

DS #:

4811

APN:

137.12.301.009

PROJECT:

Caballeros De Oro Estates

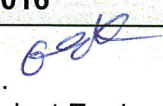
SUBMITTAL:

3rd

SCANNED BY/DATE:

CHECKED BY/DATE:



CITY OF LAS VEGAS			DATE:	
INTER-OFFICE MEMORANDUM			November 14, 2016	
TO: Land Development Services Department of Building & Safety			FROM: Albert Sung, P.E.  Flood Control Project Engineer Department of Public Works	
SUBJECT: Drainage Study for: Caballos De Oro Estates			COPIES TO: Balova Engineering	
Cross Streets:	NWC of Cliff Shadows Pkwy & Buckskin Ave.		Caballos De Oro Estates, LLC	
File Number:	F:\Depot\DSMemos\DS4811C.doc		Bart Anderson, P.E., DevCo	
Parcel Number:	137-12-301-009		CCRFCD	
Zoning Action:	SDR-XXXXX etc.		CCPW	
FEMA Flood Zone	YES	NO	X	
Proposed Storm Drain	YES	NO	X	

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal	6/30/2016	7/21/2016	Not Approved	\$400.00	449739: \$400
2 nd Submittal	8/11/2016	8/25/2016	Conditional Approve	\$400.00	454517: \$400
3 rd Submittal	11/8/2016	11/14/2016	See Comments Below	-	-
TOTAL FEES (LDDRS):				\$800.00	----

REMARKS:

3rd Submittal: Additional comments addressed from CCRFCD regarding cut-off wall.

The Drainage Study for the subject project has been reviewed and:

	is approved subject to conformance to all City standards and the following conditions:
	must be resubmitted or supplemented including the following:
X	is conditionally approved subject to Clark County Regional Flood Control District concurrence.
X	is conditionally approved subject to Clark County Public Works Department concurrence.

1. **This drainage study is acceptable in concept;** however, *City of Las Vegas* will not formally accept the study until the *Clark County Regional Flood Control District* (CCRFCD) has issued a letter of concurrence. The engineer should contact the CCRFCD to confirm that they have begun their review.
2. The site is also adjacent to the jurisdiction of *Clark County* to the west. Obtain concurrence from *Clark County Public Works Department* for the subject development prior to the final approval of the subject drainage study.
3. The proposed 10'-public drainage easement (privately maintained) must be dedicated by separate document prior to the final approval of the improvement plans.

NOTE: Please be advised that all land surface area disturbances over 1 acre or any area adjacent to a water way must submit to the *Nevada Division of Environmental Protection* a "Notice of Intent" to discharge that certifies a stormwater pollution prevention plan has been developed and is maintained on site; for inclusion in the Stormwater General Permit No. NVR100000. A phased construction unit in a contiguous subdivision is considered under construction until all stripped or disturbed surface areas have been covered by paving, building construction or planting. For more information, including forms and applications see <http://ndep.nv.gov/bwpc/storm01.htm> or call (775) 687-9429.

END OF REMARKS

ays

T/R/S: T20S/R59E/12
AREA K-12

Letter of Transmittal

November 10, 2016

To: CLV
Attn: Oh-Sang Kwon

Re: CLV DS 4811A

From:

Petya Balova, P.E.
Balova Engineering, PLLC
6130 Elton Avenue, #104
Las Vegas, NV 89107
702-682-1706 cell
702-216-0330 office
petya@balovaengineering.com

Attached:

- Supplement to the DS per CCRFCD comments

From: Ching Wang
Sent: Wednesday, October 5, 2016 10:58 AM
To: 'PETYA@BALOVAENGINEERING.COM' <PETYA@BALOVAENGINEERING.COM>;
'YSung@LasVegasNevada.GOV' <YSung@LasVegasNevada.GOV>
Cc: 'AMayrena@ccrfcd.org' <AMayrena@ccrfcd.org>
Subject: CABALLOS DE ORO ESTATES

Subject: CABALLOS DE ORO ESTATES

We have received your submittal for the TECHNICAL Drainage Study.

***Title: CABALLOS DE ORO ESTATES

***Entity #: DS4811B

***RFCD #: 16-9732

Please note that we did not receive the following item(s):

Notes: Petya,

The District would like to see an additional detail cross section where it ties into GOL40026 and provide 3-ft cutoff walls along this section.

Additionally, delineate drainage easement on C/C4 and correct typo on I/C5. If you can provide supplement plans to us and the City, we will be able to provide District concurrence.

In order to begin review of the study, please submit the above item(s). If the above item(s) are not received within 60 days, this submittal will be discarded.

Regional Flood Control District
600 S Grand Central PKWY Suite 300

Phone: 702-685-0000
Fax: 702-685-0001

TECHNICAL DRAINAGE STUDY

Supplement

Prepared for:
Caballos De Oro Estates
Buckskin and Cliff Shadows Parkway
Las Vegas, NV 89129

Prepared by:

BALOVA ENGINEERING
6130 ELTON AVENUE
LAS VEGAS, NV 89107
TEL 702-216-0330

11/07/2016

November 10, 2016

Ching C. Wang, P.E.
Clark County Regional Flood Control District
600 S. Grand Central Parkway, Suite 300
Las Vegas, NV 89106

SUBJECT: TECHNICAL DRAINAGE STUDY FOR CABALLOS DE ORO ESTATES
CLV DS 4811A / RFCD16-9732
Supplement

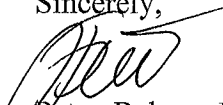
Dear Mr. Wang,

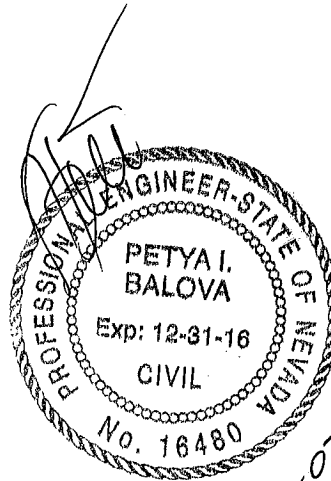
The following is a response to your comments in an email from October 5, 2016.

- A cutoff wall was added and a cross section was shown sheet C4.
- The drainage easement was delineated on sheet C4.
- Type was corrected on C5

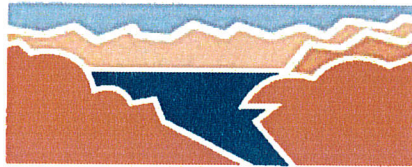
If you have any additional questions or concerns, please contact me at 702-682-1706.

Sincerely,


Petya Balova, P.E.
Balova Engineering



REGIONAL FLOOD CONTROL DISTRICT



Rec'd: 11/15/16

Steven C. Parrish, P.E.
General Manager/Chief
Engineer

BOARD OF DIRECTORS

Lawrence L. Brown, III
Chairman
Clark County

Debra March
Vice-Chairman
City of Henderson

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Mayor Allan Litman
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Dr. Lois Tarkanian
City of Las Vegas

Mayor Rodney Woodbury
City of Boulder City

November 15, 2016

Mr. Oh Sang Kwon, P.E.
City of Las Vegas Department of Public Works
333 North Rancho Drive
Las Vegas, NV 89106

**DISTRICT CONCURRENCE: CABALLOS DE ORO ESTATES
(DS4811B) (RFCN No. 16-9732)**

Dear Mr. Kwon:

Clark County Regional Flood Control District (District) reviewed Technical Drainage Study dated June 30, 2016, Addendum No. 1 dated August 4, 2016, and Supplement No. 1 dated November 7, 2016 for above-mentioned project as submitted by BALOVA ENGINEERING. In addition, District is in receipt of the Conditional Letter of Acceptance from City of Las Vegas Department of Public Works dated November 14, 2016.

District concurs with acceptance of this Technical Drainage Study by City of Las Vegas Department of Public Works.

District's review of this project was limited to issues of Regional Flood Control Significance as defined in *Uniform Regulations for the Control of Drainage*.

Please be aware that as additional information becomes available and/or restudies of Flood Insurance Studies are performed, information submitted by BALOVA ENGINEERING may be superseded. Compliance with regulatory elements and design standards specified in *Uniform Regulations for the Control of Drainage* does not imply a guarantee that properties will be free from flooding or flood damage. The District, its officials, or employees assume no liability for information, data, or conclusions presented by consulting engineers. We, therefore, make no warranties, either expressed or implied, in conducting this review.

STEVEN C. PARRISH, P.E.
General Manager/Chief Engineer

BY:

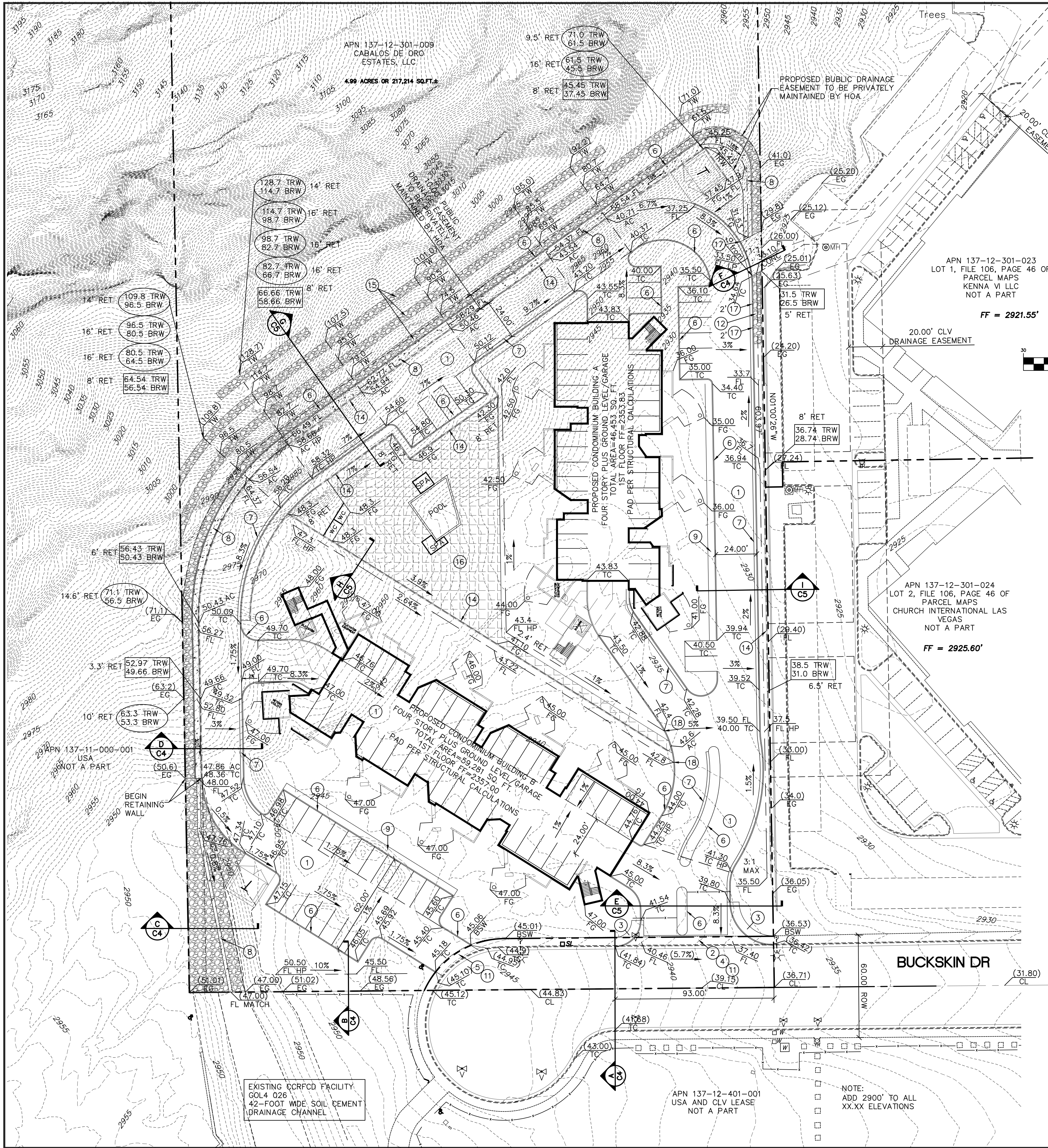

Ching C. Wang, P.E.
Senior Civil Engineer


Abigail Mayrena, P.E., CFM
Principal Civil Engineer

AM:dd

c: Petya Balova, P.E., Balova Engineering

P:\Letters and Memos\Local Drainage\Land Development & Drainage\2016\L-16-9732.doc



STORM WATER MANAGEMENT NOTES

- Standard Note No. 1:
The Owner, Site Developer, Contractor, and/or their authorized agents shall each day remove all sediment, mud, construction debris, or other potential pollutants that may have been discharged to, or accumulated in, the public rights of way of CLV as a result of construction activities associated with this site development or construction project. Such materials shall be prevented from entering the storm sewer system.
- Standard Note No. 2:
Additional construction site discharge best management practices may be required of the owner and his or her agents due to unforeseen erosion problems or if the submitted plan does not meet the performance standards specified in Title 24.40 and the Las Vegas Valley Construction Site BMP Guidance Manual.
- Standard Note No. 3:
Temporary or permanent stabilization practices will be installed on disturbed areas as soon as practicable and no later than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased. Some exceptions may apply; refer to the Nevada Stormwater General Permit for Construction Activity NVR100000, Section III.A.5.
- Standard Note No. 4:
At a minimum, the Contractor or his agent shall inspect all disturbed areas, areas used for storage of materials and equipment that are exposed to precipitation, vehicle entrance and exit locations, and all BMPs weekly, and within 24 hours after any rain event of 0.5 inches or more. The Contractor or his agent shall update or modify the Stormwater Pollution Prevention Plan as necessary. Some exceptions to weekly inspections may apply, such as suspension of land disturbance activities. Refer to the Nevada Stormwater General Permit for Construction Activity NVR100000, Section III.A.12.
- Standard Note No. 5:
Accumulated sediment in BMPs shall be removed within seven days after a stormwater runoff event or prior to the next anticipated storm event, whichever is earlier. Sediment must be removed when BMP design capacity has been reduced by 50 percent or more.

GRADING NOTES

1. ALL ENTRY SIDEWALKS >5% WILL REQUIRE HANDRAILS ON BOTH SIDES OF SIDEWALK IF CONVERTED TO HANDICAP ACCESSIBLE (SEE ARCH. PLANS FOR DETAILS.)
2. ACCESSIBLE ROUTE SHOWN NOT TO EXCEED 5% IN DIRECTION OF TRAVEL AND 2% IN CROSS SLOPE.
3. ALL SWALES SHALL DRAIN AT MIN. 1% SLOPE. CONTRACTOR SHALL ADJUST ALL SCARP SLOPES (MAX 3:1) TO ACCOMMODATE ALL SWALES.

CONSTRUCTION NOTES:

1. INSTALL 2" AC/4" TYPE II/6" TYPE I MIN OR AS RECOMMENDED BY SOILS REPORT
2. REMOVE CURB, GUTTER AND SIDEWALK AND CONSTRUCT A COMMERCIAL DRIVEWAY PER CCAUSD DWG. 222A AND 225
3. CONSTRUCT HC RAMP W/ TRUNCATED DOMES PER CCAUSD 235, CASE I
4. CONSTRUCT 8-FOOT VALLEY GUTTER PER CCAUSD DWG. 228
5. CONSTRUCT A COMMERCIAL DRIVEWAY PER CCAUSD DWG.
6. CONSTRUCT A-TYPE CURB PER STD. DWG. 219
7. CONSTRUCT L-TYPE CURB & GUTTER PER STD.DWG. 216
8. INSTALL CONCRETE GUTTER, WIDTH PER PLANS
9. CONSTRUCT 4-FOOT WIDE CONCRETE SIDEWALK
10. CONSTRUCT 2-FOOT WIDE DEPRESSED CURB PER DETAIL ON SHEET C4
11. EXIST. DRY UTILITIES: CABLE, TEL, STREET LIGHT CONDUIT - PROTECT IN PLACE
12. RIP RAP SWALE, D50=6", THICKNESS 8", W&L AS SHOWN DRAINAGE AREA LANDSCAPE SWALE; SLOPE AND LENGTH AS SHOWN; DRAUGHT TOLERANT VEGETATION
13. INSTALL 4-FOOT MAX MASONRY RETAINING WALL PER SOUTHERN NEVADA BUILDING OFFICIALS REGIONAL STANDARDS DETAIL B-100-2
14. INSTALL 8-FOOT MAX MASONRY RETAINING WALL PER STRUCTURAL CALCULATIONS
15. INSTALL 16-FOOT MAX ROCKERY RETAINING WALL PER STRUCTURAL CALCULATIONS
16. COMMON AREA PER ARCHITECTURAL DESIGN
17. DEPRESS CURB
18. 1' WIDE CURB CUT

PROPERTY OWNER

CABALLOS DE ORO ESTATES, LLC
6040 S. DURANGO DRIVE, #105
LAS VEGAS, NV 89113

FLOOD ZONE DESIGNATION

THE SUBJECT SITE IS LOCATED IN A FLOOD ZONE DESIGNATED "ZONE X", DETERMINED TO BE AN AREA OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN AS SHOWN ON FEMA FIRM NO. 32003C2150 E, REVISED SEPTEMBER 27, 2002.

BASIS OF BEARING

NORTH 89°30'05" EAST, BEING THE BEARING OF THE SOUTH LINE OF THE NORTHWEST QUARTER (NW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 12, TOWNSHIP 20 SOUTH, RANGE 59 EAST, M.D.M., CLARK COUNTY, NEVADA, AS SHOWN IN FILE 106 AT PAGE 46 OF PARCEL MAPS, OFFICIAL RECORDS CLARK COUNTY, NEVADA.

I CERTIFY THAT THIS GRADING PLAN CONFORMS TO THE APPROVED TECHNICAL DRAINAGE STUDY FOR THIS SITE ON FILE AT CLV, DS #

PETYA BALOVA, P.E. 16480

DATE

BENCHMARK:

CITY OF LAS VEGAS VERTICAL CONTROL POINT "5LV09 12SWW6", BEING A RIVET AND PLATE IN TOP OF CURB E/S OF CLIFF SHADOWS & BUCKSKIN

ELEVATION: 2924.27 (US SURVEY FEET)
891.318 (METERS)

CITY OF LAS VEGAS VERTICAL CONTROL, 2008 ADJUSTMENT
NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

Call before you Dig

AVOID HITTING UNDERGROUND UTILITY LINES. IT'S COSTLY.



OR 1-800-227-2600

FAST

Call before UnderGround
1-702-432-5300
FREeway AND ARTERIAL SYSTEM OF TRANSPORTATION

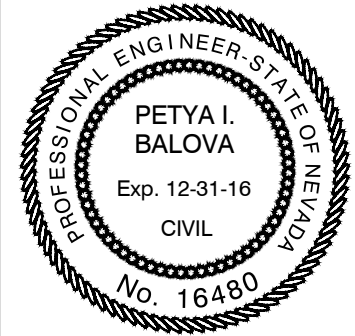
AVOID HITTING OVERHEAD POWERLINES. IT'S COSTLY.

Call Before You OverHead
1-702-227-2929

CABALLOS DE ORO ESTATES
GRADING PLAN

BUCKSKIN
LAS VEGAS, NV 89101

DESIGNED BY : PB
CHECKED BY : PB
DATE : 06/24/16
JOB # : 16-060
APN : 137-12-301-009
SECT 12 T 203R 59E
SCALE : HORIZ 1" = 30'



SHEET #

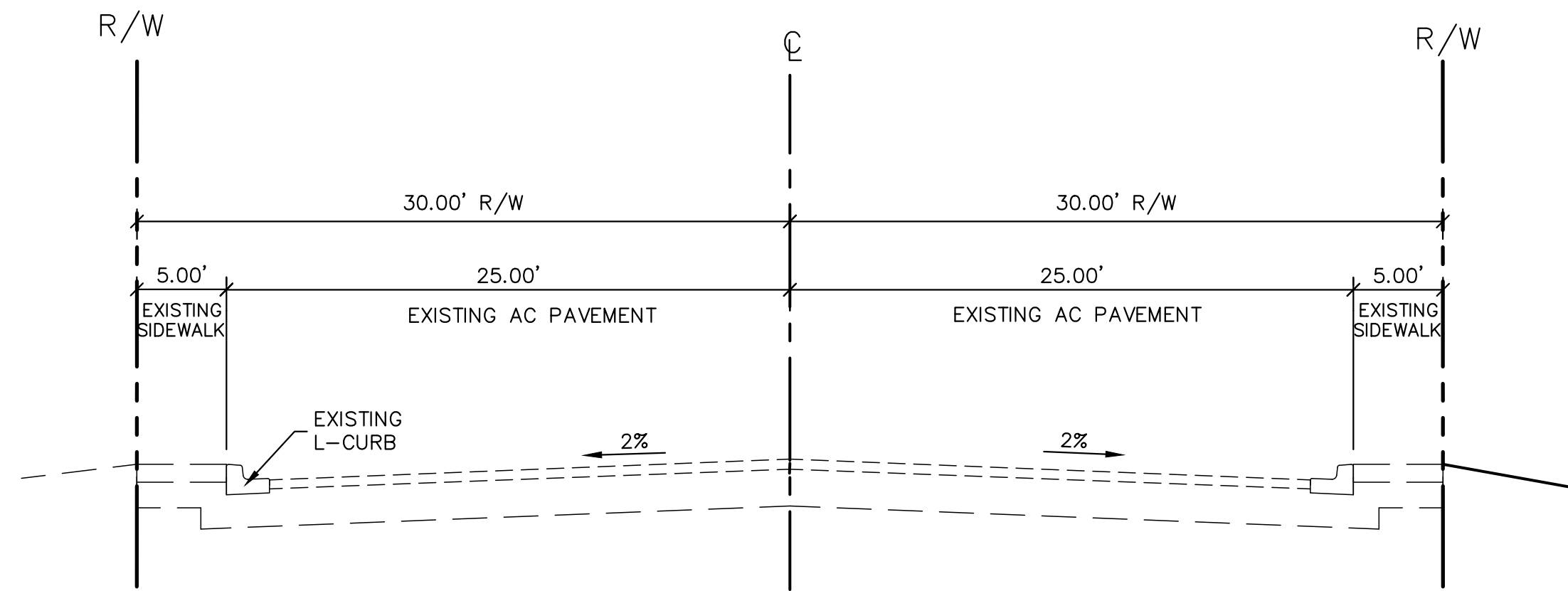
C3

3 OF 8

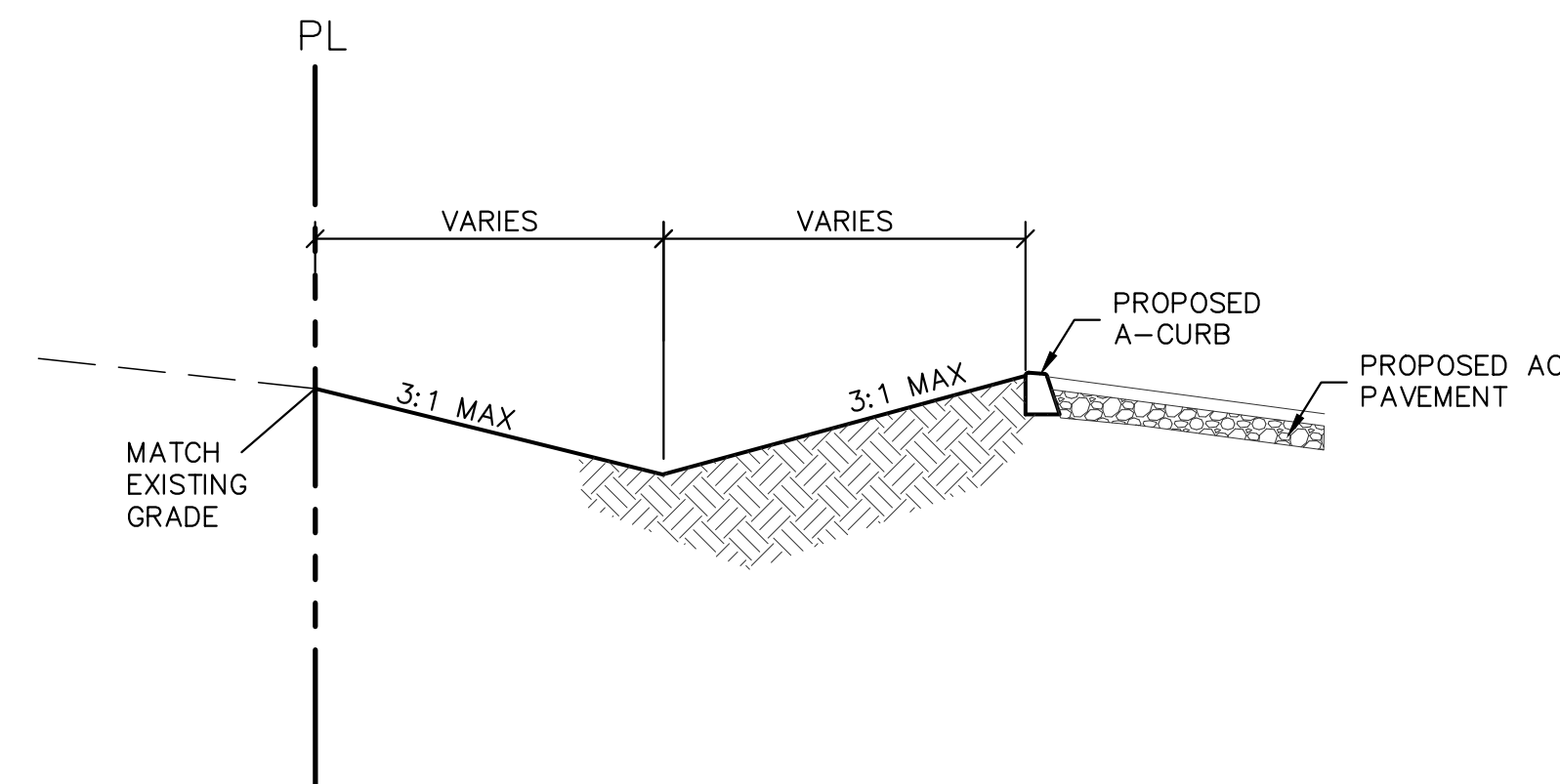
BALOVA ENGINEERING
6130 ELTON AVENUE
LAS VEGAS, NV 89107
702-682-1706 TEL

REV. DATE: BY: REVISION:

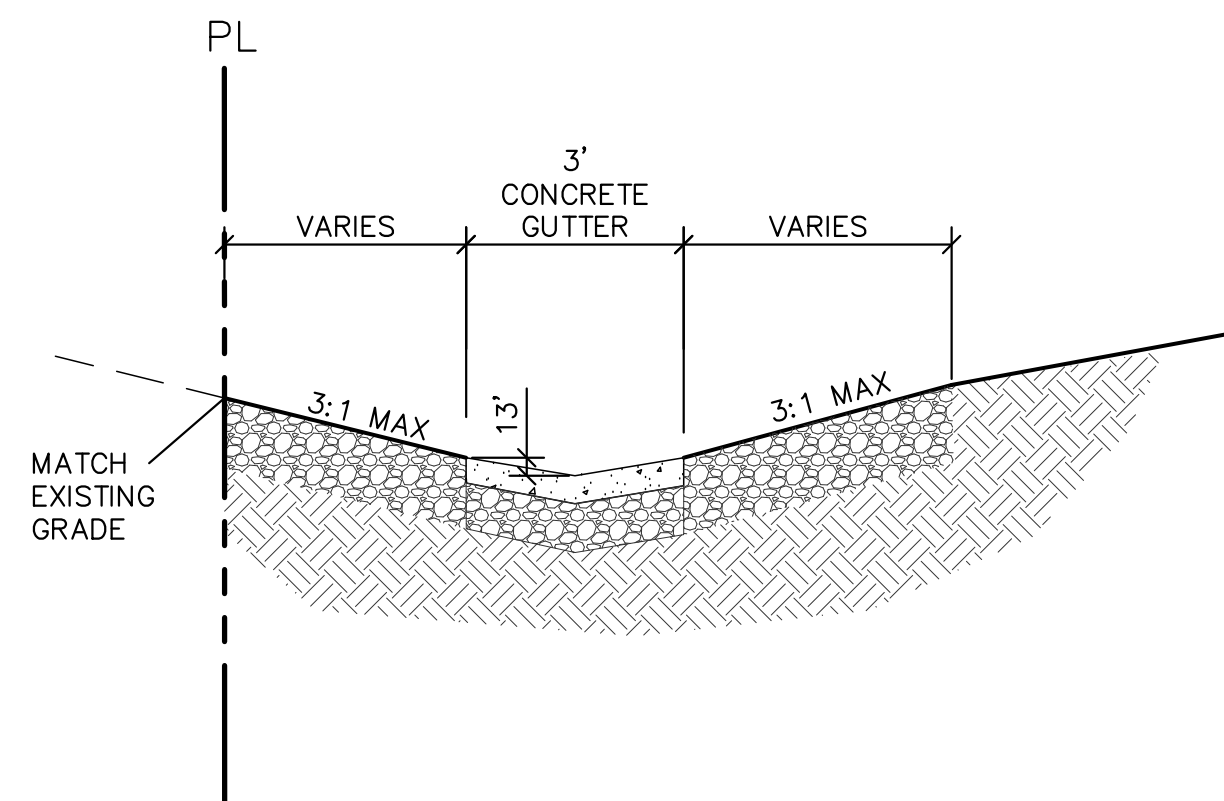
THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND REPORT ANY ERRORS TO THE ENGINEER PRIOR TO COMMENCING WORK. ALL DRAWINGS, SPECIFICATIONS AND COPIES THEREOF FURNISHED BY THE ENGINEER ARE AND SHALL REMAIN THE PROPERTY OF BALOVA ENGINEERING. THESE PLANS ARE TO BE CONSIDERED PRELIMINARY AND USED AT THE OWNER'S RISK. CONTRACTORS RISK.



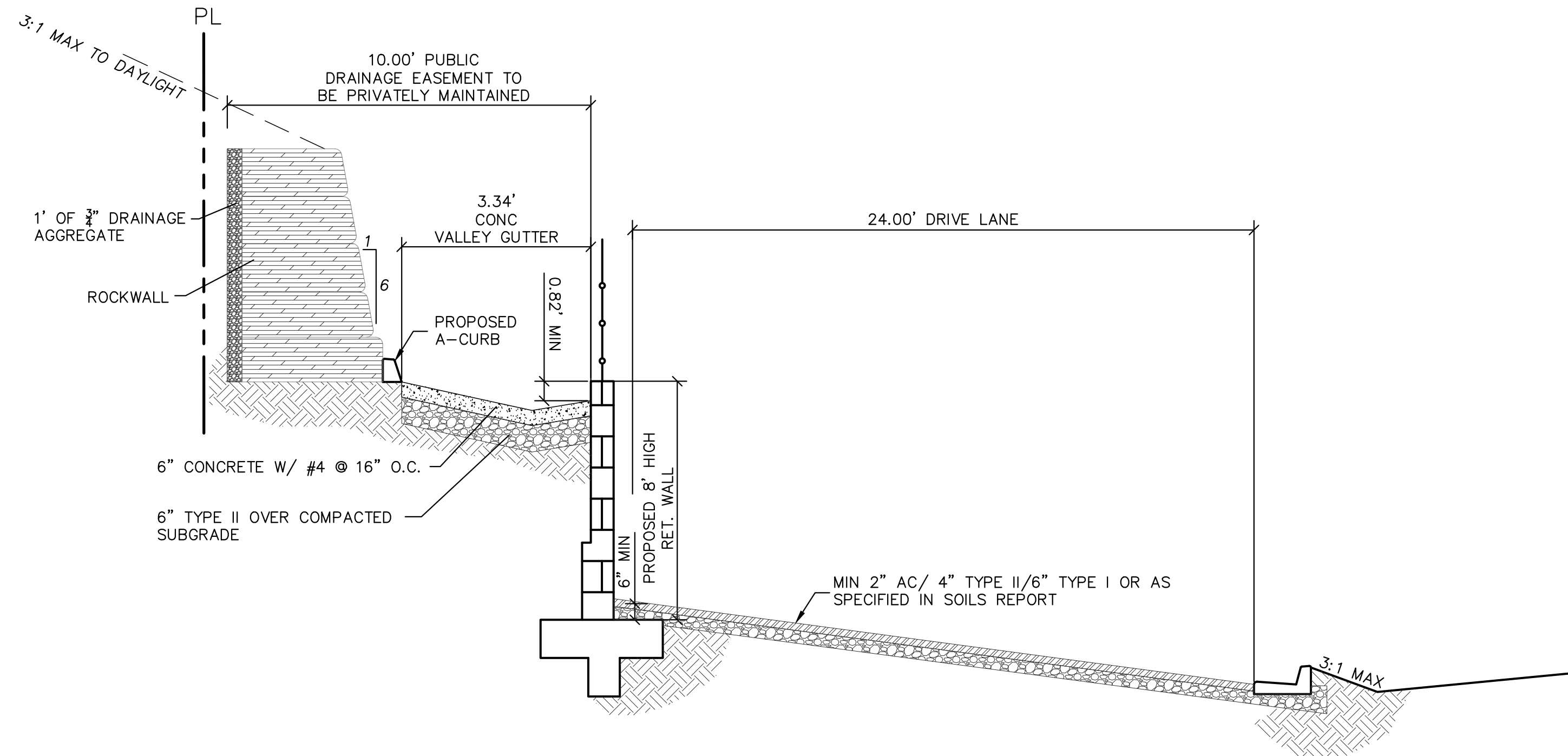
BUCKSKIN SECTION
NOT TO SCALE



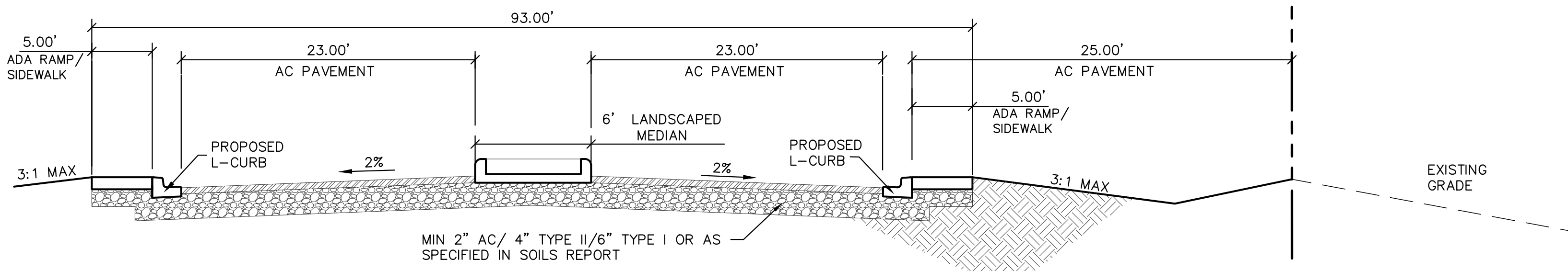
SOUTH PROPERTY LINE
NOT TO SCALE



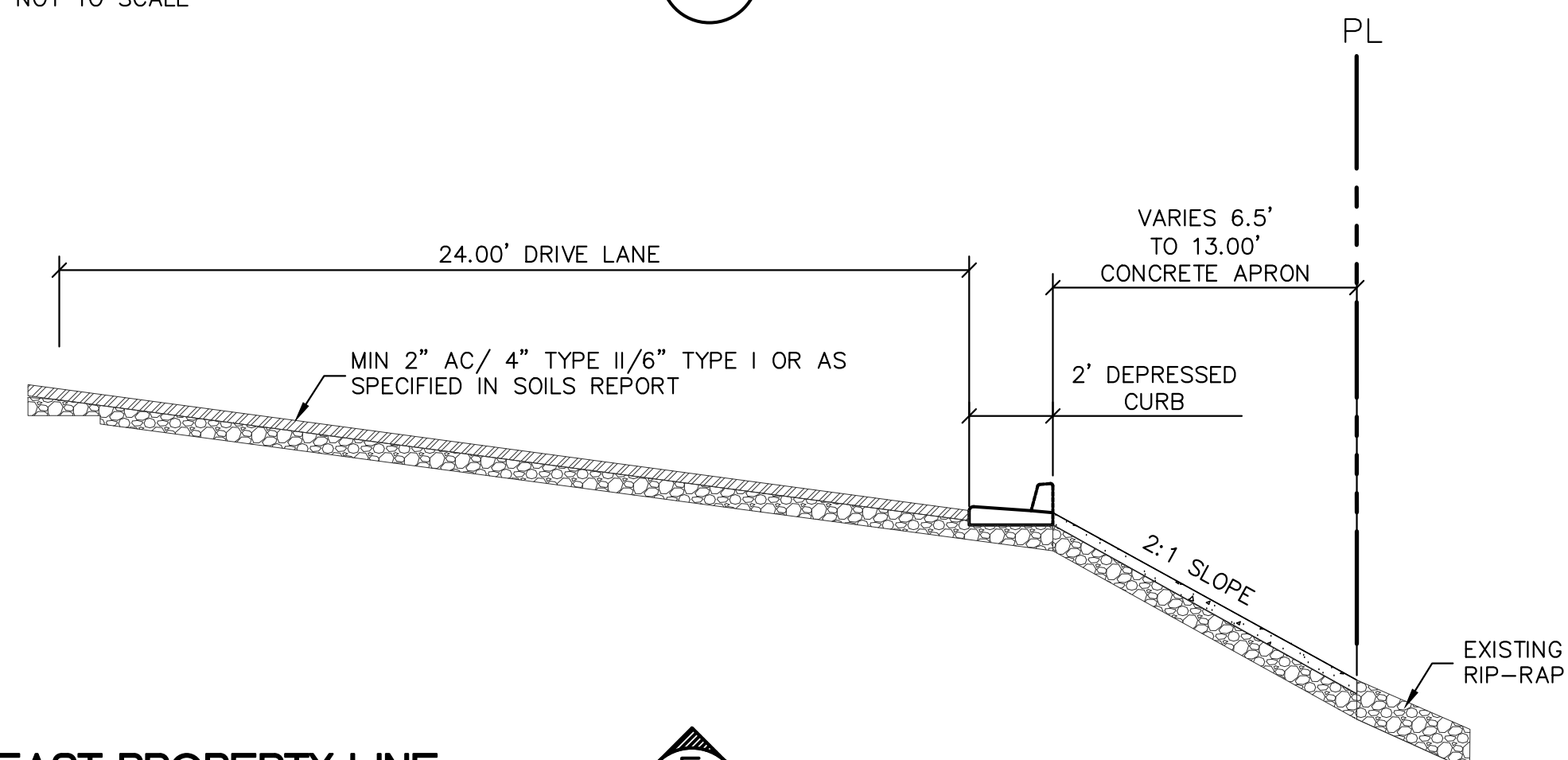
WEST PROPERTY LINE
NOT TO SCALE



WEST PROPERTY LINE
NOT TO SCALE



DRIVEWAY ON BUCKSKIN
NOT TO SCALE



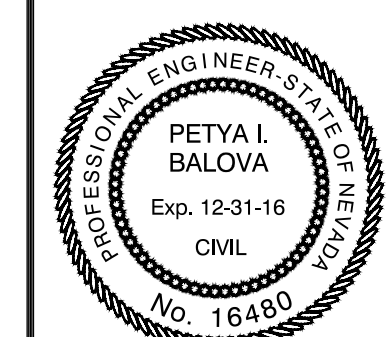
EAST PROPERTY LINE
NOT TO SCALE

**CABALLOS DE ORO ESTATES
TYPICAL SECTIONS AND DETAILS**

BALOVA ENGINEERING
6130 ELTON AVENUE
LAS VEGAS, NV 89107
702-682-1706 TEL

BUCKSKIN
LAS VEGAS, NV

DESIGNED BY : PB
CHECKED BY : PB
DATE : 06/04/16
JOB # : 16-060
APN : 137-12-301-009
SECT 12 T 20SR 59E
SCALE : HORIZ 1" = N/A

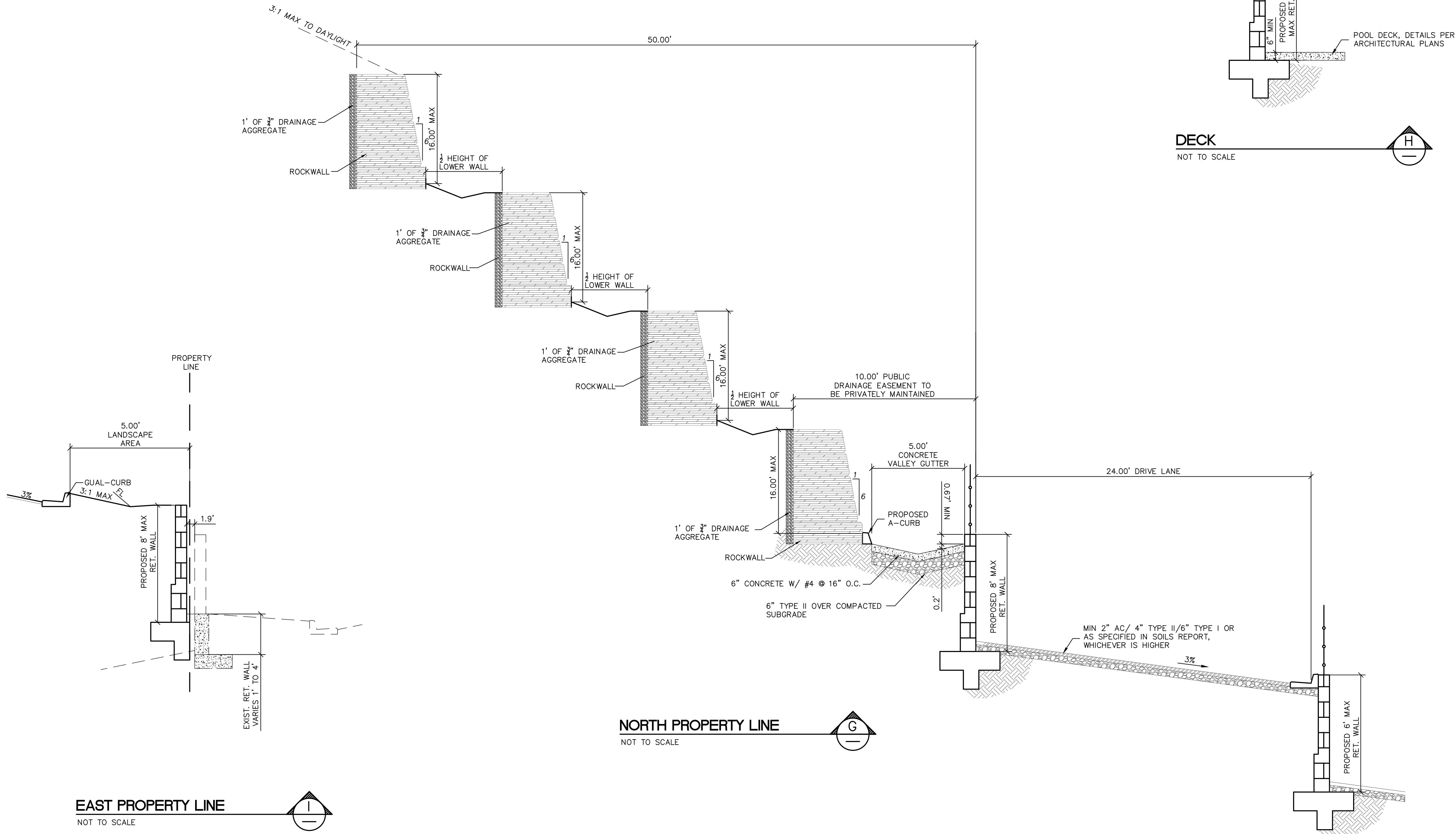


SHEET #

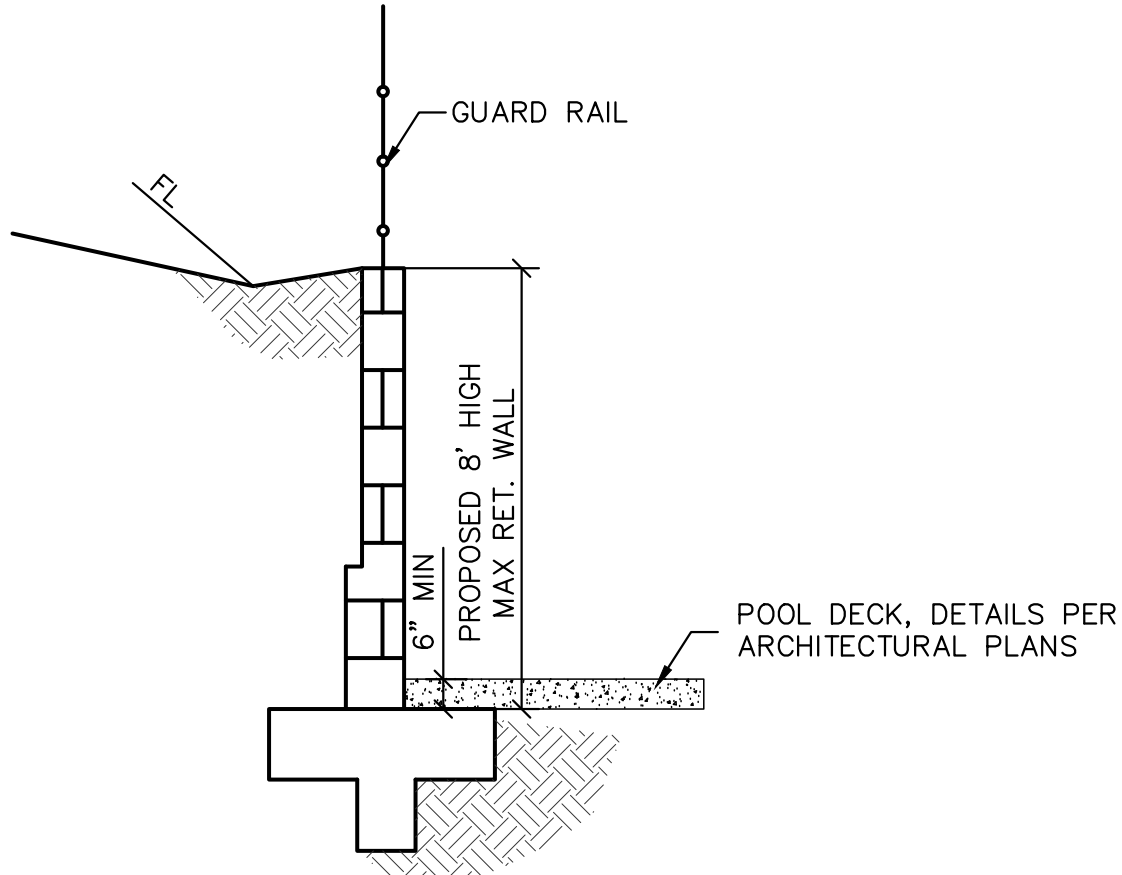
C4

4 OF 8

REV. DATE: BY: REVISION:
THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND REPORT ANY ERRORS TO THE ENGINEER PRIOR TO COMMENCING WORK. ALL DRAWINGS, SPECIFICATIONS AND COPIES THEREOF FURNISHED BY THE ENGINEER ARE AND SHALL REMAIN THE PROPERTY OF THE ENGINEER. NO PART OF THESE PLANS ARE TO BE CONSIDERED PRELIMINARY AND USED AT THE OWNER/DEVELOPER/CONTRACTORS RISK.



DECK
NOT TO SCALE



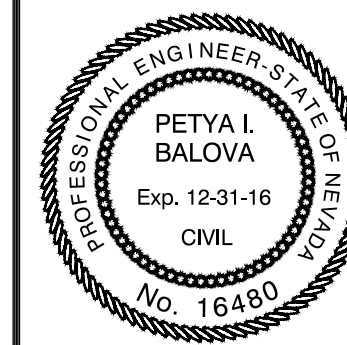
CABALLOS DE ORO ESTATES
TYPICAL SECTIONS AND DETAILS

DESIGNED BY : PB	REV. DATE: BY: REVISION:
CHECKED BY : PB	
DATE : 06/24/16	
JOB # : 16-060	
APN : 137-12-301-009	
SECT 12 T 20SR 59E	
SCALE : HORIZ 1" = N/A	

BALOVA ENGINEERING
6130 ELTON AVENUE
LAS VEGAS, NV 89107
702-682-1706 TEL

BUCKSKIN
LAS VEGAS, NV

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SHEET #

C5
5 OF 8