



PUBLIC NOTICE

APPLICATION FOR PERMIT

LOS ANGELES DISTRICT

Public Notice/Application No.: SPL-2011-00609-SLP

Project: San Bernardino International Airport (SBIA) - South Drainage Channel Hardening and Erosion Control Measures

Comment Period: October 31, 2011 through November 30, 2011

Project Manager: Shannon Pankratz; 213-452-3412; Shannon.L.Pankratz@usace.army.mil

Applicant

Mike Burrows
San Bernardino International Airport
294 South Leland Norton Way #1
San Bernardino, California 92408

Contact

Lisa Patterson
Tom Dodson & Associates
2150 North Arrowhead Avenue
San Bernardino, California 92405

Location

In an unnamed tributary to the Santa Ana River, at the San Bernardino International Airport, within the City of San Bernardino, San Bernardino County, California (at: 34.088594, -117.250082), as shown on the attached figures.

Activity

To repair and correct erosion problems within an existing channel located on the San Bernardino International Airport property. For more information see page 3 of this 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 will be issued or denied under Section 404 of the Clean Water Act of 1972 (33 U.S.C. 1344). Comments should be mailed to:

LOS ANGELES DISTRICT CORPS OF ENGINEERS
P.O. BOX 532711
LOS ANGELES, CALIFORNIA 90053-2325

Alternatively, comments can be sent electronically to: Shannon.L.Pankratz@usace.army.mil

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 which 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, flood plain 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, if the proposal would discharge dredged or fill material, the evaluation of the activity will include application of the EPA Guidelines (40 CFR 230) as required by Section 404 (b)(1) of the Clean Water Act.

The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian 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 of Engineers 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 an Environmental Assessment and/or an Environmental Impact Statement 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 preliminary determination has been made that an environmental impact statement is not required for the proposed work.

Water Quality- The applicant is required to obtain water quality certification, under Section 401 of the Clean Water Act, from the California Regional Water Quality Control Board. Section 401 requires that any applicant for an individual Section 404 permit provide proof of water quality certification to the Corps of Engineers prior to permit issuance. For any proposed activity on Tribal land that is subject to Section 404 jurisdiction, the applicant will be required to obtain water quality certification from the U.S. Environmental Protection Agency.

Coastal Zone Management- This project is located outside of the coastal zone and will not affect coastal zone resources.

Cultural Resources- The National Register of Historic Places has been consulted and this site is not listed (existing flood control channel). This review constitutes the extent of cultural resources investigations by the District Engineer, and he is otherwise unaware of the presence of such resources. The Corps has also made a preliminary “no effect” determination with regard to historic properties and cultural resources. No resources are known to exist on the project site, and given the nature of the proposed project impacts to prior disturbed areas there is no potential for impacts to cultural resources.

Endangered Species- Preliminary determinations indicate that the proposed activity may affect, but is not likely to adversely affect, the federally-listed endangered species San Bernardino kangaroo

rat (*Dipodomys merriami parvus*), or their critical habitat. Therefore, informal consultation under Section 7 of the Endangered Species Act does appear to be required at this time.

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.

Proposed Activity for Which a Permit is Required

Basic Project Purpose- The basic project purpose comprises the fundamental, essential, or irreducible purpose of the proposed project, and is used by the Corps to determine whether the applicant's project is water dependent. The basic project purpose for the proposed project is erosion damage repair and erosion damage protection of an existing water of the United States. Therefore, the project is water dependent.

Overall Project Purpose- The overall project purpose serves as the basis for the Corps' 404(b)(1) alternatives analysis and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project, and which allows a reasonable range of alternatives to be analyzed. The overall project purpose for the proposed project includes the permanent discharge of fill material onto 0.96-acre of non-wetland waters of the United States and the temporary discharge of fill material onto 1.12-acre of non-wetland waters of the U.S. for the repair of and the future prevention of severe channel erosion damage due to storm water runoff flows from the existing San Bernardino International Airport property. The 3,000-linear foot western segment of the channel would have a fully hardened bottom added to the existing concrete-lined banks and to the existing limited areas of concrete channel bottom and riprap velocity dissipaters. The 2,500-linear foot eastern channel segment would primarily remain as earthen bottomed, with a widened flow line and the placement of approximately twelve concrete check dams and associated energy dissipaters at every 200-feet along the channel segment. The proposed project would protect the overall channel from erosion damage and would significantly reduce water quality degradation associated with transported sediment.

Additional Project Information

Baseline information- The project area supports a total of 2.08-acres of non-wetland waters of the United States, which are tributary to the Santa Ana River. The approximate impacts to waters would be limited to 0.96-acres of permanent impacts and 1.12-acre of temporary impacts to waters of the U.S. . The majority of the entire channel consists of an unvegetated coarse sand, soft bottom channel. The western channel segment contains existing limited areas of concrete channel bottom and grouted and ungrouted riprap velocity dissipaters, as well as gunite concrete channel walls. The eastern channel segment consists of existing compact earthen walls with periodic riprap energy dissipaters. However, the existing energy dissipaters throughout the entire channel have been unsuccessful with controlling channel erosion. Continued channel erosion and damage, continued degradation in general water quality, and potential damage to the downstream storm drain that connects that channel to the Santa Ana River, would occur if channel erosion issues remain uncontrolled.

Project description- The proposed project would repair current channel erosion damage and would prevent future erosion damages within the existing channel located on the San Bernardino International Airport property. The proposed work would consist of installing a concrete channel floor in the westerly 3,000-foot section of the channel. The channel floor would consist of 8-inch thick

reinforced concrete. Approximately twelve concrete check dams and associated energy dissipators would also be installed every 200-feet along the eastern 2,500-feet of the channel. The check dams would be approximately 3-feet to 10-feet wide at the top of each dam with a 5:1 slope in both directions. The associated energy dissipaters would be a few feet wide and would consist of riprap placed in concrete or grout. Each check dam and associated energy dissipater would require about 100-cubic yards of concrete and riprap. The installation of the check dams and energy dissipaters is intended to reduce flow velocities and to create ponded areas within the channel to offset the loss of existing percolation function for the western 3,000-feet of channel that would be concrete-lined. The eastern channel segment would also have a widened flow line.

Existing grouted and ungrouted riprap within the overall channel area would be removed, prior to the above proposed activities. The entire project is expected to take approximately three months to construct, with no major grading required. The equipment utilized would likely consist of two loaders, two cranes, a water truck, a general purpose bobtail truck. The first sequence of construction would consist of grading and demolition. The second sequence would consist of installation of the forms for the channel floor, energy dissipaters, and check dams/energy dissipaters along both the western and eastern channel segments. Once the forms are installed, the concrete would be poured. Assuming 20-cubic yards of concrete can be delivered per truck, one hundred truck loads would be required to deliver all concrete for the western and eastern channel segments. This would occur over a three week period of time. The applicant estimates there will be a total of 0.96-acre of permanent impacts and 1.12-acres of temporary impacts to non-wetland waters as a result of this project (see attached drawings).

Proposed Mitigation – The proposed mitigation may change as a result of comments received in response to this public notice, the applicant's response to those comments, and/or the need for the project to comply with the 404(b)(1) Guidelines. In consideration of the above, the proposed mitigation sequence (avoidance/minimization/compensation), as applied to the proposed project is summarized below:

Avoidance: There are 2.08-acres of unvegetated non-wetland waters of the United States within the project area. Of this total acreage, less than half (0.96-acre) would be permanently impacted as a result of this project.

Minimization: Project impacts were minimized by retaining a majority of the eastern channel segment as soft-bottomed where possible, by only utilizing the placement of energy dissipaters/check dams every 200-feet and with widening the flow line. Original project plans included concrete-lining both the western and eastern channel segments.

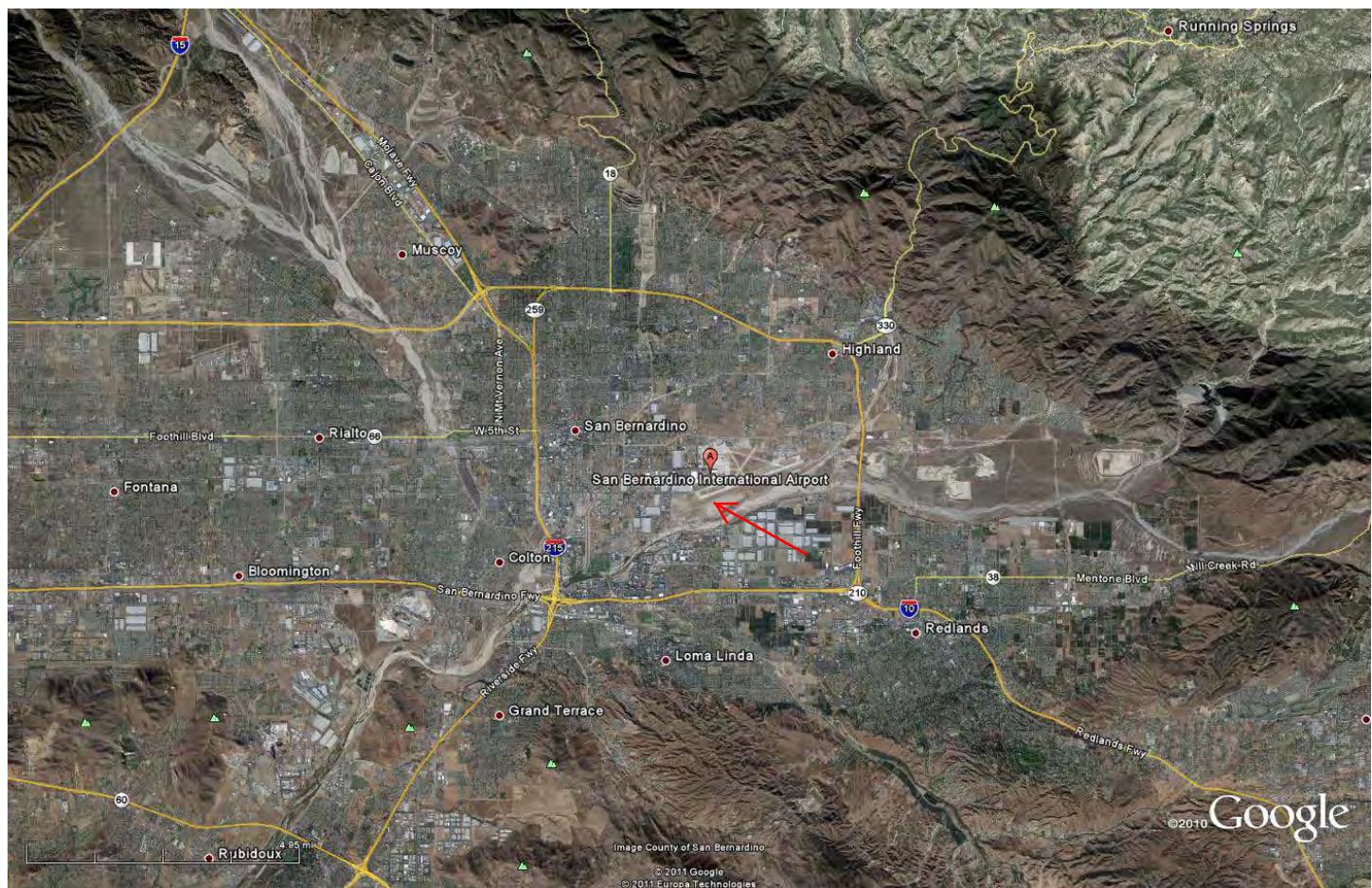
Compensation: The project drainage is located within the San Bernardino International Airport property, a maintained and disturbed area. The channel is maintained and absent of vegetation and does not contain any native habitat. There are also no riparian areas within the project area. However, the channel does have value in the potential for groundwater recharge. Therefore, in addition to the project work proposed within the eastern channel segment, the applicant is proposing to create a 2-acre basin that would receive channel low flows and would allow for percolation. A final Habitat Mitigation and Monitoring Plan would be required prior to the issuance of a standard individual permit. Project construction of the eastern channel segment would create approximately 0.97-acre of ponding/percolation area behind the check dams.

Proposed Special Conditions

The following list is comprised of proposed Permit Special Conditions, which are required of similar types of projects: None proposed at this time.

For additional information please call Shannon Pankratz of my staff at 213-452-3412 or via e-mail at Shannon.L.Pankratz@usace.army.mil. This public notice is issued by the Chief, Regulatory Division.

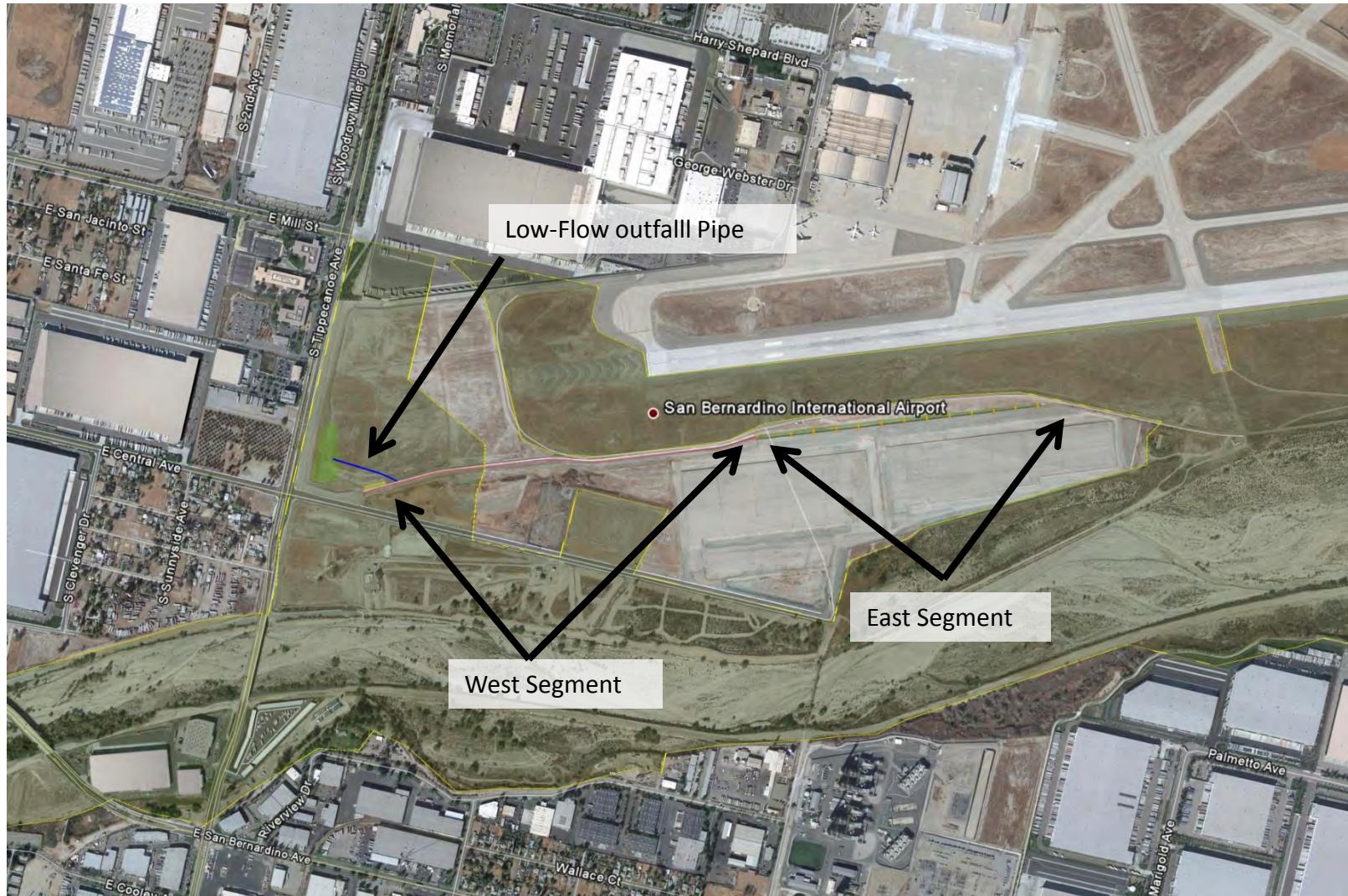
Regional Map: SBIA - South Drainage Channel Hardening and Erosion Control Measures Project



Local Map: SBIA - South Drainage Channel Hardening and Erosion Control Measures Project



Figure 1 – Total Project Area



Mitigation Basin

SBKR Critical Habitat

Figure 2 - West End Segment



 Channel Bottom
To be filled

 SBKR Critical Habitat

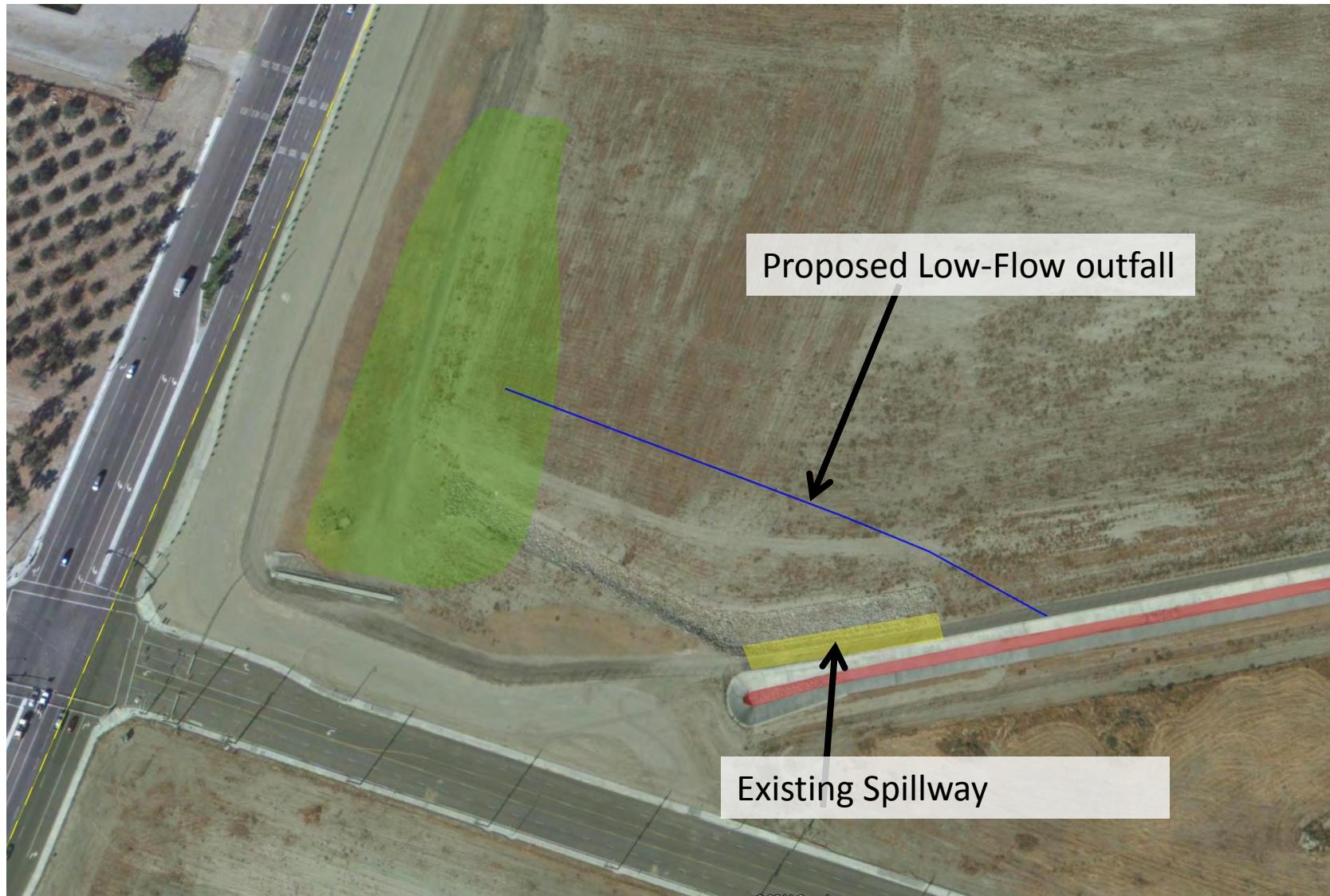
Figure 3 – East Segment



Jurisdictional Area – Temporary Disturbance

SBKR Critical Habitat

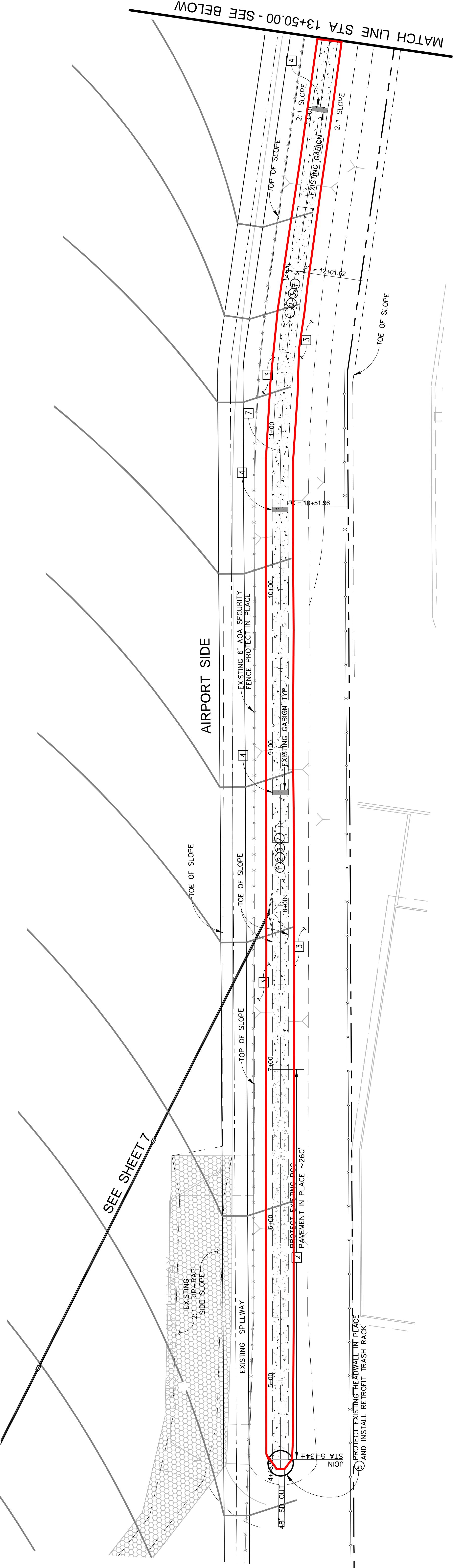
Figure 4 – Mitigation Area



Mitigation Area



SBKR Critical Habitat



CONSTRUCTION ITEMS

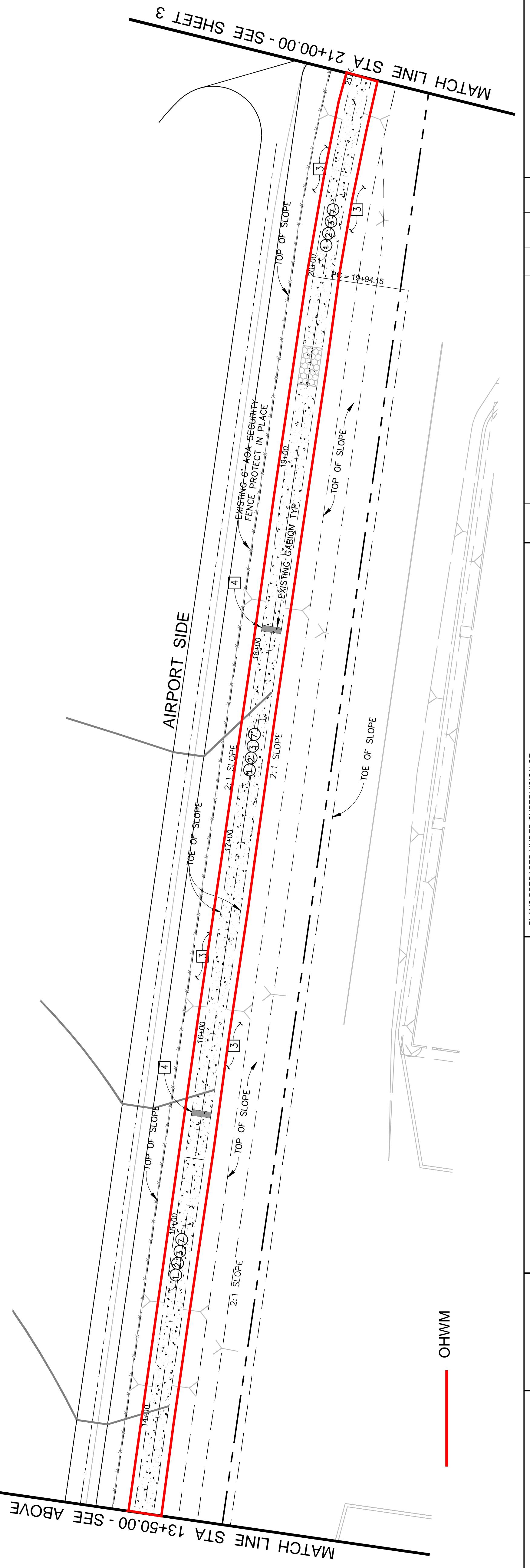
- ①—CONSTRUCT 8" THICK REINFORCED PCC CHANNEL BOTTOM WITH A FINE BROOM FINISH, 560-B-3250 PCC (PER GREEN BOOK)
- ②—CONSTRUCT EXPANSION JOINT AT EVERY 100' PER DETAIL
- ③—SAWCUT CONTROL JOINT AT EVERY 20' PER DETAIL
- ④—CONSTRUCT PCC ENERGY DISSIPATOR WITH 560-C-3250 PCC (PER GREEN BOOK) AND PER DETAIL
- ⑤—INSTALL INCLINED TRASH RACK PER SPPWC # 361-1, CLASS A, RE TROFT PER DETAIL
- ⑥—CONSTRUCT CONCRETE CHECK DAM WITH 560-C-3250 PCC (PER GREEN BOOK) AND PER DETAIL
- ⑦—OVER EXCAVATE AND RECOMPACT PER DETAIL

DEMOLITION ITEMS

- ①—DEMOLISH AND REMOVE GROUTED RIP-RAP.
- ②—PROTECT EXISTING CHANNEL BOTTOM PAVEMENTS IN PLACE.
- ③—PROTECT EXISTING QUINITE SLOPES IN PLACE.
- ④—DEMOLISH AND SPREAD GABION MATERIAL AND UNGROUTED RIP-RAP PER DETAIL
- ⑤—EXISTING EARTHEN SLOPES, PROTECT IN PLACE.

SCALE 1" = 30'
0 15' 30' 60'
GRAPHIC SCALE

Underground Service Alert		BENCHMARK: C1-9 City of San Bernardino (Reset 1995)	PLANS PREPARED UNDER SUPERVISION OF:		APPROVED		INLAND VALLEY DEVELOPMENT AGENCY	
Call: TOLL FREE 1-800 227-2600	Two working days before you dig	LOCATION: 3 1/2" BRASS DISK AT THE NORTHWEST CURB RETURN OF TIPEPECANO AVENUE AND BENEDICT ROAD	 Associated Engineers 3311 E. SHELBY ST. ONTARIO, CA 91764 Tel: 909.980.9822 Fax: 909.941.0591	DRAWN BY: ANTHONY PLACENCIA	CHECKED BY: CURT INGRAM	RE COMMENDED BY: JAMES IMBORSKI	SAN BERNARDINO INTERNATIONAL AIRPORT Channel Hardening and Erosion Control Measures CONSTRUCTION PLAN SHEET Sta 43+43.82 to Sta 21+00.00	SHEET 2 OF 7 SHEETS PB Job No.: 177765
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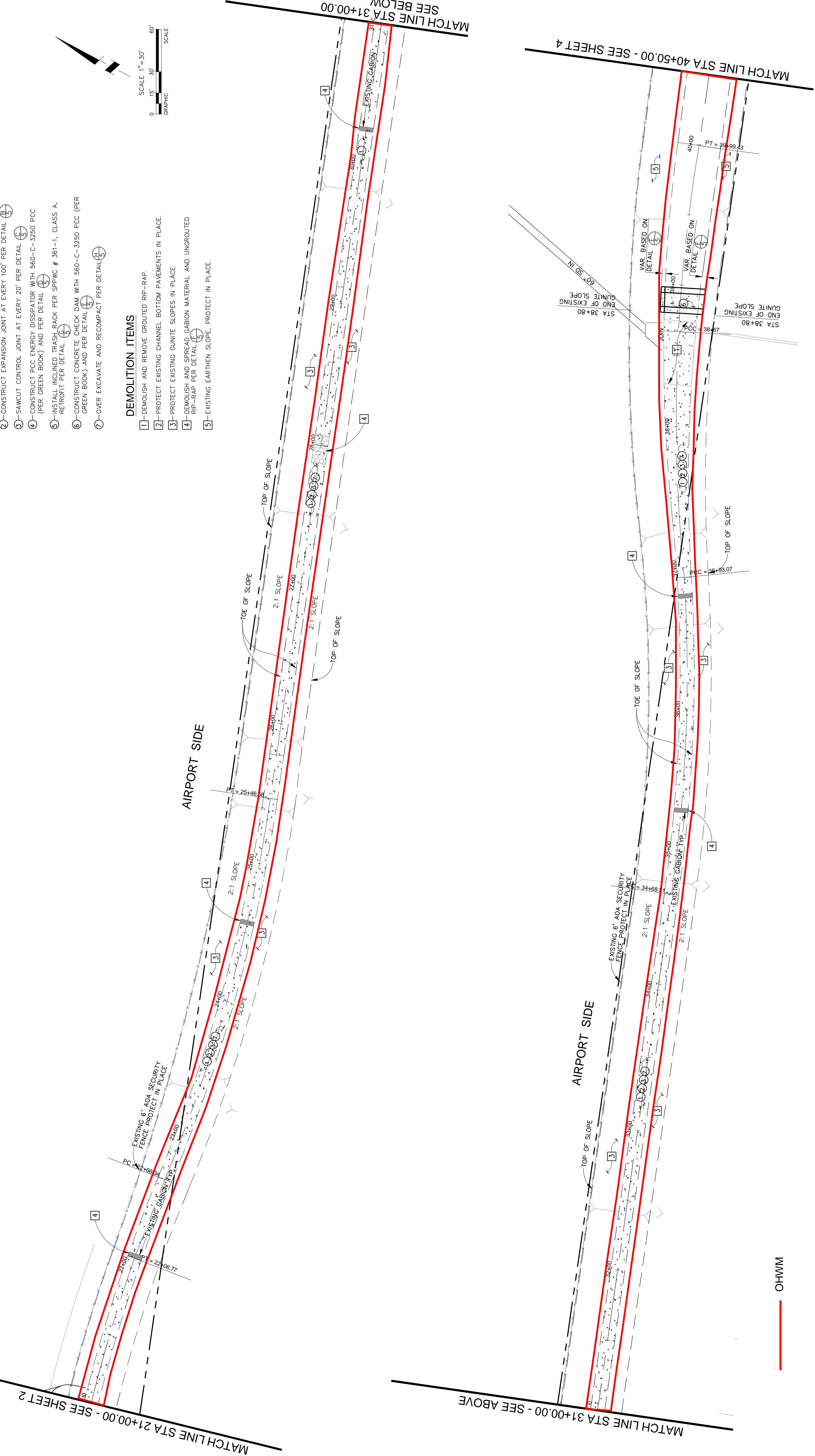
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Call: TOLL FREE 1-800 227-2600	Two working days before you dig	LOCATION: 3 1/2" BRASS DISK AT THE NORTHWEST CURB RETURN OF TIPEPECANO AVENUE AND BENEDICT ROAD	DATE		
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CONSTRUCTION ITEMS

- ① CONSTRUCT 8" THICK REINFORCED PCC CHANNEL BOTTOM WITH A FINE BROOM FINISH, 560-B-3250 PCC (PER GREEN BOOK)
- ② CONSTRUCT EXPANSION JOINT AT EVERY 100' PER DETAIL
- ③ SAWCUT CONTROL JOINT AT EVERY 20' PER DETAIL
- ④ CONSTRUCT PCC ENERGY DISSIPATOR WITH 560-C-3250 PCC (PER GREEN BOOK) AND PER DETAIL
- ⑤ INSTALL INCLINED TRASH RACK PER SPPWC # 361-1, CLASS A, RETROFIT PER DETAIL
- ⑥ CONSTRUCT CONCRETE CHECK DAM WITH 560-C-3250 PCC (PER GREEN BOOK) AND PER DETAIL
- ⑦ OVER EXCAVATE AND RECOMPACT PER DETAIL

DEMOLITION ITEMS

- ① DEMOLISH AND REMOVE GROUTED RIP-RAP.
- ② PROTECT EXISTING CHANNEL BOTTOM PAVEMENTS IN PLACE.
- ③ PROTECT EXISTING GUNITE SLOPES IN PLACE.
- ④ DEMOLISH AND SPREAD GABION MATERIAL AND UNGROUTED RIP-RAP PER DETAIL
- ⑤ EXISTING EARTHEN SLOPE, PROTECT IN PLACE



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Call: TOLL FREE 1-800 227-2600	LOCATION: 3 1/2' BRASS DISK AT THE NORTHWEST CURB RETURN OF TIPEPECANO AVENUE AND BENEDICT ROAD	 Associated Engineers 3311 E. SHELBY ST. ONTARIO, CA 91764 Tel: 909.980.9822 Fax: 909.941.0591	SAN BERNARDINO INTERNATIONAL AIRPORT Channel Hardening and Erosion Control Measures CONSTRUCTION PLAN SHEET	SHEET 3 OF 7 SHEETS
	ELEVATION: 1055.07	 DB PARCKHOFF A division of Parckhoff GmbH & Co. KG	RECOMMENDED BY: CURT INGRAMHAM	PB Job No.: 177765
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MATCH LINE STA 50+50.00 - SEE BELOW

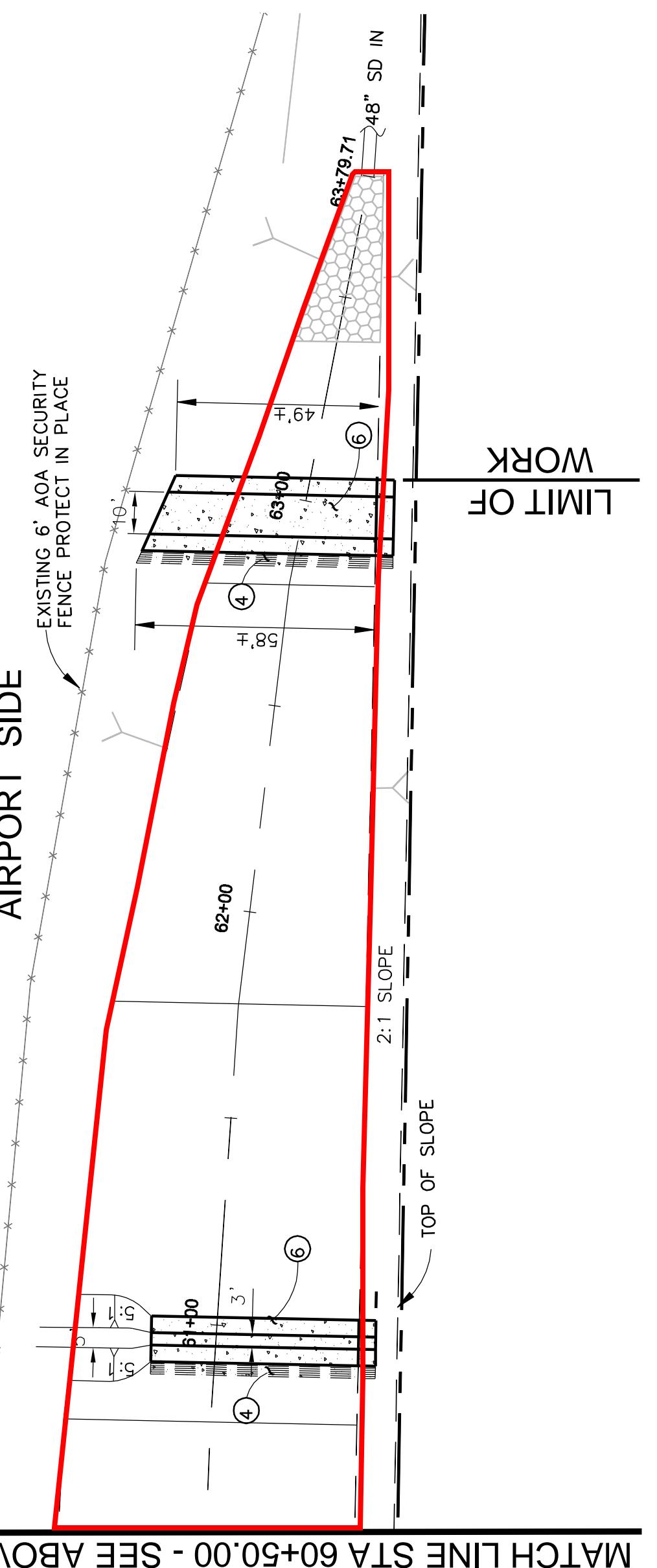
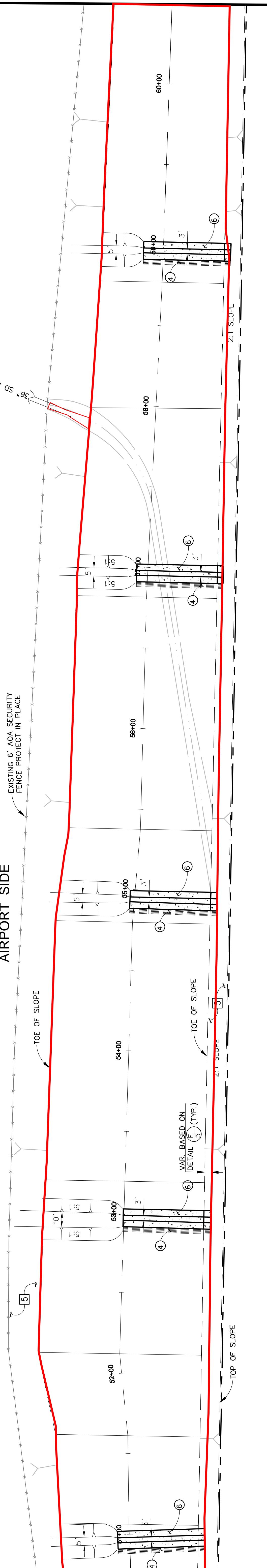
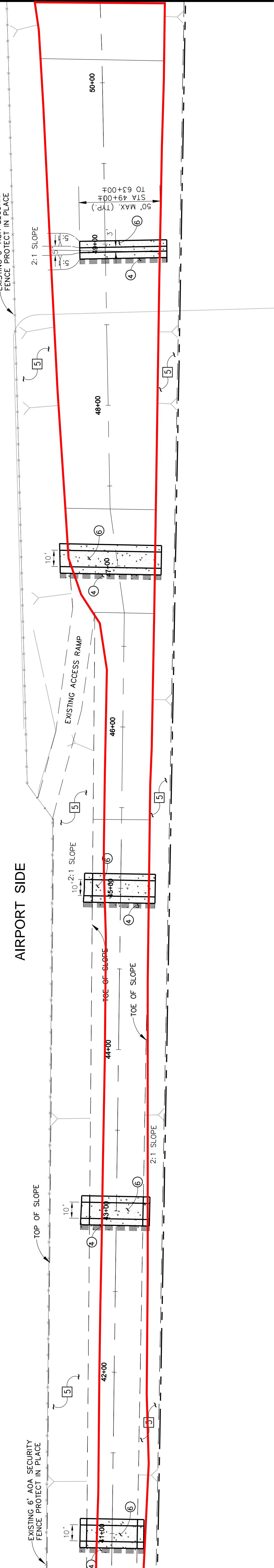
MATCH LINE STA 60+50.00 - SEE BELOW

A diagram showing a rectangle with a red border. The top edge is straight, while the left and right edges are curved. A small triangle is located at the bottom right corner of the rectangle.

A horizontal black bar with a red stepped rectangle on top. The red rectangle has a vertical tick mark on its left side and a small vertical line segment on its right side.

MATCH LINE STA 40+50.00 - SEE SHEET 3

MATCH LINE STA 30+30.00 - SEL ARROW



— CONSTRUCT 8" THICK REINFORCED PC
FINE BROOM FINISH, 560-B-3250 PC
AND DEEP DETAIL

- AND PER DETAIL

(2) CONSTRUCT EXPANSION JOINT AT EVERY 100' PER DETAIL $\frac{B}{5}$

(3) SAWCUT CONTROL JOINT AT EVERY 20' PER DETAIL $\frac{C}{5}$

(4) CONSTRUCT PCC ENERGY DISSIPATOR WITH 560-C-3250 PCC (PER GREEN BOOK) AND PER DETAIL $\frac{D}{5}$

(5) INSTALL INCLINED TRASH RACK PER SPPWC # 361-1, CLASS A, RETROFIT PER DETAIL $\frac{G}{5}$

(6) CONSTRUCT CONCRETE CHECK DAM WITH 560-C-3250 PCC (PER GREEN BOOK) AND PER DETAIL $\frac{E}{5}$

(7) OVER EXCAVATE AND RECOMPACT PER DETAIL $\frac{H}{5}$

DEMOLITION ITEMS

1—DEMOLISH AND REMOVE GROUT

- 2—PROTECT EXISTING CHANNEL BOTTOM PAVEMENTS IN PLACE.
 - 3—PROTECT EXISTING GUNITE SLOPES IN PLACE.
 - 4—DEMOLISH AND SPREAD GABION MATERIAL AND UNGROUTED RIP-RAP PER DETAIL 
 - 5—EXISTING EARTHEN SLOPE, PROTECT IN PLACE.

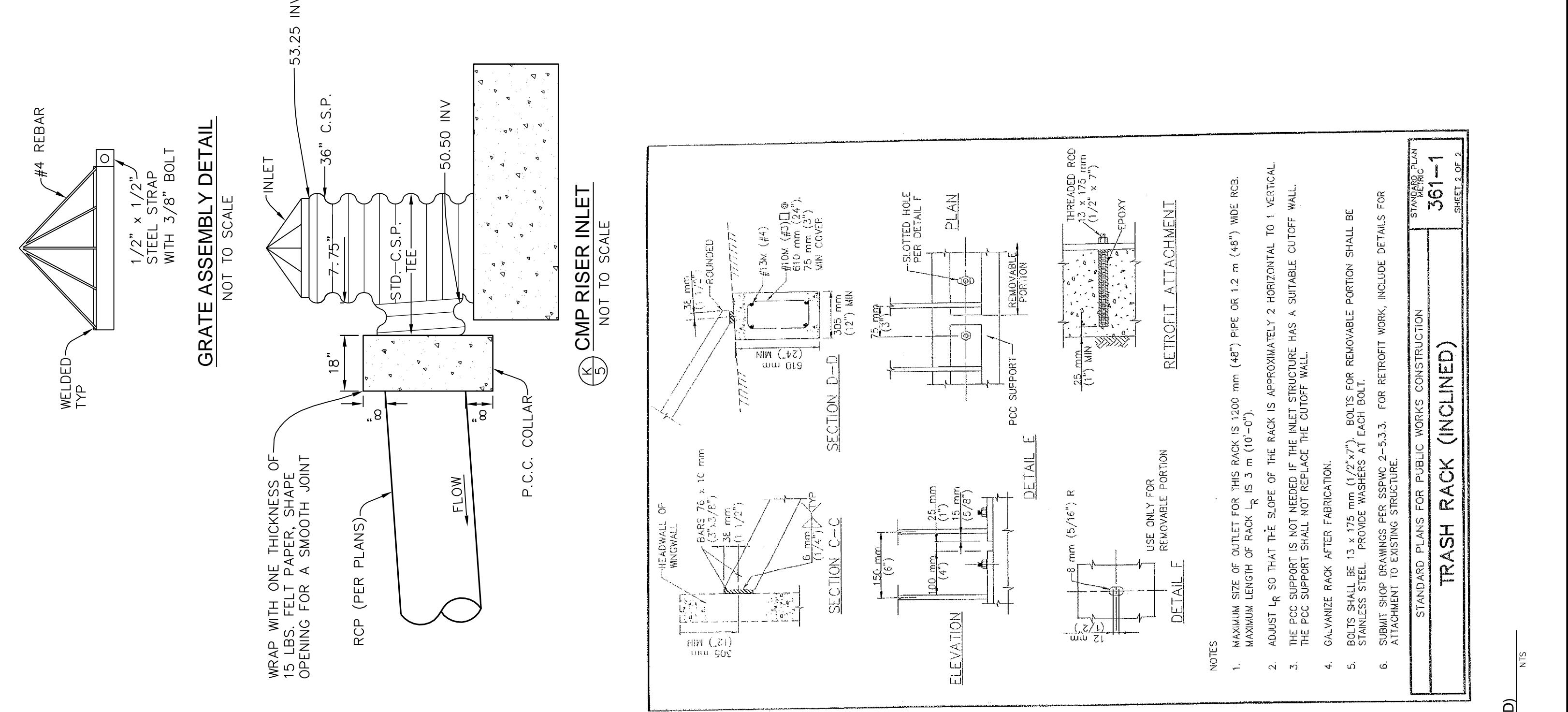
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CONSTRUCTION ITEMS

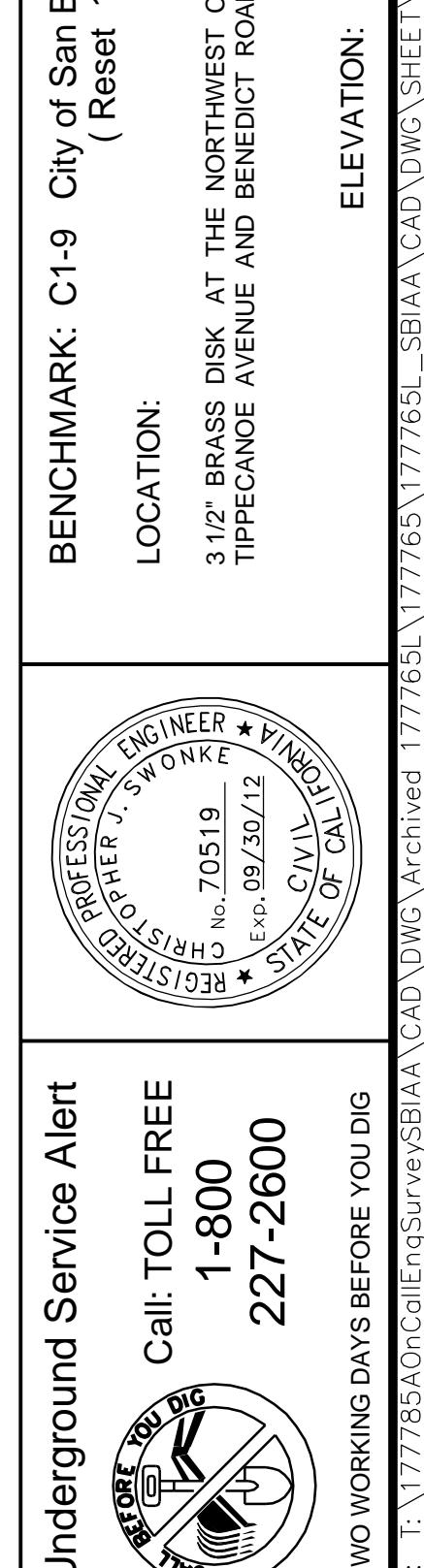
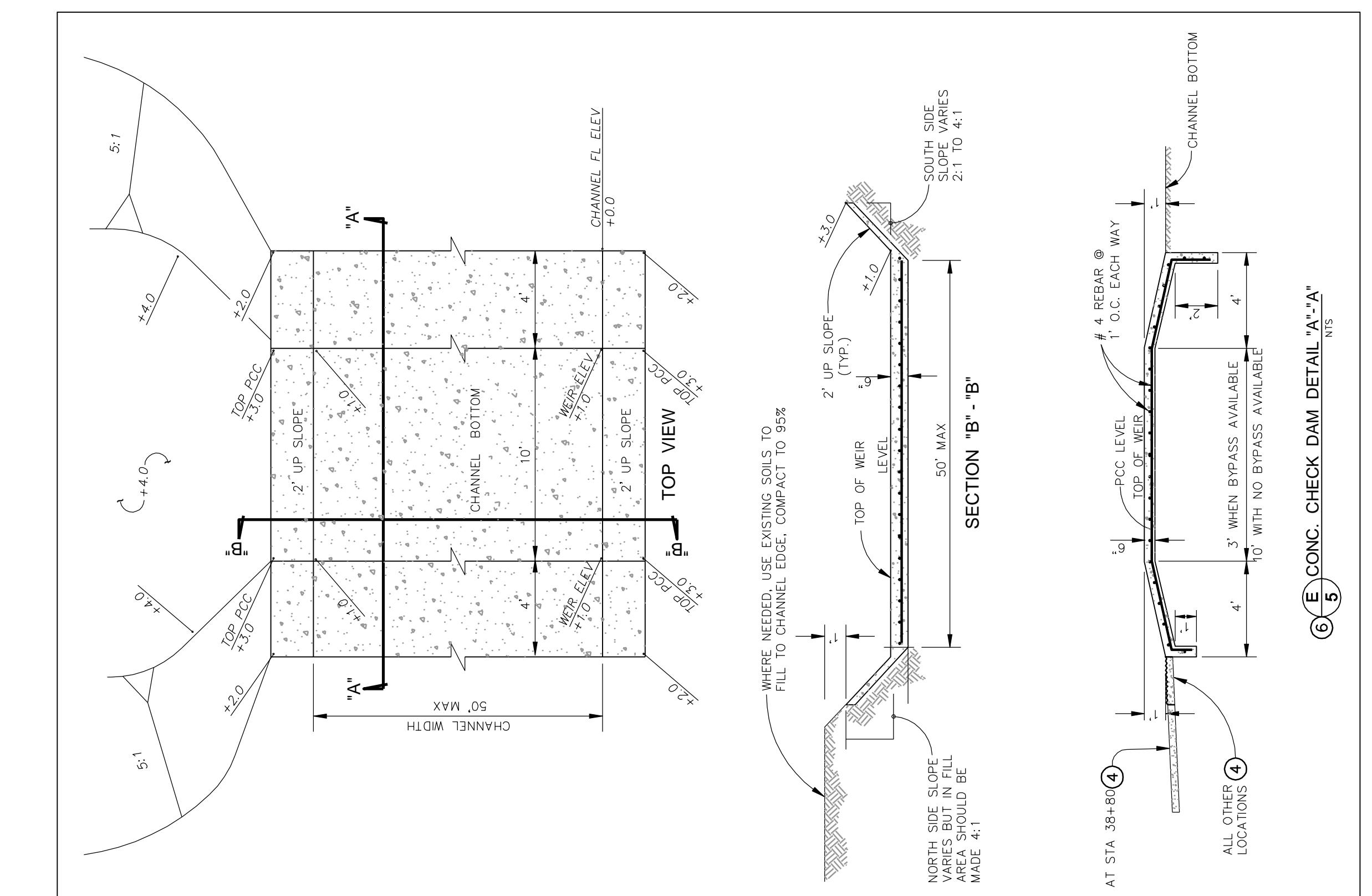
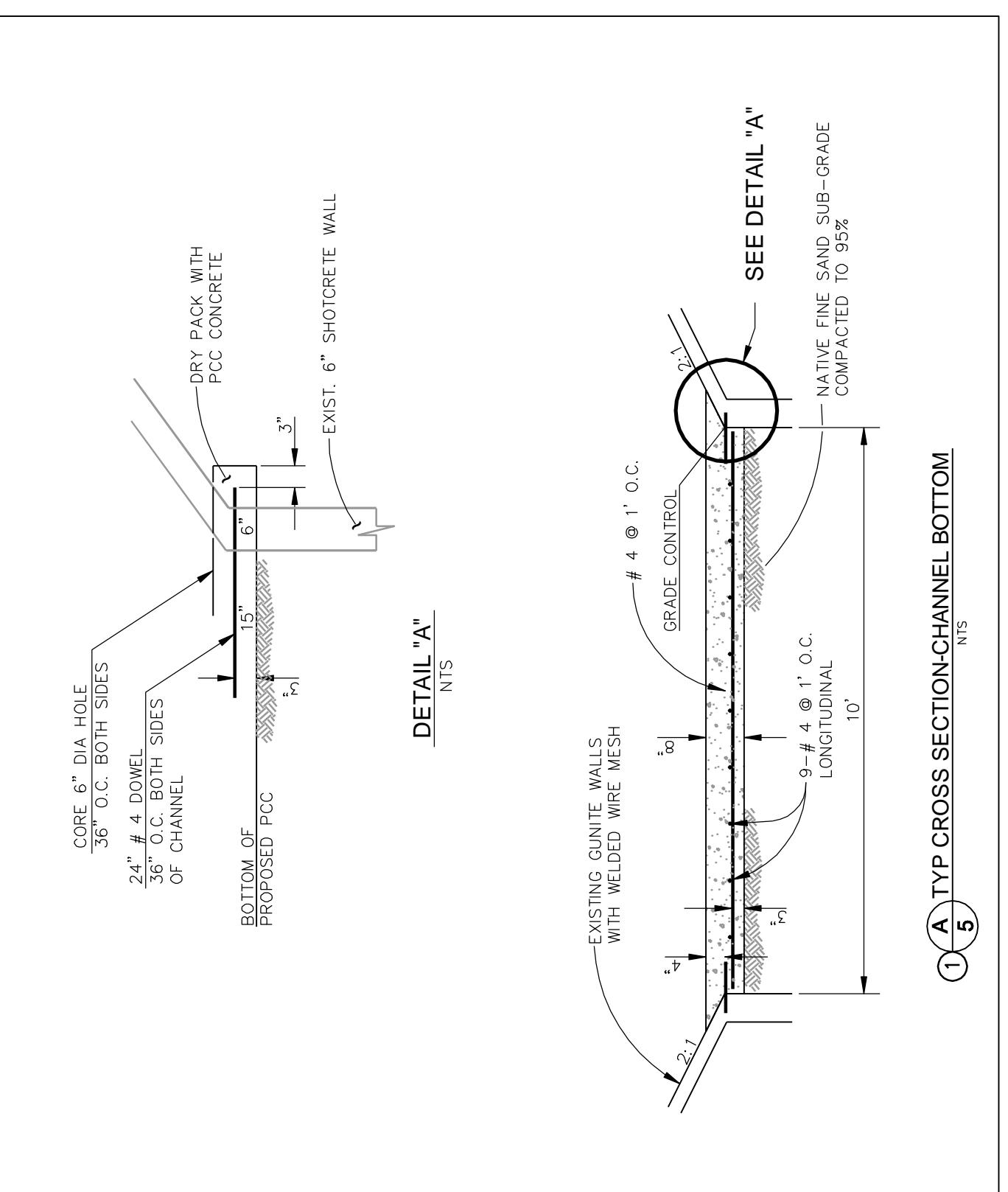
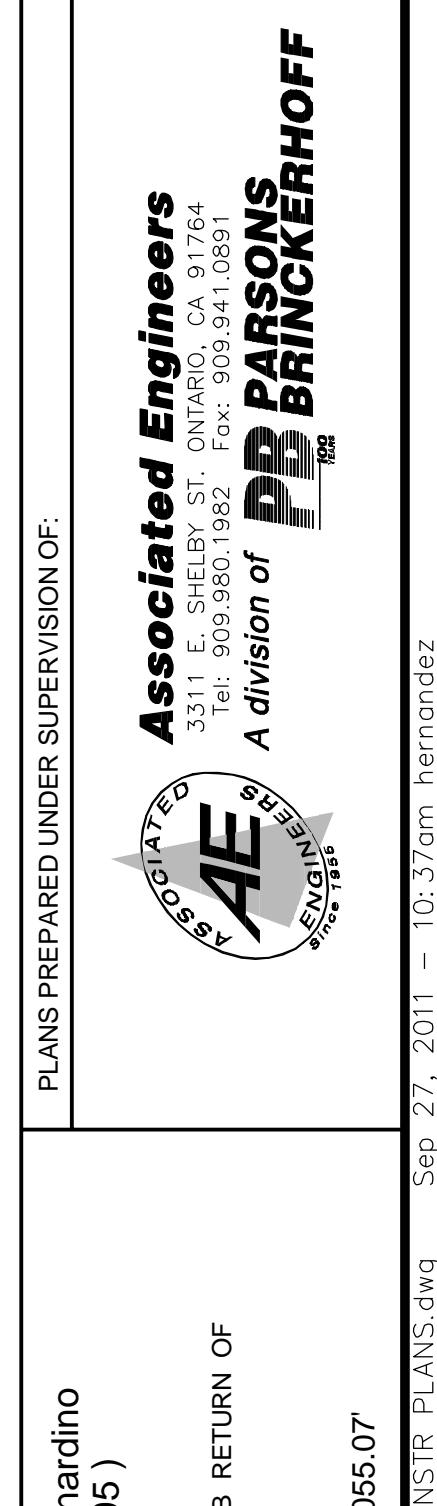
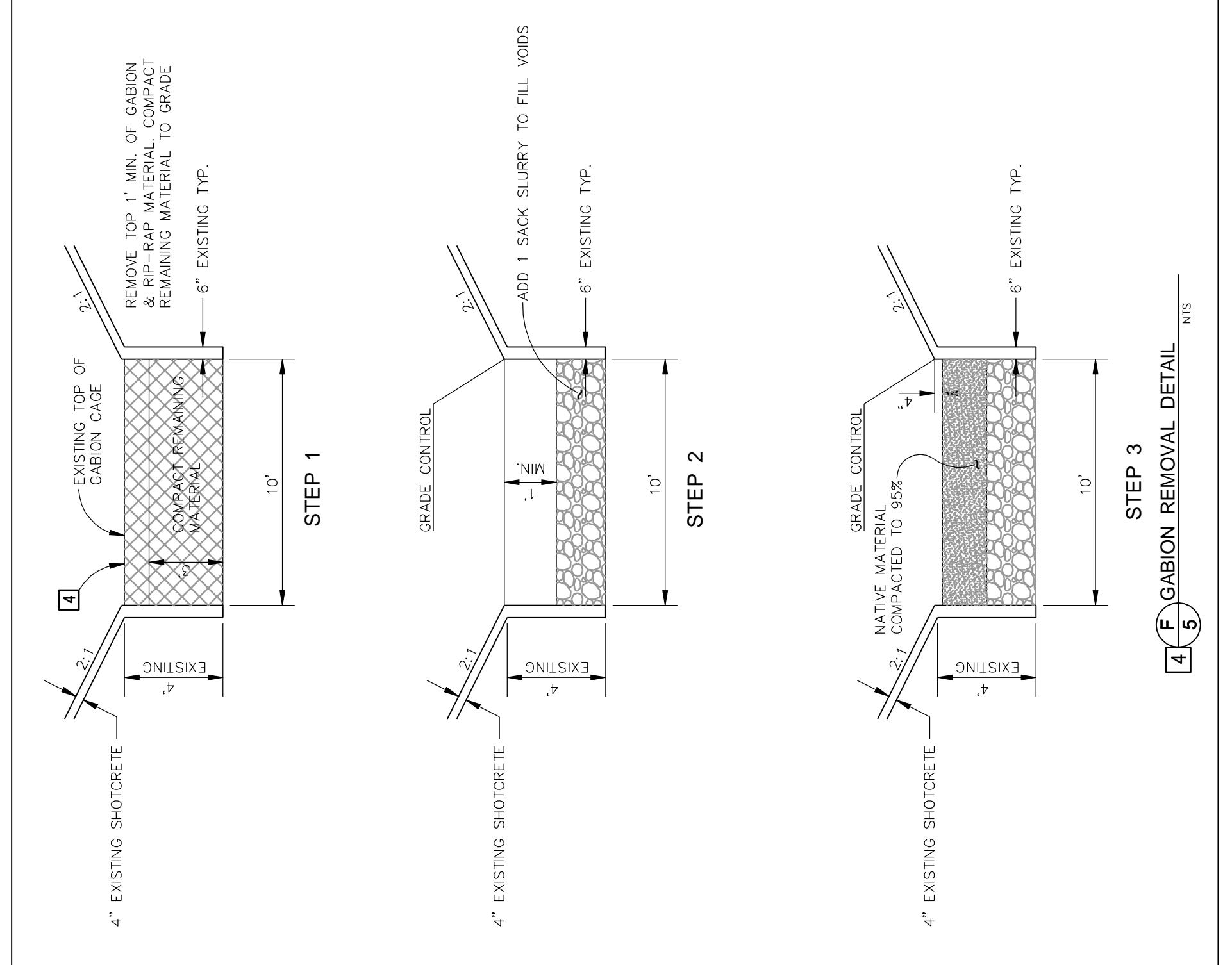
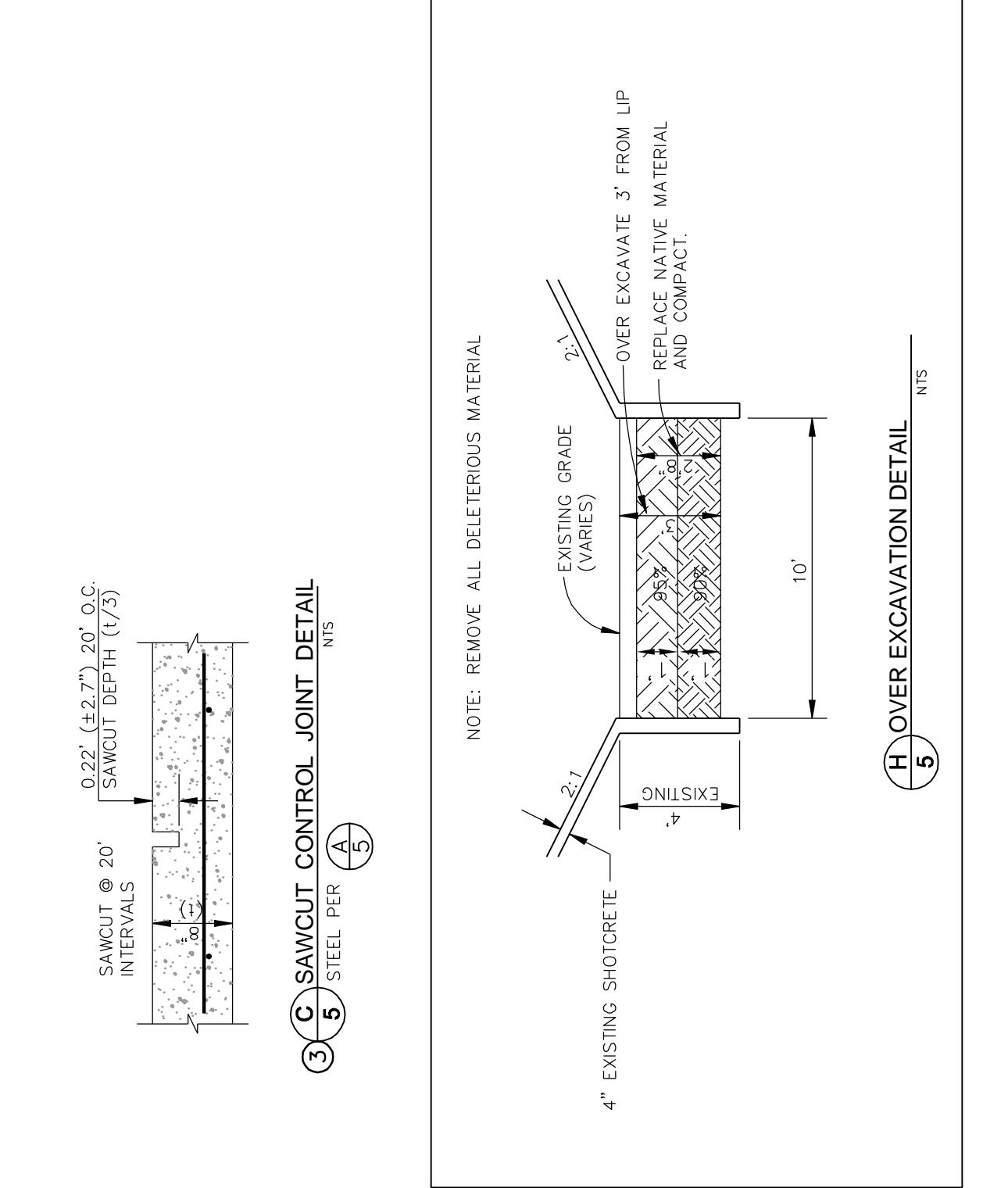
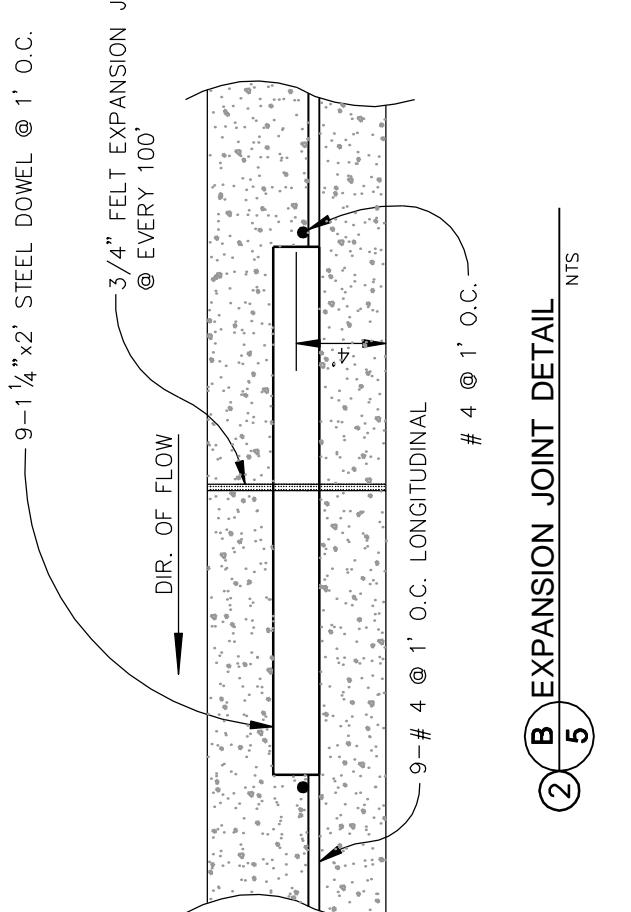
- ① CONSTRUCT 8" THICK REINFORCED PCC CHANNEL BOTTOM WITH A FINE BROM FINISH, 560-B-3250 PCC (PER GREEN BOOK)
- ② CONSTRUCT EXPANSION JOINT AT EVERY 10' PER DETAIL ⑤
- ③ SAWCUT CONTROL JOINT AT EVERY 20' PER DETAIL ⑤
- ④ CONSTRUCT PCC ENERGY DISSIPATOR WITH 560-B-3250 PCC (PER GREEN BOOK) AND PER DETAIL ⑤
- ⑤ INSTALL INCLINED TRASH RACK PER SPINC # 361-1, CLASS A, RETROFIT PER DETAIL ⑤
- ⑥ CONSTRUCT CONCRETE CHECK DAM WITH 560-C-3250 PCC (PER GREEN BOOK) AND PER DETAIL ⑤
- ⑦ OVER EXCAVATE AND RECOMPACT PER DETAIL ⑤

DEMOLITION ITEMS

- ① DEMOLISH AND REMOVE GROUTED RIP-RAP.
- ② PROTECT EXISTING CHANNEL BOTTOM PAVEMENTS IN PLACE.
- ③ PROTECT EXISTING GUNITE SLOPES IN PLACE.
- ④ DEMOLISH AND SPREAD GABION MATERIAL AND UNGROUTED RIP-RAP PER DETAIL ⑤
- ⑤ EXISTING EARTHEN SLOPE, PROTECT IN PLACE.

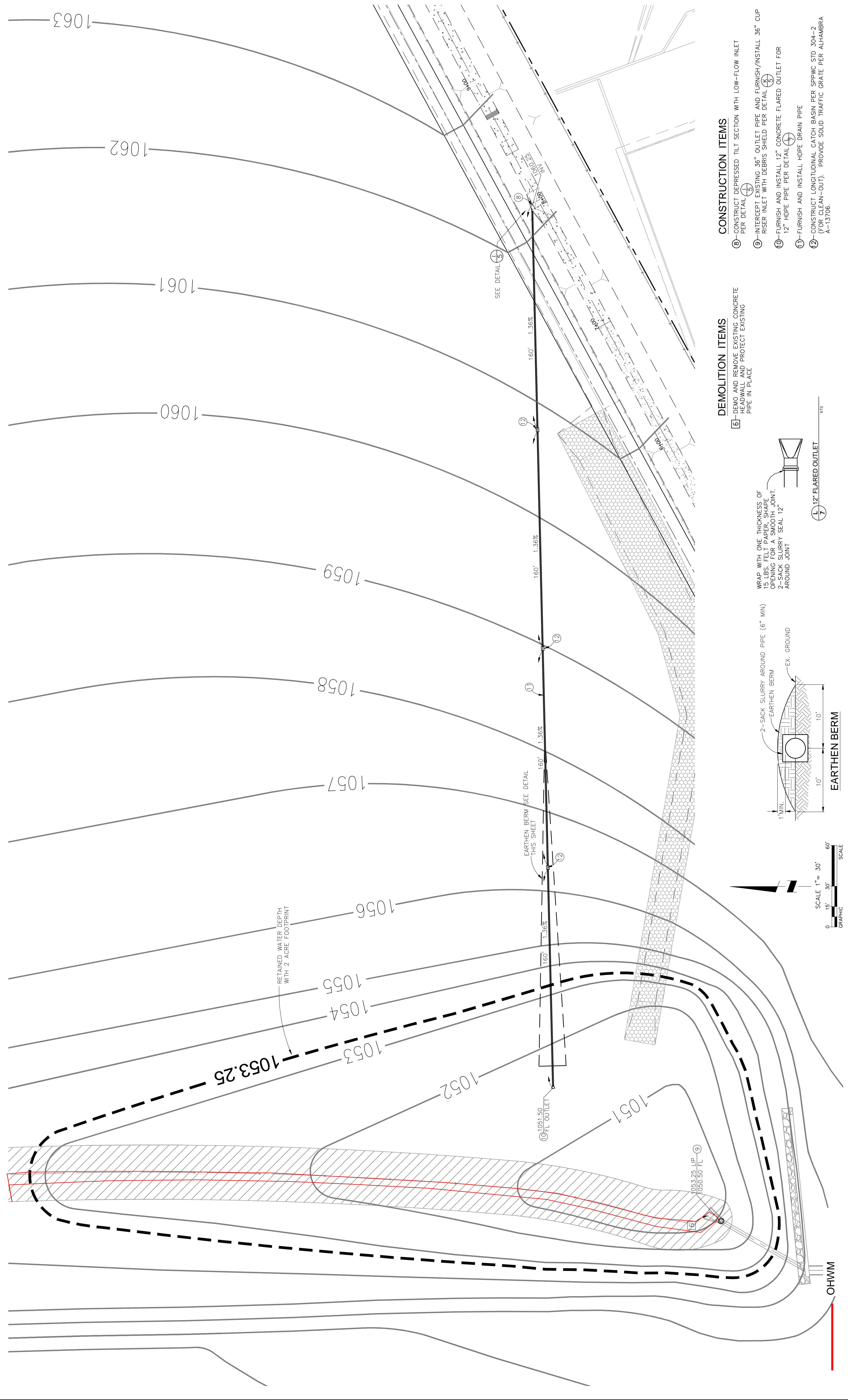


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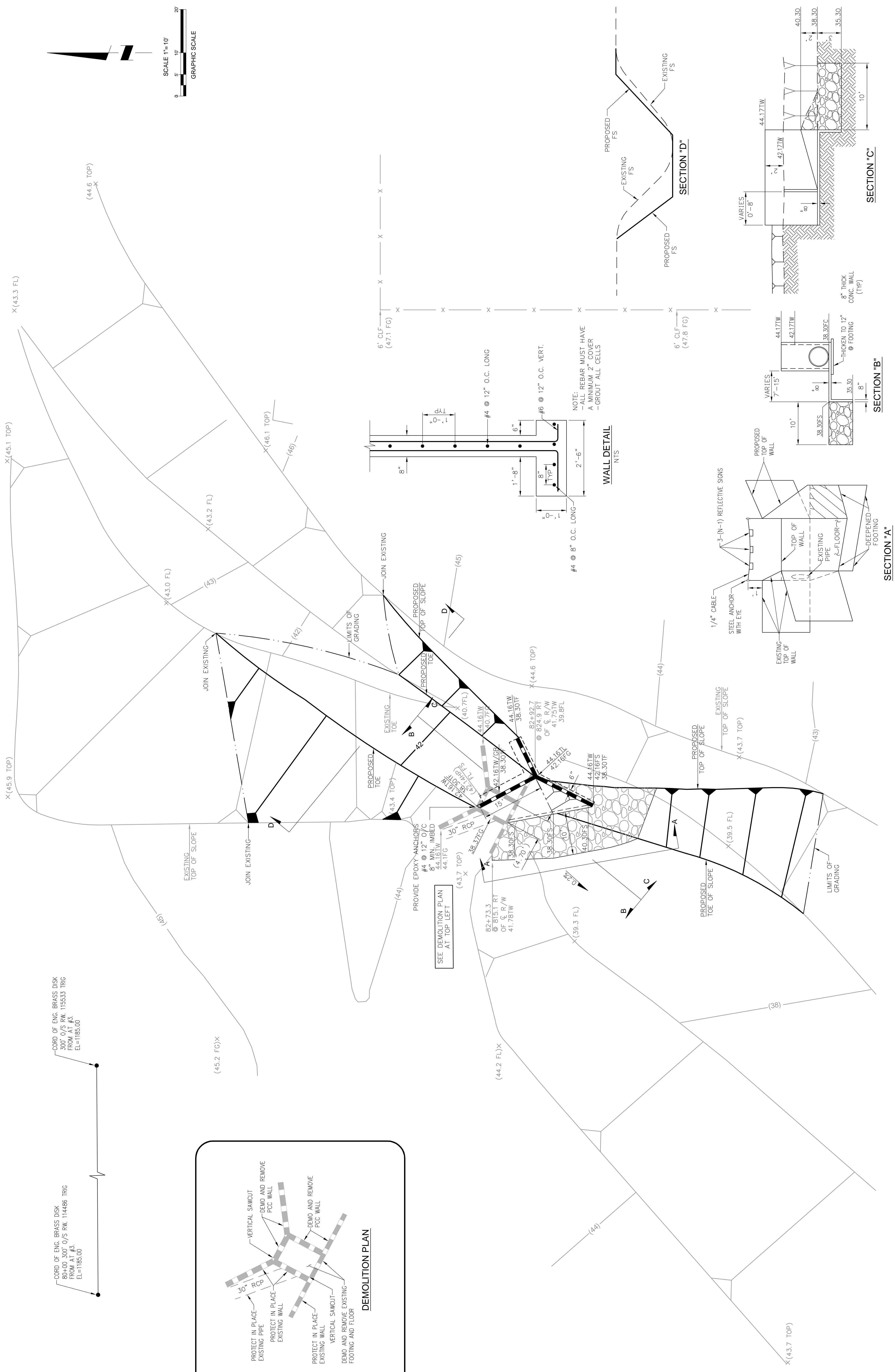


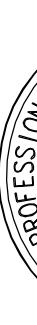
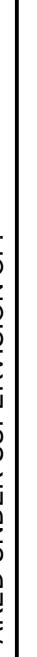
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Underground Service Alert	BENCHMARK: C1-9 City of San Bernardino (Reset 1995)	LOCATION: 3 1/2" BRASS DISK AT THE NORTHWEST CURB RETURN OF TIPEPECANO AVENUE AND BENEDICT ROAD	APPROVED	INLAND VALLEY DEVELOPMENT AGENCY	No.
Call: TOLL FREE 1-800 227-2600	PROFESSIONAL ENGINEER J. W. WILKE No. 70519 E-09/30/12 STATE: CALIFORNIA SHEET OF CALIFORNIA	DRAWN BY: ANTHONY PLACENCIA CHECKED BY: CURT INGRAMHAM RECOMMENDED BY: JAMES IMBORSKI	SHEET 5 OF 7 SHEETS	SAN BERNARDINO INTERNATIONAL AIRPORT Channel Hardening and Erosion Control Measures DETAILS & SECTIONS	PB Job No.: 177765



Underground Service Alert	BENCHMARK: C1-9 City of San Bernardino (Reset 1995)	APPROVED	INLAND VALLEY DEVELOPMENT AGENCY	No.
Call: TOLL FREE 1-800 227-2600	LOCATION: 3 1/2" BRASS DISK AT THE NORTHWEST CURB RETURN OF TIPECAÑO AVENUE AND BENEDICT ROAD		SAN BERNARDINO INTERNATIONAL AIRPORT Channel Hardening and Erosion Control Measures CONSTRUCTION PLAN SHEET Sta 43+43.82 to Sta 21+00.00	SHEET 7 OF 7 SHEETS
	ELEVATION: 1055.07			PB Job No.: 177765
				This plan is copyrighted by Associated Engineers, Inc. 2010



Underground Service Alert		BENCHMARK: C1-9 City of San Bernardino (Reset 1995)		LOCATION:		PLANS PREPARED UNDER SUPERVISION OF:	
 Parsons Brinckerhoff 100 Years		 Associated Engineers A division of		 CHRISTER J. SWONKE REG. NO. 70519 EXPIRED 09/30/12 STATE OF CALIFORNIA CIVIL ENGINEERING PROFESSIONAL ENGINEER		 CITY OF SAN BERNARDINO 311 E. SHELBY ST. ONTARIO, CA 91764 Tel: 909.980.1982 Fax: 909.941.0891	
Call: TOLL FREE 1-800 227-2600		ELEVATION: 1055.07		REVISIONS		MARK	
 BEST PRACTICE BEFORE YOU DIG		TWO WORKING DAYS BEFORE YOU DIG		RECOMMENDED BY: JAMES IMBIORSKI		APPR. DATE	