

CHAPTER 2.0 PROJECT DESCRIPTION

2.0 PROJECT DESCRIPTION

2.0.1 INTRODUCTION

The *Olive Pit Mine and Reclamation Project* (Proposed Project or Olive Pit) involves re-engagement of mining (extractive) activities, and soon thereafter, concurrent land reclamation at the existing, inactive Olive Pit, located in Irwindale, California. This chapter presents the project description which includes a discussion of the site history and proposed action, project location and environmental setting, project features and site plans, and a general description of the technical, economic, and environmental characteristics. The Project Description also includes a statement of project objectives, the intended uses of the EIR including a list of public agencies that are expected to use this EIR, as well as, a list of agreements/approvals/permits that may be required to implement the project.

Pursuant to State CEQA Guidelines §15124, the description of the project shall contain the above mentioned information, but does not require extensive detail beyond that needed for evaluation and review of the environmental impact report.

2.0.2 SITE HISTORY

Extractive operations began at the Olive Pit in 1925 by Conrock Inc. Operations continued until the mid-1970s, though available resources were not depleted at the Olive Pit. Subsequent to the adoption of the State's Surface Mining and Reclamation Act in 1975 (SMARA), the remaining resources were designated as a Regionally Significant Construction Aggregate Source by the State Mining and Geology Board (SMGB) in 1984. In 2004, the Irwindale Community Redevelopment Agency purchased the Olive Pit, using its Low-Moderate Income Housing Fund, with the intent of extracting the aggregate resources, reclaiming the pit, and then redeveloping the site for future urban land uses. In 2012, redevelopment agencies in California were dissolved under Assembly Bill x1 26 (the Dissolution Act). After the Dissolution Act, the ownership of the Olive Pit was transferred to the Irwindale Housing Authority. Subsequently, recognizing that the site is not currently suitable for housing development and the maintenance obligations are beyond the Housing Authority's capabilities, the City of Irwindale purchased the site from the Irwindale Housing Authority City staff, through its role in regulation of the City's many extractive operations, has the ability to evaluate opportunities to reclaim the Olive Pit and render it appropriate for future beneficial use, as required per SMARA. Future uses would not be limited to the potential for housing uses thereon.

The Olive Pit site is managed by the City's Community Development Department. The City will retain ownership of the Olive Pit mine. The City and United Rock will enter into a License and Mining Agreement to complete the Proposed Project as described within this EIR. United Rock's Reclamation Plan for the Olive Pit mine is included in Appendix A of this EIR.

CHAPTER 2.0 PROJECT DESCRIPTION

2.0.3 PROPOSED ACTION

The Proposed Project involves three components: 1) construction of a new on-site access road and relocation of the on-site access point; 2) phased extraction of mineral resources (Phase I and II); and 3) site reclamation (Phase I and II). The first operational phase at the site will include extraction of the eastern portion of the site, followed by reclamation of this area to create an approximately 32-acre pad suitable for future development. Reclamation will involve filling the extraction void with compacted inert fill materials. The second operational phase will include extraction of the remainder of the site utilizing both dry and underwater extraction processes. Reclamation of the Phase 2 area will be completed as final slopes become available for this purpose. Final reclamation will be limited to stabilization of slopes created during extractive operations.

The Proposed Project is expected to yield approximately 32-million tons of recoverable aggregate reserves that meet the quality standards of applicable California governmental agencies. Average production is anticipated to be 1 million tons of aggregate per year beginning in 2015. Extraction will occur for a period of approximately 32 years with concurrent filling operations for reclamation commencing in the first of two phases. Final reclamation of the eastern 32 acres will involve backfilling and compaction to street level for potential future urban development. The remainder of the property will be reclaimed for the potential end land use of storm water retention and groundwater recharge, and/or flood control facility, and/or open space recreational land uses.

Extractive activities will utilize both dry and wet operations and will be subject to the City's guidelines for slope stability and public safety including:

- *Guidelines for Stability Analysis of Open Pit Mine Slopes* (December 2003);
- *Guidelines for Drainage and Erosion Control for Open Pit Mines* (July 2004);
- *Guidelines for Underwater Backfilling of Open Pit Mines* (May 2005); and
- *Guidelines for Above Water Backfilling of Open Pit Mines* (November 2005).

Summaries of each of these four policy guidance documents are provided below for reference.

Summary: Guidelines for Stability Analyses of Open-Pit Mine Slopes, Irwindale, California - The Irwindale Slope Stability Committee (the Committee) has developed technical guidelines for stability analyses of existing and proposed earth slopes in several open-pit sand-and-gravel mines located within the City of Irwindale, California. These guidelines pertain to both static and seismic stability and are based on the results of surface and subsurface mapping, laboratory tests, field tests, literature searches, and other activities. These guidelines are intended to be a resource for professional geotechnical engineers and engineering geologists in their site-specific slope evaluations and designs.

CHAPTER 2.0 PROJECT DESCRIPTION

Summary: Guidelines for Drainage and Erosion Control for Open-Pit Mines, Irwindale, California – The Irwindale Drainage and Erosion Control Committee (the Committee) has developed these guidelines for drainage and erosion control at open-pit sand-and-gravel mines located within the City of Irwindale, California. The erosion and drainage control issues are:

1. Providing appropriate measures to keep surface water from flowing over the rims of the pits, thus avoiding overtopping-induced erosion.
2. Protecting pit slopes from incident-precipitation induced erosion.
3. Protecting pit slopes that are exposed to groundwater lakes from wave-lap erosion.

Summary: Guidelines for Underwater Backfilling of Open-Pit Mines, Irwindale, California - The City of Irwindale is a unique 9.5 square mile community located in the San Gabriel Valley. Incorporated in 1957, Irwindale is home to sand and gravel quarries that are operated by some of the nation's major mining companies: Vulcan Materials, United Rock Products and Hanson Aggregates. Approximately 2,376 acres (39 percent) of the City's land area is devoted to mining activities, with approximately twenty-two sand and gravel mines within the city limits, six of which are being actively mined. Some of these mines are limited to the aggregate reserves located above the groundwater table, while others have been or will be excavated below the groundwater table through the use of dredges, thus creating groundwater lakes.

As the various mining operations reach the end of their lifespan, some of them will be reclaimed by backfilling with inert fill materials, thus transforming the depleted pits into land that will be suitable for commercial and/or industrial development. Both the City and the property owners have an interest in facilitation this kind of land reclamation. The Irwindale Business park is an example of a successfully reclaimed mine quarry. This business park, which encompasses 123 acres of land with 2.2 million square feet of commercial and light-industrial building area, had a pre-development assessed value of approximately \$3 million before filling began in the mid-1980s and finished with a 2002 post-development assessed value of approximately \$63 million.

Five of the open-pit mines have already been backfilled, six are currently being backfilled and others are planned to be backfilled. In order to better guide the technical aspects of these ongoing and future backfilling operations, the Irwindale Backfilling Committee was formed to develop guidelines for backfill design, construction and quality assurance. The Committee's work has been divided into two phases: Phase 1- underwater backfills, and Phase 2 above-water backfills, each of which is reported separately. These guidelines addressed in this document are for Phase 1 underwater backfills only and are intended to provide a basis for developing site-specific recommendations, quality assurance measures, engineering evaluations and documentation for underwater fills. The Phase 2 follow up set of guidelines will address the design and placement of above-water fills.

CHAPTER 2.0 PROJECT DESCRIPTION

Summary: Guidelines for Above Water Backfilling of Open-Pit Mines, Irwindale, California -

The City of Irwindale is a unique 9.5 square mile community located in the San Gabriel Valley. Incorporated in 1957, Irwindale is home to sand and gravel quarries that are operated by some of the nation's major mining companies: Vulcan Materials, United Rock Products and Hanson Aggregates. Approximately 2,376 acres (39 percent) of the City's land area is devoted to mining activities, with approximately twenty-two sand and gravel mines within the city limits, six of which are being actively mined. Some of these mines are limited to the aggregate reserves located above the groundwater table, while others have been or will be excavated below the groundwater table through the use of dredges, thus creating groundwater lakes.

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2.0.4 POTENTIAL ENVIRONMENTAL ISSUES

During the public review period on the Notice of Preparation (NOP), the City received comment letters from public agencies (See Appendix B) which were used to determine the scope and content of the EIR. In determining the key environmental issues, the City took into consideration written comments received during the scoping period, as well as assessment of project materials, site reconnaissance, and background research and familiarity with similar extraction and reclamation projects in the City. The City determined that based on the scope and nature of the Proposed Project and existing site conditions, the following are the potential environmental issues associated with the Proposed Project:

CHAPTER 2.0 PROJECT DESCRIPTION

- Air Quality/Greenhouse Gas Emissions/Health Risk Assessment – related to daily truck trips to and from the Olive Pit given existing air quality conditions in the SCAQMD region;
- Biological Resources – given the lack of activity onsite for approximately 40 years and the growth of non-native and native vegetation in the previously disturbed but inactive mine site;
- Geology and Soils – associated with existing slope stability concerns and ensuring slope stability during extraction operations and ensuring adequate compaction during reclamation operations;
- Traffic Generation and Circulation – associated with re-initiating extraction operations onsite and ensuring that Project traffic travel is confined to streets in Irwindale only;
- Water Quality and Hydrology – associated with wet extraction operations and potential for stormwater/groundwater contact and groundwater contamination.

Pursuant to State CEQA Guidelines §15128, the following resources topics were determined to not be found significant and are briefly addressed in Chapter 3.1 of this EIR; Agriculture and Forestry Resources, Cultural Resources, Population and Housing, Public Services and Utilities, and Recreation.

2.1 PROJECT LOCATION AND ENVIRONMENTAL SETTING

2.1.1 LOCATION

The Olive Pit is located at 4407 Azusa Canyon Road, City of Irwindale, Los Angeles County, California. The site is located along the south eastern boundary of Irwindale. The Olive Pit is an approximate 190-acre site and is generally bounded by Olive Street to the north, Azusa Canyon Road to the east, Los Angeles Street to the south, and both Phelan Avenue and Park Avenue to the west. The site is located in the southeast quarter of Section 8 in Township 1 South, Range 10 West and is identified by Assessor's Parcel Number 8415-001-906.

The City of Baldwin Park is adjacent to the site along the north and west sides, and a portion of the south side (on the west). The City of West Covina is adjacent to the site on the south. A number of light industrial land uses, such as Huy Fong Foods, Pepsi Bottling Group, Decore-active Specialties, and Ready Pac Foods are found to the east and south. Residential land uses are located adjacent on the north, south, and west. (Refer to **Figure 2.0-1 Regional View**, **Figure 2.0-2 Regional Surrounding Land Uses**, **Figure 2.0-3 Olive Pit Location**, **Figure 2.0-4 Olive Pit Interior View**, **Figure 2.0-5 Olive Pit Street-Level View 1**, **Figure 2.0-6 Olive Pit Street-Level View 2**, and **Figure 2.0-7 Olive Pit Street-Level View 3**.)

CHAPTER 2.0 PROJECT DESCRIPTION

Land uses within the general vicinity of Proposed Project site are listed below and are shown in **Figures 2.0-1** and **2.0-2**.

- Interstate Freeways 10, 210 and 605
- County of Los Angeles
- Various Mineral Extraction and Landfill Operations
- Santa Fe Dam Flood Control Basin & Recreational Area
- Miller / Coors Brewing Company
- Irwindale Event Center
- Light Industrial
- Educational facilities
- Residential
- Little Dalton Wash

2.1.2 EXISTING CONDITIONS

Mining at the Olive Pit began in 1925 and ceased in 1973. Extractive operations in the Olive Pit are inactive. The perimeter of the site remains at street level where surface elevations range from a high of 430 feet above mean sea level (AMSL) at the northeast corner of the site, to a low of 400 feet AMSL at the southwest corner. Past extractive activities left steep slopes that descend into the pit up to 100 feet. The toe of the mined slopes surrounding the pit ranges from a high of 320 feet AMSL in the northeast corner, to a low of 250 feet AMSL on the western edge of the pit. The bottom of the pit is uneven and represents the patterns of the previous extractive operations. Thus, there are several depressions and random undulating slopes. The low elevation of the pit bottom is 228 feet AMSL at the southwest corner of the pit and the high of 347 feet AMSL is in the northwest quarter of the pit (Refer to Figures 2.0-12 through 2.0-15 for the mine plans).

Slope stability analyses were performed for the existing perimeter slopes at the Olive Pit in January 2008. Based on the results of the static slope stability analyses, most slopes were found to be stable with a factor of safety greater than 1.5 at the property line. Seismic stability calculations indicate some over-steepened slopes near the perimeter could experience permanent deformation that would not be in compliance with the City's Guidelines for Slope Stability Analyses of Open-Pit Mines (2003) at, or beyond, the property line during an earthquake event.

The Olive Pit is located in the San Gabriel Valley basin. Groundwater within this basin, underlying the City of Irwindale, flows from northeast to southwest. Historic high groundwater elevations were recorded in 1945 and have been interpolated for the Olive Pit at 330 feet AMSL. Groundwater levels in the upper San Gabriel Valley groundwater basin can fluctuate by several feet during a single year and have altered as much as 45 feet in a single season based on historical records. Historical data taken from key well 3030F, located in Baldwin Park, have shown to fluctuate over 130 feet.

CHAPTER 2.0 PROJECT DESCRIPTION

General Plan

The City of Irwindale General Plan land use designation for the Olive Pit is Quarry Overlay (Residential Commercial). The Quarry Overlay applies to areas in the City where current or future resource extraction will take place. The Quarry Overlay designation supports a diverse array of zones including Commercial, Commercial-Recreation, Residential-Business Park, Industrial-Business Park, and Open Space. The underlying Residential Commercial designation indicates the land use type, or combination of land use types, that are generally implemented post-reclamation. Existing land uses within the vicinity include residential, commercial, and industrial. Refer to Figure 2.0-8 City of Irwindale General Plan Land Use Designation.

Zoning

The City of Irwindale zoning map shows the Olive Pit zoning as Agricultural (A-1). The A-1 zone is not consistent with the General Plan land use designation of the site; therefore, the Project requires a Consistency Zone Change request to comply with the existing General Plan Quarry Overlay designation. The project proposal includes a request to amend the zoning to Quarry Zone (Q). Refer to Figure 2.0-9 City of Irwindale Zoning District.

CHAPTER 2.0 PROJECT DESCRIPTION

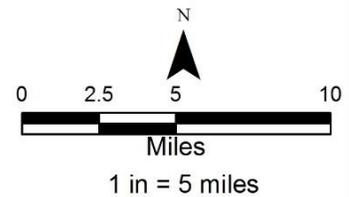
Figure 2.0-1 Regional View



Figure 2.0-1

Regional View

-  County Boundaries
-  Olive Pit Project
-  City of Irwindale Boundary



Notes: January 2014
Source: ESRI

CHAPTER 2.0 PROJECT DESCRIPTION

Figure 2.0-2 Regional Surrounding Land Uses

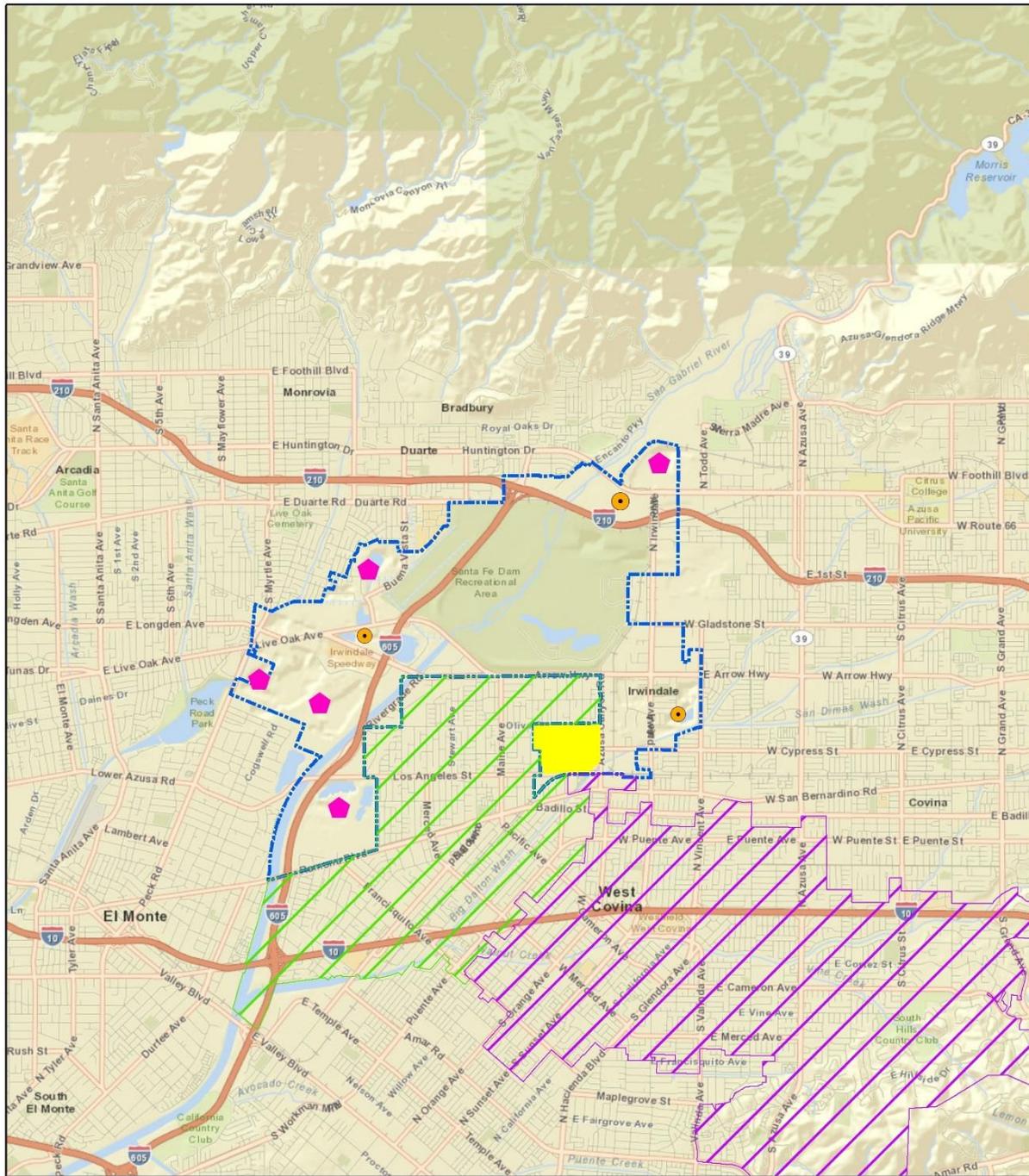
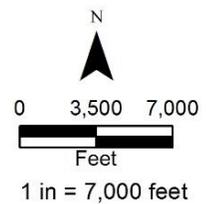


Figure 2.0-2

Surrounding Land Uses

-  City of West Covina
-  City of Irwindale Boundary
-  City of Baldwin Park
-  Olive Pit Project
-  Landfill Operations
-  Existing Quarries



Notes: January 2014
Source: ESRI

CHAPTER 2.0 PROJECT DESCRIPTION

Figure 2.0-3 Olive Pit Location

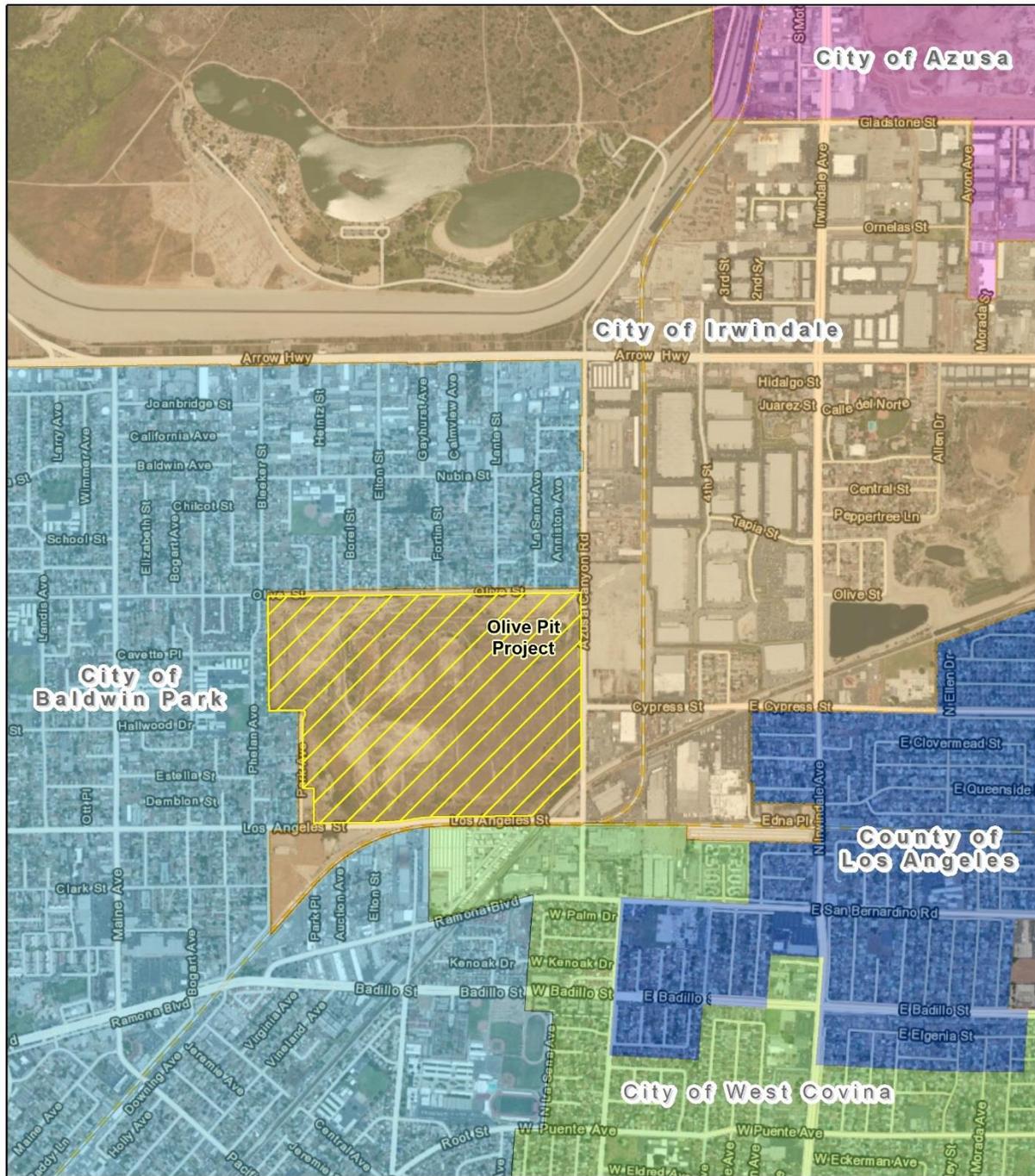
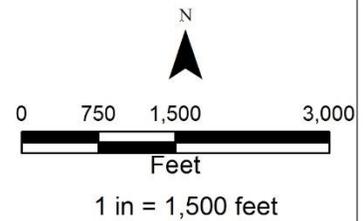


Figure 2.0-3

Olive Pit Location

-  Olive Pit Project Boundary
-  City of Irwindale Boundary
-  City of Azusa
-  City of Baldwin Park
-  County of Los Angeles
-  City of West Covina



Notes: January 2014
Source: ESRI

CHAPTER 2.0 PROJECT DESCRIPTION

Figure 2.0-4 Existing View from the Interior of the Olive Pit Mine



CHAPTER 2.0 PROJECT DESCRIPTION

Figure 2.0-5 Existing Street-Level View looking SW from Azusa Canyon Road



CHAPTER 2.0 PROJECT DESCRIPTION

Figure 2.0-6 Existing Street-Level View looking W from Azusa Canyon Road



CHAPTER 2.0 PROJECT DESCRIPTION

Figure 2.0-7 Existing Street-Level View looking NW from Azusa Canyon Road



CHAPTER 2.0 PROJECT DESCRIPTION

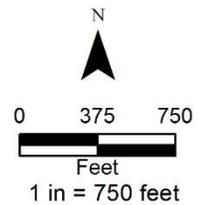
Figure 2.0-9 City of Irwindale Zoning District



Figure 2.0-9

City of Irwindale Zoning District

- Olive Pit Project
- A-1, Agriculture
- City of Irwindale Boundary



Notes: January 2014
Source: ESRI

CHAPTER 2.0 PROJECT DESCRIPTION

SMARA – Mineral Resource Zone 2 Classification and Designation

The Surface Mining and Reclamation Act (SMARA), Chapter 9, Division 2 of the Public Resources Code, requires the State Mining and Geology Board to adopt State policy for the reclamation of mined lands and the conservation of mineral resources. These policies are prepared in accordance with the Administrative Procedures Act, (Government Code) and are found in California Code of Regulations, Title 14, Division 2, Chapter 8, Subchapter 1.

The Surface Mining and Reclamation Act of 1975 (SMARA, Public Resources Code, Sections 2710-2796) provides a comprehensive surface mining and reclamation policy with the regulation of surface mining operations to assure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition. SMARA also encourages the production, conservation, and protection of the State's mineral resources. Public Resources Code Section 2207 provides annual reporting requirements for all mines in the State, under which the State Mining and Geology Board is also granted authority and obligations.

The extraction of aggregate within the San Gabriel River basin has occurred for over a hundred years. Construction aggregate is the sand, gravel, and crushed rock used in all construction projects and is an essential commodity in today's society. The availability of aggregate deposits and their proximity to markets are critical factors in a region's ability to maintain and develop infrastructure. However, urban expansion has resulted in the elimination of access to areas containing available mineral resources. In an effort to protect mineral resources from expanding development, the SMARA (guidelines and statues) created a classification and designation process for identifying and protecting critical mineral resources.

Classification of minerals is the first step in the process of identifying resources that are suitable for extraction. The second step in the mineral resource conservation process is to designate a site as Regionally Significant for Construction Aggregate. The purpose of the designation is to identify deposits of prime importance for meeting future construction aggregate demand in the region. Designating a site as a regionally significant construction aggregate resource is designed to make the local land use authority aware of the location, mineral resource needs, and ensure their importance is considered in land-use decisions.

Resources within the Olive Pit were first classified as a Mineral Resource Zone 2 (MRZ-2) in 1982 (Kohler, S.L.; et al.), and were later designated as regionally significant in 1984 (SMARA Designation Report No. 3). The MRZ-2 classification indicates that the site contains proven high quality aggregate resources. The area was further incorporated into the California Administrative Code as Section 3550.5 (Title 14, Division 2, Chapter 8, Subchapter 1). To protect designated resources, SMARA Section 2763 requires a lead agency (City of Irwindale) to make certain findings prior to approving a development project that would eliminate access to, or the ability to extract, those resources. The Olive Pit project, as proposed, complies with SMARA by allowing

CHAPTER 2.0 PROJECT DESCRIPTION

for the extraction of regionally significant aggregate resources and reclamation of those mined lands prior to approving development for other purposes.

SMARA is implemented in Irwindale's Ordinance No. 356, Mining Permits and Reclamation Plans, Chapter 17.63 of the Irwindale Municipal Code. This section of the code grants the City authority to require quarry owners to reclaim/rehabilitate their land once mining operations have been completed. Pursuant to IMC 17.63.010 Purpose and Intent:

- A. The City Council recognizes that the extraction of minerals is essential to the continued economic well-being of the City and to the needs of society. The City Council also recognizes that the reclamation of mined lands is necessary to prevent or minimize adverse effects on the environment and to protect the public health and safety, and that surface mining takes place in diverse areas where the geologic, topographic, climatic, biological, and social conditions are significantly different, causing reclamation operations and reclamation specifications to vary accordingly.
- B. The purpose and intent of this chapter is to ensure the continued availability of important mineral resources, while regulating surface mining operations as required by California's Surface Mining and Reclamation Act of 1975 (Public Resources Code Sections 2710 et seq.), as amended, hereinafter referred to as "SMARA," and State Mining and Geology Board regulations (hereinafter referred to as "state regulations") for surface mining and reclamation practices (California Code of Regulations [CCR] Title 14, Division [2](#), [Chapter 8](#), Subchapter 1, Sections 3500 et seq.), to ensure that:
- C. Adverse environmental effects are prevented or minimized and mined lands are reclaimed to a usable condition and are readily adaptable for alternative land uses.
 1. The production and conservation of minerals are encouraged, while giving consideration to values relating to recreation, watershed wildlife, range and forage, aesthetics and enjoyment.
 2. Residual hazards to the public health and safety are eliminated.

Refer to **Figure 2.0-10 San Gabriel Valley Production-Concentration Region** and **Figure 2.0-11 Surrounding Geology Classifications**.

CHAPTER 2.0 PROJECT DESCRIPTION

Figure 2.0-10 San Gabriel Valley Production-Consumption Region

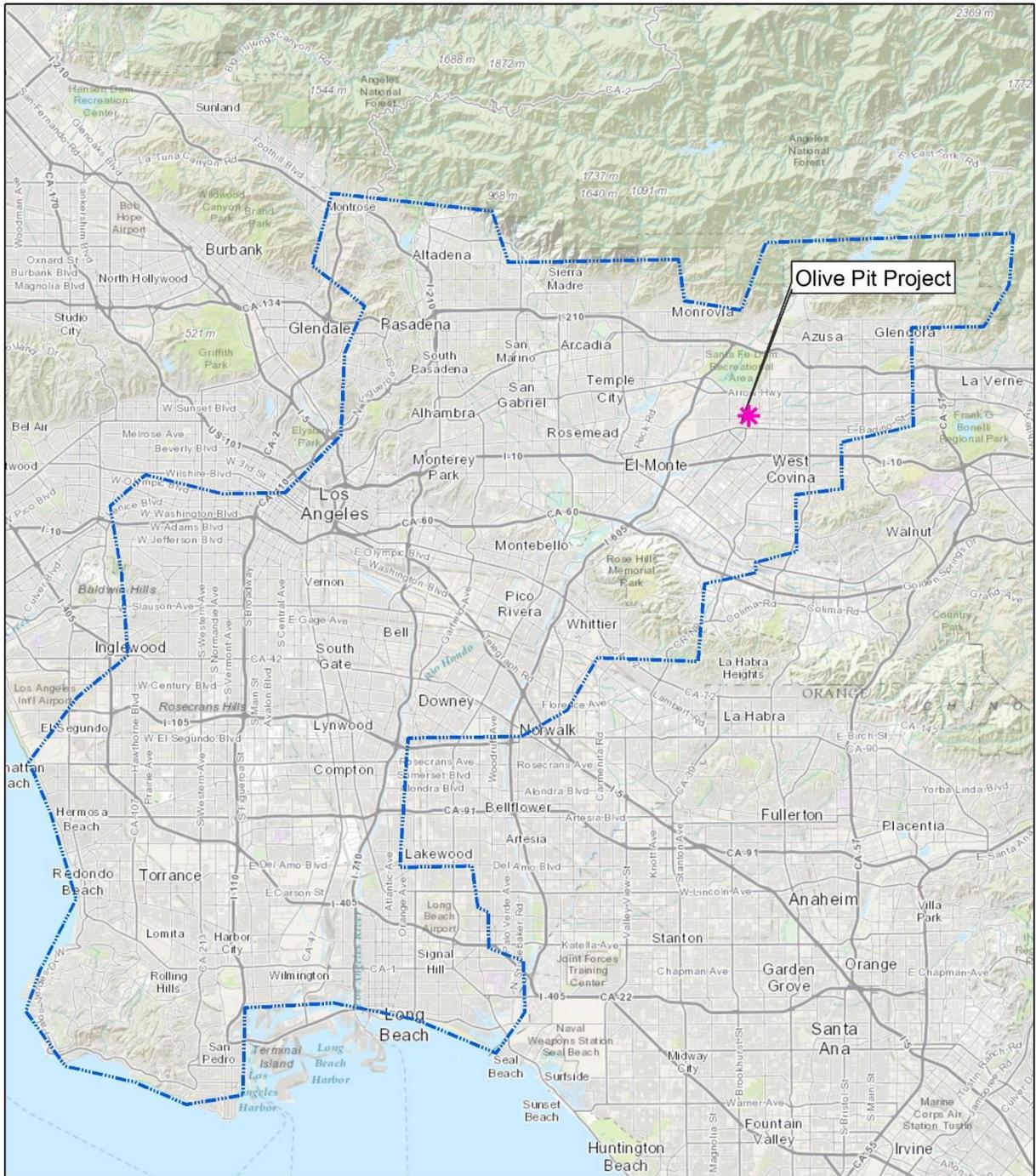
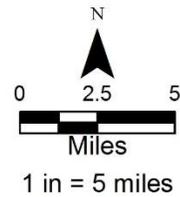


Figure 2.0-10

San Gabriel Valley Production Consumption Region

 San Gabriel Valley PC Region



Notes: January 2014
Source: ESRI

CHAPTER 2.0 PROJECT DESCRIPTION

Figure 2.0-11 Surrounding Geology Classifications

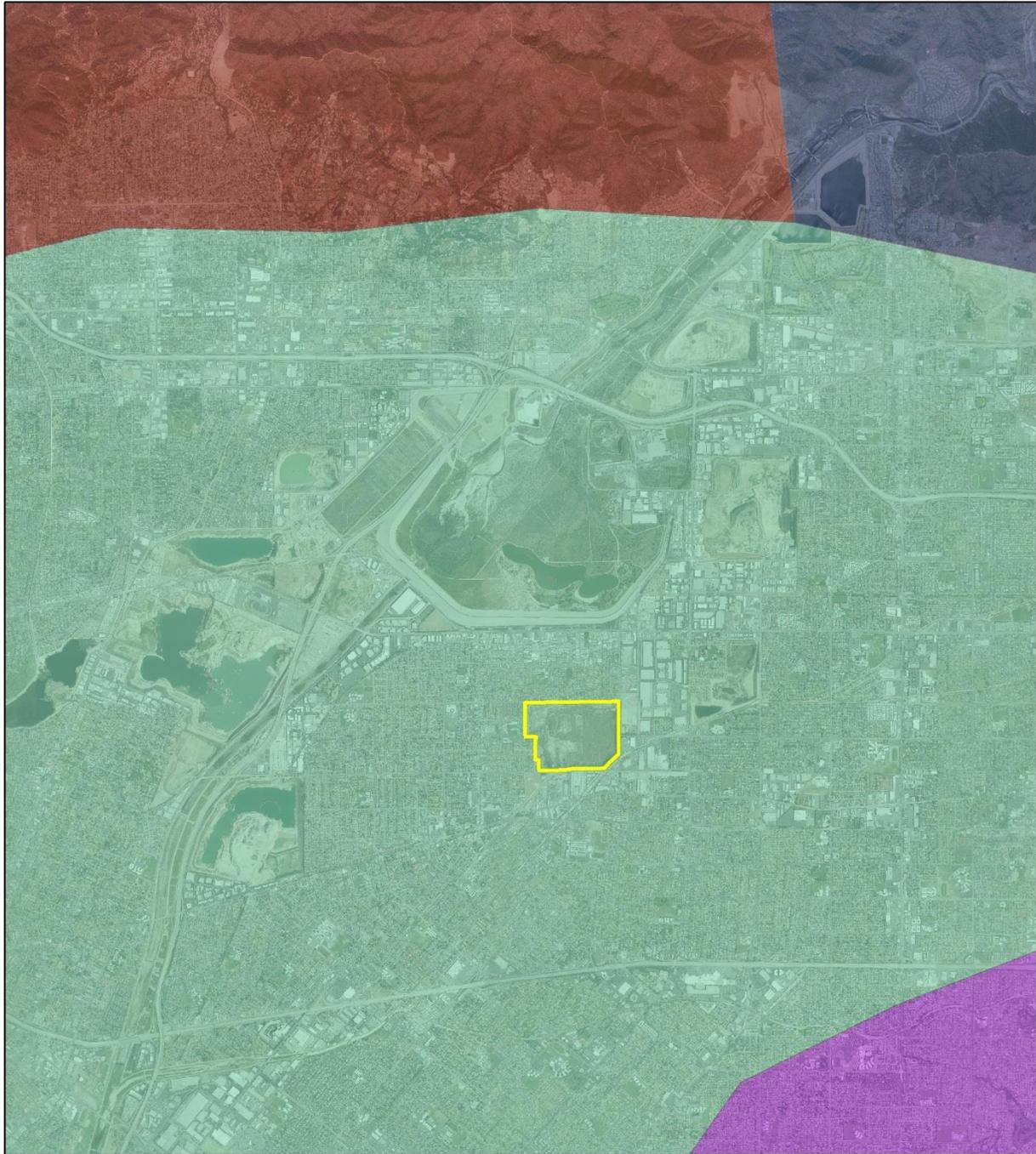
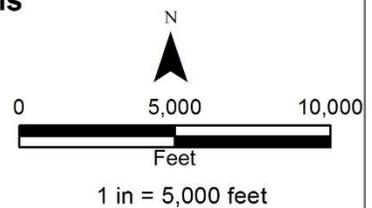


Figure 2.0-11

Surrounding Geology Classifications

- Olive Pit Project
- 4 Q Quaternary Alluvial
- 11 Tm Miocene
- 45 Kg Cretaceous granitic rocks
- 157 Xm Orthogneiss and paragneiss



Notes: January 2014
Source: ESRI

CHAPTER 2.0 PROJECT DESCRIPTION

2.2 PROJECT FEATURES

United Rock proposes to extract economically available construction aggregate resources from the Olive Pit in compliance with State and City regulations. The proposed project involves three components: 1) construction of a new on-site access road and relocating of the site access point; 2) phased extraction of mineral resources; and 3) site reclamation. The first operational phase at the site will include extraction of the eastern portion of the site, followed by reclamation of this area to create an approximately 32-acre pad suitable for future development. Reclamation will involve filling and compaction of the extraction void with inert fill materials. The second operational phase will include extracting the remainder of the site utilizing both dry and underwater processes.

Table 2.0-1 Project Anticipated Timeline for Project Components and Project Phasing

	Duration	Anticipated Timeline	Completion Date
Access Road Construction			
Access Road	12 months	2015	2015
Operations			
Phase I Extraction Yield ± 4 million tons Extraction ± 1 million tons/year	4 years	2016 – 2020	2020
Phase I Reclamation Commence after Phase I extraction is complete	15 years	2020 – 2035	2035
Phase II Extraction Yield ± 28 million tons Extraction ± 1 million tons/year	28 years	2020 – 2048	2048
Phase II Reclamation Commence after Phase II extraction is complete	Final reclamation will be completed within 5 years following completion of all extractive operations	2048-2052	2052

Site Access

Access to will be relocated from Olive Street to the southern portion of the property at Los Angeles Street. The new access road will be constructed with a combination of on-site materials and inert fill materials from off-site sources. The access road will ascend from the bottom of the pit along the southern edge of the property to the southeastern corner of the site where it will exit at Los Angeles Street. The new access road will be constructed with a 45-foot wide road bed at a maximum grade of 8 percent. Entrance to the site will be restricted by a locked gate. Beginning

CHAPTER 2.0 PROJECT DESCRIPTION

at Los Angeles Street, the first 200 feet of the access road will be paved. The remaining length of the road will be treated with dust palliatives and watered daily for dust control and soil stabilization. (Refer to Figure 2.0-19 – Access Road Design Map.)

Operational Activities

All extractive and reclamation activities are required to adhere to the City of Irwindale's *Guidelines for Stability Analysis of Open Pit Mine Slopes* (December 2003); *Guidelines for Drainage and Erosion Control for Open Pit Mines* (July 2004); *Guidelines for Underwater Backfilling of Open Pit Mines* (May 2005); and *Guidelines for Above Water Backfilling of Open Pit Mines* (November 2005).

Phase I Extraction (Anticipated 2016-2020)

Phase I extraction will encompass the eastern 52 acres of the site. Extraction will begin at the toe (bottom) of the existing pit area. The maximum depth of excavation during Phase I is anticipated to reach 175 feet AMSL, or 80-100 feet below the current surface level. Phase I will yield approximately 4 million tons of material. It is anticipated that United Rock will extract an average of 1 million tons per year during Phase I based on expected demand for aggregate. (Refer to **Figure 2.0-12**).

Material extracted from the pit will be transported up the access road to the loading area by conveyor or off-road haul trucks and subsequently placed in overhead hoppers. Over-the-road haul trucks will be loaded at the hoppers through an automated process. Once loaded, over-the-road haul trucks will proceed approximately 3.8 miles to United Rock's existing processing plant located at 1245 E. Arrow Highway in Irwindale. This existing processing plant has adequate capacity to process all materials extracted from the Olive Pit. Trucks will reach this location by exiting the site at Los Angeles Street, turning north onto Azusa Canyon Road, then proceeding west on Arrow Highway to the URP processing plant. (**Figure 2.0-13**)

Phase I Reclamation (Anticipated 2020-2035)

Phase I reclamation will begin at the conclusion of the first extractive phase. Phase II extraction will commence and occur simultaneously with Phase I reclamation. Reclamation of Phase I will include filling the area according to the City of Irwindale's *Guidelines for Above-Water and Underwater Backfilling of Open-Pit Mines*. Prior to commencing fill operations, removal of disturbed and uncertified fill will occur and placement of compacted fill will be performed in a controlled manner. In addition, all fills deeper than 40 feet of the final elevation will be compacted to a minimum of 93 percent. Within the upper 40 feet from final finished grade, the fill shall be compacted to at least 90% relative compaction. Backfilling of Phase I will result in an approximate 32-acre pad with a 2:1 slope along the western margin. In total, more than 8-million cubic yards of fill will be required to complete phase 1 reclamation. All final fill slopes will be revegetated. (Refer to **Figure 2.0-14**)

CHAPTER 2.0 PROJECT DESCRIPTION

Backfill material will originate from the United Rock processing location where it is currently collected from various sources throughout the greater urban area, including construction demolition materials from construction projects associated with United Rock. United Rock trucks will exit the Olive Pit with a load of mined material from the Phase II extraction and return loaded from the processing plant with material to fill the pit.

Phase II Extraction (Anticipated 2020-2048)

Phase II extraction will begin after Phase I extraction is completed, and will occur concurrently with Phase I reclamation. Phase II consists of the remaining 137 acres of the site and is proposed to be extracted to 0 feet AMSL. A 4.7-acre pad will be developed at the base of the pit within the southwest corner of the site and will require approximately 207,600 cubic yards of fill. All fill will originate from on-site materials. The pad will serve as a collection point for aggregates mined in Phase II. During Phase II, all resources that occur above the water table will be extracted using a front end loader or excavator. When the water table is encountered, a dredge or other method adapted for underwater extraction (e.g., dragline or long reach excavator) will be used. Phase II extraction is expected to yield about 28-million tons. (**Figure 2.10-15**)

Phase II Reclamation (Anticipated 2048-2052)

Phase II reclamation will commence at the conclusion of Phase II extraction when the economically recoverable aggregate resources have been exhausted at the site. Currently, Phase II reclamation consists of 2:1 graded side slopes suitable to be utilized for flood control, storm water retention and/or a ground water recharge basin, and/or open space recreational land uses. Minimally, reclamation to any of the suggested end uses would involve stabilization of the final slopes and ensuring public safety through fencing and access restrictions.

Process of Extraction

Initially, material will be extracted through dry recovery; thereafter, the use of a dredge or other method for extracting material below the water table will be used. At present, the majority of the pit bottom is found at or below the high water table elevation (± 285 feet AMSL). The water table is known to rise and fall dependent upon season and precipitation cycles over a period of many years.

Equipment

Excavators and dredges will remain on the Olive Pit continuously throughout the period of operations; the remaining operational equipment (over-the-road haul trucks) will be parked at United Rock's existing operations offsite.

CHAPTER 2.0 PROJECT DESCRIPTION

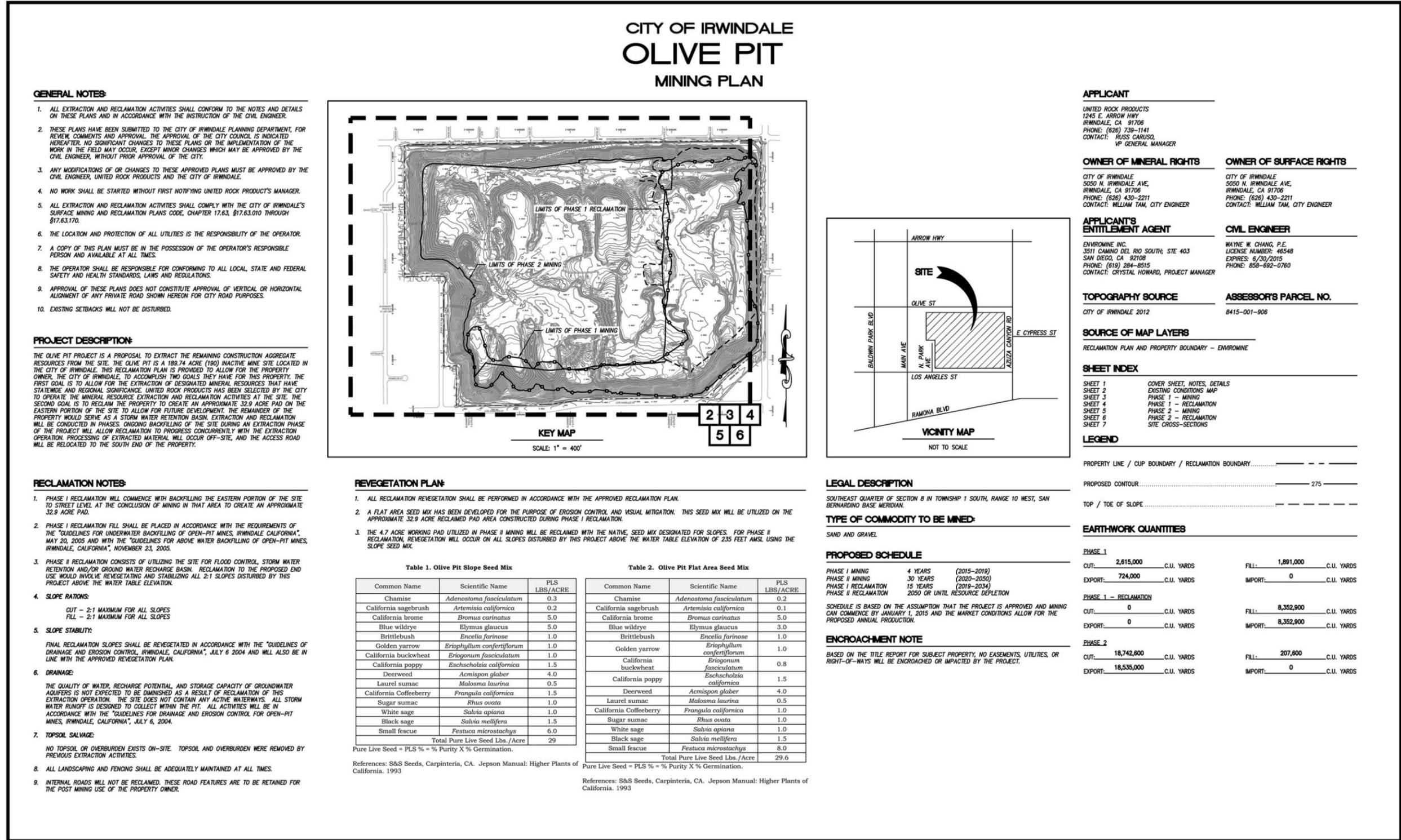
Phase 1 extraction and reclamation activities will utilize the following equipment:

- Cat 349 Excavator
- 3 each, Cat 769 Rock Truck (32 cy capacity)
- Water truck
- Road Grader (periodically)
- Cat 988, Utility loader
- Conveyor and loading hoppers
- Sweeper

Phase 2 extraction and reclamation activities will utilize the following equipment:

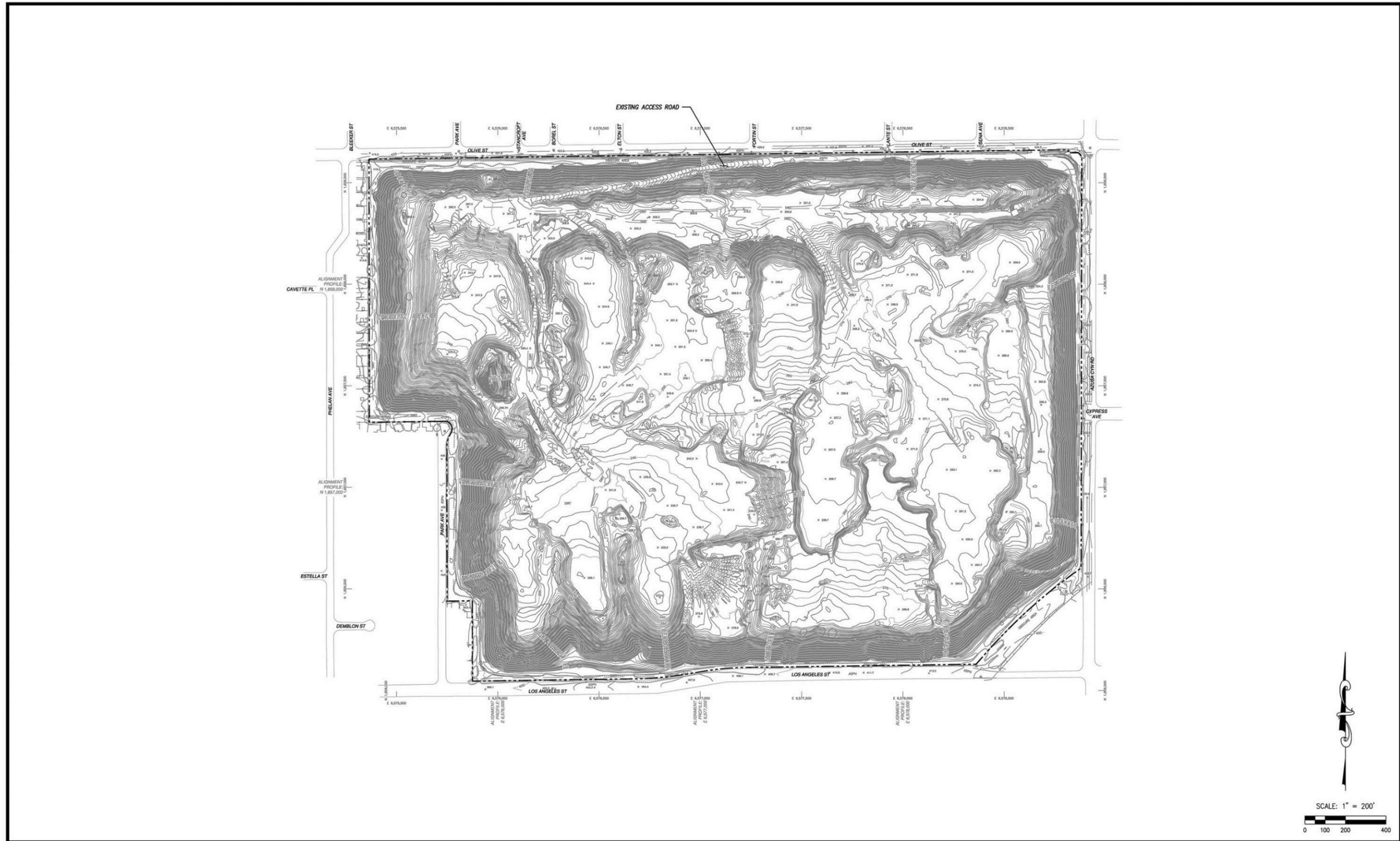
- Cat 345 Excavator
- 3 each, Cat 769 Rock Truck (32 cy capacity)
- Dredge or other method including drag line or cutter head will be used for below water extraction.
- Conveyor and loading hoppers.
- Water truck
- Road Grader (periodically)
- Cat 988, Utility loader
- Sweeper

Figure 2.0-12 Olive Pit Mining Plan



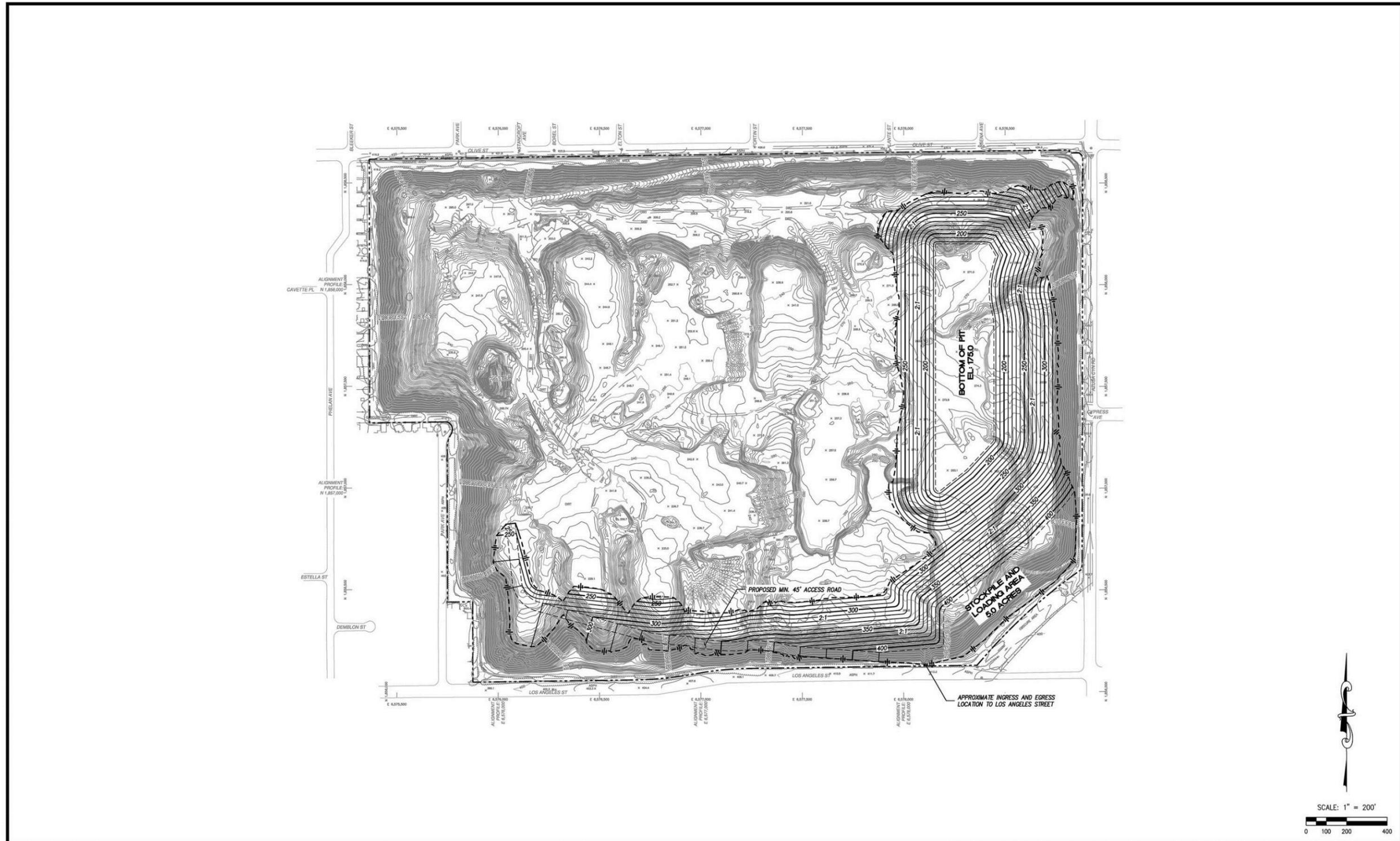
REVISIONS	REFERENCES	Chang Consultants Civil Engineering-Hydrology-Hydraulics-Sedimentation P.O. Box 9496 Rancho Santa Fe, CA 92667-4496 Tel: (951) 602-0700 Fax: (951) 602-1022 www.changconsultants.com	CITY OF IRWINDALE APPROVED BY: PUBLIC WORKS DIRECTOR / CITY ENGINEER DATE:	IRWINDALE COMMUNITY REDEVELOPMENT AGENCY OLIVE PIT COVER SHEET IRWINDALE, CALIFORNIA	DWG. NO. SHEET 1 OF 7																				
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr><th>NUMBER</th><th>DATE</th><th>INITIALS</th><th>DESCRIPTION</th><th>APPROVED</th></tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>	NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED																				
NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED																					

Figure 2.0-13 Existing Conditions Map



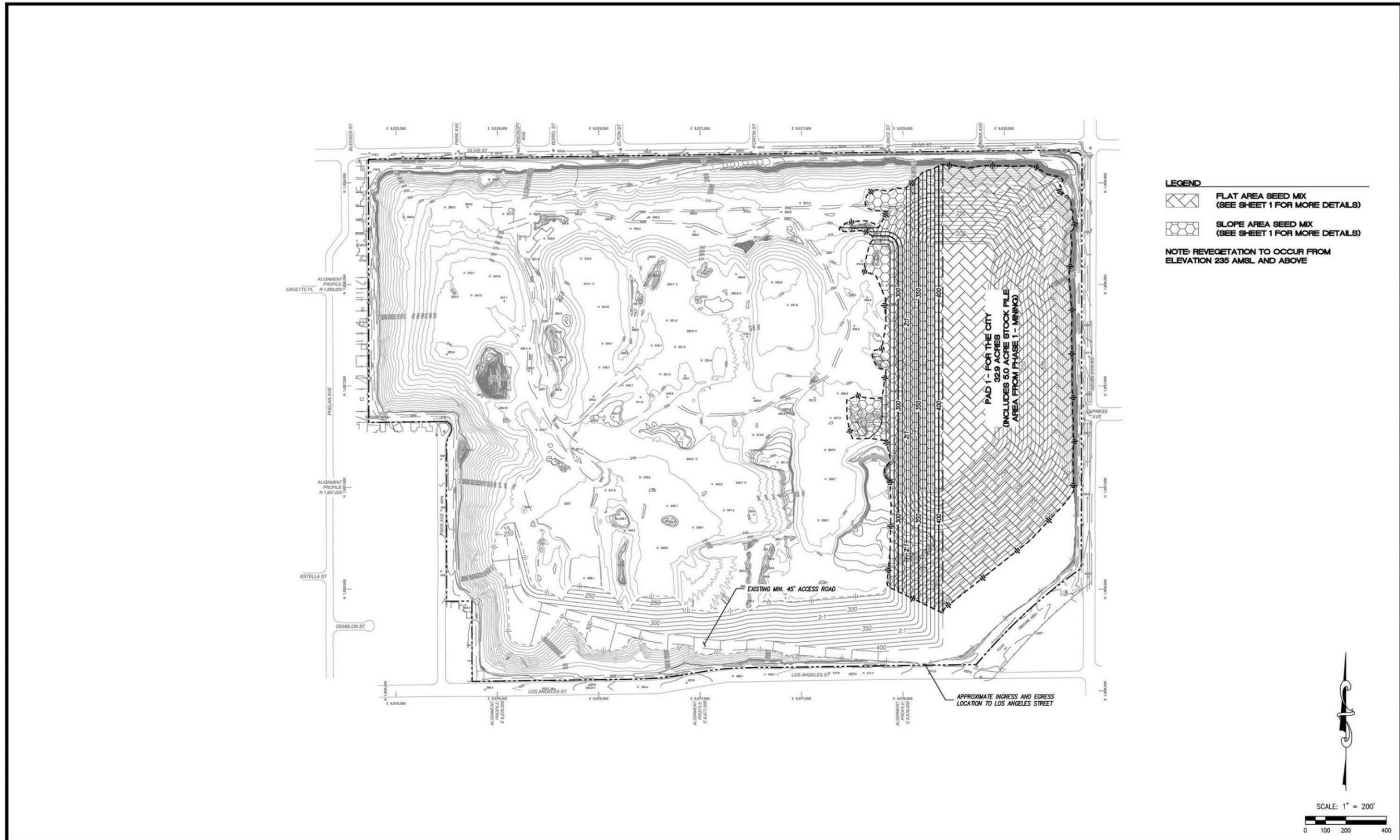
REVISIONS					REFERENCES			Chang Consultants Civil Engineering-Hydrology-Hydraulics-Sedimentation P.O. Box 9496 Rancho Santa Fe, CA 92067-4496 T: (951) 692-0760 F: (951) 832-1402 www.changconsultants.com	CITY OF IRVINDALE APPROVED BY : PUBLIC WORKS DIRECTOR / CITY ENGINEER DATE:	IRVINDALE COMMUNITY REDEVELOPMENT AGENCY		DWG. NO. SHEET 2 OF 7
NUMBER	DATE	INITIALS	DESCRIPTION	APPROVED	OLIVE PIT EXISTING CONDITIONS MAP IRVINDALE, CALIFORNIA							

Figure 2.0-14 Phase 1 - Mining



REVISIONS					REFERENCES			Chang Consultants Civil Engineering, Hydrology, Hydraulics, Sedimentation P.O. Box 9406 Rancho Santa Fe, CA 92067-4406 T: (951) 692-0760 Fax: (951) 692-1422 www.changconsultants.com	CITY OF IRVINDALE APPROVED BY: PUBLIC WORKS DIRECTOR / CITY ENGINEER DATE:	IRVINDALE COMMUNITY REDEVELOPMENT AGENCY		DWG. NO. SHEET 3 OF 7
NUMBER	DATE	INITIALS	DESCRIPTION	APP'D.	OLIVE PIT PHASE 1 - MINING IRVINDALE, CALIFORNIA							

Figure 2.0-15 Phase 1 - Reclamation

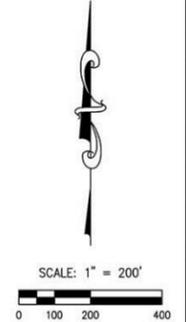


LEGEND

FLAT AREA SEED MIX (SEE SHEET 1 FOR MORE DETAILS)

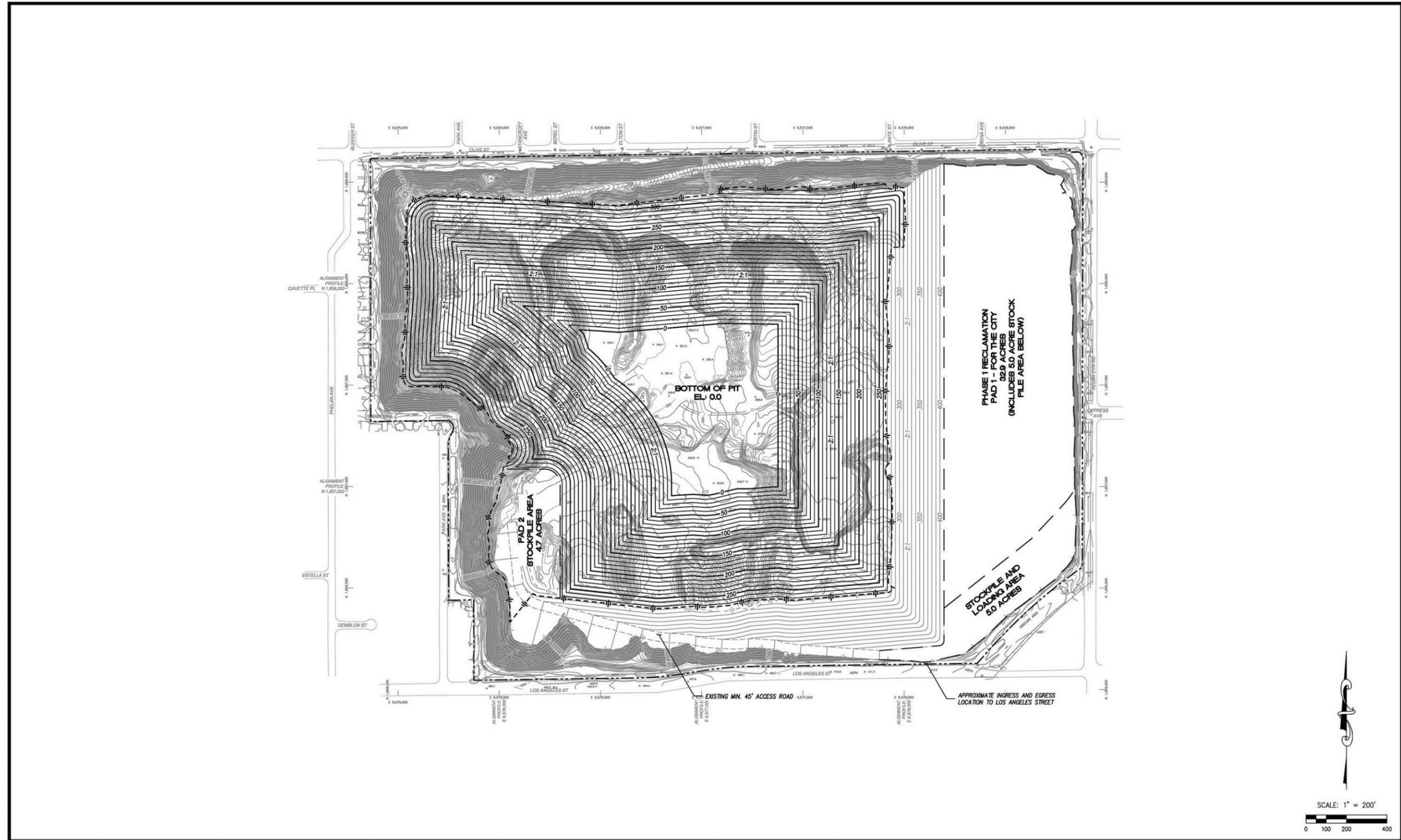
SLOPE AREA SEED MIX (SEE SHEET 1 FOR MORE DETAILS)

NOTE: REVEGETATION TO OCCUR FROM ELEVATION 235 AMSL AND ABOVE



REVISIONS					REFERENCES			Chang Consultants Civil Engineering-Hydrology-Hydraulics-Sedimentation P.O. Box 9496 T: (951) 892-0700 Rancho Santa Fe, CA 92667-4406 F: (951) 833-1402 wayne@changconsultants.com www.changconsultants.com	CITY OF IRVINDALE		IRVINDALE COMMUNITY REDEVELOPMENT AGENCY		DWG. NO.
NUMBER	DATE	INITIALS	DESCRIPTION	APPVD.	DESIGN BY:	CHECKED BY:			DATE:	PUBLIC WORKS DIRECTOR / CITY ENGINEER	PHASE 1 - RECLAMATION	IRVINDALE, CALIFORNIA	

Figure 2.0-16 Phase 2 - Mining



SCALE: 1" = 200'
 0 100 200 400

REVISIONS				
NUMBER	DATE	INITIALS	DESCRIPTION	APP'D.

REFERENCES	



Chang Consultants
 Civil Engineering-Hydrology-Hydraulics-Sedimentation
 P.O. Box 9486
 Rancho Santa Fe, CA 92067-4486
 T: (951) 952-0760 F: (951) 832-1402
 chang@changconsultants.com www.changconsultants.com

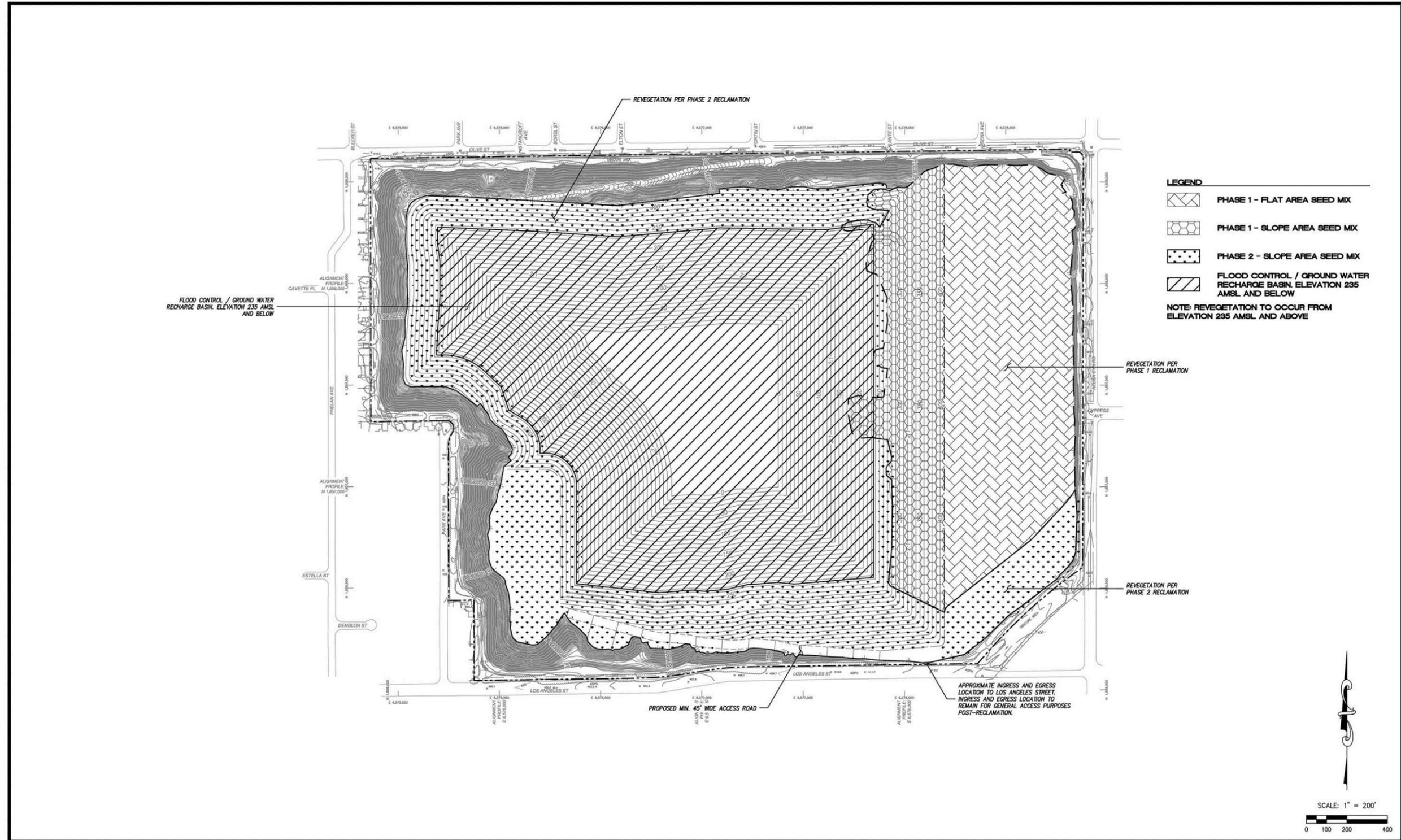
DESIGN BY: W.W.C.
 DRAWN BY: W.W.C.
 CHECKED BY: W.W.C.
 DRAWING FILE:

CITY OF IRVINDALE
 APPROVED BY: _____
 PUBLIC WORKS DIRECTOR / CITY ENGINEER
 DATE: _____

IRVINDALE COMMUNITY REDEVELOPMENT AGENCY
**OLIVE PIT
 PHASE 2 - MINING**
 IRVINDALE, CALIFORNIA

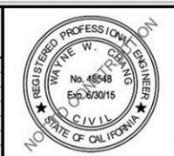
DWG. NO.
 SHEET 5 OF 7

Figure 2.0-17 Phase 2 - Reclamation



REVISIONS				
NUMBER	DATE	INITIALS	DESCRIPTION	APP'D.

REFERENCES	



Chang Consultants
 Civil Engineering Hydrology Hydraulic Sedimentation
 P.O. Box 9406
 Rancho Santa Fe, CA 92067-4406 T: (951) 612-0760
 Fax: (951) 612-1422
 www.changconsultants.com

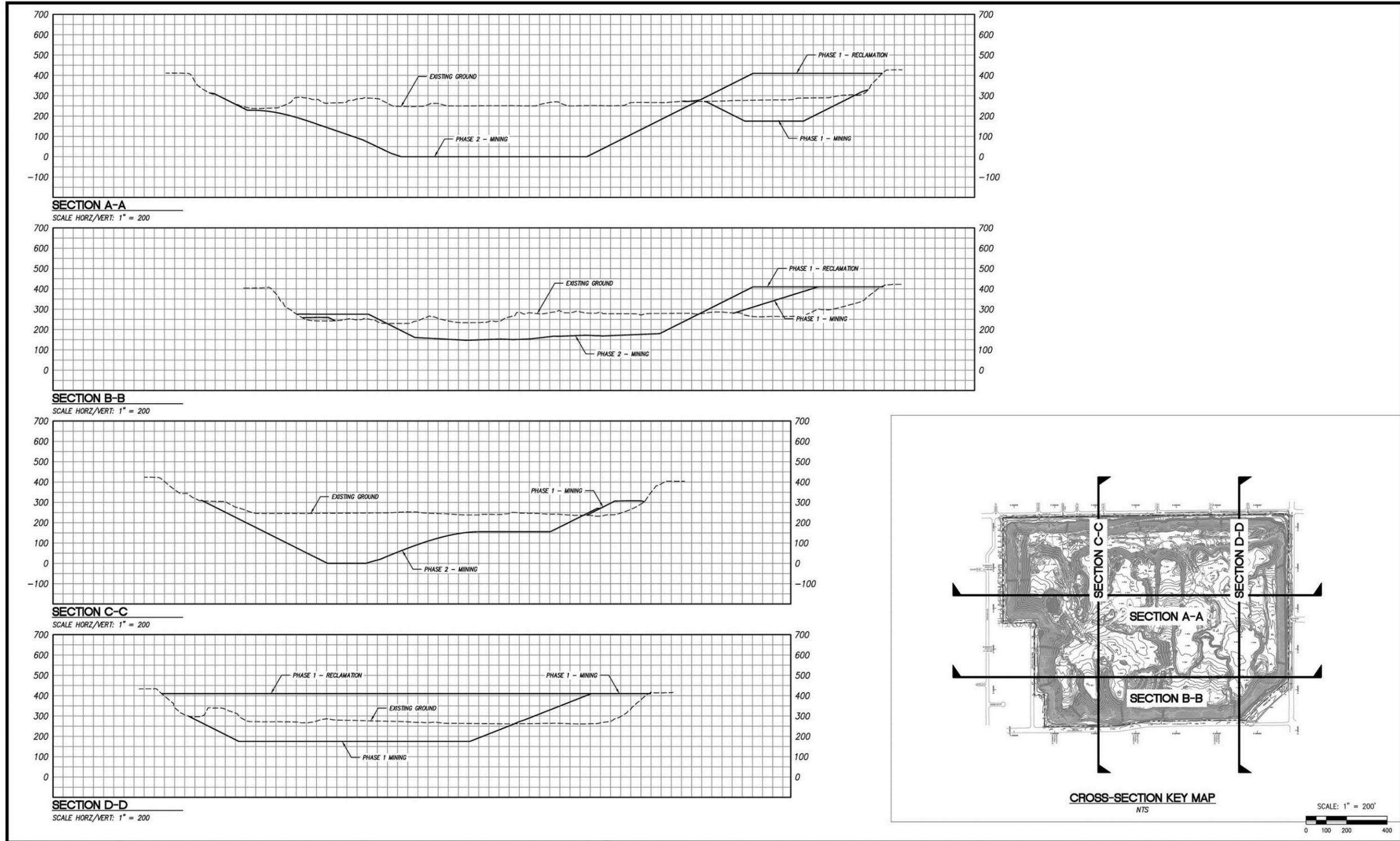
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 DRAWN BY: W.W.C.
 CHECKED BY: W.W.C.
 DRAWING FILE:

CITY OF IRVINDALE
 APPROVED BY: _____
 PUBLIC WORKS DIRECTOR / CITY ENGINEER
 DATE: _____

IRVINDALE COMMUNITY REDEVELOPMENT AGENCY
**OLIVE PIT
 PHASE 2 - RECLAMATION**
 IRVINDALE, CALIFORNIA

DWG. NO.
 SHEET 6 OF 7

Figure 2.0-18 Site Cross-Sections



REVISIONS				
NUMBER	DATE	INITIALS	DESCRIPTION	APP'D.

REFERENCES	



Chang Consultants
Civil Engineering Hydrology Hydraulics Sedimentation
P.O. Box 9406
Sancho Santa Fe, CA 92067-4406 T: (951) 602-0700
www@changconsultants.com F: (951) 632-1422
www.changconsultants.com

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DRAWN BY: W.W.C.
CHECKED BY: W.W.C.
DRAWING FILE:

CITY OF IRWINDALE
APPROVED BY: _____
PUBLIC WORKS DIRECTOR / CITY ENGINEER
DATE: _____

IRWINDALE COMMUNITY REDEVELOPMENT AGENCY
**OLIVE PIT
SITE CROSS-SECTIONS**
IRWINDALE, CALIFORNIA

DWG. NO.

SHEET 7 OF 7

CHAPTER 2.0 PROJECT DESCRIPTION

Hours of Operation

Construction of the new access road will occur six days a week (Monday through Saturday) from 7am to 7pm and is anticipated to take approximately one year to complete.

Extraction and reclamation activities at the Olive Pit will occur 6 days a week (Monday through Saturday) from 6:00AM to 6:00PM. Transportation to the processing plant will be conducted between 7:00AM and 5:00PM, Monday through Saturday.

Site Access and Circulation

As materials are extracted, aggregate will be transported from the pit to the loading area by off road haul trucks or conveyor, and subsequently placed in overhead hoppers. Over-the-road haul trucks will be loaded at the hoppers through an automated process. The trucks will then travel from the Olive Pit to United Rock's Pit No. 2 along Arrow Highway in Irwindale. All mined material will be transported off-site approximately 3.8 miles to Pit No. 2 (located at 1245 East Arrow Highway in Irwindale). The trucks will enter Pit No. 2 from Arrow Highway and then leave Pit No. 2 via Avenida Barbosa, returning to the Olive Pit site once emptied. Transport trucks will be parked overnight at the existing United Rock processing plant site.

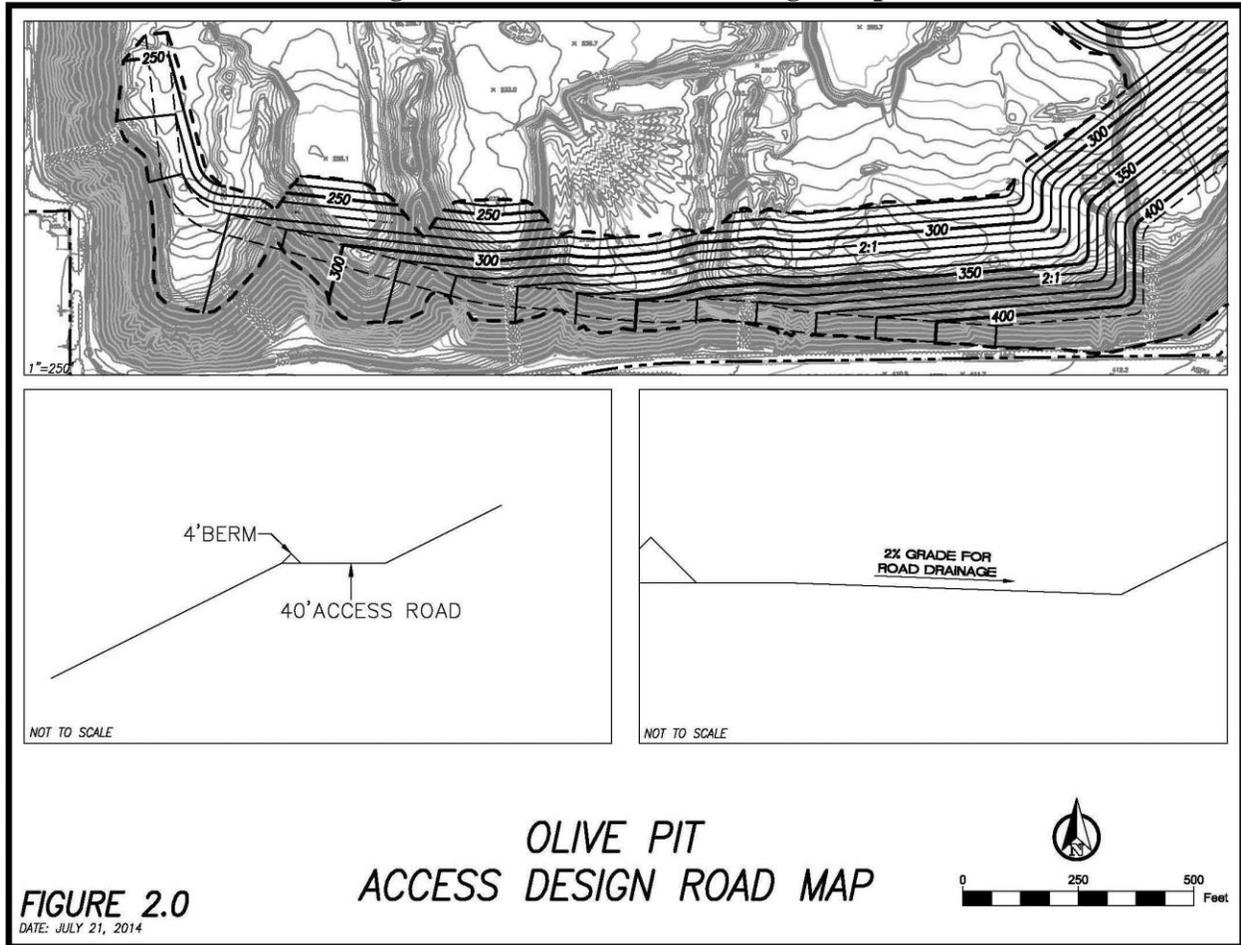
Once the materials have been transported to Pit No 2, the material will be sent over an existing underground conveyor approximately 500 feet, to the processing plant (United Rock Pit No. 4, also located at 1245 E Arrow Highway in Irwindale). This proposed transport route lies entirely within the City of Irwindale and will not utilize any City of Baldwin Park or City of West Covina streets or State highways. Refer to **Figure 2.0-20 Access Route to Processing Area**.

As shown in Table 2.0-1, some of the phases have extraction and backfilling operations running concurrently. During the Phase I extraction operations, there will be no materials imported to site for backfilling. During Phase I reclamation operations, material will be imported to the site as part of backfilling operations and concurrent Phase 2 extraction operations will occur with material being transported offsite for processing. During phase 2 reclamation operations, materials will be imported to the site for backfilling however, no materials will be extracted and exported offsite.

The project is expected to generate an estimated daily maximum of 131 round trips (262 one-way truck trips a day). Actual production may vary depending on demands and other market conditions.

CHAPTER 2.0 PROJECT DESCRIPTION

Figure 2.0-19 Access Road Design Map



CHAPTER 2.0 PROJECT DESCRIPTION

Figure 2.0-20 Access Route to Processing Area

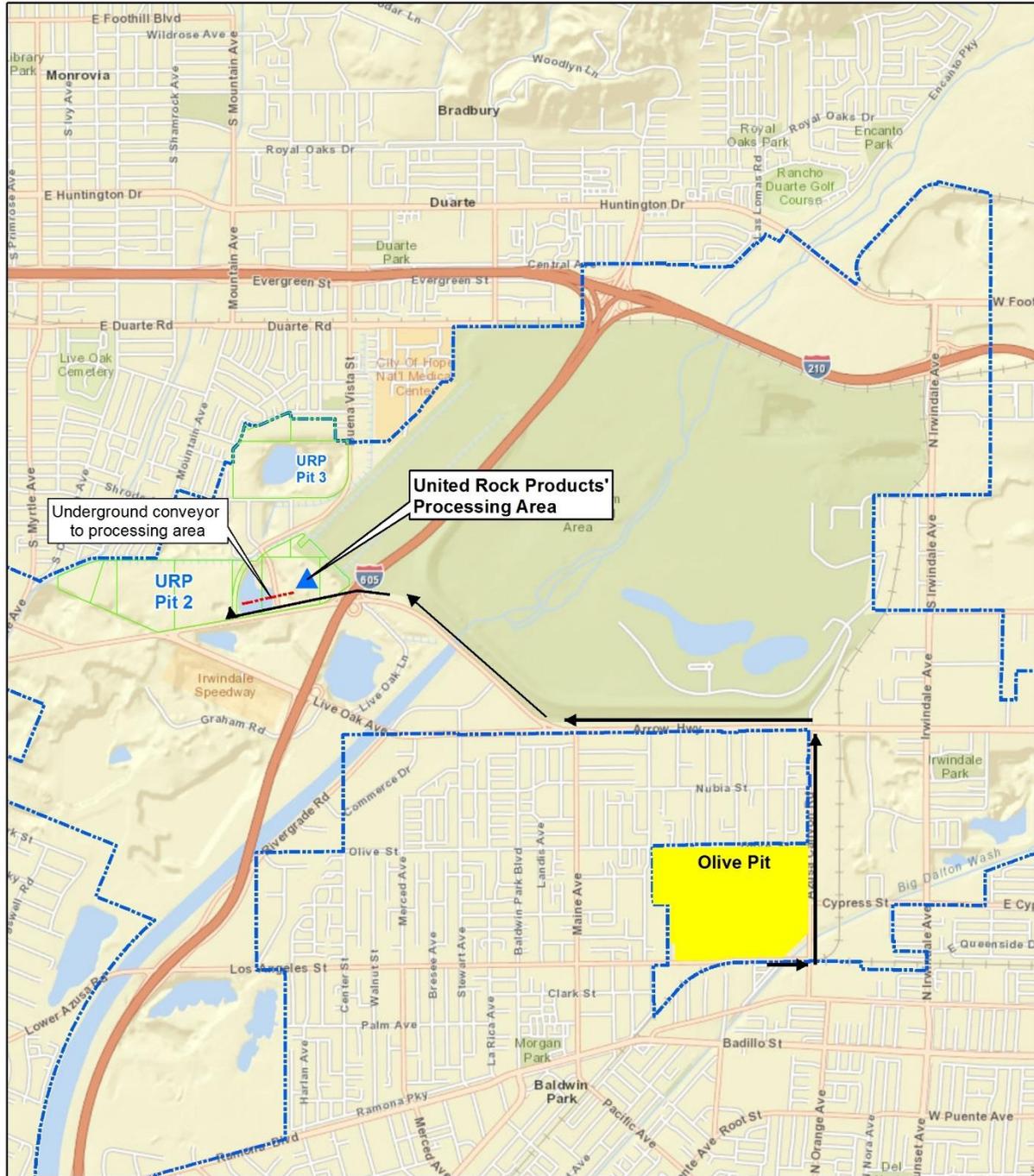
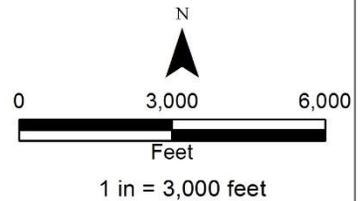


Figure 2.0-20

Access Route to Processing Area

- United Rock Parcels
- City of Irwindale Boundary
- Olive Pit Project



Notes: May 2014
Source: ESRI

CHAPTER 2.0 PROJECT DESCRIPTION

2.3 STATEMENT OF OBJECTIVES

Pursuant to State CEQA Guidelines §15124(b), the Project Description shall include a statement of objectives. These objectives assist the City in developing a reasonable range of alternatives to evaluate in the EIR, and aid the decision-makers in preparing findings or a statement of overriding considerations, if necessary. The objectives are designed to demonstrate the underlying purpose of the project. The City of Irwindale and United Rock Products have identified the following list of criteria as the objectives for the *Olive Pit Mining & Reclamation Project*.

City of Irwindale Project Objectives

- Recovery of aggregate materials by extraction of remaining resources that have been designated as a Regionally Significant Construction Aggregate Source by the State Mining and Geology Board (SMGB), identified as having statewide and regional significance.
- Extraction of all economically recoverable mineral resources from the Olive Pit to provide the Los Angeles Basin with construction aggregate materials.
- Reclamation of the Olive Pit property for use of a portion of the site for future land development that would provide economic development opportunities for the city, including providing jobs and/or tax revenue. The remainder of the site would be retained for public uses, such as a storm water retention, flood control facility, groundwater recharge basin, and/or open space recreational land uses¹.
- Reclamation of the Olive Pit site consistent with reclamation policies of the State Surface Mining and Reclamation Act (SMARA).
- Further the goals of the Irwindale General Plan policies, including the following:
 - *City of Irwindale General Plan, Resource Management Element Policy 4*; The City of Irwindale will continue to protect the use of the area's resources through appropriate land use controls and planning.
 - *City of Irwindale General Plan, Resource Management Element Policy 12*; The City recognizes the mineral information classified by the California State Geologist and incorporated by the State Mining and Geology Board into the State Mining and Geology Board Reclamation Regulations, at Section 3550.5 for

¹ Post-reclamation land use development(s) at the Olive Pit mine site is not a part of the Proposed Project. This project is limited to zoning to allow the extraction, and preparation of the site to a state that will allow future development. The project does not involve re-planning the project site. As such, the environmental analysis of the Proposed Project will be limited to potential impacts from the new access road, extraction, and the proposed reclamation plan. Future potential development, which may occur in 32 years is speculative at this point in time, and will be required to undergo independent environmental analysis pursuant to CEQA, as applicable at the time they are proposed. Any impacts from future development will be considered under growth-inducing impacts.

CHAPTER 2.0 PROJECT DESCRIPTION

Sectors D and E. Through measures in this Element, City will encourage the conservation and development of identified mineral deposits, subject to environmental considerations and the City's discretionary authority over land use entitlements.

- *City of Irwindale General Plan, Resource Management Element Policy 13*; The City will encourage environmental considerations and the City's discretionary authority over land use entitlements, the conservation and possible future extraction of areas classified by the State Geologist and designated by the State Mining and Geology Board Reclamation Regulations as regionally significant mineral deposits through designation of such areas under the City's Quarry Zone overlay or "Q Zone" and attendant standards and regulations.

United Rock Production Project Objectives

- Recovery of aggregate materials by extraction of remaining resources that have been designated as a Regionally Significant Construction Aggregate Source by the State Mining and Geology Board (SMGB), identified as having statewide and regional significance.
- Extraction of all economically recoverable mineral resources from the Olive Pit to provide the Los Angeles Basin with construction aggregate materials.
- Maintenance of United Rock's existing customer base by supplying aggregate resources from production sites within its market area (LA basin). This is important because it reduces regional traffic congestion, air quality impacts and road maintenance requirements.
- Extend the life of existing processing equipment, thus preventing the requirement to construct similar facilities at other sites.
- Maintain existing work force.

2.4 INTENDED USES OF THE EIR

It is the intent of this EIR to enable the City of Irwindale's City Council to evaluate the potential environmental impacts of the proposed project, thereby enabling informed decisions with respect to the requested entitlements.

State CEQA Guidelines §15124(d) directs that the Project Description include identification of agencies expected to use the EIR in their decision-making process; a list of permits and other approvals required to implement the project; and a list of related environmental review and consultation requirements required by federal, state or local laws, regulations or policies. The anticipated approvals / permits / agreements required for the proposed project are summarized in

CHAPTER 2.0 PROJECT DESCRIPTION

Table 2.0-2 Approvals / Agreements / Permits Anticipated for the Olive Pit Mining & Reclamation Project.

In addition, there may be some public agencies that may have an interest in the proposed project, and that may rely upon this CEQA process as a basis for their decision-making process. The list of responsible and/or trustee agencies may include, but is not limited to the:

- Main San Gabriel Basin Water Master,
- South Coast Air Quality Management District,
- California Department of Fish and Wildlife, and
- California Department of Conservation, Office of Mine Reclamation.

The City of Irwindale will review the proposed project for the following entitlements:

Consistency Zone Change – Zone Change No. 01-2014

This project proposes this change request to comply with the City’s existing General Plan land use designation of the site (Quarry Overlay Residential Commercial). The site is currently zoned for Agriculture and will need to be modified to reflect the land use designation and actions of the project. The project requests a zone change to Quarry Zone.

Conditional Use Permit – Conditional Use Permit No. 01-2014

The following activities are included in the CUP application:

1. Installing a traffic signal at Los Angeles Street to ensure safe and efficient ingress and egress.
2. Phase I extraction will extend to 175 feet AMSL with 2:1 slopes within 52 acres of the eastern edge of the property.
3. Phase I Reclamation will include backfilling the phase I extraction area to create an approximate 32-acre pad with a 2:1 slope on the west.
4. Phase II extraction will include placement of a 4.7-acre pad at the base of the access road for staging and dewatering of dredge material, when necessary.
5. Phase II extraction will begin with the recovery of all resources occurring above the water table through the use of dry recovery methods. Extraction of resources found below the water table, to elevation 0 feet AMSL, will follow. A dredge or other method will be used for sub-aqueous operations.
6. Average annual production levels are expected to be approximately 1 million tons.
7. Anticipated truck traffic will be approximately 262 daily truck trips (131 out bound loads).

CHAPTER 2.0 PROJECT DESCRIPTION

Licensing Agreement

A licensing agreement is a legal contract between two parties, known as the licensor and the licensee (in this case, the City and United Rock Products). In the proposed license, the City will permit the Applicant the right to come on the subject property and extract minerals and the Applicant will agree to certain limitations and obligations in exchange, including reclamation of the subject site.

**Table 2.0-2 Approvals / Agreements / Permits Anticipated
for the Olive Pit Extraction & Reclamation Project**

Agency	Approval / Agreement / permit
City of Irwindale	<ul style="list-style-type: none">✓ Consistency Zone Change✓ Conditional Use Permit✓ Licensing Agreement✓ Reclamation Plan/Financial Assurances
Department of Conservation, Office of Mine Reclamation	Review of Reclamation Plan/Financial Assurances
South Coast Air Quality Management District (East San Gabriel Valley)	Stationary Equipment Air Permit
California Department of Industrial Relations, Division of Occupational Safety and Health	Work area design approval
Main San Gabriel Basin Watermaster	Approval of mining and Reclamation Plan
Los Angeles County Health Department	Inert debris fill permit