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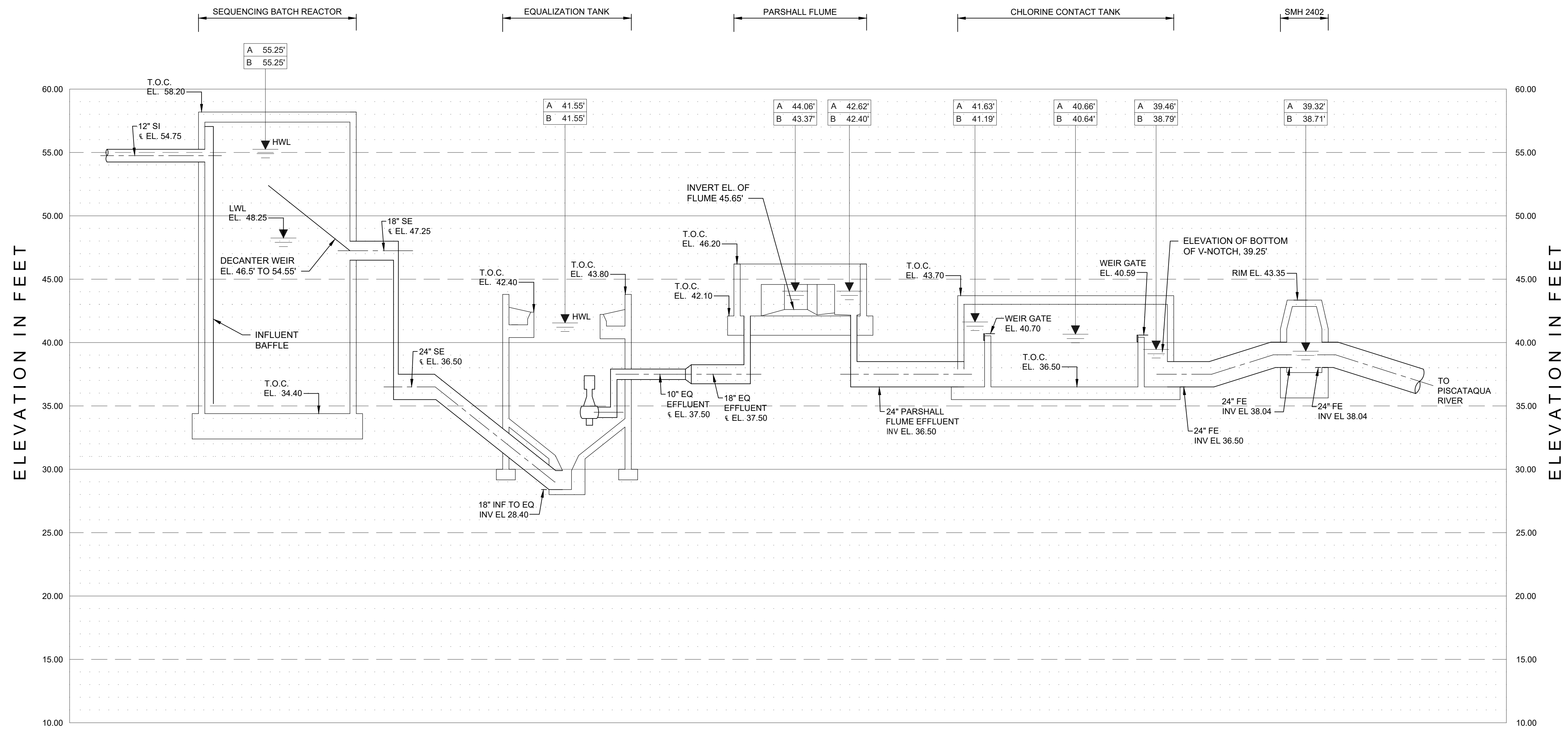
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| Designed By: | JL           |
| Drawn By:    | SAC          |
| Dept Check:  | KB           |
| Proj Check:  | EM           |
| Date:        | JANUARY 2025 |
| Scale:       | AS NOTED     |

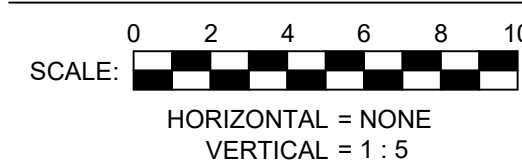
GENERAL

**HYDRAULIC PROFILE II**

**00 G-005**



**HYDRAULIC PROFILE II**



**LEGEND**

|          |   |
|----------|---|
| A 26.00' | HYDRAULIC GRADE LINE (HGL) AT PEAK FLOW           |
| B 26.00' | HYDRAULIC GRADE LINE (HGL) AT ANNUAL AVERAGE FLOW |

**NOTE:**

- PEAK FLOW WATER SURFACE ELEVATIONS SHOWN ON HYDRAULIC PROFILE ARE BASED ON THE FOLLOWING:
  - PEAK FLOW AFTER EQUALIZATION TANKS IS 3.345 MGD, WHICH EQUALS THE ORIGINAL DESIGN MAX DAY FLOW FOR PEASE WWTF. NOTE THAT THE FUTURE (YEAR 2045) MAXIMUM DAY FLOW IS 2.13 MGD.
  - PEAK FLOW BEFORE EQUALIZATION TANKS IS 4.3 MGD, WHICH EQUALS THE DESIGN PEAK FLOW FOR THE HEADWORKS.
  - PEAK FLOW TO THE OUTFALL DIFFUSER SYSTEM IS 4.535 MGD, INCLUDING THE PEAK EFFLUENT FROM THE NEWINGTON WWTF.
- ANNUAL AVERAGE FLOW CONDITION IS 1.2 MGD FOR PEASE WWTF, AND 1.49 MGD FOR OUTFALL DISCHARGE.
- THE DOWNSTREAM WATER ELEVATION FOR HYDRAULIC ANALYSIS WAS BASED ON THE MEAN HIGHER HIGH WATER WITH A 100-YEAR COASTAL STORM SURGE (12.68' PREDICTED IN YEAR 2075) AS INDICATED BY THE PORTSMOUTH COASTAL RESILIENCE INITIATIVE REPORT: CLIMATE CHANGE VULNERABILITY ASSESSMENT AND ADAPTATION PLAN DATED APRIL 2, 2013.
- ALL ELEVATIONS SHOWN ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

PATH: I:\PROJECTS\2025\01\01\PEASE\PEASE\_WWTF\_REHABILITATION\PROJECT FILES\910-CAD\_BIM\20-SHEETS\0300 G-005.DWG  
 LAST UPDATE: Wednesday, January 22, 2025 9:15:40 AM  
 PLOT DATE: Wednesday, January 29, 2025 11:08:47 AM