PUBLIC NOTICE

US Army Corps of Engineers®

EXTENSION OF PUBLIC NOTICE COMMENT PERIOD

Public Notice/Application No. SPL-2008-00816-MB
Initial Comment Period: December 6, 2011 to January 5, 2012
EXTENDED COMMENT PERIOD: January 6 – January 19, 2012

Applicant
Rosemont Copper Company
Ms. Kathy Arnold
2450 W. Ruthrauff Rd., #180
Tucson, Arizona 85705
(520) 495-3500

Agent
WestLand Resources, Inc.
Mr. Brian Lindenlaub
4001 E. Paradise Falls Drive
Tucson, Arizona 85712
(520) 206-9585

On December 6, 2011, the U.S. Army Corps of Engineers issued a public notice (SPL-2008-00816-MB) for the proposed Rosemont Open Pit Copper Mine. The original public notice may be viewed at: http://www.spl.usace.army.mil/regulatory/pn/200800816.pdf

Interested parties are hereby notified that numerous requests for extension of the public notice comment period have been received. Therefore**, the Corps is extending the public notice comment period through January 19, 2012.** Interested parties are invited to provide their views on the proposed work prior to the close of the extended comment period. Comments received by January 19, 2012 will become a part of the record and will be considered in the decision. This permit application will be issued or denied under Section 404 of the Clean Water Act (33 U.S.C. 1344). Comments can be mailed to:

U. S. Army Corps of Engineers
ATTENTION: Marjorie Blaine (SPL-2008-00816-MB)
Tucson Resident Office
5205 E. Comanche Street
Tucson, AZ 85707

For additional information please call Marjorie Blaine at (520) 584-1684. This Public Notice is issued by the Chief, Regulatory Division.

ORIGINAL

PUBLIC NOTICE

US Army Corps of Engineers®

APPLICATION FOR PERMIT

Public Notice/Application No. SPL-2008-00816-MB
Comment Period: December 6, 2011 to January 5, 2012

Applicant
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Location

Approximately 30 miles southeast of Tucson, Arizona within portions of Sections 17, 20, 21 and 25-35, T17S, R14E; portions of Sections 31-35, T17S, R15E; portions of Sections 1, 2 and 12, T18S, R14E; portions of Sections 1, 2, 7, 10-15, 17, 18, 20-25, 35 and 36, T18S, R15E; portions of Sections 6-8, 14-23 and 27-33, T18S, R16E; portions of Sections 1 and 2, T19S, R15E; and portions of Sections 4, 5 and 6, T19S, R16E in Pima County, Arizona (Figures 1 and 2).

Activity

To discharge fill material into Barrel Canyon and associated tributaries including Wasp Canyon, McCleary Canyon, Trail Canyon, and other unnamed ephemeral washes for construction of the proposed Rosemont Copper Project open pit copper mine. The Rosemont Copper Project will, through the discharge of dredged/fill material, directly impact 38.6 acres, indirectly impact 2.5 acres, and temporarily impact 0.75 acre of potential waters of the United States (WUS) (Figure 3). For a detailed description of the proposed project, please see "Proposed Activity for Which a Permit Is Required" and "Additional Project Information" in this Public Notice.

Interested parties are hereby notified that an application has been received for a Department of the Army permit for the activity described herein and shown on the attached drawing(s). Interested parties are invited to provide their views on the proposed work, which will become a part of the record and will be considered in the decision. This permit application will be issued or denied under Section 404 of the Clean Water Act (33 U.S.C. 1344). Comments can be e-mailed to Marjorie.E.Blaine@usace.army.mil or mailed to:

U. S. Army Corps of Engineers
ATTENTION: Marjorie Blaine (SPL-2008-00816-MB)
Tucson Resident Office
5205 E. Comanche Street
Tucson, AZ 85707

Evaluation Factors

The decision whether to issue a permit will be based on an evaluation of the probable impact, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors that may be relevant to the proposal will be considered, including the cumulative effects thereof. Factors that will be considered include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food production and, in general, the needs and welfare of the people. In addition, the evaluation of the activity will include application of the Environmental Protection Agency (EPA) Guidelines (40 CFR 230) as required by Section 404 (b)(1) of the Clean Water Act.

The Corps of Engineers (Corps) is soliciting comments from the public; Federal, state, and local agencies and officials; Native American tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps to determine whether to issue, modify, condition, or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of necessary documentation pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Preliminary Review of Selected Factors

EIS Determination – A draft Environmental Impact Statement (EIS) for the proposed Rosemont Copper Project has been prepared by the U.S. Forest Service (USFS), Coronado National Forest. A Notice of Availability of the Draft EIS was published by the U.S. Environmental Protection Agency in the Federal Register on October 21, 2011 (76 FR 65509). The USFS is accepting comments on the Draft EIS through January 18, 2012. The Corps and the Bureau of Land Management are Federal cooperating agencies for this Draft EIS. The information provided in the Draft EIS will provide a basis for the Corps to make a decision regarding the Section 404 permit for the proposed Rosemont Copper Project. The draft EIS is available online at http://www.rosemonteis.us.

Water Quality – The applicant is required to obtain water quality certification, under Section 401 of the Clean Water Act from the Arizona Department of Environmental Quality. Section 401 requires that any applicant for an individual Section 404 permit provide proof of water quality certification to the Corps.

Cultural Resources – Formal consultation under Section 106 of the National Historic Preservation Act has been initiated by the USFS on behalf of the Corps and the BLM with the State Historic Preservation Office (SHPO) and the appropriate Native American Tribes regarding the proposed project's effect on cultural resources. The USFS will ensure that all requirements of the Memorandum of Agreement and the Historic Properties Treatment Plan will be completed.

Endangered Species –Formal consultation under Section 7 of the Endangered Species Act will be conducted by the USFS on behalf of the Corps and the BLM with the U.S. Fish and Wildlife Service (FWS). The FWS will issue a biological opinion regarding the project's effects to federally listed species and designated critical habitat.

Public Hearing – Any person may request, in writing, within the comment period specified in this notice, that a public hearing be held to consider this application. Requests for public hearing shall state with particularity the reasons for holding a public hearing. Public meetings are currently being held for the Draft EIS, described above. A schedule for future public meetings for the Draft EIS can be found at http://www.rosemonteis.us/public-meetings.

Proposed Activity for Which a Permit is Required

Overview

The applicant has submitted a Section 404 permit application for the Barrel-only Alternative (Alternative 4 under the Draft EIS), which has been identified as the preferred alternative in the Draft EIS. Additional detail on the original proposed action, preliminary Mining Plan of Operation (MPO), as well as other alternatives considered, is provided in the Draft EIS referenced above.

The proposed Rosemont Copper Project is a copper mining project that will produce more than 230 million (M) lbs of copper per year (roughly 10% of annual US production) for 20 years. Average annual production of molybdenum and silver will be 5 M lbs and 3.5 M oz, respectively. Past and recent exploration activities have confirmed or identified the availability of approximately 600 million tons (MT) of ore. This schedule estimates a mill through-put of approximately 75,000 tons per day, which translates into an annual mill through-put of approximately 27 MT per year.

Mining of the ore will be through conventional open-pit mining techniques. Waste rock will be blasted and transported by haul truck to the waste rock storage area. Ore will be blasted and either transported by haul truck to the leach pad and processed by leaching (if it is oxide ore), or crushed and loaded onto a conveyor for transport to the mill for processing by conventional sulfide milling (if it is sulfide ore). Tailings will be stored using a dry stack tailings technique minimizing airborne releases and water seepage. The placement of waste rock will be initiated with perimeter buttresses, including placement on the perimeter of the dry-stack tailings storage areas to provide structural and erosional stability of the tailings pile.

The copper concentrates from the milling operations will be shipped off-site to a smelter. Leach ore (oxide material) will be placed on the heap leach pad. Solutions from the pad will be collected in a solution pond and then processed through the solvent extraction-electrowinning (SX/EW) plant. Copper cathodes generated from the SX/EW plant will be transported off site for further processing.

The proposed project will involve the construction and operation of various mine features, associated structures, and anticipated infrastructure necessary to support these facilities. These constructed features include: the mine pit, waste rock storage areas, heap leach area, dry-stack tailings facility, ancillary facilities and structures, mine haul roads, access roads, and off-site water and power transmission lines (Figures 2 and 3). The nature of the activities associated with each of these mine features is described below.

Mine Pit

The design of the open pit and internal mining phases incorporates geotechnical recommendations for safe slope angles, internal ramp development for access to all working areas, and pit wall smoothing to enhance stability and operator safety. Pit slope angles between ramps will vary according to rock strength, lithology and structural controls, but are expected to range from 28° to 48° between ramps. Where possible, catch benches will be spaced on 100-ft vertical intervals to maximize the effective widths for containing scree (loose rock debris). At the rim, the ultimate open pit will be approximately 6,500 ft across north to south, 6,000 ft across east to west (totaling about 950 ac in area), and will be approximately,800 to 2,900 ft deep. The pit bottom elevation is projected at 3,150 ft above mean sea level (amsl).

Impacts to potential WUS in the pit will result from the initial blasting and excavation of ore and waste rock (Figure 4). Following a blast, rubblized material, including that found in potential WUS, will be picked up with a loader, placed into a haul truck, and then deposited on the leach pad, the primary crusher stockpile, or within the waste rock storage area.

Waste Rock

The waste rock storage area, approximately 1,460 acres in size, will be constructed south of the tailings facility (Figure 5). It is designed to accommodate approximately 750 million tons of material, with an additional 540 million tons of waste rock dedicated to construction of the perimeter buttress and other facilities. The waste rock storage area will receive pit-run, or run-of-mine (ROM), waste rock consisting largely of limestone and skarn rock types, with some andesite, quartz monzonite porphyry, and arkose. The presence of substantial quantities of limestone and skarn will provide a large buffering capacity within the waste-rock storage areas to minimize the generation of acid rock drainage (ARD).

Site preparation of the waste rock storage areas will involve clearing and grubbing the existing topsoil in preparation of construction of the perimeter buttress. Impacts to potential WUS within the waste rock storage area will result from the placement of ROM waste rock. Flow-through drains, designed to pass overflows from the areas upgradient of the waste rock and tailings facility during construction and post closure, will be constructed within the major drainages to facilitate stormwater flow through the waste rock storage area and dry stack tailings facility (Figure 5). During operations, stormwater may report to the flow-through drains during severe storm events, but diversions, impoundments, and other water management features in the Plant Site area will restrict the volume of stormwater that would report to the drain system. Maintenance is not anticipated to be required for the flow-through drains. The drains will be fed from stilling or sediment ponds, which act to reduce the sediment discharging into the drains. In addition, the drains are segregated from the surrounding waste rock by a geotextile layer that prevents migration of fine sediments from the waste rock into the flow-through drains.

The placement of waste rock on the south and east sides of the waste rock facility will be initiated with perimeter buttresses designed to minimize the visual effects of the project for travelers on SR 83 and for viewers in the surrounding area. The outside face of the buttresses will be revegetated and reclaimed as soon as practicable after they are completed. Waste rock in the remaining portions of each phase will then be deposited west and/or north of (behind) these buttresses. Waste rock will also be placed in the dry-stack tailings storage areas to provide structural and erosional stability.

Concurrent with the starter buttress construction, waste rock will be deposited in lifts internal to the waste rock storage area in the upper Barrel Canyon and Trail Canyon drainages. This concurrent development is necessary to minimize congestion and improve safety and equipment productivity in the buttress areas. The ultimate crest elevations of the waste rock storage areas at the end of mining operations will be about 5,600 ft amsl for the Barrel Canyon drainage and 5,300 ft amsl for the Trail Canyon drainage.

Heap Leach

Oxide ore will be transported by haul trucks from the open pit to lined leach pads. The oxide ore will not be crushed, but will be dumped in 30-ft-high lifts atop the lined pads for subsequent leaching. Crawler dozers will be used to spread the oxide ore and cross rip the material to a depth of 5 to 6 ft to promote the infiltration of barren leach solution. Oxide ore will be leached with weak acidic solution, and the leach solution will be processed using SX-EW technology to produce high purity copper cathode plates. Oxide ore mining and placement on the leach pads will be concentrated in the early years of operation. About 85% of the oxide ore will be placed onto the leach pad by the end of Year 5 and process solutions will stop being added to the heap leach by Year 6. The heap leach pad is anticipated to continue draining pregnant leach solution (PLS) to the PLS pond for three or four years, and by Year 10 the pad should be drained and closed.

Initial site preparation of the heap leach pad will involve grading the existing topsoil to create a base grade upon which the remainder of the leach liner will be laid. Impacts to potential waters of the U.S. will occur during initial site preparation, as the entire heap leach pad area, including the PLS and stormwater ponds, will be graded prior to the placement of the remainder of the leach liner (Figure 5). As such, potential WUS in this area will be filled by native material as part of the grading process. Captured storm flows will be incorporated into the process flows and become part of the heap leach circuit (i.e. be incorporated into the PLS, delivered to the SX-EW, and returned as raffinate, the portion of an original liquid that remains after other components have been dissolved by a solvent).

A stormwater pond will be installed to collect any excess water that may be generated during a large precipitation event. The PLS pond, a double-lined collection pond containing the copper-bearing leach solution, will be designed to overflow to the stormwater pond. Water that may accumulate in the stormwater pond will be periodically transferred by pumping to the raffinate solution pond.

Dry Stack Tailings Facility

The Rosemont dry stack tailings facility will receive dry tailings from the sulfide ore processing plant. This material will be stacked behind large buttresses constructed from pit-run waste rock. Consequently, this waste rock storage area will be active from late preproduction throughout the life of the mine. The dry-stack tailings facility will ultimately measure approximately 987 acres in area. The general design concept is to construct uniform lifts of dry tailings that are buttressed by the waste rock containment berms.

Advantages of the dry stack tailings stack method over conventional tailings disposal are:

- eliminates the need for an engineered embankment and seepage containment system
- maximizes water conservation and minimizes water makeup requirements
- can result in a more compact site
- allows opportunities for concurrent reclamation and dust control

Site preparation for the tailings will include grading and construction of the flow-through and finger drain systems within the potential WUS (Figure 5). As described above, the flow-through and finger drain systems will consist of ROM waste rock. Additional discussion related to the flow-through and finger drain system is provided in the Surface Water Management section, below.

An initial buttress will be constructed with waste rock to accommodate approximately one year of tailings storage. Concurrent tailings and waste rock placement will occur throughout the life of the tailings facility. Waste rock will be advanced ahead of the tailings level in successive lifts. The waste rock buttresses will have top widths of 150 ft to accommodate two-way haul traffic and outer slopes of about 3H:1V with benches to achieve an overall slope of approximately 3.5H:1V. This configuration will allow visual screening of the tailings placement activities from SR 83 and concurrent reclamation of the lower perimeter buttress slopes.

Dry tailings will be delivered by conveyor from the filter plant down to the tailings facility. Tailings will be placed with a radial stacker and a dozer will be used to spread the dry tailings and provide sufficient compaction for the conveyor and stacker as necessary. When the primary conveyor is inactive due to relocation or maintenance, a secondary conveyor will be used.

Within the dry stack tailings facility, loss of potential WUS will result from initial grading and the construction of the flow-through and finger drain systems and not from direct fill by dry stack tailings. In addition, although the flow-through drains are designed to pass stormwater in larger events, particularly in construction and post-closure, the development of the waste rock storage area and dry stack tailings facility is anticipated to result in significant enough reduced flows in Barrel Canyon down its confluence with McCleary Canyon that the potential WUS in this reach will be indirectly impacted (Figure 5).

Surface Water Management

For the purposes of stormwater management, the open pit, the heap leach facility, and the plant site are closed systems, with all direct rainfall contained on site. Currently designed stormwater features include the flow-through drain system, process water/temporary storage (PWTS) pond, Settling Basin, and two permanent diversion channels (Pit Diversion Channel and Permanent Diversion Channel No. 1). In addition to the primary diversions, a storage and recovery system sump will be developed in the waste rock storage area. In general, project water management facilities are intended to have sufficient capacity to handle runoff generated from 100-year, 24-hour storm events. Sediment control facilities are designed to reduce the total suspended solid loads to the minimum practical level for the 10-year, 24-hour storm event, defined as total suspended sold concentrations equal to existing conditions. Additional details related to the project stormwater management system are provided below.

Pit Diversion Channel

The Pit Diversion Channel will be constructed early in the project life to divert unimpacted stormwater around the west and south sides of the open pit (Figures 6 and 7). Water in the Pit Diversion Channel will be directed to a perimeter containment area (PCA) located along the west side of the waste rock storage area, between the toe of the waste rock and a natural ridge. An overflow channel leads out of this PCA into another PCA. The only impact to potential WUS resulting from this diversion is the interception of flows from the upper reach of Wasp Canyon which will be directed to the above described PCA. Wasp Canyon downstream of the Pit Diversion Channel will be lost primarily to the development of the pit, the Plant Site area, the construction of haul roads, and dewatering effects of the diversion. The Pit Diversion Channel is sized to convey the local and general probable maximum precipitation (PMP) event.

Permanent Diversion Channel No. 1

This diversion channel will be constructed at the beginning of the project on the northeast side of the pit and will divert unimpacted stormwater from an upgradient watershed around the plant site into McCleary Canyon (Figure 8). This feature will not impact any identified potential waters of the U.S. Like the Pit Diversion Channel, Permanent Diversion Channel No. 1 is sized to convey the local and general PMP event.

Plant Site Stormwater Features

Stormwater flows from the plant site will be collected in the lined PWTS pond, located immediately downgradient of the plant site (Figure 8). The PWTS pond functions as a closed system with all water that is directed to the pond from the plant, in addition to collected stormwater runoff, incorporated into the process water flows.

Both the PWTS Pond and Settling Basin will be lined. The PWTS Pond is a combination of two ponds: the Process Water (PW) Pond and the Temporary Storage (TS) Pond. A spillway connects the Settling Basin to the PW Pond portion of the PWTS Pond. Another spillway connects the PW Pond to the TS Pond. The PW Pond is designed to contain the following during operations: recovered water from tailings thickeners, recovered water from the tailings filter plant, overflow from the settling basin, fresh water make-up, accumulated groundwater and stormwater from the open pit, and stormwater runoff from the plant site area. This stormwater will not be discharged offsite. The TS Pond is designed to contain stormwater runoff and overflow from the PW Pond. The Settling Basin is designed for short-term storage of non-filtered tailings and limited stormwater collection.

In addition, the unlined Crusher Stormwater Pond will be constructed immediately north of the Primary Crusher, south of the general Plant Site area (Figure 8). Similar to the PWTS Pond and Settling Basin, potential WUS associated with the Crusher Stormwater Pond will be lost from the initial construction of the pond embankment, with upgradient waters being lost as a result of excavation to ensure pond capacity, sediment fill, or dewatering effects of the pit. Other miscellaneous ponds will be placed throughout the plant site area as needed to control stormwater runoff, though these ponds will not be lined and will not discharge offsite during operations.

Post-closure grading of the plant site area will include the construction of stock ponds/sediment basins at the same locations as the former PWTS Pond and Settling Basin and other former ponding areas. Upon removal of the pond liner, stormwater reaching the former PWTS Pond area will pass into a flow-through drain (South 1 Drain) leading out of Wasp Canyon drainage and into the main Barrel Canyon flow-through drain (South Main Drain). Construction of the PWTS Pond will result in loss of potential WUS resulting from the construction of the embankment as well as regrading to ensure proper pond capacity. The Settling Basin is constructed in uplands and will not result in the loss of potential WUS.

Flow-Through Drains

Because of the potential for a significant amount of stormwater runoff to be generated between the stormwater diversions and the waste rock and tailings facilities, particularly during construction and post-closure, flow-through drains will be constructed to direct and convey excess stormwater flows to the east side of the waste rock and tailings facility.

Flow-through drains will be constructed within existing drainages throughout the dry stack tailings facility and the waste rock storage area (Figures 9 and 10). Flow-through drains are porous rock drains that allow stormwater to be diverted underneath the dry stack tailing and waste rock facilities. Selected clean ROM rock from the open pit will be the primary material source for the flow-through drains. Waste rock will also be placed in minor washes (finger drains) in the dry stack tailings area to ensure separation between the tailings material and the wash surface. Finger drains will not be covered with a geotextile. Because the finger drains do not extend to the west side of the waste rock and tailings facility, they do not function to provide a hydraulic connection between the east and west sides of the waste rock and tailings facility. The flow-through drains are designed to allow conveyance of the 100-year 24-hour storm volume from the contributing basin through the drain within 30 days.

Compliance Point Dam and PCAs

The Compliance Point Dam is a six-ft high, porous, rock-fill structure where additional sediment controls will be applied as necessary to manage stormwater quality and where stormwater samples will be taken. Perimeter containment areas (PCAs) are located between the waste rock buttress and the adjoining ridge, collect stormwater from a relatively small watershed defined by the waste rock buttress and the adjoining ridge, and filter this stormwater into the waste rock storage area or allow it to evaporate.

Waste Rock Storage Area and Dry Stack Tailings Facility

The buttresses of the dry stack tailings facility will advance ahead of the tailings surface to provide stormwater containment while concurrent reclamation and best management practices, such as settling ponds, will be used to limit erosion on the outer slopes. The top of the tailings area is largely impervious and will be sloped inward so precipitation falling on top of active tailings area will remain on top and evaporate. Ponded water may be pumped to the PWTS pond as needed to limit infiltration into the tailings mass. Stormwater management at the waste rock facilities will be similar to that for the dry tailings facility.

Additional stormwater control features have been incorporated into the reclaimed surface of the waste rock storage area and dry stack tailings facility (benching, stilling ponds, etc.). However, development of these surface water management features will not impact potential WUS which will have been lost during the initial construction of the respective facilities, either through the construction of flow-through drains or the direct deposit of ROM waste rock. A certain volume of stormwater will continue to be shed off of these facilities and discharged to downstream receiving waters, both during construction and operations, and following closure.

Plant Site

The Plant Site Area facilities necessary to support the proposed Rosemont mine and ore processing operations include an administration building, change house, warehouse with lay down yards, analytical laboratory, light

vehicle and process maintenance building, mine truck shop, mine truck wash and lube facility, powder magazines and ammonium nitrate storage, and a main guard shack with truck scale (Figure 8). Also included are fuel and lubricant storage and dispensing facilities for mine and process equipment.

Development of the Plant Site area facilities will result in the loss of potential WUS in several ways. As described above, the Plant Site area will include several stormwater pond features that will require the ground surface to be regraded in preparation of the pond construction, resulting in direct fill of native soil in potential waters of the U.S., with liner material over the regraded native soil. Other minor stormwater catchments in the Plant Site area will be unlined and constructed behind minor dam features. Potential WUS in these areas will be filled directly by the dam fill (comprised largely of native soil and rock fill); upgradient of the minor dam features, potential WUS are anticipated to be graded over as part of the pond construction, resulting in loss by direct fill of native material. Similarly, filling of other potential WUS in the Plant Site area will be required in order to build up a suitable foundation for features such as the pebble crusher, tailings thickeners, tailings filter plant, and tank farm (Figure 8).

In addition, a reach of McCleary Canyon, immediately downstream of its crossing by the Primary Access Road, will be modified from its current alignment to allow a minor expansion in the northeast portion of the Plant Site area (Figure 11). This portion of McCleary Canyon will be lost as a result of the fill from native material and reinforcement by rock riprap near the base of the slope. This channel realignment will not result in the modification of downstream flows. Similarly, expansion of the Plant Site area construction pad will require an encroachment into the McCleary Canyon drainage on the north side of the Plant Site, resulting in impacts to potential waters of the U.S. from the discharge of native fill and riprap.

Haul and In-Plant Roads

Mine haul roads will be constructed around the north, east, and south edges of the planned ultimate pit limits. Temporary haul roads will be constructed internal to the ultimate pit limits as necessary to provide access to all working faces and to provide connection to the primary crusher, oxide leach pads, and the waste rock storage area located to the southeast, east, and northeast of the pit. Mine haul roads will be constructed using material excavated from the open pit, typically consisting of limestone, skarn, arkose, andesite, and quartz monzonite porphyry rock types. Road surface material may be crushed and screened as needed to produce a smooth running surface. Roads will be slightly crowned to promote drainage of surface runoff to side ditches. Side ditches will funnel stormwater to the flow-through drains or secondary diversion channels. Haul and in-plant roads may be culverted during portions of the mine construction and/or operations to manage localized stormwater flows. In the plant site, these flows would not discharge off site. Haul roads to the waste rock storage area and dry stack tailings facility will generally not be culverted. Loss of potential WUS in these areas will be a result of fill of ROM waste rock and/or regrading as part of post-closure reclamation.

Pit haul roads will generally be 125-ft wide, inclusive of safety berms and ditches, and will support the traffic of 260-T off-highway mine haulage trucks. The gradient for the mine haul roads will vary but will generally be under 10%; short intervals may be constructed as steep as 12%. The minimum inside lane radius for switchbacks within the pit will be 40 ft. Roads will be slightly crowned to promote drainage of surface runoff to side ditches or berms. Safety berms will be constructed to a minimum height of about 6 to 8 ft, the height at the center of the largest truck wheel.

In-plant roads will generally measure 24-ft wide with 5-ft wide drainage channels, as required, along both sides of the road. In-plant roads will extend from the plant entrance around the perimeter of the process facilities and along the crushed ore conveyor to the mine truck shop. An access road will leave the perimeter road at the crushed ore stockpile and serve the fresh water storage tank, potable water tank, and process water tank. All traffic on plant roads will be right hand traffic until reaching the mine truck shop. At this point, traffic will become left hand drive to accommodate haul trucks in the area. An access road will also be constructed between the open pit and the truck shop located near the plant site. This road will have the same design

parameters and speed limits as the mine haul roads. Like the open pit and heap leach facilities, the plant site, including in-plant roads will be a closed system with all precipitation and local runoff collected in the PWTS pond and treated as contact water.

Access Roads

Access to the property will be via two routes: the primary access route from the east, and a secondary access route from the west. The primary access road to the property will extend approximately 3.2 mi from SR 83 and end at the main guard building at the entrance to the plant (Figure 12).

The primary access road will be designed for 35-mph traffic and consist of two lanes, one in each direction. Each lane will be 14-ft wide with a 4-ft wide shoulder, providing a 36-ft wide road bed. Each side of the roadway will have a collection ditch which will typically be 4 ft deep with side slopes of about 2H:1V. The resulting 8-ft wide channel on each side will collect and direct stormwater to diversion channels or receiving waters. The access road will be crowned in the center with the surface sloped 2% to each side. The road surface will consist of 8 in of compacted ADOT aggregate (Class 2). The minimum easement for the access road on level ground will be 68 ft, and greater where cut and fill toe lines extend beyond the minimum distance. The primary access road will cross potential WUS at five locations, all which will be culverted (Figures 13 and 14). Details of the culverts are provided in Table 1 below. Roadside diversions will either discharge to containment areas, or discharge directly to potential waters of the U.S. where roadways cross these drainages, resulting in some increased flows to these drainages during storm events. The impacts to these areas, described below, include erosion protection adequate to protect these areas.

Table 1. Primary Access Road Culvert Details

Culvert ID	Size	Material	Estimated Volume of Fill (cubic yards)	Loss of Potential Waters of the U.S. (acres)
C1	42’ Arch	Concrete	532	0.22
C2	30”	HDPE	452	0.28
C3	60”	HDPE	282	0.07
C4	60”	RCP	323	0.08
C5	60”	RCP	242	0.06

Secondary access to the plant will be provided to the west over the ridge of the Santa Rita Mountains, and will connect to Santa Rita Road at Helvetia Road. This west access road is considered a secondary access for plant maintenance employees to access the fresh water pump stations and pipeline. The design for the secondary access road from Santa Rita Road to the plant entrance is based on one 11-ft wide lane without shoulders, similar to existing FS roads. The secondary access road currently exists and crosses a potential water of the U.S. in only one location. This location will not be culverted. Minor grading of the crossing may be required as needed, but this activity would be considered a maintenance activity and impacts to the potential water of the U.S. would be negligible.

Offsite Water and Power Transmission Lines

The proposed waterline alignment largely parallels Santa Rita Road through the Santa Rita Experimental Range, and an existing unpaved road over the Santa Rita Mountains, through Lopez Pass (Figure 15). The proposed waterline will be constructed below grade, with a minimum soil cover of 36 inches within State Land or

easements, and 24 inches on the mine property. The pipe bedding requirements will follow the manufacturer's recommendations. Isolation valves will be installed in the pipeline at intervals of approximately 3,000 feet and at elevation changes of 250 feet.

Impacts resulting from the installation of the pipeline itself will, for most drainage crossings, be temporary, as the pipe trench will be backfilled with the same soil material that had been removed and sidecast to create the trench. In drainages where the stability of the pipe is of concern, self-compacting pipe bedding material (e.g., crushed stone) may be placed immediately around the pipe. The remainder of the trench would be backfilled with native material. The total width of the trenching and sidecast will be approximately 30 feet (Figure 16). There are an estimated 45 crossings of potential WUS resulting from the proposed waterline.

For drainage crossings where the wash material is comprised of soil and gravel, the pipeline will be buried below the calculated scour depth. Use of a non-erosive material, such as concrete, is only anticipated to be required in areas where the pipeline will be placed in relatively soft bedrock. In these instances, a non-erosive material, such as concrete, will be used to backfill the trench over the pipe to the same level as the bedrock. As a result, the bottom elevation of the potential WUS will not change. Some minor bank stabilization may also be required in association with these crossings.

Construction of the waterline includes a permanent unpaved access road. Impacts to potential WUS resulting from the access road are anticipated to be minimal, as culverts will not be required for the majority of crossings. Most wash crossings will be at-grade or will have minor fill of native material during the construction period to facilitate use by light vehicle traffic. These minor fills will be removed following completion of the waterline. In other areas, the access road is anticipated to divert back to Santa Rita Road for short reaches in order to avoid wash crossings. Culvert crossings will likely only be required where the roadway crosses potentially jurisdictional waters on the east end of the alignment on the slopes of the Santa Rita Mountains. It is assumed that no more than five (5) such culverted crossings will be required with a maximum width of 40 feet per crossing. Some minor bank stabilization may also be required in association with these culverted road crossings.

Construction of the pipeline will include up to five forebay reservoirs and pump stations. The reservoirs and pump stations will be built outside potential WUS.

Electrical power will be provided by Tucson Electric Power (TEP) from a link attached to transmission lines on the South Substation loop. The transmission line will be comprised of above-ground transmission lines and will generally follow the same alignment as the waterline (Figure 15). Maintenance access will be provided by the same unpaved road built for the waterline.

For the majority of the transmission line alignment, potential waters of the U.S. will be able to be avoided. On the east end of the alignment, the topography of the western slope of the Santa Rita Mountains provides some constraints for the construction of the powerline. As such, it is anticipated that up to three (3) utility poles will need to be constructed within one or more potential WUS. The pole structures themselves would not result in a significant volume of fill or loss of potential waters of the U.S., but establishing access for heavy equipment to install the poles would likely require some level of temporary impact.

Proposed Project Impacts

The proposed Rosemont Copper Project will directly impact approximately 38.6 acres with the discharge of dredged/fill material as detailed in Table 1. Additionally, approximately 2.5 acres will be indirectly impacted by the reduced flows in Barrel Canyon down to its confluence with McCleary Canyon, resulting from the development of the dry stack tailings and waste rock facilities in Barrel Canyon. Approximately 0.75 acre of potential WUS will be temporarily impacted by water line crossing and road access for utility pole construction. These impact areas are slightly higher than those identified in the Draft EIS prepared by the USFS as a result of more refined mapping developed for the Section 404 permit application. A detailed discussion of the proposed project impacts is in the draft EIS.

Table 2. Rosemont Project Feature Direct Impacts and Volume of Fill

Project Feature	Impact Type/Fill Type	Fill Amount (cubic yards)	Permanent Impact to Waters (acres)	Temporary Impacts to Waters (acres)
MINE PIT	Blasting and Excavation/None	0	4.40	0
LEACH PAD	Grading/Native Material	1,839	0.76	0
Stormwater and PLS Pond	Grading/Native Material	774	0.32	0
WASTE ROCK	Excavated Waste Rock/ ROM Rock	19,941	8.24	0
DRY STACK TAILINGS	Excavated Waste Rock/Selected ROM Rock	66,792	20.70	0
SURFACE WATER MANAGEMENT				
Pit Diversion Channel	Construction Fill /Native Material and Rock Fill	210	0.13	0
Compliance Point Dam	Minor dam construction / Native Material and Rock Fill	581	0.18	0
PLANT SITE				
PWTS Pond and Settling Basin	Grading, Pond Preparation/Native Material and Rock Fill	613	0.38	0
Crusher Stormwater Pond	Grading, Pond Preparation/Native Material and Rock Fill	532	0.22	0
Regrading and Pad Construction	Grading/Native Material	4,040	1.76	0
HAUL ROAD CROSSINGS				
Pit Diversion Channel Haul Road	Road Construction/ROM Waste Rock	226	0.14	0
Leach Pad Haul Road	Road Construction/ROM Waste Rock	726	0.30	0
Crusher Haul Road	Road Construction/ROM Waste Rock	363	0.15	0
ACCESS ROAD CROSSINGS				
Culvert C1	Triple Con-Arch/Native Material and Rock Fill	532	0.22	0
Culvert C2	Culvert/Native Material and Rock Fill	452	0.28	0
Culvert C3	Culvert/Native Material and Rock Fill	282	0.07	0
Culvert C4	Culvert/Native Material and Rock Fill	323	0.08	0
Culvert C5	Culvert/Native Material and Rock Fill	242	0.06	0
OFFSITE WATER LINE				
Water Line Crossings	Trenching, sidecast, temporary road access/ Native Material, Riprap, Pipe Bedding	320	0.10	0.50
Bedrock Crossings	General Grading/Native Rock and Fill and Concrete	480	0.10	0
OFFSITE TRANSMISSION LINE				
Utility Pole Construction	Utility Pole Installation/Native Material and Concrete	75	0.05	0
Road Access for Utility Pole Construction	Ramp Access/Native Material	0	0	0.25
	TOTAL	**99,343**	**38.6**	**0.75**

Additional Project Information

For purposes of the Section 404(b)(1) alternatives analysis, the basic project purpose of the proposed Rosemont Copper Project is copper mining, which is not water dependent. The overall project purpose of the proposed Rosemont Copper Project is to develop the mineral resources associated with an ore deposit in southeastern

Arizona (Pima, Pinal, Gila, Graham, Greenlee, Cochise, and Santa Cruz counties) using conventional open pit mining and sulfide (mill and concentrate) and oxide (leach and SX/EW) ore processing for the purpose of producing copper and/or copper precursors, silver, and molybdenum. The draft Section 404(b)(1) alternatives analysis is provided as an Appendix in the Draft EIS.

The primary drainage in the proposed project site is Barrel Canyon, with its main tributaries being Wasp Canyon, McCleary Canyon, and Scholefield Canyon. Barrel Canyon drains into Davidson Canyon on the east side of SR-83. Davidson Canyon Wash is tributary to Cienega Creek, tributary to Pantano Wash, tributary to the Rillito River, tributary to the Santa Cruz River which is a Traditionally Navigable Water. Several seeps and springs are present within the proposed project site, including Scholefield Spring (which supports a potentially jurisdictional wetland) located in the north portion of the proposed project site and Rosemont Spring northwest of Rosemont Camp within the Project.

The elevation on the property ranges from approximately 6,824 feet above mean sea level (amsl) at Weigles Butte on the west edge of the proposed project site to approximately 4,500 feet at the lower end of Barrel Canyon. The ridge on the west edge of the property constitutes the main crest of the Santa Rita Mountains. Topographically, the site consists of mountain front and rolling foothills bisected by ephemeral washes (with potential intermittent reaches within McCleary Canyon) draining generally east toward Davidson Canyon, which discharges to Cienega Creek near Interstate 10. Drainages on the west side of the Santa Rita Mountains flow generally west and northwest toward the Santa Cruz River. Underlying geologic units include metamorphic rocks and limestone on the higher ridges and conglomerate and alluvium in the lower hills. The two biomes present within the proposed project site are Madrean evergreen woodland and semidesert grassland. Madrean evergreen woodland covers the higher elevation parts of the proposed project site, generally in the western and southern areas. This community is characterized by open woodlands or savanna with trees interspersed with grasses and forbs. Semidesert grassland covers the lower elevation parts of the proposed project site primarily in the northern and eastern areas. This community is characterized by open grasslandswith widely scattered shrubs and cactus. At middle elevations within the proposed project site, the semidesert grassland grades into the Madrean evergreen woodland in a wide transition zone. Riparian areas are present along some of the major washes within the property and in small patches at some of the more reliable springs. Ephemeral flow in Barrel, McCleary, and Wasp Canyons (with potential intermittent flows in short reaches of McCleary Canyon) supports areas with tree and shrub species not present on drier upland ridges. Several springs in the property, including Rosemont Spring, Scholefield Spring, and Figtree Spring, support a variety of trees, shrubs, and herbaceous plants not found elsewhere within the proposed project site. The highest vegetation density riparian habitat was found in a relatively short, wet reach in upper McCleary Canyon and in association with Scholefield and Fig Tree springs.

The applicant is required to provide a Habitat Mitigation and Monitoring Plan in conformance with the Corps' mitigation rule prior to a permit decision. A preliminary mitigation concept has been previously submitted to the Corps. The final mitigation plan will conform to the Corps' and the U.S. Environmental Protection Agency's (EPA) "Final Rule for Compensatory Mitigation for Losses of Aquatic Resources" (33 C.F.R. Parts 325 and 332 and 40 C.F.R. Part 320; published in 73 Fed. Reg. 19594-19705) hereinafter referred to as the 2008 Mitigation Rule. Components of the final plan are listed below (33 CFR § 332.4(c)).

Corps/EPA mitigation rules include a specific order in which five general classes of compensatory mitigation options must be considered: 1) mitigation banks, 2) in-lieu fee programs, 3) permittee-responsible mitigation under a watershed approach, 4) permittee-responsible mitigation through on-site and in-kind mitigation, and 5) permittee-responsible mitigation through off-site and/or out-of-kind mitigation. Rosemont has considered these five general classes of compensatory mitigation when developing the preliminary mitigation plan:

Mitigation Banks. Mitigation banks are the preferred method of mitigation. 33 C.F.R. §332.3(b)(2) and (3). However, there are currently no approved mitigation banks in Santa Cruz watershed, and so this approach is not practicable for Rosemont.

In-lieu Fee. An in-lieu fee program includes a sponsoring entity that assumes responsibility for overseeing the mitigation site in exchange for a fee. It is the second most preferable form of mitigation. 33 C.F.R. §332.3(b)(2). In-lieu fees are calculated by estimating the cost of onsite mitigation for the project, and then applying a per-acre cost for the mitigation. Currently there are ten (10) sponsoring entities in the in-lieu fee program in Arizona, only one of which (the Tucson Audubon Society) has an approved in-lieu fee program in the Santa Cruz River watershed. The North Simpson Farm project is a joint effort by the Tucson Audubon Society and the City of Tucson to enhance riparian habitat along the Santa Cruz River near Marana, Arizona. In addition, the Arizona Game and Fish Department is currently working with the Corps to have several projects accepted into the in-lieu fee program, though the schedule for those projects coming online is unknown.

Given the above, there are currently no suitable in-lieu fee projects for the Rosemont Project. As such, permittee-responsible mitigation approaches are also being evaluated.

Permittee-responsible mitigation under a watershed approach. The only approved watershed plan in the Santa Cruz River watershed is Pima County's Sonoran Desert Conservation Plan (SDCP). However, the applicability of the SDCP for compensatory mitigation under CWA Section 404 is in only the preliminary stages of evaluation by the Corps. As such, this option is not anticipated to be available for the proposed Rosemont Copper Project.

Permittee-responsible mitigation through on-site and in-kind mitigation. The Corps mitigation rule states: "***On-site*** means an area located on the same parcel of land as the impact site, or on a parcel of land contiguous to the impact site." Rosemont is currently evaluating the potential for contiguous offsite Rosemont-owned parcels to offer compensatory mitigation for impacts to the impacted potential waters of the U.S. The functions and services of the ephemeral drainages on these mitigation parcels would be anticipated to be comparable to those proposed to be impacted by the proposed Rosemont Copper Project. Rosemont anticipates that mitigation credit for these parcels will be available through preservation with either a restrictive covenant or conservation easement placed over the mitigation lands. The mitigation ratio that will be available for these mitigation lands will be determined as the mitigation plan is further developed.

Permittee-responsible mitigation through off-site and/or out-of-kind mitigation. Rosemont is evaluating additional offsite parcels for their potential to provide compensatory mitigation opportunities. While the location and nature of the sites is currently confidential, all of the parcels being considered are within the Santa Cruz River watershed and offer varying opportunities for preservation or restoration of surface water resources.

Proposed Special Conditions

To be developed.

For additional information please call Marjorie Blaine at (520) 584-1684. This Public Notice is issued by the Chief, Regulatory Division.

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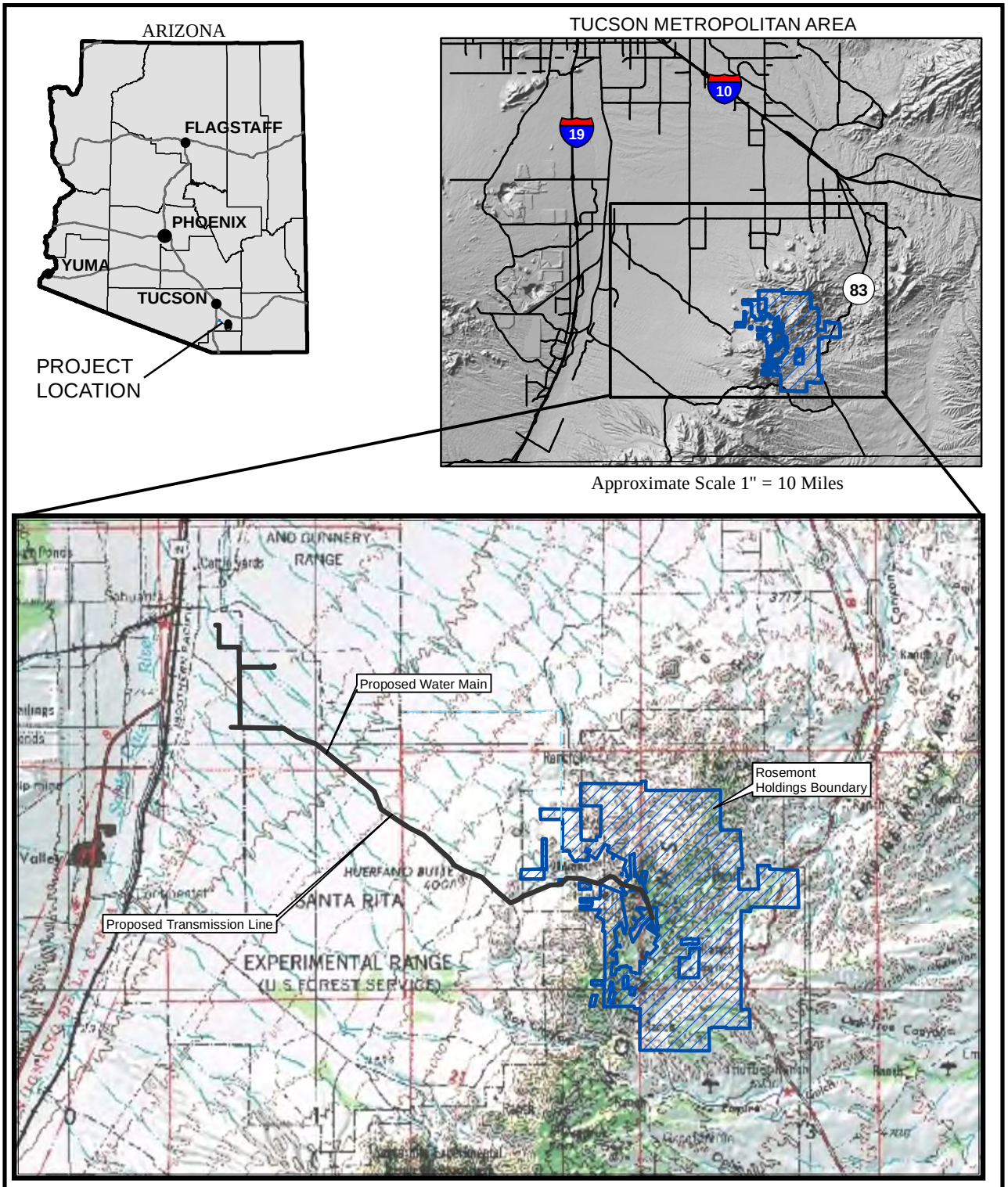


Pima County, Arizona
Sahuarita, Green Valley, Mount Fagan,
Corona De Tucson, Empire Ranch,
& Helvetia USGS 7.5' Quadrangles

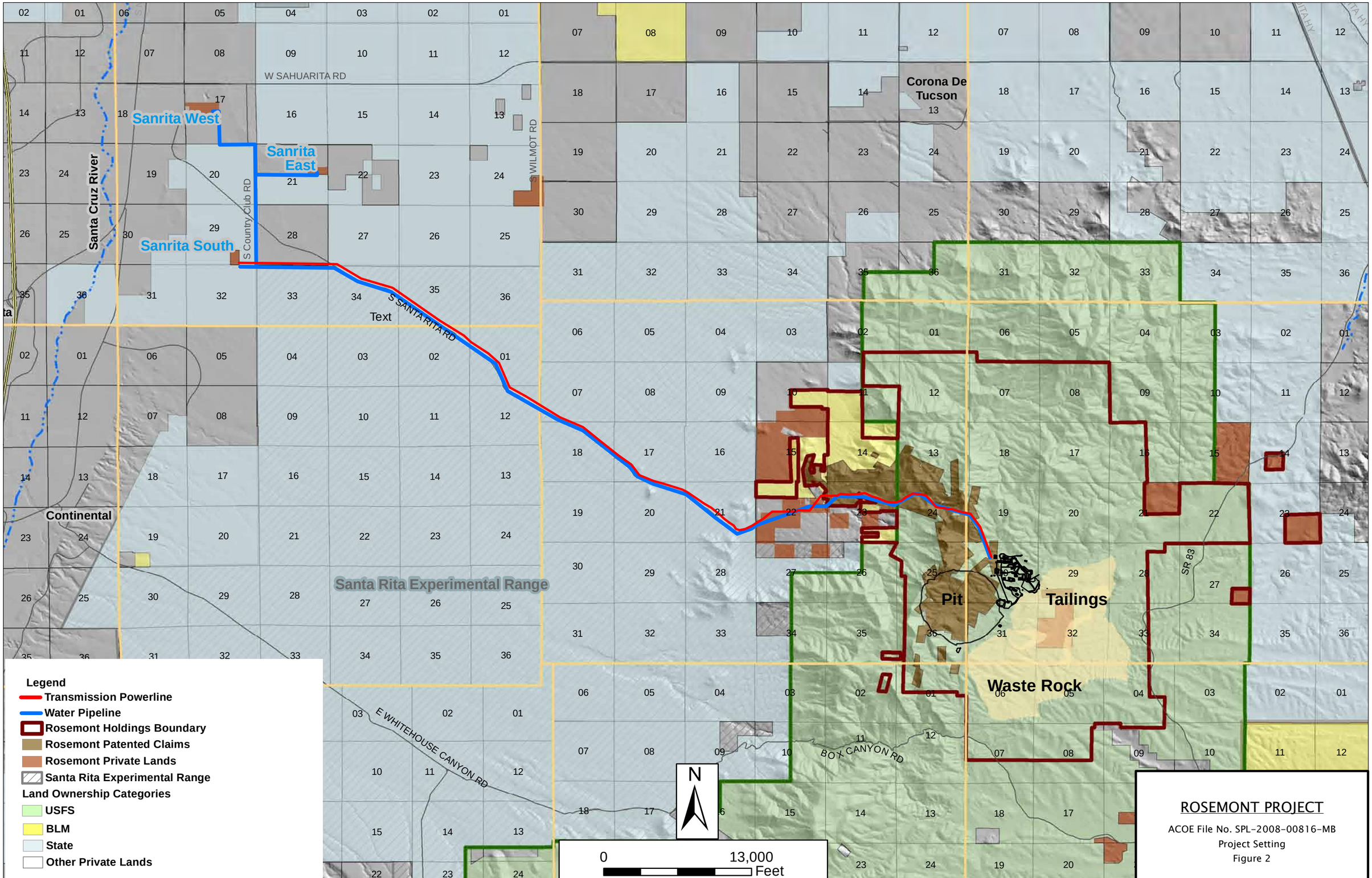
N

0 16,000
Feet

WestLand Resources, Inc.
Engineering and Environmental Consultants

ROSEMONT PROJECT

ACOE File No. SPL-2008-00816-MB
Vicinity Map
Figure 1



ROSEMONT PROJECT

ACOE File No. SPL-2008-00816-MB

Project Setting

Figure 2

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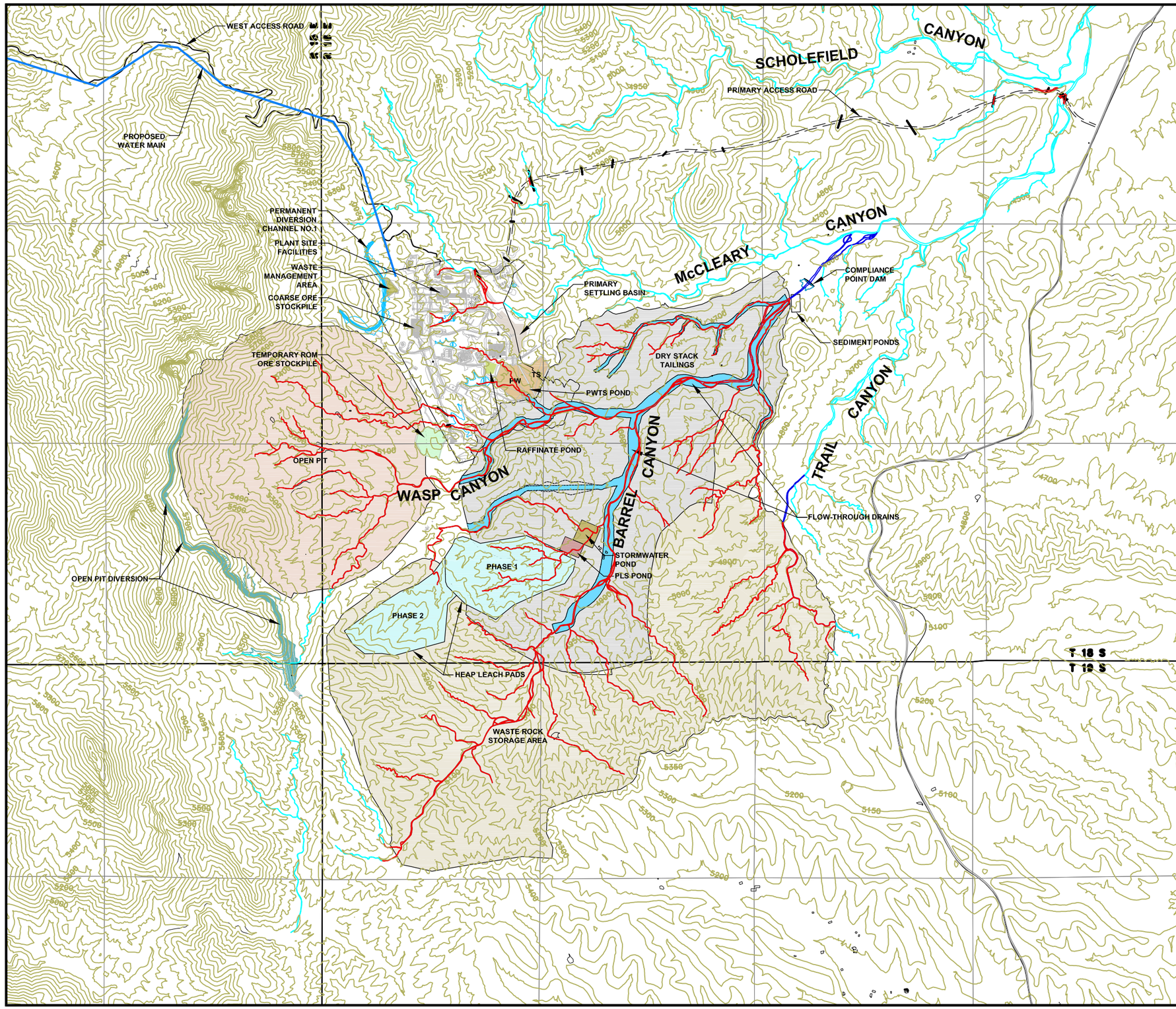
Revision Date-Author



LEGEND

- POTENTIAL JURISDICTIONAL WATERS
- DIRECTLY IMPACTED POTENTIAL JURISDICTIONAL WATERS
- INDIRECTLY IMPACTED POTENTIAL JURISDICTIONAL WATERS
- PROPOSED PRIMARY ACCESS ROAD
- ACCESS ROAD CULVERTS
- EXISTING PAVED ROAD
- SECTION BOUNDARIES
- TOWNSHIP & RANGE BOUNDARIES
- FLOW-THROUGH DRAIN

APP REGULATED FACILITIES

- Dry Stack Tailings Facility
- Raffinate Pond
- Heap Leach Pads
- PLS Pond
- Stormwater Pond
- Open Pit
- Waste Rock Storage Area

NOTES:

1. TEMPORARY DIVERSIONS, SEDIMENT PONDS, AND GENERAL STORMWATER CATCHMENTS WILL BE UTILIZED ON AS A NEEDED BAIS AS DETERMINED BY FIELD CONDITIONS IN ORDER TO PROTECT FACILITIES.
2. LAYOUT BASED ON JULY 2010 PLANT SITE FACILITY LOCATIONS AND BARREL ONLY ALTERNATIVE FOR ROSEMONT RIDGE LANDFORM.

N

0 1200 2400 Feet

Original Source:

TETRA TECH

WestLand Resources Inc.
Engineering and Environmental Consultants
4001 E. Paradise Falls Drive
Tucson, Az 85712 (520) 206-9585

ROSEMONT PROJECT

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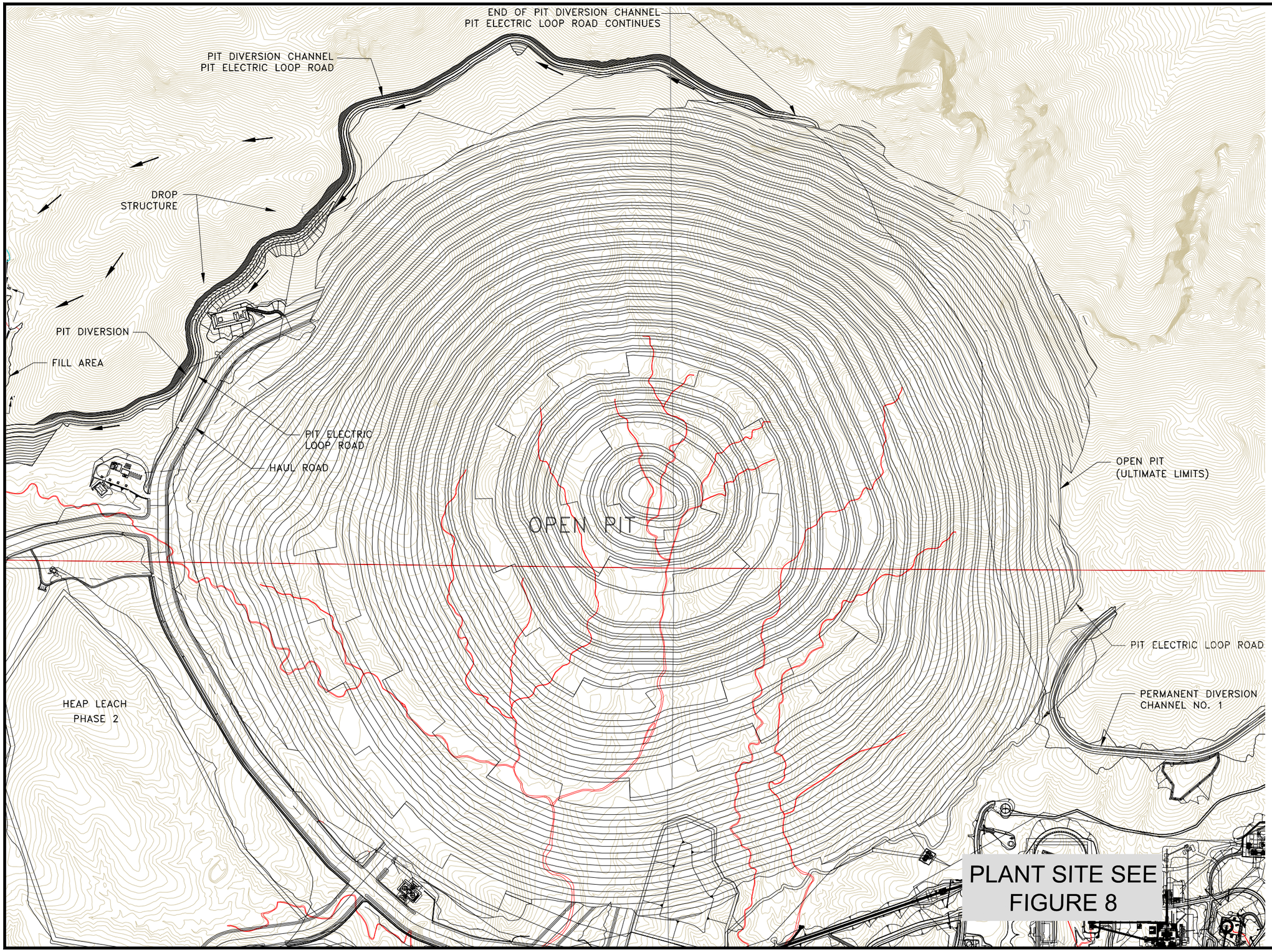
Proposed Project
Figure 3



LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- TOWNSHIP/RANGE LINE
- SECTION LINE
- SURFACE FLOW DIRECTION
- POTENTIALLY JURISDICTIONAL WATER OHWM (IMPACTED/LOST)
- POTENTIALLY JURISDICTIONAL WATER OHWM (NON-IMPACTED)

Data Source - Tetra Tech, April, 2010

W S N E

0' 350' 700'

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ROSEMONT PROJECT

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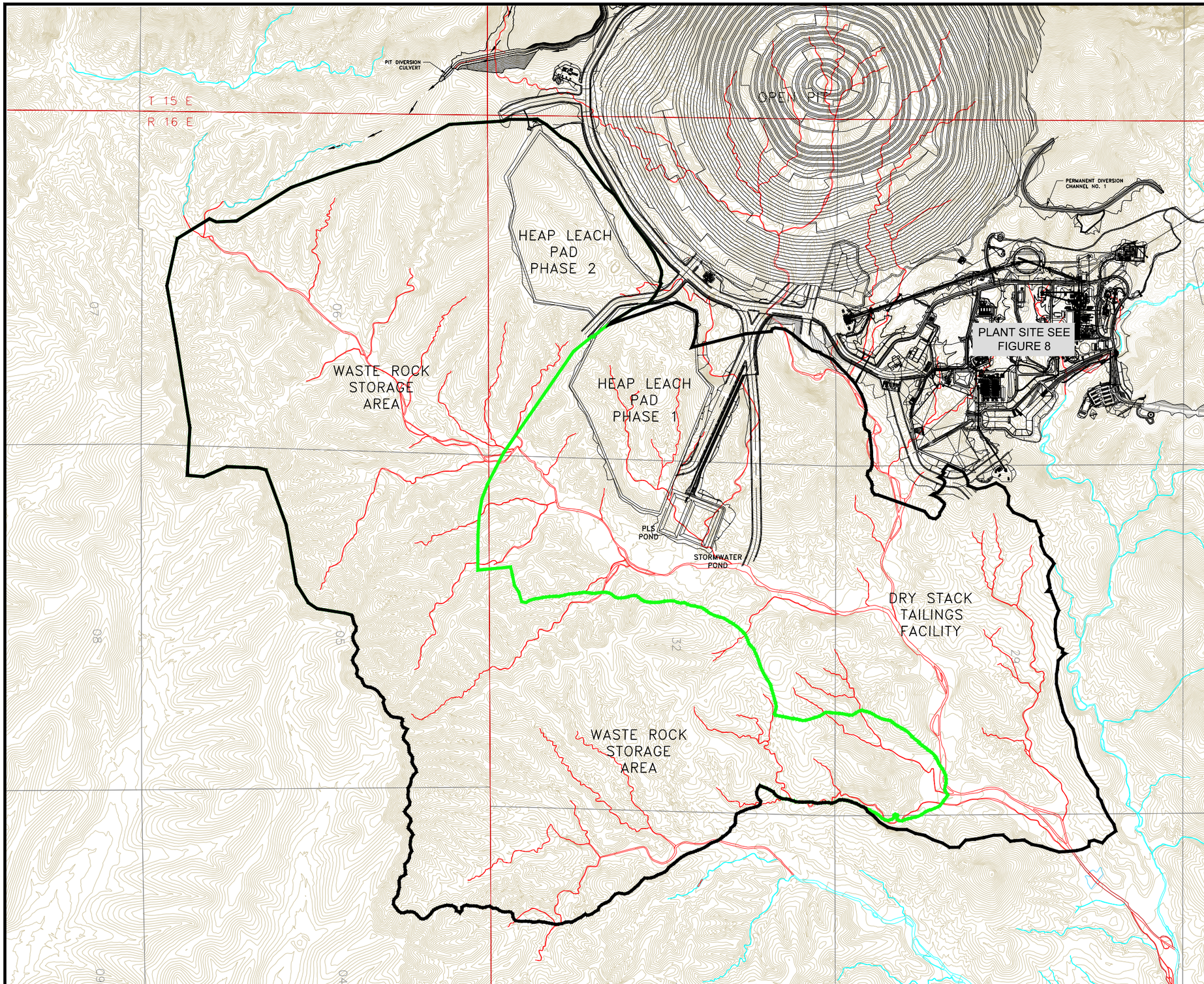
Mine Pit

Figure 4



LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- TOWNSHIP/RANGE LINE
- SECTION LINE
- SURFACE FLOW DIRECTION
- POTENTIALLY JURISDICTIONAL WATER OHWM (IMPACTED/LOST)
- POTENTIALLY JURISDICTIONAL WATER OHWM (NON-IMPACTED)

Data Source - Tetra Tech, April, 2010

W S N E

0' 750' 1500'

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ROSEMONT PROJECT

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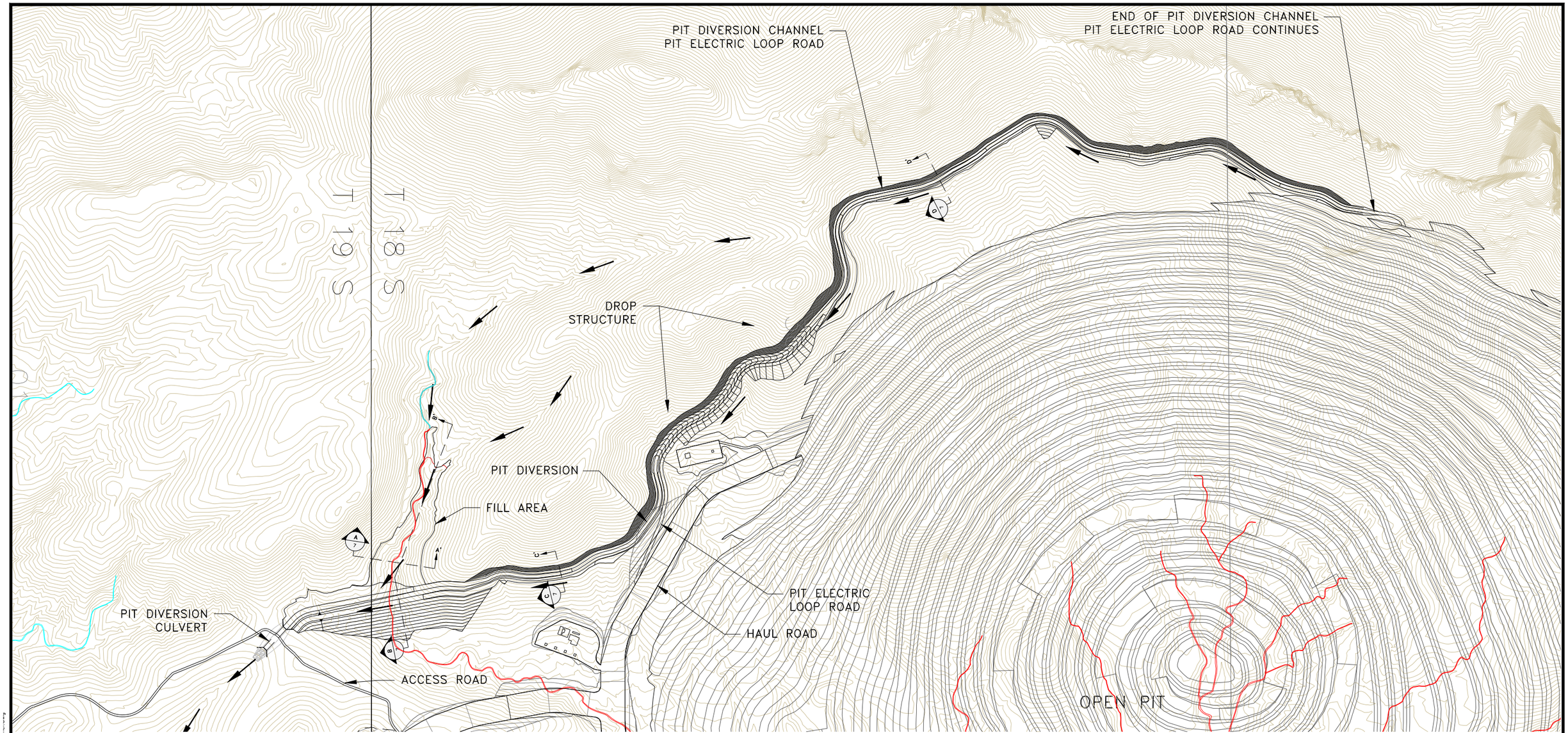
Waste Rock,Tailings & Heap Leach Facilities

Figure 5



Data Source - Tetra Tech, April, 2010

LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- TOWNSHIP/RANGE LINE
- SECTION LINE
- SURFACE FLOW DIRECTION
- POTENTIALLY JURISDICTIONAL WATER OHWM (IMPACTED/LOST)
- POTENTIALLY JURISDICTIONAL WATER OHWM (NON-IMPACTED)
- SECTION DETAIL (B / 7)
- FIGURE NUMBER

W S N E

0' 300' 600'

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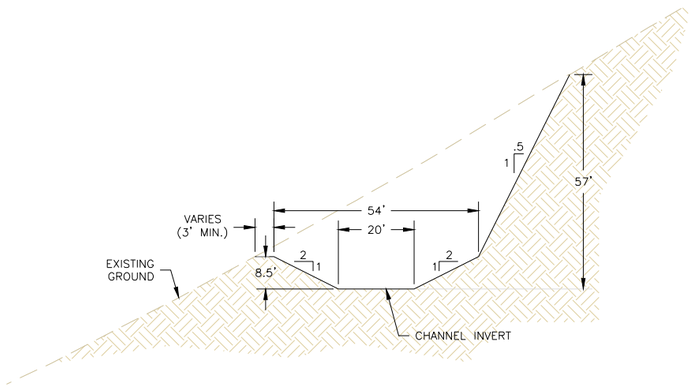
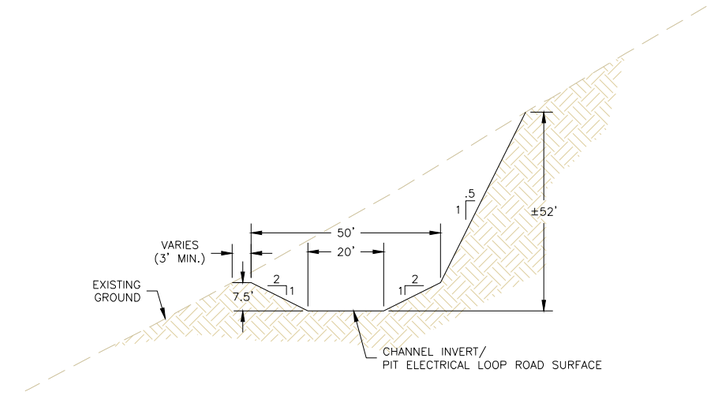
ROSEMONT PROJECT

ACOE File No. SPL-2008-00816-MB
Pit Diversion Channel

Figure 6



C / 7 PIT DIVERSION LOWER CHANNEL – TYPICAL SECTION
SCALE: 1"= 20' (22"x34" FORMAT)



D / 7 PIT DIVERSION UPPER CHANNEL – TYPICAL SECTION
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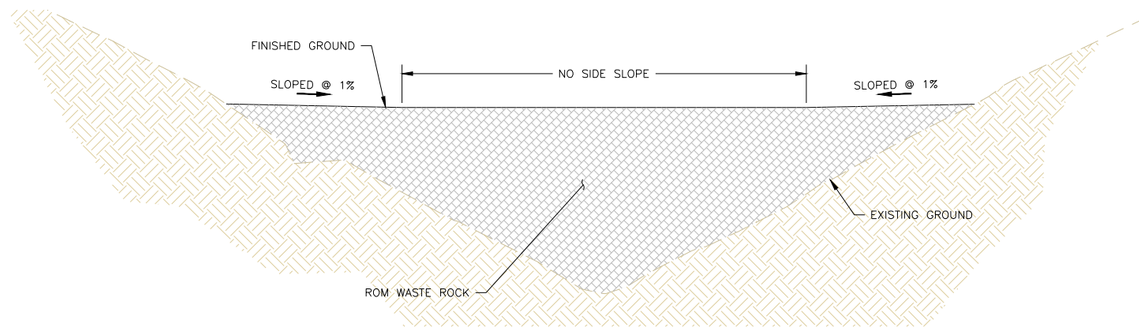

A / 7 PIT DIVERSION FILL AREA – SECTION
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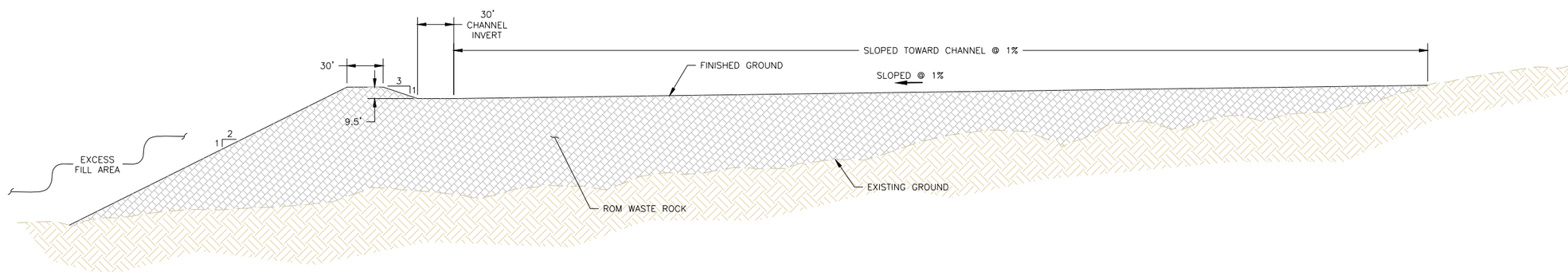

B / 7 PIT DIVERSION FILL AREA – SECTION
SCALE: 1"= 50' (22"x34" FORMAT)

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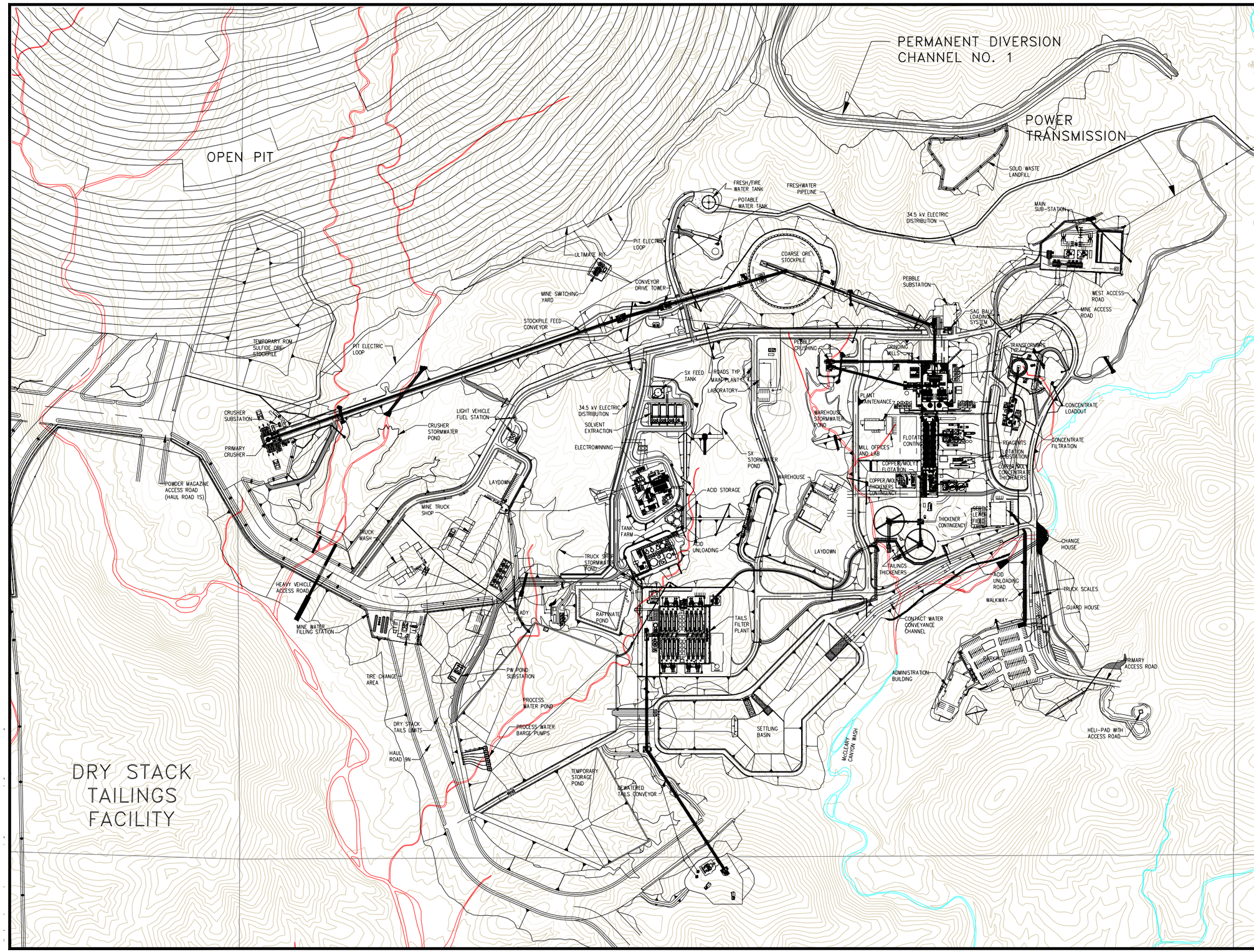
ROSEMONT PROJECT

ACOE File No. SPL-2008-00816-MB
Pit Diversion Channel Sections

Figure 7



LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- TOWNSHIP/RANGE LINE
- SECTION LINE
- SURFACE FLOW DIRECTION
- POTENTIALLY JURISDICTIONAL WATER OHWM (IMPACTED/LOST)
- POTENTIALLY JURISDICTIONAL WATER OHWM (NON-IMPACTED)

Data Source - Tetra Tech, April, 2010

W S E N

0' 250' 500'

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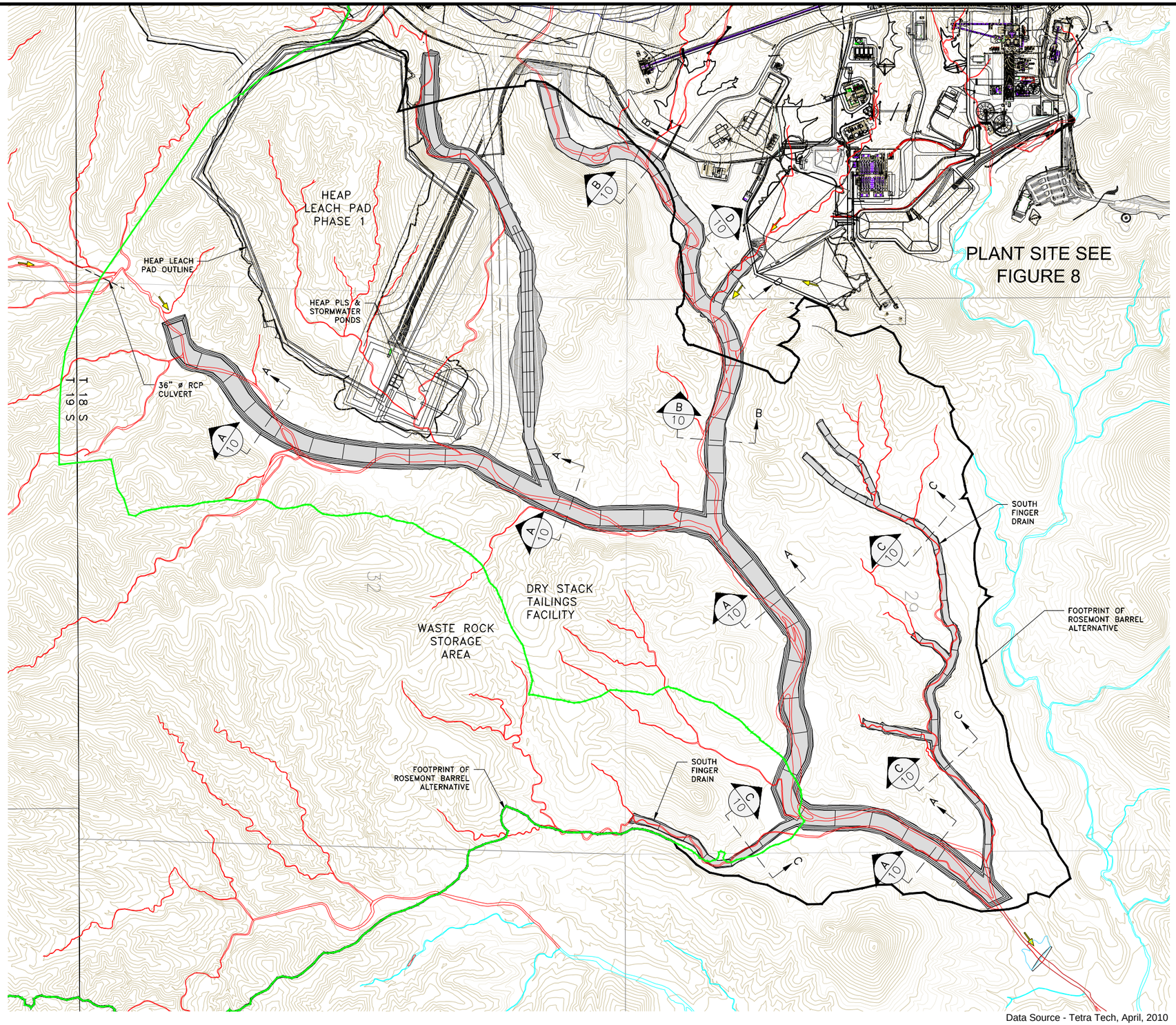
ROSEMONT PROJECT

ACOE File No. SPL-2008-00816-MB
Plant Site

Figure 8



LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- TOWNSHIP/RANGE LINE
- SECTION LINE
- SURFACE FLOW DIRECTION
- POTENTIALLY JURISDICTIONAL WATER OHWM (IMPACTED/LOST)
- POTENTIALLY JURISDICTIONAL WATER OHWM (NON-IMPACTED)
- B / 10 — SECTION DETAIL / FIGURE NUMBER

Data Source - Tetra Tech, April, 2010

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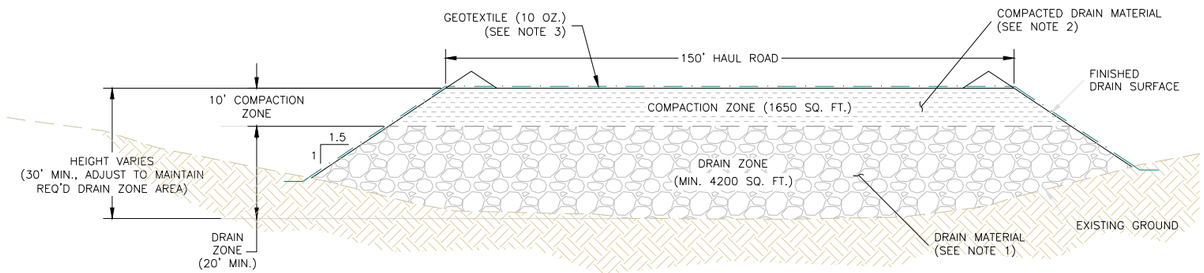
ROSEMONT PROJECT

ACOE File No. SPL-2008-00816-MB
Flow-Through Drain Plan View

Figure 9



A/10 SOUTH MAIN "FLOW-THROUGH" DRAIN – TYPICAL SECTION
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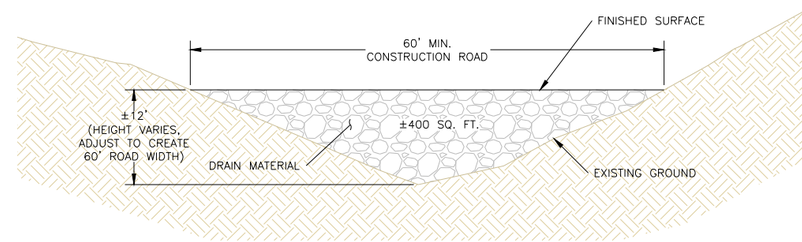

C/10 FINGER DRAIN – TYPICAL SECTION
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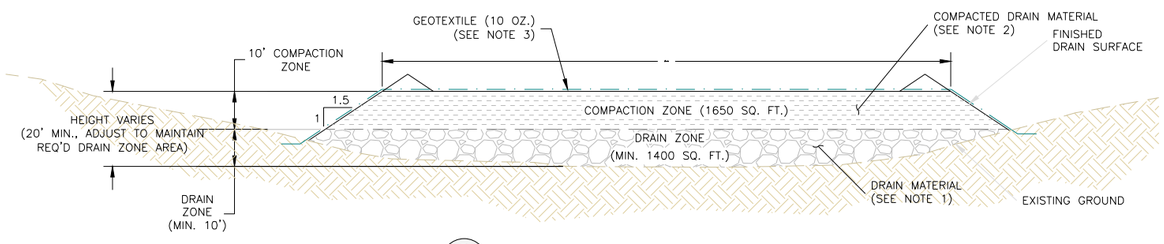

B/10 SOUTH 1 "FLOW-THROUGH" DRAIN – TYPICAL SECTION
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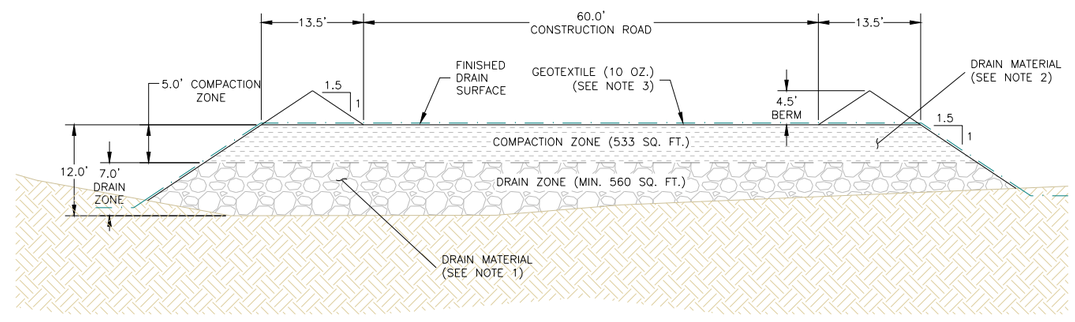

D/10 FLOW-THROUGH DRAIN TO PWTS POND AREA – TYPICAL SECTION
SCALE: 1"= 10' (22"x34" FORMAT)

NOTES:

1. CUT SITE MATERIAL AND PLACE NON-WOVEN GEOTEXTILE (10 OZ.) ±10' UP SIDE OF DRAIN AS CONSTRUCTION ADVANCES IN ~300' INCREMENTS.
2. SECURE GEOTEXTILE WITH PREVIOUSLY CUT MATERIAL. PLACE FLOW CONTROL STRUCTURES (USING SITE CUT MATERIAL) ALONG DRAIN TOE AT ~300' INTERVALS TO REDUCE DRAINAGE FLOW ALONG TOE.
3. TOP AND REMAINING EXPOSED SIDES OF DRAIN SHALL HAVE NON-WOVEN GEOTEXTILE (10 OZ.) PLACED AFTER CONSTRUCTION TRAFFIC CEASES AND BEFORE PLACEMENT OF PERMANENT FILL/ TAILINGS OVER FLOW-THROUGH DRAINS. REMOVE SAFETY BERM PRIOR TO PLACEMENT OF GEOTEXTILE.
4. SURFACE PREPARATION SHALL ENTAIL THE REMOVAL OF LARGE BOULDERS AND SMOOTHING OF DRAIN SURFACE.

WestLand Resources Inc.
Engineering and Environmental Consultants
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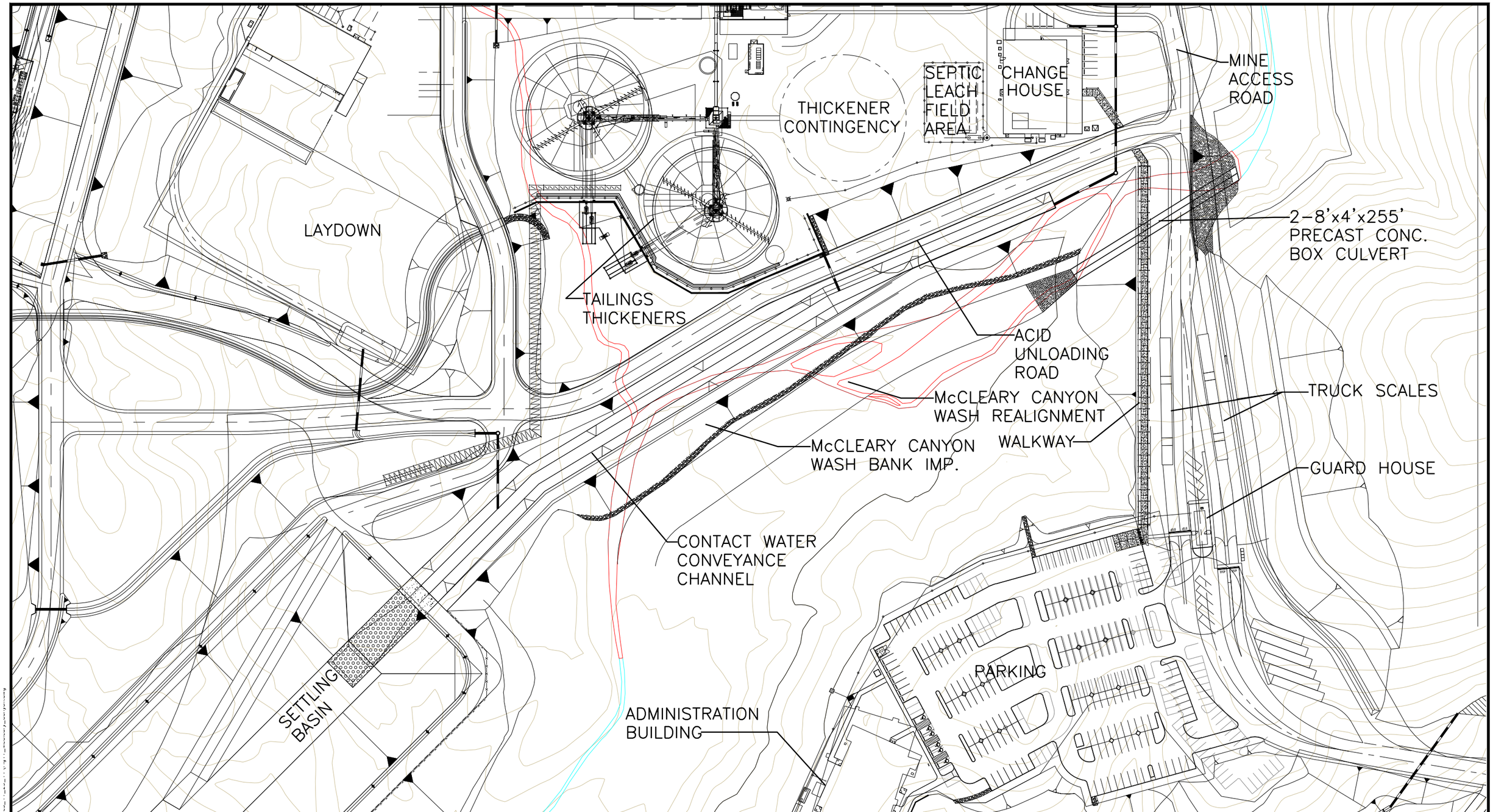
Tucson, Az 85712 (520) 206-9585

Data Source - Tetra Tech, April, 2010

ROSEMONT PROJECT

ACOE File No. SPL-2008-00816-MB
Flow-Through Drain Sections

Figure 10



Data Source - Tetra Tech, April, 2010

LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- TOWNSHIP/RANGE LINE
- SECTION LINE
- SURFACE FLOW DIRECTION
- POTENTIALLY JURISDICTIONAL WATER OHWM (IMPACTED/LOST)
- POTENTIALLY JURISDICTIONAL WATER OHWM (NON-IMPACTED)

W S N E

0' 60' 120'

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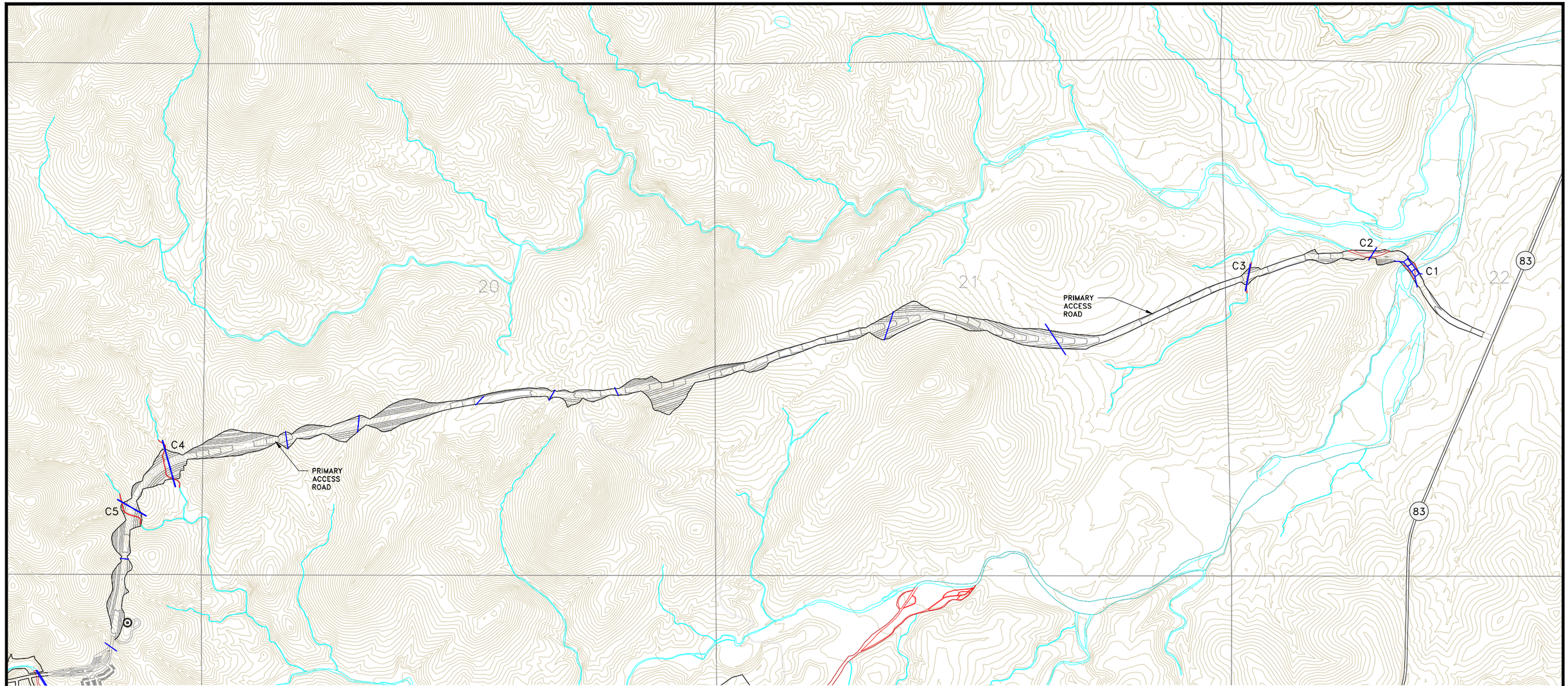
Tucson, Az 85712 (520) 206-9585

ROSEMONT PROJECT

ACOE File No. SPL-2008-00816-MB
McCleary Canyon Wash

Figure 11



Data Source - Tetra Tech, April, 2010

LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- TOWNSHIP/RANGE LINE
- SECTION LINE
- SURFACE FLOW DIRECTION
- POTENTIALLY JURISDICTIONAL WATER OHWM (IMPACTED/LOST)
- POTENTIALLY JURISDICTIONAL WATER OHWM (NON-IMPACTED)
- CULVERT
- C2 CULVERT IDENTIFICATION

N
W E
S

0' 500' 1000'

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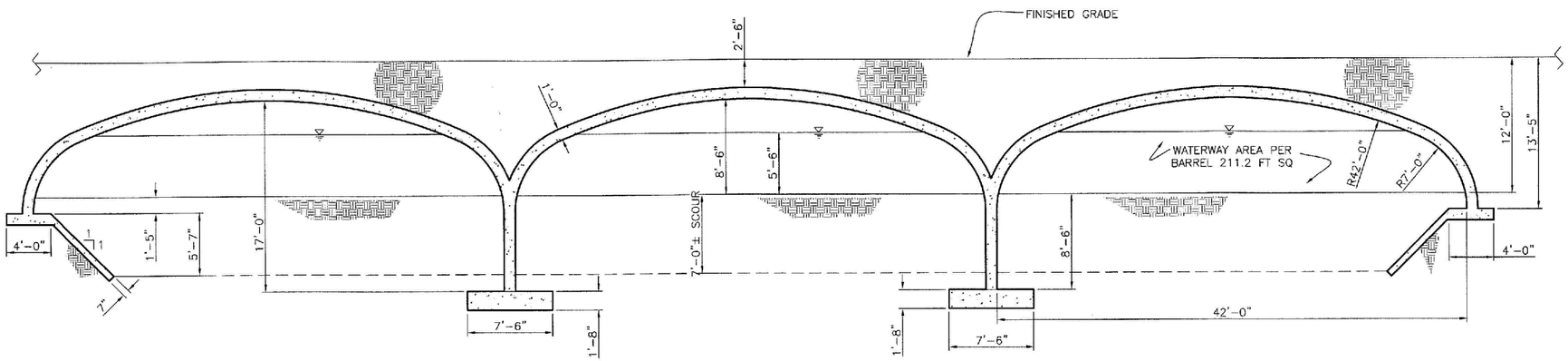
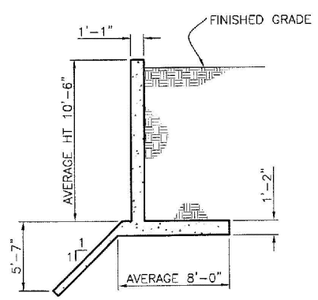
ROSEMONT PROJECT

ACOE File No. SPL-2008-00816-MB
Primary Access Road

Figure 12



CON-ARCH 3-42'x8'-6" CULVERT



WINGWALL CROSS SECTION

Data Source - SACRA Engr., March 29, 2009

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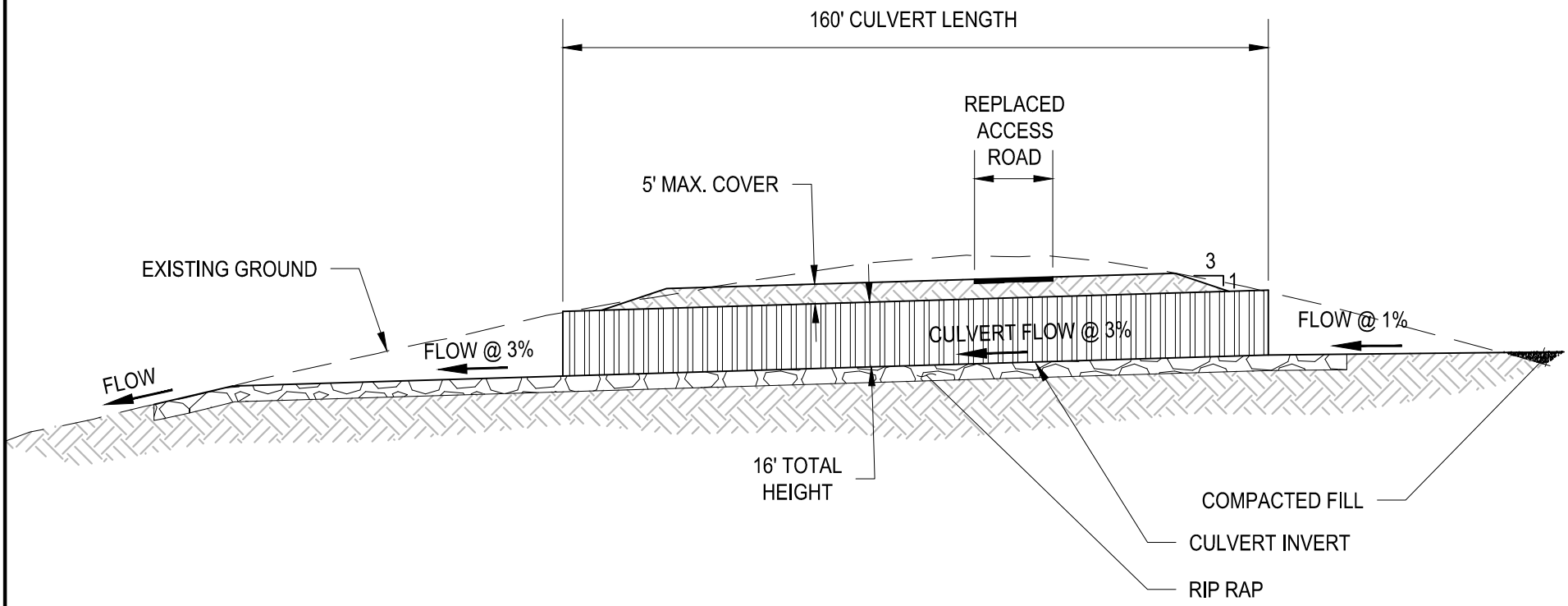
ROSEMONT PROJECT

ACOE File No. SPL-2008-00816-MB
Access Road Con-Arch Detail

Figure 13



NOTE:

WINGWALLS NOT SHOWN THIS VIEW

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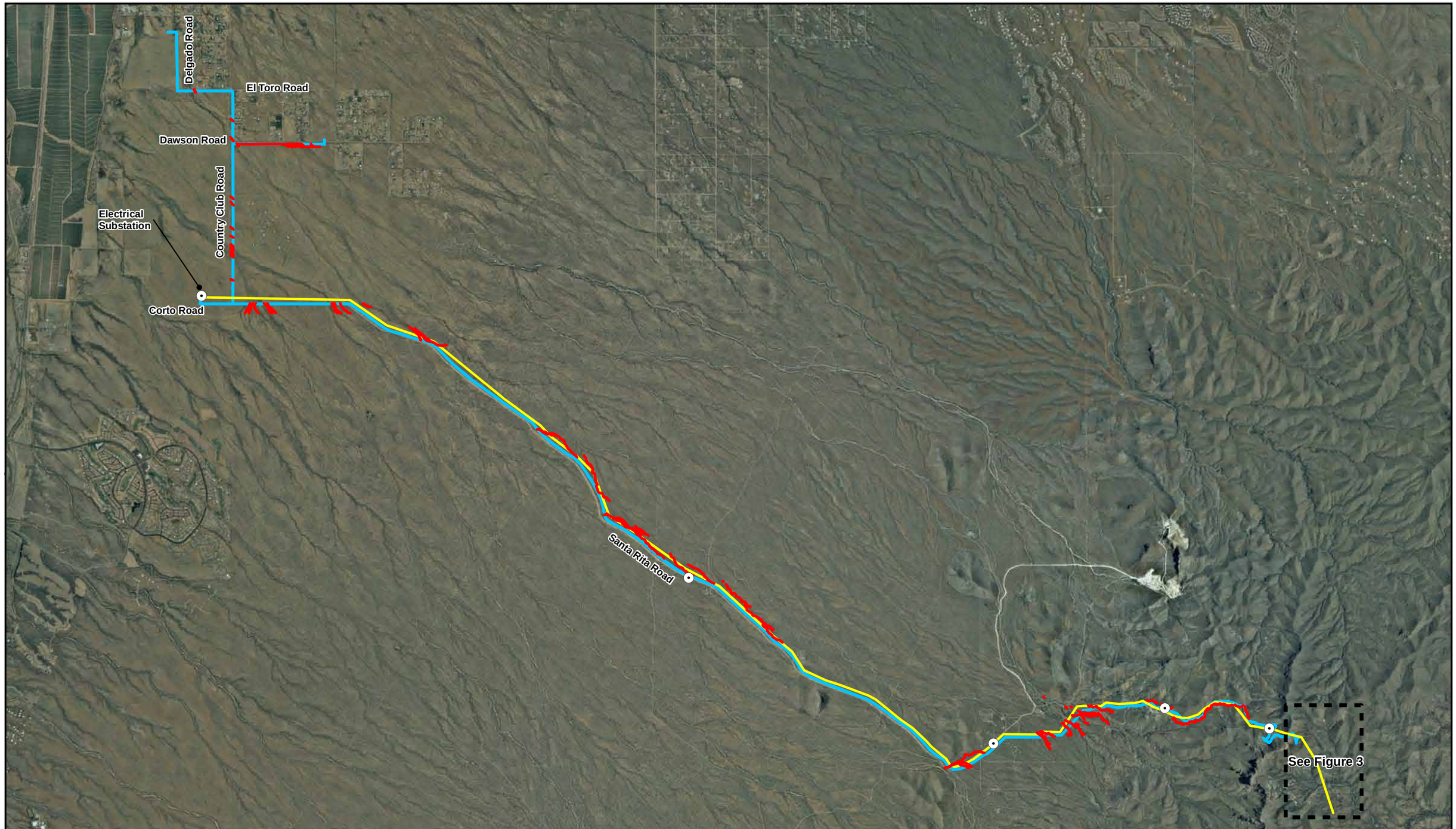
ROSEMONT PROJECT

ACOE File No. SPL-2008-00816-MB
Typical Diversion
Culvert Section
Figure 14



T.17S., R.14E., Portion Sections 17, 20, 21 & 27-35,
T.18S., R.14E., Portion Sections 1, 2 & 12,
T.18S., R.15E., Portion Sections 7, 17, 18 & 20-24,
T.18S., R.16E., Portion Sections 19 & 30,
Pima County, Arizona
Photo Source: Aerials Express Tucson, 2009

WestLand Resources, Inc.
Engineering and Environmental Consultants

N

2,250 0 2,250
Feet

1 inch = 4,500 feet

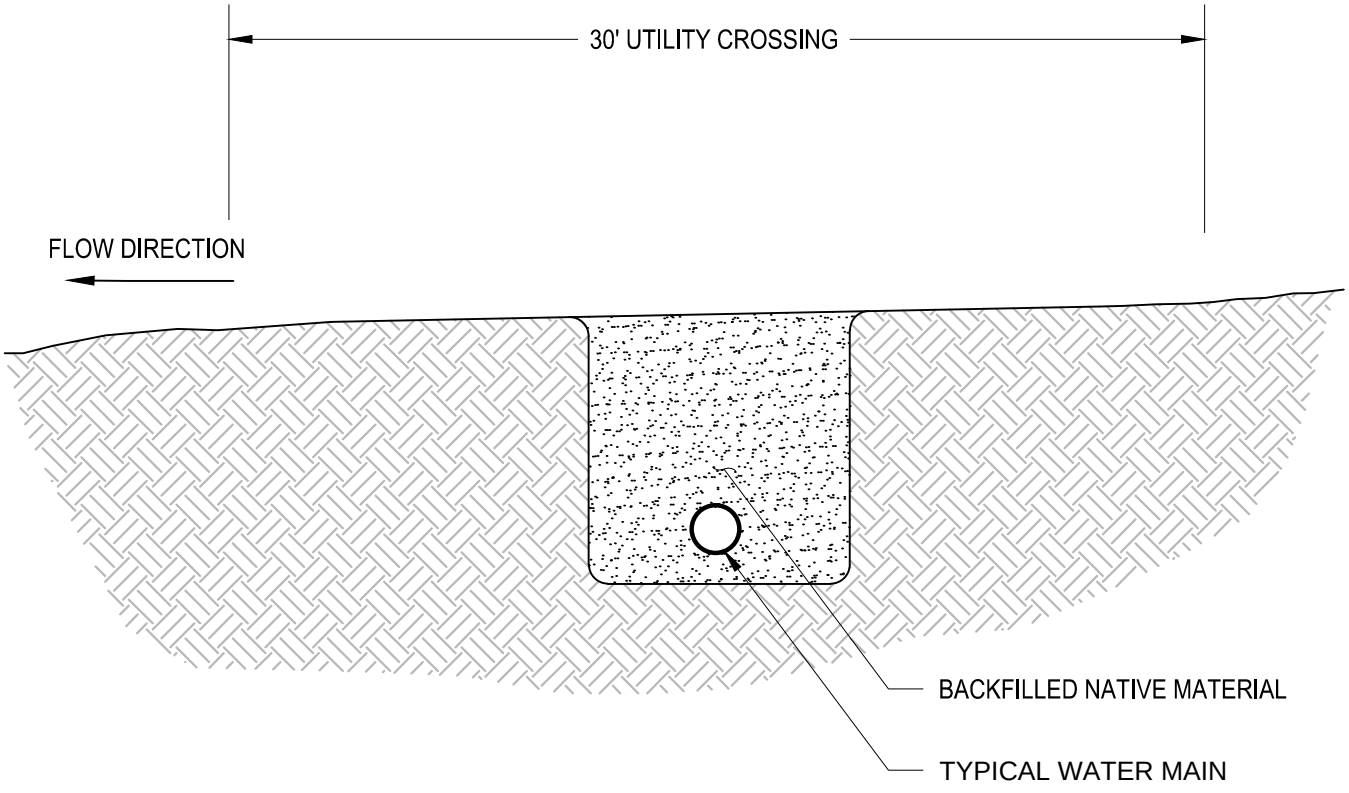
Legend

- Powerline
- Water Pipeline
- Proposed Booster Station Locations
- Potential Waters of the U.S.

ROSEMONT PROJECT

ACOE File No. SPL-2008-00816-MB
Offsite Utility Lines
Figure15

M:\projects\1049.14\JD waterline\Figures\SHT1 Overview.mxd



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ROSEMONT PROJECT

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Typical 30' Utility Crossing Cross-Section

Figure 16

M:\projects\1049.15\Public_Notice\Figures_11_29_11\Fig16_Utility_Line_Crossing.dwg 11/29/2011 5:22 PM