ Waters used to wash vehicles and equipment, provided that there is no discharge of soaps, solvents, or detergents used for such purposes;
 - ✓ Water used to control dust;
 - ✓ Potable water including uncontaminated water line flushings;
 - ✓ External building washdown, provided soaps, solvents and detergents are not used, and external surfaces do not contain hazardous substances as defined in CGP Appendix A (e.g., paint or caulk containing polychlorinated biphenyls (PCBs));
 - ✓ Pavement wash waters provided spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and detergents are not used. You are prohibited from directing pavement wash waters directly into any receiving water, storm drain inlet, or constructed or natural site drainage features, unless the conveyance is connected to a sediment basin, sediment trap, or similarly effective control;
 - ✓ Uncontaminated air conditioning or compressor condensate;
 - ✓ Uncontaminated, non-turbid discharges of ground water or spring water;
 - ✓ Foundation or footing drains where flows are not contaminated with process materials such as solvents or contaminated ground water; and
 - ✓ Uncontaminated construction dewatering water discharged in accordance with Part 2.4.

List of Authorized Non-Stormwater Discharges Present at the Site

Authorized Non-Stormwater Discharge	Will or May Occur at Your Site?
Discharges from emergency fire-fighting activities	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Fire hydrant flushings	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Landscape irrigation	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Water used to wash vehicles and equipment	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Water used to control dust	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Potable water including uncontaminated water line flushings	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
External building washdown (soaps/solvents are not used and external surfaces do not contain hazardous substances)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Pavement wash waters	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Uncontaminated air conditioning or compressor condensate	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Uncontaminated, non-turbid discharges of ground water or spring water	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Foundation or footing drains	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Uncontaminated construction dewatering water	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

(Note: You are required to identify the likely locations of these authorized non-stormwater discharges on your site map. See Section 2.6, below, of this SWPPP Template.)

2.6 Site Maps

Instructions (see CGP Part 7.2.4):

- Attach site maps in Appendix A of the Template. For most projects, a series of site maps is necessary and recommended. The first should show the undeveloped site and its current features. An additional map or maps should be created to show the developed site or, for more complicated sites, show the major phases of development.

These maps must include the following features:

- Boundaries of the property and of the locations where construction will occur, including:
 - ✓ Locations where earth-disturbing activities will occur, noting any phasing of construction activities and any demolition activities;
 - ✓ Approximate slopes before and after major grading activities. Note any areas of steep slopes, as defined in CGP Appendix A;
 - ✓ Locations where sediment, soil, or other construction materials will be stockpiled;
 - ✓ Locations of any crossings of receiving waters;
 - ✓ Designated points where vehicles will exit onto paved roads;
 - ✓ Locations of structures and other impervious surfaces upon completion of construction; and
 - ✓ Locations of on-site and off-site construction support activity areas covered by the permit (see CGP Part 1.2.1.c).
- Locations of any receiving waters, including wetlands, within your site and all receiving waters within one mile downstream of the site's discharge point(s). Indicate which receiving waters are listed as impaired, and which are identified by your State, Tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 waters.
- Any areas of Federally-listed critical habitat for endangered or threatened species within the action area of the site as defined in CGP Appendix A (Helpful resources: CGP Appendix D and www.epa.gov/npdes/construction-general-permit-cgp-threatened-and-endangered-species-eligibility).
- Type and extent of pre-construction cover on the site (e.g., vegetative cover, forest, pasture, pavement, structures).
- Drainage pattern(s) of stormwater and authorized non-stormwater before and after major grading activities.
- Stormwater and authorized non-stormwater discharge locations, including:
 - ✓ Locations where stormwater and/or authorized non-stormwater will be discharged to storm drain inlets, including a notation of whether the inlet conveys stormwater to a sediment basin, sediment trap, or similarly effective control; and
 - ✓ Locations where stormwater or allowable non-stormwater will be discharged directly to receiving waters, including wetlands (i.e., not via a storm drain inlet).
 - ✓ Locations where turbidity benchmark monitoring will take place to comply with Part 3.3, if applicable to your site.
- Locations of all potential pollutant-generating activities identified in Part 7.2.3g (note: you should have those identified in Section 2.3 (Nature of the Construction Activities) in this SWPPP Template).
- Designated areas where construction wastes that are covered by the exception in Part 2.3.3e.ii (i.e., they are not pollutant-generating) will be stored.

- Locations of stormwater controls, including natural buffer areas and any shared controls utilized to comply with the permit.
- Locations where polymers, flocculants, or other treatment chemicals will be used and stored.

SECTION 3: DOCUMENTATION OF COMPLIANCE WITH OTHER FEDERAL REQUIREMENTS

3.1 Endangered Species Protection

Instructions (see CGP Parts 1.1.5, 7.2.9.a, Appendix D, and the “Endangered Species Protection” section of the Appendix H – NOI Form and Instructions as well as resources available at www.epa.gov/npdes/construction-general-permit-cgp-threatened-and-endangered-species-eligibility):

Using the instructions in [Appendix D](#) of the permit, determine which criterion listed below (A-F) applies with respect to the protection of endangered species. To make this determination, you must use information from **BOTH** the National Marine Fisheries Service (NMFS) and U.S. Fish and Wildlife Service (USFWS). Both the NMFS and USFWS maintain lists of Endangered Species Act-listed (ESA-listed) species and designated critical habitat. Operators must consult both when determining their eligibility.

- Check only 1 box, include the required information, and provide a sound basis for supporting the criterion selected. Select the most conservative criterion that applies.
- Include documentation supporting your determination of eligibility required in the Endangered Species Protection section of the NOI in NeT or the ESA worksheet in CGP Appendix D.

Eligibility Criterion

Following the process outlined in Appendix D, under which criterion are you eligible for coverage under this permit?

- Criterion A:** No ESA-listed species and/or designated critical habitat present in action area. Using the process outlined in Appendix D of the CGP, you certify that ESA-listed species and designated critical habitat(s) under the jurisdiction of the USFWS or NMFS are not likely to occur in your site's "action area" as defined in Appendix A of the CGP. *Please Note: NMFS' jurisdiction includes ESA-listed marine and estuarine species that spawn in inland rivers.*
- Check to confirm you have provided documentation in your SWPPP as required by CGP Appendix D (Note: reliance on State resources is not acceptable; see CGP Appendix D).

Documentation:

Eligibility Criterion

Following the process outlined in Appendix D, under which criterion are you eligible for coverage under this permit?

-
- Criterion B:** Eligibility requirements met by another operator under the 2022 CGP. The construction site's discharges and discharge-related activities were already addressed in another operator's valid certification of eligibility for your "action area" under eligibility Criterion A, C, D, E, or F of the 2022 CGP and you have confirmed that no additional ESA-listed species and/or designated critical habitat under the jurisdiction of USFWS and/or NMFS not considered in the that certification may be present or located in the "action area." To certify your eligibility under this criterion, there must be no lapse of NPDES permit coverage in the other CGP operator's certification. By certifying eligibility under this criterion, you agree to comply with any conditions upon which the other CGP operator's certification was based. You must include in your NOI the NPDES ID from the other 2022 CGP operator's notification of authorization under this permit and list any measures that you must comply with. If your certification is based on another 2022 CGP operator's certification under criterion C, you must provide EPA with the relevant supporting information required of existing dischargers in Criterion C.
- Check to confirm you have provided documentation in your SWPPP as required by CGP Appendix D.

Documentation:

-
- Criterion C:** Discharges not likely to result in any short- or long-term adverse effects to ESA-listed species and/or designated critical habitat. ESA-listed species and/or designated critical habitat(s) under the jurisdiction of the USFWS and/or NMFS are likely to occur in or near your site's "action area," and you certify to EPA that your site's discharges and discharge-related activities are not likely to result in any short- or long-term adverse effects to ESA-listed threatened or endangered species and/or designated critical habitat. This certification may include consideration of any stormwater controls and/or management practices you will adopt to ensure that your discharges and discharge-related activities are not likely to result in any short- or long-term adverse effects to ESA-listed species and/or designated critical habitat. To certify your eligibility under this criterion, indicate 1) the ESA-listed species and/or designated habitat located in your "action area" using the process outlined in Appendix D of this permit; 2) the distance between the site and the listed species and/or designated critical habitat in the action area (in miles); and 3) a rationale describing specifically how short- or long-term adverse effects to ESA-listed species will be avoided from the discharges and discharge-related activities. (Note: You must include a copy of your site map from your SWPPP showing the upland and in-water extent of your "action area" with your NOI.)
- Check to confirm you have provided documentation in your SWPPP as required by CGP Appendix D.

Documentation: [Insert Text Here](#)

Eligibility Criterion

Following the process outlined in Appendix D, under which criterion are you eligible for coverage under this permit?

- Criterion D: Coordination with USFWS and/or NMFS has successfully concluded.**
Coordination between you and the USFWS and/or NMFS has concluded. The coordination must have addressed the effects of your site's discharges and discharge-related activities on ESA-listed species and/or designated critical habitat under the jurisdiction of USFWS and/or NMFS, and resulted in a written confirmation from USFWS and/or NMFS that the effects of your site's discharges and discharge-related activities are not likely to result in any short- or long-term adverse effects. By certifying eligibility under this criterion, you agree to comply with any conditions you must meet for your site's discharges and discharge-related activities to not likely result in any short- or long-term adverse effects. You must include copies of the correspondence with the participating agencies in your SWPPP and this NOI.
- Check to confirm you have provided documentation in your SWPPP as required by CGP Appendix D.

Documentation:

Eligibility Criterion

Following the process outlined in Appendix D, under which criterion are you eligible for coverage under this permit?

- Criterion E: ESA Section 7 consultation has successfully concluded.** Consultation between a Federal agency and the USFWS and/or NMFS under section 7 of the ESA has concluded. Consultations can be either formal or informal, and would have occurred only as a result of a separate Federal action (e.g., during application for an individual wastewater discharge permit or the issuance of a wetlands dredge and fill permit), and the consultation must have addressed the effects of your construction activity's discharges and discharge-related activities on all ESA-listed threatened or endangered species and all designated critical habitat under the jurisdiction of each Service, as appropriate, in your action area. The result of this consultation must be either:
- i. A biological opinion currently in effect that determined that the action in question (taking into account the effects of your facility's discharges and discharge-related activities) is likely to adversely affect, but is not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. The biological opinion must have included the effects of your facility's discharges and discharge-related activities on all the listed species and designated critical habitat in your action area under the jurisdiction of each Service, as appropriate. To be eligible under (i), any reasonable and prudent measures specified in the incidental take statement must be implemented;
 - ii. Written concurrence (e.g., letter of concurrence) from the applicable Service(s) with a determination that your facility's discharges and discharge-related activities are not likely to adversely affect ESA-listed species and/or designated critical habitat. The concurrence letter must have included the effects of your facility's discharges and discharge-related activities on all the ESA-listed species and/or designated critical habitat on your species list(s) acquired from USFWS and/or NMFS as part of this worksheet.

The consultation does not warrant reinitiation under 50 CFR §402.16; or, if reinitiation of consultation is required (e.g., due to a new species listing, critical habitat designation, or new information), the Federal action agency has reinitiated the consultation and the result of the consultation is consistent with the statements above. (Note: you must include any reinitiation documentation from the Services or consulting Federal agency with your NOI.) -

- Check to confirm you have provided documentation in your SWPPP as required by CGP Appendix D.

Documentation:

Eligibility Criterion

Following the process outlined in Appendix D, under which criterion are you eligible for coverage under this permit?

- Criterion F: Issuance of section 10 permit.** Potential take is authorized through the issuance of a permit under section 10 of the ESA by the USFWS and/or NMFS, and this authorization addresses the effects of the site's discharges and discharge-related activities on ESA-listed species and designated critical habitat. You must include copies of the correspondence between yourself and the participating agencies in your SWPPP and your NOI.
 - Check to confirm you have provided documentation in your SWPPP as required by CGP Appendix D.

Documentation:

3.2 Historic Property Screening Process

Instructions (see CGP Part 1.1.6, 7.2.9.b, Appendix E, and the "Historic Preservation" section of the Appendix H – NOI Form and Instructions):

Follow the screening process in Appendix E of the permit to determine whether your installation of subsurface earth-disturbing stormwater controls will have an effect on historic properties.

- Include documentation supporting your determination of eligibility.
- To contact your applicable State historic preservation office, information is available at <https://ncshpo.org/directory/>
- To contact your applicable Tribal historic preservation office, information is available at https://grantsdev.cr.nps.gov/THPO_Review/index.cfm

Appendix E, Step 1

Do you plan on installing any stormwater controls that require subsurface earth disturbance, including, but not limited to, any of the following stormwater controls at your site? Check all that apply below, and proceed to Appendix E, Step 2.

- Dike
- Berm
- Catch Basin
- Pond
- Constructed Site Drainage Feature (e.g., ditch, trench, perimeter drain, swale, etc.)
- Culvert
- Channel
- Other type of ground-disturbing stormwater control:

(Note: If you will not be installing any subsurface earth-disturbing stormwater controls, no further documentation is required for Section 3.2 of the Template.)

Appendix E, Step 2

If you answered yes in Step 1, have prior professional cultural resource surveys or other evaluations determined that historic properties do not exist, or have prior disturbances at the site have precluded the existence of historic properties? YES NO

- If yes, no further documentation is required for Section 3.2 of the Template and you may provide the prior documentation in your SWPPP.
- If no, proceed to Appendix E, Step 3.

Appendix E, Step 3

If you answered no in Step 2, have you determined that your installation of subsurface earth-disturbing stormwater controls will have no effect on historic properties? YES NO

- If yes, provide documentation of the basis for your determination. [The site is located within the Newburyport Historic District listed on the National Register of Historic Places. Some buildings on the site are also included in the Water Street Historic District \(Inventory number NWB.W\). The site also contains two historic monuments – a United States Coast Guard Bicentennial Monument \(Inventory number NWB.957\) and a Waterfront Promenade Park Marker \(Inventory number NWB.956\). None of the existing buildings included in these historic districts will be modified as part of this project. Neither of the historic monuments will be affected by the project.](#)
- If no, proceed to Appendix E, Step 4.

Appendix E, Steps 4 and 5

If you answered no in Step 3, did the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Office (THPO), or other Tribal representative (whichever applies) respond to you within 15 calendar days to indicate their views as to the likelihood that historic properties are potentially present on your site and may be impacted by the installation of stormwater controls that require subsurface earth disturbance? YES NO

- If yes, describe the nature of their response:
 - Written indication that no historic properties will be affected by the installation of stormwater controls. [Insert copies of letters, emails, or other communication between you and the applicable SHPO, THPO, or other Tribal representative](#)
 - Written indication that adverse effects to historic properties from the installation of stormwater controls can be mitigated by agreed upon actions. [Insert copies of letters, emails, or other communication between you and the applicable SHPO, THPO, or other Tribal representative](#)
 - No agreement has been reached regarding measures to mitigate effects to historic properties from the installation of stormwater controls. [Provide a description of any significant remaining disagreements regarding mitigation measures and insert copies of letters, emails, or other communication between you and the applicable SHPO, THPO, or other Tribal representative](#)
 - Other: [Insert copies of letters, emails, or other communication between you and the applicable SHPO, THPO, or other Tribal representative](#)

- If no, no further documentation is required for Section 3.2 of the Template.

3.3 **Safe Drinking Water Act Underground Injection Control Requirements**

Instructions (see CGP Part 7.2.9.c):

- If you will use any of the identified controls in this section, document any contact you have had with the applicable State agency or EPA Regional Office responsible for implementing the requirements for underground injection wells in the Safe Drinking Water Act and EPA's implementing regulations at 40 CFR Parts 144-147.
- For State UIC program contacts, refer to the following EPA website:
<https://www.epa.gov/uic>.

Do you plan to install any of the following controls? Check all that apply below.

- Infiltration trenches (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system)
- Commercially manufactured pre-cast or pre-built proprietary subsurface detention vaults, chambers, or other devices designed to capture and infiltrate stormwater flow
- Drywells, seepage pits, or improved sinkholes (if stormwater is directed to any bored, drilled, driven shaft or dug hole that is deeper than its widest surface dimension, or has a subsurface fluid distribution system)

SECTION 4: EROSION AND SEDIMENT CONTROLS AND DEWATERING PRACTICES

General Instructions (See CGP Parts 2.2 and 7.2.6):

- Describe the erosion and sediment controls that will be implemented at your site to meet the requirements of CGP Part 2.2.
- Describe any applicable stormwater control design specifications (including references to any manufacturer specifications and/or erosion and sediment control manuals/ordinances relied upon).
- Describe any routine stormwater control maintenance specifications.
- Describe the projected schedule for stormwater control installation/implementation.

4.1 Natural Buffers or Equivalent Sediment Controls

Instructions (see CGP Parts 2.2.1 and 7.2.6.b.i, and Appendix F):

This section only applies to you if discharge to a receiving water is located within 50 feet of your site's earth disturbances. If this is the case, consult CGP Part 2.2.1 and Appendix F for information on how to comply with the buffer requirements.

- Describe the compliance alternative (CGP Part 2.2.1.a.i, ii, or iii) that you will implement to meet the buffer requirements, and include any required documentation supporting the alternative selected. For alternative 3, also include why it is infeasible for you to provide and maintain an undisturbed natural buffer of any size. For "linear construction sites" where it is infeasible to implement alternative 1, 2, or 3, also include a description of any buffer width retained and/or supplemental erosion and sediment controls installed. The compliance alternative selected must be maintained throughout the duration of permit coverage. However, if you select a different compliance alternative during your period of permit coverage, you must modify your SWPPP to reflect this change.
- If you qualify for one of the exceptions in CGP Part 2.2.1.b, include documentation related to your qualification for such exceptions.

Buffer Compliance Alternatives

Are there any receiving waters within 50 feet of your project's earth disturbances? YES NO

Check the compliance alternative that you have chosen:

- (i) I will provide and maintain a 50-foot undisturbed natural buffer.
- (ii) I will provide and maintain an undisturbed natural buffer that is less than 50 feet and is supplemented by additional erosion and sediment controls that achieve, in combination, the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.
- (iii) It is infeasible to provide and maintain an undisturbed natural buffer of any size, therefore I will implement erosion and sediment controls that achieve the sediment load reduction equivalent to a 50-foot undisturbed natural buffer.
- I qualify for one of the exceptions in Part 2.2.1.b. (If you have checked this box, provide information on the applicable buffer exception that applies, below.)

Buffer Exceptions

Which of the following exceptions to the buffer requirements applies to your site?

- There is no discharge of stormwater to waters of the U.S. through the area between the disturbed portions of the site and any waters of the U.S. located within 50 feet of your site

(Note: If this exception applies, no further documentation is required for Section 4.1 of the Template.)

- No natural buffer exists due to preexisting development disturbances (e.g., structures, impervious surfaces) that occurred prior to the initiation of planning for this project.

(Note 1: If this exception applies, no further documentation is required for Section 4.1 of the Template.)

(Note 2: Where some natural buffer exists but portions of the area within 50 feet of the surface water are occupied by preexisting development disturbances, you must still comply with the one of the CGP Part 2.2.1.a compliance alternatives.)

- For "linear construction sites" (defined in Appendix A), site constraints (e.g., limited right-of-way) make it infeasible to meet any of the CGP Part 2.2.1.a compliance alternatives, provided that, to the extent feasible, you limit disturbances within 50 feet of the receiving water. [Include documentation here of the following: \(1\) why it is infeasible for you to meet one of the buffer compliance alternatives, and \(2\) buffer width retained and/or supplemental erosion and sediment controls to treat discharges to the surface water](#)

- The project qualifies as "small residential lot" construction (defined in Appendix A as "a lot being developed for residential purposes that will disturb less than 1 acre of land, but is part of a larger residential project that will ultimately disturb greater than or equal to 1 acre") (see Appendix F, Part F.3.2).

- For Alternative 1:

- [Insert width of natural buffer to be retained](#)
- [Insert applicable requirements based on Table F-1](#)
- [Insert description of how you will comply with these requirements](#)

- For Alternative 2:

- [Insert \(1\) the assigned risk level based on Appendix F Applicable Table F-2 through F-6 and \(2\) the predominant soil type and average slope at your site](#)
- [Insert applicable requirements based on Appendix F, Table F-7](#)
- [Insert description of how you will comply with these requirements](#)

(Note 1: If you alternatively choose to comply with any of the options that are available to other sites in Part 2.2.1.a and F.2.1 of this Appendix, then additional documentation may be needed.)

- Buffer disturbances are authorized under a CWA Section 404 permit. [Insert description of any earth disturbances that will occur within the buffer area](#)

(Note 1: If this exception applies, no further documentation is required for Section 4.1 of the Template.)

(Note 2: This exception only applies to the limits of disturbance authorized under the Section 404 permit and does not apply to any disturbances within 50 feet of a receiving water that are adjacent to the disturbances authorized under Section 404 and that are covered by this permit.)

- Buffer disturbances will occur for the construction of a water-dependent structure or water access area (e.g., pier, boat ramp, and trail). [Insert description of any earth disturbances that will occur within the buffer area](#)

(Note: If this exception applies, no further documentation is required for Section 4.1 of the Template.)

4.2 Perimeter Controls

Instructions (see CGP Parts 2.2.3 and 7.2.6.b.ii):

- Describe sediment controls that will be used (e.g., silt fences, filter berms, compost filter socks, gravel barriers, temporary diversion dikes) to meet the Part 2.2.3 requirement to "install sediment controls along any perimeter areas of the site that are downslope from any exposed soil or other disturbed areas."
- For linear projects (as defined in Appendix A), where you have determined that the use of perimeter controls in portions of the site is infeasible (e.g. due to a limited or restricted right-of-way), document other practices that you will implement to minimize pollutant discharges to perimeter areas of the site.

General

- [Straw wattles will be installed at the down slope edges of the slope to prevent pollutant discharges.](#)

Specific Perimeter Controls

Straw Wattles	
Description: Straw wattles will be installed along the down slop edge of the fence with the construction fence.	
Installation	Control is to be installed prior to any ground disturbing activity.
Maintenance Requirements	Straw wattles are to be inspected weekly. Sediment shall be removed before it has accumulated to one-half of the above-ground height of any perimeter control.
Design Specifications	Straw wattles shall be "BioD-Roll 30H" biodegradable coconut fiber (coir) logs, manufactured by RoLanka International, Inc., Stockbridge, GA, or approved equal.

4.3 Sediment Track-Out

Instructions (see CGP Parts 2.2.4 and 7.2.6.b.iii):

- Describe stormwater controls that will be used to minimize sediment track-out.
- Describe location(s) of vehicle exit(s), procedures to remove accumulated sediment off-site (e.g., vehicle tracking), and stabilization practices (e.g., stone pads or wash racks or both) to minimize off-site vehicle tracking of sediment. Also include the design, installation, and maintenance specifications for each control.

General

- Site access for vehicles will be limited to two construction entrances equipped with gravel stabilized entrances. Sediment track out not prevented by these measures shall be removed at the end of the work day.

Specific Track-Out Controls

Stabilized Construction Entrances	
Description: Stabilized construction entrances will be installed at the entrances of the work areas to minimize tracking out of sediment.	
Installation	Control is to be installed prior to any ground disturbing activity.
Maintenance Requirements	The entrances shall be inspected weekly and after periods of heavy use. The exits will be maintained in a condition that will prevent tracking or flowing of sediment off site. Old stone aggregate is to be removed when clogged with sediments. Fresh stone aggregate is to be added to the entrance pad, as necessary, to ensure that fire-borne soils are not discharged off the site.
Design Specifications	<p>Stone size: Use ASTM designation C-33, size No. 2 (1-1/2" to 2-1/2"). Use crushed stone.</p> <p>Length: As effective, but not less than 50 feet.</p> <p>Thickness: Not less than eight inches.</p> <p>Width: Not less than full width of all points on ingress or egress, but not less than 25 feet.</p> <p>Maintenance: The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights-or-way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spoiled, dropped, washed or tracked onto public rightsof-way must be removed immediately.</p>

Removal of Tracked-out Sediment	
Description: If prevention of sediment track-out fails, sediment track-out shall be removed sweeping, shoveling, or vacuuming, or by using other similarly effective means of sediment removal. Hosing or sweeping tracked-out sediment into any stormwater conveyance, storm drain inlet, or water of the U.S. is prohibited.	
Installation	Intermittent
Maintenance Requirements	The areas around the site entrances shall be inspected daily at the end of the work day for tracked out sediment. Where sediment has been tracked-out from the site onto paved roads, sidewalks, or other paved areas outside of the site, remove the deposited sediment by the end of the same business day in which the track-out occurs or by the end of the next business day if track-out occurs on a non-business day.

Design Specifications	
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4.4 Stockpiles or Land Clearing Debris Piles Comprised of Sediment or Soil

<p>Instructions (see CGP Parts 2.2.5 and 7.2.6):</p> <ul style="list-style-type: none"> – Describe stormwater controls and other measures you will take to minimize the discharge of sediment or soil particles from stockpiled sediment or soil. Include a description of structural practices (e.g., diversions, berms, ditches, storage basins), including design, installation, and maintenance specifications, used to divert flows from stockpiled sediment or soil, retain or detain flows, or otherwise limit exposure and the discharge of pollutants from stockpiled sediment or soil. – For piles that will be unused for 14 or more days, describe what cover or other appropriate temporary stabilization will be used. – Also, describe any controls or procedures used to minimize exposure resulting from adding to or removing materials from the pile.
--

General

- Stockpiles will be located away from construction stormwater management practices and away from permanent infiltration practices. Perimeter controls will be installed around all stockpiles. Stockpiles will be stabilized if they are to be unused for more than 14 days.

Specific Stockpile Controls

Stockpile Perimeter Controls	
Description: Straw wattles will be installed on the down gradient sides of the stockpiles.	
Installation	Perimeter controls will be installed at the beginning of stockpiling activities.
Maintenance Requirements	Straw wattles are to be inspected weekly. Sediment shall be removed before it has accumulated to one-half of the above-ground height of any perimeter control. Hosing down or sweeping soil or sediment accumulated on pavement or other impervious surfaces into any stormwater conveyance, storm drain inlet, or water of the U.S is prohibited.
Design Specifications	Straw wattles shall be "BioD-Roll 30H" biodegradable coconut fiber (coir) logs, manufactured by RoLanka International, Inc., Stockbridge, GA, or approved equal.

Stockpile Temporary Stabilization	
Description: Stockpiles will be stabilized using seeding, sod or geotextile if stockpile is to remain undisturbed for 14 days or more	
Installation	Stabilize stockpile as soon as it is determined that the stockpile will remain undisturbed for 14 days or more.
Maintenance Requirements	Stabilized stockpiles to be inspected weekly for integrity of stabilization.
Design Specifications	Seed mixture for temporary cover by hydroseeding application shall conform to the following:

	<p>Quantity per 1000 sq. ft. Coverage: 27-1/2 lb. Wood Fiber Mulch; 4 lb. Seed; 1/2 lb. Annual Ryegrass; 22 lb. 10-6-4 Fertilizer; 69 gal. Water Wood fiber mulch shall conform to MHD Specifications Section M6.04.4, "Wood Fiber Mulch". Seed shall conform to MHD Specifications Section M6.03.0, "Seed for Slopes and Shoulders". Hydroseeding equipment may be either portable or truck mounted, with dual agitation, a minimum working volume of 1000 gallons and a minimum spray range of 80 ft. Hydroseeding equipment must be capable of uniformly applying the slurry mix including wood fiber mulch if required, at the specified rate, and at the required locations. Hydromulching equipment, either trailer or truck mounted, must be capable of uniformly applying straw or hay mulch at a minimum mulching rate of 8 tons per hour, at a distance of not less than 80 ft.</p> <p>Erosion control netting shall be equal to "Enkamat 7010W/20PET", manufactured by Colbond, Inc., P.O. Box 1057, Enka, NC 28728; Toll Free: 800-365-7391, or approved equal. Staple for anchoring erosion control netting shall be No. 8 gage steel wire, bent U-shaped, with throat width of 1 to 2 in. and effective driving depth not less than 6 in.</p>
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4.5 Minimize Dust

<p>Instructions (see CGP Parts 2.2.6 and 7.2.6): Describe controls and procedures you will use at your site to minimize the generation of dust.</p>
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General

- Water will be sprayed on exposed soil areas as required to minimize the generation of dust.

Specific Dust Controls

Water Sprinkling	
Description: Areas of bare earth are to be sprayed with water during periods of dry weather to prevent excessive generation of dust.	
Installation	Dust control to begin with earth disturbing activities
Maintenance Requirements	Respray areas as necessary to keep dust to a minimum.
Design Specifications	

4.6 Minimize Steep Slope Disturbances

Instructions (see CGP Parts 2.2.7 and 7.2.6):

- Describe how you will minimize the disturbance to steep slopes (as defined by CGP Appendix A).
- Describe controls (e.g., erosion control blankets, tackifiers), including design, installation and maintenance specifications, that will be implemented to minimize sediment discharges from slope disturbances.

General

- All disturbed slopes steeper or equal to 15% shall be stabilized with sod or seed and anchored straw mulch, geotextile fabric or other approved stabilization measures. Cut and fill slopes and stockpiled materials shall be protected to prevent erosion. Slopes shall be protected with permanent erosion protection when erosion exposure period is expected to be greater than or equal to six months, and temporary erosion protection when erosion exposure period is expected to be less than six months. Permanent erosion protection shall be accomplished by seeding with grass and covering with an erosion protection material, as appropriate for prevailing conditions. Temporary erosion protection shall be accomplished by covering any erosive materials, as appropriate for prevailing conditions.
- All slopes steeper or equal to 3:1 will be protected by straw wattles installed at the top of the slope.

Specific Steep Slope Controls

Erosion Control Fabric / Temporary seeding or sod	
Description: Slopes steeper than 15% shall be stabilized using geotextile fabric, seeding or sod.	
Installation	As soon as possible and no later than seven days after disturbance of steep slopes.
Maintenance Requirements	Stabilized slopes are to be inspected weekly and within 24 hours of a storm event of 0.25" or greater.

Erosion Control Fabric / Temporary seeding or sod	
Design Specifications	<p>Seed mixture for temporary cover by hydroseeding application shall conform to the following:</p> <p>Quantity per 1000 sq. ft. Coverage: 27-1/2 lb. Wood Fiber Mulch; 4 lb. Seed; 1/2 lb. Annual Ryegrass; 22 lb. 10-6-4 Fertilizer; 69 gal. Water Wood fiber mulch shall conform to MHD Specifications Section M6.04.4, "Wood Fiber Mulch". Seed shall conform to MHD Specifications Section M6.03.0, "Seed for Slopes and Shoulders".</p> <p>Hydroseeding equipment may be either portable or truck mounted, with dual agitation, a minimum working volume of 1000 gallons and a minimum spray range of 80 ft. Hydroseeding equipment must be capable of uniformly applying the slurry mix including wood fiber mulch if required, at the specified rate, and at the required locations. Hydromulching equipment, either trailer or truck mounted, must be capable of uniformly applying straw or hay mulch at a minimum mulching rate of 8 tons per hour, at a distance of not less than 80 ft.</p> <p>Erosion control netting shall be equal to "Enkamat 7010W/20PET", manufactured by Colbond, Inc., P.O. Box 1057, Enka, NC 28728; Toll Free: 800-365-7391, or approved equal. Staple for anchoring erosion control netting shall be No. 8 gage steel wire, bent U-shaped, with throat width of 1 to 2 in. and effective driving depth not less than 6 in.</p>

Straw Wattles	
Description: Straw wattles will be installed at the top of all disturbed slopes steeper than 3:1	
Installation	Prior to disturbance of steep slopes.
Maintenance Requirements	Silt fence is to be inspected weekly and within 24 hours of a storm event of 0.25" or greater. Sediment shall be removed before it has accumulated to one-half of the above-ground height of any perimeter control.
Design Specifications	Straw wattles shall be "BioD-Roll 30H" biodegradable coconut fiber (coir) logs, manufactured by RoLanka International, Inc., Stockbridge, GA, or approved equal.

4.7 Topsoil

<p>Instructions (see CGP Parts 2.2.8 and 7.2.6):</p> <ul style="list-style-type: none"> – Describe how topsoil will be preserved and identify these areas and associated control measures on your site map(s). – If it is infeasible for you to preserve topsoil on your site, provide an explanation for why this is the case.
--

General

- The existing topsoil will be stripped from the site prior to grading activities.
- Topsoil will be stockpiled and protected from erosion as described in the specific stockpile control section above.

Specific Topsoil Controls

Topsoil Stripping and Stockpiling	
Description: Topsoil to be stripped and stockpiled	
Installation	Before grading activity begins
Maintenance Requirements	Topsoil stockpile to be protected from erosion as described above
Design Specifications	

4.8 Soil Compaction

<p>Instructions (see CGP Parts 2.2.9 and 7.2.6):</p> <p>In areas where final vegetative stabilization will occur or where infiltration practices will be installed, describe the controls, including design, installation, and maintenance specifications that will be used to restrict vehicle or equipment access or condition the soil for seeding or planting.</p>

General

- Areas to be planted will not be compacted or will be scarified to loosen soil before planting.
- Equipment and material will not be stored within the root area of existing trees.

Specific Soil Compaction Controls

Decompaction of Planting Areas	
Description: Soils in planting area will be loosened prior to planting.	
Installation	Soils will be loosened after rough grading and prior to planting.
Maintenance Requirements	

Decompaction of Planting Areas	
Design Specifications	<p>After subgrade levels have been reached and immediately prior to placing planting soils, the entire subgrade area shall be loosened to a minimum depth of 6 inches. Care shall be exercised to minimize damage to existing tree roots that may be in the area. Contractor shall obtain Architect approval for the equipment method used to loosen subgrade prior to starting work.</p> <p>Any subgrade areas which have become heavily compacted (defined as exceeding 86% - 88% compaction ASTM C698 Standard Proctor) including, but not limited to, temporary parking areas, material stockpile areas, temporary roadways, construction areas, areas shown on the plans, or areas identified by Architect shall be deep-scarified. Immediately prior to placing soils, heavily compacted areas shall be loosened to the depth required to overcome the excessive compaction using a ripper blade, the teeth of a backhoe or other suitable equipment. Frequency of compaction tests shall be one per 200 square feet.</p> <p>Using a wide-track bulldozer size D-5 or smaller, compact the scarified subgrade to 86% - 88% compaction ASTM D698 Standard Proctor. Contractor shall provide shovel dug test pits to the full depth of the mitigation, where located per the direction of the Architect, in order for the Architect to review whether the work has been done as required. Backfill the pits after the review(s).</p> <p>Confirm that the subgrade is at the proper elevation and that no further earthwork is required to bring the subgrade to proper elevations. Provide a written report to Architect indicating that subgrade has been placed to the required elevations, has been decompacting according to the Contract Documents and is ready for inspection at least 3 days prior to placing planting soil. Perform no work of placing and spreading planting mixes until elevations have been confirmed and written report has been accepted by the Owner's Representative.</p> <p>After the soils have been loosened and inspected, topsoil may be spread by using a wide track bulldozer size D-5 or smaller or may be dumped and spread with bucket of a backhoe from the edge of the loosened area. No rubber-tired equipment or heavy equipment except for small bulldozer shall pass over the subsoils (subgrade) after they have been loosened. If Contractor plans to utilize such areas for any use of heavy equipment, this should be carried out prior to beginning the process of loosening soils or filling in that area, or it shall be rescarified to meet this specification requirement.</p>

4.9 Storm Drain Inlets

Instructions (see CGP Parts 2.2.10 and 7.2.6.iv):

Describe controls (e.g., inserts, rock-filled bags, or block and gravel) including design, installation, and maintenance specifications that will be implemented to protect all inlets that carry stormwater flow from your site to a receiving water, provided you have the authority to access the storm drain inlet. Inlet protection measures are not required when storm drain inlets to which your site discharges are conveyed to a sediment basin, sediment trap, or similarly effective control.

General

- All active storm drain inlets will be protected including existing drains prior to demolition and proposed drains prior to permanent site stabilization. These drains will be equipped with filter baskets or silt sacks.

Specific Storm Drain Inlet Controls

Geotextile Filter Baskets	
Description: Geotextile filter baskets are to be installed at all storm drain inlets down gradient of disturbed land to catch sediment in runoff flows.	
Installation	Filter baskets will be installed prior to any ground disturbance up gradient of existing drains and concurrently with the installation on proposed drains.
Maintenance Requirements	Filter baskets are to be inspected weekly and within 24 hours of a rainfall event of 0.25" or greater. Clean, or remove and replace the basket as sediment accumulates, the filter becomes clogged, and/or performance is compromised. Where there is evidence of sediment accumulation adjacent to the filter basket, remove the deposited sediment by the end of the same business day in which it is found or by the end of the following business day if removal by the same business day is not feasible."
Design Specifications	Filter baskets shall be Metal-Era Inlet Baskets, manufactured by Metal-Era Inc., Waukesha, WI 53186, or approved equal. Baskets shall be installed at all catch basins in lieu of Hay Bale Catch Basin Filters. Filter baskets shall include a nonwoven geotextile filter fabric material with a minimum Grab Strength of 45 lb., Mullen Burst Strength of 60 psi minimum, a minimum permeability of 120 gpm/ sq. ft., and an opening no greater than No. 20 U. S. Standard Sieve."

Siltsack	
Description: Siltsacks are to be installed at all storm drain inlets down gradient of disturbed land to catch sediment in runoff flows.	
Installation	Siltsacks will be installed prior to any ground disturbance up gradient of existing drains and concurrently with the installation on proposed drains.
Maintenance Requirements	Siltsacks are to be inspected weekly and within 24 hours of a rainfall event of 0.25" or greater. Clean, or remove and replace as sediment accumulates, the filter becomes clogged, and/or performance is compromised. Where there is evidence of sediment accumulation adjacent to the filter basket, remove the deposited sediment by the end of the same business day in which it is found or by the end of the following business day if removal by the same business day is not feasible."

Design Specifications	Inlet protection device shall be Siltsack sediment control device, manufactured by ACF Environmental, Inc. 2831 Cardwell Road, Richmond, Virginia 23234; Phone: 800-4483636; Fax: 804-743-7779; www.acfenvironmental.com , or approved equal.
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Hay Bale Inlet Protection	
Description: Hay bales will be installed around catch basins that are not located within a paved areas.	
Installation	Hay bales will be installed prior to any ground disturbance up gradient of existing drains and concurrently with the installation on proposed drains.
Maintenance Requirements	Hay bales are to be inspected weekly and within 24 hours of a rainfall event of 0.25" or greater. Clean, or remove and replace as sediment accumulates, the filter becomes clogged, and/or performance is compromised. Where there is evidence of sediment accumulation adjacent to the hay bales, remove the deposited sediment by the end of the same business day in which it is found or by the end of the following business day if removal by the same business day is not feasible."
Design Specifications	Hay bales shall be made of grasses suitable for bailing and tightly baled with wire ties. Hay bales shall be secured in place with a minimum of two wooden stakes.

4.10 Constructed Site Drainage Feature

<p>Instructions (see CGP Parts 2.2.11 and 7.2.6):</p> <p>If you will be installing a constructed site drainage feature, describe control practices (e.g., erosion controls and/or velocity dissipation devices such as check dams and sediment traps), including design specifications and details (volume, dimensions, outlet structure), that will be implemented at the construction site.</p>
--

General

- Stormwater will be conveyed via catch basins, manholes, water quality inlets, and drainage pipes. The existing drainage system will be protected until the proposed drainage system is capable of conveying stormwater to the existing stormwater outfalls to the Merrimack River.
- Stormwater flow overland will be limited to non-erosive flow using the erosion control practices described above.

Specific Constructed Site Drainage Features

N/A	
Description:	
Installation	
Maintenance Requirements	
Design Specifications	

4.11 Sediment Basins or Similar Impoundments

Instructions (see CGP Parts 2.2.12 and 7.2.6.b.v):

If you will install a sediment basin or similar impoundment, include design specifications and other details (volume, dimensions, outlet structure) that will be implemented in conformance with CGP Parts 2.2.12 and 7.2.6.b.iv.

- Sediment basins must be situated outside of receiving waters and any natural buffers established under CGP Part 2.2.1; and designed to avoid collecting water from wetlands.
- At a minimum, sediment basins provide storage for either (1) the calculated volume of runoff from the 2-year, 24-hour storm (see <https://www.epa.gov/npdes/construction-general-permit-2-year-24-hour-storm-frequencies>), or (2) 3,600 cubic feet per acre drained.
- Sediment basins must also utilize outlet structures that withdraw water from the surface, unless infeasible.
- Use erosion controls and velocity dissipation devices to prevent erosion at inlets and outlets.

General

- Temporary sediment basins will be installed at low points of the site prior to discharging any runoff to the existing or proposed drainage structures.

Specific Sediment Basin Controls

Sediment Basin	
Description: Sediment basin with riser and barrel	
Installation	After stripping topsoil and installing perimeter controls
Maintenance Requirements	Accumulated sediment will be removed when sediment level reaches one-half of the design capacity. Riser pipe and stone will also be inspected and replaced as necessary.
Design Specifications	

4.12 Chemical Treatment

Instructions (see CGP Parts 2.2.13 and 7.2.6.b.vi):

If you are using treatment chemicals (e.g., polymers, flocculants, coagulants) at your site, provide details for each of the items below. This information is required as part of the SWPPP requirements in CGP Part 7.2.6.b.vi.

Soil Types

List all the soil types including soil types expected to be exposed during construction in areas of the project that will drain to chemical treatment systems and those expected to be found in fill material: N/A

Treatment Chemicals

List all treatment chemicals that will be used at the site and explain why these chemicals are suited to the soil characteristics: [N/A](#)

Describe the dosage of all treatment chemicals you will use at the site or the methodology you will use to determine dosage: [N/A](#)

Provide information from any applicable Safety Data Sheets (SDS): [N/A](#)

Describe how each of the chemicals will be stored consistent with CGP Part 2.2.13c: [N/A](#)

Include references to applicable State or local requirements affecting the use of treatment chemicals, and copies of applicable manufacturer's specifications regarding the use of your specific treatment chemicals and/or chemical treatment systems: [N/A](#)

Special Controls for Cationic Treatment Chemicals (if applicable)

If the applicable EPA Regional Office authorized you to use cationic treatment chemicals, include the official EPA authorization letter or other communication, and identify the specific controls and implementation procedures designed to ensure that your use of cationic treatment chemicals will not lead to a discharge that does not meet water quality standards: [N/A](#)

Schematic Drawings of Stormwater Controls/Chemical Treatment Systems

Provide schematic drawings of any chemically-enhanced stormwater controls or chemical treatment systems to be used for application of treatment chemicals: [N/A](#)

Training

Describe the training that personnel who handle and apply chemicals have received prior to permit coverage, or will receive prior to the use of treatment chemicals: [N/A](#)

4.13 Dewatering Practices

Instructions (see CGP Parts 2.4 and 7.2.6):

If you will be discharging accumulated stormwater and/or ground water drained from building foundations, vaults, trenches, or other similar points of accumulation, include design specifications and details of all dewatering practices that are installed and maintained to comply with CGP Part 2.4.

- Do not place dewatering controls on steep slopes.
- Use a suitable filtration device if dewatering water is found or expected to contain materials that cause a visible sheen on the water surface or visible oily deposits on the bottom or shoreline of the receiving water.
- Use well-vegetated, upland areas of the site to infiltrate dewatering water before discharging. Do not use receiving waters as part of the treatment area.
- Use stable, erosion-resistant surfaces to discharge from dewatering controls. Additionally, at all points where dewatering water is discharged, comply with the velocity dissipation requirements of Part 2.2.11.

General

- [Dewatering will be required. Where possible discharged water will be recharged on site.](#)
- [Where recharge onsite is not feasible, sedimentation tanks will be used to settle solids.](#)
- [If oil or grease is detected in water to be dewatered, an appropriate oil-water separator or filtration device shall be used to remove the oil/grease.](#)
- [Coverage under a Dewatering and Remediation General Permit will be obtained prior to discharging any dewatering water to the storm drainage system or any water bodies.](#)

Specific Dewatering Practices

Sedimentation Tanks	
Description: When recharge on site is not feasible, dewatering water shall be discharged into a sedimentation tank.	
Installation	Before commencing any dewatering activities
Maintenance Requirements	Sediment shall be removed from the tanks as required to maintain capacity of the tanks.
Design Specifications	<p>Sedimentation tanks shall be constructed of precast reinforced concrete, steel, polyvinyl chloride, or polyethylene materials, or accepted equals. Tanks which receive flow from pumping shall provide 0.8 square feet of detention surface area per gallon per minute the maximum pumping rate.</p> <p>The length of all tanks shall be at least three times greater than the width. All tanks shall have a depth of at least 4 feet measured from tank bottom to end of the outlet. Sedimentation tanks used in conjunction with groundwater control operations shall have a 90 degree elbow at the inlet extending 15 inches below the liquid level of the tank. Each tank shall have a baffle located 3 feet from the tank inlet. The baffle height shall be ½ the depth of the tank, but not less than 2 feet in length. Each tank shall have a vertical tee at the outlet extending 15 inches below the liquid level of the tank. The tee shall extend to a height 2 inches below the top of the tank. All tanks shall have an oil-sorbent boom placed in the tank near the outlet. An easily accessible and safe means of access shall be provided for sampling tank effluent and measuring flow rate between the tank outlet and the discharge point. If the tank has a closed top, hatches shall be provided which allow access to the entire tank for inspection and maintenance.</p>

Filtration Device	
Description: If water is found to have oil or grease in it, an oil-water separator or suitable filtration device shall be used	
Installation	Immediately upon determination of oil/grease in water.
Maintenance Requirements	With backwash water, either haul it away for disposal or return it to the beginning of the treatment process; and replace and clean the filter media used in dewatering devices when the pressure differential equals or exceeds the manufacturer's specifications.
Design Specifications	

4.14 Other Stormwater Controls

<p>Instructions:</p> <p>Describe any other stormwater controls that do not fit into the above categories.</p>
--

General

- N/A

Specific Stormwater Control Practices

N/A	
Description:	
Installation	
Maintenance Requirements	
Design Specifications	

4.15 Site Stabilization

Instructions (see CGP Parts 2.2.14 and 7.2.6.b.vii):

The CGP requires you to immediately initiate stabilization when work in an area of your site has permanently or temporarily stopped, and to complete certain stabilization activities within prescribed deadlines. Construction projects disturbing more than 5 acres at any one time have a different deadline than projects disturbing 5 acres or less at any one time. See CGP Part 2.2.14.a. Construction projects in arid, semi-arid, and drought-stricken areas during the seasonally dry period and projects discharging to a sediment- or nutrient-impaired water or a Tier 2, 2.5, or 3 water have different stabilization deadlines. See CGP Part 2.2.14.b. For your SWPPP, you must include the following:

- Describe the specific vegetative and/or non-vegetative practices that will be used to stabilize exposed soils where construction activities have temporarily or permanently ceased. Avoid using impervious surfaces for stabilization whenever possible.
- The stabilization deadline(s) that will be met in accordance with Part 2.2.14.a and 2.2.14.b.
- Once you begin construction, consider using the Grading/Stabilization Activities log in Appendix H of the Template to document your compliance with the stabilization requirements in CGP Part 2.2.14.

Total Amount of Land Disturbance Occurring at Any One Time

- Five Acres or less
 More than Five Acres

Use this template box if you are not located in an arid, semi-arid, or drought-stricken area and are not discharging to a sediment- or nutrient-impaired water or Tier 2, Tier 2.5, or Tier 3 water.

Temporary Seeding	
<input checked="" type="checkbox"/> Vegetative <input type="checkbox"/> Non-Vegetative <input checked="" type="checkbox"/> Temporary <input type="checkbox"/> Permanent	
Description:	
<ul style="list-style-type: none"> ▪ Areas of exposed soil will be inactive for 14 or more calendar days will be stabilized with temporary seeding or geotextile. 	
Installation	As soon as it is determined that an area of bare soil will be inactive for 14 calendar days or more.
Completion	Temporary seeding will be completed multiple times during the project construction

Temporary Seeding	
Maintenance Requirements	Stabilized areas to be inspected weekly for integrity of stabilization.
Design Specifications	<p>Seed mixture for temporary cover by hydroseeding application shall conform to the following:</p> <p>Quantity per 1000 sq. ft. Coverage: 27-1/2 lb. Wood Fiber Mulch; 4 lb. Seed; 1/2 lb. Annual Ryegrass; 22 lb. 10-6-4 Fertilizer; 69 gal. Water Wood fiber mulch shall conform to MHD Specifications Section M6.04.4, "Wood Fiber Mulch". Seed shall conform to MHD Specifications Section M6.03.0, "Seed for Slopes and Shoulders".</p> <p>Hydroseeding equipment may be either portable or truck mounted, with dual agitation, a minimum working volume of 1000 gallons and a minimum spray range of 80 ft. Hydroseeding equipment must be capable of uniformly applying the slurry mix including wood fiber mulch if required, at the specified rate, and at the required locations. Hydromulching equipment, either trailer or truck mounted, must be capable of uniformly applying straw or hay mulch at a minimum mulching rate of 8 tons per hour, at a distance of not less than 80 ft.</p>

Permanent Seeding	
<input checked="" type="checkbox"/> <i>Vegetative</i> <input type="checkbox"/> <i>Non-Vegetative</i> <input type="checkbox"/> <i>Temporary</i> <input checked="" type="checkbox"/> <i>Permanent</i>	
Description:	
<ul style="list-style-type: none"> ▪ Areas of exposed soil will be inactive for 14 or more calendar days will be stabilized with temporary seeding or geotextile. 	
Installation	As soon as it is determined that an area of bare soil will be inactive for 14 calendar days or more.
Completion	9/1/2025
Maintenance Requirements	Stabilized areas to be inspected weekly for integrity of stabilization.
Design Specifications	<p>Seed mixture for temporary cover by hydroseeding application shall conform to the following:</p> <p>Quantity per 1000 sq. ft. Coverage: 27-1/2 lb. Wood Fiber Mulch; 4 lb. Seed; 1/2 lb. Annual Ryegrass; 22 lb. 10-6-4 Fertilizer; 69 gal. Water Wood fiber mulch shall conform to MHD Specifications Section M6.04.4, "Wood Fiber Mulch". Seed shall conform to MHD Specifications Section M6.03.0, "Seed for Slopes and Shoulders".</p> <p>Hydroseeding equipment may be either portable or truck mounted, with dual agitation, a minimum working volume of 1000 gallons and a minimum spray range of 80 ft. Hydroseeding equipment must be capable of uniformly applying the slurry mix including wood fiber mulch if required, at the specified rate, and at the required locations. Hydromulching equipment, either trailer or truck mounted, must be capable of uniformly applying straw or hay mulch at a minimum mulching rate of 8 tons per hour, at a distance of not less than 80 ft.</p>

Hardscape Installation	
<input type="checkbox"/> Vegetative <input checked="" type="checkbox"/> Non-Vegetative <input type="checkbox"/> Temporary <input checked="" type="checkbox"/> Permanent	
Description: <ul style="list-style-type: none"> ▪ Final hardscape, foundation or slab installation 	
Installation	As soon as it is determined that an area of bare soil will be inactive for 14 calendar days or more.
Completion	9/1/2025
Maintenance Requirements	Stabilized areas to be inspected weekly for integrity of stabilization.
Design Specifications	<p>Seed mixture for temporary cover by hydroseeding application shall conform to the following:</p> <p>Quantity per 1000 sq. ft. Coverage: 27-1/2 lb. Wood Fiber Mulch; 4 lb. Seed; 1/2 lb. Annual Ryegrass; 22 lb. 10-6-4 Fertilizer; 69 gal. Water Wood fiber mulch shall conform to MHD Specifications Section M6.04.4, "Wood Fiber Mulch". Seed shall conform to MHD Specifications Section M6.03.0, "Seed for Slopes and Shoulders".</p> <p>Hydroseeding equipment may be either portable or truck mounted, with dual agitation, a minimum working volume of 1000 gallons and a minimum spray range of 80 ft. Hydroseeding equipment must be capable of uniformly applying the slurry mix including wood fiber mulch if required, at the specified rate, and at the required locations. Hydromulching equipment, either trailer or truck mounted, must be capable of uniformly applying straw or hay mulch at a minimum mulching rate of 8 tons per hour, at a distance of not less than 80 ft.</p>

Use this template box if you are located in an arid, semi-arid, or drought-stricken area.

N/A	
<input type="checkbox"/> Vegetative <input checked="" type="checkbox"/> Non-Vegetative <input type="checkbox"/> Temporary <input checked="" type="checkbox"/> Permanent	
Description: <ul style="list-style-type: none"> ▪ N/A 	
Dry Period	▪
Installation and completion schedule	▪
Maintenance Requirements	
Design Specifications	

Use this template box if you are discharging to a sediment- or nutrient-impaired water or to a water that is identified by your State, Tribe, or EPA as Tier 2, Tier 2.5, or Tier 3 for antidegradation purposes.

N/A	
<input type="checkbox"/> Vegetative <input type="checkbox"/> Non-Vegetative <input type="checkbox"/> Temporary <input type="checkbox"/> Permanent	
Description: ▪	
Installation	
Completion	
Maintenance Requirements	
Design Specifications	

Use this template box if unforeseen circumstances have delayed the initiation and/or completion of vegetative stabilization. Note: You will not be able to include this information in your initial SWPPP. If you are affected by circumstances such as those described in CGP Part 2.2.14.b.ii, you will need to modify your SWPPP to include this information.

N/A	
<input type="checkbox"/> Vegetative <input type="checkbox"/> Non-Vegetative <input type="checkbox"/> Temporary <input type="checkbox"/> Permanent	
Description: ▪	
Justification	
Installation and completion schedule	Vegetative Measures: <ul style="list-style-type: none"> ▪ Approximate installation date: Click or tap to enter a date. ▪ Approximate completion date: Click or tap to enter a date.
	Non-Vegetative Measures: <i>(Must be completed within 14 days of the cessation of construction if disturbing 5 acres or less; within 7 days if disturbing more than 5 acres)</i> <ul style="list-style-type: none"> ▪ Approximate installation date: Click or tap to enter a date. ▪ Approximate completion date: Click or tap to enter a date.
Maintenance Requirements	
Design Specifications	

SECTION 5: POLLUTION PREVENTION CONTROLS

5.1 Potential Sources of Pollution

Instructions (see CGP Part 7.2.3.g):

- Identify and describe all pollutant-generating activities at your site (e.g., paving operations; concrete, paint, and stucco washout and waste disposal; solid waste storage and disposal).
- For each pollutant-generating activity, include an inventory of pollutants or pollutant constituents associated with that activity (e.g., sediment, fertilizers, and/or pesticides, paints, solvents, fuels), which could be exposed to rainfall or snowmelt, and could be discharged in stormwater from your construction site. You must take into account where potential spills and leaks could occur that contribute pollutants to stormwater discharges, and any known hazardous or toxic substances, such as PCBs and asbestos, that will be disturbed or removed during construction.

Construction Site Pollutants

Pollutant-Generating Activity	Pollutants or Pollutant Constituents (That could be discharged if exposed to stormwater)	Location on Site (Or reference SWPPP site map where this is shown)
Insulation Demolition	Asbestos	
Concrete Paving	Limestone, Sand, pH, metals	
Asphalt Paving	Oils	
Masonry Work	Limestone, Sand, pH, metals	
Tree and Planting Work	Fertilizer, nutrients, pH	
Solid Waste Disposal	Dust, sediment, metals	
Pile Auguring	Fuel	
Demolition work	Dust, sediment, metals	
Traffic Paint	Paint	

5.2 Spill Prevention and Response

Instructions (see CGP Parts 2.3.6 and 7.2.6.b.viii):

- Describe procedures you will use to prevent and respond to leaks, spills, and other releases. You must implement the following at a minimum:
 - ✓ Procedures for expeditiously stopping, containing, and cleaning up spills, leaks, and other releases. Identify the name or title of the employee(s) responsible for detection and response of spills or leaks; and
 - ✓ Procedures for notification of appropriate facility personnel, emergency response agencies, and regulatory agencies where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity consistent with Part 2.3.6 and established under either 40 CFR part 110, 40 CFR part 117, or 40 CFR part 302, occurs during a 24-hour period. Contact information must be in locations that are readily accessible and available to all employees.
- Some projects/site may be required to develop a Spill Prevention Control and Countermeasure (SPCC) plan under a separate regulatory program (Section 311 of the CWA). If you are required to develop an SPCC plan, or you already have one, you should include references to the relevant requirements from your plan.

All personnel will be instructed regarding the correct procedures for spill prevention and control. The individual who manages day-to-day site operations will be responsible for seeing that these procedures are followed. The contractor is ultimately responsible for the spill prevention and response plan.

5.3 Fueling and Maintenance of Equipment or Vehicles

Instructions (see CGP Parts 2.3.1 and 7.2.6):

- Describe equipment/vehicle fueling and maintenance practices that will be implemented to eliminate the discharge of spilled or leaked chemicals (e.g., providing secondary containment (examples: spill berms, dikes, spill containment pallets) and cover where appropriate, and/or having spill kits readily available.)

General

- Spill kits will be available on site at all times during construction activities.
- Best practices will be used to meet or exceed City of Newburyport or EPA requirements when handling fuels.

Specific Pollution Prevention Practices

Spill Kit	
Description: Spill kit for fuel or other chemical spills	
Implementation	As Needed
Maintenance Requirements	Spill kit to be replaced after use
Design Specifications	To be determined

[Repeat as needed.]

5.4 Washing of Equipment and Vehicles

Instructions (see CGP Parts 2.3.2 and 7.2.6):

- Describe equipment/vehicle washing practices that will be used to minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other types of wash waters (e.g., locating activities away from receiving waters and storm drain inlets or constructed or natural site drainage features and directing wash waters to a sediment basin or sediment trap, using filtration devices, such as filter bags or sand filters, or using other similarly effective controls).
- Describe how you will prevent the discharge of soaps, detergents, or solvents and provide storage by either (1) cover (examples: plastic sheeting or temporary roofs) to prevent these detergents from coming into contact with rainwater, or (2) a similarly effective means designed to minimize the discharge of pollutants from these areas.

General

- A wheel wash station will be established at each construction entrance.

Specific Pollution Prevention Practices

Wheel Wash Station	
Description: Wheel wash station for vehicles leaving site to prevent tracking of sediment outside of site	
Implementation	To be installed at time of construction entrance completion
Maintenance Requirements	Sediment to be removed from infiltration area when basin reaches half of the design capacity
Design Specifications	Wheel wash station will consist of hose and infiltration area to contain wheel wash wastewater

5.5 Storage, Handling, and Disposal of Building Products, Materials, and Wastes

Instructions (see CGP Parts 2.3.3 and 7.2.6):

For any of the types of building products, materials, and wastes in Sections 5.5.1-5.5.6 below that you expect to use or store at your site, provide the information on how you will comply with the corresponding CGP provision and the specific practices that you will employ.

5.5.1 Building Materials and Building Products

General

- Building materials that have the potential to contribute to the discharge of pollutants when exposed to precipitation or runoff will be stored elevated and under a protective cover to minimize exposure to precipitation and stormwater runoff.

Specific Pollution Prevention Practices

N/A	
Description:	
Implementation	
Maintenance Requirements	
Design Specifications	

5.5.2 Pesticides, Herbicides, Insecticides, Fertilizers, and Landscape Materials

General

- Pesticides, herbicides, insecticides, fertilizers and landscape materials will be stored elevated and under a protective cover to minimize exposure to precipitation and stormwater runoff.
- All application and disposal requirements included on the registered pesticides, herbicides, insecticides, and fertilizers labels.

Specific Pollution Prevention Practices

N/A	
Description:	
Implementation	
Maintenance Requirements	
Design Specifications	

5.5.3 Diesel Fuel, Oil, Hydraulic Fluids, Other Petroleum Products, and Other Chemicals

General

- Diesel fuel, oil, hydraulic fluids, other petroleum products and other chemicals will be stored in water-tight containers and covered to minimize exposure to precipitation and stormwater.
- Any spills shall be cleaned up immediately using dry clean-up methods where possible and dispose of used materials properly. Do not hose the area down. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge.
- Any container larger than 55 gallons will be stored at least 50 feet from receiving waters, constructed or natural site drainage features, and storm drain inlets.

Specific Pollution Prevention Practices

N/A	
Description:	
Implementation	
Maintenance Requirements	
Design Specifications	

5.5.4 Hazardous or Toxic Waste

(Note: Examples include paints, caulks, sealants, fluorescent light ballasts, solvents, petroleum-based products, wood preservatives, additives, curing compounds, and acids.)

General

- Separate hazardous or toxic waste from construction and domestic waste.
- Store waste in sealed containers which are constructed of suitable materials to prevent leakage and corrosion, and which are labeled in accordance with applicable Resource conservation and Recovery Act requirements and all other applicable federal, state and city requirements
- Store all outside containers within appropriately-sized secondary containment to prevent spills from being discharged, or provide a similarly effective means designed to prevent the discharge of pollutants from these areas.
- Dispose of hazardous or toxic waste in accordance with the manufacturer's recommended method of disposal and in compliance with federal, state, and city requirements
- Clean up spills immediately, using dry clean-up methods, and dispose of used materials properly. Do not hose the area down to clean surfaces or spills. Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge.
- Follow all other federal, state, and city requirements regarding hazardous or toxic waste.

Specific Pollution Prevention Practices

N/A	
Description:	
Implementation	
Maintenance Requirements	
Design Specifications	

5.5.5 Construction and Domestic Waste

(Note: Examples include packaging materials, scrap construction materials, masonry products, timber, pipe and electrical cuttings, plastics, styrofoam, concrete, demolition debris, and other trash or discarded materials.)

General

- General Construction Debris will be placed in a 30 cubic yard dumpster and trucked off-site to a legal disposal site. Solid Waste will be placed in a 20 cubic yard dumpster and trucked off-site to a legal disposal site.
- Waste will be stored in containers of sufficient size and number to contain construction and domestic wastes
- Waste container lids will be kept closed when not in use. Waste containers without lids will be covered.

Specific Pollution Prevention Practices

N/A	
Description:	
Implementation	

N/A	
Maintenance Requirements	
Design Specifications	

5.5.6 Sanitary Waste

General

- Portable toilets will be positioned so that they are secure and will not be tipped or knocked over, and located away from waters of the U.S. and stormwater inlets or conveyances.

Specific Pollution Prevention Practices

Portable Toilets	
Description: Temporary self-contained portable toilets will be provided as needed for construction personnel	
Implementation	Portable toilets will be installed before construction begins
Maintenance Requirements	Portable toilets will be emptied on a regular basis
Design Specifications	

5.6 Washing of Applicators and Containers used for Stucco, Paint, Concrete, Form Release Oils, Cutting Compounds, or Other Materials

Instructions (see CGP Parts 2.3.4 and 7.2.6):
Describe how you will comply with the CGP Part 2.3.4 requirement for washing applications and containers.

General

- Wash water will be directed into a leak-proof container or leak-proof and lined pit designed so that no overflows can occur due to inadequate sizing or precipitation
- Washout will not be dumped into storm sewers or waters of the U.S.
- Washout will be disposed of in accordance with applicable requirements in Part 2.3.3 of the C.G.P.
- Hardened concrete waste will be disposed of consistent with requirements for other construction wastes
- Washout and cleanout activities will be located as far away as possible from stormwater inlets and conveyances.

Specific Pollution Prevention Practices

N/A	
Description:	
Implementation	
Maintenance Requirements	
Design Specifications	

5.7 Application of Fertilizers

Instructions (CGP Parts 2.3.5 and 7.2.6.x):
Describe how you will comply with the CGP Part 2.3.5 requirement for the application of fertilizers.

General

- Fertilizer will be applied at a rate and in amounts consistent with manufacturer's specifications.
- Fertilizer will be applied at the appropriate time of year of maximum vegetation uptake and growth.
- Fertilizer will not be applied before heavy rains that could cause excess nutrients to be discharged.
- Fertilizer will never be applied to frozen ground.
- Fertilizer will never be applied to stormwater conveyance channels.
- All other federal, state, tribal, and local requirements regarding fertilizer application will be followed.

Specific Pollution Prevention Practices

N/A	
Description:	
Implementation	
Maintenance Requirements	
Design Specifications	

5.8 Other Pollution Prevention Practices

Instructions: Describe any additional pollution prevention practices that do not fit into the above categories.

General

- N/A

Specific Pollution Prevention Practices

N/A	
Description:	
Implementation	
Maintenance Requirements	
Design Specifications	

SECTION 6: INSPECTION, MAINTENANCE, AND CORRECTIVE ACTION

6.1 Inspection Personnel and Procedures

Instructions (see CGP Parts 4, 5, and 7.2.7):

Describe the procedures you will follow for maintaining your stormwater controls, conducting inspections, and, where necessary, taking corrective actions in accordance with CGP Parts 4, 5, and 7.2.7.

Site Inspection Schedule

Select the inspection frequency(ies) that applies, based on CGP Parts 4.2, 4.3, or 4.4

(Note: you may be subject to different inspection frequencies in different areas of the site. Check all that apply and indicate which portion(s) of the site it applies to.)

Standard Frequency:

- Every 7 calendar days
- Every 14 calendar days and within 24 hours of either:
 - A storm event that produces 0.25 inches or more of rain within a 24-hour period (including when there are multiple, smaller storms that alone produce less than 0.25 inches but together produce 0.25 inches or more in 24 hours), or
 - A storm event that produces 0.25 inches or more of rain within a 24-hour period on the first day of a storm and continues to produce 0.25 inches or more of rain on subsequent days (you conduct an inspection within 24 hours of the first day of the storm and within 24 hours after the last day of the storm that produces 0.25 inches or more of rain (i.e., only two inspections would be required for such a storm event)), or
 - A discharge caused by snowmelt from a storm event that produces 3.25 inches or more of snow within a 24-hour period.

Increased Frequency (if applicable):

For areas of sites discharging to sediment or nutrient-impaired waters or to waters designated as Tier 2, Tier 2.5, or Tier 3

- Every 7 days and within 24 hours of either:
 - A storm event that produces 0.25 inches or more of rain within a 24-hour period, or
 - A discharge caused by snowmelt from a storm event that produces 3.25 inches or more of snow within a 24-hour period.

Reduced Frequency (if applicable)

For stabilized areas

- Twice during first month, no more than 14 calendar days apart; then once per month after first month until permit coverage is terminated consistent with Part 9 in any area of your site where the stabilization steps in 2.2.14.a have been completed.
 - Specify locations where stabilization steps have been completed
 - Insert date that they were completed(Note: It is likely that you will not be able to include this in your initial SWPPP. If you qualify for this reduction (see CGP Part 4.4.1), you will need to modify your SWPPP to include this information. If construction activity resumes in this portion of the site at a later date, the inspection frequency immediately increases to that required in Parts 4.2 and 4.3, as applicable.)

For stabilized areas on “linear construction sites” (as defined in Appendix A)

- Twice during first month, no more than 14 calendar days apart; then once more within 24 hours of a storm event that produces 0.25 inches or more of rain within a 24-hour period, or within 24 hours of a snowmelt discharge from a storm event that produces 3.25 inches or more of snow within a 24-hour period
 - Specify locations where stabilization steps have been completed
 - Insert date that they were completed(Note: It is likely that you will not be able to include this in your initial SWPPP. If you qualify for this reduction (see CGP Part 4.4.1), you will need to modify your SWPPP to include this information.)

For arid, semi-arid, or drought-stricken areas during seasonally dry periods or during drought

- Once per month and within 24 hours of either:
 - A storm event that produces 0.25 inches or more of rain within a 24-hour period, or
 - A snowmelt discharge from a storm event that produces 3.25 inches or more of snow within a 24-hour period.

Insert beginning and ending month identified as the seasonally dry period for your area or the valid period of drought:

- Beginning month of the seasonally dry period: [Insert approximate date](#)
- Ending month of the seasonally dry period: [Insert approximate date](#)

For frozen conditions where construction activities are being conducted

- Once per month

Insert beginning and ending dates of frozen conditions on your site:

- Beginning date of frozen conditions: [Insert approximate date](#)
- Ending date of frozen conditions: [Insert approximate date](#)

For frozen conditions where construction activities are suspended

- Inspections are temporarily suspended

Insert beginning and ending dates of frozen conditions on your site:

- Beginning date of frozen conditions: [Insert approximate date](#)
- Ending date of frozen conditions: [Insert approximate date](#)

Dewatering Inspection Schedule

Select the inspection frequency that applies based on CGP Part 4.3.2

Dewatering Inspection

- Once per day on which the discharge of dewatering water occurs.

Rain Gauge Location (if applicable)

The rain gauge at the plum island airport (2B2 Aerodrome - KMANEWBU72) will be used to track rainfall events.

Inspection Report Forms

See Appendix D

(Note: EPA has developed a sample inspection form that CGP operators can use. The form is available at <https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources>)

6.2 Corrective Action

Instructions (CGP Parts 5 and 7.2.7):

- Describe the procedures for taking corrective action in compliance with CGP Part 5.

Personnel Responsible for Corrective Actions

To be determined

Corrective Action Logs

See Appendix E

(Note: EPA has developed a sample corrective action log that CGP operators can use. The form is available at <https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources>)

6.3 Delegation of Authority

Instructions:

- Identify the individual(s) or positions within the company who have been delegated authority to sign inspection reports.
- Attach a copy of the signed delegation of authority (see example in Appendix J of this SWPPP Template.)
- For more on this topic, see Appendix G, Subsection 11 of EPA's CGP.

Duly Authorized Representative(s) or Position(s):

To be determined

SECTION 7: TURBIDITY BENCHMARK MONITORING FOR DEWATERING DISCHARGES

Instructions (see CGP Part 3.3 and 7.2.8):

- If you are required to comply with the Part 3.3 turbidity benchmark monitoring requirements, describe the procedures you will follow to:
 - ✓ Collect and evaluate samples,
 - ✓ Report results to EPA and keep records of monitoring information, and
 - ✓ Take corrective action when necessary.
- Include the specific type of turbidity meter you will use for monitoring, as well as any manuals or manufacturer instructions on how to operate and calibrate the meter.
- Describe any coordinating arrangement you may have with any other permitted operators on the same site with respect to compliance with the turbidity monitoring requirements, including which parties are tasked with specific responsibilities.
- If EPA has approved of an alternate turbidity benchmark pursuant to Part 3.3.2.b, include any data and other documentation you relied on to request use of the specific alternative benchmark.

Procedures:

Collecting and evaluating samples	Describe how you will collect and evaluate samples
Reporting results and keeping monitoring information records	Describe how you will report results to EPA and keep monitoring information records
Taking corrective action when necessary	Describe how you will take corrective action when necessary

Turbidity Meter:

Type of turbidity meter	Insert the type of turbidity meter
--------------------------------	------------------------------------

Turbidity meter manuals and manufacturer instructions

Insert a copy of any manuals and manufacturer instructions in Appendix N of this SWPPP Template.

Coordinating Arrangements for Turbidity Monitoring (if applicable):

Permitted operator name	Insert operator name
Permitted operator NPDES ID	Insert operator NPDES ID
Coordinating Arrangement	Describe the coordinating arrangement including which parties are tasked with specific responsibilities

[Repeat as necessary.]

Alternate turbidity benchmark (if applicable):

Alternate turbidity benchmark (NTU)	Insert alternate turbidity benchmark
Data and documentation used to request the alternate benchmark	Insert the data and documentation that was submitted to EPA to request the alternate benchmark

SECTION 8: CERTIFICATION AND NOTIFICATION

Instructions (CGP Appendix G, Part G.11.2):

- The following certification statement must be signed and dated by a person who meets the requirements of Appendix G, Part G.11.2.
- This certification must be re-signed in the event of a SWPPP Modification.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: _____ Title: _____

Signature: _____ Date: _____

SWPPP APPENDICES

Attach the following documentation to the SWPPP:

Appendix A – Site Maps

Appendix B – Copy of 2022 CGP

(Note: The 2022 CGP is available at <https://www.epa.gov/npdes/2022-construction-general-permit-cgp>)

Appendix C – NOI and EPA Authorization Email

Appendix D – Site Inspection Form and Dewatering Inspection Form (if applicable)

(Note: EPA has developed a sample site inspection form template that CGP operators can use. The template is available at <https://www.epa.gov/npdes/construction-general-permit-resources-tools-and-templates>). Where the operator will be dewatering at the site, EPA has developed a separate dewatering inspection form template to use to document the required information. This template is available at <https://www.epa.gov/npdes/construction-general-permit-resources-tools-and-templates>.

Appendix E – Corrective Action Log

(Note: EPA has developed a sample corrective action log that CGP operators can use. The form is available at <https://www.epa.gov/npdes/construction-general-permit-resources-tools-and-templates>)

Appendix F – SWPPP Amendment Log

Appendix G – Subcontractor Certifications/Agreements

Appendix H – Grading and Stabilization Activities Log

Appendix I – Training Documentation

Appendix J – Delegation of Authority

Appendix K – Endangered Species Documentation

Appendix L – Historic Preservation Documentation

Appendix M – Rainfall Gauge Recording

Appendix N – Turbidity Meter Manual and Manufacturer’s Instructions

Appendix A – Site Maps

INSERT SITE MAPS CONSISTENT WITH TEMPLATE SECTION 2.6

Appendix B – Copy of 2022 CGP

INSERT COPY OF 2022 CGP

(Note: The 2022 CGP is available at <https://www.epa.gov/npdes/2022-construction-general-permit-cgp>)

Appendix C – Copy of NOI and EPA Authorization Email

INSERT COPY OF NOI AND EPA'S AUTHORIZATION EMAIL PROVIDING COVERAGE UNDER THE CGP

Appendix D – Copy of Site and Dewatering Inspection Forms

INSERT COPIES OF SITE AND DEWATERING INSPECTION FORMS YOU WILL USE TO PREPARE INSPECTION REPORTS

(Note: EPA has developed a sample site inspection and dewatering inspection form templates that CGP operators can use. The template is available at <https://www.epa.gov/npdes/construction-general-permit-resources-tools-and-templates>)

Appendix E – Copy of Corrective Action Log

INSERT COPY OF CORRECTIVE ACTION LOG YOU WILL USE

(Note: EPA has developed a sample corrective action log that CGP operators can use. The form is available at <https://www.epa.gov/npdes/stormwater-discharges-construction-activities#resources>)

Appendix G – *Sample* Subcontractor Certifications/Agreements

SUBCONTRACTOR CERTIFICATION
STORMWATER POLLUTION PREVENTION PLAN

Project Number: _____

Project Title: _____

Operator(s): _____

As a subcontractor, you are required to comply with the Stormwater Pollution Prevention Plan (SWPPP) for any work that you perform on-site. Any person or group who violates any condition of the SWPPP may be subject to substantial penalties or loss of contract. You are encouraged to advise each of your employees working on this project of the requirements of the SWPPP. A copy of the SWPPP is available for your review at the office trailer.

Each subcontractor engaged in activities at the construction site that could impact stormwater must be identified and sign the following certification statement:

I certify under the penalty of law that I have read and understand the terms and conditions of the SWPPP for the above designated project and agree to follow the practices described in the SWPPP.

This certification is hereby signed in reference to the above named project:

Company: _____

Address: _____

Telephone Number: _____

Type of construction service to be provided: _____

Signature: _____

Title: _____

Date: _____

Appendix H – *Sample* Grading and Stabilization Activities Log

Date Grading Activity Initiated	Description of Grading Activity	Description of Stabilization Measure and Location	Date Grading Activity Ceased (Indicate Temporary or Permanent)	Date When Stabilization Measures Initiated
INSERT DATE			INSERT DATE <input type="checkbox"/> Temporary <input type="checkbox"/> Permanent	INSERT DATE
INSERT DATE			INSERT DATE <input type="checkbox"/> Temporary <input type="checkbox"/> Permanent	INSERT DATE
INSERT DATE			INSERT DATE <input type="checkbox"/> Temporary <input type="checkbox"/> Permanent	INSERT DATE
INSERT DATE			INSERT DATE <input type="checkbox"/> Temporary <input type="checkbox"/> Permanent	INSERT DATE
INSERT DATE			INSERT DATE <input type="checkbox"/> Temporary <input type="checkbox"/> Permanent	INSERT DATE
INSERT DATE			INSERT DATE <input type="checkbox"/> Temporary <input type="checkbox"/> Permanent	INSERT DATE
INSERT DATE			INSERT DATE <input type="checkbox"/> Temporary <input type="checkbox"/> Permanent	INSERT DATE
INSERT DATE			INSERT DATE <input type="checkbox"/> Temporary <input type="checkbox"/> Permanent	INSERT DATE

Appendix I –Training Documentation

INSERT DOCUMENTATION CONSISTENT WITH SWPPP TEMPLATE SECTION 1.2 AND CGP PART 7.2.2

Appendix J – *Sample* Delegation of Authority Form

Delegation of Authority

I, _____ (name), hereby designate the person or specifically described position below to be a duly authorized representative for the purpose of overseeing compliance with environmental requirements, including the EPA's Construction General Permit (CGP), at the _____ construction site. The designee is authorized to sign any reports, stormwater pollution prevention plans and all other documents required by the permit.

_____ (name of person or position)
_____ (company)
_____ (address)
_____ (city, State, zip)
_____ (phone)

By signing this authorization, I confirm that I meet the requirements to make such a designation as set forth in Appendix G of EPA's CGP, and that the designee above meets the definition of a "duly authorized representative" as set forth in Appendix G.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: _____

Company: _____

Title: _____

Signature: _____

Date: _____

Appendix K – Endangered Species Documentation

INSERT DOCUMENTATION CONSISTENT WITH SWPPP TEMPLATE SECTION 3.1 AND CGP APPENDIX D

Appendix L – Historic Properties Documentation

INSERT DOCUMENTATION CONSISTENT WITH SWPPP TEMPLATE SECTION 3.2 AND CGP APPENDIX E

Appendix M – Rainfall Gauge Recording

Use the table below to record the rainfall gauge readings at the beginning and end of each work day. An example table follows.

Month/Year			Month/Year			Month/Year		
Day	Start time	End time	Day	Start time	End time	Day	Start time	End time
1			1			1		
2			2			2		
3			3			3		
4			4			4		
5			5			5		
6			6			6		
7			7			7		
8			8			8		
9			9			9		
10			10			10		
11			11			11		
12			12			12		
13			13			13		
14			14			14		
15			15			15		
16			16			16		
17			17			17		
18			18			18		
19			19			19		
20			20			20		
21			21			21		
22			22			22		
23			23			23		
24			24			24		
25			25			25		
26			26			26		
27			27			27		
28			28			28		
29			29			29		
30			30			30		
31			31			31		

Example Rainfall Gauge Recording

April 2022			May 2022			June 2022		
Day	7:00 am	4:400 pm	Day	7:00 am	4:00 pm	Day	7:00 am	4:00 pm
1	--	--	1	0.2	0	1	0	0.4
2	--	--	2	0	0	2	0	0
3	0	0	3	0.1	0.3	3	--	--
4	0	0.3	4	0	0	4	--	--
5	0	0	5	0	0	5	0	0

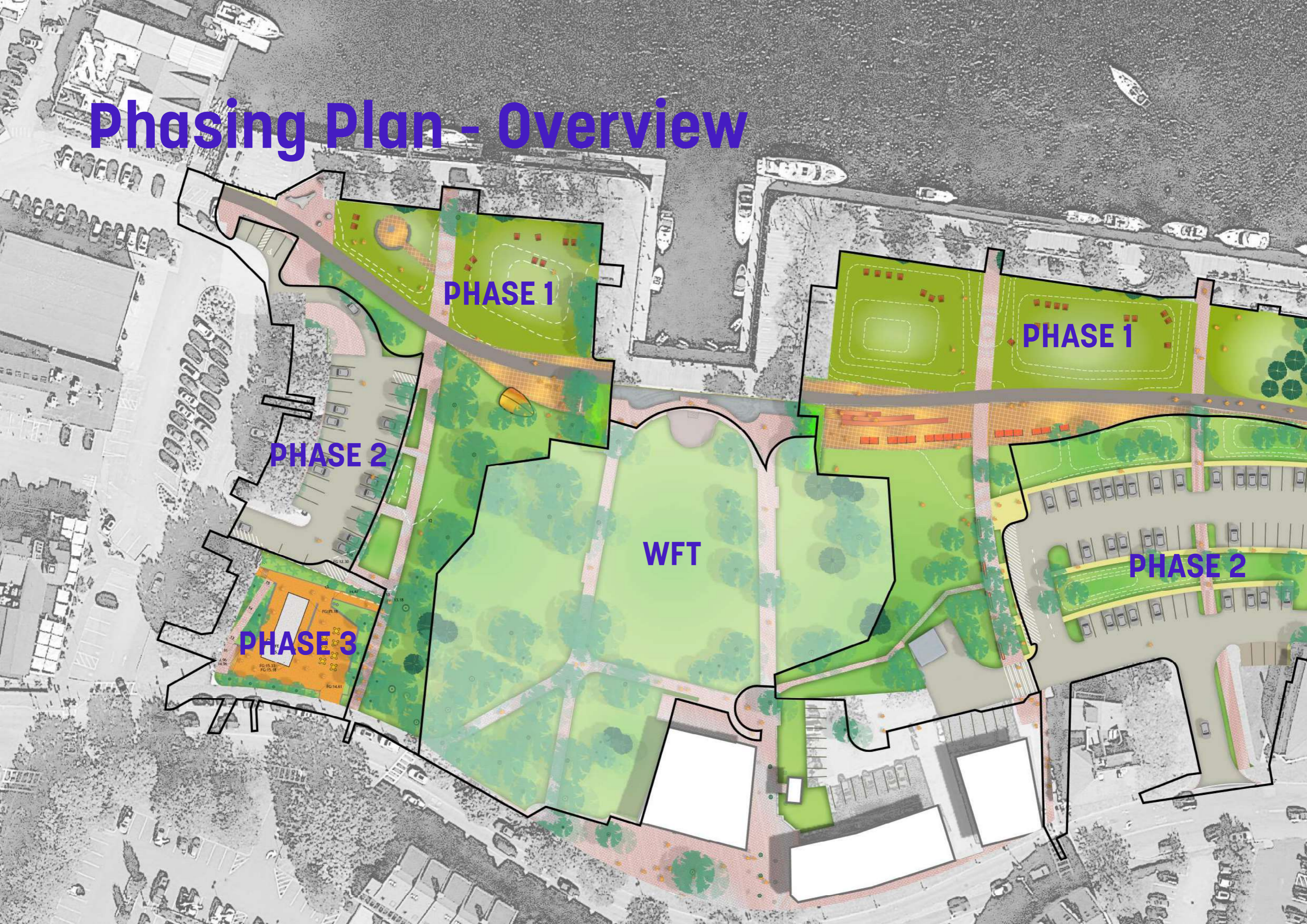
In this example (for only partial months), 0.25-inch rainfall inspections would have been conducted on April 4 and June 1.

Appendix N – Turbidity Monitoring Sampling Documentation

INSERT DOCUMENTATION CONSISTENT WITH SWPPP TEMPLATE SECTION 7.2.8 AND CGP PART 3.3.4

Appendix O - Construction Phasing Diagram

Phasing Plan - Overview



PHASE 1

PHASE 1

PHASE 2

WFT

PHASE 2

PHASE 3

Stormwater Management Report

Market Landing Park Expansion

APPENDIX G - STORMWATER OPERATION AND MAINTENANCE PLAN

The City of Newburyport
Market Landing Park Expansion

Operation and Maintenance Plan

Submitted for:
Site Plan Review

Prepared for:
City of Newburyport
60 Pleasant Street,
Newburyport, MA 01950

Prepared by:
Steve Engler, PE
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Sasaki
64 Pleasant Street
Watertown, MA 02472-2316

Issue Date: July 13, 2022
SA#: 08314.00

SASAKI

Operation and Maintenance Plan

Market Landing Park Expansion

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1.0 Introduction

1.1 STATEMENT OF PURPOSE

All permanent stormwater control practices associated with Market Landing Park shall be maintained, operated, and repaired as needed to ensure continued performance of their intended function in conformance with Massachusetts law. This document is intended to describe the maintenance needs of each practice and identify anticipated frequency of each operation. Frequencies shall be adjusted based on field performance of each management practice to ensure proper performance.

2.0 Entity Responsible for Operation and Maintenance

2.1 RESPONSIBLE ENTITY

The Newburyport Public Works will be responsible for the maintenance of the stormwater management practices. City of Newburyport to coordinate with Waterfront Trust if additional maintenance is required outside city property.

Contact: Andrew Port, (978) 465-4400, aport@cityofnewburyport.com

3.0 Long Term Pollution Prevention

A clean and orderly construction site will reduce the opportunity for pollutants to enter the stormwater runoff stream. The following identifies sources of pollution anticipated on a typical construction site and preventative measures to avoid pollution.

Potential Construction Site Pollutants

Pollutant-Generating Activity	Pollutants or Pollutant Constituents	Location on Site
Site work	Soil particles and fines	Where disturbance is proposed
Paving and construction areas	Petroleum, concrete, vehicle fluids, paints, solvents	Where paving and construction is proposed
Disinfection of water mains	Chlorine, dechlorination chemicals	Where water mains are proposed
Concrete construction	Concrete	Where concrete is proposed
Pavement marking	Paint	Where pavement markings are proposed
Solid waste storage	Construction debris, trash	In dumpster locations
Fertilizing	Fertilizers	In areas of proposed seeding
Equipment use	Hydraulic Oils/fluids	Leaks/broken hoses from equipment
Equipment use	Antifreeze/coolant	Leaks/broken hoses from equipment
Portable toilets	Sewage	Where portable toilets are located
Staging areas	Sediment, gasoline, fuel oil, concrete, vehicle fluids, paints, solvents, fertilizers, adhesives, antifreeze/coolant, hydraulic oil/fluid, etc.	
Concrete Wash Out	Particles and fines	Concrete wash out area

3.1 SPILL PREVENTION AND RESPONSE

- Manufacturer’s recommended methods for cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and clean up supplies.
- Materials and equipment necessary for spill cleanup will be kept in the material storage areas on site. Equipment and materials will include but not be limited to brooms, dustpans, mops, rags, gloves, goggles, kitty litter, sand, sawdust and plastic or metal trash containers specifically for this purpose.
- All spills will be cleaned up immediately after discovery.
- The spill area will be kept well ventilated and personnel will wear appropriate protective clothing to prevent injury from contact with hazardous substances.
- Spills of toxic or hazardous material will be reported to the appropriate state or local government agency regardless of size.

Operation and Maintenance Plan

Market Landing Park Expansion

- The Spill Prevention Plan will be adjusted to include measures to prevent this type of spill from recurring and how to cleanup the spill if it recurs. A description of the spill, its cause and the cleanup measures will be included.
- The site superintendent responsible for day to day operations will be the Spill Response Coordinator (SRC). The SRC is responsible for decisive actions in the event of a spill at the facility. The SRC will supervise efforts to provide immediate containment of the spill to prevent a more difficult cleanup situation. Cleanup crews will utilize proper spill cleanup materials and employ safe work practices.

3.1.1 Federal and State Spill Notification

In accordance with 310 CMR 40.0333, the SRC shall notify the Massachusetts Department of Environmental Protection (Northeast Region) - (978)-694-3200, the Local Emergency Planning Committee (LEPC) and any other authorities or agencies within two hours if an accident or other type of incident results in a release to:

- Land
 - 10 Gallons for more Oils (PCB<500 ppm)
 - 1 Gallon or more Oils (PCB ≥500 ppm)
- Waterways
 - Any quantity of Oils
- Or, triggers the exposure to toxic chemical levels as listed in 301 CMR 40.1600, Revised Massachusetts Contingency Plan

The SRC shall notify the National Response Center (NRC) at (800) 424-8802 where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity consistent with Part 2.3.3.4c and established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302, occurs during a 24-hour period.

In either event, the SRC will work with state and federal agencies to ensure that all appropriate forms and reports are submitted in a timely manner.

- Note: Trigger volumes for other chemical spills vary. Contact the DEP or a Licensed Site Professional (LSP) for specific guidance on reporting thresholds and requirements for other chemicals.

3.1.2 Local Notification

The following local agencies will be called to provide emergency assistance at the facility on the judgment of the SRC:

Fire Department 911 or (978) 465-4427	Police Department 911 or (978) 462-4411
Hospital Anna Jaques Hospital (978) 463-1000	Department of Public Works (978) 465-4464

3.2 FUELING AND MAINTENANCE OF EQUIPMENT OR VEHICLES

General

Efforts shall be made to perform equipment/vehicle fueling and maintenance off-site. If fueling and/or maintenance of equipment or vehicles is performed on site, the following pollution prevention practices must be provided.

Specific Pollution Prevention Practices

- Site contractor/project manager shall provide an onsite vehicle fueling and maintenance area that is clean and dry.
- If possible keep area covered.
- Keep a spill kit at the fueling and maintenance area.
- Vehicles shall be inspected regularly for leaks and damage.

- Use drip pans, drip cloths or absorbent pads when replacing spent fluid.

3.3 WASHING OF EQUIPMENT AND VEHICLES

General

Efforts shall be made to perform equipment/vehicle washing and maintenance off-site. If washing of equipment and vehicles is performed on site, the following pollution prevention practices must be provided to minimize the discharge of pollutants.

Specific Pollution Prevention Practices

- Site contractor/project manager shall provide a proper washing area.
- Discharges from washing areas shall be infiltrated or diverted into sanitary sewer system unless no soaps or detergents are used.
- If soaps, detergents or solvents are stored onsite over must be provided to prevent these detergents from coming into contact with rainwater.

3.4 STORAGE, HANDLING, AND DISPOSAL OF CONSTRUCTION PRODUCTS, MATERIALS, AND WASTES

3.4.1 Building Products

- Site contractor/project manager shall designate a waste collection area on the site that does not receive a substantial amount of runoff from upland areas and does not drain directly to a water body.
- Ensure that containers have lids so they can be covered before periods of rain, and keep containers in a covered area whenever possible.
- Schedule waste collection to prevent the containers from overfilling.
- Clean up spills immediately. For hazardous materials, follow cleanup instructions on the package. Use an absorbent material such as sawdust or kitty litter to contain the spill.
- During the demolition phase of construction, provide extra containers and schedule more frequent pickups.
- Collect, remove, and dispose of all construction site wastes at authorized disposal areas.

3.4.2 Pesticides, Herbicides, Insecticides, Fertilizers, and Landscaping Materials

- Store new and used materials in a neat, orderly manner in their appropriate containers in a covered area. If storage in a covered area is not possible, the materials shall be covered with polyethylene or polypropylene sheeting to protect them from the elements.
- Storage area should include precautions to contain any potential spills.
- Immediately contain and clean up any spills with absorbent materials.

3.4.3 Diesel Fuel, Oil, Hydraulic Fluids, Other Petroleum Products, and Other Chemicals

- Store new and used petroleum products for vehicles in a neat, orderly manner in their appropriate containers in a covered area. If storage in a covered area is not possible, the materials shall be covered with polyethylene or polypropylene sheeting to protect them from the elements.
- Storage area should include precautions to contain any potential spills.
- Immediately contain and clean up any spills with absorbent material.
- Have equipment available in fuel storage areas and in vehicles to contain and clean up any spills that occur.

3.4.4 Hazardous or Toxic Waste

- Store new and used materials in a neat, orderly manner in their appropriate containers in a covered area. If storage in a covered area is not possible, the materials shall be covered with polyethylene or polypropylene sheeting to protect them from the elements.
- Storage areas should include precautions to contain any potential spills.
- Immediately contain and clean up any spills with absorbent materials.
- Have equipment available in fuel storage areas and in vehicles to contain and clean up any spills that occur.
- To prevent leaks, empty and clean hazardous waste containers before disposing of them.
- Never remove the original product label from the container because it contains important safety information. Follow the manufacturer's recommended method of disposal, which should be printed on the label.
- Never mix excess products when disposing of them, unless specifically recommended by the manufacturer.

3.4.5 Construction and Domestic Waste

- All materials shall be collected and stored in securely lidded receptacles, no construction waste materials will be buried. Clean up immediately if containers overflow.

3.4.6 Sanitary Waste

- Portable sanitary units will be provided throughout the course of the project for use by the site contractor/project manager's employees. A licensed sanitary waste management contractor will regularly collect all sanitary waste from the portable units. Position portable toilets so that they are secure and will not be tipped or knocked over.

3.5 WASHING OF APPLICATORS AND CONTAINERS USED FOR PAINT, CONCRETE OR OTHER MATERIALS

- The contractors should be encouraged where possible, to use washout facilities at their own plant or dispatch facility from stucco, paint, concrete, form release oils, curing compounds, and other construction materials.
- If washout of these materials is done on site:
 - Direct all washwater into a leak-proof container or leak-proof pit. The container or pit must be designed so that no overflows can occur due to inadequate sizing or precipitation.
 - Handle washout or cleanout wastes as follows:
 - Do not dump liquid wastes in the storm sewers
 - Dispose of liquid wastes in accordance with applicable regulations
 - Remove and dispose of hardened concrete waste consistent with your handling of other construction wastes in Section 5.5.
 - Attempts should be made to locate washout area as far away as possible from surface waters and stormwater inlets or conveyances, and to the extent practicable, designate areas to be used for these activities and conduct such activities only in these areas.
- Inspect washout facilities daily to detect leaks or tears and to identify when materials need to be removed.

3.6 FERTILIZERS

If fertilizers are to be used on site, the following requirements shall be followed:

- Store new and used materials in a neat, orderly manner in their appropriate containers in a covered area. If storage in a covered area is not possible, the materials shall be covered with polyethylene or polypropylene sheeting to protect them from the elements.
- Storage area should include precautions to contain any potential spills.
- Immediately contain and clean up any spills with absorbent materials.

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- Apply at a rate and in amounts consistent with manufacturer's specifications, or document departures from the manufacturer's specifications.
- Apply at the appropriate time of year for the site, and preferably timed to coincide as closely as possible to the period of maximum vegetation uptake and growth
- Avoid applying before heavy rains that could cause excessive nutrients to be discharged
- Never apply to frozen ground
- Never apply to stormwater conveyance channels with flowing water
- Follow all federal, state, tribal, and local requirements regarding fertilizer application.

4.0 Operation and Maintenance Schedule

4.1 OPERATION AND MAINTENANCE REQUIREMENTS

The following Long-Term Operation and Maintenance Plan shall be managed in accordance with Massachusetts law. Maintenance of the stormwater management systems shall be as follows:

4.1.1 Water Quality Structures

Water quality structures must be regularly maintained in order for proper function in conformance with the manufacturer's written instructions. After installation and the site has stabilized, post construction inspections should be conducted after every runoff event. To ensure the structures obtain optimal pollutant removal efficiencies, subsequent sediment accumulation inspections should be conducted a minimum of every six (6) months. In the event the sediment accumulation equals or exceeds 80% of the minimum sediment storage volume, then all accumulated sediment must be removed. Settled solids may be removed by use of a vacuum truck accessed through the access manhole or hatches. During cleanout, flows should not be present within the structures and plugging of the influent and effluent pipes may be required. Manufacturer recommended O&M requirements are provided in Appendix C.

Frequency	Maintenance
Weekly	Inspect system upon closure of the construction process
Monthly	During the wet season, the system may need to be cleaned, debris removed, and filter media checked for performance
Bi-Annually	The system shall be cleaned, debris removed, and filter media checked for performance

4.1.2 Deep Sump Catch Basins

Inspect or clean deep sump basins at least four times per year and at the end of the foliage and snow- removal seasons. Sediments must also be removed four times per year or whenever the depth of deposits is greater than or equal to one half the depth from the bottom of the invert of the lowest pipe in the basin. If handling runoff from land uses with higher potential pollutant loads or discharging runoff near or to a critical area, more frequent cleaning may be necessary. Clamshell buckets are typically used to remove sediment in Massachusetts.

4.1.3 Vegetated Surfaces

Inspect Vegetated Surfaces at least four times per year and repair as necessary.

4.1.4 Parking Lot and Walkway Sweeping

Parking lot and walkway sweeping shall occur at least four times per year to maintain clear and clean facilities.

4.1.5 Lawn Area Subdrainage

A properly designed and installed subsurface drain requires little maintenance. However, inlets, outlets, and drain lines should be periodically inspected. Maintenance shall include the following:

- Protect the inlets and pipes from damage by equipment, traffic, or livestock
- Check the pipes and inlets periodically to verify they are operating properly and no sediment has accumulated.
- Keep the outlet free of sediment and debris

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- Area drains and manholes shall be checked for debris buildup bi-annually. Ultimately, the frequency shall be dictated by the site conditions. The area drains include sumps which will need to be vacuumed using a JetVac type system.
- Pipes shall be flushed every two years or as dictated by the site conditions.

5.0 Estimated Operation and Maintenance Budget

The following estimated O&M Budget is for the previously described activities and the estimated budget should be an additional cost to what Newburyport Department of Public Works performs annually on-site today.

Maintenance Component	Quantity	Frequency (per Year)	Unit Cost	Annual Cost
Vegetated Surfaces	1	4	\$120	\$480
Street Sweeping	1	4	\$300	\$1,200
Subdrainage	1	Bi-Annually	\$120	\$60
Area Drain Inspection	14	Bi-Annually	\$120	\$840
Catch Basin Inspection	7	4	\$120	\$1,200
Manhole Inspection	5	Bi-Annually	\$120	\$300
Area Drain Sediment Removal	5 (est.)	2	\$250	\$2,500
Catch Basin Sediment Removal	2 (est.)	2	\$500	\$2,000
Water Quality Units	4	2	\$250	\$2,000
Total Annual Estimated Budget:				\$10,580