

GRANITE CONSTRUCTION COMPANY

COALINGA MINE EXPANSION PROJECT

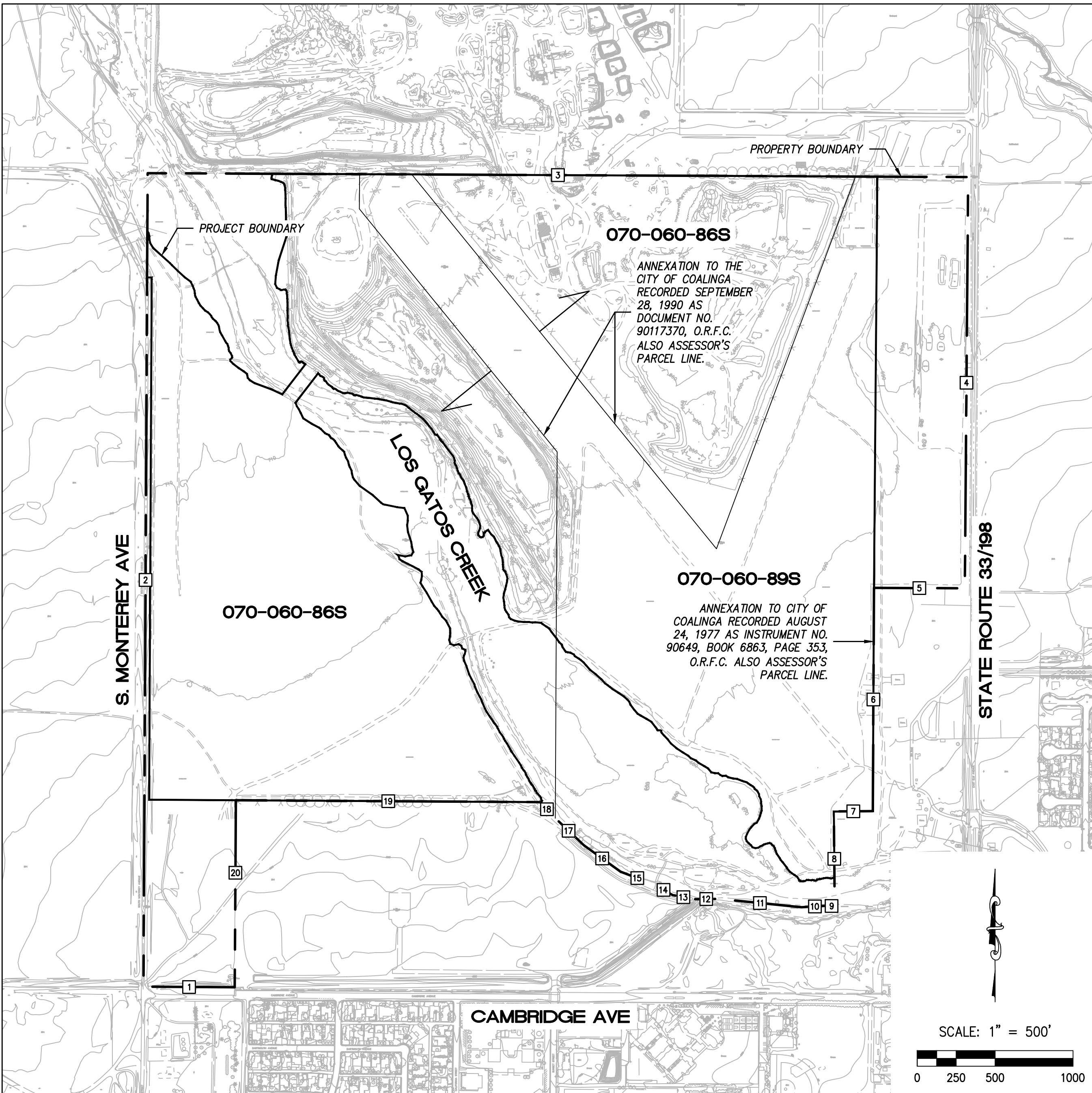
COUNTY OF FRESNO
CITY OF COALINGA

PROPERTY LINE METES AND BOUNDS				
NO.	DELTA OR BRG.	RADIUS(ft)	LENGTH(ft)	REMARKS
1	N89°32'31"E	-----	585.65	*
2	N00°31'17"W	-----	5269.47	*
3	N89°27'27"E	-----	5274.10	*
4	S00°20'54"E	-----	2638.50	*
5	S89°29'54"W	-----	583.02	*
6	N00°17'29"E	-----	1432.57	**
7	N89°28'43"E	-----	250.07	**
8	N00°31'22"W	-----	608.23	**
9	N83°58'01"W	-----	39.97	**
10	N85°42'59"E	-----	174.62	*
11	S85°00'22"E	-----	534.12	*
12	N88°15'38"E	-----	157.61	*
13	S80°00'13"E	-----	138.64	*
14	S60°49'46"E	-----	137.20	*
15	S70°04'16"E	-----	231.95	*
16	S54°57'25"E	-----	289.01	*
17	S47°25'00"E	-----	270.31	*
18	S42°42'33"E	-----	118.28	*
19	N89°32'21"E	-----	1955.92	*
20	N00°27'16"W	-----	1200.00	*

* METES AND BOUNDS ARE PER FEBRUARY 2007 ALTA/ACSM LAND TITLE SURVEY BY MOPHEETERS AND ASSOCIATES, INC. PROJECT BOUNDARY SHOWN ON THESE PLANS IS APPROXIMATED FROM ALTA SURVEY.
** METES AND BOUNDS ESTIMATED FROM CAD FILE



VICINITY MAP
NOT TO SCALE



SITE OVERVIEW MAP
SCALE: 1" = 500'

OWNER/OPERATOR/APPLICANT

GRANITE CONSTRUCTION COMPANY
ATTN: CANDICE LONGNECKER
2716 GRANITE COURT
FRESNO, CA 93706
PHONE: 559-441-5700

ENGINEER

CHANG CONSULTANTS
WAYNE CHANG, PE
P.O. BOX 9496
RANCHO SANTA FE, CA 92067-4496
MOBILE: 858-692-0760
FAX: 858-832-1402

TOPOGRAPHY SOURCE

PREPARED BY:
VERTICAL MAPPING RESOURCES, INC.
193 BLUE RAVINE ROAD, SUITE 150
FOLSOM, CA 95630
PHONE: 916-817-1486
FAX: 916-817-1487

PHOTO DATE: SEPTEMBER 30, 2014

**ASSESSOR'S
PARCEL NUMBERS**

APN 07006086S (FRESNO COUNTY) AND
APN 07006089S (CITY OF COALINGA)

LEGAL DESCRIPTION

A PORTION OF SECTION 29, TOWNSHIP 20 SOUTH, RANGE 15 EAST, MOUNT DIABLO BASE AND MERIDIAN, ACCORDING TO THE OFFICIAL PLAT THEREOF;

NOTES

- PROJECT BOUNDARY INCLUDES THE MINING AREA, SETBACK AREAS, NOISE CONTROL BERMS, AND PERIMETER ACCESS ROADS.
- THE LOS GATOS CREEK 100-YEAR FLOODPLAIN SHOWN ON THESE PLANS WAS OBTAINED FROM THE ANALYSIS IN CHANG CONSULTANTS JULY 16, 2015 REPORT, "HYDROLOGIC AND HYDRAULIC ANALYSES FOR GRANITE CONSTRUCTION COMPANY'S COALINGA MINE EXPANSION PROJECT." MINING SETBACKS FROM EXISTING FLOODPLAIN WERE BASED ON HYDRAULIC RESULTS AND VARY (50 FEET MINIMUM FROM NEW EXCAVATION AREAS).
- THE PROJECT AND PROPERTY BOUNDARIES COINCIDE ALONG METES AND BOUNDS ITEMS 6, 7, AND 19 AS WELL AS A PORTION OF ITEMS 2, 3, AND 8.
- FINAL MINING FOOTPRINT, SLOPES AND DEPTH MAY VARY DEPENDING ON FIELD CONDITIONS. ACCESSIBILITY OF PRODUCT, MARKET CONDITIONS, ABILITY OF OPERATOR TO MINE AND MEET THE RECLAMATION REQUIREMENTS, AND MARKET DEMAND.

LEGEND

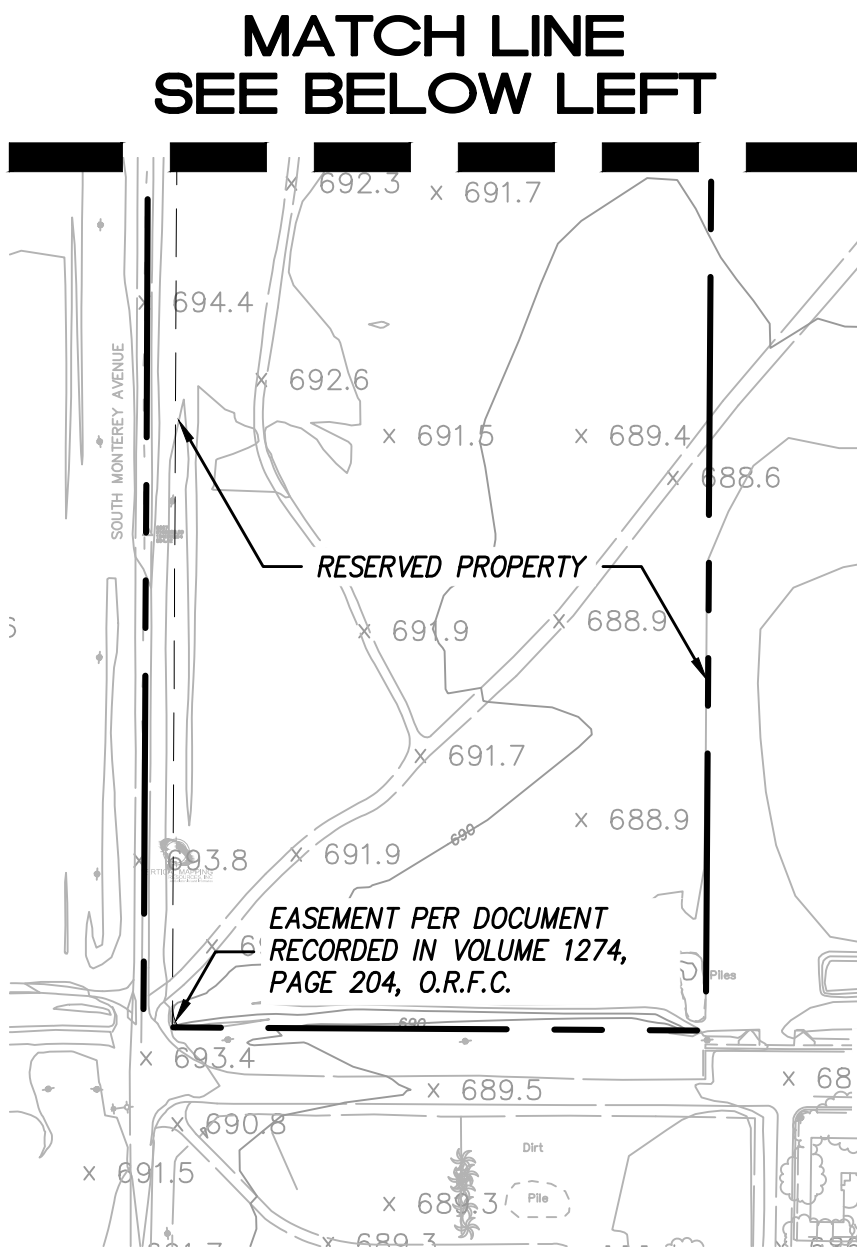
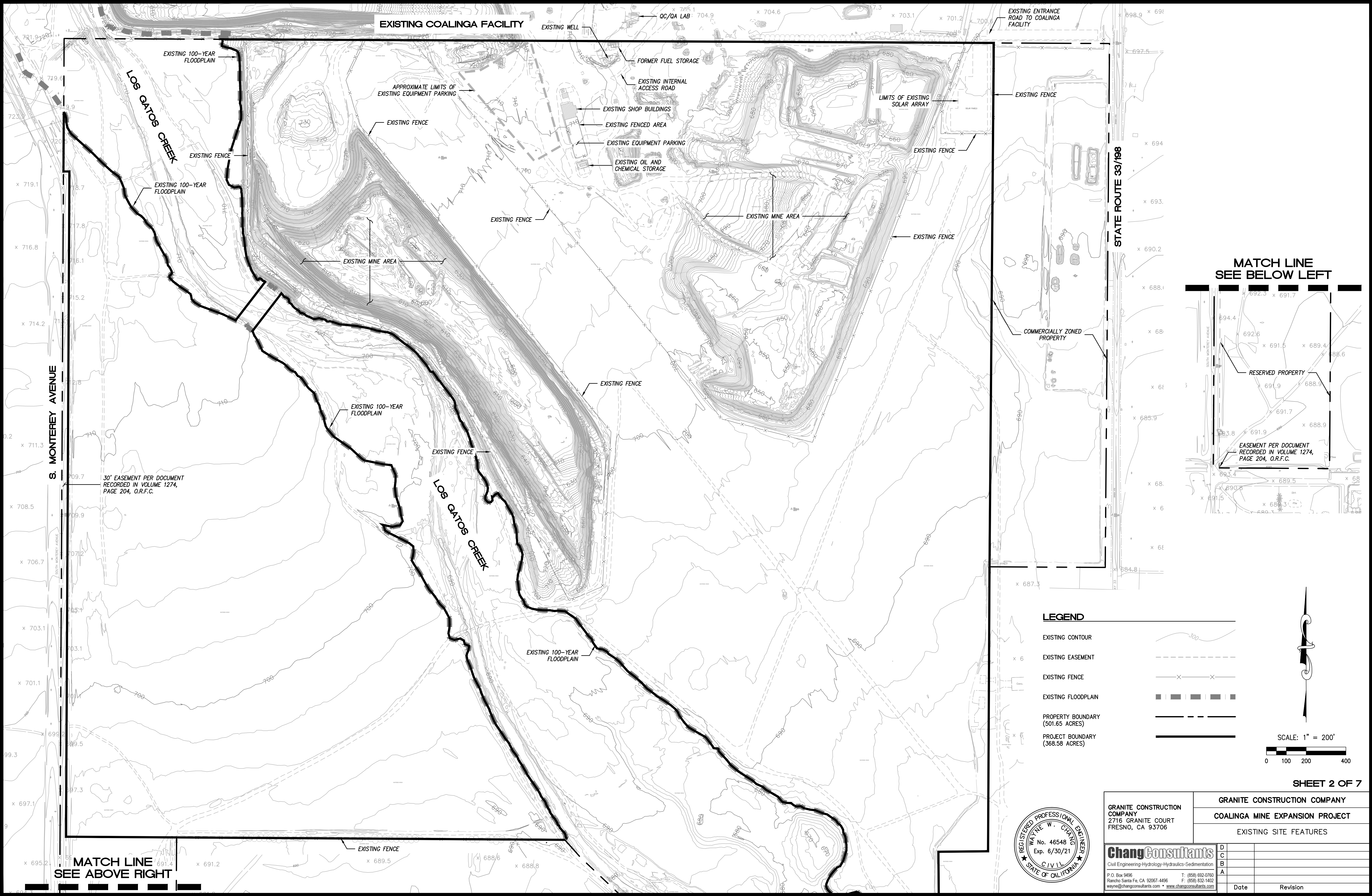
EXISTING CONTOUR	
PARCEL BOUNDARY (501.65 ACRES)	
PROPERTY BOUNDARY (501.65 ACRES)	
PROJECT BOUNDARY (368.58 ACRES)	

SHEET INDEX

SHEET 1	TITLE SHEET
SHEET 2	EXISTING SITE FEATURES
SHEET 3	MINE PHASING OVERVIEW
SHEET 4	MINING PLAN
SHEET 5	MINING PLAN CROSS-SECTIONS
SHEET 6	RECLAMATION PLAN
SHEET 7	RECLAMATION PLAN CROSS-SECTIONS

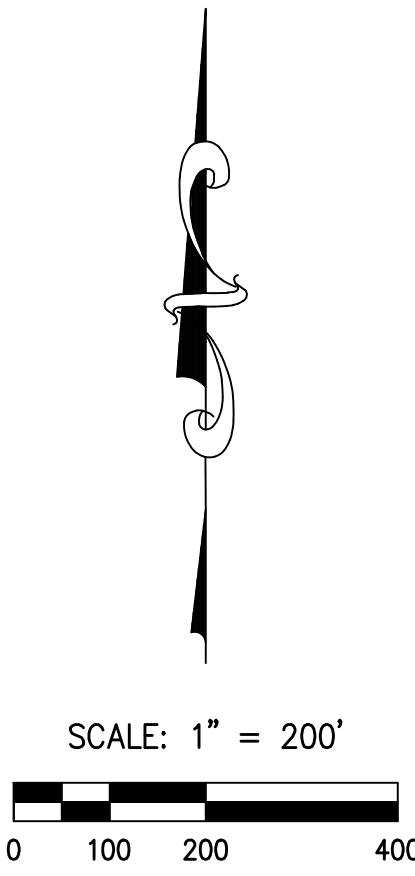


GRANITE CONSTRUCTION COMPANY	
COALINGA MINE EXPANSION PROJECT	
TITLE SHEET	
ChangConsultants	D
Civil Engineering-Hydrology-Hydraulics-Sedimentation	C
P.O. Box 9496	B
Rancho Santa Fe, CA 92067-4496	A
Wayne@changconsultants.com • www.changconsultants.com	
Date	Revision



LEGEND

- EXISTING CONTOUR
- EXISTING EASEMENT
- EXISTING FENCE
- EXISTING FLOODPLAIN
- PROPERTY BOUNDARY (501.65 ACRES)
- PROJECT BOUNDARY (368.58 ACRES)



SHEET 2 OF 7

GRANITE CONSTRUCTION COMPANY
2716 GRANITE COURT
FRESNO, CA 93706

GRANITE CONSTRUCTION COMPANY
COALINGA MINE EXPANSION PROJECT
EXISTING SITE FEATURES

ChangConsultants
Civil Engineering-Hydrology-Hydraulics-Sedimentation
P.O. Box 9496
Rancho Santa Fe, CA 92067-4496
www.changconsultants.com

D
C
B
A

Date

Revision



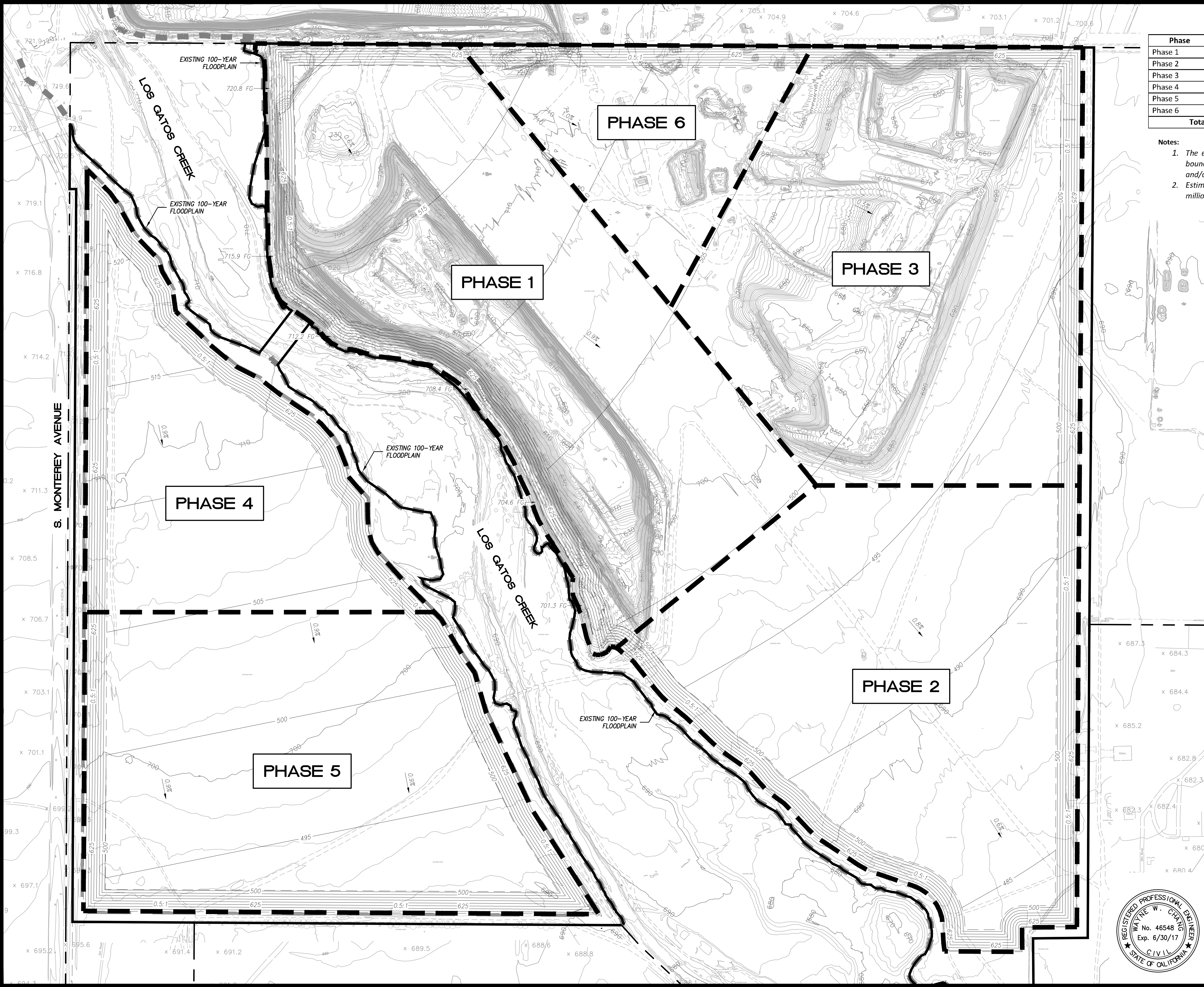
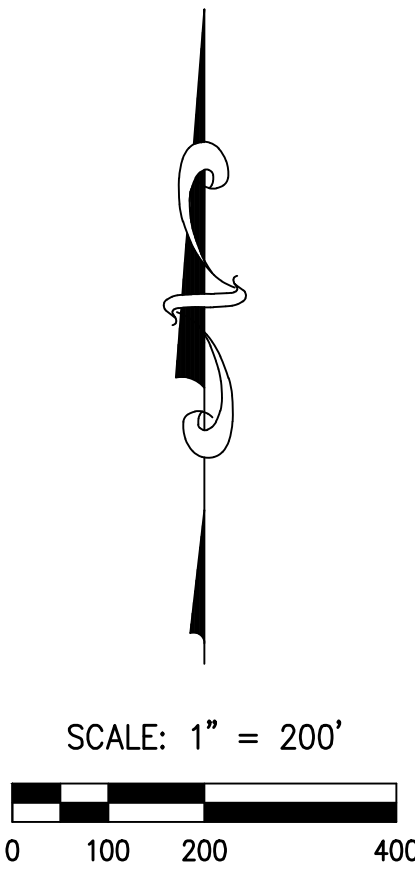
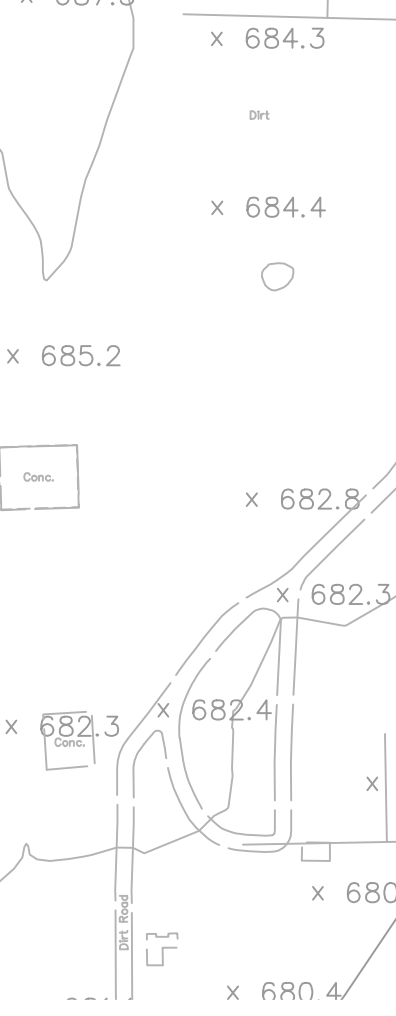


TABLE 1 ESTIMATED PROJECT PHASING			
Phase	Est. Acres	Est. Tons (millions)	Est. Years to Completion
Phase 1	78	19	13
Phase 2	79	22	15
Phase 3	74	20	13
Phase 4	46	6	4
Phase 5	69	9	6
Phase 6	22	6	4
Total	368	82	55

- Notes:
1. The estimated project phasing is provided only as a guideline. Actual phasing depths, boundaries, quantities and timelines may be affected by unforeseen changes in geology and/or market conditions.
 2. Estimated years to completion calculated using historical average production rate of 1.5 million tons/year.

LEGEND	
EXISTING CONTOUR	
EXISTING EASEMENT	
EXISTING FLOODPLAIN	
PROPOSED MINING CONTOUR	
PHASE BOUNDARY	
PROPERTY BOUNDARY (501.65 ACRES)	
PROJECT BOUNDARY (368.58 ACRES)	

NOTE
FINAL MINING FOOTPRINT, SLOPES AND DEPTH MAY VARY DEPENDING ON FIELD CONDITIONS, ACCESSIBILITY OF PRODUCT, MARKET CONDITIONS, ABILITY OF OPERATOR TO MINE AND MEET THE RECLAMATION REQUIREMENTS, AND MARKET DEMAND.



GRANITE CONSTRUCTION COMPANY
2716 GRANITE COURT
FRESNO, CA 93706

GRANITE CONSTRUCTION COMPANY
COALINGA MINE EXPANSION PROJECT
MINE PHASING OVERVIEW

ChangConsultants

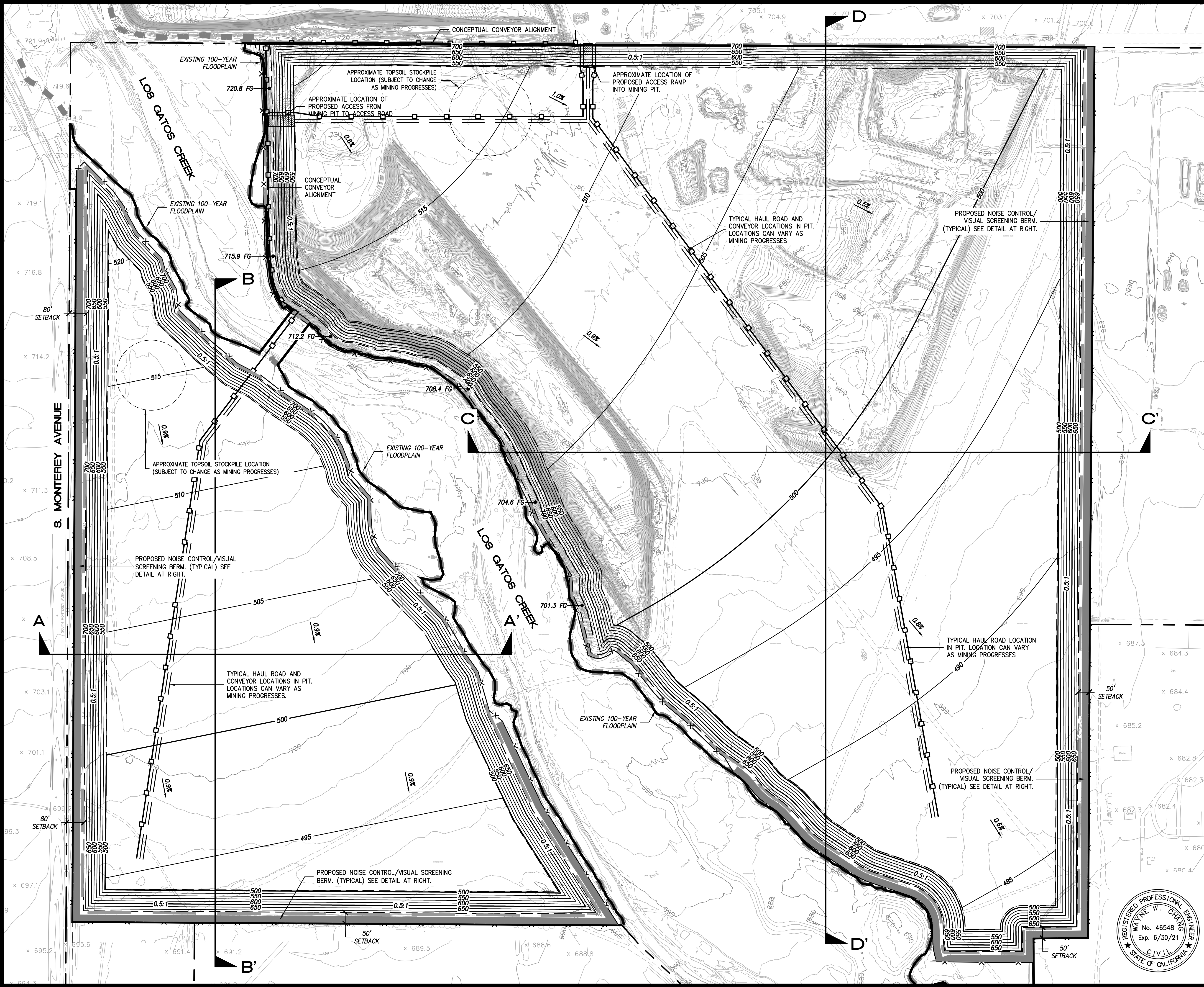
Civil Engineering-Hydrology-Hydraulics-Sedimentation

P.O. Box 9496
Rancho Santa Fe, CA 92067-4496
Wayne@changconsultants.com • www.changconsultants.com

D
C
B
A

Date

Revision



LEGEND

EXISTING CONTOUR

EXISTING 100-YEAR FLOODPLAIN

EXISTING EASEMENT

PROPERTY BOUNDARY (501.65 ACRES)

PROJECT BOUNDARY (368.58 ACRES)

PROPOSED CONTOUR

PROPOSED TOP/TOE OF SLOPE

MIN. 4' HIGH 3-STRAND BARBED WIRE PERIMETER FENCE OR EQUIVALENT

TYPICAL HAUL ROAD

PROPOSED CONCEPTUAL CONVEYOR ALIGNMENT

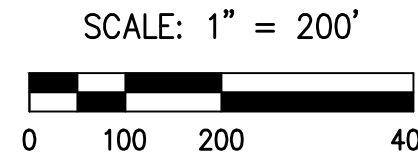
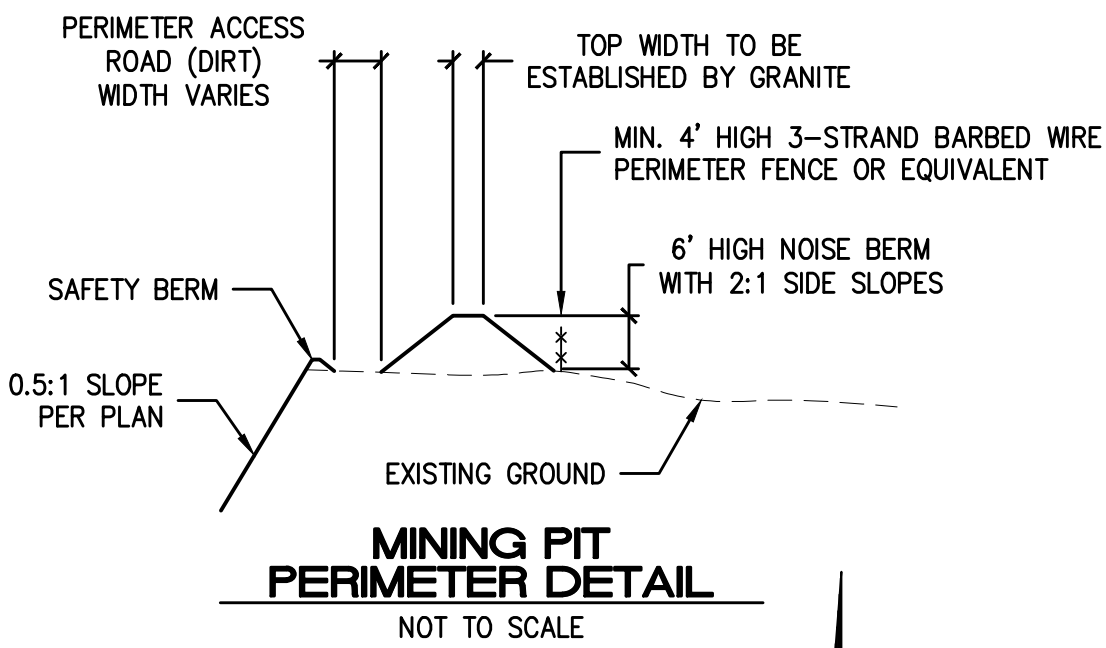
PROPOSED NOISE CONTROL/VISUAL SCREENING BERMS

PROPOSED ACCESS RAMP

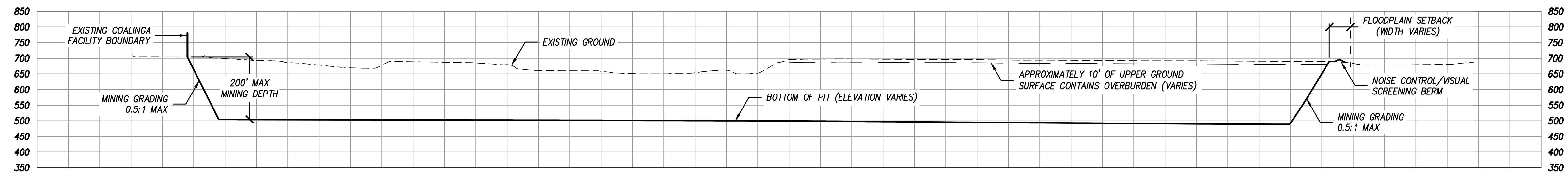
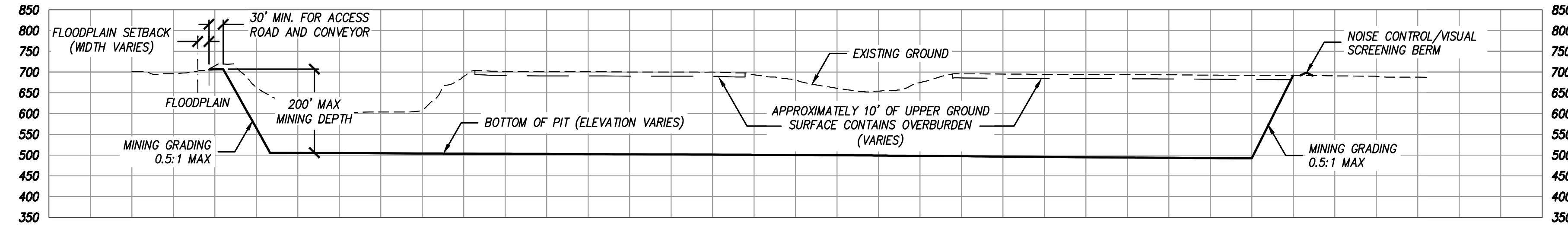
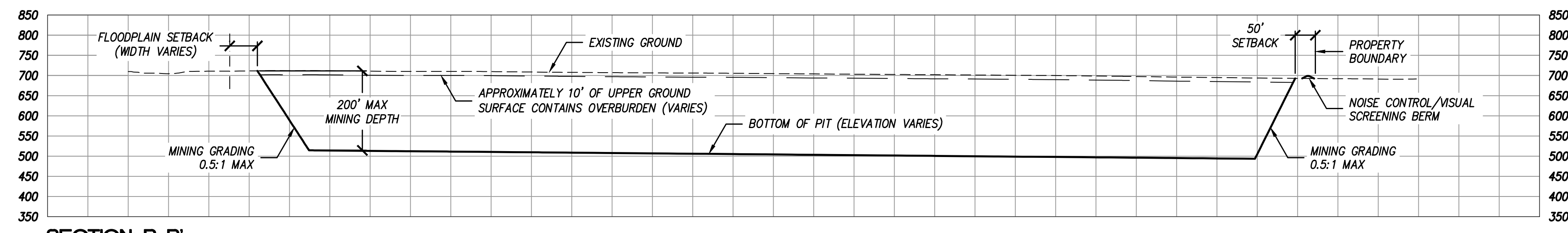
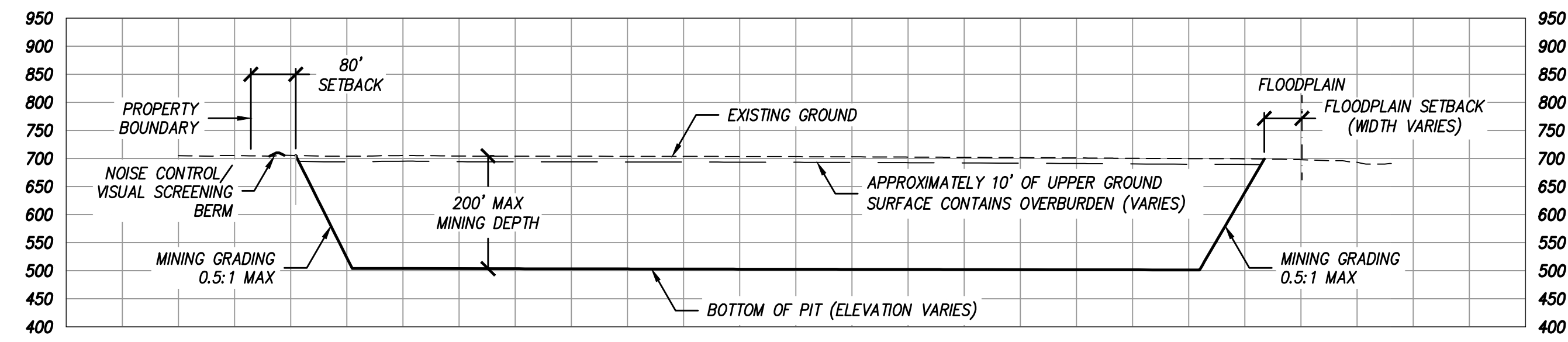
PROPOSED PERIMETER ACCESS ROAD (DIRT)

FINISHED GRADE SPOT ELEVATION

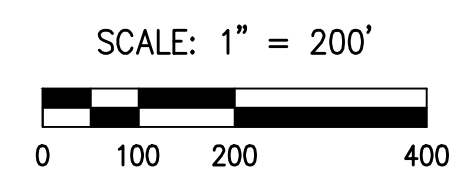
- NOTES**
1. FINAL MINING FOOTPRINT, SLOPES AND DEPTH MAY VARY DEPENDING ON FIELD CONDITIONS, ACCESSIBILITY OF PRODUCT, MARKET CONDITIONS, ABILITY OF OPERATOR TO MINE, AND MEET THE RECLAMATION REQUIREMENTS, AND MARKET DEMAND.
 2. INTERNAL HAUL ROADS ARE SHOWN IN APPROXIMATE LOCATION AND MAY CHANGE THROUGHOUT THE LIFE OF THE PROJECT.
 3. CREEK CROSSING MAY CONSIST OF AN ELEVATED CONVEYOR, LOW-FLOW CROSSING, RAILCAR BRIDGE OR SIMILAR.
 4. MINIMUM 50-FOOT MINING SETBACKS FROM LOS GATOS CREEK FLOODPLAIN FOR NEW EXCAVATION AREAS PER PROJECT HYDRAULIC ANALYSIS.



GRANITE CONSTRUCTION COMPANY 2716 GRANITE COURT FRESNO, CA 93706		GRANITE CONSTRUCTION COMPANY	
		COALINGA MINE EXPANSION PROJECT	
		MINING PLAN	
ChangConsultants Civil Engineering-Hydrology-Hydraulics-Sedimentation P.O. Box 9496 T: (558) 682-0760 Rancho Santa Fe, CA 92067-4496 F: (558) 632-1402 wayne@changconsultants.com www.changconsultants.com		D C B A	Date Revision



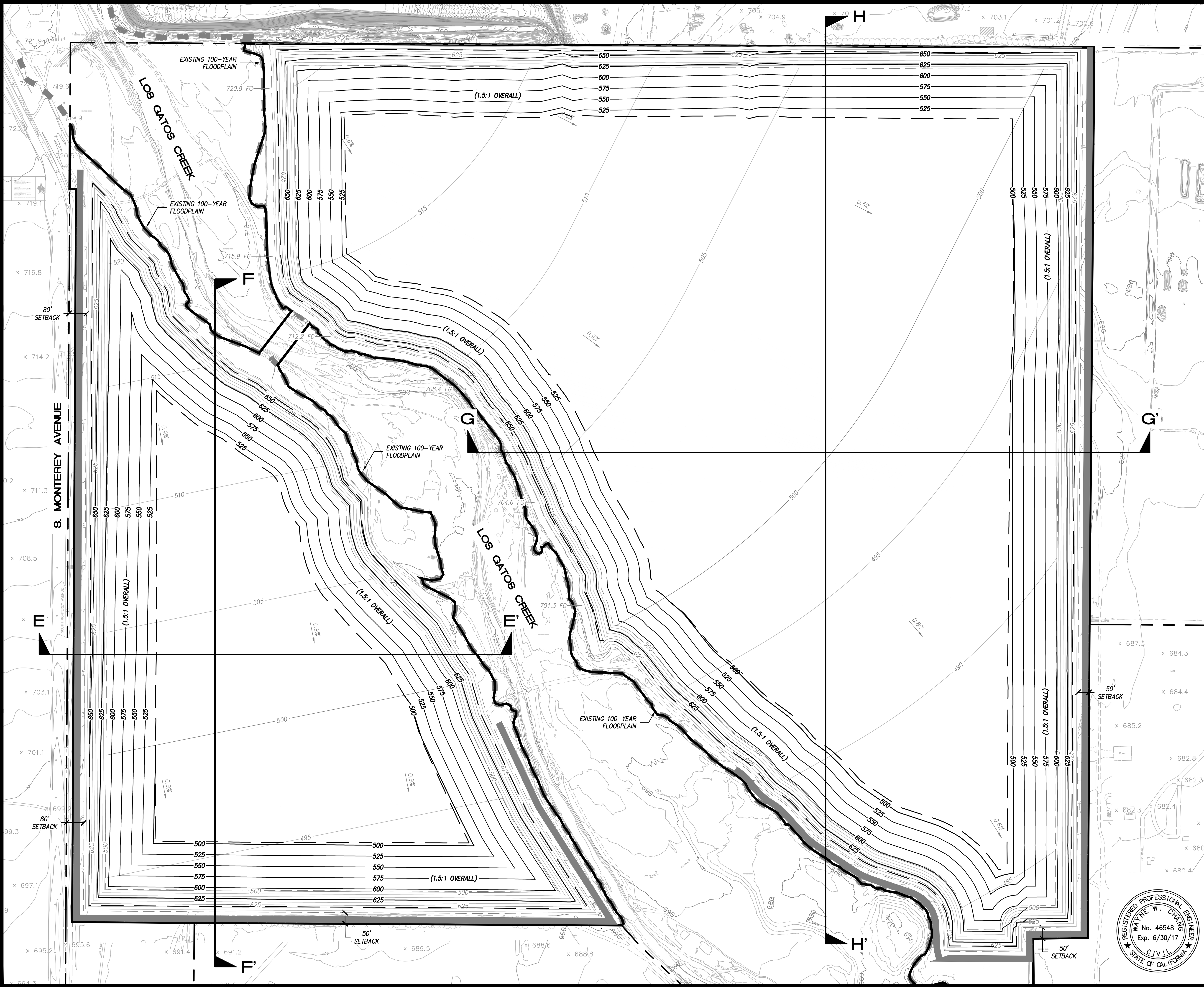
- NOTES**
- GROUNDWATER DEPTHS ARE GENERALLY 100 FEET ON AVERAGE OR MORE BELOW PROPOSED BOTTOM OF PITS.
 - FINAL MINING FOOTPRINT, SLOPES AND DEPTH MAY VARY DEPENDING ON FIELD CONDITIONS, ACCESSIBILITY OF PRODUCT, MARKET CONDITIONS, ABILITY OF OPERATOR TO MINE AND MEET THE RECLAMATION REQUIREMENTS, AND MARKET DEMAND.



SHEET 5 OF 7



Granite Construction Company 2716 GRANITE COURT FRESNO, CA 93706	GRANITE CONSTRUCTION COMPANY	
	COALINGA MINE EXPANSION PROJECT	
	MINING PLAN CROSS-SECTIONS	
ChangConsultants Civil Engineering-Hydrology-Hydraulics-Sedimentation P.O. Box 9496 T: (558) 682-0760 Rancho Santa Fe, CA 92067-4496 F: (558) 632-1402 wayne@changconsultants.com www.changconsultants.com	D	
	C	
	B	
	A	
	Date	Revision



LEGEND

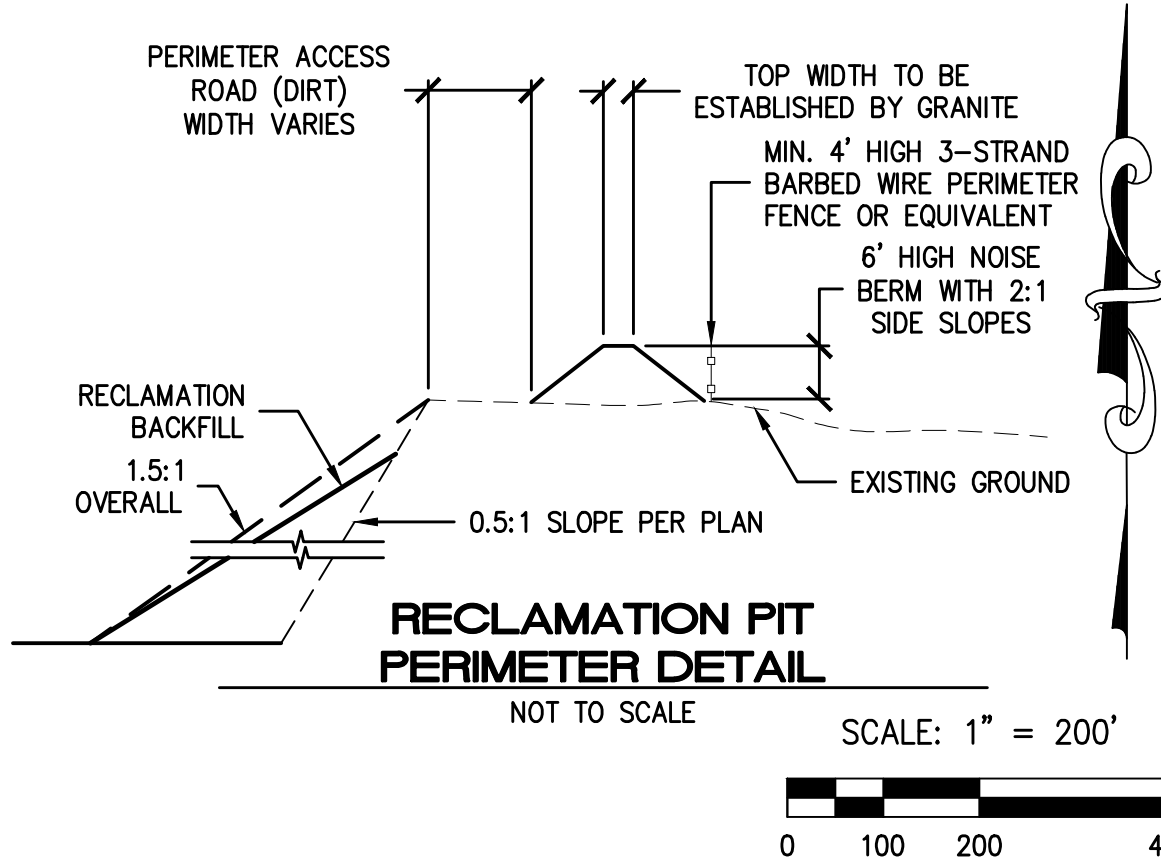
- EXISTING CONTOUR
- EXISTING 100-YEAR FLOODPLAIN
- EXISTING EASEMENT
- PROPERTY BOUNDARY (501.65 ACRES)
- PROJECT BOUNDARY (368.58 ACRES)
- MINE PLAN CONTOUR
- PROPOSED BACKFILL CONTOUR
- PROPOSED TOP/TOE OF SLOPE
- PROPOSED NOISE CONTROL/VISUAL SCREENING BERMS

NOTES

- CONSISTENT WITH THE FRESNO COUNTY MINING AND RECLAMATION STANDARDS, AS WELL AS RECOMMENDATIONS PROVIDED BY THE PROJECT GEOTECHNICAL ENGINEER, FINAL RECLAIMED SLOPES WILL NOT EXCEED 1.5H:1V. THE OVERALL FINAL RECLAIMED SLOPE ANGLE OF 1.5H:1V (OR FLATTER) MAY BE ACHIEVED THROUGH ONE OF THE FOLLOWING CONFIGURATIONS:
 - 1.5H:1V CUT SLOPE WITH NO BACKFILL;
 - 0.5H:1V CUT SLOPE WITH BACKFILL AT 2H:1V TO FULL SLOPE HEIGHT; OR,
 - 0.5H:1V CUT SLOPE WITH BACKFILL AT 2H:1V TO A DISTANCE OF 50 VERTICAL FEET OR LESS FROM THE TOP OF SLOPE.
- FOR ILLUSTRATIVE PURPOSES ONLY, THE MOST LIKELY SLOPE RECLAMATION SCENARIO IS SHOWN ON THE RECLAMATION PLAN SHEETS/FIGURES (A 0.5H:1V CUT SLOPE WITH BACKFILL AT 2H:1V TO A DISTANCE OF 50 VERTICAL FEET OR LESS FROM THE TOP OF SLOPE); HOWEVER, GRANITE RESERVES THE RIGHT TO ACHIEVE THE FINAL RECLAMATION SLOPE ANGLES WITH ANY OF THE THREE ANALYZED CONFIGURATIONS.
- FINAL RECLAMATION ELEVATIONS AND EXTENTS MAY VARY BASED ON THE AMOUNT AND QUALITY OF MATERIAL UNCOVERED, THE AVAILABILITY OF BACKFILL (E.G. OVERBURDEN), AND THE ABILITY OF THE PRODUCER TO MINE AND MEET THE RECLAMATION REQUIREMENTS.
- NOISE CONTROL BERMS, PERIMETER ACCESS ROADS, AND PERIMETER FENCING TO REMAIN FOLLOWING RECLAMATION.
- DISTURBED SURFACES WITHIN THE PROJECT AREA WILL BE REVEGETATED WITH THE EXCEPTION OF CUT SLOPES, NOISE CONTROL BERMS AND PERIMETER ACCESS ROADS, WITH THE FOLLOWING SEED MIX:

REVEGETATION SEED MIX		
Common Name	Plant Species	Application Rate (lbs (PLS)/acre)
Cattle spinach	<i>Atriplex polycarpa</i>	4
California buckwheat	<i>Eriogonum fasciculatum</i> var. <i>polifolium</i>	3
Small fescue	<i>Festuca microstachys</i>	6
Desert plantain	<i>Plantago ovata</i>	4

Note: Modifications to this seed mix may be appropriate based on availability from suppliers, cost, and species determined most suitable at the time planting occurs. Ideally, revegetation will occur in the summer to early fall.



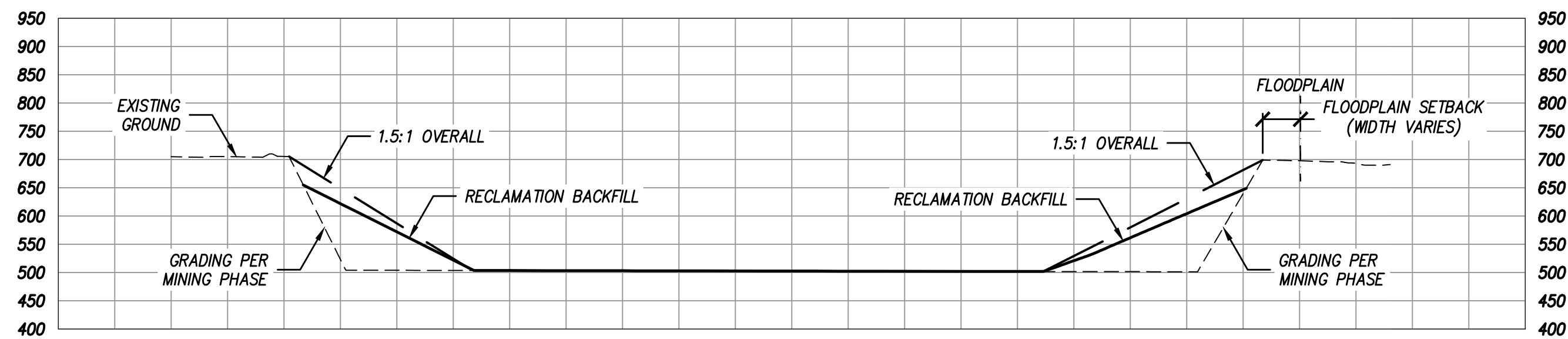
SHEET 6 OF 7

GRANITE CONSTRUCTION COMPANY 2716 GRANITE COURT FRESNO, CA 93706	GRANITE CONSTRUCTION COMPANY	
	COALINGA MINE EXPANSION PROJECT	
	RECLAMATION PLAN	

ChangConsultants
Civil Engineering-Hydrology/Hydraulics-Sedimentation
P.O. Box 9496 T: (558) 682-0760
Rancho Santa Fe, CA 92067-4496 F: (558) 632-1402
wayne@changconsultants.com www.changconsultants.com

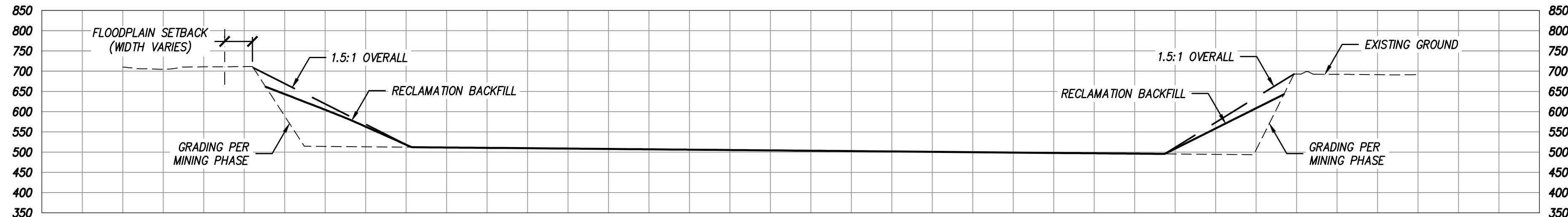


D	C
B	
A	
Date	Revision



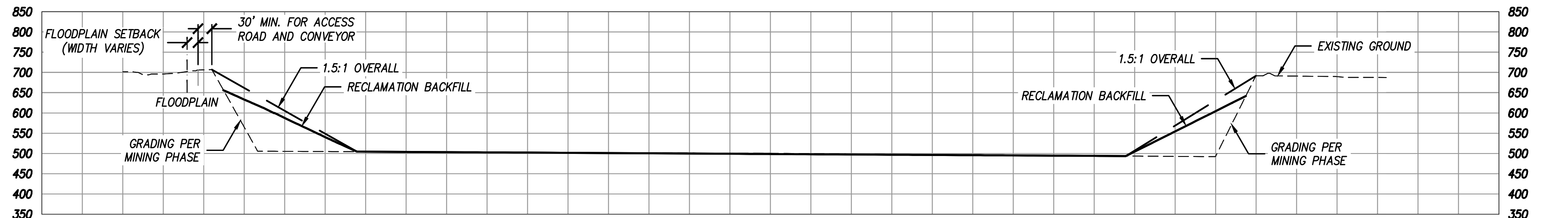
SECTION: E-E'

SCALE: HORIZ. 1"=200' VERT. 1"=200'



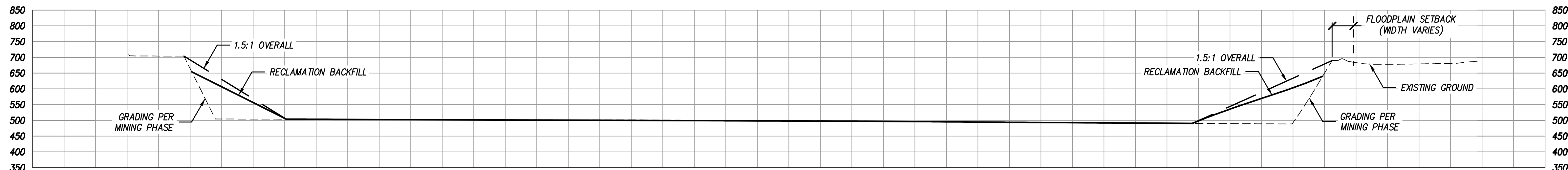
SECTION: F-F'

SCALE: HORIZ. 1"=200' VERT. 1"=200'



SECTION: G-G'

SCALE: HORIZ. 1"=200' VERT. 1"=200'



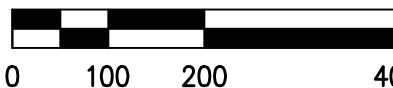
SECTION: H-H'

SCALE: HORIZ. 1"=200' VERT. 1"=200'

NOTES

- CONSISTENT WITH THE FRESNO COUNTY MINING AND RECLAMATION STANDARDS, AS WELL AS RECOMMENDATIONS PROVIDED BY THE PROJECT GEOTECHNICAL ENGINEER, FINAL RECLAIMED SLOPES WILL NOT EXCEED 1.5H:1V. THE OVERALL FINAL RECLAIMED SLOPE ANGLE OF 1.5H:1V (OR FLATTER) MAY BE ACHIEVED THROUGH ONE OF THE FOLLOWING CONFIGURATIONS:
 - 1.5H:1V CUT SLOPE WITH NO BACKFILL;
 - 0.5H:1V CUT SLOPE WITH BACKFILL AT 2H:1V TO FULL SLOPE HEIGHT; OR,
 - 0.5H:1V CUT SLOPE WITH BACKFILL AT 2H:1V TO A DISTANCE OF 50 VERTICAL FEET OR LESS FROM THE TOP OF SLOPE.
- FOR ILLUSTRATIVE PURPOSES ONLY, THE MOST LIKELY SLOPE RECLAMATION SCENARIO IS SHOWN ON THE RECLAMATION PLAN SHEETS/FIGURES (A 0.5H:1V CUT SLOPE WITH BACKFILL AT 2H:1V TO A DISTANCE OF 50 VERTICAL FEET OR LESS FROM THE TOP OF SLOPE); HOWEVER, GRANITE RESERVES THE RIGHT TO ACHIEVE THE FINAL RECLAMATION SLOPE ANGLES WITH ANY OF THE THREE ANALYZED CONFIGURATIONS.
- FINAL RECLAMATION ELEVATIONS AND EXTENTS MAY VARY BASED ON THE AMOUNT AND QUALITY OF MATERIAL UNCOVERED, THE AVAILABILITY OF BACKFILL (E.G. OVERBURDEN), AND THE ABILITY OF THE PRODUCER TO MINE AND MEET THE RECLAMATION REQUIREMENTS.
- NOISE CONTROL BERMS, PERIMETER ACCESS ROADS, AND PERIMETER FENCING TO REMAIN FOLLOWING RECLAMATION.

SCALE: 1" = 200'



SHEET 7 OF 7



GRANITE CONSTRUCTION COMPANY		GRANITE CONSTRUCTION COMPANY	
GRANITE CONSTRUCTION COMPANY 2716 GRANITE COURT FRESNO, CA 93706		COALINGA MINE EXPANSION PROJECT	
		RECLAMATION PLAN CROSS-SECTIONS	
ChangConsultants Civil Engineering-Hydrology-Hydraulics-Sedimentation P.O. Box 9496 Rancho Santa Fe, CA 92067-4496 www.changconsultants.com • www.changconsultants.com	D		
	C		
	B		
	A		
	Date	Revision	