



## Response to April 23, 2019 Comments

### Comment Set #1

#### Utilities

1. What is the capacity requirements of water, sewer and electric? How will they be provided? What is the source of each and how shall they be routed to the property and through public ROWs? What installation requirements are needed? For instance, what size utility poles and location, is guying required and if so how and on what property? Are easements necessary for any utility to reach the property? Can electric power be installed underground to reduce impacts to neighborhoods? If overhead, what is the visual impact to the neighborhood the utility is routed through?

*4/5/19 Response: Service requests have been requested from all utility providers and the design team has been coordinating with all necessary parties. Sanitary sewer, water and gas will be provided underground from Eastern Point Road. Easements are not required for this work. An encroachment permit from the District 2 Connecticut Department of Transportation will be requested by the Contractor performing the work prior to construction. The receiving station will be on EB property to serve the new SYAB (one is for GU and the other for EB). Service from GU to the substation is still being designed by GU's designers. Service is not required for construction and full service to the SYAB will not be required until 2024. GU is responsible for securing any easements for their facilities on private property.*

**4/23/19 Staff Comment: Awaiting resubmission of plan**

**4/25/19 Response: A revised receiving station has been included with this submission. It should be noted that the two new poles on EB previously shown have been removed and will service to the receiving station will be via underground conduit. The existing poles on EPR may have to be shifted however that design is the responsibility of Groton Utilities.**

2. Explain electromagnetic frequency levels that may be associated with offsite electric utility improvements.

*4/5/19 Response: Offsite utility improvements for service are being designed by Groton Utilities.*

**4/23/19 Staff Comment: Awaiting resubmission of plan**

**4/25/19 Response: A revised receiving station is included with this submission. Offsite utilities are being designed and are the responsibility of Groton Utilities.**

3. Are there impacts to the sewer within the south property line sewer easement?

*4/5/19 Response: Changes to the sewer easement are not required.*

**4/23/19 Staff Comment: Awaiting resubmission of plan**

**4/25/19 Response: Details on Sewer outfall are contained in the CTDEEP license. Note on C-103 states “Existing Sanitary outfall to be relocated”. This note is from an early design. The outfall is a diffuser underwater and will be shortened to accommodate the submerging basin. The easement will not be modified.**

4. The appropriateness of screening at the receiving station cannot be evaluated. More information on the nature of the utilities, size, etc. that will be located here should be provided.
  - i. Is additional screening (i.e. walls) appropriate rather than just landscaping?
  - ii. Are generators located in this area?
  - iii. What noise levels can be anticipated?
  - iv. What are the lighting levels and are they included in the photometric?

*4/5/19 Response: The location of the receiving station has been altered to make it less visible from the street. Generators are not located within the receiving station area. Noise levels are anticipated to be minimal and will be included in the preliminary noise study and lighting is limited to standard wallpacks above the doors and lighting levels are included in the revised photometrics.*

**4/23/19 Staff Comment: Awaiting resubmission of plan**

**4/25/19 Response: A revised receiving station, landscaping plan and lighting plan is included in this submission.**

### **Erosion Control and Earthwork**

7. All required Stormwater and Erosion Control third party inspection reports, periodic inspections and after storm events, shall be reported to the City Planner and Zoning Enforcement Officer at time of submission to the applicable state or federal agency.

*4/5/19 Response: A copy of the E&S reports will be forwarded to the City by the Construction Manager*

**4/23/19 Staff Comment: Awaiting plan**

**4/25/19 Response: Upon completion and submission of the Construction Stormwater Permit to CTDEEP the stormwater pollution control plan prepared as part of this permit will be submitted to the City.**

8. A bond will be required for all erosion control measures. Provide a cost estimate.

*4/5/19 Response: An estimate will be provided prior to building permit.*

**4/23/19 Staff Comment: Draft estimate shall be provided prior to the close of the public hearing.**



**4/25/19 Response: A draft estimate of erosion control measures has been included with this submission**

### **Architectural Design**

2. What will be done to reduce the building's massing and height to reduce the overall impact on viewsheds from neighborhoods nearby and beyond. It should be noted the upper portions of the building will be visible from Groton Bank National Register Historic District and Fort Griswold. A viewshed analysis should be provided to understand overall impacts from various vantage points.

*4/5/19 Response: Building massing, landscaping and overall impacts to the neighborhood will be discussed during the Public Hearing.*

**4/23/19 Staff Comment: Review still on-going.**

**4/25/19 Response: Review is still on-going.**

3. Provide an interior building cross section depicting the submarine height and mechanical equipment needs above the hull, supporting the need for the building height and statement provided under Special Permit Narrative, Item 1 Section 4.4.E – Dimensional Standards (Building Height). Depict structural requirements, rigging, cranes, etc.

*4/23/19 Response: An interior building cross section will be presented during the Public Hearing.*

**4/23/19 Staff Comment: Further clarification was request by staff.**

**4/25/19 Response: The building cross section has been revised and will be presented on 4/30/19.**

### **Traffic Study**

#### **Trip Distribution and Generation**

2. The TIS states that there is currently 6,578 1<sup>st</sup> shift employees. This number is to increase to 7,036 1<sup>st</sup> shift employees by 2024, a net increase of 458 employees. This number increases to 8,175 1<sup>st</sup> shift employees by 2029, a net increase of 1,597 employees. These trips are not accounted for in any peak hour analysis. The consultant should supply a trip distribution and apply this to a 2029 build condition analysis.

*4/5/19 Response: See traffic study addendum.*

**4/23/19 BL Response: The Consultant will need to review the comments that address this new traffic addendum. At this time, BL Companies has not received the traffic addendum and is waiting to comment.**



**4/25/19 Response: The 2029 Addendum was submitted on April 23, 2019.**

**Site/Civil Review**

*Stormwater Management Report, February 2019*

2. Provide documentation demonstrating the effective treatment flow rates for each CDS WQ unit specified, as well as maximum hydraulic bypass.

*4/5/19 Response: Specification sheets will be provided for each CDS WQ unit is included in the stormwater management report.*

*4/23/19 BL Response: Specification sheets and treatment capacity has been provided. Information on maximum bypass has not been provided.*

**4/25/19 Response: The manufacturer's documentation states the hydraulic capacity is 10 times greater than the treatment capacity when the unit is installed at minimum cover. Units installed with additional cover can develop additional head at the weir resulting in even higher capacities.**

**It should be noted that the vendor will not provide exact by pass calculations until final drawings are provided and they are engaged in the project. Product/Material vendors have not been engaged at this time.**

3. Provide sediment storage information for each CDS unit specified.

*4/5/19 Response: Specification sheets will be provided for each CDS WQ unit in the stormwater management report.*

*4/23/19 BL Response: Information has been provided for storage capacity with 1-ft and 2-ft sumps. What size sump will be used at each CDS WQ unit?*

**4/25/19 Response: 2 foot sumps will be provided.**

5. The Existing & Proposed Watershed Results table on Page 5 indicate that there is an increase in peak flow rate at existing outlet #34. Please confirm that the existing 30" ACCMP downstream of this outlet can safely convey the increased flows.

*4/5/19 Response: The capacity of the 30" ACCMP has been verified and it can convey the increased flows.*

*4/23/19 BL Response: Please provide calculations.*

**4/25/19 Response: Attached are the calculations for the 30" ACCMP.**



12. Is there a Stormwater Pollution Control Plan? (SWPCP) Please provide.

*4/5/19 Response: A SWPCP will be generated as part of the construction stormwater general permit application. A copy will be forwarded to the City when completed.*

**4/23/19 BL Response: Civil General Notes Plan SY-C-500, Regulatory Requirements, Note #6 states that "This project disturbs more than one acre of land and falls within the Connecticut DEEP Stormwater and Dewatering Wastewater from Construction Activities General Permit process. General Dynamics has submitted information to the DEEP to satisfy this General Permit" If the General Permit has not yet been submitted then please revise this note. If the General Permit has been submitted then please provide a copy of the SWPCP.**

**4/25/19 Response: The note has been revised to state that when the SWPCP is completed it will be provided to the City of Groton.**

13. Is there a long-term Operation & Maintenance Plan for all elements of the stormwater system? Please provide. Please provide all forms and include a note that the City of Groton shall be copied on yearly inspection reports.

*4/5/19 Response: A long-term O&M plan for the stormwater systems is on sheet SY-C-513*

**BL Response: The O&M notes on sheet SY-C-513 only pertain to the CDS WQ units, and does not reference submissions to the City of Groton. Please provide a comprehensive plan for O&M to include catch basins, yard drains, CDS units, deck drains, level spreaders, and headwall outlets.**

**4/25/19 Response: The O&M notes have been added to the plans.**

Sheet SY-C-001 General Civil Notes

2. Please indicate number of van accessible parking spaces.

*4/5/19 Response: There are 6 van spaces.*

**BL Response: Comment addressed. Please add number of van accessible parking spaces to chart.**

**4/25/19 Response: Van spaces have been added to the parking chart.**

Sheet SY-C-010-012 Property Boundary Survey

2. CJL elevation is shown as elevation 2.0 NAVD88. It should be elevation 2.1 NAVD88.

*4/5/19 Response: A signed and sealed set of property boundary plans has been previously submitted to the City as part of the Enabling Projects.*



**4/23/19 BL Response:** Per the CTDEEP Office of Long Island Sound Programs Coastal Jurisdiction Line Elevations chart, the CJL in Groton along the Thames River is 2.1' NAVD88, the CJL elevation in Groton along Long Island Sound is 2.0' NAVD88.

**4/25/19 Response:** Fuss & O'Neill cannot revise the boundary survey as it was prepared by Dicesare Bentley. The permit documents and plans prepared by Fuss & O'Neill reflect the 2.1 foot CJL line.

*Sheet SY-C-110 Wetlands Plan*

1. No inland wetlands flags are shown on plan along inland wetland line type.

*4/5/19 Response: Wetland flags and numbers will be added to the plan.*

**4/23/19 BL Response:** Wetland flags and numbers are not shown on plan SY-C-110.

**4/25/19 Response: Wetlands flags and numbers are shown on the plans.**

2. Please add note indicating the registered soil scientist who delineated the inland wetlands and the date of the delineation.

*4/5/19 Response: A note indicating the soil scientist and date has been added to the plan.*

**4/23/19 BL Response:** Comment addressed. However, Civil General Notes sheet SY-C-500 General Note #10 states "wetlands were delineated by Fuss & O'Neill, Inc. on June 14, 2018" which contradicts the new note. Please explain and revise as necessary.

**4/25/19 Response: Stantec delineated the wetlands however Fuss & O'Neill validated them on June 14, 2018. Note #10 on SY-C-500 has been revised.**

*Sheet SY-C-111-114 Site Preparation Plan*

1. The hatch pattern designated as "remove all improvements in this area unless otherwise noted" covers the stone revetment along the shoreline and the hatch extends beyond the CJL line but stops short of the water line. Confirm this is correct.

*4/5/19 Response: For the purposes of this permit application, the hatch has been revised to extend to the CJL. Work water ward of the CJL is covered by the joint permit application to CT DEEP and USACE.*

**4/23/19 BL Response:** Please confirm that the stone revetment will be removed during construction, and if so, how will the underlying soils be stabilized and protected from tidal and wave action. Site Layout Plan sheet SY-C-131 has a note reading "Restore coastal revetment underneath the proposed building".



**4/25/19 Response: The revetment will be removed as necessary to install drilled shafts and the precast deck leaving the remaining in place. Erosion control measures will be provided at the top of slope and a turbidity curtain will be installed waterward side of the CJL during construction. The disturbed revetment will be restored upon completion of the work.**

*Sheet SY-C-121-124 Erosion and Sediment Control Plan (501-502)*

5. The plans callout several areas to receive “erosion control mat”. Please specify the mat to be used, and provide a detail for installation.

*4/5/19 Response: An erosion control mat detail will be added to the plans.*

**4/23/19 BL Response: A detail has been added. Please specify the product to be used.**

**4/25/19 Response: North American Green Type SC150, or approved equal**

11. Per the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, Chapter 3, Part III, Please identify an agent or agents who have responsible authority for the implementation, operation, monitoring and maintenance of E&S measures, including phone number. Please provide a narrative description of the project and any proposed phasing or sequencing. Please provide the planned start and completion dates for each phase. Please provide information and procedures to address emergency situations and the failure of E&S measures.

*4/5/19 Response: The erosion control notes have been updated to identify the responsible authority for the implementation, operation, monitoring and maintenance of E&S measures, including phone number. Phasing is being contemplated by the Construction Manager.*

**4/23/19 BL Response: Comment partially addressed. Please provide anticipated start date and completion date of construction. The Erosion Control notes on plan sheet SY-C-501 do not provide a narrative or emergency procedures.**

**4/25/19 Response: Construction durations and emergency procedures will be included in the Stormwater Pollution Control plan as part of the Construction Stormwater Permit. A construction sequence narrative is attached to this submission. The E&S narrative is on SY-C-500.**

12. Phasing plans should be considered due to expected construction duration and sequence.

*4/5/19 Response: Electric Boat is working with the Construction Manager to determine phasing for the project.*

**4/23/19 BL Response: Construction projects lasting more than one construction season require site sequences in accordance with Chapter 4 of the 2002 Connecticut Guidelines for Soil**



Erosion and Sediment Control. Please provide copies of plan to the City Planner when they become available.

**4/25/19 Response: See construction sequence narrative attached to this submission.**

*Sheet SY-C-131-134 Site Layout Plan*

3. Add vehicle protection at gravel drive maneuvering area west and south side of receiving station adjacent to slope.

*4/5/19 Response: The layout for the receiving station and vehicular access has been revised and vehicle protection is no longer required.*

**4/23/19 BL Response: Comment addressed. We understand that access to the receiving station is being revised again.**

**4/25/19 Response: A revised plan of the receiving station is included with this submission.**

*Sheet SY-C-311 Receiving Station Layout Plan - No comment*

1. 4/23/19 New Comment – The receiving station layout depicting on sheet SY-C-311 does not match the revised layout shown on the site plans.

**4/25/19 Response: SY-C-311 has been updated.**

*Sheet SY-C-500 General Notes*

2. 4/23/19 New Comment – Work Restriction Note #2 indicates that work is restricted to “7:00 AM to 5:00 PM on Monday through Friday”. Please revise note accordingly to match projected work schedule.

**4/25/19 Response: Note #2 has been removed.**

## **Comment Set #2**

The following is provided from Groton utilities:

Groton Utilities, as supplier of electric power, water, and sewer services, have already been planning with EB personnel and EB’s contracted engineering firms on the shipyard’s expansion and its related increased needs.

The constrained geographic area surrounding the shipyard make expanding overhead (OH) and underground (UG) utility installations complex and involved. These factors include the electric power distribution system, telephone system, cable TV, water supply system, gravity and pumped waste water systems, storm water sewer system, natural gas piping, as well as multiple UG parallel abandoned facilities. New utilities will have to pass through the contiguous residential areas to the



shipyard creating additional concerns and the need for enough space to install the required equipment.

A Master Plan must be developed to include all these factors.

Safety is critical and of utmost importance during the simultaneous intricate installations. Motor vehicle and workforce personnel must be able to safely accomplish their expected responsibilities through the proper co-ordination of the respective utilities' installations.

*4/5/19 Response: Service requests have been requested from all utility providers and the design team has been coordinating with all necessary parties. Sanitary sewer, water and gas will be provided underground from Eastern Point Road. No, easements are required for this work. An encroachment permit from the District 2 Connecticut Department of Transportation will be requested by the Contractor performing the work at prior to construction. Two substations will be provided on EB property to serve the new SYAB (one is for GU and the other for EB). Service from GU to the substation is still being designed by GU's designers. Service is not required for construction and full service to the SYAB will not be required until 2024. GU will be securing easements for their facilities on private property.*

**4/23/19 Staff Comment: Reference is made Comment #6 dated April 18, 2019**

**4/25/19 See Comment Set #6**

**Comment Set #3**

3. Special Permit Narrative;
  - a. 7.8.B.1 & 2, 7.8.C.1: Provide a list of any permits/certifications/inspection reports associated with applicable state, and federal laws which EB is required to abide by.

*4/5/19 Response: A list of permits/certifications/inspection reports associated with applicable state and federal laws which EB is required to abide by will be provided upon completion by Electric Boat.*

**4/23/19 Staff Comment: Awaiting response**

**4/25/19 Response: The following are the list of permits which EB is required to abide by:**

**STORM**

CTDEEP National Pollutant Discharge Elimination System (NPDES) Permit (Groton CT0003824)

CTDEEP General Permit for the Discharge of Stormwater Associated with Industrial Activity (Groton – GSI000669)

CTDEEP Comprehensive General Permit for Discharge to Surface Water and Groundwater (Groton)

EPA National Pollutant Discharge Elimination System (NPDES) Vessel General Permit (Groton, VPBE01770 – vessel-specific for new construction vessels)



### **SANITARY**

CTDEEP General Permit for the Discharge of Domestic Sewage (Groton - GDS000100); (New London - GDS000201)

CTDEEP General Permit for Miscellaneous Discharges of Sewer Compatible (MISC) Wastewater (Groton - CTMIU0010); (New London – GMI000249)

CTDEEP General Permit for the Discharge of Wastewater Associated With Food Service Establishments (Groton; New London)

CTDEEP General Permit for the Discharge of Vehicle Maintenance Wastewater (Groton - GVM001597)

### **AIR**

CTDEEP Title V Stationary Source Operating Permit (Groton 070-0193-TV)

### **WASTE**

CTDEEP/EPA RCRA Operating Facility for Large Quantity Generator (Groton, 75 Eastern Point Road – CTD001147842)

- b. 7.8.C.4: Provide information as to the level of radiation allowed to be discharged under the federal laws EB follows.

*4/5/19 Response: A separate response will be provided by Electric Boat.*

*4/23/19 Staff Comment: Awaiting response*

**4/25/19 Response: The policy of the U.S. Navy and Electric Boat is to reduce to the minimum practicable the amounts of radioactivity released to the environment. Engineered procedures used by the Shipyard to monitor and control releases of radioactivity from U.S. naval nuclear powered ships and the shipyard's support facilities have been effective in protecting the environment and the health and safety of the general public. Radiological environmental monitoring, which consists of analyzing samples of harbor sediment, water, marine life and air, is performed quarterly by the Shipyard and independently verified annually by CT DEEP. Based on the results of this monitoring, our shipyard operations have not had any adverse effect on human health or the quality of the environment. Details of our environmental monitoring program can be viewed online at: <http://nnsa.energy.gov/ourmission/poweringnavy/annualreports>**

**Additionally per Navy Policy EB maintains Compliance with EPA Airborne Radionuclide Regulations as set forth in 40CFR61 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS**

4. When will the noise study be complete?

*4/5/19 Response: The preliminary noise study will be presented at the Public Hearing.*

*4/23/19 Staff Comment: Noise study is under review.*

**4/25/19 Response: Comment noted**

14. Provide a more robust and streetscape/residential oriented landscape design along Eastern Point Road rather than the utilitarian/soldier fashion planting of trees. Consider a mix of deciduous and evergreens, shrubs, bulb plantings, or similar ornamental design in context with the abutting residential neighborhood/zoning district. A Street level rendering from various vantage points would be beneficial.

*4/5/19 Response: The layout of the receiving station has been revised. See revised layout and landscaping plans for revisions.*

*4/23/19 Staff Comment: Awaiting plan resubmission*

**4/25/19 Response: See revised receiving station layout and landscaping plan.**

15. Plantings should extend further south beyond the receiving station. Consider wrapping landscaping towards the west to help mitigate views from the south looking north and west.

*4/5/19 Response: Plantings have been revised however remaining water views are being maintained where possible.*

*4/23/19 Staff Comment: Awaiting plan resubmission*

**4/25/19 See revised landscaping plan.**

16. Provide a comparison of the SYAB height to that of existing buildings.

*4/5/19 Response: The viewshed from Eastern Point Road depicts the SYAB in comparison to other buildings within the Shipyard.*

*4/23/19 Staff Comment: Awaiting plan resubmission*

**4/25/19 Response: The following are heights/elevations of the other tall buildings on site:**

- **B260 (Green Building) – 137' tall (does not include roof equipment)**
- **B88 (Tech Center) – at elevation 164 (does not include roof equipment)**
- **Proposed SYAB – at elevation 158 (does not include roof equipment)**

#### **Comment Set #4**

##### **General**

5. Applicant shall provide calculations to assist with fire suppression requirements of the building.

*4/5/19 Response: Fire suppression calculations will be submitted upon completion.*

*4/23/19 Staff Comment: Awaiting submission of calculations*



**4/25/19 Response: The fire suppression design criteria is included on Sheet SY-F-701**

#### **Coastal Area Management**

1. Provide a copy of the CT DEEP application referenced in the CAM application.

*4/5/19 Response: A copy of the CT DEEP application will be submitted.*

**4/23/19: Staff Comment: Clarification needed on sewer outfall per Comment #6**

**4/25/19 Response: Note on C-103 states “Existing Sanitary outfall to be relocated”. This note is from an early design. The outfall is a diffuser underwater and will be shortened to accommodate the submerging basin. The easement will not be modified.**

#### **Comment Set #5**

4. Provide a detailed construction management plan. Said plan should clearly identify the components of the plan which are unknowns and require further review, investigation or may be contingent upon approval from other agencies (i.e. US Coast Guard).

*4/5/19 Response: The construction management plan is being prepared by the Construction Manager. Upon completion it will be submitted to the City. The Construction Manager will discuss the plan at the Public Hearing.*

**4/23/19 Staff Comment: Awaiting submission of plan.**

**4/25/19 Response: The construction plan is still being prepared and EB will keep the City abreast of their plans through regular meetings during construction. A construction sequence is included with this submission.**

5. For above said plan, a contingency plan should be outlined for those elements that require further review or approval by a specific agency other than the City and if the anticipated/preferred plan of action cannot be implemented.

*4/5/19 Response: The contingency plan is being prepared by the Construction Manager. Upon completion it will be submitted to the City. The Construction Manager will discuss the contingency plan at the Public Hearing.*

**4/23/19 Staff Comment: Awaiting submission of plan.**

**4/25/19 Response: The construction plan is still being prepared and EB will keep the City abreast of their plans through regular meetings during construction.**

#### **Comment Set #6 (Received 4/18/19)**

1. Electric
  - a. GU noted that the requested redundant power can be provided via two substations located north and south.  
**4/25/19 Response: Comment noted**
  - b. Power will follow Eastern Point Road, traveling from points north and south. Poles will be upgraded to accommodate the requested power above the distribution lines. Distribution lines will remain at similar height as today.  
**4/25/19 Response: Comment noted**
  - c. Standard utility poles will be used yet taller to accommodate the new service. An example exists near Dunkin'.  
**4/25/19 Response: Comment noted**
  - d. Upgraded poles will replace the existing poles, therefore service remains in same location as exists with the exception of a segment south of Nicholas Street. This segment's new service will be on new poles on west side of Eastern Point Road until it meets with the existing service. This is necessary as guying cannot be accommodated for the upgraded poles on the east side of Eastern Point Road.  
**4/25/19 Response: Comment noted**
  - e. Plans were requested to be revised to provide access to receiving station from further south with full vehicular circulation access around the GU building.  
**4/25/19 Response: The layout has been revised and approved by Groton Utilities on April 24, 2019.**
  - f. GU has requested non-badge controlled access.  
**4/25/19 Response: Non-badged access control has been provided.**
  - g. Security lighting has been requested at the building. Sensitivities related to residential neighborhoods understood.  
**4/25/19 Response: It has been agreed that Emergency lighting will be provided however, it has not been designed. This lighting will not be included in the photo-metrics because it will only be turned on during an emergency.**
2. Sewer
  - a. GU cannot confirm service can be provided until the following is provided:
    - i. flow tests are provided by applicant to GU,
    - ii. manholes mapped and
    - iii. clarity provided on project sanitary flows.  
**4/25/19 Response: Sanitary flow monitoring is being performed. Upon completion of the monitoring and revised plans are completed they will include manholes and additional information regarding the projected sanitary flows.**
  - b. Once this information is received, GU will complete its analysis to determine capacity.  
**4/25/19 Response: Comment noted**

3. Water

- a. GU was provided the flow rate of 1,000 GPM. GU will use this as the basis for their model to confirm service can be provided.

**4/25/19 Response: Comment noted**

- b. GU requests confirmation be provided that 1,000 GPM is inclusive of fire protection needs.

**4/25/19 Response:** This flow rate does NOT include the site fire water demand. The site fire water demand is not changing with this project as we are using the same pumps which are already installed on the site. The maximum fire water demand for this project is 2,000 GPM which can be delivered from the existing fire pump system and is consistent with other large buildings already on site.

4. Miscellaneous (Other)

- a. All meter locations have been requested to be located outside of the security fence.

**4/25/19 Response: The water meter has been located outside the security fence.**

- b. The plans depict a future building located east of the SYAB. How will utilities for this building be provided and ensure they will not impact the proposed buffer planting along Eastern Point Road?

**4/25/19 Response: The utility loads for the potential future building have been included in the service requests to Groton Utilities and Eversource. Utilities will be served from the utility building and utility stubs are included on sheet SY-C-172.**

- c. Applicant's response to comment regarding possible impacts to the southern sewer easement states that the sewer easement will not be impacted. However, it is noted that the recently issued DEEP permit identifies this sewer to be relocated. Please clarify. See Demo Plan Fig C-103 note: "Outfall to be relocated (Final Design TBD)"

**4/25/19 Response: Note on C-103 states "Existing Sanitary outfall to be relocated". This note is from an early design. The outfall is a diffuser underwater and will be shortened to accommodate the submerging basin. The easement will not be modified.**

**Comment Set #7 (Comments Received 4/24/19)**

1. Please reference the provided PDF markup attached to this letter. We recommend the Consultant revise their narrative accordingly.

**4/25/19 Response: The narrative has been revised accordingly. See revised Traffic Impact Statement.**

2. In Section 4.3 – Trip Generation, the Consultant reference ITE Land Use Code 140 –

Manufacturing for their trip generation and use the number of employees as their variable to determine trips. It is unclear how the trips are determined based on the narrative. The square footages of the facilities are stated, but not the number of employees. The Consultant should revise their narrative and analysis to reflect the correct trip generation information.

**4/25/19 Response: The narrative has been revised to reflect trip generation based on the number of employees as the variable.**

3. In Section 4.4 – Trip Distribution, it is unclear where the origin and destination of all trips. It appears based on Figure No. 4 in the Appendix that the trips are being distributed to a parking lot. The Consultant should revise their narrative to make it clear if they are entering the Site or a nearby parking lot.

**4/25/19 Response: The narrative has been revised to state that the trips are being distributed to a nearby lot.**

4. It appears in the Trip Distribution that trips will be distributed to Allen Street at Smith Street and Allen Street at Mitchell Street. If site generated trips are distributed to those intersections an analysis of the intersection capacity should be provided. The Consultant should provide analysis for all intersections impacted by site generated traffic.

**4/25/19 Response: The intersection capacity analysis for Park at Smith Street and Park Street at Mitchell Street has been included in the study. Due to the afternoon restrictions at Allen Street trips were revised to Park Street.**

5. The narrative for Section 4.4 – Trip Distribution states that 45% of the entering traffic would be generated from I-95 Westbound. It appears that there is only 35%. The Consultant should revise their trip distribution to reflect the narrative.

**4/25/19 Response: The narrative has been revised to state that 35% of trips generated come from Exit 85 and 10% come from Exit 87.**

6. Crash data is not included for all intersections where there are impacts from trips. The Consultant should provide crash data for all intersections impacted by site generated traffic.

**4/25/19 Response: Crash data has been included for all intersections with proposed trips. The crash data table has also been updated.**

7. In Section 5.2 – Intersection Sight Distance Analysis, the Consultant states that sight distance is measure 10 feet back from the edge of traveled way. Intersection sight distance should be measured from 15 feet back based on the CTDOT Highway Design Manual revised February 2013. The Consultant should measure any site drive intersection sight distances from 15 feet back of the edge of travel way.

**4/25/19 Response: Intersection sight distance at the existing driveway to “Potential Off-Site Parking B” was measured from 15 feet back of the travel way and could not be obtained**

**looking north due to an existing fence obstructing the sight line. However, vehicles are able to pull forward to a point 10 feet back from the travelway and have a clear line of sight distance looking in both directions. Historically this driveway has safely operated for many years in its current configuration. The TIS has been revised for clarification.**

8. In Table 2 – Intersection Crash Data Summary in the Appendix, the Average/Year column is actually showing the Total. The Consultant should correct this column to show either average crashes per year.

**4/25/19 Response: The table has been modified to average crashes per year.**

9. In Table 5 – Queue Length Summary Weekday Morning Peak Hour, the southbound approach at CT Route 349 and Mumford Avenue #1 has a queue length that exceeds capacity. The Consultant should recommend mitigation if queue length exceeds capacity.

**4/25/19 Response: Although the queue length on the southbound approach of Mumford Ave. extends from the stop bar back to the vicinity of W. Elderkin Ave., the maximum queue is projected to extend less than 1 vehicle length past the intersection in the AM peak hour.**

10. In Figure 2: 2019 Existing Traffic Conditions, several volumes do not reflect the raw data sheets (refer to the attached PDF markup). The Consultant should revise their existing traffic conditions to match the raw data. The Consultant should also reflect these revisions in any analysis effected by this change (Background and Combined).

**4/25/19 Response: The traffic volume figures have been revised accordingly.**

11. The intersection of Poquonnock Road, Chicago Avenue, Benham Road, and Mitchell Street appears to be set to MAX recall on all approaches in the intersection. It appears that on the record signal plans that only the southbound Mitchell Street approach is set to MAX Recall in all scenarios analyzed. The Consultant should revise this in their analysis.

**4/25/19 Response: The Recall Mode has been updated to reflect the signal plan and included in our analysis.**

12. In relation to Comment #11, changing the recall settings may improve the overall Levels of Service in the intersection. The Consultant should explore changing detector recall mode at the intersection of Poquonnock Road, Chicago Avenue, Benham Road, and Mitchell Street.

**4/25/19 Response: The recall settings were revised and there was a slight improvement in the level of service.**

### Construction Sequence

- Step 1 - Install Temporary Security Fence.
- Step 2 -
- A. Install Sedimentation Control Measures including a Sedimentation/Silt Control Boom in Water
  - B. Install CM Trailer Complex
  - C. Construct temporary construction access road
  - D. Demo Existing "T" – Pier
  - E. Remove Rip Rap/Armor Stone
  - F. Remove Existing Building Foundations as required to facilitate access to Work areas.
- Step 3 -
- A. Install Temporary Utilities to CM Trailer Complex
  - B. Remove and Relocate existing utilities as required to install new building
  - C. Install Bulkhead Walls
- Step 4 - Install Drilled Shafts
- Step 5 - Remove Asphalt and excavate building site to subgrade to facilitate installation of Structural Precast
- Step 6 - Install or Re-install Rip Rap/Armor Stone. This will happen in conjunction with Step 5.
- Step 7 - Install Structural Precast
- Step 8 - Install Cast-in-Place Concrete Deck
- Step 9 - Superstructure Construction
- Erect Structural Steel and Metal Roof Deck
  - Install Insulated Metal Siding and Membrane Roofing
  - Set in Place Bridge Cranes
- Step 10 -
- A. Construct Utility Building
  - B. Install Mechanical & Electrical inside Assembly Structure
  - C. Install CMU Partitions at Mezzanine
  - D. Start Elevator Work
- Step 11 - Complete Site Utilities



Step 12 -

- A. Reconstruct West RR Track
- B. Finish Painting and Trim Out in Building

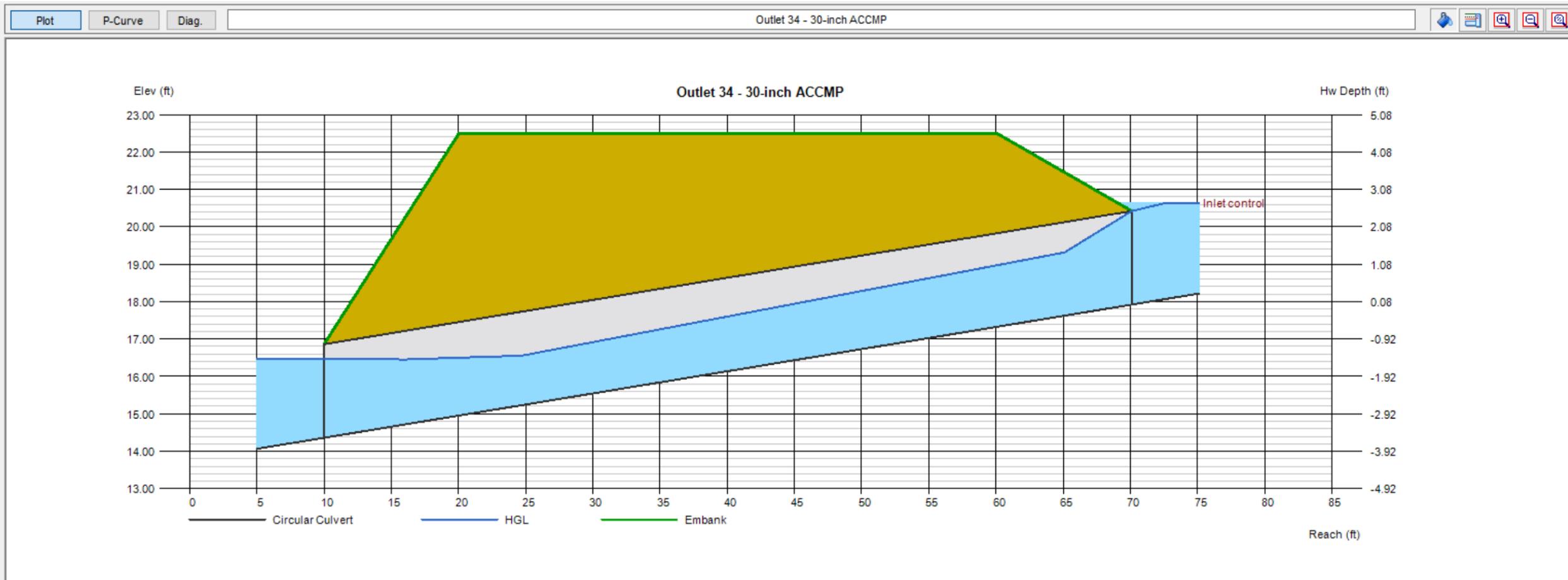
Step 13 -

- A. Finish Paving
- B. Reconstruct East RR Track – Close Down Contractor Access Road
- C. Trim out and Start-up of Systems
- D. TCO

Step 14 -

- A. Final Punchlist Items Complete
- B. Final Certificate of Occupancy

Section	Item	Input
Pipe	Inv Elev Dn =	14.36
	Length (ft) =	60.10
	Slope (%) =	5.92
	Inv Elev Up =	17.92
	Rise (in) =	30.0
	Shape =	Circular
	Span (in) =	30.0
	No. Barrels =	1
	n-value =	0.013
	Culvert Type =	Circular Corrugate Metal Pipe
	Culvert Entrance =	Headwall
Embank	Top Elev =	22.50
	Top Width (ft) =	40.00
	Crest Len (ft) =	0.00
Calcs	Q Min (cfs) =	26.00
	Q Max (cfs) =	27.80
	Q Incr (cfs) =	0.10
	Tailwater (ft) =	(dc+D)/2



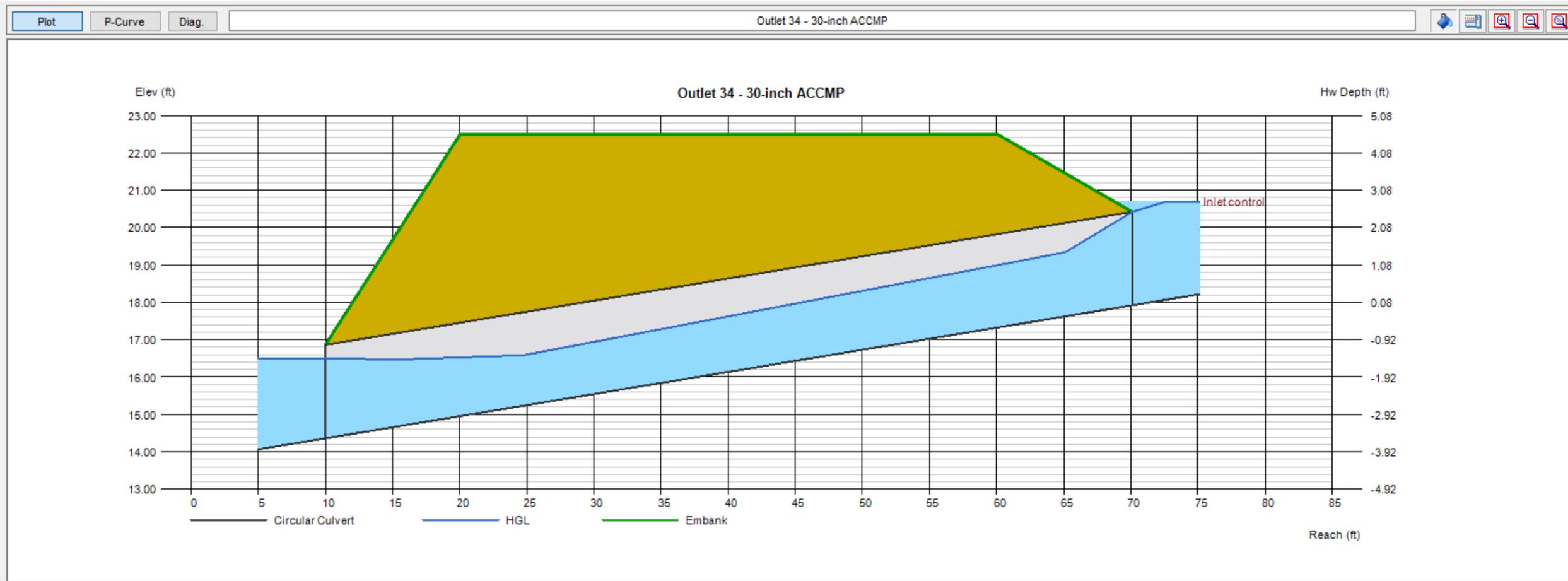
Total	Q		Veloc		Depth		HGL		Hw	Hw/D
	Pipe	Over	Dn	Up	Dn	Up	Dn	Up		
(cfs)	(cfs)	(cfs)	(ft/s)	(ft/s)	(in)	(in)	(ft)	(ft)	(ft)	
26.00	26.00	0.00	5.86	7.15	25.42	20.84	16.48	19.66	20.63	1.09
26.10	26.10	0.00	5.88	7.16	25.44	20.88	16.48	19.66	20.64	1.09
26.20	26.20	0.00	5.90	7.17	25.46	20.92	16.48	19.66	20.65	1.09
26.30	26.30	0.00	5.92	7.18	25.48	20.96	16.48	19.67	20.66	1.10
26.40	26.40	0.00	5.94	7.19	25.50	21.00	16.49	19.67	20.67	1.10
26.50	26.50	0.00	5.95	7.20	25.52	21.04	16.49	19.67	20.68	1.10
26.60	26.60	0.00	5.97	7.22	25.54	21.08	16.49	19.68	20.68	1.11

25-YEAR STORM EXISTING DISCHARGE RATE Q25=26.0 CFS



Clear Run

Section	Item	Input
Pipe	Inv Elev Dn =	14.36
	Length (ft) =	60.10
	Slope (%) =	5.92
	Inv Elev Up =	17.92
	Rise (in) =	30.0
	Shape =	Circular
	Span (in) =	30.0
	No. Barrels =	1
	n-value =	0.013
	Culvert Type =	Circular Corrugate Metal Pipe
	Culvert Entrance =	Headwall
Embank	Top Elev =	22.50
	Top Width (ft) =	40.00
	Crest Len (ft) =	0.00
Calcs	Q Min (cfs) =	26.00
	Q Max (cfs) =	27.80
	Q Incr (cfs) =	0.10
	Tailwater (ft) =	(dc+D)/2



Total	Q		Veloc		Depth		HGL			
	Pipe	Over	Dn	Up	Dn	Up	Dn	Up	Hw	Hw/D
(cfs)	(cfs)	(cfs)	(ft/s)	(ft/s)	(in)	(in)	(ft)	(ft)	(ft)	
26.20	26.20	0.00	5.90	7.17	25.46	20.92	16.48	19.66	20.65	1.09
26.30	26.30	0.00	5.92	7.18	25.48	20.96	16.48	19.67	20.66	1.10
26.40	26.40	0.00	5.94	7.19	25.50	21.00	16.49	19.67	20.67	1.10
26.50	26.50	0.00	5.95	7.20	25.52	21.04	16.49	19.67	20.68	1.10
26.60	26.60	0.00	5.97	7.22	25.54	21.08	16.49	19.68	20.68	1.11
26.70	26.70	0.00	5.99	7.23	25.56	21.12	16.49	19.68	20.69	1.11
26.80	26.80	0.00	6.01	7.24	25.58	21.16	16.49	19.68	20.70	1.11

25-YEAR STORM PROPOSED DISCHARGE RATE Q25=26.7 CFS

