GENERAL NOTES:

1. CONTRACTOR USE OF STAGING AND STORAGE AREAS IS SUBJECT TO OWNER APPROVAL.

2. NO GENERAL STAGING SHALL OCCUR ALONG THE DAM, WEST OF THE OUTLET STRUCTURE. EXCEPT BYPASS PUMPS, BAKER TANKS AND OTHER TRAILER TOPLADEN TREATMENT EQUIPMENT, WITH EQUIVALENT SURCHARGE LOADING LIMITED TO NO GREATER THAN 335 PSF AND THE BOUNDARY OF LOADING SET BACK A MINIMUM OF 3 FEET FROM THE SLOPE CRESCENT, ALLOWED WITHOUT FURTHER APPROVAL. CONTRACTOR TO SUBMIT LOADING PLANS FOR OWNER APPROVAL FOR OTHER EQUIPMENT OR TYPES OF LOADING NOT SPECIFIED IN GENERAL NOTE 2. EQUIPMENT TOOPUBLISH CHANGES TOLERANCE LIMITS ACCORDINGLY.

3. STAGING AND STORAGE AREAS SHALL BE DELINEATED USING HIGH VISIBILITY FENCE.

4. UPON COMPLETION OF CONSTRUCTION ALL CONTRACTOR STAGING AND STORAGE AREAS SHALL BE RESTORED TO PRE-CONSTRUCTION CONDITION.

5. DISTURBED AREAS SHALL BE INCLUDED IN THE CONTRACTORS STORM WATER POLLUTION PREVENTION PLAN. PROPERTIES AND WATERWAYS DOWNSTREAM OF DISTURBED AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENT DEPOSITION FROM SURFACE RUNOFF.

LIMITS OF DAM

LIMIT OF USE SECURED STAGING AREA SUBJECT TO SECTION 01015. CONTRACTOR TO MAINTAIN 24 HOUR ACCESS TO PUMP STATION.

EXISTING NORTHWEST CHANNEL

EXISTING OUTLET STRUCTURE

EXISTING CHANNEL

EXISTING EAST CHANNEL

EXISTING PUMP STATION AND FOREBAY

LIMITS OF DAM

LOAD LIMITS IN PLACE ALONG DAM, SEE GENERAL NOTE 2.

LOCATION MAP

SCALE: 1" = 100'

DRAWING INDEX

SHT NO.  DWG NO.  DRAWING TITLE

GENERAL

1  G-001  PROJECT LOCATION, VICINITY MAP, AND DRAWING INDEX

2  G-002  LEGEND

DEMOLITION

3  D-001  OUTLET STRUCTURE DEMOLITION PLAN

CIVIL

4  C-001  TEMPORARY EROSION AND SEDIMENT CONTROL, BYPASS, GRADING AND LAYOUT

5  C-002  INFLOW CHANNEL REROUTING AND ACCESS RAMP

6  C-003  GRADING SECTIONS

7  C-004  PLANTING PLAN AND DETAILS

8  C-005  SITE DETAILS

STRUCTURAL

9  S-001  OUTLET STRUCTURE GENERAL STRUCTURAL NOTES, ABBREVIATION AND LEGEND

10 S-002  OUTLET STRUCTURE PLANS

11 S-003  OUTLET STRUCTURE SECTIONS AND DETAILS - 1
Know what's below. Call before you dig.

- **MATERIALS TO BE REMOVED**
  - Existing Equipment or Materials
  - Rip-Rap
  - Wetland Hydroseed Mix
  - Emergent Mitigation Plantings

- **NEW FACILITIES (SOLID)**
  - Existing (or Screened)
  - Property Line
  - Centerline
  - Edge of Pavement
  - Temporary Silt Fence
  - Existig Storm Drain
  - Existing Catch Basin
  - Existing Underground/Power

- **FINISH GRADE CONTOURS**
  - Existing Contours
  - Proposed Spot Elevation

- **FLOWLINE**
  - Slope (3 Hor. to 1 Vert.)
  - Survey Monument
  - Survey Control Point
  - Key Note Designation
  - Monitoring Well

**LEGEND AND ABBREVIATIONS**

- **ABBREVIATIONS**
  - AL: Aluminum, Alum
  - APPX: Approximate
  - ASSY: Assembly
  - AVE: Avenue
  - BV: Bollard
  - CTRL: Controller
  - CUR: Curbing
  - DB: Ductbank
  - DIA: Diameter
  - DIP: Ductile Iron Pipe
  - DWG: Drawing
  - FAB: Fabricate
  - FND: Foundation
  - FR: Frame
  - FT: Flash Tank
  - GALV: Galvanized
  - GPM: Gallons Per Minute
  - GRD: Grade
  - H: High, Horizontal
  - H Brad: Bottom of Pipe, Back of Pipe
  - H: Bottom
  - HR: Handrail, Heat Reservoir
  - ID: Inside Diameter
  - IN: Inlet
  - INV: Invert, Invert Elevation
  - INV EL: Invert Elevation
  - JBX: Junction Box
  - JCT: Junction
  - K: Number, Pounds
  - L: Length
  - LVS: Level
  - M: Maintenance
  - MFR: Manufacturer
  - MTD: Threaded
  - NW: Northwest
  - O: Offset
  - P: Pipe
  - PAV: Pavement
  - PLT: Trench
  - PNT: Point
  - PVT: Pavement
  - R: Radius
  - RAF: Rake
  - R: Riser
  - R: Radiant
  - R: Rough Openings
  - RD: Register
  - RE: Receipt
  - RIS: Riser
  - S: Schedule
  - SEC: Second
  - SEL: Select
  - SEL: Selection
  - SHE: Sheet
  - SIM: Similar
  - SL: Slope
  - SLG: Sliding Gate
  - SPG: Spacing
  - SS: Stainless Steel
  - STG: Staging
  - STR: Structural
  - STR: Steel
  - STL: Steel
  - SW: Street
  - T: Street
  - T/C: Top of Curb
  - TCE: Top of Curbed Elevation
  - TCR: Top of Curbed
  - TDR: Top of Drainage Relief
  - TDG: Trench Drain
  - TPS: Trench Pipe
  - W/STP: Waterstop
  - WT: Watertight
  - W/SC: With Screen
  - WWF: Welded Wire Fabric
  - X: Reference

**NOTE:**
The material presented on this drawing is for reference use. Some of the details or information presented on this drawing may not be required as part of this contract.
LEACH CREEK STORMWATER HOLDING BASIN MODIFICATIONS

PHOTO 1: LOOKING SOUTH

PHOTO 2: LOOKING NORTHEAST

PHOTO 3: LOOKING SOUTHWEST

GENERAL NOTES:
1. SEE SPECIFICATION 02030 FOR DEMOLITION AND SALVAGE REQUIREMENTS.

KEY NOTES:
1. REMOVE CONCRETE AND ACCUMULATED DEBRIS WITHOUT DAMAGE TO EXISTING PIPE.
2. REMOVE ACCUMULATED SEDIMENT FROM FOREBAY.
3. HINGED PORTION OF GRATING TO REMAIN. SEE S-002.
4. EXISTING HANDRAIL TO REMAIN.
5. EXISTING GRATING IS TACK-WELDED TO THE SUPPORTS AND ALONG PANEL JOINTS AND WILL REQUIRE CUTTING OUT WITHOUT DAMAGE TO THE SUPPORTING ANGLES AND BEAM.

GENERAL NOTES:
1. SEE SPECIFICATION 02030 FOR DEMOLITION AND SALVAGE REQUIREMENTS.

KEY NOTES:
1. REMOVE CONCRETE AND ACCUMULATED DEBRIS WITHOUT DAMAGE TO EXISTING PIPE.
2. REMOVE ACCUMULATED SEDIMENT FROM FOREBAY.
3. HINGED PORTION OF GRATING TO REMAIN. SEE S-002.
4. EXISTING HANDRAIL TO REMAIN.
5. EXISTING GRATING IS TACK-WELDED TO THE SUPPORTS AND ALONG PANEL JOINTS AND WILL REQUIRE CUTTING OUT WITHOUT DAMAGE TO THE SUPPORTING ANGLES AND BEAM.

SOURCE: 1990 RECORD DRAWINGS FOR LEACH CREEK HOLDING BASIN: DAM AND STRUCTURES

EXISTING CONDITION
SECTION 1-1
SCALE: NTS

OUTLET STRUCTURE DEMOLITION PLAN

CITY OF TACOMA
ENVIRONMENTAL SERVICES DEPARTMENT
LEACH CREEK STORMWATER HOLDING BASIN MODIFICATIONS
CIVIL

3/3/2023
Call before you dig.

**GENERAL NOTES:**

1. Source of survey data is per city of tacoma. Contractor to field verify all elevations.
2. Repair gravel surface removed or disturbed during construction to match existing conditions.
3. All temporary erosion and sediment control to be installed per the city of tacoma stormwater management manual and shall comply with the provisions of the project's fish and wildlife permit. Control number: D-012-001.
4. Locate stabilized construction entrance at the location(s) specified by the city.
5. Protect existing drainage channels during construction.
6. Clearing limits shown do not reflect total limits of disturbance. Contractor to finalize limits of disturbance to include staging areas to be used. Dewatering activities and bypass pumping equipment placement.
7. Refer to section 10-12. Bypass system for additional requirements for the bypass systems.

**KEY NOTES:**

1. Apply 2' of composted mulch to all disturbed areas as temporary cover. Erodable soils shall be covered within the time period specified in section 01226.
2. Prior to allowing flow in the channel, application of all permanent seeding, planting, and erosion control blankets shall be complete.
3. Plant a 1" grass mat for 30 days. Silt fence or straw bales (10') may not be approved.
4. Clear existing drainage channels for use as staging areas. See section 01226.
5. Refer to section 01226 - bypass system for additional requirements for the bypass systems.
6. Prior to allowing flow in the channel, application of all permanent seeding, planting, and erosion control blankets shall be complete.

**PROTECT NEW CHANNEL PRIOR TO INSTALLATION OF EROSION CONTROL MEASURES TO PREVENT THE WORK AREA FROM BEING VULNERABLE TO EROSION.**

**EXISTING PIEZOMETER AVAILABLE FOR CONTRACTOR USE. SEE SECTION 01226.**

**SURVEY CONTROL POINTS**

- **ID**
  - **NORTHING**
  - **EASTING**
  - **DESCRIPTION**
- #2
  - 695,255,718
  - 1,141,745,249
  - Limits of existing bypass
- #3
  - 695,170,781
  - 1,141,839,824
  - Erosion control blankets
- #4
  - 695,479,036
  - 1,141,898,783
  - Limits of existing bypass
- #11
  - 695,170,242
  - 1,141,824,136
  - Limits of existing bypass

**SURVEY CONTROL POINTS**

- **ID**
  - **NORTHING**
  - **EASTING**
  - **DESCRIPTION**
- #2
  - 695,255,718
  - 1,141,745,249
  - Limits of existing bypass
- #3
  - 695,170,781
  - 1,141,839,824
  - Limits of existing bypass

**STATE PLANE GRID COORDINATE SYSTEM (NAD83/91) SOUTH ZONE.**
GENERAL NOTES:
1. SOURCE OF SURVEY DATA IS PER CITY OF TACOMA. CONTRACTOR TO FIELD VERIFY ALL ELEVATIONS.
2. CONTRACTOR TO LOCATE AND PROTECT EXISTING UTILITIES.
3. SEE SHEET C-061 FOR TEMPORARY EROSION AND SEDIMENT CONTROL.
4. FOR CHANNEL CENTERLINE SURVEY CONTROL, SEE SHEET C-061.

KEY NOTES:
1. INSTALL ECOLOGY BLOCKS FOR 80' DOWNSTREAM OF INLET STRUCTURE. SEE SECTION 5, C-003.
2. INSTALL BYPASS OUTLET PROTECTION, 14'-FEET DOWNSTREAM AND EXTENDING UP THE CHANNEL SIDES A MINIMUM OF 1'-FOOT ABOVE THE PIPE CROWN ELEVATION.
3. CONTRACTOR TO PROVIDE BYPASS PUMPING AT THIS LOCATION PER 01126 BYPASS.
4. ADJUST FINAL GRADE TO RIM OF EXISTING INLET.

GENERAL SERVICES DEPARTMENT
LEACH CREEK STORMWATER HOLDING BASIN MODIFICATIONS
CIVIL INFLOW CHANNEL REROUTING AND ACCESS RAMP

PAGE 5 OF 8
SCALE 1" = 10'
GENERAL NOTES:
1. ALL MATERIAL REMOVED FROM THE HOLDING BASIN AND CHANNEL SHALL BE HAULED TO LRI LANDFILL LOCATED AT 30919 MERIDIAN STREET EAST, GRAHAM WA.

KEY NOTES:
1. ECOLOGY BLOCKS. SEE C-002 FOR EXTENTS OF INSTALLATION.
2. BACKFILL SURFACE TO TOP OF ECOLOGY BLOCKS.
3. EXCESS MATERIAL TO BE REMOVED FROM HOLDING BASIN ESTIMATED TO BE 150 CY.
4. INSTALL RIPRAP OUTLET PROTECTION, 14 FEET DOWNSTREAM. SEE C-002.

SECTION 1
SCALE: 1" = 10' (H)
1" = 5' (V)

SECTION 2
SCALE: 1" = 10' (H)
1" = 5' (V)

SECTION 3
SCALE: 1" = 10' (H)
1" = 5' (V)

SECTION 4
SCALE: 1" = 10' (H)
1" = 5' (V)

SECTION 5
SCALE: 1" = 10' (H)
1" = 5' (V)

SECTION 6
SCALE: 1" = 10' (H)
1" = 5' (V)

SECTION 7
SCALE: 1" = 10' (H)
1" = 5' (V)
GENERAL NOTES:
1. SOURCE OF SURVEY DATA IS PER CITY OF TACOMA CONTRACTOR TO FIELD VERIFY ALL ELEVATIONS.

KEY NOTES:
1. SEE SHEET C-002 FOR CORE MAT INSTALLATION DETAILS.
2. SEE SHEET C-005 FOR EROSION CONTROL BLANKET OVER WETLAND HYDROSEED INSTALLATION DETAILS.

Table 3: Existing wetland planting schedule - Base of Reservoir Channel

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Enrich Rate</th>
<th>Initial Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coir mat</td>
<td>60%</td>
<td>90%</td>
</tr>
<tr>
<td>Wetland hydroseed</td>
<td>60%</td>
<td>90%</td>
</tr>
<tr>
<td>Wetland hydroseed</td>
<td>60%</td>
<td>90%</td>
</tr>
</tbody>
</table>

Table 4: Wetland hydroseed mix - Base of Reservoir Channel

<table>
<thead>
<tr>
<th>Component Name</th>
<th>Enrich Rate</th>
<th>Initial Rate</th>
</tr>
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<tr>
<td>Wetland hydroseed</td>
<td>60%</td>
<td>90%</td>
</tr>
</tbody>
</table>

Know what's below. Call before you dig.
NOTES:
1. MORE THAN THE MINIMUM OF ONE FASTENER PER SQUARE YARD MAY BE REQUIRED DUE TO CONDITIONS SUCH AS BLANKET COMPOSITION, SOIL TYPE, SURFACE UNIFORMITY, AND SLOPE STEEPNESS.
2. SEE CITY OF TACOMA SWMM BMP C122.

APPLY WETLAND HYDROSEED MIX TO SLOPES PER SECTION 02500 AND 02270.

6" TRENCH
APPLY WETLAND HYDROSEED MIX TO SLOPES PER SECTION 02500 AND 02270.

ANCHOR TRENCH
(SEE SECTION)

EROSION CONTROL BLANKET

4" MIN END OVERLAP

2.0" MAX CTRs TYP

SHINGLE SPLICE
(SEE SECTION)

EROSION CONTROL BLANKET

6" MAX CTRs TYP

FASTENER

3'-0" MAX CTRs TYP

FASTENER

6" MIN END OVERLAP

Fastener

6" TRENCH
APPLY WETLAND HYDROSEED MIX TO SLOPES PER SECTION 02500 AND 02270.

ANCHOR TRENCH
(SEE SECTION)

EROSION CONTROL BLANKET

4" MIN END OVERLAP

2.0" MAX CTRs TYP

SHINGLE SPLICE
(SEE SECTION)

EROSION CONTROL BLANKET

6" MAX CTRs TYP

CONSTRUCTION ENTRANCE DETAIL

NOTES:
1. CONTRACTOR SHALL INSTALL AND MAINTAIN A STABILIZED CONSTRUCTION ENTRANCE WHERE VEHICLES ENTER THE PROJECT SITE.
2. THE ROCK PAD SHALL BE AT LEAST 12" THICK AND 100' LONG. MATERIAL SHALL BE 4" TO 8" QUARRY SPALLS AND MAY BE TOP DRESSED WITH 1" TO 3" ROCK. WIDTH SHALL BE THE FULL WIDTH OF THE VEHICLE INGRESS AND EGRESS AREA.
3. ADDITIONAL ROCK SHALL BE ADDED PERIODICALLY TO MAINTAIN PROPER FUNCTION OF THE PAD.
4. CONTRACTOR TO MAINTAIN ROAD DURING CONSTRUCTION TO MINIMIZE TRACK-OUT OF DIRT AND MATERIAL.
5. CONSTRUCTION ENTRANCE SHALL MEET CITY OF TACOMA SWMM REQUIREMENTS.

1. MORE THAN THE MINIMUM OF ONE FASTENER PER SQUARE YARD MAY BE REQUIRED DUE TO CONDITIONS SUCH AS BLANKET COMPOSITION, SOIL TYPE, SURFACE UNIFORMITY, AND SLOPE STEEPNESS.
2. SEE CITY OF TACOMA SWMM BMP C122.

APPLY WETLAND HYDROSEED MIX TO SLOPES PER SECTION 02500 AND 02270.