

**PACIFIC RACEWAYS
BUSINESS PARK
CLEARING AND GRADING TECHNICAL
INFORMATION REPORT**

June 14, 2018

Revised: September 17, 2018

JOB NO: 1263-002-016

Prepared for

**Pacific Raceways
31101 144th Ave. S.E.
Kent, WA 98042**

Submitted by

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9/17/2018

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TECHNICAL INFORMATION REPORT

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1. PROJECT OVERVIEW

The purpose of this report is to encapsulate the documents and analysis required for the early clearing and grading phase.

The proposed Pacific Raceway's Business Park project is located in Section 10, Township 21 North, Range 5 East, W.M., in the City of Kent, WA. The site's address is 31001 144th Ave SE (parcel: 1021059003, zone: I-P) and spans 90 acres, 40.63 of which will be disturbed. See Figures 1.1 and 1.2 for the vicinity map and existing site conditions, respectively.

The site is currently a grass field with approximately 5 acres of gravel parking currently used by Green River College. The property slopes gently from north to south at 1 to 8 percent and the closest steep slope areas are greater than 200 feet from the proposed project. Stormwater runoff generally drains to a landslide hazard area where the slope is steeper than 15%. The site is located in the Duwamish - Green River drainage basin (WRIA number: 9). See Section 3 of this report for more information.

The site will be cleared (40.63 acres) and graded, which will include the removal of approximately one million cubic yards of gravel. The early clearing and grading phase does not add new impervious areas; therefore, flow control beyond Temporary Erosion and Sediment Control (TESC) measures is not required for this phase of the project. Final flow control measures will be provided in the final TIR.

The Geotechnical Engineering Report (under separate cover, included with the submittal package) and Soil Map (Figure 1.4) shows that the soils onsite are mostly Everett very gravelly sandy loam, 0 to 8 percent slopes.

2. CONDITIONS AND REQUIREMENTS SUMMARY

Review of the 9 Core Requirements and 5 Special Requirements

This section describes how the project will meet the KCSWDM Core and Special Requirements.

Core Requirement No. 1 - Discharge at the Natural Location

Stormwater runoff drains to the center of the parcel, which is the site's natural discharge location.

Core Requirement No. 2 - Off-site Analysis

The off-site analysis has been documented in Section 3 of this report.

Core Requirement No. 3 - Flow Control

Flow control will be provided in the final TIR.

Core Requirement No. 4 - Conveyance System

Stormwater conveyance will be in the final TIR.

Core Requirement No. 5 - Erosion and Sediment Control

Erosion and sediment controls to prevent the transport of sediment from the project site to downstream drainage facilities, water resources, and adjacent properties will be provided in the early clearing and grading plans.

Core Requirement No. 6 - Maintenance and Operations

The Operations and Maintenance manual will be included the final TIR.

Core Requirement No. 7 - Financial Guarantees and Liability

"All drainage facilities constructed or modified for projects must comply with the financial guarantee requirements in King County Ordinance 12020 and the liability requirements of King County Code 9.04.100, excepting those privately maintained flow control BMPs not serving a private road designed for 2 or more lots." (Section 1.2.7)

This project is privately owned.

Core Requirement No. 8 - Water Quality

Water quality will be provided in the final TIR.

Core Requirement No. 9 - Flow Control BMP's

Flow Control BMPs will be provided in the final TIR.

Special Requirement No. 1 - Other Adopted Area-Specific Requirements

There are no master drainage plans, basin plans, salmon conservation plans, stormwater compliance plans, flood hazard reduction plan updates, or shared facility drainage plans for this project. Special Requirement No. 1 does not apply.

Special Requirement No. 2 - Flood Hazard Area Delineation

The developed project site location is not in a 100-year floodplain. Special Requirement No. 2 does not apply.

Special Requirement No. 3 - Flood Protection Facilities

The developed project site is not protected by an existing flood protection facility. The proposed site improvements do not include the modification of an existing flood protection facility. Special Requirement No. 3 does not apply.

Special Requirement No. 4 - Source Control

The parcel is zoned I-P industrial; a commercial building or site development permit is not required for this phase of the project. Special Requirement No. 4 does not apply.

Special Requirement No. 5 - Oil Control

The proposed development is commercial and (according to the definition provided in the KCSWDM) qualifies as a “high-use site” due to vehicle fleet size; therefore, Special Requirement No. 5 does apply. Specific implementation details regarding oil control will be provided in the final TIR.

3. OFF-SITE ANALYSIS

Task 1: Study Area Definition and Maps

The study area consists of the project site and ¼ mile downstream flow path for runoff released from the existing site. See Figure 1.2 and Figure 3.2 for the Existing Site Conditions and Downstream Analysis Flow Path, respectively.

Task 2: Resource Review

Flow Control Map

Flow control will be provided in the final TIR.

Soil Survey Map

Soil Map (Figure 1.4) shows that the soils onsite are mostly Everett very gravelly sandy loam, 0 to 8 percent slopes.

King County iMap

According to iMap, the project site is NOT mapped in any of the following areas:

- Landslide Hazard area
- Coal Mine Hazard Areas
- Erosion Hazard area
- Streams & Wetlands
- 100 Year Floodplains
- Seismic Hazard area

The project site is in a Category 2 critical aquifer recharge area; however, this area does not affect the early clearing and grading phase of the project. Therefore, specific implementation details regarding water quality treatment prior to infiltration will be provided in the final TIR.

See Figure 3.1 for more information on the environmental hazards near the project site.

Road Drainage Problems

None noted.

Wetlands Inventory

According to iMap, the Critical Areas Review, and the 1990 King County Wetlands Inventory Notebooks there are no recorded wetlands on the existing project site.

Migrating River Study

None noted.

Downstream Drainage Complaints

According to iMap, there are no relevant downstream drainage complaints within the scope of this project.

Task 3: Field Inspection (Level 1 Inspection)

A Level 1 Downstream Analysis was completed for the Pacific Raceways Drag Strip by ESM Consulting Engineers, LLC in the afternoon on September 20, 2016, when it was sunny and 66°F. Since the drag strip is adjacent to the proposed business park, it is assumed that both parcels will have similar upstream offsite areas draining to their respective projects. During the inspection it was found that the project site has no apparent upstream offsite areas draining to the property. There did not appear to be any flooding issues over any of the roadways adjacent to, and downstream of, the project site. See Figure 3.2 Downstream Analysis Flow Path, produced using iMap's elevation contours, for additional information.

Task 4: Drainage Description and Problem Descriptions

According to iMap, the project site is in the Duwamish - Green River drainage basin (King County WRIA number: 9). Big Soos Creek is located approximately ¼ of a mile south of the project. The section of Big Soos Creek that is tributary to the project is not listed in DOE's 303 (d) list as an impaired water body. No drainage problems are estimated to exist in the site's present condition.

Task 5: Mitigation of Existing or Potential Problems

No existing or potential problems were observed with the existing drainage system within the scope of the downstream analysis. Therefore, no further mitigation is proposed.

4. FLOW CONTROL & WATER QUALITY FACILITY ANALYSIS AND DESIGN

The early clearing and grading phase does not require a flow control system. Flow Control and water quality facility analysis and design will be provided in the final TIR.

5. CONVEYANCE SYSTEM ANALYSIS AND DESIGN

Conveyance system analysis and design will be provided in the final TIR.

6. SPECIAL REPORTS AND STUDIES

The Geotechnical Engineering Report by GeoResources, LLC (dated November 6, 2017) is included with the submittal package, under a separate cover.

7. OTHER PERMITS

A grade and fill permit and NPDES for coverage under the Department of Ecology (DOE) general construction stormwater permit will be required for this project. Building and utility connection permits will be applied for at a later date.

8. ESC ANALYSIS AND DESIGN

The TESC plan is shown on sheet GR-01 of the early clearing and grading plans.

Orange plastic fence, shown on the perimeter of the site, marks the project's clearing limits. Construction stormwater will be retained onsite due to the proposed grading and surrounding topography.

The soils found during the geotechnical study (under separate cover, included with the submittal package) at the elevation of the final grade across the site consist of sand and/or gravel with variable silt, cobble, and boulder content. These soils have a high capacity for the infiltration and storage of water. A mounding analysis prepared by the geotechnical engineer indicates that the native sand and gravel soils have more than adequate capacity to store and infiltrate the collected stormwater at the develop site.

A Temporary sediment pond(s) will be constructed as the project progresses as necessary. Site grading will begin on the south side of the project and continue north until reaching the north end of the project, the final grade being lower than the adjacent topography creating a closed basin. Stormwater runoff during construction will be directed to the temporary sediment pond(s) for retention and infiltration. The ponds will be continually monitored and cleaned as needed to maintain adequate retention volume and infiltration rates during construction.

All exposed slope faces should be covered with a durable reinforced plastic membrane, jute matting, or other erosion control mats during construction to prevent slope releveling and rutting during periods of precipitation.

The sandy gravel outwash soils have only slight erosion potential. Provided appropriate BMP's for both drainage control and temporary/permanent erosion control are followed, the potential for erosion should be minimal.

9. BOND QUANTITIES, FACILITY SUMMARIES, AND DECLARATION OF COVENANT

This project is privately owned; therefore, as stated in Section to Core Requirement No. 7, bond quantities are not required.

10. OPERATIONS AND MAINTENANCE

The Operations and Maintenance manual will be provided in the final TIR.

APPENDIX A - HYDROLOGY MODEL OUTPUT

The early clearing and grading phase does not add new impervious areas; therefore, flow control beyond Temporary Erosion and Sediment Control (TESC) measures is not required for this phase of the project. Hydrology model output will be provided in the final TIR.