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OWNER/PERMITTEE CONTACT INFORMATION

BOULDER BRUSH, LLC
11455 EL CAMINO REAL SUITE 160
SAN DIEGO, CA 92130
858-764-3720

SITE ADDRESS

RIBBONWOOD ROAD
BOULEVARD, CALIFORNIA 91905

TOPOGRAPHY SOURCE

AERIAL PHOTOGRAMMETRY PROVIDED BY:
DUDEK
DATE OF PHOTOGRAPHY – AUGUST 2017
MODIFIED: NOVEMBER 7, 2017
CONTOUR INTERVAL, 1.0'

SMITHCO
DATE OF PHOTOGRAPHY – APRIL 2019
CONTOUR INTERVAL, 1.0'

BASIS OF BEARING

ALL BEARINGS SHOWN UPON THESE MAPS ARE BASED ON THE CALIFORNIA STATE PLANE COORDINATE SYSTEM, NAD 83, ZONE 6, AND WAS ESTABLISHED USING NATIONAL GEODETIC SURVEY FIRST ORDER STATIONS DC1914 & DC1917.

BENCHMARKS

DC1914
A. STATION IS A STANDARD DISK SET IN CONCRETE POST, STAMPED WITROCK 1941.
B. STATION IS LOCATED ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THEH MANZANITA INDIAN RESERVATION
ELEVATION: 3753' DATUM: NAVD88

DC1917
A. STATION IS A CAST-IRON SHAFT PAINTED WHITE, ABOUT 6 FEET HIGH ABOVE BASE, SPIRED ON TOP.
B. STATION IS LOCATED ON A LOW, BUSHY RIDGE, ABOUT 5 MILES WEST OF JACUMBA AND 11 MILES WEST-SOUTHWEST OF STATION CONE, DIRECTLY ON THE U.S.-MEXICO BOUNDARY LINE.
ELEVATION: 3794' DATUM: NAVD88

GRADING & GEOTECHNICAL SPECIFICATIONS

1. ALL GRADING SHALL BE DONE UNDER OBSERVATION AND TESTING BY A QUALIFIED CIVIL ENGINEER OR GEOTECHNICAL ENGINEER AND, IF REQUIRED, BOTH A QUALIFIED CIVIL ENGINEER AND AN ENGINEERING GEOLOGIST. ALL GRADING MUST BE PERFORMED IN ACCORDANCE WITH APPLICABLE COUNTY ORDINANCE AND THE RECOMMENDATIONS AND SPECIFICATIONS SET FORTH IN THE SOILS REPORT OR GEOLOGICAL/GEOTECHNICAL INVESTIGATION ENTITLED:

2. ALL FILL MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MOST RECENT VERSION OF ASTM D-698 OR AN APPROVED ALTERNATIVE STANDARD

3. IF THE GEOTECHNICAL CONSULTANT OF RECORD IS CHANGED FOR THE PROJECT, THE WORK SHALL BE STOPPED UNTIL THE REPLACEMENT HAS AGREED IN WRITING TO ACCEPT THE RESPONSIBILITY WITHIN THE AREA OF THEIR TECHNICAL COMPETENCE FOR APPROVAL UPON COMPLETION OF THE WORK. IT SHALL BE THE DUTY OF THE PERMITTEE TO NOTIFY THE COUNTY ENGINEER AND THE GEOLOGY SECTION OF THE DEVELOPMENT SERVICES DEPARTMENT IN WRITING OF SUCH CHANGE PRIOR TO THE RECOMMENCEMENT OF GRADING.

4. THESE GRADING PLANS HAVE BEEN REVIEWED BY THE UNDERSIGNED AND FOUND TO BE IN CONFORMANCE WITH THE RECOMMENDATIONS AND SPECIFICATIONS CONTAINED IN THE REFERENCED GEOTECHNICAL REPORT(S) PREPARED FOR THIS PROJECT

PURPOSE OF GRADING

THESE PLANS ARE PROVIDED TO DETAIL THE PROPOSED GEN-TIE ACCESS ROADS, AND TRANSMISSION LINE WORK AREA.

MONUMENTATION GENERAL NOTE

THE CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE AND PROTECT ALL SURVEY CONTROL MONUMENTS, WHETHER SHOWN ON THESE PLANS OR NOT, WITHIN THE PROJECT AREA. ALL SURVEY MONUMENTS, WHETHER FOR HORIZONTAL OR VERTICAL CONTROL, THAT WILL OR COULD BE DISTURBED OR REMOVED BY THE CONTRACTOR, OR HIS EMPLOYEES, AGENTS, SUBCONTRACTORS, CONSULTANT OR LICENSEES, SHALL BE LOCATED PRIOR TO BEING DISTURBED OR REMOVED AND REPLACED OR RESET, IN ACCORDANCE WITH THE CALIFORNIA BUSINESS AND PROFESSIONS CODE SECTION 8771(B), AT THE CONTRACTOR'S SOLE EXPENSE, UNDER THE SUPERVISION OF A LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING IN THE STATE OF CALIFORNIA. IN ADDITION, A RECORD OF SURVEY OR CORNER RECORD, AS APPLICABLE, SHALL BE FILED AND/OR RECORDED, IN ACCORDANCE WITH THE PROVISIONS OF SAID CODE.

PROJECT ENGINEER'S NOTE TO CONTRACTOR

THE LOCATIONS OF ANY UNDERGROUND STRUCTURES AS SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND ARE SHOWN FOR THE BENEFIT OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONARY MEASURES TO PROTECT ALL UNDERGROUND OR OVERHEAD STRUCTURES WHETHER SHOWN OR NOT ON THESE DRAWINGS

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY THE EXISTENCE AND LOCATION OF ALL UTILITIES BEFORE COMMENCING WORK. NOTICE OF PROPOSED WORK SHALL BE GIVEN TO THE FOLLOWING AGENCIES:
PHONE NUMBER:

UNDERGROUND SERVICE ALERT	(800) 422-4133
SAN DIEGO GAS AND ELECTRIC	(619) 434-2986
AT&T TELEPHONE	(619) 489-3441
CATV – COX COMMUNICATIONS	(619) 266-1181
WATER – OTAY WATER DISTRICT	(619) 670-2222

2. ALL MAJOR SLOPES SHALL BE ROUNDED INTO EXISTING TERRAIN TO PRODUCE A CONTOURED TRANSITION FROM CUT OR FILL FACES TO NATURAL GROUND AND ABUTTING CUT OR FILL SURFACES.

3. SLOPE RATIOS:
3.1. CUT--3:1 MAXIMUM, 4:1 TYPICAL
3.2. FILL--3:1 MAXIMUM, 4:1 TYPICAL

4. NOTICE: THE SUBJECT PROPERTY CONTAINS WETLANDS, A LAKE, A STREAM, AND/OR WATERS OF THE U.S. AND/OR STATE WHICH MAY BE SUBJECT TO REGULATION BY STATE AND/OR FEDERAL AGENCIES, INCLUDING, BUT NOT LIMITED TO, THE REGIONAL WATER QUALITY CONTROL BOARD (RWQCB), U.S. ARMY CORPS OF ENGINEERS (USACE) AND THE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE (CDFW). IT IS THE APPLICANT'S RESPONSIBILITY TO CONSULT WITH EACH AGENCY TO DETERMINE IF A PERMIT, AGREEMENT OR OTHER APPROVAL IS REQUIRED AND TO OBTAIN ALL NECESSARY PERMITS, AGREEMENTS OR APPROVALS BEFORE COMMENCING ANY ACTIVITY WHICH COULD IMPACT THE WETLANDS, LAKE, STREAM, AND/OR WATERS OF THE U.S. ON THE SUBJECT PROPERTY. THE AGENCY CONTACT INFORMATION IS PROVIDED BELOW.
4.1. U.S. ARMY CORPS OF ENGINEERS: 915 WILSHIRE BLVD., SUITE 1101, LOS ANGELES, CA 90017; (213) 452-3333; HTTP://WWW.USACE.ARMY.MIL/
4.2. REGIONAL WATER QUALITY CONTROL BOARD: 2375 NORTHSIDE DRIVE, SUITE 100, SAN DIEGO, CA 92108; RB9_DREDGEFILL@WATERBOARDS.CA.GOV ; HTTP://WWW.WATERBOARDS.CA.GOV/SANDIEGO/
4.3. CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE: 3883 RUFFIN RD., SAN DIEGO, CA 92123; (858) 636-3160; ASKR5@WILDLIFE.CA.GOV HTTP://WWW.DFG.CA.GOV/

Sheet List Table	
Sheet Number	**Sheet Title**
1	COVER
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6	CONSTRUCTION DETAILS
7	CONSTRUCTION DETAILS
8	FENCE DETAILS
9	FENCE DETAILS
10	FENCE DETAILS
11	FIRE WATER TANK DETAILS
12	FIRE WATER TANK DETAILS
13	FIRE WATER TANK DETAILS
14	RIBBONWOOD RD. IMPROVEMENTS
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17	HIGH-VOLTAGE SUB & SY ACCESS ROAD
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22	HIGH-VOLTAGE SUB & SY ACCESS ROAD
23	HIGH-VOLTAGE SUB & SY ACCESS ROAD
24	HIGH-VOLTAGE SUB & SY ACCESS ROAD
25	DECOMPOSED GRANITE ACCESS ROADS
26	DECOMPOSED GRANITE ACCESS ROADS
27	HIGH-VOLTAGE SUBSTATION & SWITCHYARD

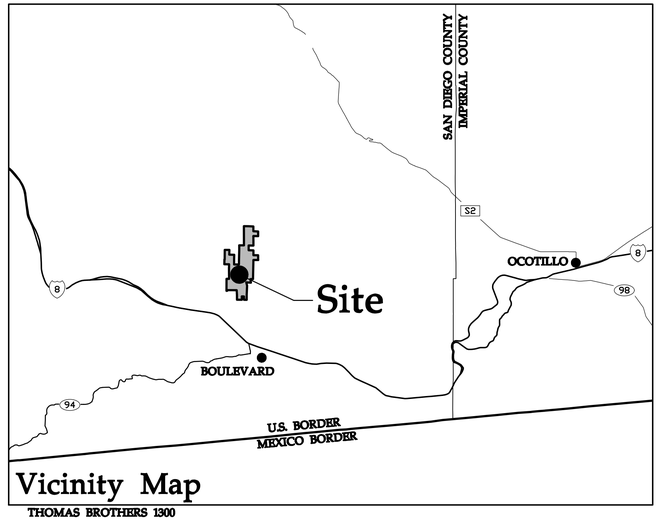
FUEL MOD ZONE OFFSETS

1. RIBBONWOOD ROAD IMPROVEMENTS – 20' FROM EDGE OF ROAD OR FROM EDGE OF ROAD TO EDGE OF EASEMENT, WHICHEVER IS LESS.
2. HIGH-VOLTAGE SUBSTATION AND SWITCHYARD ACCESS ROAD – 20' FROM EDGE OF ROAD
3. TRANSMISSION POLES – 20' RADIUS FROM CENTER
4. DECOMPOSED GRANITE ACCESS ROADS – 20' FROM EDGE OF ROAD
5. HIGH-VOLTAGE SUBSTATION AND SWITCHYARD – 50' FROM FENCE

Boulder Brush Grading Quantities		
Total Cut: 26800 (CY)	Total Fill: 26800 (CY)	Balance: 0

BASE FILE	FILE NAME / NOTES	PROVIDER	DATE
AERIAL IMAGE	SanDiegoWindFarm_UPDATED_2017_11_08.jp2, Ribbonwood Aerial Ortho ECW.j	Terra-Gen / SmithCo	4/25/2019
LAND CONTROL	56-734 ALTA R9_New Datum.dwg	SmithCo	5/30/2019
ALTA SURVEY	56-734 ALTA R9_New Datum.dwg	SmithCo	5/30/2019
TOPOGRAPHY	N:\0013118.00\GIS\DTM\MKP_All.txt	Terra-Gen	10/24/2017
TURBINE ARRAY	*	*	*
UNDERGROUND COLLECTION	*	*	*
GEN-TIE	151159 tg sdw 19-06-04	POWER Engineers	6/4/2019
STREAMS/WETLANDS	JD_Polygons.shp	Dudek	11/13/2019
CULTURAL RESOURCES	EnvironmentalConstraints.pdf/ESAs.shp	Dudek	10/24/2017
FEMA INFO	N:\0013118.00\source\FEMA\FEMA.shp	FEMA	11/7/2017
PLANIMETRICS	PlanimetricFeatures.DWG	Dudek	1/25/2018

WDID NO. TBD



Vicinity Map

THOMAS BROTHERS 1300

(NOT TO SCALE)

DIGALERT 811 AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____

R.C.E. NAME CHRISTOPHER J. CARDA

EXPIRES: _____

BENCH MARK

DESCRIPTION: STANDARD DISC SET IN CONCRETE POST

LOCATION: ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THE MANZANITA INDIAN RES.

RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

Cover

PRIVATE CONTRACT

SHEET	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	SHEETS
1		27

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190-1983, 1989, 1995

APPROVED FOR:
WILLIAM P. MORGAN, COUNTY ENGINEER
BY: DATE:

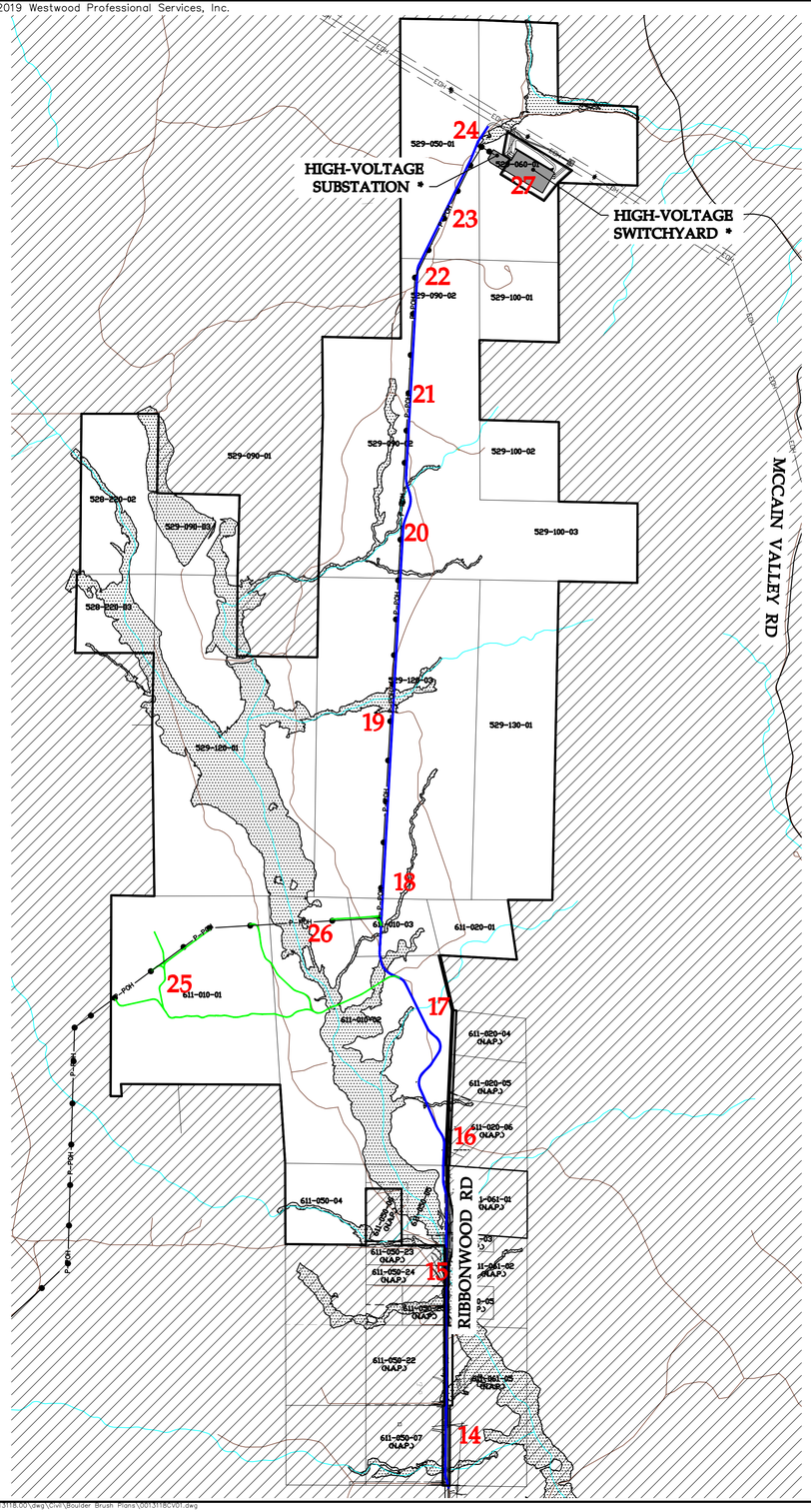
ENGINEER OF WORK
CHRISTOPHER J. CARDA R.C.E. C75322

GRADING PERMIT NO:

WESTWOOD PROFESSIONAL SERVICES, INC.
PHONE: 952-937-5150

N:\0013118.00\dwg\Civil\Boulder Brush Plans\0013118CV01.dwg

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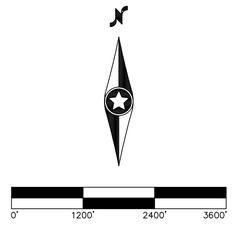


LEGEND:

- PROPOSED DECOMPOSED GRANITE ACCESS ROAD
- PROPOSED PAVED ACCESS ROAD
- AREA OF PRIOR DISTURBANCE
- P-POH — PROPOSED OVERHEAD POWER TRANSMISSION LINE
- EDH — EXISTING OVERHEAD POWER
- EXISTING DRAINAGE
- 100-YEAR STORM INUNDATION
- NOT A PART OF BOULDER BRUSH PROJECT
- BOULDER BRUSH BOUNDARY
- EXISTING PARCEL LINE
- ## INDICATES PAGE NUMBER
- ● PROPOSED TRANSMISSION POLE

NOTES:
* NOT A PART OF THESE GRADING PLANS

APN	OWNER NAME	PROPOSED INFRASTRUCTURE	TEMPORARY DISTURBANCE AREA (ACRES)	PERMANENT DISTURBANCE AREA (ACRES)	SURVEYED PARCEL AREA (ACRES)	COUNTY PARCEL AREA (ACRES)
528-220-02	GM Gabrych Family Partnership LP	NONE ANTICIPATED	-	-	80	80
528-220-03	GM Gabrych Family Partnership LP	NONE ANTICIPATED	-	-	40	40
529-050-01	GM Gabrych Family Partnership LP	GEN-TIE POLES, ACCESS ROADS, PULL AREA	5.36	2.45	123	120
529-060-01	GM Gabrych Family Partnership LP	GEN-TIE POLES, ACCESS ROADS, SUBSTATION/INTERCONNECT, PULL AREA	9.51	18.01	164	160
529-090-02	GM Gabrych Family Partnership LP	GEN-TIE POLES, ACCESS ROADS	12.54	5.28	288	280
529-090-03	GM Gabrych Family Partnership LP	NONE ANTICIPATED	-	-	44	40.66
529-100-01	GM Gabrych Family Partnership LP	NONE ANTICIPATED	-	-	41	40
529-100-02	GM Gabrych Family Partnership LP	NONE ANTICIPATED	-	-	41	40
529-100-03	GM Gabrych Family Partnership LP	NONE ANTICIPATED	-	-	82	80
529-120-01	GM Gabrych Family Partnership LP	PULL AREA	-	-	296	283.28
529-120-03	GM Gabrych Family Partnership LP	GEN-TIE POLES, ACCESS ROADS	11.34	5.85	331	320
529-130-01	GM Gabrych Family Partnership LP	NONE ANTICIPATED	-	-	165	160
611-010-01	GM Gabrych Family Partnership LP	GEN-TIE POLES, ACCESS ROADS, PULL AREA	19.53	-	200	200.37
611-010-02	GM Gabrych Family Partnership LP	GEN-TIE POLES, ACCESS ROADS, LAYDOWN YARD	12.83	4.18	262	263.23
611-010-03	GM Gabrych Family Partnership LP	GEN-TIE POLES, ACCESS ROADS, PULL AREA	4.21	0.84	31	23.85
611-020-01	GM Gabrych Family Partnership LP	NONE ANTICIPATED	-	-	30	28.65
611-050-04	GM Gabrych Family Partnership LP	NONE ANTICIPATED	-	-	43	40
611-050-05	GM Gabrych Family Partnership LP	ACCESS ROADS	1.20	0.78	29	33.64
		Total:	76.52	37.39	2290	2233.68



Westwood

Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com

Westwood Professional Services, Inc.

COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____

NAME CHRISTOPHER J. CARDA

R.C.E. _____

EXPIRES: _____

BENCH MARK

DESCRIPTION: STANDARD DISC SET IN CONCRETE POST

LOCATION: ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THE MANZANITA INDIAN RES.

RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

Plan Index

PRIVATE CONTRACT

SHEET	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS
2		

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190-1983, 1989, 1995

APPROVED FOR:
WILLIAM P. MORGAN, COUNTY ENGINEER

BY: DATE:

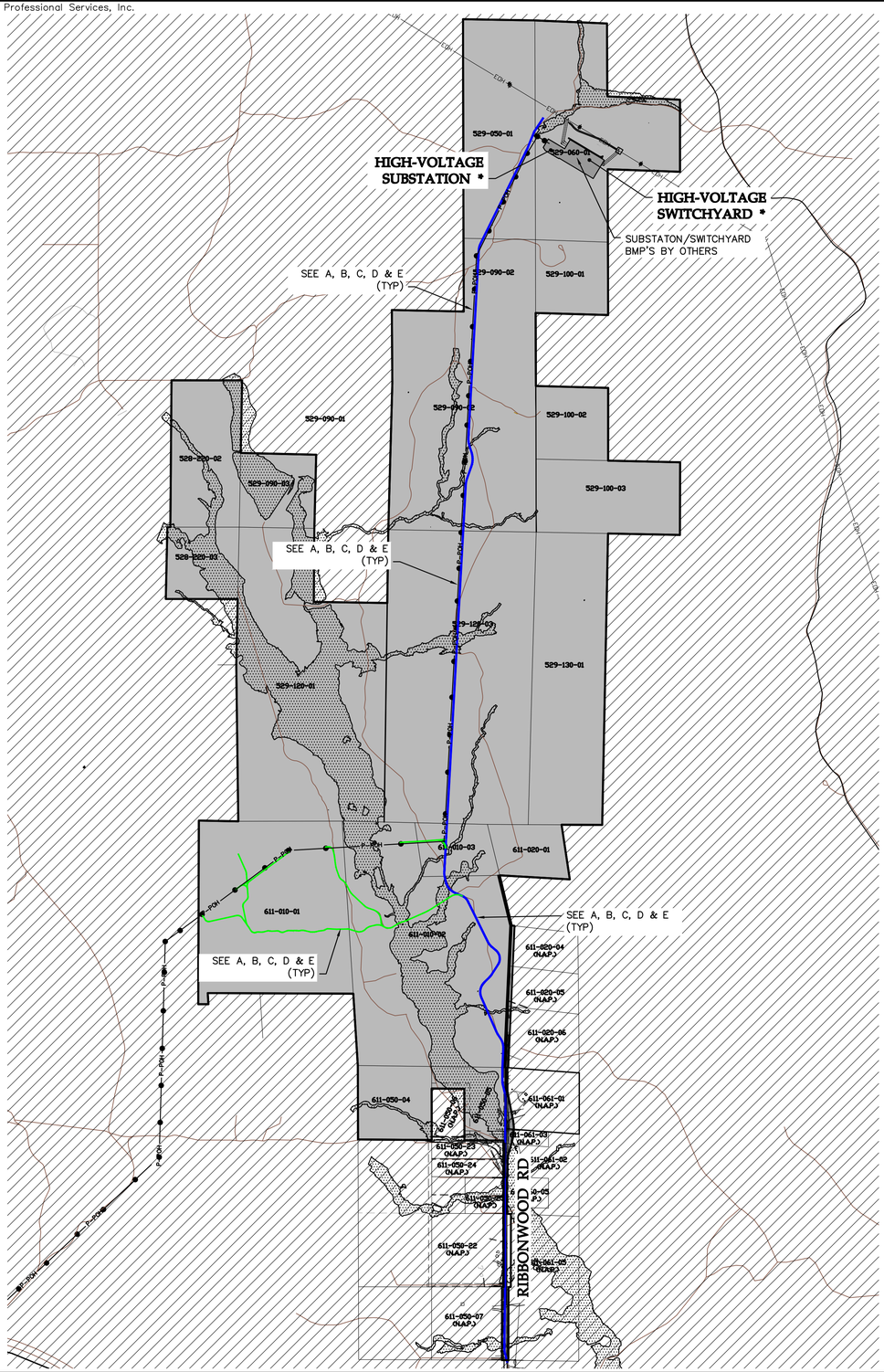
ENGINEER OF WORK
CHRISTOPHER J. CARDA R.C.E. C75322

GRADING PERMIT NO:

WESTWOOD PROFESSIONAL SERVICES, INC.
PHONE: 952-937-5150

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EROSION CONTROL NOTES

1. CONTRACTOR SHALL PROVIDE EROSION CONTROL MEASURES AS PLANNED AND SPECIFIED FOLLOWING BEST MANAGEMENT PRACTICES AS OUTLINED BY THE REGIONAL WATER QUALITY CONTROL BOARD. EROSION CONTROL PLAN SHALL BE IN CONFORMANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL STORMWATER PERMIT. SEE THE ASSOCIATED STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR EROSION CONTROL SPECIFICATIONS. UNLESS OTHERWISE NOTED OR MODIFIED HEREIN, ALL SECTIONS OF THE GENERAL CONDITIONS SHALL APPLY.
2. EFFORTS SHALL BE MADE TO MINIMIZE SOIL DISTURBANCE TO AREAS OUTSIDE OF THE DISTURBANCE LIMITS.
3. EROSION CONTROL BLANKETS OR POLYMER STABILIZED FIBER MATRIX SHALL BE APPLIED ON EXPOSED SLOPES TO CONTROL DUST AND EROSION.
4. ALL PUBLIC STREETS SHALL BE MAINTAINED FREE OF DUST AND MUD CAUSED BY THE GRADING OPERATIONS.

FUGITIVE DUST CONTROL NOTES

1. CONTRACTOR SHALL COMPLY WITH MEASURES PROPOSED BY THE FUGITIVE DUST CONTROL PLAN AS REQUIRED BY THE SAN DIEGO COUNTY AIR POLLUTION CONTROL DISTRICT (SDCAPCD).
2. DISTURBANCE AREAS SHALL BE WATERED PRIOR TO GRADING ACTIVITIES.
3. UP TO THREE 4,000 GALLON TRUCK WILL BE ON SITE FULL-TIME FOR DUST CONTROL THROUGHOUT CONSTRUCTION OPERATIONS. THESE TRUCKS WILL HAVE THE ABILITY TO PROVIDE UP TO 3,000 GALLONS PER HOUR TO CONTROL DUST.
4. STOCKPILES WILL BE WATERED IF DUST IS APPARENT. STOCKPILES IN GENERAL SHALL BE SMALL IN SIZE.
5. DUST SUPPRESSANTS, WHEN REQUIRED, SHALL CONSIST OF MAGNESEIUM CHLORIDE OR DUSTGUARD BY TERRA NOVA OR APPROVED EQUIVLAENT TYPICALLY APPLIED AT A RATE OF 30 GALLONS PER ACRE. TWO PASSES OF THE APPLICATION WILL BE UTILIZED FOR THOUROUGH COVERAGE WHERE REQUIRED BY SITE CONDITIONS.
6. EARTH MOVING OPERATIONS SHALL IMPLEMENT AT LEAST ONE OF THE THESE SHORT TERM STABILIZATION METHODS DURING NON-WORKING HOURS:
   A. MAINTAIN SOILS IN A DAMP CONDITION AS DETERMINED BY SIGHT OR TOUCH.
   B. ESTABLISH A STABILIZED SURFACE THROUGH WATERING.
   C. APPLY DUST SUPPRESSANT IN SUFFICIENT QUANTITIES AND CONCENTRATION TO MAINTAIN A STABILIZED SURFACE.
6. WITHIN TEN DAYS OF CEASING ACTIVITY, CONTRACTOR SHALL IMPLEMENT AT LEAST ONE OF THE FOLLOWING LONG-TERM STABILIZATION TECHNIQUES FOR ANY DISTURBED SURFACE AREA WHERE CONSTRUCTION ACTIVITIES ARE NOT SCHEDULED TO OCCUR FOR AT LEAST THIRTY DAYS:
   A. PROVIDE AGGREGATE SURFACING.
   B. ESTABLISH A STABILIZED SURFACE THROUGH WATERING.
   C. USE CHEMICAL STABILIZERS TO ESTABLISH A STABILIZED SURFACE.
7. CONTRACTOR SHALL INSTALL AND MAINTAIN PROJECT SIGNAGE THAT CONTROLS VEHICLE SPEEDS TO A MAXIMUM OF 15 MPH.
8. CONSTRUCTION OPERATIONS SHALL CEASE WHEN THE PROJECT EXPERIENCES SUSTAINED WINDS IN EXCESS OF 35 MPH.

BMP CONSTRUCTION NOTES:

A. METHOD FOR DISTURBED SLOPES

SS-4 HYDRAULIC STABILIZATION HYDROSEEDING – SITE WIDE (DISTURBED LIMITS)

SS-3 BONDED FIBER MATRIX OF STABILIZED FIBER MATRIX – SITE WIDE (DISTURBED LIMITS): REFER TO SWPPP

SS-7 PHYSICAL STABILIZATION – EROSION CONTOL BLANKET

B. METHOD FOR DISTURBED FLAT AREAS

SC-2 COUNTY STANDARD LOT PERIMETER PROTECTION DETAIL

SS-3, 4, 7 METHOD 'A' BMP'S

C. CONCENTRATED RUNOFF OR DEWATERING OPERTION

SS-10 ENERGY DISSIPATER OUTLET PROTECTION

D. METHOD FOR ALL DISTURBANCE

SC-1 SILT FENCE

SC-5 FIBER ROLLS (STRAW WATTLES)

SC-6 & 8 GRAVEL & SAND BAGS

NS-2 DEWATERING FILTRATIONS

E. METHOD FOR PREVENTING OFFSITE TRACKING OF SEDIMENT

TC-1 STABILIZED CONSTRUCTION ENTRANCE

TC-2 CONSTRUCTION ROAD STABILIZATION

TC-1 ENTRANCE/EXIT INSPECTION & CLEANING FACILITY

F1. MATERIAL MANAGEMENT

WM-1 WASTE MANAGEMENT-CONCRETE WASTE MANAGEMENT

WM-4 MATERIAL DELIVERY AND & STORAGE

F2. WASTE MANAGEMENT

WM-8 SPILL PREVENTION AND CONTROL

WM-5 SOLID WASTE MANAGEMENT

WM-9 SANITARY WASTE MANAGEMENT

WM-6 HAZARDOUS WASTE MANAGEMENT

LEGEND:

- PRIVATE LEASE LANDS
- PROPOSED DECOMPOSED GRANITE ACCESS ROAD
- PROPOSED PAVED ACCESS ROAD
- P-POH — PROPOSED OVERHEAD POWER TRANSMISSION LINE
- FIELD DELINEATED JURISDICTIONAL STREAM
- 100-YEAR STORM INUNDATION
- PROPOSED TRANSMISSION POLE
- AREA OF PRIOR DISTURBANCE
- BOULDER BRUSH BOUNDARY

NOTES:
* NOT A PART OF THESE GRADING PLANS

0' 1200' 2400' 3600'

Westwood
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Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____

R.C.E. NAME CHRISTOPHER J. CARDA

EXPIRES: _____

BENCH MARK

DESCRIPTION: STANDARD DISC SET IN CONCRETE POST

LOCATION: ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THE MANZANITA INDIAN RES.

RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

Erosion Control Plan

PRIVATE CONTRACT

SHEET 3 | COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS | 27 SHEETS

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190-1983, 1989, 1995

APPROVED FOR: WILLIAM P. MORGAN, COUNTY ENGINEER

BY: DATE:

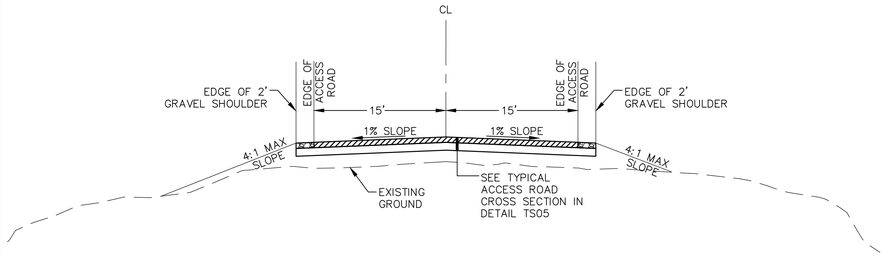
ENGINEER OF WORK
CHRISTOPHER J. CARDA R.C.E. C75322

GRADING PERMIT NO:

WESTWOOD PROFESSIONAL SERVICES, INC.
PHONE: 952-937-5150

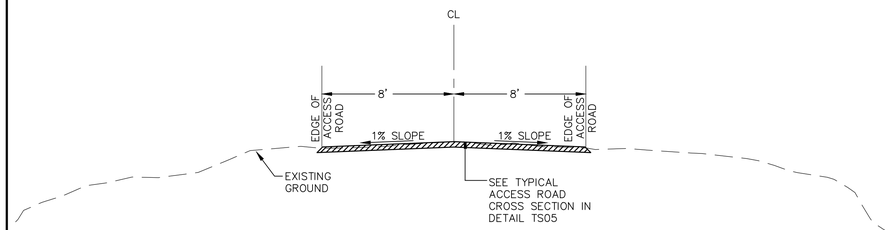
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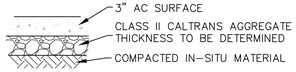
NOTES:
1. ROADS TO GENERALLY FOLLOW EXISTING CONTOURS
2. MAXIMUM CROSS SLOPE FOR CRANE TRAVEL IS 1.0%

Westwood	30' PAVED ACCESS ROAD – STA. 52+00 TO END – RIDGE SECTION	LAST REVISED: 03/14/13 RD01–A



NOTES:
1. ROADS TO GENERALLY FOLLOW EXISTING CONTOURS
2. MAXIMUM CROSS SLOPE FOR CRANE TRAVEL IS 1.0%

Westwood	DECOMPOSED GRANITE ACCESS ROAD	LAST REVISED: 03/14/13 RD01–A



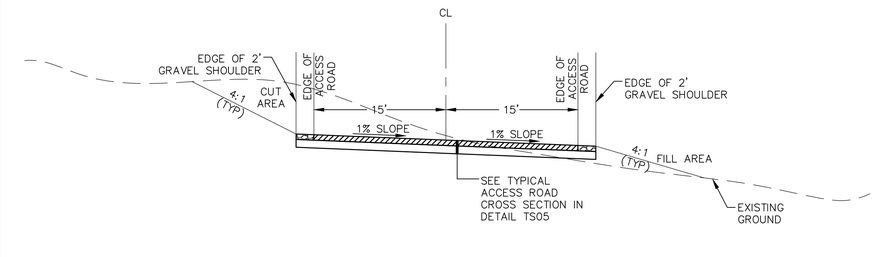
PRIVATE PAVED ACCESS ROAD SECTION



PRIVATE DECOMPOSED GRANITE ACCESS ROAD SECTION

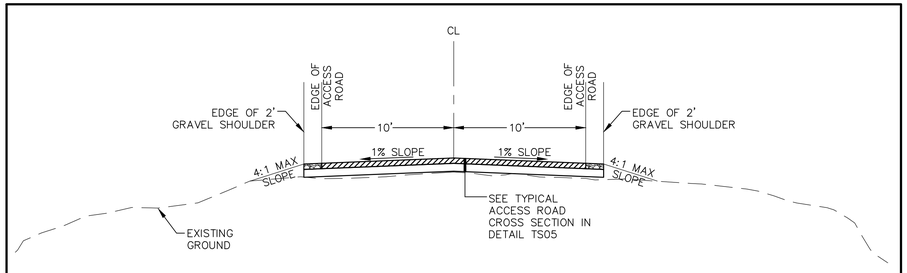
NOTE:
1. STRUCTURAL SECTIONS SHOWN ARE THE MINIMUM THICKNESS REQUIREMENTS DURING NORMAL FIELD CONDITIONS. THE SECTIONS MAY NEED TO BE INCREASED BASED ON ACTUAL FIELD CONDITIONS AT THE TIME OF CONSTRUCTION. CONDITIONS INCLUDE, BUT ARE NOT LIMITED TO, CONSTRUCTION DURING UNUSUALLY WET PERIODS, OR IN LOW/WET AREAS.
2. REFER TO GEOTECHNICAL ENGINEERING REPORT FOR ADDITIONAL INFORMATION.
3. AC SURFACE COURSE TO BE COMPLETED POST TURBINE CONSTRUCTION

Westwood	TYPICAL STRUCTURAL SECTIONS	LAST REVISED: 11/9/17 TS05



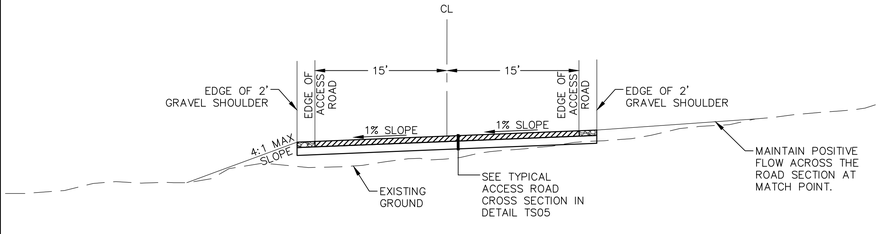
NOTES:
1. ROADS TO GENERALLY FOLLOW EXISTING CONTOURS
2. MAXIMUM CROSS SLOPE FOR CRANE TRAVEL IS 1.0%
3. GRADE ROAD SURFACE AND SHOULDERS TO MAINTAIN EXISTING DRAINAGE PATTERNS AND ALLOW SHEET FLOW ACROSS THE ROAD PROFILE.

Westwood	30' PAVED ACCESS ROAD – STA. 52+00 TO END – CUT SECTION	LAST REVISED: 01/02/13 RD01–C



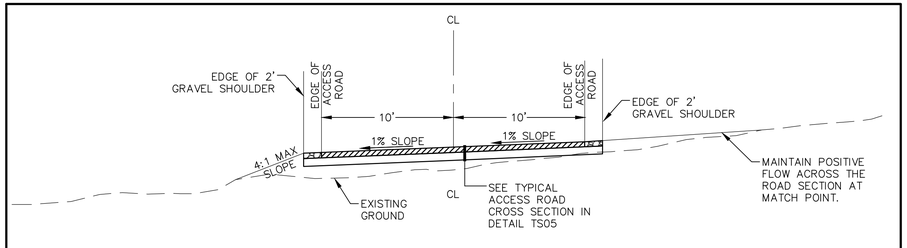
NOTES:
1. ROADS TO GENERALLY FOLLOW EXISTING CONTOURS
2. MAXIMUM CROSS SLOPE FOR CRANE TRAVEL IS 1.0%

Westwood	20' PAVED ACCESS ROAD – STA. 0+00 – 52+00	LAST REVISED: 03/14/13 RD01–A



NOTES:
1. ROADS TO GENERALLY FOLLOW EXISTING CONTOURS
2. MAXIMUM CROSS SLOPE FOR CRANE TRAVEL IS 1.0%
3. GRADE ROAD SURFACE AND SHOULDERS TO MAINTAIN EXISTING DRAINAGE PATTERNS AND ALLOW SHEET FLOW ACROSS THE ROAD PROFILE.

Westwood	30' PAVED ACCESS ROAD – STA. 52+00 TO END – RELATIVELY FLAT GROUND	LAST REVISED: 03/14/13 RD01–B



NOTES:
1. ROADS TO GENERALLY FOLLOW EXISTING CONTOURS
2. MAXIMUM CROSS SLOPE FOR CRANE TRAVEL IS 1.0%
3. GRADE ROAD SURFACE AND SHOULDERS TO MAINTAIN EXISTING DRAINAGE PATTERNS AND ALLOW SHEET FLOW ACROSS THE ROAD PROFILE.

Westwood	20' PAVED ACCESS ROAD – STA. 0+00 – 52+00	LAST REVISED: 03/14/13 RD01–B

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
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Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____

R.C.E. NAME CHRISTOPHER J. CARDA

EXPIRES: _____

BENCH MARK

DESCRIPTION: STANDARD DISC SET IN CONCRETE POST

LOCATION: ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THE MANZANITA INDIAN RES.

RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

Construction Details

PRIVATE CONTRACT

SHEET 4	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190–1983, 1989, 1995

APPROVED FOR: WILLIAM P. MORGAN, COUNTY ENGINEER

BY: DATE:

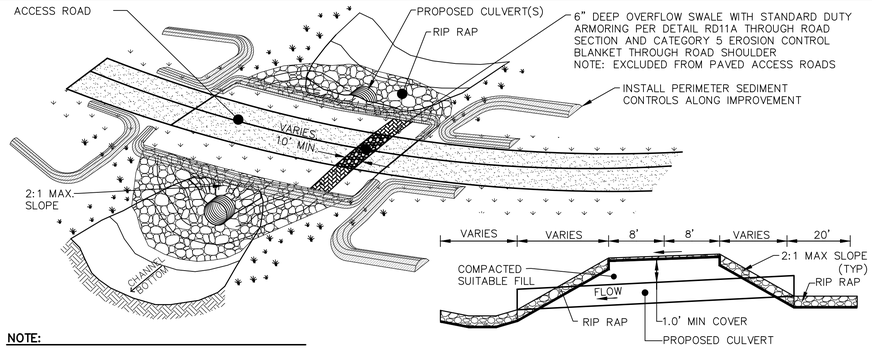
ENGINEER OF WORK
CHRISTOPHER J. CARDA R.C.E. C75322

GRADING PERMIT NO:

WESTWOOD PROFESSIONAL SERVICES, INC.
PHONE: 952–937–5150

N:\0013118.00\dwg\Civil\Boulder Brush Plans\0013118D101.dwg

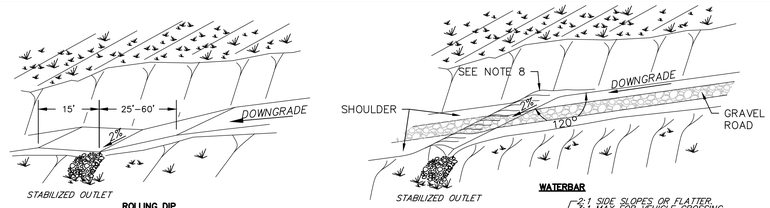
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NOTE:

1. MINIMIZE DISTURBANCE TO THE STREAM/DITCH DURING CULVERT INSTALLATION.
2. RESTORE DISTURBED AREA TO NATIVE CONDITIONS IN ACCORDANCE WITH THE SWPPP.
3. CULVERT INSTALLATION SHALL CONFORM WITH MANUFACTURERS RECOMMENDATION FOR INSTALLATION.
4. SUMP CULVERT BELOW FLOW LINE PER DETAIL RD12D.

Westwood	TYPICAL ACCESS ROAD DRAINAGE CROSSING–CULVERT	LAST REVISED: 10/14/16
		RD12–A



ROLLING DIP | **WATERBAR**

NOTE:

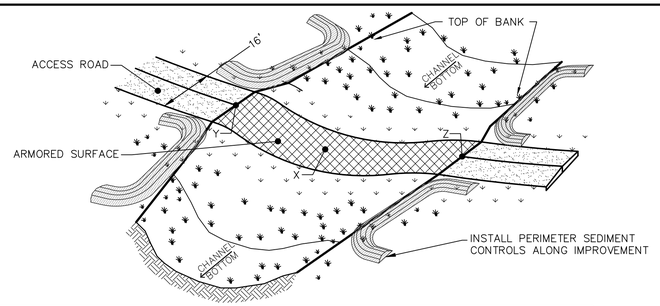
1. ROLLING DIP AND WATERBAR SHALL BE USED ON ACCESS ROADS. ROLLING DIP AND WATERBAR ARE POST TURBINE COMPONENT DELIVERY TRAFFIC BMPS. THEY SHALL NOT BE INSTALLED UNTIL ALL DELIVERIES HAVE BEEN COMPLETED.
2. ROLLING DIP AND WATERBAR WILL REQUIRE MAINTENANCE FOLLOWING RAINFALL EVENTS TO ENSURE FUNCTIONALITY. REMOVE SEDIMENT FROM THE FLOW AREA.
3. THE ROLLING DIP AND WATERBARS SHOULD BE BUILT AT AN ANGLE OF 45° TO 60° FROM THE CENTERLINE.
4. THE DIVERSION SHOULD HAVE A POSITIVE GRADE OF 2% MINIMUM.
5. FOR ROLLING DIPS, THE HEIGHT FROM CHANNEL BOTTOM TO THE TOP OF THE SETTLED RIDGE SHALL BE 18 INCHES AND THE SIDE SLOPES OF THE RIDGE SHALL BE 2:1 OR FLATTER.
6. OUTLET: DIVERSIONS SHOULD HAVE STABLE OUTLETS, EITHER NATURAL OR MANMADE.
7. REFER TO TABLE 1 FOR SPACING RECOMMENDATIONS FOR SPECIFIC ACCESS ROAD SLOPES.
8. EXTEND WATER BARS UP TO UPSTREAM SLOPE TO ENSURE ALL RUNOFF IS CAPTURED AND ROUTED TO THE DOWNSTREAM SIDE OF THE ROAD.

SECTION

TABLE 1: ROLLING DIP AND WATERBAR SPACING RECOMMENDATIONS

SLOPE (%)	SPACING (FT)
<5	AS REQUIRED
5–10	100
10–20	75

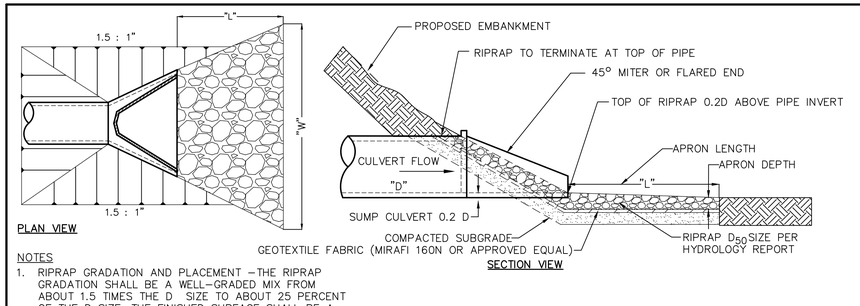
Westwood	ROLLING DIP AND WATERBAR	LAST REVISED: 04/04/18
		GD41



NOTE:

1. CHANNEL SIDE SLOPES MAY REQUIRE MODIFICATION TO CONSTRUCT THE ACCESS ROAD THROUGH THE CHANNEL THAT MEETS COMPONENT DELIVERY REQUIREMENTS.
2. THE ACCESS ROAD SHALL CROSS THE CHANNEL AS CLOSE TO 90–DEGREES AS POSSIBLE.
3. THE FINISHED ACCESS ROAD SURFACE SHALL BE AT AN ELEVATION THAT ALLOWS WATER TO FLOW THROUGH THE CHANNEL UNIMPEDED AND WITHOUT PONDING UPSTREAM OF THE ROAD OR ON THE ROAD SURFACE.
4. ARMORED SURFACE TREATMENT OF THE ROAD SURFACE SHALL EXTEND THROUGH THE CHANNEL BOTTOM AND UP THE CHANNEL SIDE SLOPES TO THE OBSERVED TOP OF BANK OF THE CHANNEL.
5. REFER TO DETAIL RD11A FOR ARMORED SURFACE TREATMENT OPTIONS.
5. FINAL SURFACE ELEVATION AT POINT "X" MUST BE A MINIMUM OF 6" LESS THAN THE FINAL SURFACE ELEVATION AT POINTS "Y" AND "Z" TO ENSURE OVERFLOW DOES NOT FLOW DOWN THE ROAD.

Westwood	PERMANENT ACCESS ROAD LOW WATER CROSSING	LAST REVISED: 03/09/17
		RD11



PLAN VIEW

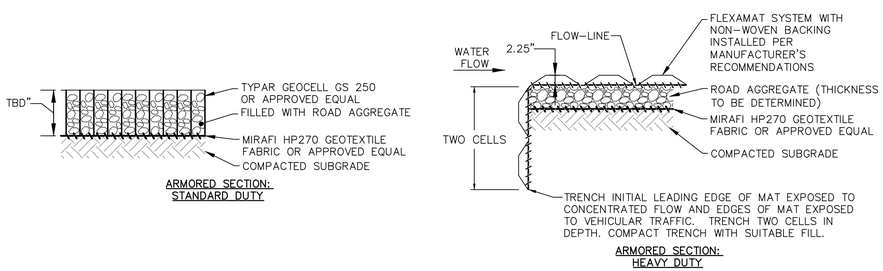
SECTION VIEW

NOTES

1. RIPRAP GRADATION AND PLACEMENT – THE RIPRAP GRADATION SHALL BE A WELL–GRADED MIX FROM ABOUT 1.5 TIMES THE D SIZE TO ABOUT 25 PERCENT OF THE D SIZE. THE FINISHED SURFACE SHALL BE A RELATIVELY SMOOTH UNIFORMLY SLOPED SURFACE.
2. CULVERT SIZING SHALL ACCOUNT FOR LOSS OF CAPACITY DUE TO 0.2D SUMP.

SEE DETAIL ER05 FOR RIPRAP DIMENSIONS AND SIZING.

Westwood	PIPE/CULVERT OUTLET APRON	LAST REVISED: 4/18/17
		RD12–D



NOTE:

1. THE ACCESS ROAD SHALL CROSS THE DITCH AT 90° ANGLE.
2. RESTORE DISTURBED AREA TO NATIVE CONDITIONS IN ACCORDANCE WITH THE SWPPP.

Westwood	ARMORED SURFACE TREATMENTS AT LOW WATER CROSSINGS	LAST REVISED: 03/09/17
		RD11A

STORM CROSSING SCHEDULE

Crossing ID	Jurisdictional Water	Type of Crossing	Proposed Culvert Size
B1	YES	CULVERT	3-30"
B2		PAVED LWC	
B3		PAVED LWC	
B4	YES	PAVED LWC	
B5		PAVED LWC	
B6		CULVERT	1-18"
B7	YES	CULVERT	1-36"
B9		PAVED LWC	
B10	YES	CULVERT	1-24"
B11		PAVED LWC	1-18"
B12		CULVERT	1-24"
B13	YES	CULVERT	1-36"
B14		CULVERT	1-18"
B15		CULVERT	1-18"
B16		CULVERT	1-18"
B17		CULVERT	1-18"
B18		CULVERT	1-18"
B19		CULVERT	1-18"
B20		CULVERT	1-18"
B21		CULVERT	2-24"
B22		CULVERT	1-18"
B23	YES	CULVERT	1-24"
B24		CULVERT	1-18"
B25		CULVERT	1-18"

Crossing ID	Jurisdictional Water	Type of Crossing	Proposed Culvert Size
B26	YES	CULVERT	1-18"
B27	YES	CULVERT	1-30"
B28	YES	CULVERT	1-18"
B29		CULVERT	1-18"
B30		CULVERT	1-18"
B31	YES	CULVERT	1-18"
B32	YES	CULVERT	1-18"
B33		LWC - STANDARD DUTY	
B34	YES	CULVERT & PAVED CROSSING	2-48"
B35	YES	CULVERT	1-30"
B36	YES	TEMP IMPACT	
B37	YES	TEMP IMPACT	
B38	YES	TEMP IMPACT	
B39	YES	TEMP CULVERT	1-24"
B40	YES	TEMP IMPACT	
B41	YES	TEMP CULVERT	1-24"
B42	YES	TEMP CULVERT	1-24"
B43	YES	TEMP IMPACT	
B44		LWC - STANDARD DUTY	
B45	YES	TEMP IMPACT	
B46		CULVERT	2-18"
B47	YES	LWC - BY OTHERS	

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Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____

R.C.E. NAME CHRISTOPHER J. CARDA

EXPIRES: _____

BENCH MARK

DESCRIPTION: STANDARD DISC SET IN CONCRETE POST

LOCATION: ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THE MANZANITA INDIAN RES.

RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

Construction Details

PRIVATE CONTRACT

SHEET 5	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190–1983, 1989, 1995

APPROVED FOR: WILLIAM P. MORGAN, COUNTY ENGINEER

BY: DATE:

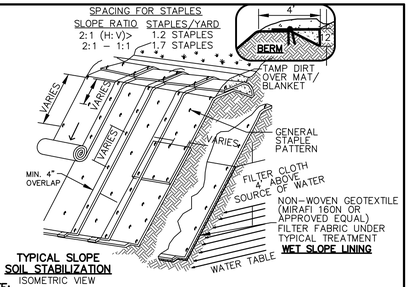
ENGINEER OF WORK

CHRISTOPHER J. CARDA R.C.E. C75322

GRADING PERMIT NO:

WESTWOOD PROFESSIONAL SERVICES, INC.
PHONE: 952–937–5150

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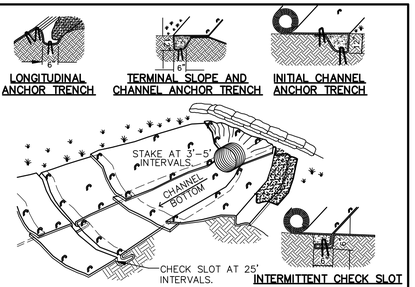


TYPICAL SLOPE SOIL STABILIZATION
ISOMETRIC VIEW

NOTE:

1. REFER TO THE SWPPP FOR IMPLEMENTATION REQUIREMENTS.
2. MATS/BLANKETS SHOULD BE INSTALLED VERTICALLY DOWNSLOPE.
3. SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICK AND GRASS.
4. MATS/BLANKETS SHALL HAVE GOOD SOIL CONTACT.
5. LAY BLANKETS LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH THE SOIL.
6. DO NOT STRETCH.
7. BLANKET TYPE AND WEIGHT MUST BE CHOSEN BASED ON SITE CONDITIONS, PERFORMANCE FACTORS AND MANUFACTURERS RECOMMENDATIONS.
8. STAPLE LENGTHS SHALL CONFORM TO MANUFACTURERS RECOMMENDATIONS.

Westwood	TYPICAL SLOPE STABILIZATION – TEMPORARY EROSION BLANKETS TURF REINFORCEMENT MATS FOR SLOPES	LAST REVISED: 4/13/16	EC-7A



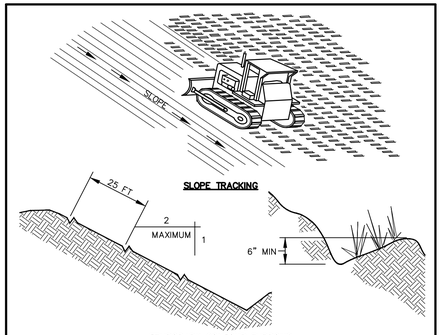
NOTE:

1. REFER TO THE SWPPP FOR IMPLEMENTATION REQUIREMENTS.
2. CHECK SLOTS TO BE CONSTRUCTED PER MANUFACTURERS SPECIFICATIONS.
3. STAKING OR STAPLING LAYOUT PER MANUFACTURERS SPECIFICATIONS.
4. MINIMUM OF 3.5 STAPLES/YARD.
5. BLANKET TYPE AND WEIGHT MUST BE CHOSEN BASED ON SITE CONDITIONS AND MANUFACTURERS RECOMMENDATIONS. (REFER TO GD22B)
6. STAPLE LENGTHS SHALL CONFORM TO MANUFACTURERS RECOMMENDATIONS.
7. EROSION CONTROL BLANKETS SHALL EXTEND TO THE EDGE OF THE DISTURBANCE LIMITS.

Westwood	TEMPORARY EROSION BLANKETS TURF REINFORCEMENT MATS FOR CHANNELS	LAST REVISED: 4/13/16	EC-7B

Category	Longevity (approximate)	Acceptable Application Area	Typical Blanket Material	Staple / Anchor
1	2 to 3 Months	Flat areas (flatter than 4:1), shoulder drains and roadway shoulders.	Straw or wood fiber, one sided netting or netless (rapid degradable netting)	11 gauge, 4 inches long (6 or 8 inch staples for sandy soil)
2	9 Months	Slopes 3:1, 2.5:1, less than 50 feet long, ditches with gradients of 2% or less and velocities less than 3.5 ft/sec.	Straw or wood fiber, one sided netting	11 gauge, 4 inches long (6 or 8 inch staples for sandy soil)
3	9 Months	Slopes 3:1, 2.5:1, more than 50 feet long, ditches with gradients of 3% or less and velocities less than 4.5 ft/sec with less than 2 inches of flow depth.	Straw or wood fiber, double sided netting	11 gauge, 6 inch staples (8 inch for sandy soils)
4	1 to 3 years	Slopes up to 2:1, ditches with gradients of 4% or less, flow velocities less than 5.5 ft/sec with less than 3 inches of flow depth.	70% straw, 30% coconut or high velocity wood fiber with double sided netting	11 gauge, 6 inch staples (8 inch for sandy soils)
5	1 to 3 years	Ditch bottoms with gradients of 5% and less, flow velocities less than 6 ft/sec (with less than 4 inches of flow depth and water course banks within the normal flow elevation.	70% straw, 30% coconut with double sided netting	11 gauge, 8 inch staples
6	More than 3 years (Turf Reinforcement Mat – TRM)	Ditch bottoms with gradients of 6% and less, flow velocities less than 6.5 ft/sec and under 6 inches of flow depth.	Straw / Coconut or wood fiber, 3-dimensional netting	11 gauge, 8 inch staples
7	More than 3 years (Turf Reinforcement Mat – TRM)	Ditch bottoms with gradients of 7% and less, flow velocities less than 7 ft/sec and under 6 inches of flow depth.	Coconut or wood fiber, 3-dimensional netting	11 gauge, 8 inch staples

Westwood	TEMPORARY EROSION BLANKETS (TYPES AND APPLICATIONS)	LAST REVISED: 4/13/16	EC-7C



NOTE:

1. GROOVES WILL CATCH SEED, FERTILIZER, MULCH, RAINFALL AND DECREASE RUNOFF RATE.
2. USE SLOPE TRACKING FOR SLOPES 4:1 AND 50 FEET LONG OR STEEPER/LONGER.
3. USE TEMPORARY CONTOUR FURROWS FOR SLOPES 3:1 AND 75 FEET LONG OR STEEPER/LONGER.

Westwood	SURFACE ROUGHENING FOR ALL SLOPES GREATER THAN 4:1	LAST REVISED: 4/13/16	EC-15

NOTES:
1) DETAILS PROVIDED ON SHEET 6 ARE TO BE USED AS NEEDED OR AS SPECIFIED IN THE PROJECT SWPPP.

2) IT IS THE CONTRACTOR'S/OPERATOR'S RESPONSIBILITY TO MAINTAIN COMPLIANCE WITH THE PROJECT SWPPP.

3) PERIMETER SEDIMENT CONTROL OPTIONS SHALL CONSIST OF SILT FENCE OR FIBER LOGS (BIOROLLS) TO BE UTILIZED AND INSTALLED PER THE CONTRACTOR'S DISCRETION.

4) SPACING FOR TEMPORARY ROCK CHECKS OR FIBER ROLL SHALL GENERALLY FOLLOW THE BELOW:

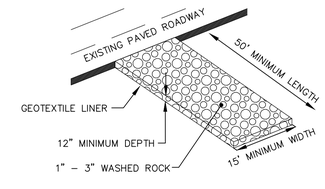
100 X HEIGHT (FEET) / % SLOPE OF CHANNEL

5) FOR DITCH APPLICATIONS, GENERALLY, FIBER LOGS (SE-5) SHALL BE USED IN DITCHES WITH GRADIENTS LESS THAN 3.5% AND TEMPORARY ROCK CHECK DAMS (SE-4) SHALL BE USED IN DITCHES WITH GRADIENTS MORE THAN 3.5%

TC-2

STABILIZED CONSTRUCTION ROADWAY – BMP FOR PAVED AND DECOMPOSED GRANITE ACCESS ROAD CONSTRUCTION AND MAINTENANCE. USE AS NEEDED IN AREAS WHERE EROSION AND SEDIMENT IS A PROBLEM AND IS IN THE VICINITY OF EXISTING DRAINAGE WAYS.

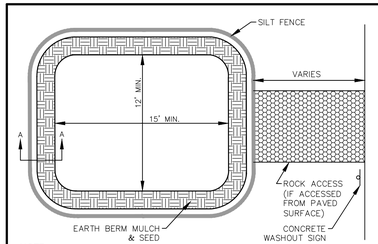
****ACCESS ROADS SHALL BE CONSTRUCTED FROM PUBLIC ROADS WHERE THE CONSTRUCTION DELIVERY TRAFFIC WILL TRAVEL ON THE CONSTRUCTED ACCESS ROAD. SEDIMENT TRACKING ONTO PUBLIC PAVED ROADS IS NOT ANTICIPATED. IF SEDIMENT TRACKING DOES OCCUR, THE SEDIMENT SHALL BE REMOVED AND A ROCK CONSTRUCTION ENTRANCE CONSTRUCTED****



NOTE:

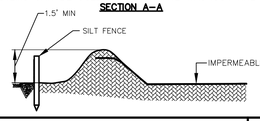
ROCK CONSTRUCTION ENTRANCE SHOULD BE A MINIMUM THICKNESS OF 1.0' AND CONTAIN MAXIMUM SIDE SLOPES OF 4:1. ROCK ENTRANCE SHOULD BE INSPECTED AND MAINTAINED REGULARLY. ROCK ENTRANCE LENGTH MAY NEED TO BE EXTENDED IN CLAY SOILS.

Westwood	ROCK CONSTRUCTION ENTRANCE	LAST REVISED: 4/13/16	TC-1



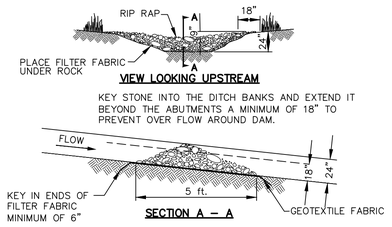
NOTE:
CONCRETE WASHOUT AREAS WILL HAVE AN IMPERMEABLE LINER TO PREVENT CONCRETE WASHOUT WATER FROM INFILTRATING/CONTACTING WITH SOIL.
IMPERMEABLE LINER INCLUDES 10 MIL POLYLINER.
WASHOUT SYSTEMS CAN BE USED AS ALTERNATE WASHOUT AREAS.

SECTION A–A



Westwood	CONCRETE WASHOUT AREA	LAST REVISED: 4/13/16	WM-8

ROCK CHECK SHALL BE USED WHERE NEEDED AS A FILTER MEDIA, OR WHERE EROSION CONTROL BLANKETS AND/OR MULCH BERMS DO NOT PROVIDE ADEQUATE EROSION AND SEDIMENT CONTROL.

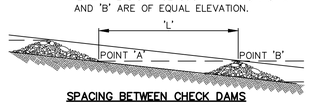


VIEW LOOKING UPSTREAM

KEY STONE INTO THE DITCH BANKS AND EXTEND IT BEYOND THE ABUTMENTS A MINIMUM OF 18" TO PREVENT OVER FLOW AROUND DAM.

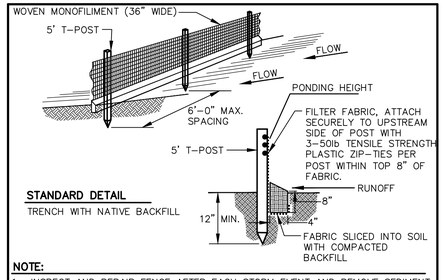
SECTION A – A

'L' = THE DISTANCE SUCH THAT POINTS 'A' AND 'B' ARE OF EQUAL ELEVATION.



SPACING BETWEEN CHECK DAMS

Westwood	TEMPORARY ROCK CHECK DAM	LAST REVISED: 4/13/16	SE-4



STANDARD DETAIL
TRENCH WITH NATIVE BACKFILL

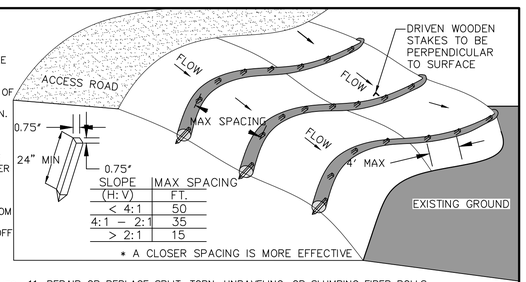
NOTE:

1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN ACCUMULATED TO 1/2 THE HEIGHT OF THE FABRIC OR MORE.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF–SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.
4. ALL ENDS OF THE SILT FENCE SHALL BE WRAPPED UPSLOPE SO THE ELEVATION OF THE BOTTOM OF FABRIC IS HIGHER THAN "PONDING HEIGHT".

Westwood	SILT FENCE	LAST REVISED: 4/13/16	SE-1

NOTE:

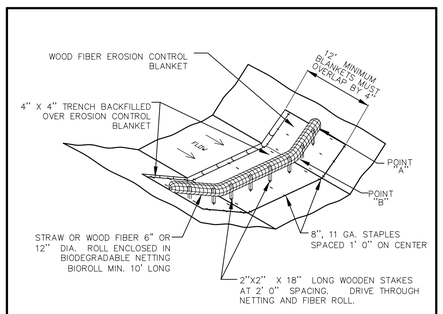
1. FIBER ROLLS SHALL BE PREFABRICATED AND MADE FROM WEED FREE RICE STRAW, FLAX, OR A SIMILAR AGRICULTURAL MATERIAL BOUND INTO A TIGHT TUBULAR ROLL BY BIODEGRADABLE NETTING.
2. STAKE FIBER ROLLS INTO THE TRENCH. DRIVE STAKES AT THE END OF EACH FIBER ROLL AND SPACED 4 FEET MAXIMUM ON CENTER. USE WOOD STAKES WITH NOMINAL CLASSIFICATION OF 0.75 IN BY 0.75 IN. AND A MINIMUM LENGTH OF 24 IN.
3. PREPARE THE SLOPE BEFORE BEGINNING THE INSTALLATION.
4. DIG SMALL TRENCHES ACROSS THE SLOPE ON THE CONTOUR. THE TRENCH DEPTH SHOULD BE 1/4 TO 1/3 OF THE THICKNESS OF THE ROLL, AND THE WIDTH SHOULD EQUAL THE ROLL DIAMETER, IN ORDER TO PROVIDE AREA TO BACKFILL THE TRENCH.
5. ROLLS SHALL BE INSTALLED PERPENDICULAR TO WATER MOVEMENT, AND PARALLEL TO THE SLOPE CONTOUR.
6. START BUILDING TRENCHES AND INSTALLING ROLLS FROM THE BOTTOM OF THE SLOPE AND WORK UP.
7. TURN THE ENDS OF THE FIBER ROLLS UP SLOPE TO PREVENT RUNOFF FROM GOING AROUND THE ROLL.
8. IF MORE THAN ONE FIBER ROLL IS PLACED IN A ROW, THE ROLLS SHOULD BE OVERLAPPED, NOT ABUTTED.
9. TEMPORARY INSTALLATIONS SHOULD ONLY BE REMOVED WHEN UP GRADIENT AREAS ARE STABILIZED PER GENERAL PERMIT REQUIREMENTS, AND/OR POLLUTANT SOURCES NO LONGER PRESENT A HAZARD. BUT, THEY SHOULD ALSO BE REMOVED BEFORE VEGETATION BECOMES TOO MATURE SO THAT THE REMOVAL PROCESS DOES NOT DISTURB MORE SOIL AND VEGETATION THAN IS NECESSARY
10. FIBER ROLLS MUST BE INSPECTED IN ACCORDANCE WITH GENERAL PERMIT REQUIREMENTS FOR THE ASSOCIATED PROJECT TYPE AND RISK LEVEL. IT IS RECOMMENDED THAT A MINIMUM, THE BMPS BE INSPECTED WEEKLY, PRIOR TO FORECASTED RAIN EVENTS, DAILY DURING EXTENDED RAIN EVENTS, AND AFTER THE CONCLUSION OF RAIN EVENTS.
11. REPAIR OR REPLACE SPLIT, TORN, UNRAVELING, OR SLUMPING FIBER ROLLS.
12. IF THE FIBER ROLL IS USED AS A SEDIMENT CAPTURE DEVICE, OR AS AN EROSION CONTROL DEVICE TO MAINTAIN SHEET FLOWS, SEDIMENT THAT ACCUMULATES IN THE BMP SHOULD BE PERIODICALLY REMOVED IN ORDER TO MAINTAIN BMP EFFECTIVENESS. SEDIMENT SHOULD BE REMOVED WHEN SEDIMENT ACCUMULATION REACHES ONE–THIRD THE DESIGNATED SEDIMENT STORAGE DEPTH.
13. IF FIBER ROLLS ARE USED FOR EROSION CONTROL, SEDIMENT REMOVAL SHOULD NOT BE REQUIRED AS LONG AS THE SYSTEM CONTINUES TO CONTROL THE GRADE. SEDIMENT CONTROL BMPS WILL LIKELY BE REQUIRE IN CONJUNCTION WITH THIS TYPE OF APPLICATION.
14. REPAIR ANY RILLS OR GULLIES PROMPTLY.



SLOPE (H: V)	MAX SPACING FT.
< 4:1	50
4:1 – 2:1	35
> 2:1	15

* A CLOSER SPACING IS MORE EFFECTIVE

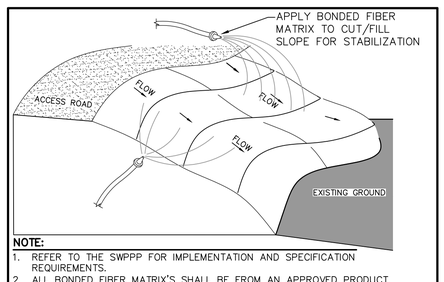
Westwood	TYPICAL FIBER ROLLS	LAST REVISED: 10/18/16	SE-5A



NOTE:

1. POINT "A" MUST BE HIGHER THAN POINT "B" TO ENSURE THAT WATER FLOWS OVER THE DIKE AND NOT AROUND THE ENDS.

Westwood	TEMPORARY BIOROLL BLANKET SYSTEM (DITCH APPLICATION)	LAST REVISED: 10/18/16	SE-5B



NOTE:

1. REFER TO THE SWPPP FOR IMPLEMENTATION AND SPECIFICATION REQUIREMENTS.
2. ALL BONDED FIBER MATRIX'S SHALL BE FROM AN APPROVED PRODUCT.
3. APPLY BONDED FIBER MATRIX IN CONFORMANCE WITH BEST MANAGEMENT PRACTICES AND MANUFACTURER'S RECOMMENDATIONS.
4. APPLY BONDED FIBER MATRIX TO EXPOSED SOILS FOR STABILIZATION MEASURES. EXPOSED SOILS MAY INCLUDE ROUGH GRADED AREAS, SOIL STOCKPILES, CUT/FILL SLOPES, ETC.
5. PREPARE SOIL SURFACES PRIOR TO APPLICATION BY ROUGHENING.
6. AVOID OVER SPRAY ONTO ROADS AND EXISTING VEGETATION.
7. APPLY FROM MULTIPLE DIRECTIONS TO ADEQUATELY COVER THE SOIL.
8. ALLOW ADEQUATE TIME FOR BONDED FIBER MATRIX TO DRY. BONDED FIBER MATRIX SHOULD NOT BE APPLIED IMMEDIATELY BEFORE, DURING OR IMMEDIATELY AFTER RAINFALL OR IF THE SOIL IS SATURATED.
9. APPLY SEED PRIOR TO BFM OR MIX SEED WITH BFM PRIOR TO APPLICATION.

Westwood	TYPICAL SLOPE STABILIZATION – BONDED FIBER MATRIX	LAST REVISED: 4/13/16	EC-3,5

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____

R.C.E. NAME CHRISTOPHER J. CARDA

EXPIRES: _____

BENCH MARK

DESCRIPTION: STANDARD DISC SET IN CONCRETE POST

LOCATION: ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THE MANZANITA INDIAN RES.

RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

Construction Details

PRIVATE CONTRACT

SHEET	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS
6		

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190–1983, 1989, 1995

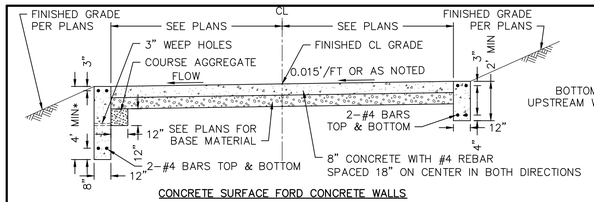
APPROVED FOR: WILLIAM P. MORGAN, COUNTY ENGINEER
BY: DATE:

ENGINEER OF WORK
CHRISTOPHER J. CARDA R.C.E. 67532

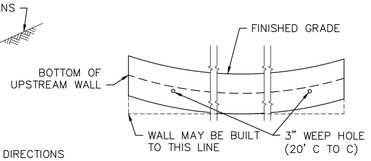
GRADING PERMIT NO:

WESTWOOD PROFESSIONAL SERVICES, INC.
PHONE: 952–937–5150

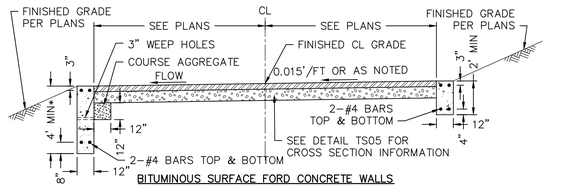
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CONCRETE SURFACE FORD CONCRETE WALLS



ELEVATION LOOKING UPSTREAM



BITUMINOUS SURFACE FORD CONCRETE WALLS

NOTES:
1. REINFORCING BARS SHALL BE SET 3" CLEAR FROM SIDES OF CUT-OFF WALLS.
2. COURSE AGGREGATE AT WEEP HOLES SHALL BE ASTM C33 SIZE 57, ENCLOSED IN FILTER FABRIC AND EXTENDED LATERALLY, A MINIMUM OF SIX INCHES (6") ON EACH SIDE OF THE WEEP HOLE.

Westwood	FORD CROSSING AND CUT-OFF WALLS	LAST REVISED: 01/31/19

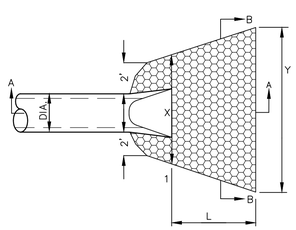
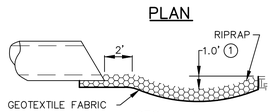


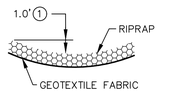
TABLE OF QUANITIES
RIPRAP AT OUTLETS

Dia. Round Pipe (in.)	L (Ft.)	X (Ft.)	Y (Ft.)	D_{50}(in)	Rock Depth (Ft.)	Riprap Quantity (Cu. Yd.)
18	8	3.5	10	6	1.5	3.0
21	8	3.8	11	9	2.0	4.2
24	8	4.0	11	9	2.0	4.5
30	10	4.5	14	9	2.0	6.9
36	15	5.0	19	12	2.5	16.7
42	18	5.5	22	12	2.5	22.4
48	20	6.0	25	12	2.5	29.0
54	27	6.5	31.5	12	2.5	47.5
60	30	7.0	35	12	2.5	58.3

PLAN



SEC. A-A



SECTION B-B

NOTE:
1. (1) FOR PIPES GREATER OR EQUAL TO 30", USE 1.5'.
2. THE CONTRACTOR SHALL PLACE RIP RAP, PULVERIZED TOPSOIL, SEED AND WOODFIBER BLANKET IMMEDIATELY AFTER PIPE IS INSTALLED, EXTEND AREA TO MATCH UNDISTURBED SOIL.
3. RIP RAP SHALL BE INSTALLED AT ALL CULVERTS LESS THAN AND EQUAL TO 60" PER THIS DETAIL.

Westwood	PERMANENT RIP RAP OUTLETS	LAST REVISED: 03/02/2017
		ER05

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____

R.C.E. NAME CHRISTOPHER J. CARDA

EXPIRES: _____

BENCH MARK

DESCRIPTION: STANDARD DISC SET IN CONCRETE POST

LOCATION: ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THE MANZANITA INDIAN RES.

RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

Construction Details

PRIVATE CONTRACT

SHEET 7	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190-1983, 1989, 1995

APPROVED FOR:
WILLIAM P. MORGAN, COUNTY ENGINEER

BY: DATE:

ENGINEER OF WORK
CHRISTOPHER J. CARDA R.C.E. C75322

GRADING PERMIT NO:

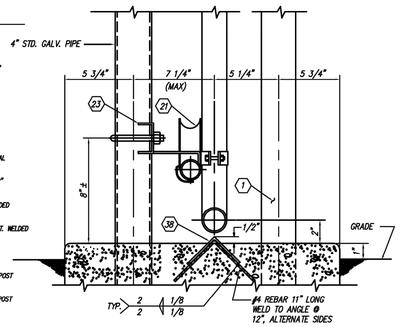
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PHONE: 952-937-5150

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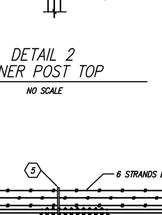
BILL OF MATERIALS

1. POST–GATE & CORNER, 15'–0" LONG. GALV. STEEL, 4" STANDARD PIPE @ 10.79 #/FT, 4.5" O.D.
2. POST–LINE, 14'–0" LONG. GALV. STEEL, 3" STD. PIPE @ 7.58 #/FT 3.5" O.D.
3. RAIL–TOP, 20'–0" LONG. GALV. STEEL 1 5/8" O.D. @ 2.27 #/FT.
4. COUPLER–RAIL–OUTSIDE SLEEVE FOR 1 5/8" O.D. PIPE GALV. STEEL 7" LONG
5. ARM–BARB WIRE 12" LONG PRESSED STEEL, VERTICAL TO FIT 3" STD. POST WITH 1 5/8" RAIL HOLE.
6. LINE & CORNER POST TERMINAL CAPS WITH TWO 12" LONG BAYONETS – ONE VERTICAL & ONE @ 45
7. RAIL–FRAME FOR GATES 2" O.D. @ 2.72 #/FT. WELDED GALV. STEEL (FABRICATE)
8. RAIL–BRACE, GALV. STEEL 1 5/8" O.D. @ 2.27 #/FT. WELDED 20' LONG.
9. RAIL–END, OFFSET LUG, GALV. STEEL, TO FIT 1 5/8" O.D. RAIL
10. BRACE–BAND–GALV. STEEL 1/8 X 1" FOR 4" STD. POST WITH 5/16 X 1 1/4" CARRIGE BOLT.
11. BRACE–BAND–GALV. STEEL 1/8 X 1" FOR 3" STD. POST WITH 5/16 X 1/4" CARRIAGE BOLT.
12. TENSION–BAND–GALV. STEEL 1/8 X 1" FOR 4" STD. POST WITH 5/16 X 1 1/4" CARRIAGE BOLT.
13. TENSION–BAND–GALV. STEEL 1/8 X 1" FOR 3" STD. POST WITH 5/16 X 1/4" CARRIAGE BOLT.
14. TENSION–BAND–GALV. STEEL 1/8 X 1" FOR 2" O.D. POST WITH 5/16 X 1 1/4" CARRIAGE BOLT.
15. TENSION–BAR–GALV. STEEL FLAT 1/4 X 3/4 X 95"
16. TRUSS–ROD–ROUND–THREADED GALV. STEEL 3/8" DIA. X 10'–6"
17. TRUSS–TIGHTNER–GALV. STEEL
18. TRUSS–HOOK BOLT–GALV. STEEL 7/16 X 5" THREADED.
19. TERMINAL TOP–DOME–GALV. STEEL TO FIT 4" STD. POST
20. TERMINAL TOP–DOME, GALV. STEEL, TO FIT 2" O.D. POST.
21. WHEEL SAFETY PIPE TRACK WITH CLAMP FOR 2" O.D. PIPE
22. GATE WHEEL, SINGLE CARRIER, WELDED ON TYPE WITH 6" V GROOVE WHEEL.
23. TRACK–GATE GUIDE–GALV. STEEL, 2" O.D. PIPE @ 2.27 #/FT WITH PIPE TRACK BRACKETS WITH U–BOLTS
24. WIRE–BARBED–GALV. STEEL 12 1/2 GA–4 POINT.
25. FABRIC–CHAINLINK–GALV. #9 GA. WIRE, 2" SQUARE MESH
26. WIRE–TENSION GALV. STEEL ANNEALLED #6 GA.
27. HOOK–TIE–GALV. STEEL 12 GA 13 1/2" LONG (FOR BARB WIRE)
28. HOOK–TIE–GALV. STEEL 12 GA 6 1/2" LONG (FABRIC TO 3" POST)
29. RING–HOG–GALV. STEEL #10 GA 1 9/16" LONG.
30. NOT USED
31. NOT USED
32. NOT USED
33. NOT USED
34. NOT USED
35. NOT USED
36. NOT USED
37. NOT USED
38. GUIDE–GATE WHEEL–GALV. STEEL–L 3 X 3 X 1/4 X 20'–6" (EMBED IN CONCRETE)
39. ELECTRIC SUBSTATION FENCE OR WALL SIGNS AS SHOWN ON CONSTRUCTION DETAILS – SIGNS ESC–2400 TO BE INSTALLED AS FOLLOWS: SIGN DETAIL #4 ABOVE #5 ON EACH GATE; 10' DISTANCE EACH WAY FROM ANY CORNER AND EVERY 50 FT. MAX. ALONG ANY FENCE RUN. DETAIL #5 SIGN ON ONE GATE ONLY. ALL SIGNS TO BE AT EYE LEVEL.
40. CENTER SUPPORT POST 5'–0" LONG, GALV. STEEL, 3" STD. PIPE AT 7.58 #/FT, 3.5" O.D.
41. PIPE SLEEVE 12" LONG, GALV. STEEL, 4" EXTRA STRONG PIPE AT 14.98 #/FT, 3.826" I.D.
42. TERMINAL TOP–DOME, GALV. STEEL TO FIT 3" STD POST.
45. CORNER BAYONETS, 12" LONG GALV. STEEL 1 1/2" STD. PIPE
46. TERMINAL TOP–DOME, GALV. STEEL TO FIT 1 1/2" STD. PIPE

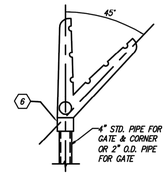
NOTES:
1. WELDS IDENTIFIED AS REQUIRING CONTINUOUS OR PERIODIC SPECIAL INSPECTION NEED NOT HAVE SPECIAL INSPECTION WHEN THE WELDING IS DONE IN AN APPROVED FABRICATORS SHOP; HOWEVER, THE APPROVED FABRICATOR MUST SUBMIT A CERTIFICATE OF COMPLIANCE IN ACCORDANCE WITH UBC SECTION 306 (J).
2. THERE IS NO FIELD WELDING ON THIS CHAIN LINK FENCE.
3. GROUNDING GRID INSIDE FENCE PERIMETER AND FENCE GROUNDING TO BE DONE BY BELOW GRADE CONTRACTOR.
4. ALL GROUND WIRES PER STATION GROUNDING PLAN.
5. ALL EXOTHERMIC WELDING (CAD WELDING) TO BE DONE BY QUALIFIED PERSONNEL.



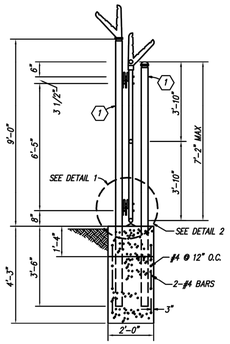
DETAIL 1
SCALE: 3"=1'–0"



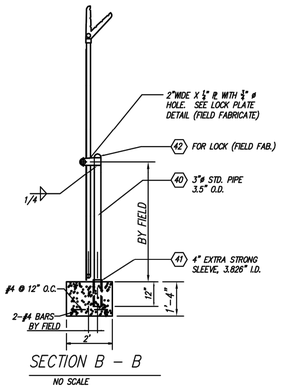
DETAIL 2
CORNER POST TOP
NO SCALE



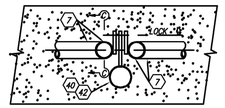
DETAIL 3
LINE POST TOP
NO SCALE



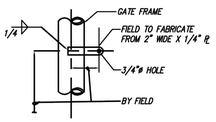
SECTION A – A
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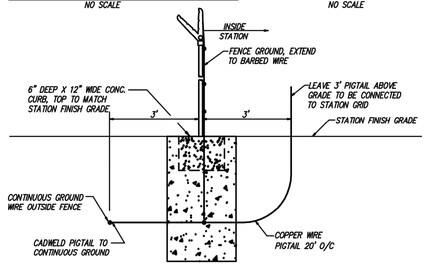
SECTION B – B
NO SCALE



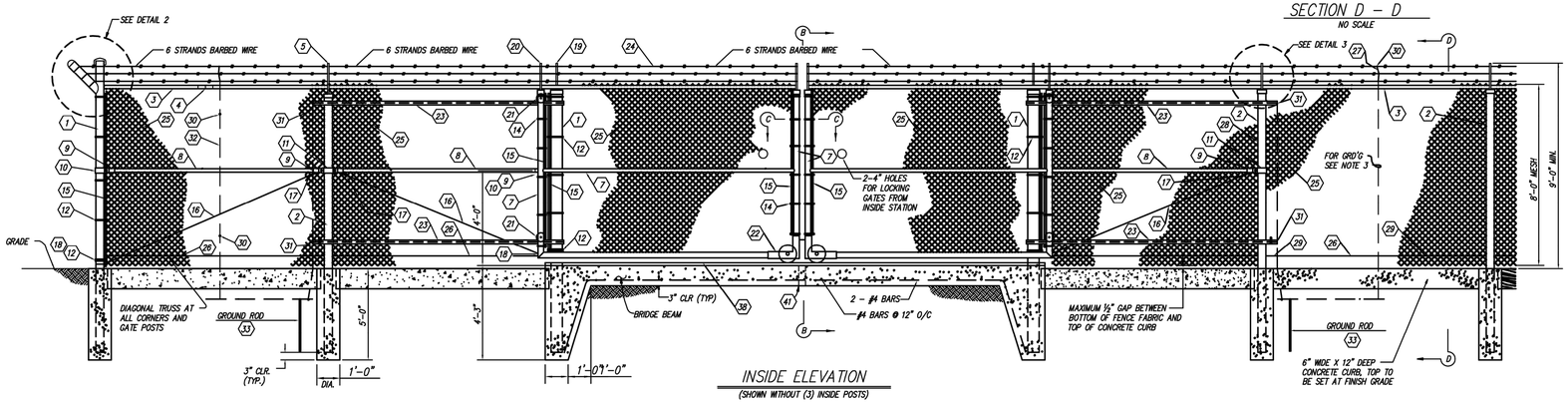
DETAIL 4--LOCK PLATE DETAIL
NO SCALE



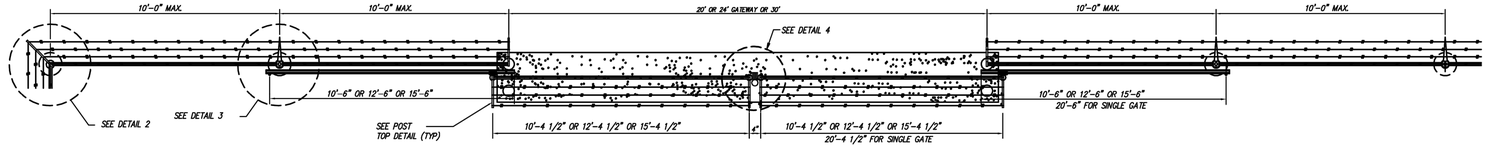
SECTION C – C
NO SCALE



SECTION D – D
NO SCALE



INSIDE ELEVATION
(SHOWN WITHOUT (3) INSIDE POSTS)



PLAN
NO SCALE

TYPICAL SDG&E STANDARD SLIDING GATE AND FENCE DETAIL

Westwood

Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com

Westwood Professional Services, Inc.

COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____

NAME
R.C.E. CHRISTOPHER J. CARDA

EXPIRES: _____

BENCH MARK

DESCRIPTION: STANDARD DISC SET IN CONCRETE POST

LOCATION: ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THE MANZANITA INDIAN RES.

RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

Fence Details

PRIVATE CONTRACT

SHEET		
8	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190–1983, 1989, 1995

APPROVED FOR:
WILLIAM P. MORGAN, COUNTY ENGINEER

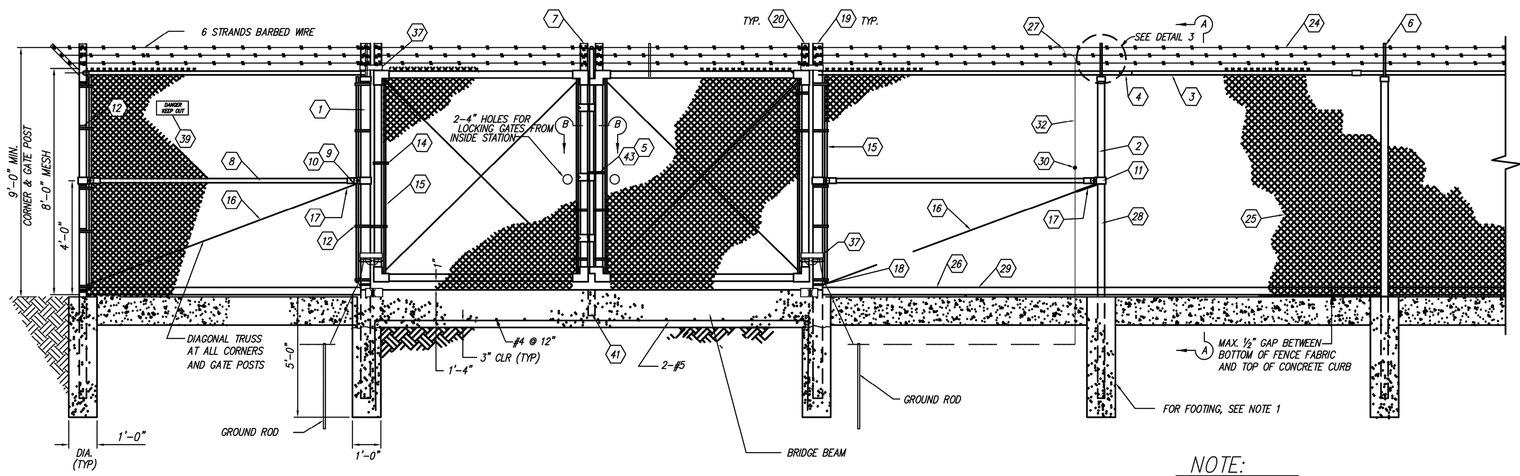
BY: DATE:

ENGINEER OF WORK
CHRISTOPHER J. CARDA R.C.E. C75322

GRADING PERMIT NO:

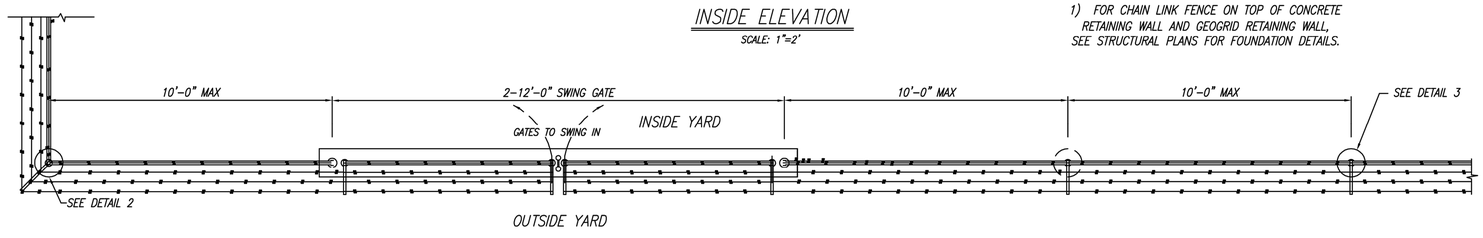
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PHONE: 952–937–5150

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INSIDE ELEVATION

SCALE: 1"=2'



PLAN

SCALE: 1"=2'

NOTE:

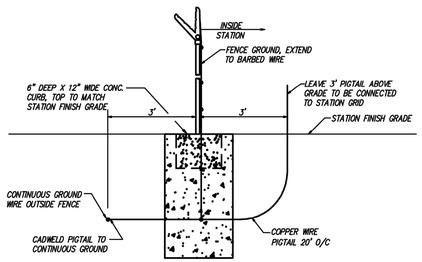
1) FOR CHAIN LINK FENCE ON TOP OF CONCRETE RETAINING WALL AND GEOGRID RETAINING WALL, SEE STRUCTURAL PLANS FOR FOUNDATION DETAILS.

BILL OF MATERIALS

1. POST–GATE & CORNER, 14'–0" LONG, GALV. STEEL, 4" STD. PIPE @ 10.79 #/FT, 4.5" O.D.
2. POST–LINE, 13'–0" LONG, GALV. STEEL, 3" STD. PIPE @ 7.58 #/FT, 3.5" O.D.
3. RAIL–TOP, 20'–0" LONG, GALV. STEEL 1–5/8" O.D. @ 2.27 #/FT.
4. COUPLER–RAIL–OUTSIDE SLEEVE FOR 1–5/8" O.D. PIPE GALV. STEEL 7" LONG.
5. DROP ROD, 1–5/8" O.D. DIA. (SWING GATE ONLY)
6. LINE POST TERMINAL CAPS WITH TWO 12" LONG BAYONETS. ONE VERTICAL AND 1 AT 45 DEGREES.
7. RAIL–FRAME FOR GATE 2" O.D. @ 2.72 #/FT. WELDED GALV. STEEL (FABRICATE).
8. RAIL–BRACE, GALV. STEEL 1–5/8" O.D. @ 2.27 #/FT. 20' LONG.
9. RAIL–END, OFFSET LUG, GALV. STEEL, TO FIT 1–5/8" O.D. RAIL
10. BRACE–BAND GALV. STEEL 1/8 X 1" FOR 4" STD. POST WITH 5/16" X 1–1/4" CARRIAGE BOLT.
11. BRACE–BAND–GALV. STEEL 1/8 X 1" FOR 3" STD. POST WITH 5/16" X 1–1/4" CARRIAGE BOLT.
12. TENSION–BAND–GALV. STEEL 1/8 X 1" FOR 4" STD. POST WITH 5/16" X 1–1/4" CARRIAGE BOLT.
13. TENSION–BAND–GALV. STEEL 1/8 X 1" FOR 3" STD. POST WITH 5/16" X 1–1/4" CARRIAGE BOLT.
14. TENSION–BAND–GALV. STEEL 1/8 X 1" FOR 2" O.D. POST WITH 5/16" X 1–1/4" CARRIAGE BOLT.
15. TENSION–BAR–GALV. STEEL FLAT 1/4" X 3/4" X 95".
16. TRUSS–ROD–ROUND–THREADED GALV. STEEL 3/8" DIA X 10'–6".
17. TRUSS–TIGHTNER–GALV. STEEL
18. TRUSS–HOOK BOLT–GALV. STEEL 7/16" X 5" THREADED.
19. TERMINAL TOP–DOME, GALV. STEEL TO FIT 4" STD. POST.
20. TERMINAL TOP–DOME, GALV. STEEL, TO FIT 2" O.D. POST.
21. NOT USED
22. NOT USED
23. NOT USED
24. WIRE–BARBED–GALV. STEEL 12–1/2 GA–4 POINT.
25. FABRIC–CHAINLINK–GALV. #9 WIRE 3–1/2"x 5–1/2" MESH – 8'–0" HIGH, WITH 2–3/8" x 5/16" R/W SLATS.
26. WIRE–TENSION–GALV. STEEL ANNEALED #6 GA.
27. HOOK–TIE–GALV. STEEL 12 GA 13–1/2" LONG (FOR BARB WIRE).
28. HOOK–TIE–GALV.STEEL 12 GA 6–1/2" LONG(FABRIC TO 3" POST) 5/POST REQ'D.
29. RING–HOG–GALV. STEEL #10 GA 1–9/16" LONG.
30. NOT USED
31. NOT USED
32. NOT USED
33. NOT USED
34. NOT USED
35. NOT USED
36. NOT USED
37. HINGE, INDUST. GATE, FOR 4" STD. POST. (SWING GATE ONLY).
38. NOT USED
39. ELECTRIC SUBSTATION FENCE OR WALL SIGNS AS SHOWN ON CONSTRUCTION DETAILS – SIGNS ESC–2400 TO BE INSTALLED AS FOLLOWS: SIGN DETAIL #4 ABOVE DETAIL #6 ON EACH GATE; 10 FT. DISTANCE EACH WAY FROM ANY CORNER AND EVERY 50 FT. MAX. ALONG ANY FENCE RUN. DETAIL #5 SIGN ON ONE GATE ONLY. ALL SIGNS TO BE AT EYE LEVEL.
40. CENTER SUPPORT POST 5'–0" LONG, GALV. STEEL 3" STD.
41. PIPE SLEEVE 12" LONG GALV. STEEL , 4" EXTRA STRONG PIPE AT 14.98 #/FT.
42. TERMINAL TOP–DOME GALV. STEEL TO FIT 3" STD. PIPE.
43. LATCH ASSEMBLY, INDUST. DOUBLE GATE, WITH 3 GUIDES AND BOLTS. (SWING GATE ONLY)
44. NOT USED
45. CORNER BAYONETS, 12" LONG GALV. STEEL 1 1/2" STD.PIPE
46. TERMINAL TOP–DOME, GALV. STEEL TO FIT 1 1/2" STD. PIPE.

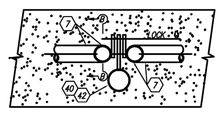
NOTES:

1. WELDS IDENTIFIED AS REQUIRING CONTINUOUS OR PERIODIC SPECIAL INSPECTION NEED NOT HAVE SPECIAL INSPECTION WHEN THE WELDING IS DONE IN AN APPROVED FABRICATORS SHOP. HOWEVER, THE APPROVED FABRICATOR MUST SUBMIT A CERTIFICATE OF COMPLIANCE IN ACCORDANCE WITH UBC SECTION 306 (f).
2. THERE IS NO FIELD WELDING ON THIS CHAIN LINK FENCE.
3. GROUNDING GRID INSIDE FENCE PERIMETER AND FENCE GROUNDING TO BE DONE BY BELOW GRADE CONTRACTOR.
4. ALL GROUND WIRES PER STATION GROUNDING PLAN.
5. ALL EXOTHERMIC WELDING (CAD WELDING) TO BE DONE BY QUALIFIED PERSONNEL.



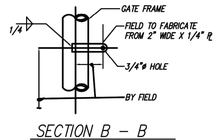
SECTION A – A

NO SCALE



DETAIL 4--LOCK PLATE DETAIL

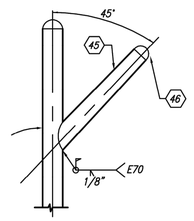
NO SCALE



SECTION B – B

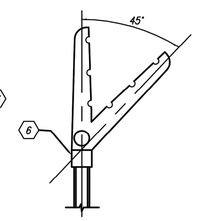
NO SCALE

4" STD. PIPE FOR POST GATE AND CORNER OR 2" O.D. PIPE FOR GATE



DETAIL 2
CORNER POST TOP

NTS



DETAIL 3
LINE POST TOP

NTS

TYPICAL SDG&E STANDARD SWING GATE AND FENCE DETAIL

Westwood

Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com

Westwood Professional Services, Inc.

COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____

R.C.E. NAME CHRISTOPHER J. CARDA

EXPIRES: _____

BENCH MARK

DESCRIPTION: STANDARD DISC SET IN CONCRETE POST

LOCATION: ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THE MANZANITA INDIAN RES.

RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

Fence Details

PRIVATE CONTRACT

SHEET		
9	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190–1983, 1989, 1995

APPROVED FOR: WILLIAM P. MORGAN, COUNTY ENGINEER

BY: DATE:

ENGINEER OF WORK: CHRISTOPHER J. CARDA R.C.E. C75322

GRADING PERMIT NO:

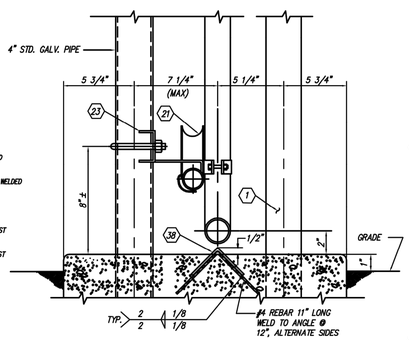
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PHONE: 952–937–5150

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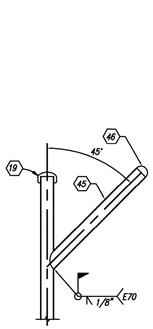
BILL OF MATERIALS

1. POST–GATE & CORNER, 15'–0" LONG. GALV. STEEL, 4" STANDARD PIPE @ 10.79 #/FT, 4.5" O.D.
2. POST–LINE, 14'–0" LONG. GALV. STEEL, 3" STD. PIPE @ 7.58 #/FT, 3.5" O.D.
3. RAIL–TOP, 20'–0" LONG. GALV. STEEL 1 5/8" O.D. @ 2.27 #/FT.
4. COUPLER–RAIL–OUTSIDE SLEEVE FOR 1 5/8" O.D. PIPE GALV. STEEL 7" LONG
5. ARM–BARB WIRE 12" LONG PRESSED STEEL, VERTICAL TO FIT 3" STD. POST WITH 1 5/8" RAIL HOLE.
6. LINE & CORNER POST TERMINAL CAPS WITH TWO 12" LONG BAYONETS – ONE VERTICAL & ONE @ 45
7. RAIL–FRAME FOR GATES 3" O.D. @ 2.72 #/FT. WELDED GALV. STEEL (FABRICATE)
8. RAIL–BRACE, GALV. STEEL 1 5/8" O.D. @ 2.27 #/FT. WELDED 20' LONG.
9. RAIL–END, OFFSET LUG, GALV. STEEL, TO FIT 1 5/8" O.D. RAIL.
10. BRACE–BAND–GALV. STEEL 1/8 X 1" FOR 4" STD. POST WITH 5/16 X 1 1/4" CARRIAGE BOLT.
11. BRACE–BAND–GALV. STEEL 1/8 X 1" FOR 3" STD. POST WITH 5/16 X 1/4" CARRIAGE BOLT.
12. TENSION–BAND–GALV. STEEL 1/8 X 1" FOR 4" STD. POST WITH 5/16 X 1 1/4" CARRIAGE BOLT.
13. TENSION–BAND–GALV. STEEL 1/8 X 1" FOR 3" STD. POST WITH 5/16 X 1/4" CARRIAGE BOLT.
14. TENSION–BAND–GALV. STEEL 1/8 X 1" FOR 2" O.D. POST WITH 5/16 X 1 1/4" CARRIAGE BOLT.
15. TENSION–BAR–GALV. STEEL FLAT 1/4 X 3/4 X 95"
16. TRUSS–ROD–ROUND–THREADED GALV. STEEL 3/8" DIA. X 10'–6"
17. TRUSS–TIGHTNER–GALV. STEEL
18. TRUSS–HOOK BOLT–GALV. STEEL 7/16 X 5" THREADED.
19. TERMINAL TOP–DOME–GALV. STEEL TO FIT 4" STD. POST
20. TERMINAL TOP–DOME, GALV. STEEL, TO FIT 2" O.D. POST.
21. WHEEL SAFETY PIPE TRACK WITH CLAMP FOR 2" O.D. PIPE
22. GATE WHEEL, SINGLE CARRIER, WELDED ON TYPE WITH 6" V GROOVE WHEEL.
23. TRACK–GATE GUIDE–GALV. STEEL, 3" O.D. PIPE @ 2.27 #/FT WITH PIPE BRACE BRACKETS WITH U–BOLTS
24. WIRE–BARBED–GALV. STEEL 12 1/2 GA–4 POINT.
25. FABRIC–CHAINLINK–GALV. #9 GA. WIRE, 2" SQUARE MESH
26. WIRE–TENSION GALV. STEEL ANNEALLED #6 GA.
27. HOOK–TIE–GALV. STEEL 12 GA 13 1/2" LONG (FOR BARB WIRE)
28. HOOK–TIE–GALV. STEEL 12 GA 6 1/2" LONG (FABRIC TO 3" POST)
29. RING–HOG–GALV. STEEL #10 GA 1 9/16" LONG.
30. NOT USED
31. NOT USED
32. NOT USED
33. NOT USED
34. NOT USED
35. NOT USED
36. NOT USED
37. NOT USED
38. GUIDE–GATE WHEEL–GALV. STEEL–L 3 X 3 X 1/4 X 20'–6" (EMBED IN CONCRETE)
39. ELECTRIC SUBSTATION FENCE OR WALL SIGNS AS SHOWN ON CONSTRUCTION DETAILS – SIGNS ESC–2400 TO BE INSTALLED AS FOLLOWS: SIGN DETAIL #4 ABOVE #5 ON EACH GATE, 10' DISTANCE EACH WAY FROM ANY CORNER AND EVERY 50 FT. MAX. ALONG ANY FENCE RUN. DETAIL #5 SIGN ON ONE GATE ONLY. ALL SIGNS TO BE AT EYE LEVEL.
40. CENTER SUPPORT POST 5'–0" LONG, GALV. STEEL, 3" STD. PIPE AT 7.58 #/FT.
41. PIPE SLEEVE 12" LONG, GALV. STEEL, 4" EXTRA STRONG PIPE AT 14.98 #/FT.
42. TERMINAL TOP–DOME, GALV. STEEL TO FIT 3" O.D. POST.
43. CORNER BAYONETS, 12" LONG GALV. STEEL 1 1/2" STD. PIPE
46. TERMINAL TOP–DOME, GALV. STEEL TO FIT 1 1/2" STD. PIPE

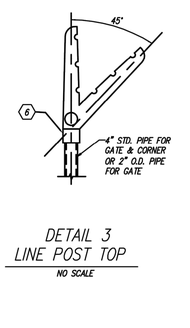
NOTES:
1. WELDS IDENTIFIED AS REQUIRING CONTINUOUS OR PERIODIC SPECIAL INSPECTION NEED NOT HAVE SPECIAL INSPECTION WHEN THE WELDING IS DONE IN AN APPROVED FABRICATORS SHOP. HOWEVER, THE APPROVED FABRICATOR MUST SUBMIT A CERTIFICATE OF COMPLIANCE IN ACCORDANCE WITH UBC SECTION 306 (I).
2. THERE IS NO FIELD WELDING ON THIS CHAIN LINK FENCE.
3. GROUNDING GRID INSIDE FENCE PERIMETER AND FENCE GROUNDING TO BE DONE BY BELOW GRADE CONTRACTOR.
4. ALL GROUND WIRES PER STATION GROUNDING PLAN.
5. ALL EXOTHERMIC WELDING (CAD WELDING) TO BE DONE BY QUALIFIED PERSONNEL.



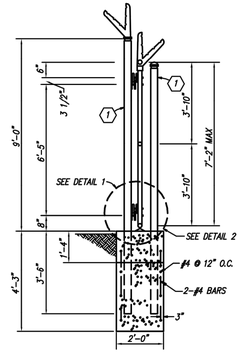
DETAIL 1
SCALE: 3"=1'–0"



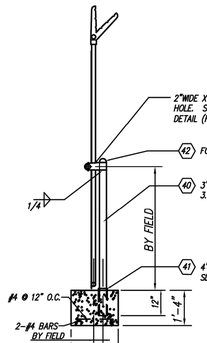
DETAIL 2
CORNER POST TOP
NO SCALE



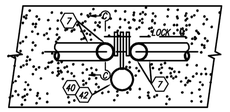
DETAIL 3
LINE POST TOP
NO SCALE



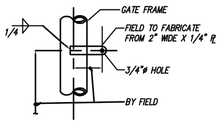
SECTION A – A
NO SCALE



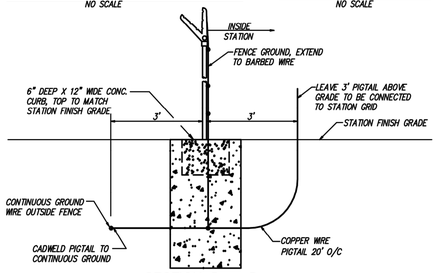
SECTION B – B
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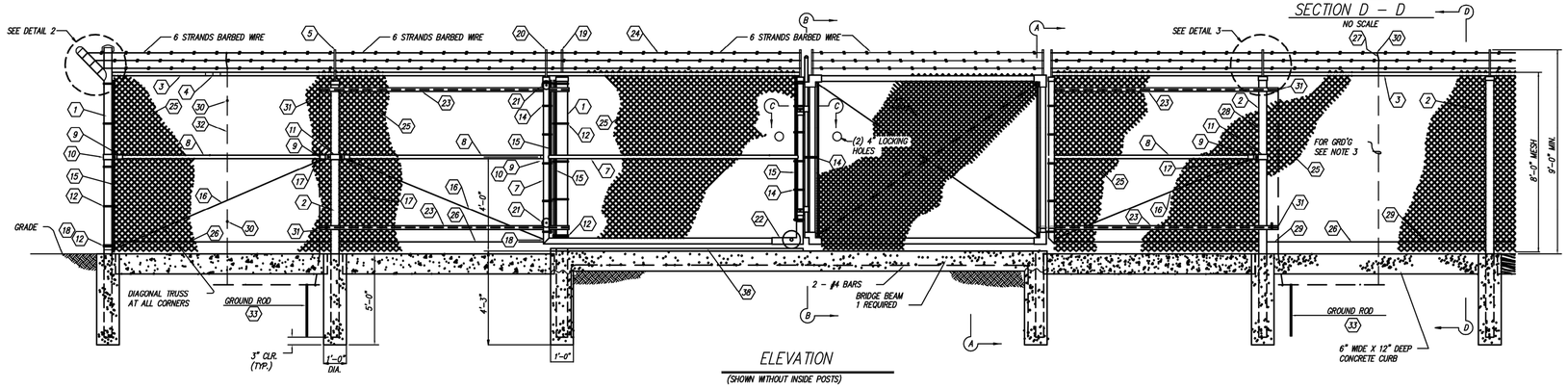
DETAIL 4--LOCK PLATE DETAIL
NO SCALE



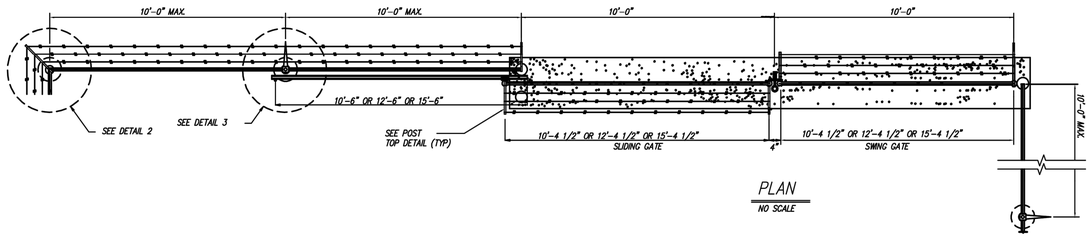
SECTION C – C
NO SCALE



SECTION D – D
NO SCALE



ELEVATION
(SHOWN WITHOUT INSIDE POSTS)



PLAN
NO SCALE

TYPICAL SDG&E STANDARD SLIDE/SWING GATE AND FENCE DETAIL

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____
NAME CHRISTOPHER J. CARDA
R.C.E. _____
EXPIRES: _____

BENCH MARK

DESCRIPTION: STANDARD DISC SET IN CONCRETE POST
LOCATION: ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THE MANZANITA INDIAN RES.
RECORD FROM: NGS
ELEVATION: 3353' DATUM: NAVD88

Fence Details

PRIVATE CONTRACT

SHEET		
10	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190–1983, 1989, 1995

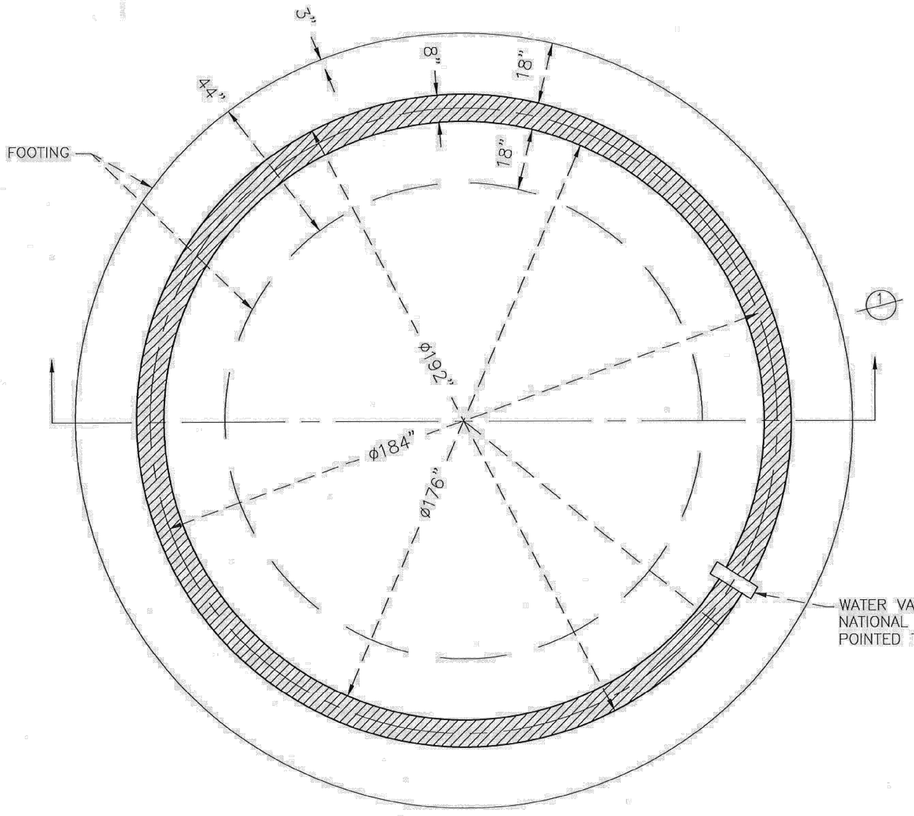
APPROVED FOR:
WILLIAM P. MORGAN, COUNTY ENGINEER
BY: DATE:

ENGINEER OF WORK
CHRISTOPHER J. CARDA R.C.E. C75322

GRADING PERMIT NO:

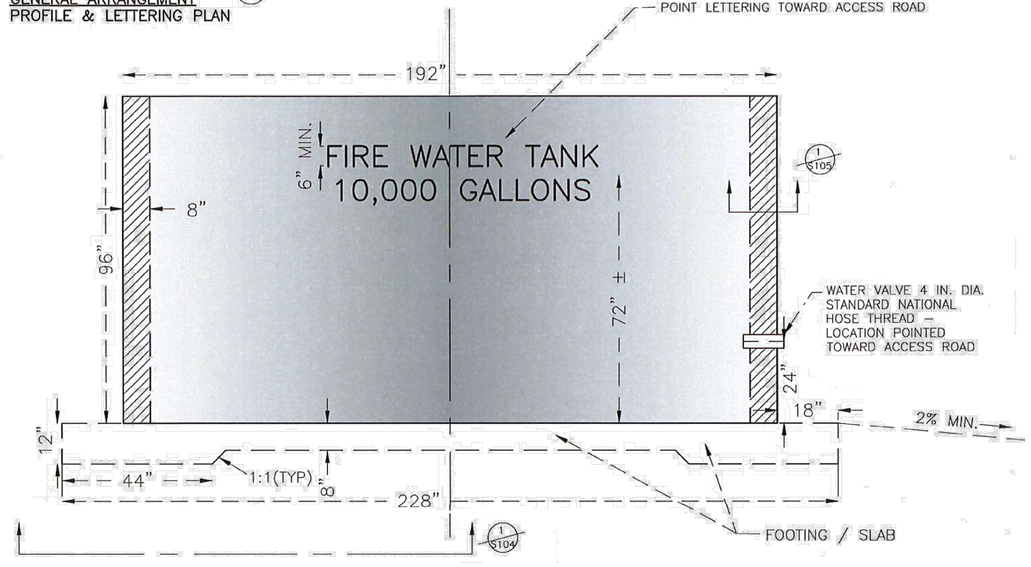
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PHONE: 952–937–5150

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GENERAL ARRANGEMENT
PLAN

GENERAL ARRANGEMENT
PROFILE & LETTERING PLAN ①



Westwood

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Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com

Westwood Professional Services, Inc.

COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____

R.C.E. _____ NAME CHRISTOPHER J. CARDA

EXPIRES: _____

BENCH MARK

DESCRIPTION: STANDARD DISC SET IN CONCRETE POST

LOCATION: ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THE MANZANITA INDIAN RES.

RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

Fire Water Tank Details

PRIVATE CONTRACT

SHEET		
11	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190–1983, 1989, 1995

APPROVED FOR:
WILLIAM P. MORGAN, COUNTY ENGINEER

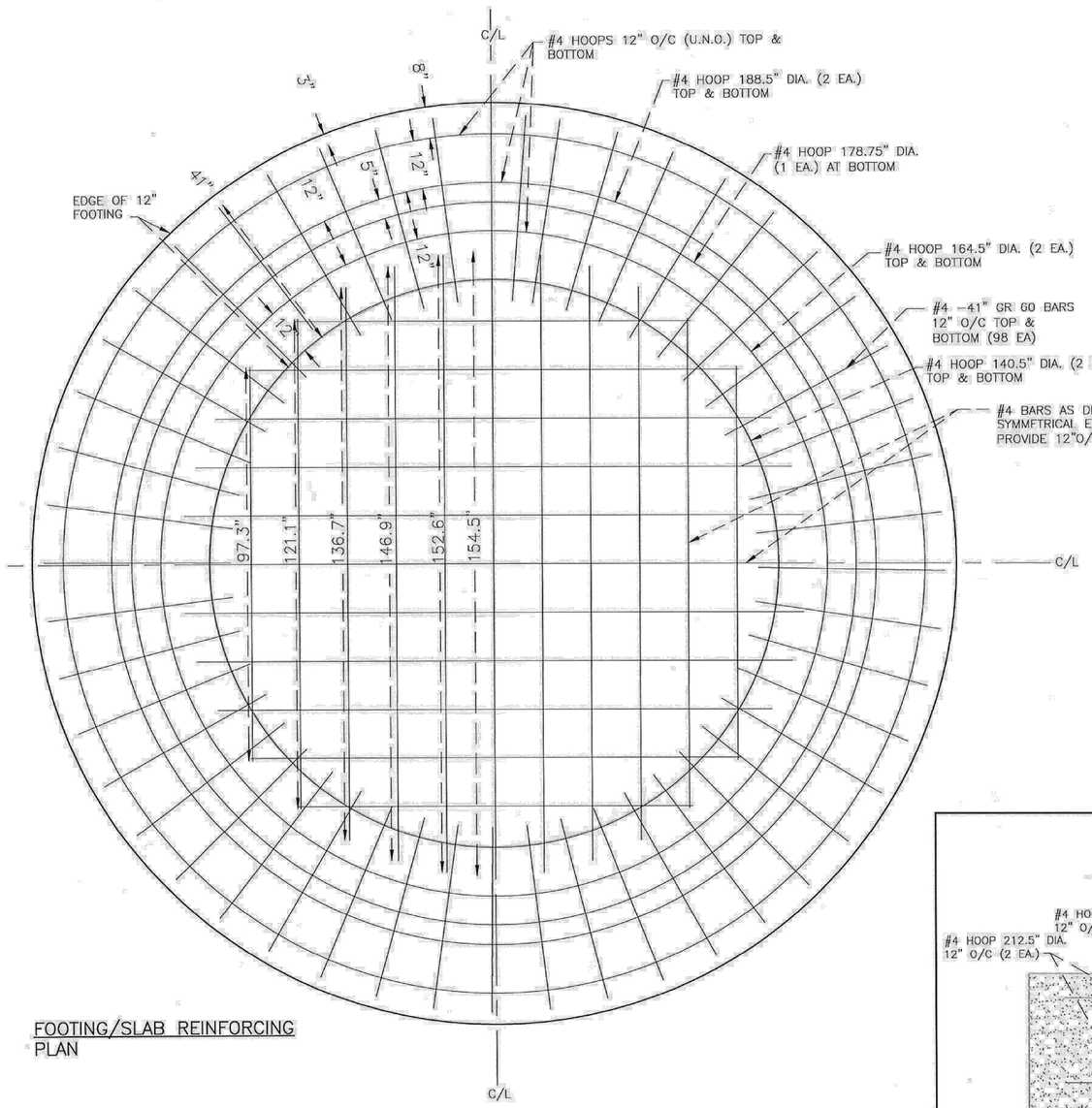
BY: DATE:

ENGINEER OF WORK
CHRISTOPHER J. CARDA R.C.E. C75322

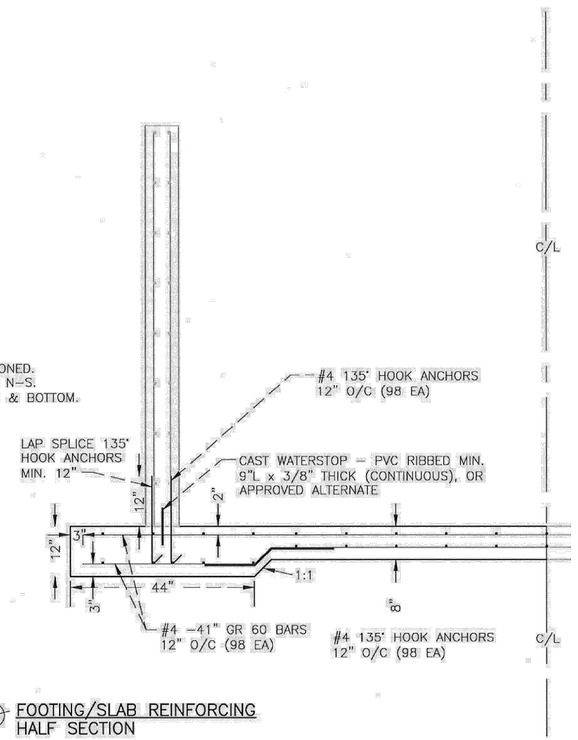
GRADING PERMIT NO:

WESTWOOD PROFESSIONAL SERVICES, INC.
PHONE: 952-937-5150

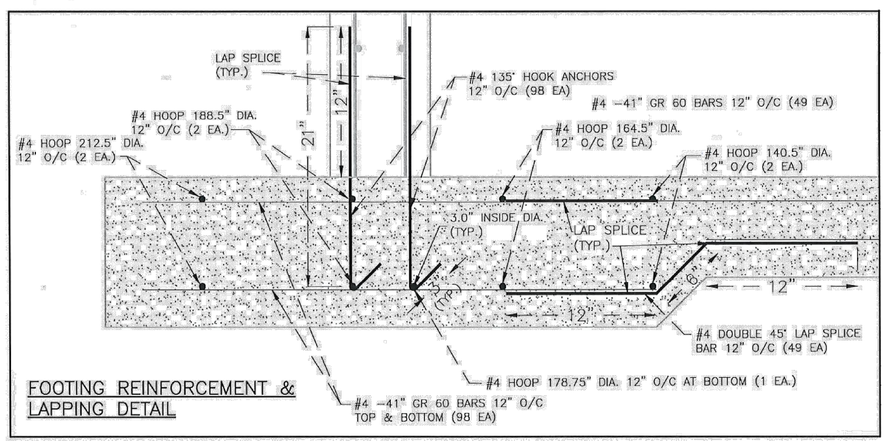
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FOOTING/SLAB REINFORCING
PLAN



1 FOOTING/SLAB REINFORCING
HALF SECTION



FOOTING REINFORCEMENT &
LAPPING DETAIL

NOTES
1. ALL STEEL REINFORCEMENT SHALL BE GRADE 60.
2. PRIOR TO STEEL PROCUREMENT, ENGINEER SHALL REVIEW SHOP DRAWINGS FOR COMPLIANCE.
3. WATERSTOP MATERIAL SHALL BE REVIEWED THE ENGINEER PRIOR TO PROCUREMENT.
4. WATERSTOP SHALL BE CAST WITH THE FOOTING DURING FINAL FINISHING.

Westwood
Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____
NAME CHRISTOPHER J. CARDA
R.C.E. _____
EXPIRES: _____

BENCH MARK

DESCRIPTION: STANDARD DISC SET IN CONCRETE POST
LOCATION: ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THE MANZANITA INDIAN RES.
RECORD FROM: NGS
ELEVATION: 3353' DATUM: NAVD88

Fire Water Tank Details

PRIVATE CONTRACT

SHEET 12	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190-1983, 1989, 1995

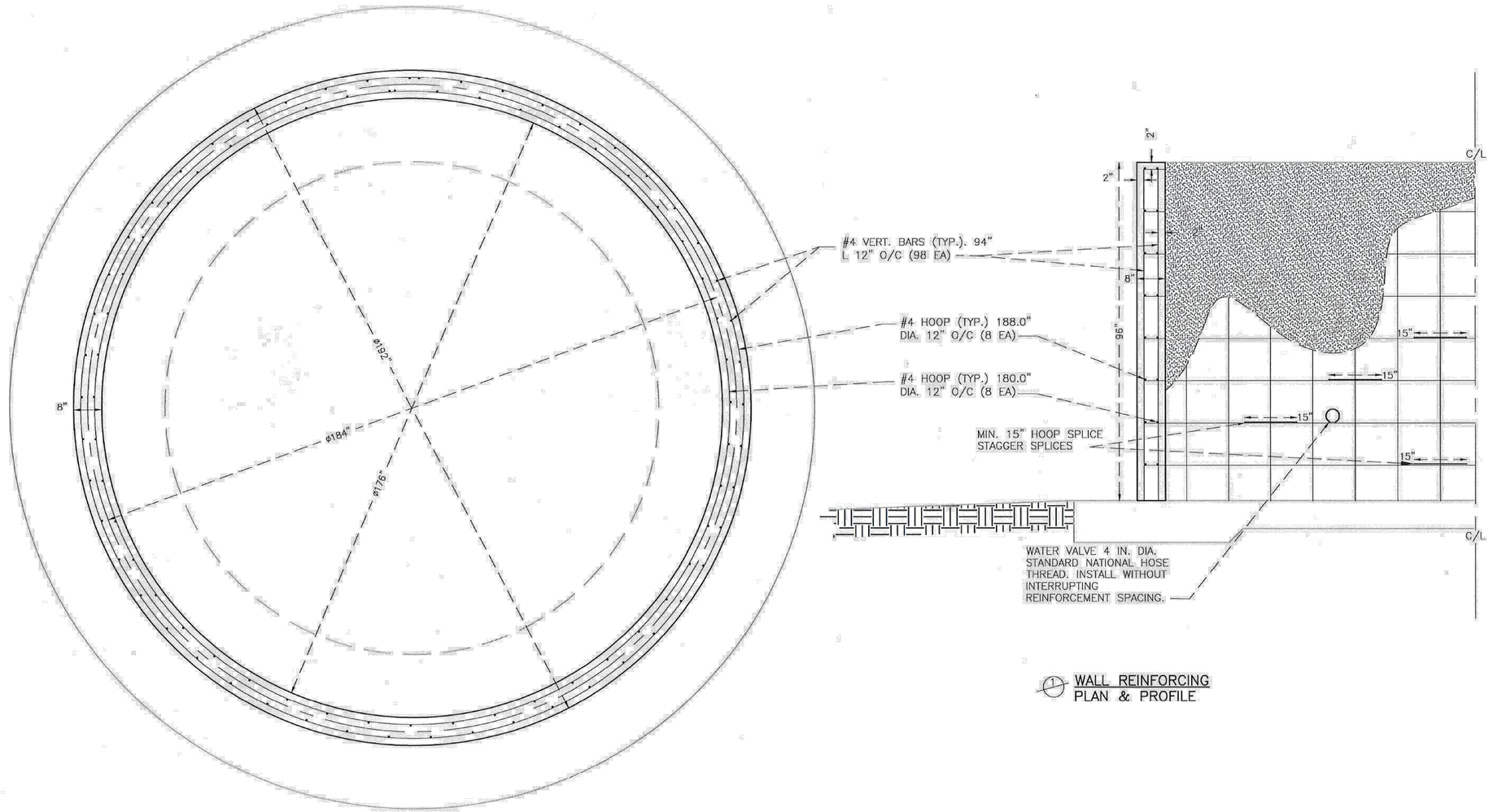
APPROVED FOR:
WILLIAM P. MORGAN, COUNTY ENGINEER
BY: DATE:

ENGINEER OF WORK
CHRISTOPHER J. CARDA R.C.E. C75322

GRADING PERMIT NO:

WESTWOOD PROFESSIONAL SERVICES, INC.
PHONE: 952-937-5150

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1 WALL REINFORCING PLAN & PROFILE

NOTES
1. ALL STEEL REINFORCEMENT SHALL BE GRADE 60.
2. PRIOR TO STEEL PROCUREMENT, ENGINEER SHALL REVIEW SHOP DRAWINGS FOR COMPLIANCE.
3. WATERSTOP MATERIAL SHALL BE REVIEWED THE ENGINEER PRIOR TO PROCUREMENT.
4. WATERSTOP SHALL BE CAST WITH THE FOOTING DURING FINAL FINISHING.

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Westwood Professional Services, Inc.

COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____
NAME
R.C.E. CHRISTOPHER J. CARDA
EXPIRES: _____

BENCH MARK

DESCRIPTION: STANDARD DISC SET IN CONCRETE POST

LOCATION: ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THE MANZANITA INDIAN RES.

RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

Fire Water Tank Details

PRIVATE CONTRACT

SHEET	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS
13		

GRADING PLANS FOR: DATE: 12/05/19

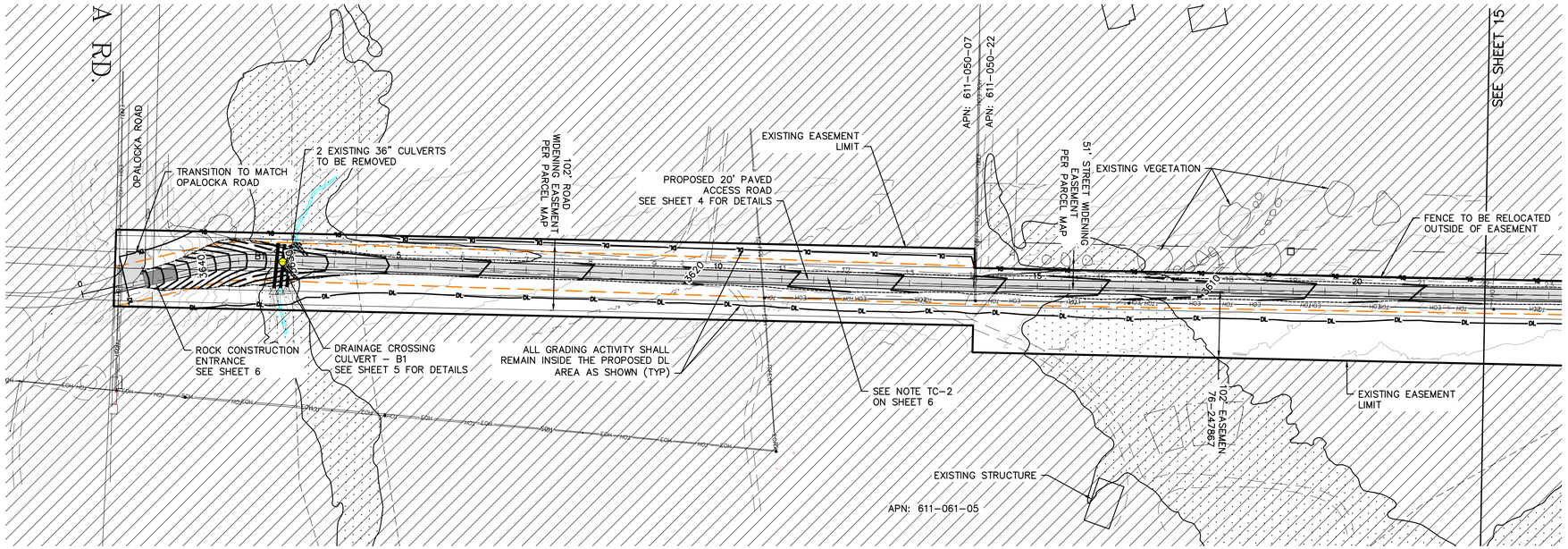
Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190-1983, 1989, 1995

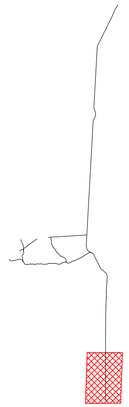
APPROVED FOR: WILLIAM P. MORGAN, COUNTY ENGINEER	ENGINEER OF WORK CHRISTOPHER J. CARDA R.C.E. C75322
BY: DATE:	GRADING PERMIT NO:

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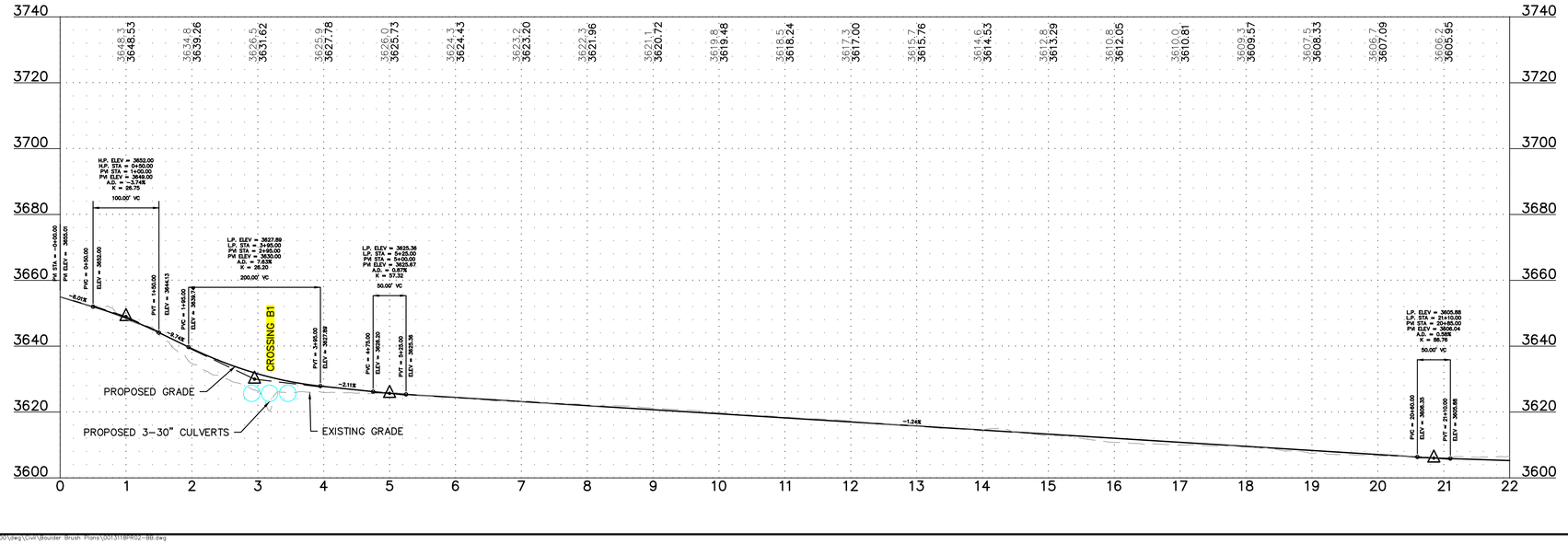
KEY MAP



LEGEND:

- PROPOSED OVERHEAD ELECTRICAL
- PROPOSED DISTURBANCE LIMIT
- GRADING LIMITS
- 100-YEAR STORM INUNDATION
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING FIELD DELINEATION (JURISDICTIONAL WATER)
- AREA OF PRIOR DISTURBANCE
- EXISTING OVERHEAD POWER
- PROPOSED TRANSMISSION POLE
- EXISTING FENCE LINE
- BUILDING SETBACK
- PARCEL LINE
- EXISTING EASEMENT
- SECTION LINE
- FUEL MOD ZONE
- PROPOSED CULVERT
- PROPOSED PAVED ACCESS ROAD
- PROPOSED CONCRETE FORD CROSSING
- PROPOSED DECOMPOSED GRANITE ACCESS ROAD
- WORK DONE BY OTHERS
- PROPOSED DRAINAGE CROSSING
- OUTSIDE PROJECT'S EXISTING EASEMENT LIMITS/NOT A PART OF BOULDER BRUSH PROJECT
- PROJECT'S EXISTING EASEMENT LIMITS/BOULDER BRUSH BOUNDARY

Road - Ribbonwood Rd. Improvements Sta 0+00 - 22+00





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COUNTY APPROVED CHANGES

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RECORD PLAN

BY: _____ DATE: _____
NAME CHRISTOPHER J. CARDA
R.C.E. _____
EXPIRES: _____

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LOCATION: ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THE MANZANITA INDIAN RES.

RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

Ribbonwood Rd. Improvements

PRIVATE CONTRACT

SHEET		
14	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190-1983, 1989, 1995

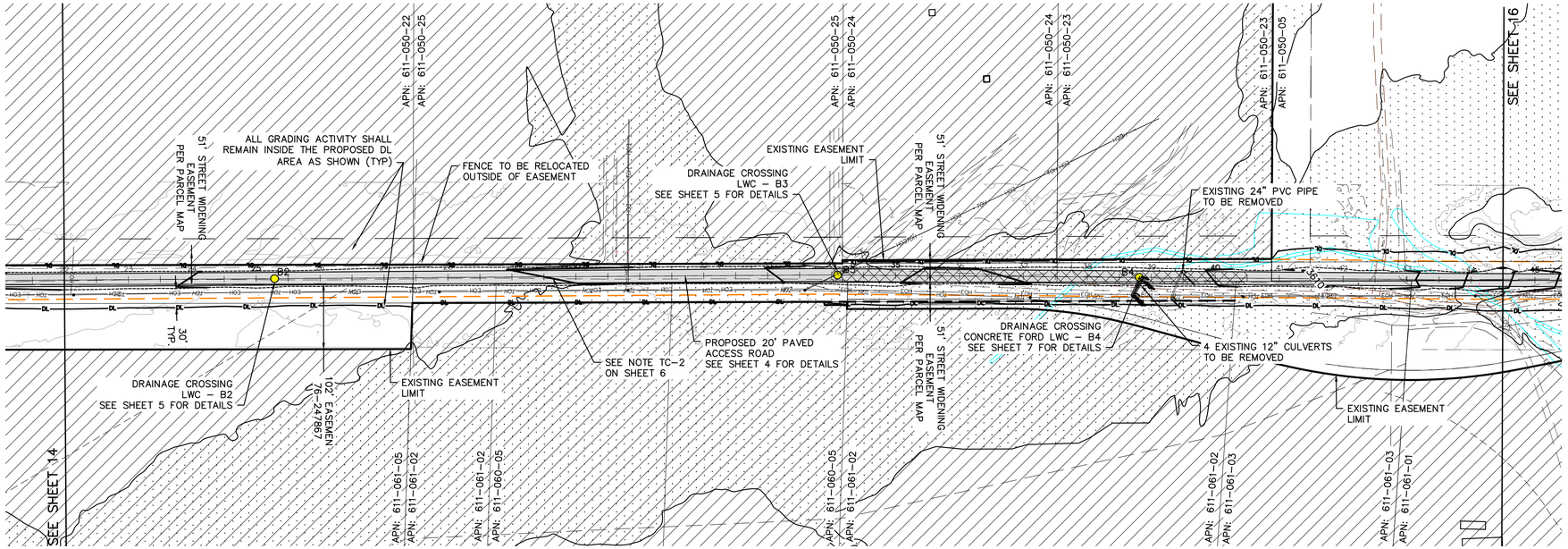
APPROVED FOR: WILLIAM P. MORGAN, COUNTY ENGINEER
BY: DATE:

ENGINEER OF WORK
CHRISTOPHER J. CARDA R.C.E. 075332

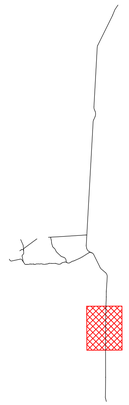
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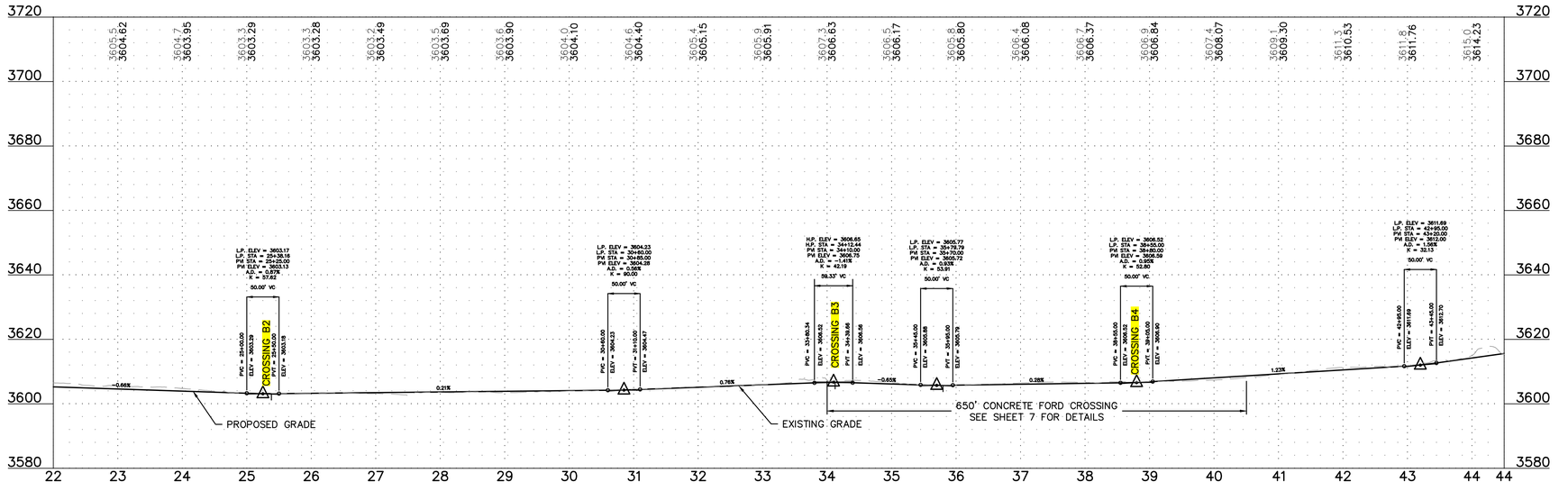
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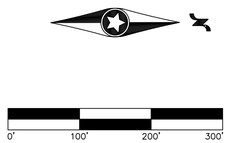


LEGEND:

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Road - Ribbonwood Rd. Improvements Sta 22+00 - 44+50





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Westwood Professional Services, Inc.

COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____

NAME
R.C.E. CHRISTOPHER J. CARDA

EXPIRES: _____

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RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

Ribbonwood Rd. Improvements

PRIVATE CONTRACT

SHEET		
15	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190-1983, 1989, 1995

APPROVED FOR:
WILLIAM P. MORGAN, COUNTY ENGINEER

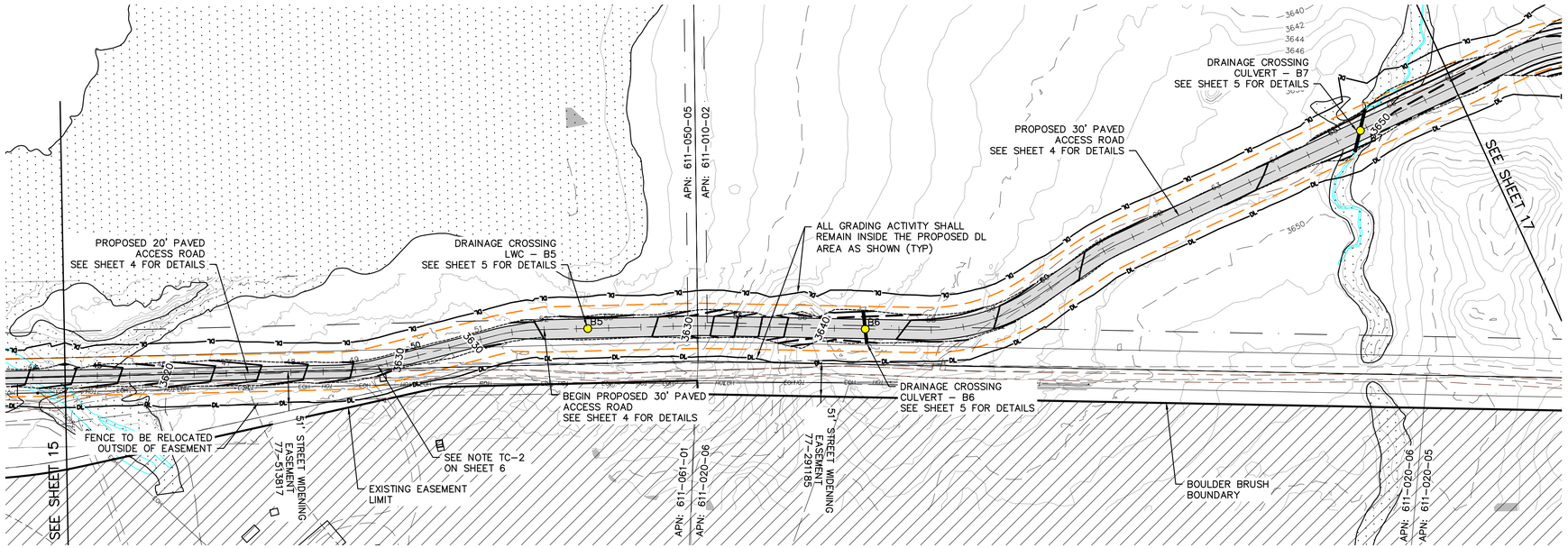
BY: DATE:

ENGINEER OF WORK
CHRISTOPHER J. CARDA R.C.E. 075332

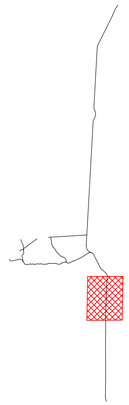
GRADING PERMIT NO:

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PHONE: 952-937-5150

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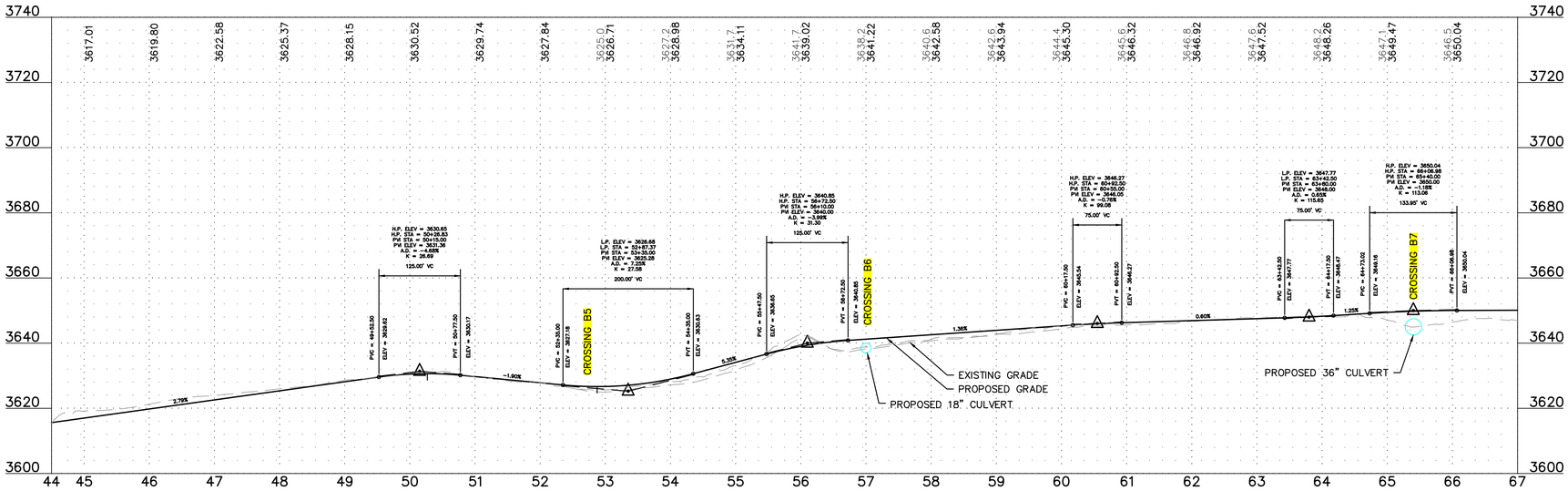
KEY MAP

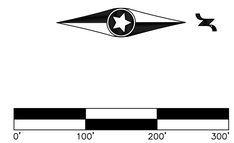


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Road - Ribbonwood Rd. Improvements Sta 44+50 - 67+00





Westwood

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COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____

R.C.E. NAME CHRISTOPHER J. CARDA

EXPIRES: _____

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RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

Ribbonwood Rd. Improvements

PRIVATE CONTRACT

SHEET	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS
16		

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190-1983, 1989, 1995

APPROVED FOR: WILLIAM P. MORGAN, COUNTY ENGINEER

BY: DATE:

ENGINEER OF WORK

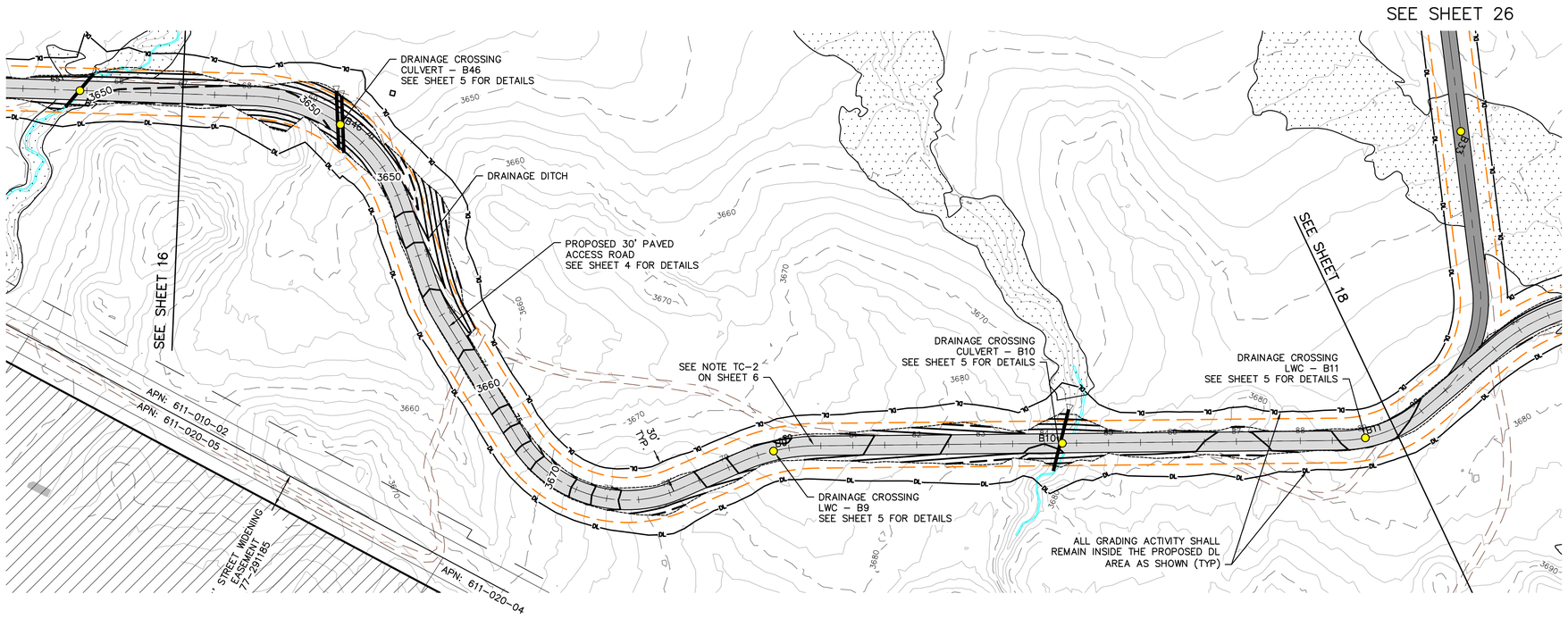
CHRISTOPHER J. CARDA R.C.E. 075332

GRADING PERMIT NO:

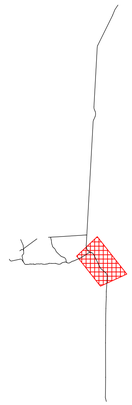
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PHONE: 952-937-5150

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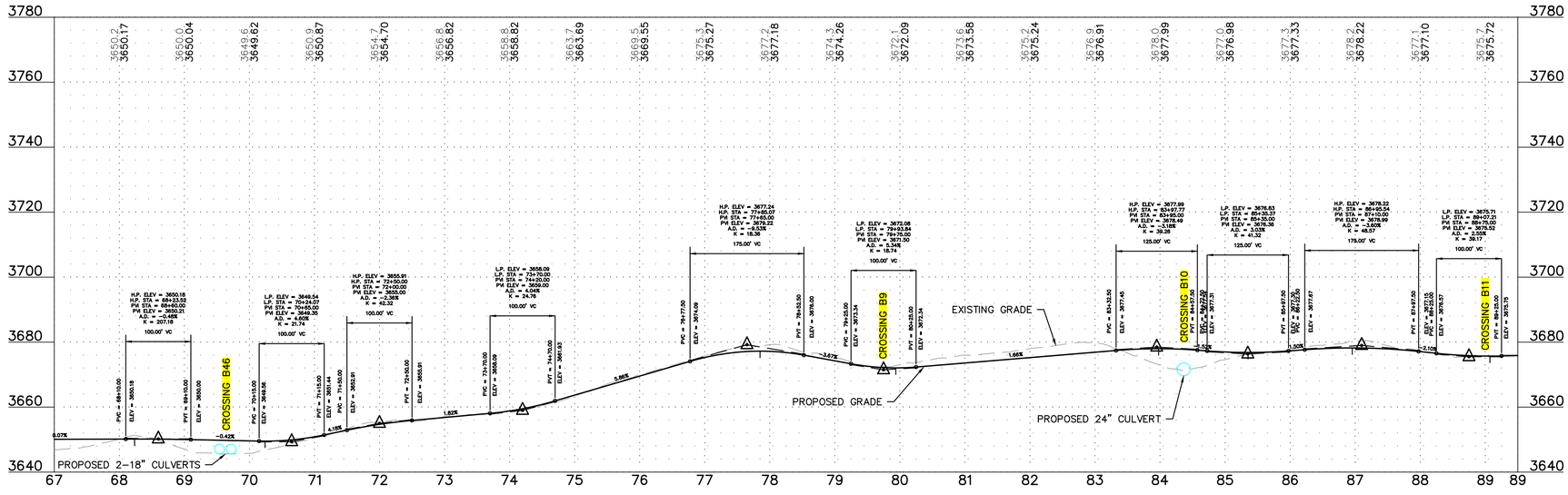
KEY MAP

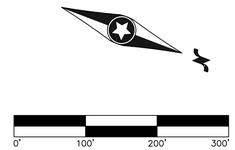


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Road - Ribbonwood Rd. Improvements Sta 67+00 - 89+50





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COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

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BY: _____ DATE: _____

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EXPIRES: _____

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RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

High-Voltage Sub & SY Access Road

PRIVATE CONTRACT

SHEET	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	SHEETS
17		27

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190–1983, 1989, 1995

APPROVED FOR: WILLIAM P. MORGAN, COUNTY ENGINEER

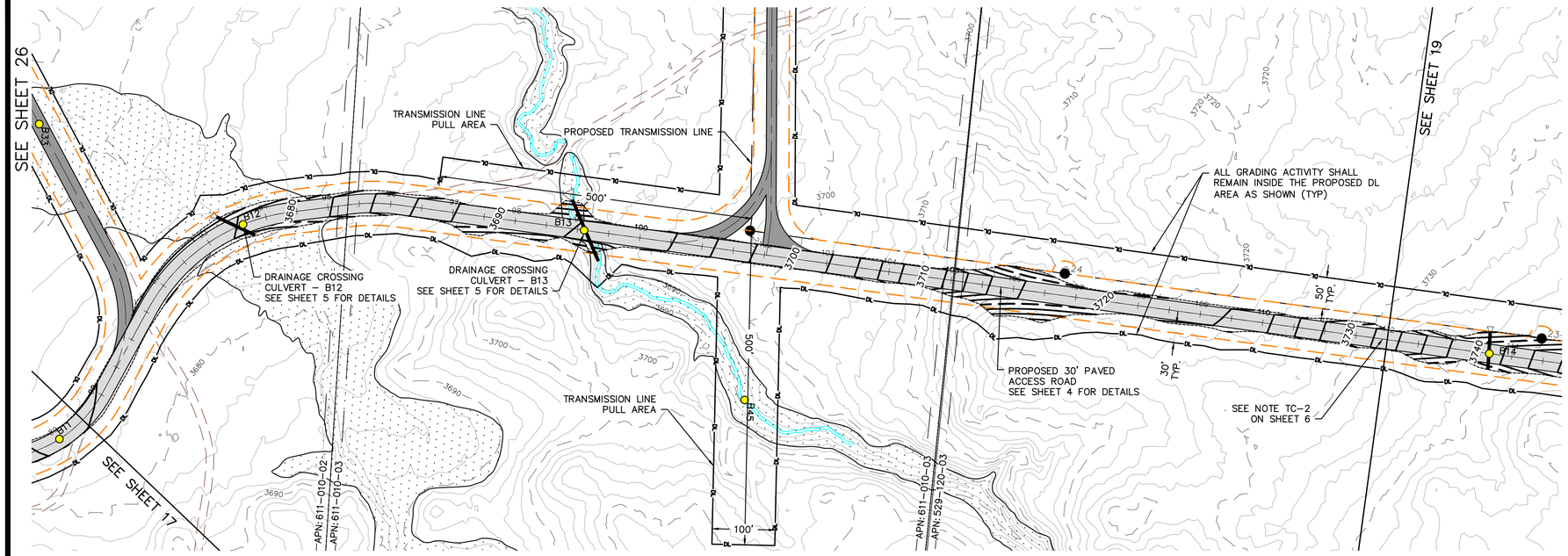
BY: DATE:

ENGINEER OF WORK: CHRISTOPHER J. CARDA R.C.E. 075332

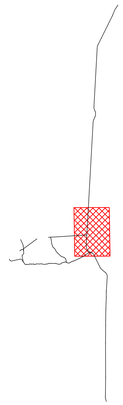
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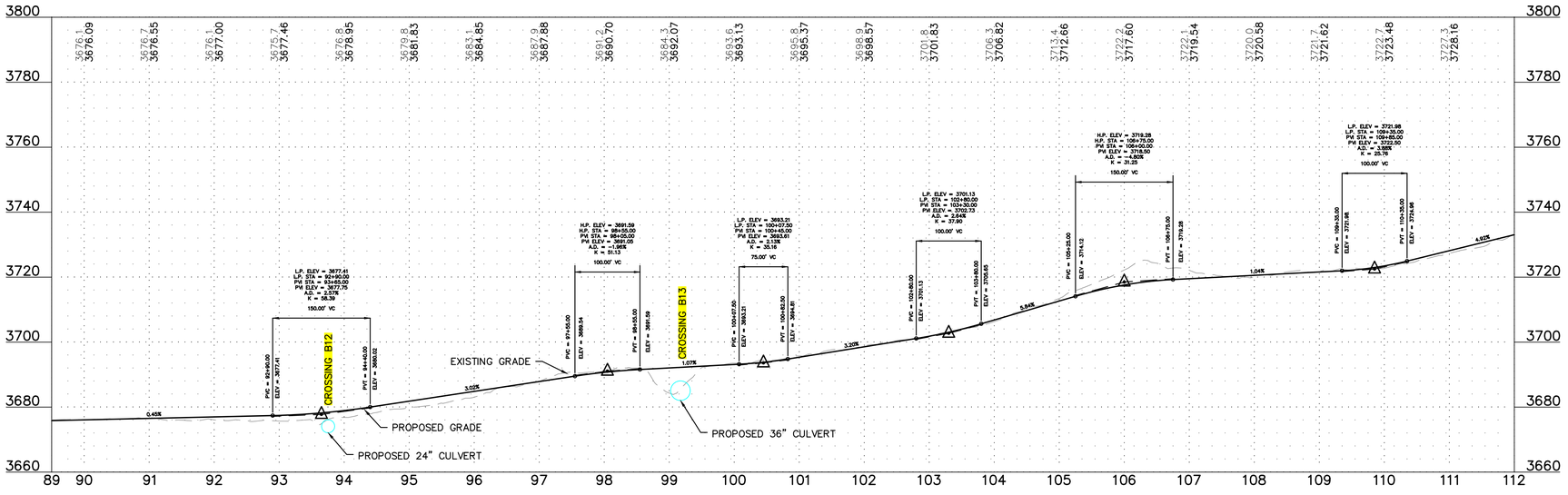
KEY MAP



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Road - High-Voltage Sub & SY Access Road Sta 89+50 - 112+00



0' 100' 200' 300'

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High-Voltage Sub & SY Access Road

PRIVATE CONTRACT

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18		27

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

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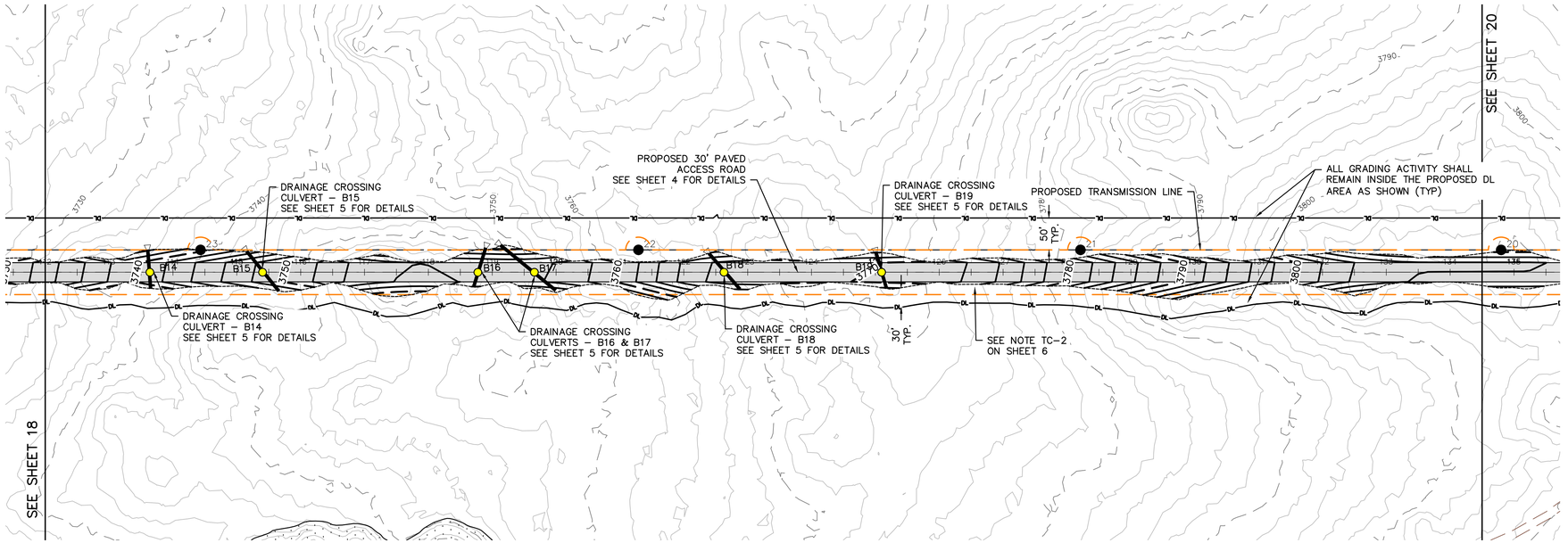
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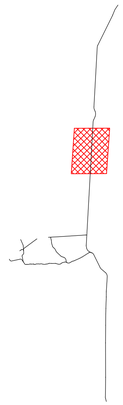
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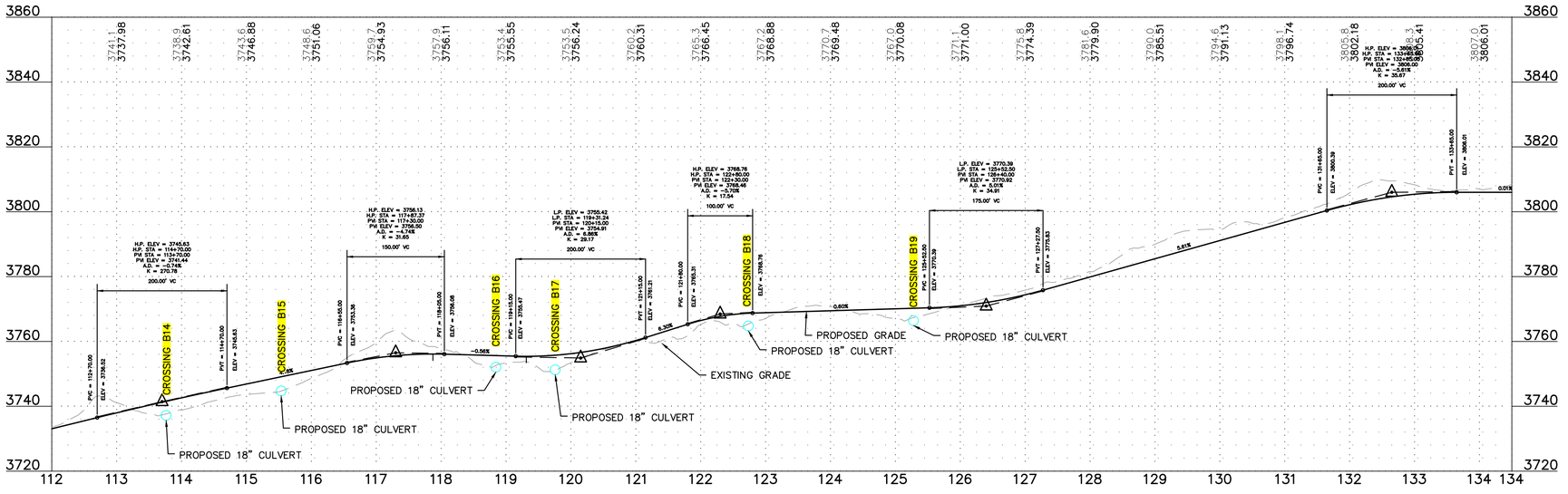
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Road - High-Voltage Sub & SY Access Road Sta 112+00 - 134+50





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APPROVED FOR: WILLIAM P. MORGAN, COUNTY ENGINEER

BY: DATE:

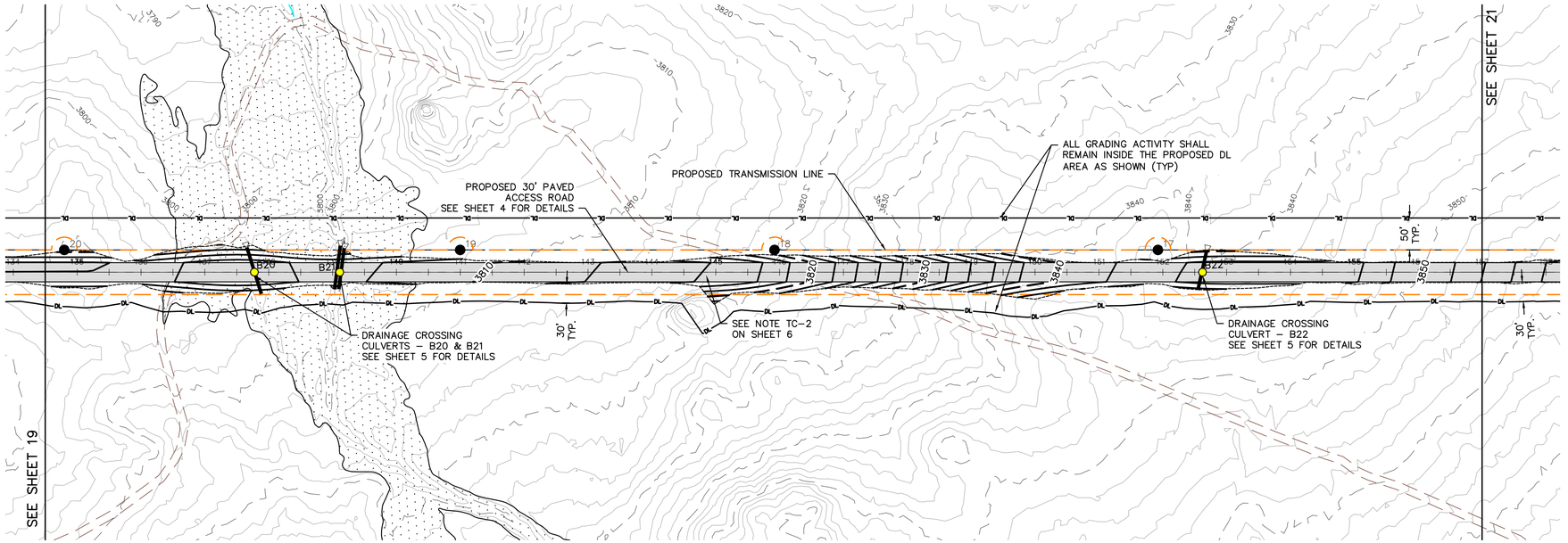
ENGINEER OF WORK: CHRISTOPHER J. CARDA R.C.E. 67533Z

GRADING PERMIT NO:

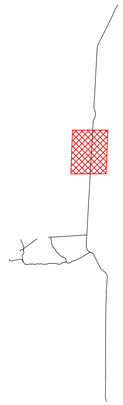
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PHONE: 952–937–5150

N:\0013118.00\dwg\Civil\Boulder Brush Plans\0013118PR02–BB.dwg

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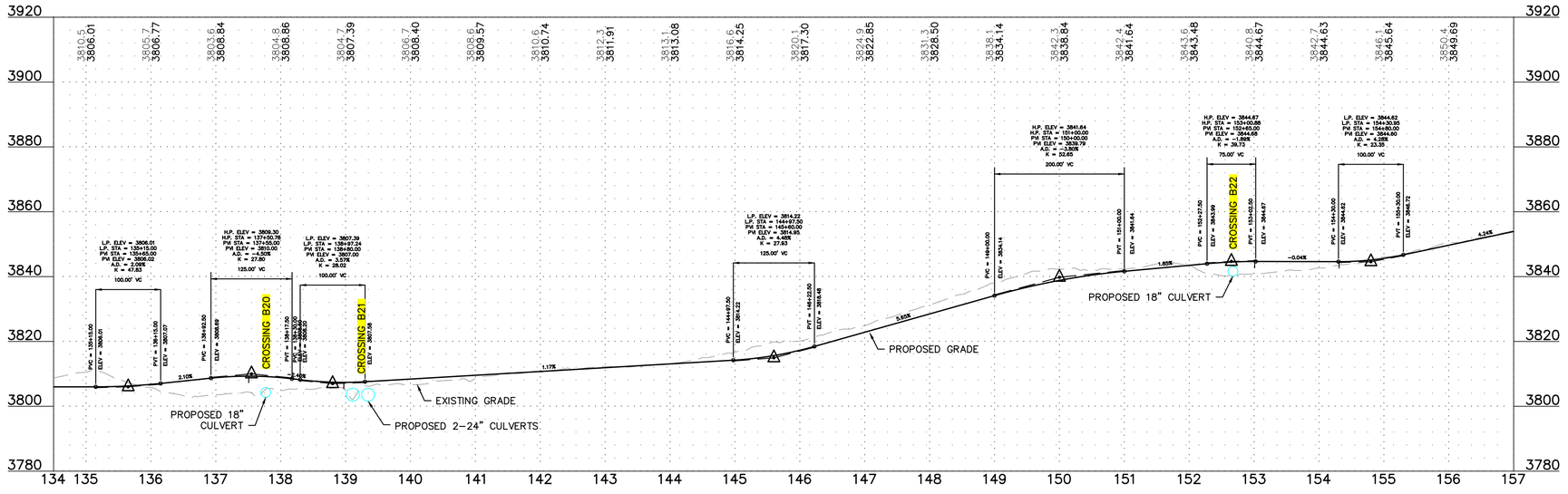
KEY MAP



LEGEND:

- PROPOSED OVERHEAD ELECTRICAL
- PROPOSED DISTURBANCE LIMIT
- GRADING LIMITS
- 100-YEAR STORM INUNDATION
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING FIELD DELINEATION (JURISDICTIONAL WATER)
- AREA OF PRIOR DISTURBANCE
- EXISTING OVERHEAD POWER
- PROPOSED TRANSMISSION POLE
- EXISTING FENCE LINE
- BUILDING SETBACK
- PARCEL LINE
- EXISTING EASEMENT
- SECTION LINE
- FUEL MOD ZONE
- PROPOSED CULVERT
- PROPOSED PAVED ACCESS ROAD
- PROPOSED CONCRETE FORD CROSSING
- PROPOSED DECOMPOSED GRANITE ACCESS ROAD
- WORK DONE BY OTHERS
- PROPOSED DRAINAGE CROSSING
- OUTSIDE PROJECT'S EXISTING EASEMENT LIMITS/NOT A PART OF BOULDER BRUSH PROJECT
- PROJECT'S EXISTING EASEMENT LIMITS/BOULDER BRUSH BOUNDARY

Road - High-Voltage Sub & SY Access Road Sta 134+50 - 157+00



0' 100' 200' 300'

Westwood
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Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com
Westwood Professional Services, Inc.

COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____
NAME CHRISTOPHER J. CARDA
R.C.E. _____
EXPIRES: _____

BENCH MARK

DESCRIPTION: STANDARD DISC SET IN CONCRETE POST
LOCATION: ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THE MANZANITA INDIAN RES.
RECORD FROM: NGS
ELEVATION: 3353' DATUM: NAVD88

High-Voltage Sub & SY Access Road

PRIVATE CONTRACT

SHEET		
20	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190-1983, 1989, 1995

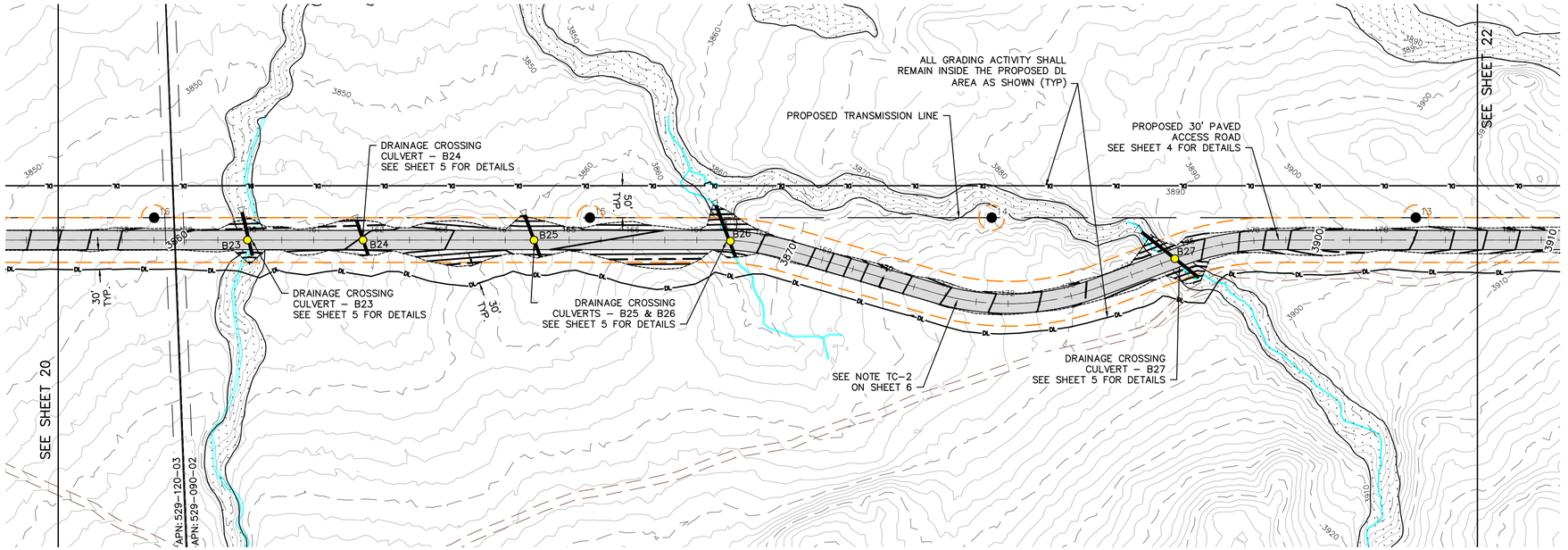
APPROVED FOR: WILLIAM P. MORGAN, COUNTY ENGINEER
BY: DATE:

ENGINEER OF WORK
CHRISTOPHER J. CARDA R.C.E. 075332

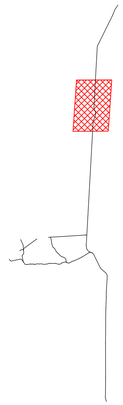
GRADING PERMIT NO:

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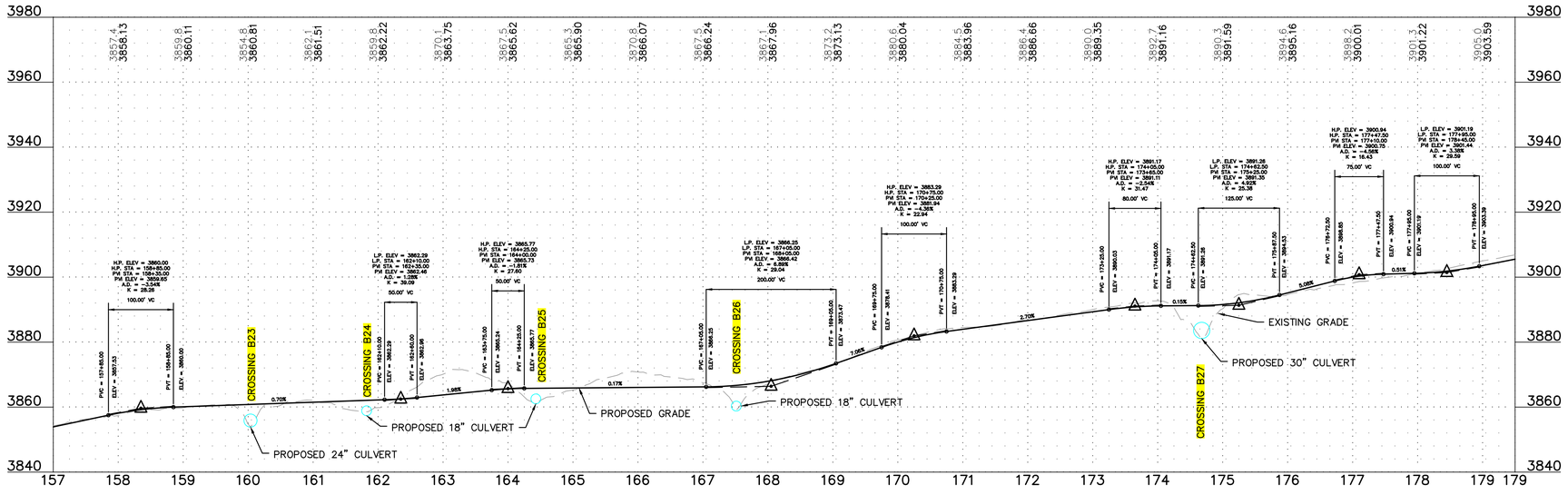
KEY MAP



LEGEND:

- PROPOSED OVERHEAD ELECTRICAL (P–POH)
- PROPOSED DISTURBANCE LIMIT (DL)
- GRADING LIMITS
- 100–YEAR STORM INUNDATION
- EXISTING 10' CONTOUR (980)
- EXISTING 2' CONTOUR
- EXISTING FIELD DELINEATION (JURISDICTIONAL WATER)
- AREA OF PRIOR DISTURBANCE
- EXISTING OVERHEAD POWER (EOH)
- PROPOSED TRANSMISSION POLE (XX)
- EXISTING FENCE LINE
- BUILDING SETBACK
- PARCEL LINE
- EXISTING EASEMENT
- SECTION LINE
- FUEL MOD ZONE
- PROPOSED CULVERT
- PROPOSED PAVED ACCESS ROAD
- PROPOSED CONCRETE FORD CROSSING
- PROPOSED DECOMPOSED GRANITE ACCESS ROAD
- WORK DONE BY OTHERS
- PROPOSED DRAINAGE CROSSING (XingID)
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- PROJECT'S EXISTING EASEMENT LIMITS/BOULDER BRUSH BOUNDARY

Road - High-Voltage Sub & SY Access Road Sta 157+00 - 179+50



0' 100' 200' 300'

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COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____
NAME CHRISTOPHER J. CARDA
R.C.E. _____
EXPIRES: _____

BENCH MARK

DESCRIPTION: STANDARD DISC SET IN CONCRETE POST
LOCATION: ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THE MANZANITA INDIAN RES.
RECORD FROM: NGS
ELEVATION: 3353' DATUM: NAVD88

High-Voltage Sub & SY Access Road

PRIVATE CONTRACT

SHEET		
21	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190–1983, 1989, 1995

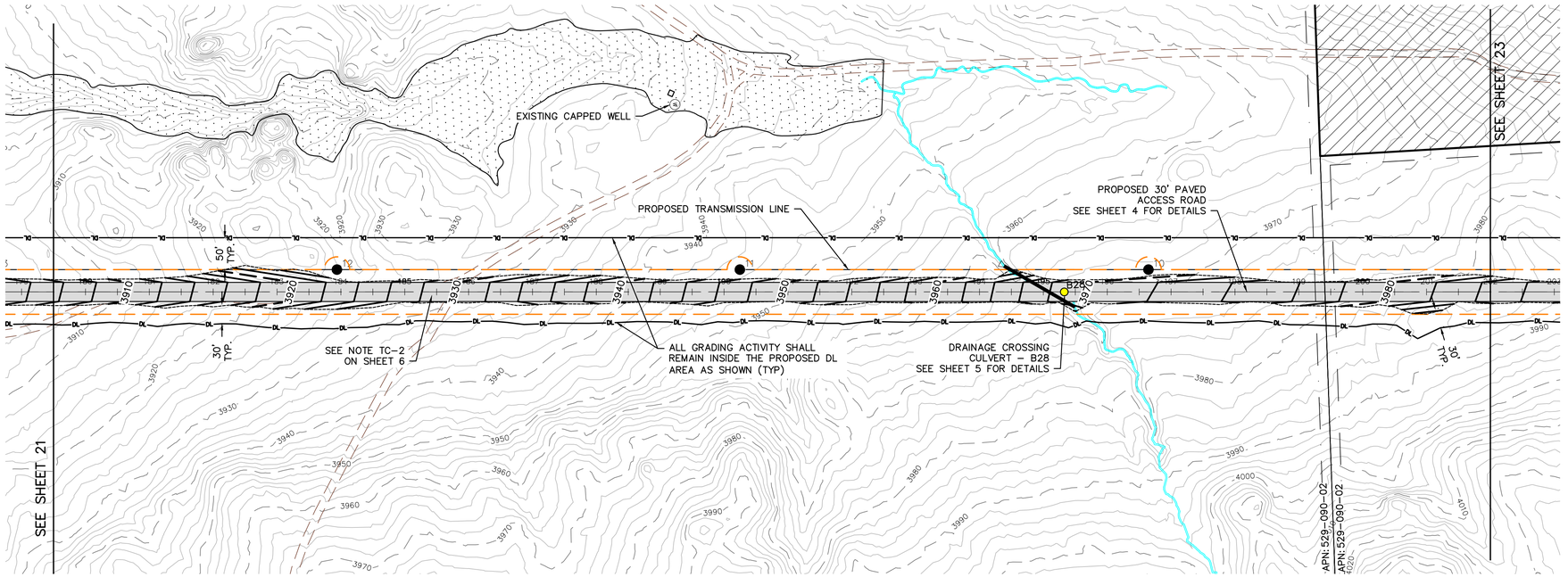
APPROVED FOR: WILLIAM P. MORGAN, COUNTY ENGINEER
BY: DATE:

ENGINEER OF WORK
CHRISTOPHER J. CARDA R.C.E. 075332

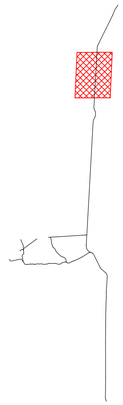
GRADING PERMIT NO:

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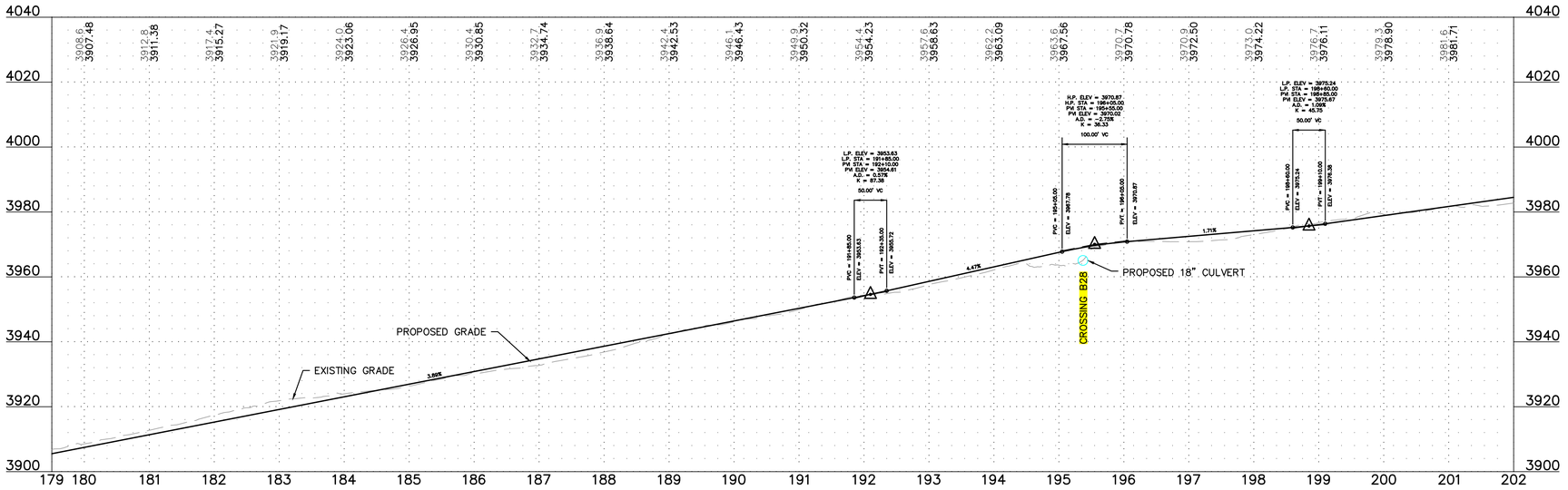
KEY MAP

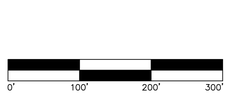


LEGEND:

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- PROPOSED DISTURBANCE LIMIT
- GRADING LIMITS
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- EXISTING 10' CONTOUR
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Road - High-Voltage Sub & SY Access Road Sta 179+50 - 202+00





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westwoodps.com
Westwood Professional Services, Inc.

COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____

R.C.E. NAME CHRISTOPHER J. CARDA

EXPIRES: _____

BENCH MARK

DESCRIPTION: STANDARD DISC SET IN CONCRETE POST

LOCATION: ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THE MANZANITA INDIAN RES.

RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

High-Voltage Sub & SY Access Road

PRIVATE CONTRACT

SHEET		
22	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190-1983, 1989, 1995

APPROVED FOR: WILLIAM P. MORGAN, COUNTY ENGINEER

BY: DATE:

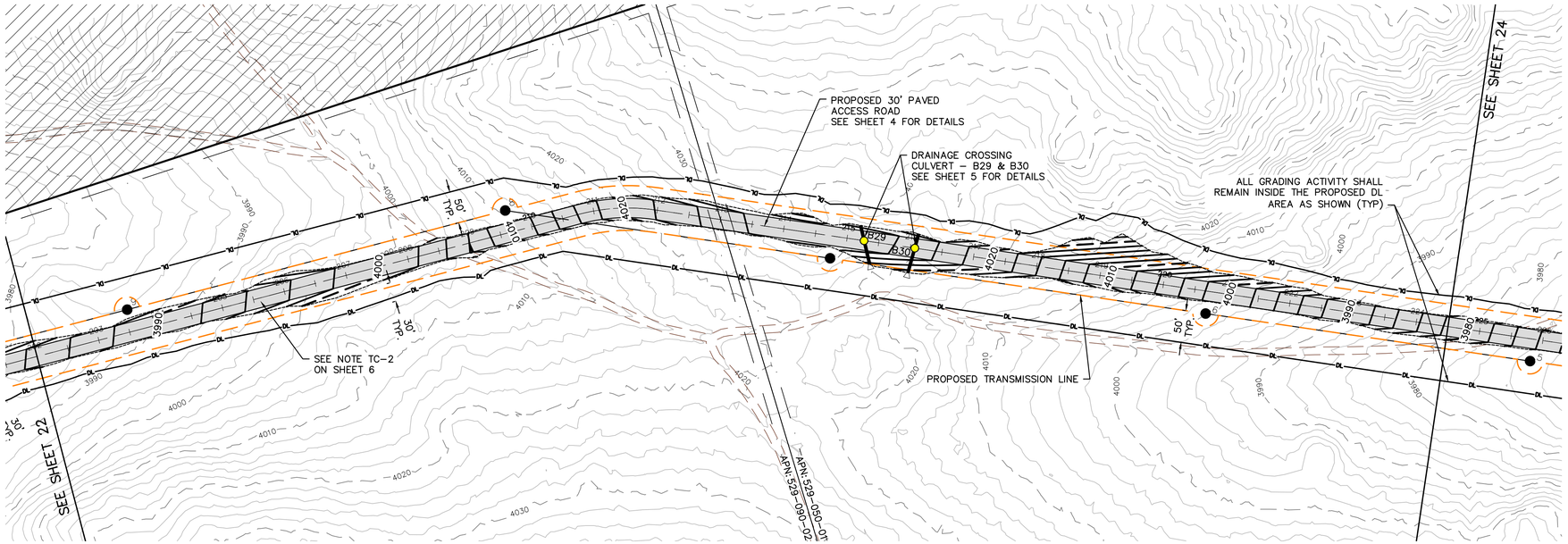
ENGINEER OF WORK

CHRISTOPHER J. CARDA R.C.E. 075322

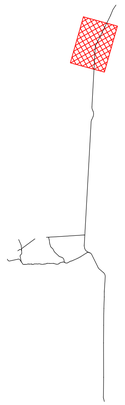
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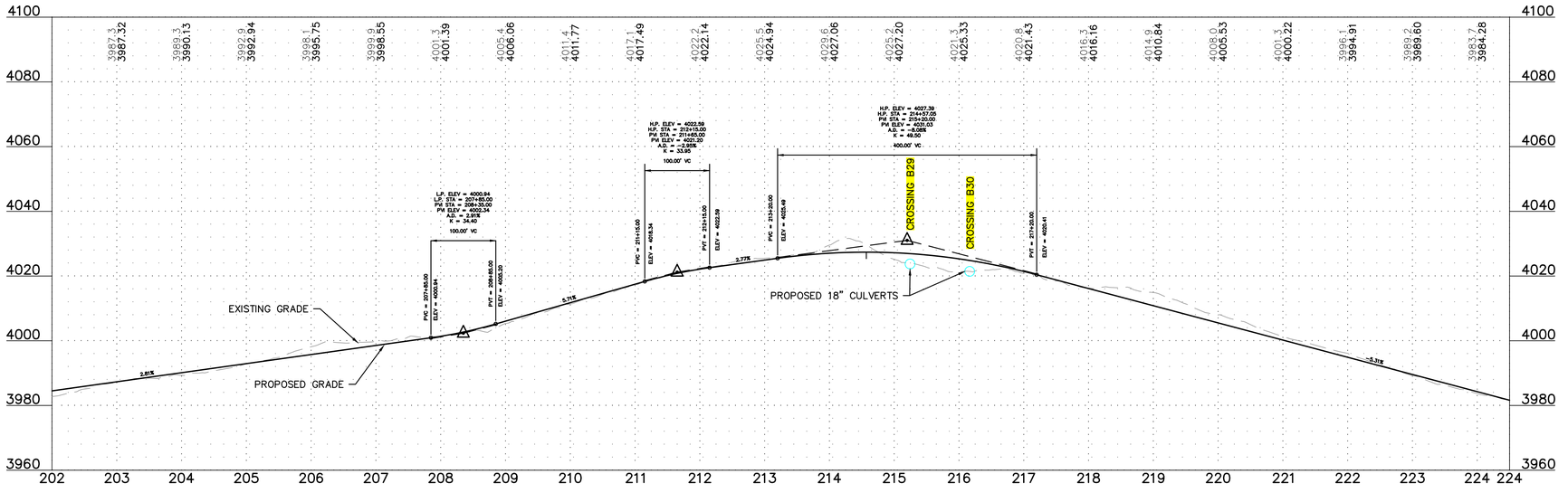
KEY MAP



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Road - High-Voltage Sub & SY Access Road Sta 202+00 - 224+50





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COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____

NAME CHRISTOPHER J. CARDA

R.C.E. _____

EXPIRES: _____

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RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

High-Voltage Sub & SY Access Road

PRIVATE CONTRACT

SHEET		
23	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190-1983, 1989, 1995

APPROVED FOR: WILLIAM P. MORGAN, COUNTY ENGINEER

BY: DATE:

ENGINEER OF WORK

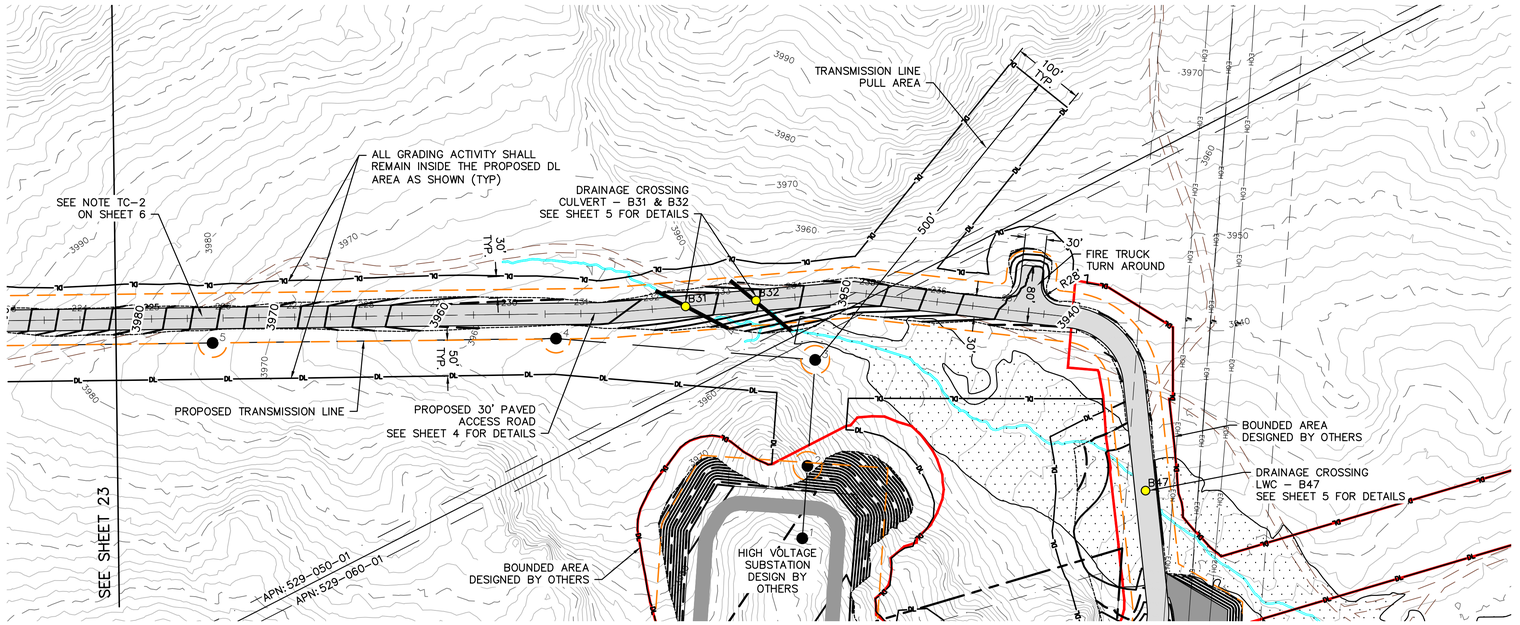
CHRISTOPHER J. CARDA R.C.E. 75332

GRADING PERMIT NO:

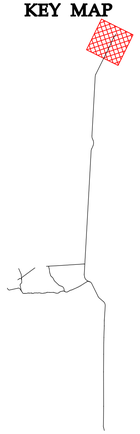
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PHONE: 952-937-5150

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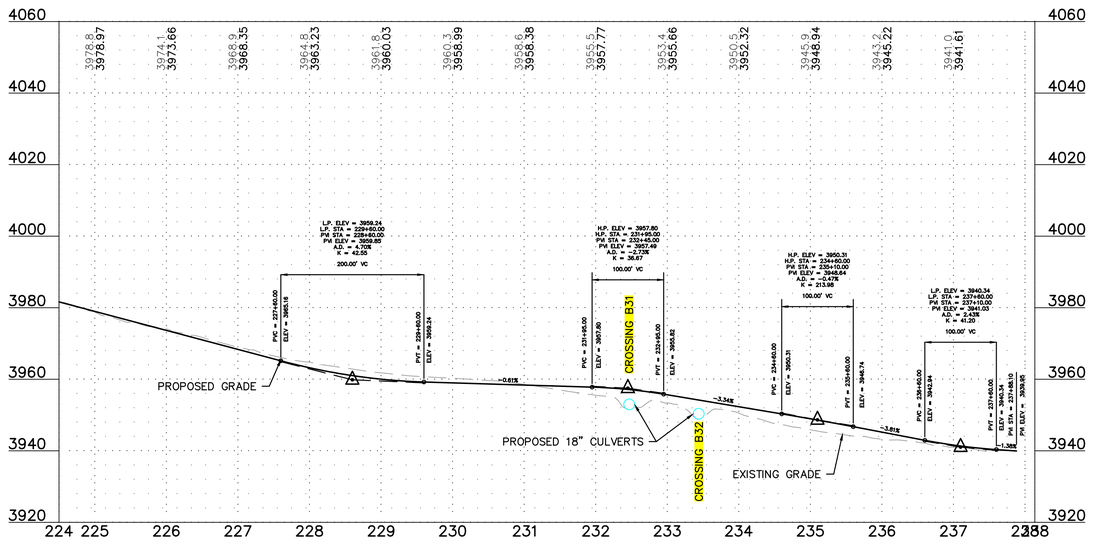
KEY MAP



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- PROPOSED OVERHEAD ELECTRICAL
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Road - High-Voltage Sub & SY Access Road Sta 224+50 - 238+13



0' 100' 200' 300'

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COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____

R.C.E. NAME CHRISTOPHER J. CARDA

EXPIRES: _____

BENCH MARK

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RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

High-Voltage Sub & SY Access Road

PRIVATE CONTRACT

SHEET		
24	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190-1983, 1989, 1995

APPROVED FOR: WILLIAM P. MORGAN, COUNTY ENGINEER

BY: DATE:

ENGINEER OF WORK

CHRISTOPHER J. CARDA R.C.E. 75332

GRADING PERMIT NO:

WESTWOOD PROFESSIONAL SERVICES, INC.
PHONE: 952-937-5150

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TRANSMISSION LINE PULL AREA

TRANSMISSION LINE PULL AREA

1324'

100'

720'

100'

50' TYP.

100'

SEE SHEET 26

SEE NOTE TC-2 ON SHEET 6

30' TYP.

ANY DISTURBANCE SHALL REMAIN INSIDE THE PROPOSED DL AREA AS SHOWN (TYP)

PROPOSED TRANSMISSION LINE

100' TYP.

DRAINAGE CROSSING TEMP IMPACT SEE SHEET 5 FOR DETAILS

DRAINAGE CROSSING TEMP IMPACT SEE SHEET 5 FOR DETAILS

DRAINAGE CROSSING TEMP IMPACT SEE SHEET 5 FOR DETAILS

76' TYP.

B36

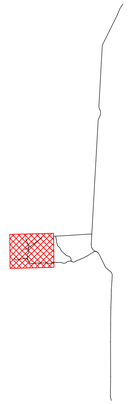
B37

B38

APN: 611-010-01

SEE SHEET 26

KEY MAP



LEGEND:

- PROPOSED OVERHEAD ELECTRICAL
- PROPOSED DISTURBANCE LIMIT
- GRADING LIMITS
- 100-YEAR STORM INUNDATION
- EXISTING 10' CONTOUR
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0' 100' 200' 300'

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COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____

R.C.E. NAME CHRISTOPHER J. CARDA

EXPIRES: _____

BENCH MARK

DESCRIPTION: STANDARD DISC SET IN CONCRETE POST

LOCATION: ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THE MANZANITA INDIAN RES.

RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

Decomposed Granite Access Roads

PRIVATE CONTRACT

SHEET		
25	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190-1983, 1989, 1995

APPROVED FOR: WILLIAM P. MORGAN, COUNTY ENGINEER

BY: DATE:

ENGINEER OF WORK

CHRISTOPHER J. CARDA R.C.E. 075322

GRADING PERMIT NO:

WESTWOOD PROFESSIONAL SERVICES, INC.
PHONE: 952-937-5150

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SEE SHEET 25

SEE SHEET 19

SEE SHEET 17

SEE SHEET 18

APN: 611-010-01

APN: 611-010-02

APN: 611-010-03

EXISTING CAPPED WELL

DRAINAGE CROSSING
TEMPORARY CULVERT – B39, B41, & B42
SEE SHEET 5 FOR DETAILS

DRAINAGE CROSSING
TEMPORARY IMPACT – B43
SEE SHEET 5 FOR DETAILS

DRAINAGE CROSSING
TEMPORARY IMPACT – B40
SEE SHEET 5 FOR DETAILS

PROPOSED TRANSMISSION LINE

DRAINAGE CROSSING
LWC – B44
SEE SHEET 5 FOR DETAILS

SEE SHEET 18
FOR PAVED
ACCESS ROAD

ANY DISTURBANCE SHALL REMAIN
INSIDE THE PROPOSED DL AREA
AS SHOWN (TYP)

SEE NOTE TC-2
ON SHEET 6

DRAINAGE CROSSING
CULVERT – B35
SEE SHEET 5 FOR DETAILS

EXISTING CATTLE FENCE

DRAINAGE CROSSING
CULVERT – B34
SEE SHEET 5 FOR DETAILS

REPLACE 2-48" CULVERTS

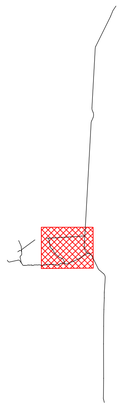
DRAINAGE CROSSING
LWC
SEE SHEET 5 FOR DETAILS

24' DG ACCESS ROAD
FROM PAVED ROAD TO
PROPOSED CULVERTS

BEGIN TYPICAL
16' DG ACCESS ROAD

TRANSITION TO
TYPICAL 16'
ACCESS ROAD

KEY MAP



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Fax (952) 937-5822 Minnetonka, MN 55343
Toll Free (888) 937-5150 westwoodps.com

Westwood Professional Services, Inc.

COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____

R.C.E. NAME CHRISTOPHER J. CARDA

EXPIRES: _____

BENCH MARK

DESCRIPTION: STANDARD DISC SET IN CONCRETE POST

LOCATION: ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THE MANZANITA INDIAN RES.

RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

Decomposed Granite Access Roads

PRIVATE CONTRACT

SHEET		
26	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190-1983, 1989, 1995

APPROVED FOR:
WILLIAM P. MORGAN, COUNTY ENGINEER

BY: DATE:

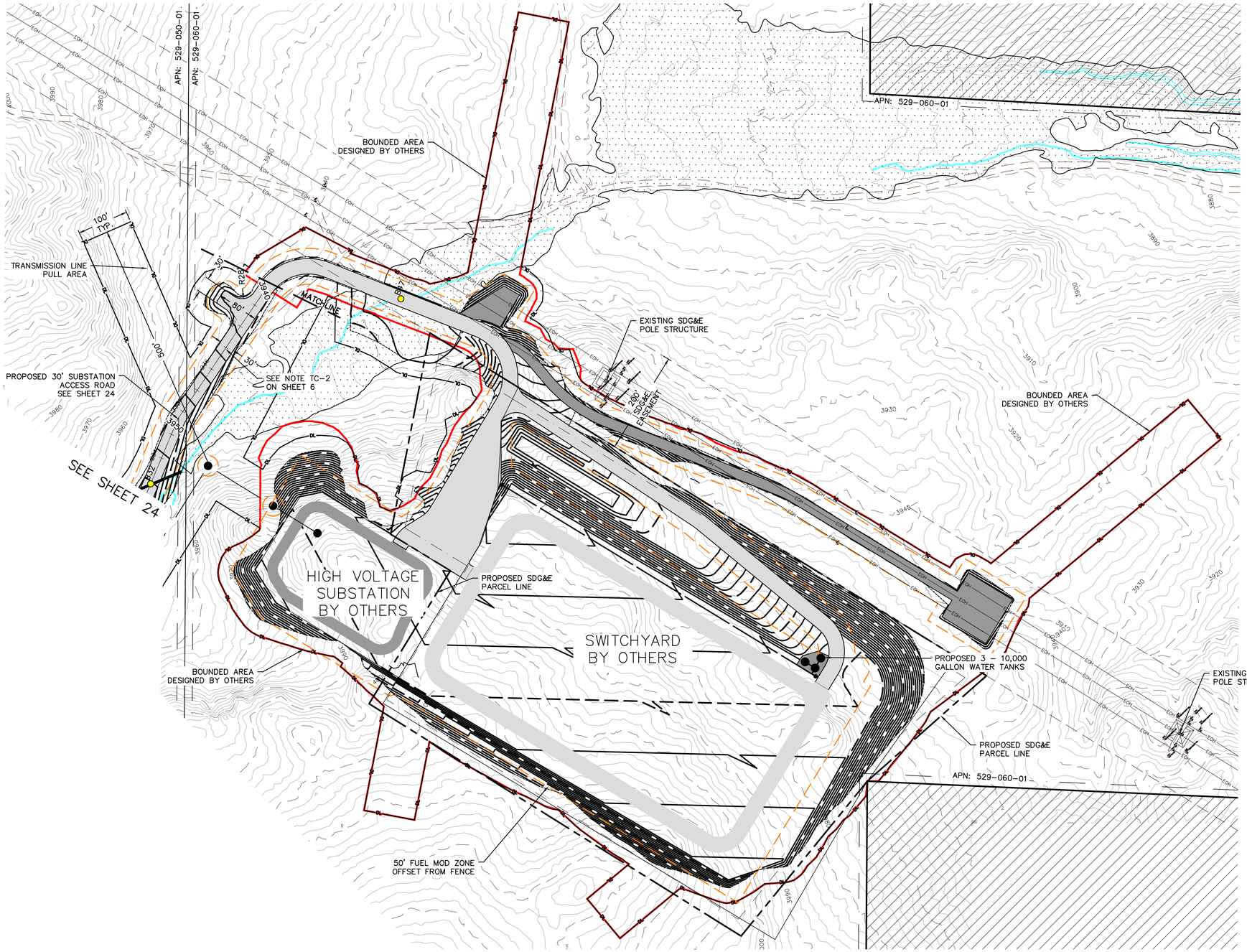
ENGINEER OF WORK
CHRISTOPHER J. CARDA R.C.E. 075322

GRADING PERMIT NO:

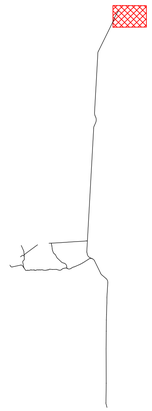
WESTWOOD PROFESSIONAL SERVICES, INC.
PHONE: 952-937-5150

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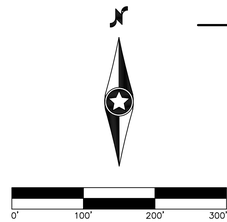


KEY MAP



LEGEND:

- PROPOSED OVERHEAD ELECTRICAL
- PROPOSED DISTURBANCE LIMIT
- GRADING LIMITS
- 100-YEAR STORM INUNDATION
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING FIELD DELINEATION (JURISDICTIONAL WATER)
- AREA OF PRIOR DISTURBANCE
- EXISTING OVERHEAD POWER
- PROPOSED TRANSMISSION POLE
- EXISTING FENCE LINE
- BUILDING SETBACK
- PARCEL LINE
- EXISTING EASEMENT
- SECTION LINE
- FUEL MOD ZONE
- PROPOSED CULVERT
- PROPOSED PAVED ACCESS ROAD
- PROPOSED CONCRETE FORD CROSSING
- PROPOSED DECOMPOSED GRANITE ACCESS ROAD
- WORK DONE BY OTHERS
- XingID PROPOSED DRAINAGE CROSSING
- OUTSIDE PROJECT'S EXISTING EASEMENT LIMITS/NOT A PART OF BOULDER BRUSH PROJECT
- PROJECT'S EXISTING EASEMENT LIMITS/BOULDER BRUSH BOUNDARY



Westwood

Phone (952) 937-5150 12701 Whitewater Drive, Suite #300
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Toll Free (888) 937-5150 westwoodps.com

Westwood Professional Services, Inc.

COUNTY APPROVED CHANGES

NO.	DESCRIPTION:	APPROVED BY:	DATE:

RECORD PLAN

BY: _____ DATE: _____

NAME CHRISTOPHER J. CARDA

R.C.E. _____

EXPIRES: _____

BENCH MARK

DESCRIPTION: STANDARD DISC SET IN CONCRETE POST

LOCATION: ON A LOW RISE IN THE UPPER MCCAIN VALLEY AT THE SOUTHEAST CORNER OF THE MANZANITA INDIAN RES.

RECORD FROM: NGS

ELEVATION: 3353' DATUM: NAVD88

High-Voltage Substation & Switchyard

PRIVATE CONTRACT

SHEET 27	COUNTY OF SAN DIEGO DEPARTMENT OF PUBLIC WORKS	27 SHEETS

GRADING PLANS FOR: DATE: 12/05/19

Boulder Brush Facilities

CALIFORNIA COORDINATE INDEX 190-1983, 1989, 1995

APPROVED FOR: WILLIAM P. MORGAN, COUNTY ENGINEER	ENGINEER OF WORK: CHRISTOPHER J. CARDA R.C.E. 73322
BY: DATE:	GRADING PERMIT NO:

WESTWOOD PROFESSIONAL SERVICES, INC.
PHONE: 952-937-5150

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