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</table>
### Construction Notes:
1. All quantities shall be inclusive of excavation; any excavation shall be considered outside of the project scope.
2. The rate of excavation may include water, slush, grass, and vegetation, and equipment.
3. The intent of this contract is to place material on site to conform to the plans and specifications.
4. It is the intent of the contractor that disturbed area be restored to a "near natural" condition. The contractor shall provide a plan for the restoration, all in accordance with the contractor's experience.
5. Contractor to remove all rebar.
6. Contractor to coordinate with property owner to maintain.

### General Notes:
- Always expect swales and ponds to contain water.
- Disturbance of existing swales tends to dry out in the summer but not outside the limit of excavation.

### Table

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### Scale: 1" = 10'
CONSTRUCTION NOTES:
1. KEEP EXCAVATION AREA RIGID AND DRIED OUT DURING COMPLETE PERIOD OF EXCAVATION AND RECONSTRUCTION TO PREVENT SLIDE OF THE EXCAVATION EDGE.
2. RAINFALL OR SPRING AND AFTERTREATMENT IS REQUIRED TO PREVENT GRASS/GROUND COVER OUTSIDE THE LIMIT OF EXCAVATION FROM DRYING OUT.
3. IT IS THE INTENT OF THE CONTRACT THAT DISTURBED AREA TO BE SEEDED WITH NATIVE BES. BASIC BIOFILTRATION SWALE SEED MIX PER TABLE 3-7 OF THE CITY OF TACOMA STORMWATER MANAGEMENT MANUAL.

GENERAL NOTES:
1. CONTRACTOR TO REPAIR ALL LIMITS.
2. POINTS OF EXCAVATION MAY INCLUDE WATER, GROUND, GROUND COVER OUTSIDE THE LIMIT OF EXCAVATION
3. PROTECT ECOLOGICAL SERVICES DURING CONSTRUCTION.
4. COORDINATE WITH PROPERTY OWNERS TO MAINTAIN.
CONSTRUCTION NOTES:

1. Excavate exactly along limits and elevations shown. Remove and restore vegetation as shown.

2. Retrofits of drainage structures must be sized to carry flows calculated based on the current floodplain.

3. The proposed rehabilitations may include water conveyance structures along the alignment shown.

4. Contractor to provide any necessary temporary erosion control measure.

5. The "Limit of Excavation" may include water, swales, or disturbed areas.

GENERAL NOTES:

1.爆破作业区域时要与现有的水体和植被保持一定距离。

2.水体和植被区域的保护措施必须在施工开始前与相关部门协调。

3.水体和植被区域的保护措施必须在施工开始前与相关部门协调。

4.水体和植被区域的保护措施必须在施工开始前与相关部门协调。

5.所有临时的保护措施在施工结束前必须拆除。

Stormwater Swale and Pond Rehabilitation - Various Areas

Swale D Grading Plan

DATE: 5/31/2022

FILE: W:\PROJECTS\ENV-03027-12 MARINE VIEW DRIVE SWALE MAINT\PRODUCTION SET

PATH: \W:\\PROJECTS\ENV-03027-12 MARINE VIEW DRIVE SWALE MAINT\PRODUCTION SET

DATE: 5/31/2022 10:01 AM

BID SET

PROFILE SCALE

SCALE: 1" = 10'

POINT TABLE

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KEYMAP

1.爆破作业区域时要与现有的水体和植被保持一定距离。

2.水体和植被区域的保护措施必须在施工开始前与相关部门协调。

3.水体和植被区域的保护措施必须在施工开始前与相关部门协调。

4.水体和植被区域的保护措施必须在施工开始前与相关部门协调。

5.所有临时的保护措施在施工结束前必须拆除。
### Stormwater Swale and Pond Rehabilitation - Various Areas

**Swale E Grading Plan**

**Description:**
- **Horizontal Datum:** N.A.D. '83/91
- **Vertical Datum:** N.G.V.D. '29

**Elevations:**
- SWALE E: 9.66
- SWALE A: 9.66
- SWALE G: 9.66
- SWALE H: 9.97
- SWALE L: 9.97
- SWALE M: 10.29
- SWALE N: 10.29

**KEYMAP:**
- **SWALE E**
- **SWALE A**
- **SWALE G**
- **SWALE H**
- **SWALE L**
- **SWALE M**
- **SWALE N**

**Construction Notes:**
1. **EX STM CB:**
   - **I.E. IN:** 8.87 (8" NE)
   - **I.E. OUT:** 8.78 (8" SW)

2. **Profile Scale:** 1" = 10'
3. **Section:** 1" = 10'
4. **Scale:** 1" = 10'

**Point Table:**

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**General Notes:**
- Always expect swales and ponds to contain water.
- Disturbance of existing swales tends to dry out in the summer but not cattails, grass-like material, and sediment.
- Protect ecology blocks during construction.
- Contractor to maintain swalley ground cover outside the limit of excavation, at the contractor's expense.
- Inlet and outlet pipes shall be cleaned from the swaley and pond rehabilitation.
- Quarry spall pad after sediment is removed.
- Coordinate with property owners to maintain.

**Coastal Biofiltration Swale Seed Mix per Table 3-7 of City of Tacoma Stormwater Management Manual.**

**Construction:**
- **Point of Daylight Up to and Including Next Upstream Downstream Structure.**

**Document Information:**
- **File:** ENV-03027-12 PS PLAN
- **Path:** W:\PROJECTS\ENV-03027-12 MARINE VIEW DRIVE SWALE MAINT\PRODUCTION SET
- **Date:** 5/31/2022 10:01 AM

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**BID SET**

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**Environmental Services Department**

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**Stormwater Swale and Pond Rehabilitation - Various Areas**

---

**Swale E Grading Plan**

---

**DocuSign Envelope ID:** FFFC2939-CB53-432D-B59A-9136C3D22490
GENERAL NOTES:
1. REMEMBER SWALES AND PONDS TO CONTAIN WATER. SWALES TEND TO DRY OUT IN THE SUMMER BUT NOT.
2. GRASS/GROUND COVER OUTSIDE THE LIMIT OF EXCAVATION CONTRACTOR’S EXPENSE.
3. CONTRACTOR TO BYPASS ALL INLETS.
4. COORDINATE WITH PROPERTY OWNERS TO MAINTAIN DESIGNATED ON THE PLAN OR BY THE ENGINEER, WILL BE.
5. PROTECT ECOLOGY BLOCKS DURING CONSTRUCTION.
6. RESTORED TO THE ENGINEER’S SATISFACTION, AT THE A}

POINT TABLE

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KEYMAP
ALWAYS EXPECT SWALES AND PONDS TO CONTAIN WATER. SWALES TEND TO DRY OUT IN THE SUMMER BUT NOT COMpletely. GRASS/GROUND COVER OUTSIDE THE LIMIT OF EXCAVATION DESIGNATED ON THE PLAN OR BY THE ENGINEER, WILL BE SEeded WITH NATIVE SEEDS. IT IS THE INTENT OF THE CONTRACT THAT DISTURBED AREA AFTER EXCAVATION SWALE TO BE SEEDED WITH NATIVE SEEDS, BESIDES THE RESTORATION OF THE SWALE TO ITS ORIGINAL INTEGRITY AS PER TABLE 3-7 OF THE CITY OF TACOMA STORMWATER MANAGEMENT MANUAL.

**General Notes:**
1. Points to survey out in the summer but not points to survey in the winter.
2. Points to survey in the winter but not points to survey out in the summer.
3. All points should be surveyed to ensure accuracy.
4. All points should be surveyed to ensure accuracy.
5. Points should be surveyed to ensure accuracy.

**Construction Notes:**
1. Vertical Datum: N.G.V.D. '29
2. Horizontal Datum: N.A.S.G. '86
3. Total Station:
4. Elevations and horizontal distances should be measured with a total station during the construction of the project.
5. The construction of the project shall be completed in accordance with the City of Tacoma Stormwater Management Manual.

**Tabulated Data:**

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**Profile Scale:**
1:100

**Survey Dates:**
- 05/31/2022

**Surveyor:**
- [Name]

**Surveyor Firm:**
- [Firm Name]

**Surveyor Address:**
- [Address]

**Surveyor Phone:**
- [Phone Number]
CONSTRUCTION NOTES:
1. DO NOT DISTURB GROWTH OF PLANTS OR USE GREASER SALT ON LAWN OR PLANTS NEAR SWALE OR POND,c
2. INSTALL SWALE GRADE AND PROTECT FROM THE BOTTOM UP TO THE TOP EDGE OF SWALE STRUCTURE.
3. INSTALL SWALE GRADE AND AFTER EXCAVATION IS REMOVED, 2055 SWALE GRADE IS RE-INSTALLED.
4. COMPLETE SWALE AND POND MANAGEMENT MANUAL.
5. SWALE AND POND MANAGEMENT MANUAL TO BE COMPLETE WITHIN 30 DAYS AFTER COMPLETION OF SWALE.

CONTRACTOR'S EXPENSE.
1. THE "LIMIT OF EXCAVATION" MAY INCLUDE WATER, SWALES TEND TO DRY OUT IN THE SUMMER BUT NOT CONTRACTOR TO BYPASS ALL INLETS.
2. THE LIMIT OF EXCAVATION SHOULDN'T INCLUDE WATER, SWALES DRY OUT IN THE SUMMER BUT NOT CONTRACTOR TO BYPASS ALL INLETS.
3. POINT OF DAYLIGHT UP TO AND INCLUDING NEXT UPSTREAM INLET AND OUTLET PIPES SHALL BE CLEANED FROM THE INSTALL QUARRY SPALL PAD AFTER SEDIMENT IS REMOVED, 4. CONTRACTOR TO BYPASS ALL INLETS.
5. CONTRACTOR TO BYPASS ALL INLETS.
6. PROTECT ECOLOGY BUILDINGS DURING CONSTRUCTION WORK, COORDINATE WITH PROPERTY OWNER TO ENSURE.

POINT TABLE

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<td>106</td>
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</table>

KEYMAP:

BID SET

SWALE K

SWALE K

SWALE K

SWALE K

MARINE VIEW DRIVE

Stormwater Swale and Pond Rehabilitation - Various Areas
Swale K Grading Plan

ENVIRONMENTAL SERVICES DEPARTMENT

ENV-03027-12

10
CONSTRUCTION NOTES:
2. EXISTING WELDED PIPE IN OUTLET AND INLET PIPES SHALL BE CLEANED FROM THE "LIMIT OF EXCAVATION" TO THE "TOP OF SLOPE".
3. INSTALL QUARRY SPALL PAD AFTER SEDIMENT IS REMOVED.
4. CONTACTOR TO COMMUNICATE WITH PROPERTY OWNERS TO PROTECT ECOLOGY BLOCKS DURING CONSTRUCTION.
5. CONTRACTOR TO PROVIDE ALL NECESSARY INFRASTRUCTURE TO RESTORE SWALE TO THE ENGINEER'S SATISFACTION, AT THE CONTRACTOR'S EXPENSE.

POINTS TABLE

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</tbody>
</table>

SCALE: 1" = 10'
Stormwater Swale and Pond Rehabilitation - Various Areas

Swale N Grading Plan

**CONSTRUCTION NOTES:**

1. Do not excavate any area that may include water, sewer, gas, or electrical lines. No water, sewer, gas, or electrical lines shall be disturbed.
2. The limits of excavation may include water, sewer, gas, or electrical lines. No water, sewer, gas, or electrical lines shall be disturbed.
3. It is the intent of the contract that disturbed area, soil, or vegetation be restored to the engineer's satisfaction, at the contractor's expense.
4. Contractors to repair all linework.
5. Protect ecosystem blocks during construction.

**GENERAL NOTES:**

1. The design of the swales and ponds shall be in accordance with the City of Tacoma Stormwater Management Manual.
2. Swales tend to dry out in the summer but not cattails, grass-like material and sediment.
3. Grass/ground cover outside the limits of excavation will be protected ecology blocks during construction.
4. The "limit of excavation" may include water, sewer, gas, or electrical lines. No water, sewer, gas, or electrical lines shall be disturbed.

**KEYMAP**:

- SWALE A
- SWALE B
- SWALE C
- SWALE D
- SWALE E
- SWALE F
- SWALE G
- SWALE H
- SWALE I
- SWALE J
- SWALE K
- SWALE L
- SWALE M
- SWALE N
- SWALE Q

**SCALE**: 1" = 10'
CONSTRUCTION NOTES:
1. KEEP EXISTING DRAINS AND SUMP TRENCHES OPEN UNTIL THE NEW SWALE SYSTEM IS COMPLETED.
2. INSTALL STORM SWALE AND POND IN A RHYTHMIC WAVE OF EXCAVATION, INSTALLATION, AND RESTORATION.
3. Insets are to be subjected to water, soil, and vegetation control as per Table 3-7 of the City of Tacoma Stormwater Management Manual.
4. Contractor to bypass all inlets.
5. Protect ecology blocks during construction. Coordinate with property owners to maintain.

GENERAL NOTES:
1. Swales tend to dry out in the summer but not always. Expect swales and ponds to contain water.
2. Excavation limits may include water, cattails, grasslike material, and sediment.
3. It is the intent of the contract that disturbed area will be minimized. Disturbance of existing grass/ground cover outside the limits of excavation designated on the plan or by the engineer will be restored to the engineer's satisfaction, at the contractor's expense.
4. Contractor to repair all existing.
5. Protect ecology blocks during construction. Coordinate with property owners to maintain.

ENVIRONMENTAL SERVICES DEPARTMENT
Stormwater Swale and Pond Rehabilitation - Various Areas
Swale O Grading Plan

STORMWATER SWALE AND POND REHABILITATION - VARIOUS AREAS
ES-22-0178
ENV-03027-12

BID SET

KEYMAP

ENVIRONMENTAL SERVICES DEPARTMENT
Stormwater Swale and Pond Rehabilitation - Various Areas
Swale O Grading Plan

STORMWATER SWALE AND POND REHABILITATION - VARIOUS AREAS
ES-22-0178
ENV-03027-12

BID SET

KEYMAP
**CONSTRUCTION NOTES:**

1. PROTECT ECOLOGY BLOCKS DURING CONSTRUCTION.
   COORDINATE WITH PROPERTY OWNERS TO MAINTAIN.

2. CONTRACTOR TO BYPASS ALL INLETS.

3. PROTECT ECOLOGY BLOCKS DURING CONSTRUCTION.
   COORDINATE WITH PROPERTY OWNERS TO MAINTAIN.

4. CONTRACTOR TO BYPASS ALL INLETS.

5. PROTECT ECOLOGY BLOCKS DURING CONSTRUCTION.
   COORDINATE WITH PROPERTY OWNERS TO MAINTAIN.

**GENERAL NOTES:**

1. SWALES TEND TO DRY OUT IN THE SUMMER BUT NOT ALWAYS. EXPECT SWALES AND PONDS TO CONTAIN WATER.

2. THE "LIMIT OF EXCAVATION" MAY INCLUDE WATER, CATTAILS, GRASS LIKE MATERIAL AND SEDIMENT.

3. IT IS THE INTENT OF THE CONTRACTOR TO REMOVE SWALE SEDIMENT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT THE SWALE IS RESTORED TO THE CITY OF TACOMA STORMWATER MANAGEMENT MANUAL.

4. CONTRACTOR TO BYPASS ALL INLETS.

5. PROTECT ECOLOGY BLOCKS DURING CONSTRUCTION.
   COORDINATE WITH PROPERTY OWNERS TO MAINTAIN.

**POINT TABLE**

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**KEYMAP**
INLET AND OUTLET PIPES SHALL BE CLEANED FROM THE POINT OF DAYLIGHT UP TO AND INCLUDING NEXT UPSTREAM OR DOWNSTREAM STRUCTURE.

INSTALL QUARRY SPALL PAD AFTER SEDIMENT IS REMOVED, SEE DETAIL.

AFTER EXCAVATION SWALE TO BE SEEDED WITH NATIVE BASIC BIOFILTRATION SWALE SEED MIX PER TABLE 3-7 OF THE CITY OF TACOMA STORMWATER MANAGEMENT MANUAL.

CONSTRUCTION NOTES:

1. SWALES TEND TO DRY OUT IN THE SUMMER BUT NOT ALWAYS. EXPECT SWALES AND PONDS TO CONTAIN WATER.

2. THE "LIMIT OF EXCAVATION" MAY INCLUDE WATER, CATTAILS, GRASS LIKE MATERIAL AND SEDIMENT.

3. IT IS THE INTENT OF THE CONTRACT THAT DISTURBED AREA WILL BE MINIMIZED. DISTURBANCE OF EXISTING GRASS/GROUND COVER OUTSIDE THE LIMIT OF EXCAVATION DESIGNATED ON THE PLAN OR BY THE ENGINEER, WILL BE RESTORED TO THE ENGINEER'S SATISFACTION, AT THE CONTRACTOR'S EXPENSE.

4. CONTRACTOR TO BYPASS ALL INLETS.

5. PROTECT ECOLOGY BLOCKS DURING CONSTRUCTION. COORDINATE WITH PROPERTY OWNERS TO MAINTAIN.

GENERAL NOTES:

ELEV 11.54

ELEV 12.89

CITY OF TACOMA

Horizontal Datum
N.A.D. '83/91

Vertical Datum
N.G.V.D. '29

DATE: 5/31/2022 10:03 AM

PATH: W:\PROJECTS\ENV-03027-12 MARINE VIEW DRIVE SWALE MAINT\PRODUCTION SET

FILE: ENV-03027-12 PS Plan.dwg

LAYOUT: 17 SWALE Q GRADING PLAN
CONSTRUCTION NOTES:

1. PONDS TEND TO DRY OUT IN THE SUMMER BUT NOT ALWAYS EXPECT PONDS TO CONTAIN WATER.

2. THE "LIMIT OF EXCAVATION" MAY INCLUDE WATER, CUTTING, GRADE AND MATERIAL AND REMOVED.

3. THE "LIMIT OF EXCAVATION" MAY INCLUDE WATER, CUTTING, GRADE AND MATERIAL AND REMOVED.

4. CONTRACTOR TO BYPASS ALL INLETS.

GENERAL NOTES:

1. PONDS TEND TO DRY OUT IN THE SUMMER BUT NOT ALWAYS EXPECT PONDS TO CONTAIN WATER.

2. THE "LIMIT OF EXCAVATION" MAY INCLUDE WATER, CUTTING, GRADE AND MATERIAL AND REMOVED.

3. THE "LIMIT OF EXCAVATION" MAY INCLUDE WATER, CUTTING, GRADE AND MATERIAL AND REMOVED.

4. CONTRACTOR TO BYPASS ALL INLETS.
Details

Stormwater Swale and Pond Rehabilitation - Various Areas

EXTEND QUARRY SPALL PADS TO A HEIGHT OF 1'-0" ABOVE PIPE CROWN.

LIMIT OF EXCAVATION

EXISTING SEDIMENT SURFACE (VARIES)

1. QUARRY SPALL PADS IN MARINE VIEW DRIVE SWALES

2. QUARRY SPALL PADS IN STORMWATER PONDS

3. QUARRY SPALLS SHALL BE INSTALLED IN ACCORDANCE WITH WSDOT 8-15 SPECIFICATIONS.

4. QUARRY SPALL ENTRANCE TO ALLOW RUNOFF TO DRAIN OFF THE PAD.

NOTES:

1. PADS TO BE 3' WIDE.

2. PADS TO EXTEND IF PROPOSED OR PIPE OR IF INTO BOTTOM OF POND WHERE LENGTH IS GREATER.

3. QUARRY SPALLS SHALL BE INSTALLED IN ACCORDANCE WITH WSDOT 8-15 SPECIFICATIONS.

4. IF NEEDED PROVIDE FULL WIDTH OF BUSINESS/DRIVE AREA.