

ENGINEERING REPORT

**Barr Lane Tract
10506 Barr Lane
Austin, Texas 78754**

Walnut Creek Watershed– Suburban Classification
The subject area is subject to the Water Quality Ordinance.
The site is not located over the Edwards Aquifer Recharge Zone.

Submitted: January 2021

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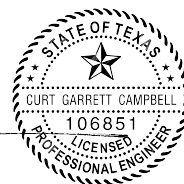
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This document is released for the purpose of review. It is not to be used for construction.

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LIST OF ATTACHMENTS

Attachment A: Figures
 Figure 1. Subject Area Aerial
 Figure 2. CWQZ and Erosion Hazard Zone
 Figure 3. Floodplain
Attachment B: Environmental Resource Inventory
Attachment C: Construction SWP3

LIST OF EXHIBITS

Exhibit A: Engineer's Summary Letter
Exhibit B: Application Package
Exhibit C: Site Plan Sheets
Exhibit D: Drainage Report

1.0 PROJECT REPORT

Westward Environmental, Inc. (WESTWARD) has been retained by Capital City Crushing, LLC (the applicant) to submit an application for a Development Permit to authorize a proposed concrete recycling facility within a 119.3-acre tract located at 10506 Barr Lane, Austin, Texas, hereafter referred to as the subject area (Exhibit A; Exhibit B; Attachment A, Figure 1). The proposed development includes an office building and parking lot (office area) and concrete crushing and recycling facility with associated crushing plant, scale house, office, stockpile area, and select fill removal pit (plant area). The proposed use is consistent with the surrounding development in the area.

The two subject areas are located within the Suburban watershed of Walnut Creek, the City of Austin's (COA) 2-mile Extra-Territorial Jurisdiction (ETJ), and Travis County, Texas. Desktop review of the City of Austin Property Profile viewer identified two tributaries of Walnut Creek within the subject area; one potential tributary generally traverses northeast to southwest across the southeastern corner of the subject area, and a second tributary traverses north to south across the subject area, parallel with the western property boundary. Both tributaries on site coincide with the Critical Water Quality Zone (CWQZ) and Erosion Hazard Zone (Attachment A, Figure 2). The City of Austin's Fully Developed Floodplain Boundaries and the Federal Emergency Management Agency's (FEMA) flood zone AE, areas subject to the 1-percent-annual-chance flood event (also known as the 100-year floodplain) extends onto the subject area along the tributary in the western portion of the subject area (Attachment A, Figure 3; Exhibit C, Sheet 5).

The applicant does not propose to modify the floodplain within the subject area. Development is not proposed within the CWQZ or Erosion Hazard Zone along the two tributaries of Walnut Creek (Attachment A, Figure 2).

Existing drainage patterns within the office area are such that stormwater flow will east, toward the eastern tributary of Walnut Creek (Exhibit C; Exhibit D). The proposed grading will be contoured to direct all runoff from the parking lot and active driveway in the same direction and towards the proposed series vegetated filter strips.

Existing drainage patterns within the plant area are such that stormwater will flow southwest, toward the southern boundary of the subject area (Exhibit C; Exhibit D) toward the western tributary of Walnut Creek. The proposed grading at this facility will be contoured to direct all runoff from the plant area into one of the two proposed wet basins designed to capture and treat the 100-year 24-hour storm.

One Critical Environmental Feature (CEF) was identified within the project area (Attachment B). CEF-1 is defined as a wetland feature located near the western property boundary. Desktop review of the City of Austin Property Profile Viewer identified one known CEF on the subject area and one within 150 feet of the subject area. Development is not proposed within the City of Austin's standard 150-buffer for CEF-1.

There will be no exceptions, variances, or waivers claimed for the subject area as part of this application.

No Underground Storage Tanks (USTs) are known to exist within the subject area and none are proposed to be installed as part of this project.

The two subject areas are not located in the Barton Springs Zone and no spoil disposal locations or driveway alignments are necessary for this site development. Placement of clean fill will take place within pit areas as specified by the Reclamation Plan (Exhibit C, Sheet 16).

Net site area and impervious cover information is only applicable to watersheds classified as water supply suburban, water supply rural, and the Barton springs zone. The subject area is in the suburban watershed; therefore, this information is not applicable.

Transfer of development intensity is not applicable to the subject area.

2.0 EROSION/SEDIMENTATION CONTROL AND TREE PROTECTION PLAN

The Construction Storm Water Pollution Prevention Plan (SWP3) details information regarding proposed erosion controls, contractor staging areas, and vehicular use areas (Attachment C).

The CWQZ is outside the limits of construction for the Barr Lane Tract (Exhibit C, Sheets 5-14); no development is proposed within the CWQZ.

The subject areas are not located within the City of Austin's zoning jurisdiction, Water Supply Rural, or Water Supply Suburban watersheds; therefore, no tree survey is required.

3.0 WATER QUALITY AND DRAINAGE PLAN

Stormwater generally flows east across the office area and southwest across the plant area under existing drainage patterns (Exhibit C, Sheet 2).

The proposed grading at the office area will direct all runoff from the office parking lot and extended driveway to a series of vegetated filter strips.

The proposed grading at the plant area will direct all runoff from the active concrete recycling facility, processing plant, stockpile and construction areas of the site into the two proposed wet basins.

The property is currently undeveloped apart from a power line easement along the western boundary, an abandoned residence west of Barr Lane, and Barr Lane. Erosion and sedimentation controls may be constructed above existing grade.

4.0 ENVIRONMENTAL RESOURCE INVENTORY REPORT

4.1 Vegetative Element

Tree and vegetative surveys are not required in the suburban watershed. No development is proposed within the CWQZ, 100-year Floodplain, or Erosion Hazard Zone; therefore, trees and other vegetation in this area will be preserved. A list of dominant woodland, grassland, and hydrophytic species is listed in the ERI Report (Attachment B).

4.2 Geologic Element

The Environmental Resource Inventory (ERI) Report details mapped topographic and geologic information (Attachment B).

4.3 Wastewater Element

Septic facilities will be provided by installing a new OSSF system to serve the facility. This application will be filed separately from this application.

5.0 POLLUTION ATTENUATION PLAN

5.1 Engineering Report

The office area is proposed to include an office building and parking lot; the plant area is proposed to be utilized as a concrete recycling and select fill removal facility, which includes extraction, hauling, crushing, and stockpiling of concrete and select fill materials. Supporting activities such as equipment staging and refueling will be conducted on-site. The *Engineer's Summary* and Section 1.0 *Project Report* provide additional details.

5.2 Drainage and Water Quality Control Plan

The Construction Stormwater Pollution Prevention Plan (SWP3) and Section 3.0 *Water Quality and Drainage Plan* of this report provide details regarding drainage and water quality control (Attachment C; Exhibit D).

5.3 Reclamation Plan

Upon termination of fill removal activities within the subject area, grading and seeding will take place to stabilize soils and prevent erosion. Hydromulching may be utilized for soil stabilization if the timing of pit closure is incompatible with seasonal seeding criteria. Backfill material used to fill in the quarry pit and establish 3-horizontal to 1-vertical unit ratio (3 H:1 V) side slopes will be uncontaminated, inert construction rubble and overburden from initial excavation. Overburden not utilized for construction of berms will be used as fill. Elevation within the pit will be raised within five feet of final grade. Final grade within the pit will not exceed existing grade. Equipment on-site, such as motor graders and excavators, may be utilized for soil compaction of fill material, decreasing erosion.

Preparation of the seed bed may include disking or plowing to minimize soil compaction and then smoothed or firmed with a cultipacker or drag, followed by drill or broadcast seeded to a depth no greater than one-fourth of an inch. Seeded areas should be watered immediately following application if planted during the summer.

Seed mixtures will consist of native variety and will be applied at 35 pounds of pure live seed (PLS) per acre, consisting of approximately 23.5 pounds PLS of grass seed and 11.5 pounds PLS of forb seed, on dry sites and 26 pounds PLS per acre, containing 17 pounds PLS of grass seed and nine pounds PLS of forb seed, on moist sites.

Restoration activities are considered successful after native grasses have reached a height of at least 1.5 inches and 95 percent coverage with bare spots no greater than 16 square feet.

The Site Plan and Reclamation Plan sheets provide additional details (Exhibit C, Sheet 16).

5.4 Resource Extraction Assessment for Unconsolidated Material

The Site Plan sheets contain required Resource Extraction Plan elements (Exhibit C, Sheet 16).

5.4.1 Design Criteria Clarifications for Unconsolidated Resource Extraction and Related Activities.

The following requirements can be found in the City of Austin Environmental Criteria Manual 1.3.4.4 (A):

5.4.1.1 Excavation Limits.

All excavations may operate at a vertical slope but it is recommended that during excavation activities, sideslopes not exceed a 2-horizontal to 1-vertical (2 H:1 V) unit ratio on the portion of the site adjacent to or within a WQTZ in order to prevent a breach of a natural water body.

5.4.1.2 Water Quality Controls.

Haul roads within resource extraction excavations do not require water quality controls. The calculation of surface impervious cover to determine if water quality controls are required should include compacted gravel haul roads, sorting facilities, parking areas, and loading areas in addition to paved surfaces and buildings.

5.4.1.3 Temporary Stabilization Requirements.

Any disturbed area that is observed to be the source of dust or sediment in runoff, including topsoil stockpiles, shall be revegetated per COA Standard Specification 604S, Seeding for Erosion Control. The purpose of temporary stabilization is to prevent erosion or runoff of sediment-laden stormwater to natural water bodies.

5.4.1.4 Pit Backfill Criteria.

All pit sideslopes must be stabilized at a 3-horizontal to 1-vertical unit ratio (3 H:1 V) slope for reclamation. This is to prevent erosion and to maintain overland sheet flow, per LDC 25-8-185 or ATCSR 30-5-185.

Fill material should be compacted from the bottom of the excavation to within five (5) feet of final grade.

If an open pit is partially backfilled, then the sideslopes must be restored to a final slope of 3 H:1 V in order to provide a stable angle of repose for revegetation and to prevent erosion. This is to prevent erosion and to maintain overland sheet flow, per LDC 25-8-185 or ATCSR 30-5-185.

The final grade of backfilled areas may not exceed the pre-existing natural grade of the site prior to the initiation of extraction operations, except as allowed by Sections 25-8-342 of the LDC and 30-5-342 of the ATCSR.

5.5 Rock Quarry and Mining Assessment

5.5.1 Tree Protection

Tree protection measures are not required as the subject area is not located within the zoning jurisdiction of the City of Austin.

5.5.2 Riparian Corridor Preservation

No mining or construction disturbance will take place within the CWQZ. The CWQZ(s) within the southeastern and western portions of the subject area will be preserved.

5.5.3 Temporary Stabilization Requirements

Per Reclamation Plan requirements, areas contributing to dust or sediment-laden stormwater will be vegetated as soon as practicable.

5.5.4 Stormwater Control Requirements

The Construction SWP3 details stormwater control requirements.