

DS #: 3824

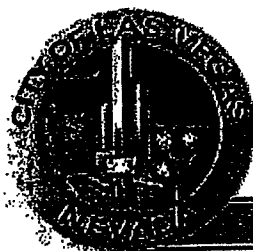
APN: 125-27-802-002, 003, 004, 005, 008, 009, 012, 014

PROJECT: TOSCAHQ

SUBMITTAL: CERFCD

SCANNED BY/DATE: \_\_\_\_\_

CHECKED BY/DATE: \_\_\_\_\_



COPY

|                                                                       |                                                   |                                                                                                   |
|-----------------------------------------------------------------------|---------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <b>CITY OF LAS VEGAS</b>                                              |                                                   | <b>DATE:</b>                                                                                      |
| <b>INTER-OFFICE MEMORANDUM</b>                                        |                                                   | September 6, 2005                                                                                 |
| <b>TO:</b><br>Land Development Services<br>Department of Public Works |                                                   | <b>FROM:</b><br>Albert Sung, P.E.<br>Flood Control Project Engineer<br>Department of Public Works |
| <b>SUBJECT:</b>                                                       | Technical Drainage Study for:<br>Toscana          | <b>COPIES TO:</b><br>Thomason Consulting Engineers                                                |
| <b>Cross Streets:</b>                                                 | NWC of Ann Road & Balsam Street                   | Silver Dollar Land Co., LLC                                                                       |
| <b>File Number:</b>                                                   | F:\Depot\DSMEMOS\DS3824C.doc                      | Bart Anderson, P.E., DevCo                                                                        |
| <b>Parcel Number:</b>                                                 | 125-27-802-002, 003, 004, 005, 008, 009, 012, 014 | CCRFC                                                                                             |
| <b>Zoning Actions:</b>                                                | SDR-5881, ZON-5880, TMP-6215                      |                                                                                                   |
| <b>FEMA Flood Zone</b>                                                | YES NO X                                          |                                                                                                   |
| <b>Proposed Storm Drain</b>                                           | YES X NO                                          |                                                                                                   |

| HISTORY                    | DATE RECEIVED | DATE REVIEWED | COMMENTS             | REVIEW FEES     | FEES PAID Tm. No. |
|----------------------------|---------------|---------------|----------------------|-----------------|-------------------|
| 1 <sup>st</sup> Submittal  | 5/30/2005     | 6/13/2005     | Not Approved         | \$400.00        | 22748: \$400      |
| 2 <sup>nd</sup> Submittal  | 6/29/2005     | 7/13/2005     | Conditional Approval | \$400.00        | 24750: \$400      |
| CCRFC                      | 8/25/2005     | 9/6/2005      | Concurrence          | N/C             | N/C               |
| <b>TOTAL FEES (LDDRS):</b> |               |               |                      | <b>\$800.00</b> | <b>---</b>        |

**REMARKS:**

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

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

The following comments are repeated until they are complete:

1. Provide a 24" stub to the east of SDMH #1 for a future drop inlet on the east curb of Balsam Street.
2. Revise Section 1/D1 to indicate the wall as "8"-CMU solid grouted to at least two courses above the adjacent sidewalk.
3. Provide City of Las Vegas recorded plan number for all storm drains in Balsam Street and Ann Road.
4. Private streets must be public drainage easements. Provide a note on the grading plans "Note: All private streets are P.U.E., public sewer easements and public drainage easements to be privately maintained by HOA".
5. The engineer must provide a table on the grading plans that shows a quantity estimate of all drainage improvements within Public Drainage Easements. All drainage improvements within Public Drainage Easements must be bonded and inspected.
6. All drainage easements must be public drainage easements to be privately maintained and common lots to be labeled on the grading plans and to be dedicated as such in the final map.

Rev'd: 9/27/12

DS 3824-3

G-27

# UPDATE #3 TO THE TECHNICAL HYDROLOGY STUDY FOR TOSCANA

**CITY OF LAS VEGAS**

TCE# 008-05001

\$100-

Prepared for:

**Silver Dollar Land Co.**

2764 Lake Sahara Drive, Suite 111

Las Vegas, NV 89117

Prepared by:

**TCE**

3277 East Warm Springs Road, Suite 400

Las Vegas, Nevada 89120

(702) 932-6125

FAX (702) 932-6129

September 2012

☐ T ☐ THOMASON  
☐ C ☐ CONSULTING  
☐ E ☐ ENGINEERS

**DRAINAGE STUDY INFORMATION FORM**Name of Development: ToscanaDATE: September 26, 2012Location of development: a) Descriptive (Cross Streets) North/South Balsam StEast/West Ann Rdb) Sect. 27 Twn. 19S Rng. 60E

125-27-802-

Name of Owner: Silver Dollar Land Co, LLCAssessors Parcel No.: 002,003,004,005,008,009,012,014

Telephone No.: \_\_\_\_\_

Facsimile No.: \_\_\_\_\_

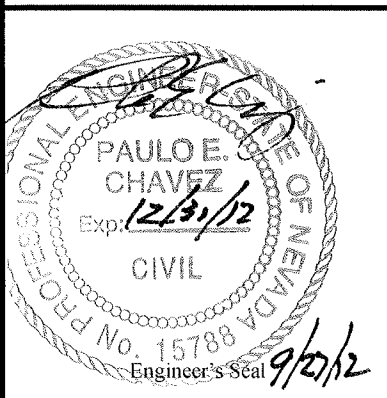
Address: 2764 Lake Sahara Dr. Ste 111Las Vegas, NV 89117Contact Person-Name: Paulo E. Chavez, P.E.Telephone No: 702-932-6125Firm: TCEAddress: 3277 East Warm Springs Road, Suite 400 Las Vegas, Nevada 89120

Type of Land Development/Land Disturbance Process:

|                          |                  |                                     |                          |                          |                              |
|--------------------------|------------------|-------------------------------------|--------------------------|--------------------------|------------------------------|
| <input type="checkbox"/> | Rezoning         | <input type="checkbox"/>            | Subdivision Map          | <input type="checkbox"/> | Clearing and Grading         |
| <input type="checkbox"/> | Parcel Map       | <input type="checkbox"/>            | Planned Unit Development | <input type="checkbox"/> | Other (Please Specify below) |
| <input type="checkbox"/> | Large Parcel Map | <input checked="" type="checkbox"/> | Building Permit          |                          |                              |

1. Total Owned Land Area: At Site: 10.72 Acres Being Developed/Disturbed 10.72 Acres2. Is a portion or all of the subject property located in a designated FEMA Flood Hazard Area? YES ☐ NO ☒3. Is the property bordered or crossed by an existing or proposed Clark County Regional Flood Control District Master Planned Facility? YES ☒ NO ☐4. Proposed type of development (Residential, Commercial, Etc.)? Residential5. Approximate upstream land area, which drains to the subject site? See Report6. Has the site drainage been evaluated in the past? YES ☐ NO ☒ If yes, please documentation:

7. If known, please briefly identify the proposed discharge point(s) of runoff from the site:

Balsam St8. Briefly describe your proposed schedule for the subject project: ASAP

Submit this form as part of the required drainage study to the local entity which has jurisdiction over The subject property. This form may provide sufficient information to serve as the Conceptual Drainage Study.

\* Review and concurrence of the Clark County Regional Flood Control District is Required.

Local Entity File No. \_\_\_\_\_

Revision

Date

REFERENCE:

STANDARD FORM 1

September 26, 2012

Albert Sung, P.E.  
City of Las Vegas  
731 South Fourth Street  
Las Vegas, Nevada 89101

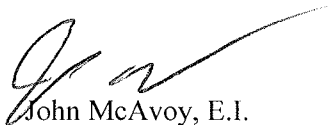
**Re: Hydrology Study Update #3 for Toscana  
TCE# 008-05001**

Mr. Sung:

This letter is a hydrology study update to the approved *Technical Drainage Study for Toscana*. To reduce construction costs of the easement accepting flow from parcel 125-27-802-016, the easement has been revised to a valley gutter, for low flow, centered in landscaping. The low volume of flow, 7 cfs, and low speed, 2.93 ft/s, does not necessitate a fully concreted easement. The maintenance of the easement is to be performed by the home owners association, so these changes will not increase the City of Las Vegas' commitments on the property. All of the original hydrology of the site remains unchanged, as illustrated in the provided figure (*Figure 7 Developed Drainage Basins*) from the Addendum#1 for the Technical Hydrology Study for Toscana.

Should you have any questions or concerns, please do not hesitate to contact this office at 932-6125.

Sincerely,



John McAvoy, E.I.  
Engineering Intern



Paulo E. Chavez, P.E.  
Project Manager

T ☐ THOMASON  
C ☐ CONSULTING  
E ☐ ENGINEERS

3277 East Warm Springs Road, Suite 400  
Las Vegas, Nevada 89120

## Worksheet for REV 10' Drainage Easement- 100Yr

### Project Description

Friction Method                      Manning Formula  
Solve For                              Normal Depth

### Input Data

Channel Slope                                              1.00000    %  
Discharge                                                 7.00    ft³/s  
Section Definitions

| Station (ft) | Elevation (ft) |
|--------------|----------------|
| 0+00.00      | 0.38           |
| 0+03.50      | 0.06           |
| 0+05.00      | 0.00           |
| 0+06.50      | 0.06           |
| 0+10.00      | 0.38           |

### Roughness Segment Definitions

| Start Station   | Ending Station  | Roughness Coefficient |
|-----------------|-----------------|-----------------------|
| (0+00.00, 0.38) | (0+03.50, 0.06) | 0.028                 |
| (0+03.50, 0.06) | (0+06.50, 0.06) | 0.013                 |
| (0+06.50, 0.06) | (0+10.00, 0.38) | 0.028                 |

### Options

Current Roughness vweighted Method                      Improved Lotter's Method  
Open Channel Weighting Method                      Improved Lotter's Method  
Closed Channel Weighting Method                      Horton's Method

### Results

Normal Depth                                              0.36    ft  
Elevation Range                                              0.00 to 0.38 ft  
Flow Area                                                      2.00    ft²  
Wetted Perimeter                                              9.66    ft  
Hydraulic Radius                                              0.21    ft  
Top Width                                                      9.63    ft

---

## Worksheet for REV 10' Drainage Easement- 100Yr

---

### Results

|                 |               |       |
|-----------------|---------------|-------|
| Normal Depth    | 0.36          | ft    |
| Critical Depth  | 0.41          | ft    |
| Critical Slope  | 0.00522       | ft/ft |
| Velocity        | 3.49          | ft/s  |
| Velocity Head   | 0.19          | ft    |
| Specific Energy | 0.55          | ft    |
| Froude Number   | 1.35          |       |
| Flow Type       | Supercritical |       |

### GVF Input Data

|                  |      |    |
|------------------|------|----|
| Downstream Depth | 0.00 | ft |
| Length           | 0.00 | ft |
| Number Of Steps  | 0    |    |

### GVF Output Data

|                     |          |       |
|---------------------|----------|-------|
| Upstream Depth      | 0.00     | ft    |
| Profile Description |          |       |
| Profile Headloss    | 0.00     | ft    |
| Downstream Velocity | Infinity | ft/s  |
| Upstream Velocity   | Infinity | ft/s  |
| Normal Depth        | 0.36     | ft    |
| Critical Depth      | 0.41     | ft    |
| Channel Slope       | 1.00000  | %     |
| Critical Slope      | 0.00522  | ft/ft |

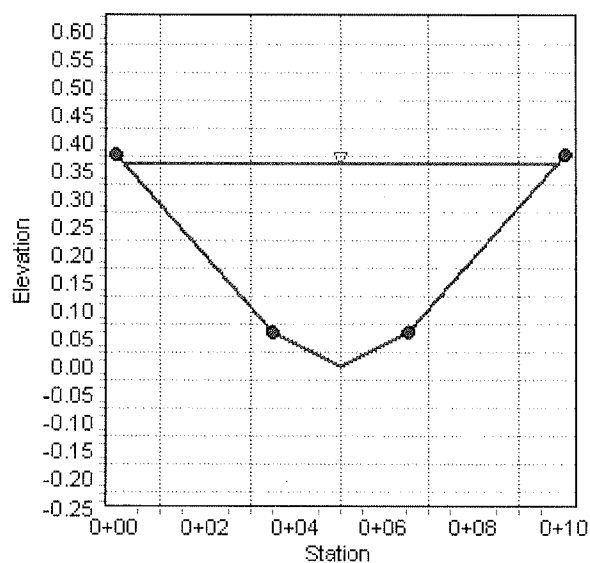
## Project Description

| Solve For | Normal Depth |
|-----------|--------------|
|-----------|--------------|

## Input Data

|               |         |                    |
|---------------|---------|--------------------|
| Channel Slope | 1.00000 | %                  |
| Normal Depth  | 0.36    | ft                 |
| Discharge     | 7.00    | ft <sup>3</sup> /s |

### Cross Section Image



|                                                                       |                                                             |                                                                                                   |
|-----------------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <b>CITY OF LAS VEGAS</b>                                              |                                                             | <b>DATE:</b>                                                                                      |
| <b>INTER-OFFICE MEMORANDUM</b>                                        |                                                             | July 30, 2007                                                                                     |
| <b>TO:</b><br>Land Development Services<br>Department of Public Works |                                                             | <b>FROM:</b><br>Albert Sung, P.E.<br>Flood Control Project Engineer<br>Department of Public Works |
| <b>SUBJECT:</b>                                                       | Technical Drainage Study for:<br><b>Toscana – Update #2</b> |                                                                                                   |
| <b>Cross Streets:</b>                                                 | NWC of Ann Road & Balsam Street                             |                                                                                                   |
| <b>File Number:</b>                                                   | F:\Depot\DSMEMOS\DS3824D.doc                                |                                                                                                   |
| <b>Parcel Number:</b>                                                 | 125-27-802-002, 003, 004, 005, 008, 009, 012, 014           |                                                                                                   |
| <b>Zoning Actions:</b>                                                | SDR-5881, ZON-5880, TMP-6215                                |                                                                                                   |
| <b>FEMA Flood Zone</b>                                                | YES                                                         | NO X                                                                                              |
| <b>Proposed Storm Drain</b>                                           | YES X                                                       | NO                                                                                                |
| <b>COPIES TO:</b>                                                     |                                                             | Thomason Consulting Engineers                                                                     |
|                                                                       |                                                             | Silver Dollar Land Co., LLC                                                                       |
|                                                                       |                                                             | Bart Anderson, P.E., DevCo                                                                        |
|                                                                       |                                                             | CCRFGD                                                                                            |

| HISTORY                    | DATE RECEIVED | DATE REVIEWED | COMMENTS             | REVIEW FEES     | FEES PAID Trn. No. |
|----------------------------|---------------|---------------|----------------------|-----------------|--------------------|
| 1 <sup>st</sup> Submittal  | 5/30/2005     | 6/13/2005     | Not Approved         | \$400.00        | 22748: \$400       |
| 2 <sup>nd</sup> Submittal  | 6/29/2005     | 7/13/2005     | Conditional Approval | \$400.00        | 24750: \$400       |
| CCRFGD                     | 8/25/2005     | 9/6/2005      | Concurrence          | N/C             | N/C                |
| 3 <sup>rd</sup> Submittal  | 7/12/2007     | 7/26/2007     | See Comments Below   | \$100.00        | 73065: \$100       |
| <b>TOTAL FEES (LDDRS):</b> |               |               |                      | <b>\$900.00</b> | <b>---</b>         |

**REMARKS:**

**3<sup>rd</sup> Submittal: Update #2 to replace DI #2 (at the southwest corner of Balsam Street and Rose Angel Avenue) with a Jensen Precast 4848-X4 Drop Inlet to accommodate the 36" Outlet Pipe**

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

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

The following comments are repeated until they are complete:

1. Provide a 24" stub to the east of SDMH #1 for a future drop inlet on the east curb of Balsam Street.
2. Revise Section 1/D1 to indicate the wall as "8"-CMU solid grouted to at least two courses above the adjacent sidewalk".
3. Provide City of Las Vegas recorded plan number for all storm drains in Balsam Street and Ann Road.
4. Private streets must be public drainage easements. Provide a note on the grading plans "Note: All private streets are P.U.E., public sewer easements and public drainage easements to be privately maintained by HOA".
5. The engineer must provide a table on the grading plans that shows a quantity estimate of all drainage improvements within Public Drainage Easements. All drainage improvements within Public Drainage Easements must be bonded and inspected.

DS #:

DS 3824

125-27-802-002, 125-27-802-003, 125-27-802-004

125-27-802-005, 125-27-802-008, 125-27-802-009

APN: 125-27-802-012, 125-27-802-014

PROJECT:

Toscana

SUBMITTAL:

3<sup>RD</sup> SUBMITTAL - UPDATE #2

SCANNED BY/DATE:

CHECKED BY/DATE:



70% of 1994.

1949. 9. 23

15. I have read the  
 following pages of the report  
 and find them to be correct.

NO. 100-100000-100000

[illegible]

1992-1993: 300,000 tons of SO<sub>2</sub>

500 0128590007W0000000

004700

Page 1 of 1

14-00000

[illegible]

100-443887-100

| HISTORY                   |           | DATE      | RECEIVED  | DATE      | RECEIVED  | DATE      | RECEIVED  |
|---------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 3 <sup>rd</sup> Submittal | 7/12/2007 | 7/12/2007 | 7/12/2007 | 7/12/2007 | 7/12/2007 | 7/12/2007 | 7/12/2007 |
| 2 <sup>nd</sup> Submittal | 6/29/2007 | 6/29/2007 | 6/29/2007 | 6/29/2007 | 6/29/2007 | 6/29/2007 | 6/29/2007 |
| 1 <sup>st</sup> Submittal | 6/29/2007 | 6/29/2007 | 6/29/2007 | 6/29/2007 | 6/29/2007 | 6/29/2007 | 6/29/2007 |
| TOTAL FEE \$ 0.00         |           |           |           |           |           |           |           |

[illegible]

|                                                                                           |   |
|-------------------------------------------------------------------------------------------|---|
| is conditionally approved subject to Chief Counsel's approval of the proposed conditions. |   |
| must be submitted to the Commission for its review.                                       |   |
| is approved, subject to confirmation by the Commission and the following conditions:      | 2 |

[illegible]

He is standing through a hole in the ground, holding a stick, and looking down at the ground. The ground is covered with a layer of snow. The background is a dark, rocky landscape.

6. *All drainage easements must be public drainage easements to be privately maintained and common lots to be labeled on the grading plans and to be dedicated as such in the final map.*

**NOTE:** Any future changes to the proposed design (or design assumptions) as outlined in the approved drainage study and attached preliminary grading plan which affect drainage must be addressed in a Drainage Study Amendment and accepted by the City of Las Vegas Flood Control Section. Additionally, conditional acceptance of a drainage study is valid for a period of one (1) year. If the proposed construction has not been completed in that time period, the City of Las Vegas reserves the right to require additional conditions and/or submission and acceptance of a complete drainage study update prior to further construction of a project.

**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**  
B&H/ays

T/R/S: T19S/R60E/27  
AREA G-27

DS 3824-2  
7/12/07  
G-27  
H00 —

**UPDATE #2 TO THE TECHNICAL  
HYDROLOGY STUDY FOR  
TOSCANA**

**CITY OF LAS VEGAS**

TCE # 008-05001

Prepared for:

**Silver Dollar Land Co.**

2764 Lake Sahara Drive, Suite 111

Las Vegas, NV 89117

Prepared by:

**TCE**

3277 East Warm Springs Road, Suite 400

Las Vegas, Nevada 89120

(702) 932-6125

FAX (702) 932-6129

July 2007

☐ ☐ ☐ **THOMASON**  
☐ ☐ ☐ **CONSULTING**  
☐ ☐ ☐ ☐ **ENGINEERS**

## HYDROLOGIC CRITERIA AND DRAINAGE DESIGN MANUAL

## DRAINAGE STUDY INFORMATION FORM

Name of Development: ToscanaDATE: July 10, 2007Location of development: a) Descriptive (Cross Streets) North/South Balsam StEast/West Ann Rdb) Sect. 27 Twn. 19S Rng 60EName of Owner: Silver Dollar Land Co, LLCAssessors Parcel No.: 125-27-802-002,003,004,005,008,009,012,014

Telephone No.: \_\_\_\_\_

Facsimile No.: \_\_\_\_\_

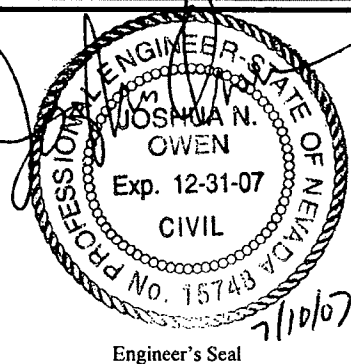
Address: 2764 Lake Sahara Dr. Ste 111Las Vegas, NV 89117Contact Person-Name: Joshua N. Owen, P.E.Telephone No: 702-932-6125Firm: TCEAddress: 3277 East Warm Springs Road, Suite 400 Las Vegas, Nevada 89120

## Type of Land Development/Land Disturbance Process:

|                          |                  |                                     |                          |                          |                              |
|--------------------------|------------------|-------------------------------------|--------------------------|--------------------------|------------------------------|
| <input type="checkbox"/> | Rezoning         | <input type="checkbox"/>            | Subdivision Map          | <input type="checkbox"/> | Clearing and Grading         |
| <input type="checkbox"/> | Parcel Map       | <input type="checkbox"/>            | Planned Unit Development | <input type="checkbox"/> | Other (Please Specify below) |
| <input type="checkbox"/> | Large Parcel Map | <input checked="" type="checkbox"/> | Building Permit          |                          |                              |

1. Total Owned Land Area: At Site: 10.72 Acres Being Developed/Disturbed 10.72 Acres2. Is a portion or all of the subject property located in a designated FEMA Flood Hazard Area? YES ☐ NO ☒3. Is the property bordered or crossed by an existing or proposed Clark County Regional Flood Control District Master Planned Facility? YES ☒ NO ☐4. Proposed type of development (Residential, Commercial, Etc.)? Residential5. Approximate upstream land area, which drains to the subject site? See Report6. Has the site drainage been evaluated in the past? YES ☐ NO ☒ If yes, please documentation:

7. If known, please briefly identify the proposed discharge point(s) of runoff from the site:

Balsam St8. Briefly describe your proposed schedule for the subject project: ASAP

Engineer's Seal

Submit this form as part of the required drainage study to the local entity which has jurisdiction over The subject property. This form may provide sufficient information to serve as the Conceptual Drainage Study.

\* Review and concurrence of the Clark County Regional Flood Control District is Required.

Local Entity File No. \_\_\_\_\_

Revision

Date

REFERENCE:

STANDARD FORM 1

July 10, 2007

Albert Sung, P.E.  
City of Las Vegas  
731 South Fourth Street  
Las Vegas, Nevada 89101

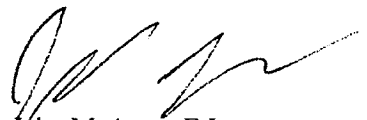
Re: **Hydrology Study Update #2 for Toscana**  
**TCE# 008-05001**

Mr. Sung:

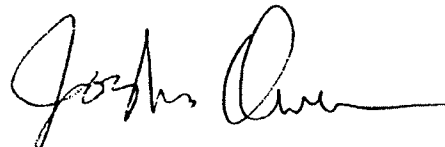
This letter is a hydrology study update to the approved *Technical Drainage Study for Toscana*. Due to the issue of the outlet pipe of drain inlet #2 being a 36" pipe and the drain inlet being only 24" wide, the detail for drop inlet #2 has been revised to a Jensen precast 4848-X4 Drop Inlet w/ Neenah grates and is shown on the revised grading plans. Street grades and drainage basins have not changed only the type of drainage inlet. Also, the drainage easements throughout the site have remained unchanged. All of the original hydrology of the site remains unchanged, as illustrated in the provided figure (*Figure 7 Developed Drainage Basins*) from the Addendum#1 for the Technical Hydrology Study for Toscana.

Should you have any questions or concerns, please do not hesitate to contact this office at 932-6125.

Sincerely,



John McAvoy, E.I.  
Engineering Intern



Joshua N. Owen, P.E.  
Project Manager

T THOMASON  
C CONSULTING  
E ENGINEERS

3277 East Warm Springs Road, Suite 400  
Las Vegas, Nevada 89120

**NOTE:** Any future changes to the proposed design (or design assumptions) as outlined in the approved drainage study and attached preliminary grading plan which affect drainage must be addressed in a Drainage Study Amendment and accepted by the City of Las Vegas Flood Control Section. Additionally, conditional acceptance of a drainage study is valid for a period of one (1) year. If the proposed construction has not been completed in that time period, the City of Las Vegas reserves the right to require additional conditions and/or submission and acceptance of a complete drainage study update prior to further construction of a project.

**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**  
B&H/ays

T/R/S: T19S/R60E/27  
AREA G-27

|                   |           |         |             |            |   |
|-------------------|-----------|---------|-------------|------------|---|
| Post-It® Fax Note | 7671      | Date    | 9/6/05      | # of pages | 2 |
| To                | Josh Owen | From    | Albert Sung |            |   |
| Co./Dept.         | TCB       | Co.     | CLV         |            |   |
| Phone #           |           | Phone # | 229-2001    |            |   |
| Fax #             | 932-6129  | Fax #   |             |            |   |

008-05001

C L A R K C O U N T Y  
REGIONAL FLOOD CONTROL DISTRICT



RECEIVED

AUG 24 2005

Gale Wm. Fraser, II, P.E.  
General Manager/Chief  
Engineer

BOARD OF DIRECTORS

Larry Brown  
Chairman  
City of Las Vegas

Chip Maxfield  
Vice-Chairman  
Clark County

Robert L. Ellason  
City of North Las Vegas

Mayor Oscar Goodman  
City of Las Vegas

Andy Hafen  
City of Henderson

Mayor Bill Nicholes  
City of Mesquite

Roger Tobler  
City of Boulder City

Bruce L. Woodbury  
Clark County

August 22, 2005

Mr. Randy Fultz, P.E.  
City of Las Vegas Public Works  
731 S. Fourth St  
Las Vegas, NV 89101

DISTRICT CONCURRENCE: TOSCANA (DS3824) (RFCD NO. 05-6474)

Dear Mr. Fultz:

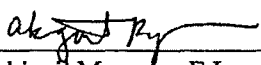
Clark County Regional Flood Control District (District) reviewed Technical Drainage Study dated May 25, 2005 and Addendum No. 1 dated June 27, 2005, for the above-mentioned project as submitted by TCE. In addition, District is in receipt of the Conditional Letter of Acceptance from City of Las Vegas Public Works dated July 14, 2005.

District concurs with acceptance of this Technical Drainage Study by City of Las Vegas 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 TCE 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.

GALE WM. FRASER, II, P.E.  
General Manager/Chief Engineer

BY:   
Abigail Mayrena, E.I.  
Associate Engineer

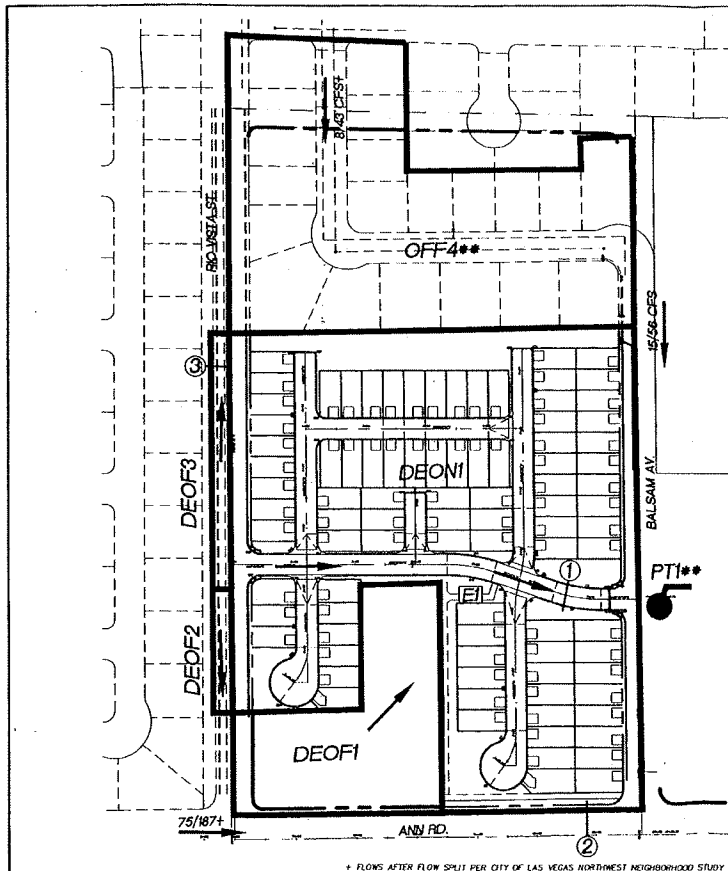
  
Andrew R. Trelease, P.E., CFM  
Senior Civil Engineer

AM:ART:css

c: Joshua N. Owen, P.E., TCE

File: 19-60-27.TCE.

SMIA  
Dustin  
Josh  
File  
Status Back



| Street Section   | Q <sub>10</sub> /Q <sub>100</sub><br>cfs | D <sub>10</sub> /D <sub>100</sub><br>ft | V <sub>10</sub> /V <sub>100</sub><br>ft/s | V <sub>10</sub> x D <sub>10</sub> |
|------------------|------------------------------------------|-----------------------------------------|-------------------------------------------|-----------------------------------|
| 1. Red Clover Rd | 2040                                     | 64/54                                   | 4.294/95                                  | 1.882/67                          |
| 2. Ann Rd        | 75/187                                   | 77/1.03                                 | 3.294/24                                  | 2.534/32                          |
| 3. Sun Vista St  | 41                                       | 40/22                                   | 42/34                                     | 40/38                             |

\* FLOWS PER CITY OF LAS VEGAS NORTHWEST NEIGHBORHOOD STUDY

T THOMASON  
C CONSULTING  
E ENGINEERS  
3161 E. WASH. SPRINGS ROAD, SUITE 200  
LAS VEGAS, NEVADA 89120  
702-932-6125 FAX: 702-932-6129

SILVER DOLLAR LAND CO  
TOSCANA

FIGURE 7  
DEVELOPED DRAINAGE BASINS

1

1 of 1

\*\*\*\*\*

P. 01

TRANSACTION REPORT

JUL-30-2007 MON 02:02 PM

FOR: CITY OF LAS VEGAS      7023828551

---

SEND

| DATE   | START    | RECEIVER | TX TIME | PAGES | TYPE   | NOTE | M#   | DP  |
|--------|----------|----------|---------|-------|--------|------|------|-----|
| JUL-30 | 02:01 PM | 9326129  | 49"     | 4     | FAX TX | OK   | (01) | 065 |

TOTAL :      49S    PAGES:    4

\*\*\*\*\*

**Facsimile Transmission  
Department of  
Public Works**



Date: 7/30/07

Time: 2:00pm

Page 1 of 3

To: Joshua N. Owen of TCE

Fax Number: 702, 932-6129 Phone Number: 702, 932-6125

From: Albert Sung of City of Las Vegas

FAX

PHONE

- |                                     |                               |              |              |
|-------------------------------------|-------------------------------|--------------|--------------|
| <input type="checkbox"/>            | Administration                | 702-382-0848 | 702-229-6276 |
| <input type="checkbox"/>            | City Engineer Division        | 868-6374     | 229-6272     |
| <input type="checkbox"/>            | Architectural Services        | 382-3232     | 229-6535     |
| <input type="checkbox"/>            | Construction Services         | 254-4541     | 229-6337     |
| <input type="checkbox"/>            | Engineering Design            | 382-3232     | 229-6272     |
| <input type="checkbox"/>            | Pavement Management           | 366-0032     | 229-2453     |
| <input type="checkbox"/>            | Special Improvement Districts | 366-0032     | 229-2136     |
| <input type="checkbox"/>            | Survey                        | 804-8582     | 229-6217     |
| <input checked="" type="checkbox"/> | Engineering Planning          | 382-8551     | 229-6541     |
| <input checked="" type="checkbox"/> | Flood Control                 | 382-8551     | 229-6541     |
| <input type="checkbox"/>            | Land Development              | 383-9767     | 229-6371     |
| <input type="checkbox"/>            | Right-of-Way                  | 382-8551     | 229-6483     |

## Thomason Consulting Engineers (TCE)

---

### Letter of Transmittal

---

To: Staff

From: Josh Owen

Company: City of Las Vegas

Date: July 11, 2007

Address:

Project Name: Toscana

Project Number: 008-05001

---

**Transmittal VIA:**    ☒ Hand Deliver    ☐ Pick-up    ☐ Fed-Ex    ☐ Mail

---

The following items are being transmitted:

1 – DS Update

1 check \$100.00 #3990

Comments:

Received by: \_\_\_\_\_

---

**Transmitted for:**    ☐ Review/Approval    ☐ Per your request    ☐ Other

---

**T** ☐ **THOMASON**  
**C** ☐ **CONSULTING**  
**E** ☐ **ENGINEERS**

3277 East Warm Springs Road, Suite 400  
Las Vegas, Nevada 89120  
Phone (702) 932-6125 • Fax (702) 932-6129

**\*\* Duplicate Receipt \*\***

City of Las Vegas

Development Services Center

731 South Fourth Street

Las Vegas, NV 89101

07/12/2007 10:26 Trn 73065

Cashier 900122

PRJ Permit # DS3824-2 \$100.00

**Subtotal** \$100.00

**Tax** \$0.00

**Total** \$100.00

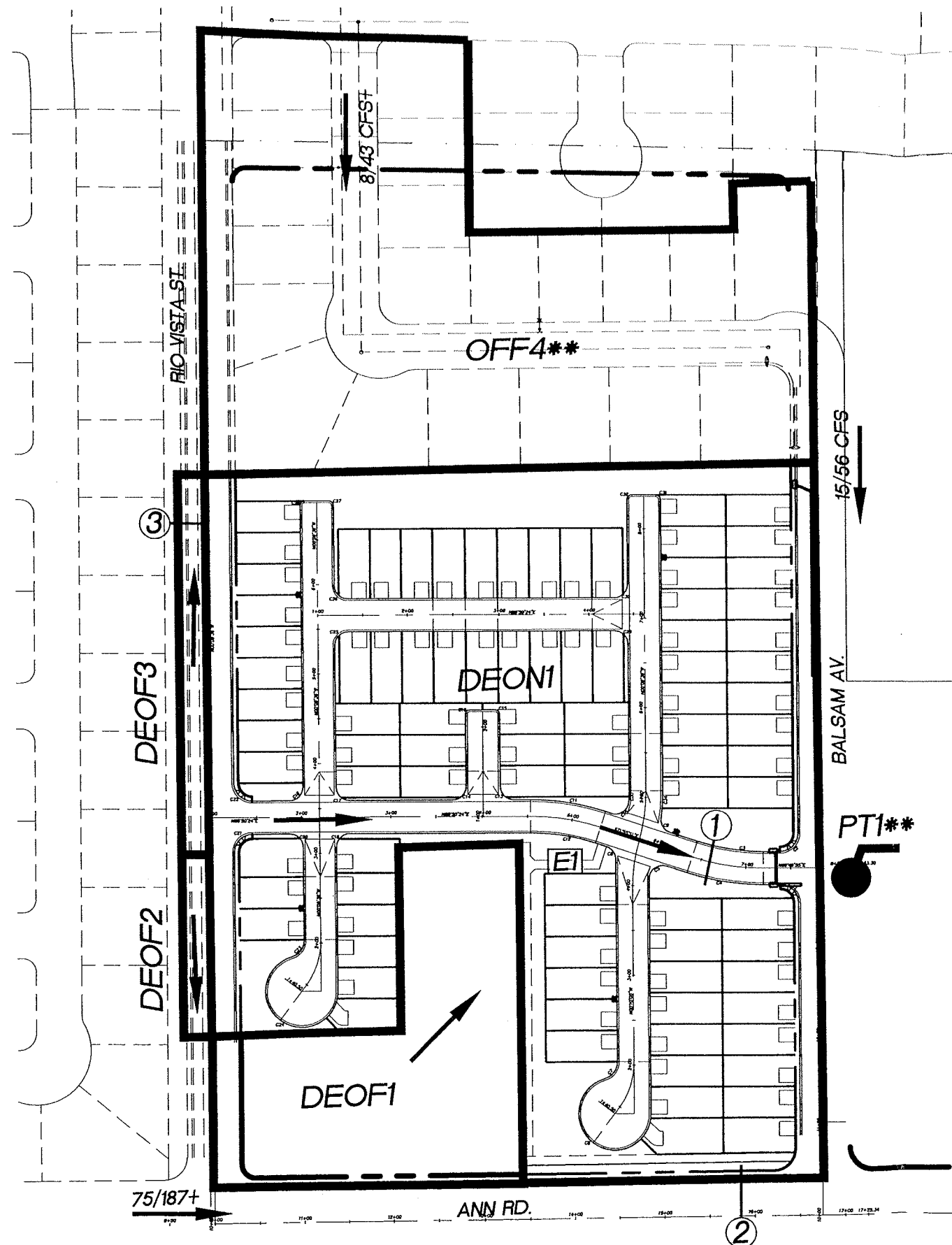
Received CHECK \$100.00

Check # 3990

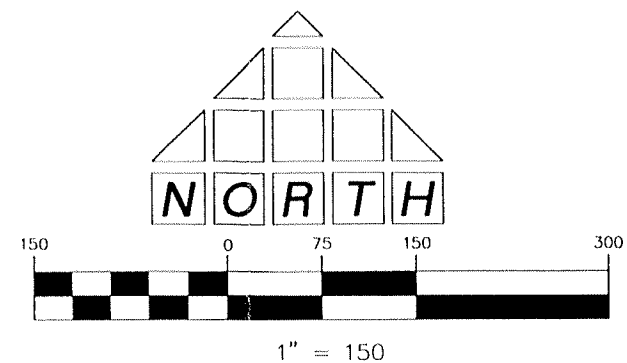
**Change** \$0.00

For questions related to this receipt call

702-229-6251



+ FLOWS AFTER FLOW SPLIT PER CITY OF LAS VEGAS NORTHWEST NEIGHBORHOOD STUDY



### LEGEND

- DEON1 BASIN NAME
- BASIN BOUNDARY
- FLOW ARROW
- ① STREET SECTION
- EI DRAINAGE EASEMENT
- PT1 CONCENTRATION POINT

| BASIN / CONCENTRATION POINT | 10-YEAR FLOW<br>(cfs) | 100-YEAR FLOW<br>(cfs) |
|-----------------------------|-----------------------|------------------------|
| DEON1                       | 17                    | 33                     |
| DEOF1                       | 3                     | 7                      |
| DEOF2                       | <1                    | <1                     |
| DEOF3                       | <1                    | 1                      |
| OFF4                        | 7                     | 13                     |
| PT1**                       | 20                    | 67                     |

\*\*ADDED FLOWS PER THE ANN/RAINBOW TDS. THESE FLOWS ACCOUNT FOR FLOWSPLIT ON HEAVEN HOLLOW AND GLEN LANDING INTERSECTION. MINUS WHAT IS INTERCEPTED BY DROP INLET #4 AT BALSAM AV PER SAME STUDY AND DROP INLE D.I.#3 PROPOSED ON THIS ADDENDUM.

| Street Section   | Q <sub>10</sub> /Q <sub>100</sub><br>cfs | D <sub>10</sub> /D <sub>100</sub><br>ft | V <sub>10</sub> /V <sub>100</sub><br>Ft/s | V x D     |
|------------------|------------------------------------------|-----------------------------------------|-------------------------------------------|-----------|
| 1- Red Clover Rd | 20/40                                    | .44/.54                                 | 4.29/4.95                                 | 1.88/2.67 |
| 2- Ann Rd*       | 75/187                                   | .77/1.02                                | 3.29/4.24                                 | 2.53/4.32 |
| 3- Rio Vista St. | -/1                                      | -/0.25                                  | -/2.34                                    | -/0.58    |

\* FLOWS PER CITY OF LAS VEGAS NORTHWEST NEIGHBORHOOD STUDY

SILVER DOLLAR LAND CO  
TOSCANA

FIGURE 7  
DEVELOPED DRAINAGE BASINS

T THOMASON  
C CONSULTING  
E ENGINEERS

3161 E. WARM SPRINGS ROAD, SUITE 200  
LAS VEGAS, NEVADA 89120  
702-932-6125 FAX: 702-932-6129

1

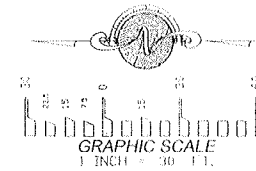
1 OF 1

# FINAL MAP OF TOSCANA

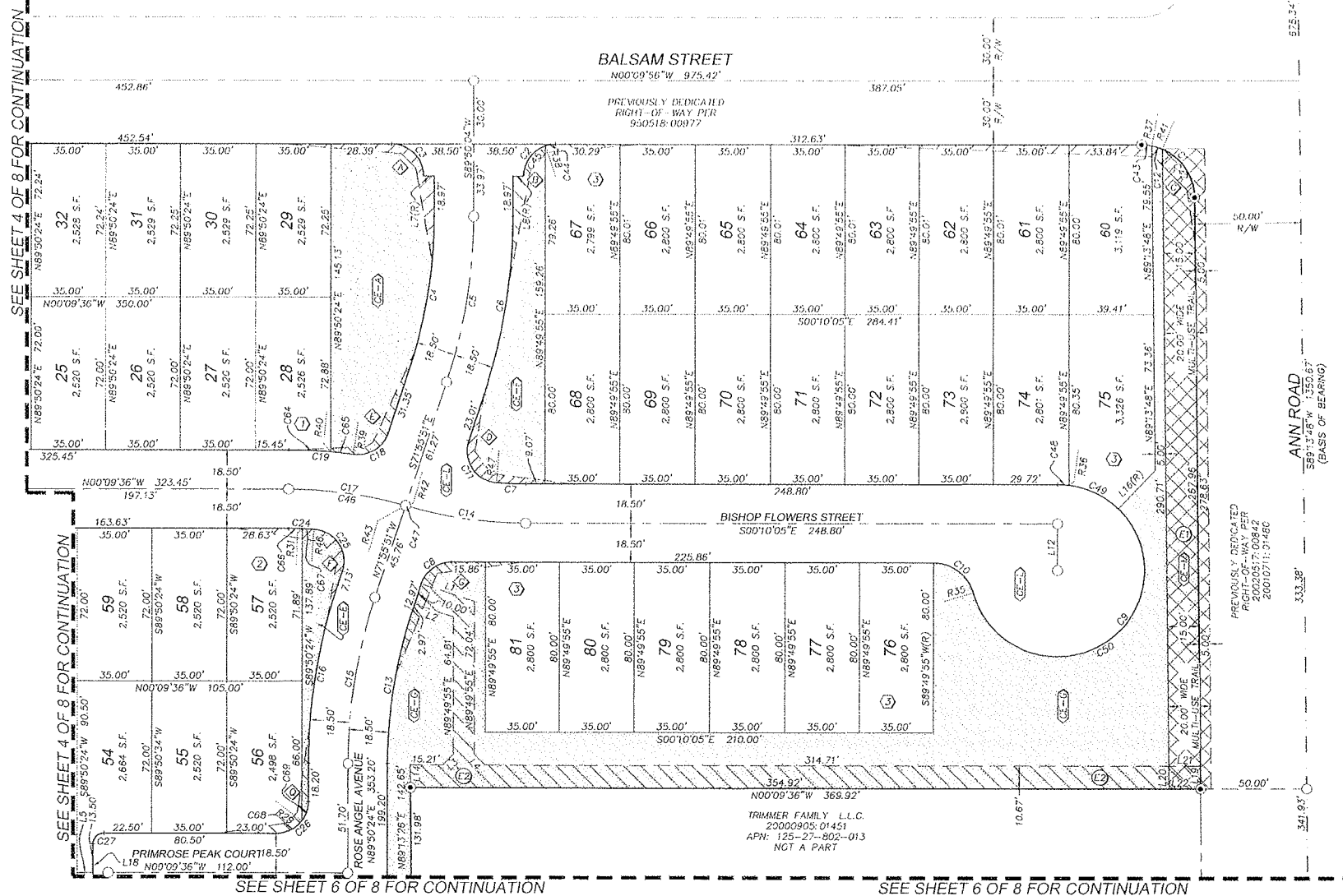
## A COMMON INTEREST COMMUNITY

A MERGER AND RE-SUBDIVISION OF THAT LAND DESCRIBED IN A DEED TO SILVER DOLLAR LAND COMPANY, L.L.C., A NEVADA LIMITED LIABILITY COMPANY, AS RECORDED IN BOOK 20050426 AS INSTRUMENT NUMBER 04484, TOGETHER WITH THAT LAND DESCRIBED IN A DEED TO SILVER DOLLAR LAND COMPANY, L.L.C., A NEVADA LIMITED LIABILITY COMPANY, RECORDED IN BOOK 20061009, AS INSTRUMENT NUMBER 00817, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA, LYING WITHIN THE WEST HALF (W 1/2) OF THE SOUTHEAST QUARTER (SE 1/4) OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 27, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., CITY OF LAS VEGAS, CLARK COUNTY, NEVADA.

REGAL VILLAGE, LLC  
991230 0019  
APN: 125-27-801-008  
NOT A PART



SEE SHEET 4 OF 8 FOR CONTINUATION



### MAP NOTES

- PORTIONS OF COMMON ELEMENTS 'A'-'K' DEPICTED HEREON ARE UTILITY EASEMENTS (U.E.), AS DESCRIBED IN THE OWNER'S CERTIFICATE, AS SHOWN ON SHEET 1 OF 8, TO BE MAINTAINED BY THE HOMEOWNERS' ASSOCIATION.
- COMMON ELEMENTS 'A'-'K' DEPICTED HEREON ARE PRIVATE LANDSCAPE AREAS AND PRIVATE DRAINAGE FACILITIES TO BE MAINTAINED BY THE HOMEOWNERS' ASSOCIATION.
- COMMON ELEMENTS 'A'-'K' DEPICTED HEREON ARE PRIVATE PEDESTRIAN ACCESS EASEMENTS (P.A.E.), AS DESCRIBED IN THE OWNER'S CERTIFICATE, AS SHOWN ON SHEET 1 OF 8, TO BE MAINTAINED BY THE HOMEOWNERS' ASSOCIATION.
- COMMON ELEMENT 'L' DEPICTED HEREON IS A PRIVATE STREET, UTILITY EASEMENT (U.E.), PUBLIC SEWER EASEMENT AND PUBLIC DRAINAGE EASEMENT TO BE PRIVATELY MAINTAINED BY THE HOMEOWNERS' ASSOCIATION.
- ALL REAR LOT CORNERS SHALL BE SET WITH A NAIL AND TAG MARKED 'P.S. 16201' ON THE BLOCK WALL. ALL FRONT AND SIDE LOT CORNERS ADJOINING PUBLIC STREETS OR PRIVATE DRIVES SHALL BE MARKED BY THE SAW CUTTING OF THE BACK OF CURB AT THE PROLONGATION OF THE PROPERTY LINES.
- FOR LEGEND, DETAILS, COMMON ELEMENT TABLE, LINE, RADIAL, AND CURVE DATA TABLES, SEE SHEET 7 OF 8.
- FOR SWRZ DETAILS, SEE SHEET 7 OF 8 AND SHEET 8 OF 8. NO WALLS, FENCES, TREES, SHRUBS, UTILITY APPURTENANCES OR ANY OTHER OBJECT, OTHER THAN TRAFFIC CONTROL DEVICES AND STREET LIGHT POLES, MAY BE CONSTRUCTED OR INSTALLED WITHIN THE SIGHT VISIBILITY RESTRICTION ZONE UNLESS SAID OBJECT IS MAINTAINED AT LESS THAN 24 INCHES IN HEIGHT, MEASURED FROM TOP OF CURB, OR WHERE NO CURB EXISTS, A HEIGHT OF 27 INCHES MEASURED FROM THE TOP OF ADJACENT ASPHALT, GRAVEL OR PAVEMENT STREET SURFACE TO BE PRIVATELY MAINTAINED.
- DIRECT VEHICULAR ACCESS TO RID VISTA STREET FROM ADJACENT LOTS THROUGH COMMON ELEMENTS (EXCEPT COMMON ELEMENT 'L') IS PROHIBITED.
- DIRECT VEHICULAR ACCESS TO ANN ROAD FROM ADJACENT LOTS THROUGH COMMON ELEMENTS (EXCEPT COMMON ELEMENT 'L') IS PROHIBITED.

### EASEMENT DESIGNATION TABLE

- COMMON ELEMENT 'M' FRONTING ANN ROAD SHALL HAVE A MULTI-USE TRANSPORTATION TRAIL EASEMENT AND SAID EASEMENT SHALL EXTEND ACROSS ANY PROPOSED DRIVEWAYS AND/OR PRIVATE STREETS; SAID EASEMENT BEING A PORTION OF THE OVERALL 20-FOOT MULTI-USE TRANSPORTATION TRAIL ALONG ANN ROAD OF WHICH ENTIRE WIDTH IS TO BE PRIVATELY MAINTAINED BY THE HOMEOWNER'S ASSOCIATION.
- PUBLIC DRAINAGE EASEMENT, HEREBY GRANTED TO THE CITY OF LAS VEGAS PER THIS MAP, TO BE PRIVATELY MAINTAINED BY THE HOMEOWNERS' ASSOCIATION.

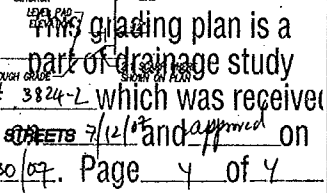
### MSG Surveying

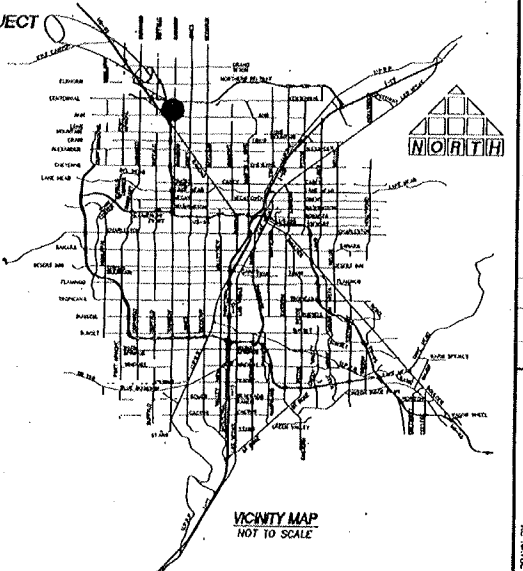
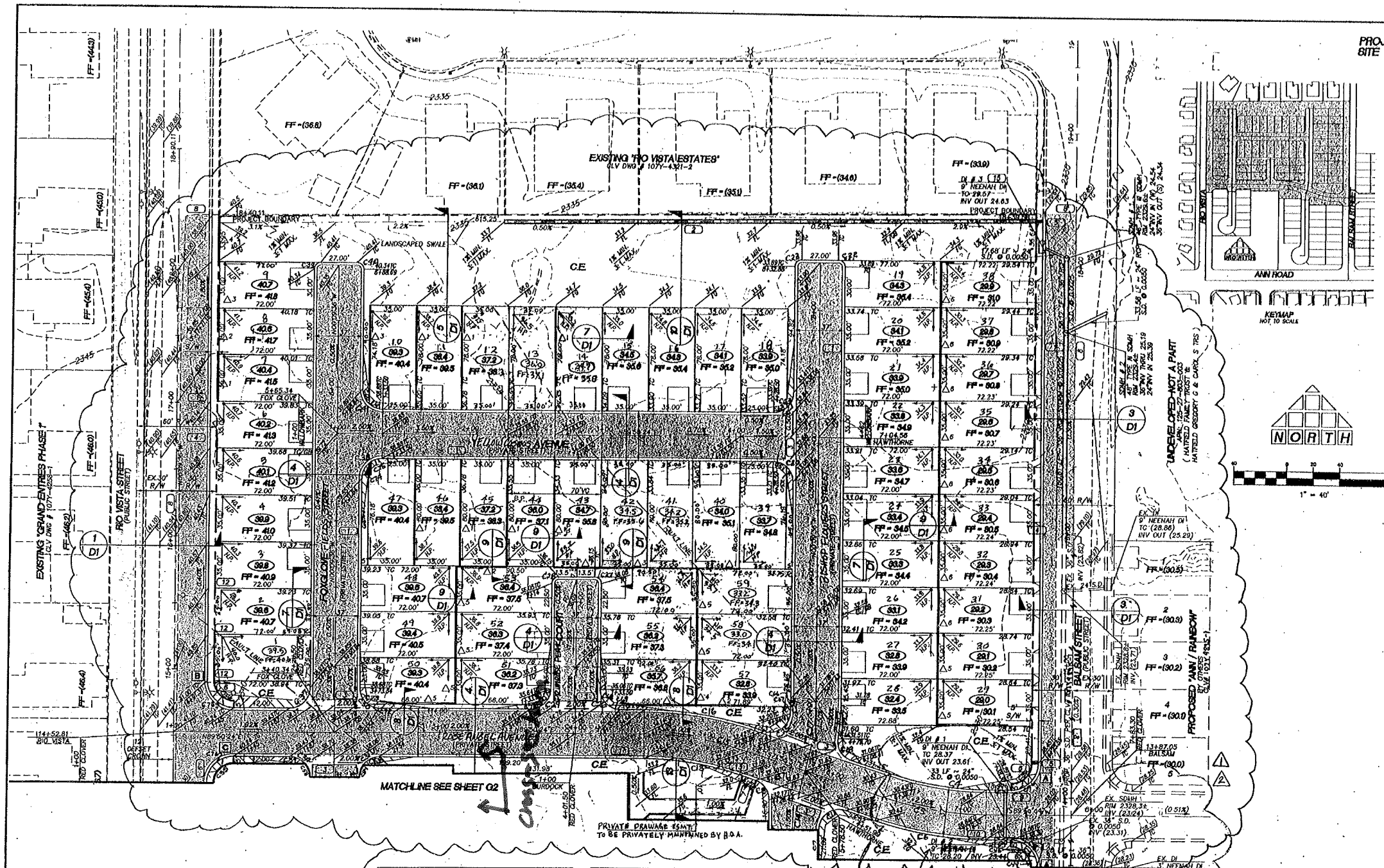
3277 E. WARM SPRINGS RD., SUITE 300  
LAS VEGAS, NEVADA 89120  
PHONE: (702) 932-2965  
FAX: (702) 932-5599  
HTTP://WWW.MSGSURVEYING.COM



Date: 11-NOV-05  
Drawn By: J. SANTOS  
Checked By: M. SMITH  
Job Number: 001-05-039  
Sheet No: 3 OF 8

|                                                                                                                                              |              |       |        |
|----------------------------------------------------------------------------------------------------------------------------------------------|--------------|-------|--------|
|                                                                                                                                              | DRAWN BY:    | DATE: | SHEET: |
|                                                                                                                                              | DESIGNED BY: | DATE: |        |
|                                                                                                                                              | CHECKED BY:  | DATE: | TITLE: |
|                                                                                                                                              | PROJECT NO:  |       |        |
|                                                                                                                                              |              |       |        |
|                                                                                                                                              |              |       |        |
| <p align="center"><b>CLV #</b></p> <p align="center"><b>SHEET No.</b><br/><b>3</b> OF <b>7</b></p>                                           |              |       |        |
| <p align="center"><b>GRADING PLAN</b></p> <p align="center"><b>VETERINARY CLINIC<br/>ANN AND RIO VISTA</b></p>                               |              |       |        |
| <div style="text-align: center;"> <h1>Zona</h1> <h2>Engineering</h2> <p>CIVIL ENGINEERING &amp; LAND PLANNING</p> </div>                     |              |       |        |
| <p>800 N. RAINBOW BLVD., SUITE 222<br/>LAS VEGAS, NEVADA 89108<br/>PHONE: 702.948.7676<br/>FAX: 702.948.7675<br/>WWW.ZONEENGINEERING.COM</p> |              |       |        |
| <p>REV.:      DATE:      BY:</p>                                                                                                             |              |       |        |
| DESCRIPTION:                                                                                                                                 |              |       |        |





- LEGEND**
- PROPERTY LINE / RIGHT-OF-WAY
  - "L" TYPE CURB AND GUTTER
  - "A" TYPE CURB
  - EXISTING CURB AND GUTTER
  - PROPOSED WATER LINE (SIZE AS SHOWN)
  - PROPOSED SEWER LINE (SIZE AS SHOWN)
  - EXISTING UTILITY (AS SHOWN)
  - CROSS GUTTER
  - WHEELCHAIR RAMP
  - OUT OR FILL SLOPE
  - PROPOSED PAVEMENT AREA
  - PROPOSED ELEVATION (DESCRIPTION AS SHOWN)
  - EXISTING ELEVATION (DESCRIPTION AS SHOWN)
  - FUTURE DESIGN ELEVATION (DESCRIPTION AS SHOWN)
  - LOT NUMBER
  - PAD ELEVATION
  - FINISHED FLOOR ELEVATION
  - EXISTING PAVEMENT TO BE REMOVED AND REPLACED
  - PHASE LINE
  - SIGHT VISIBILITY RESTRICTION ZONES PER STD. DWS 2011 (NOTHING OVER 24" IN HEIGHT ALLOWED IN SVZ EXCEPT TRAFFIC CONTROL DEVICES)
  - 6" SCREEN WALL
  - STEM WALL
  - RETAINING WALL

- CONSTRUCTION NOTES**
- CONSTRUCT 2" TYPE CURB AND GUTTER PER CCASD 218
  - CONSTRUCT FLUME PER DETAIL ON SHEET D1
  - CONSTRUCT CROSS GUTTER PER CCASD 228
  - CONSTRUCT 5" SIDEWALK PER CCASD 234
  - CONSTRUCT SIDEWALK UNDERDRAIN PER CCASD 236
  - CONSTRUCT SIDEWALK CASE 1 RAMP PER CCASD 235 SEE TABLE FOR LENGTHS
  - CONSTRUCT DEPRESSIONED CURB PER CCASD 227
  - SAWTOOTH AND MATCH EXISTING
  - CONSTRUCT 9" DROP INLET PER DETAIL SHEET D2 INV = 23.61, DEPTH = 4.28'
  - CONSTRUCT 9" DROP INLET PER DETAIL SHEET D2 INV = 23.44, DEPTH = 4.28'
  - CONSTRUCT FENCE PER DETAIL SHEET D1
  - 8" CMU WALL SOLID GROUTED 2 COURSES ABOVE BACK OF SIDEWALK
  - CONSTRUCT BOLLARDS PER DETAIL SHEET D2
  - CONSTRUCT 12" TYPE CURB AND GUTTER PER CCASD 218
  - CONSTRUCT 9" DROP INLET PER DETAIL SHEET D2 INV = 23.61, DEPTH = 4.28'

| CURVE TABLE |         |           |         |         |
|-------------|---------|-----------|---------|---------|
| CURVE       | RADIUS  | DELTA     | LENGTH  | TANGENT |
| C1          | 15.00'  | 82.2144°  | 39.01'  | 24.74'  |
| C2          | 15.00'  | 90.0000°  | 23.56'  | 15.00'  |
| C3          | 15.00'  | 90.0000°  | 23.56'  | 15.00'  |
| C4          | 231.50' | 18.7429°  | 23.68'  | 32.15'  |
| C5          | 250.00' | 18.7429°  | 29.58'  | 40.12'  |
| C6          | 250.00' | 18.7429°  | 29.58'  | 40.12'  |
| C7          | 181.50' | 42.124°   | 13.81'  | 8.91'   |
| C8          | 15.00'  | 71.4346°  | 18.79'  | 10.93'  |
| C9          | 40.50'  | 234.3202° | 129.97' | 54.33'  |
| C10         | 15.00'  | 74.3302°  | 25.37'  | 14.84'  |
| C11         | 15.00'  | 103.3238° | 27.20'  | 18.18'  |
| C12         | 23.00'  | 12.9222°  | 5.92'   | 2.84'   |
| C13         | 231.50' | 18.7429°  | 23.68'  | 32.15'  |
| C14         | 250.00' | 18.7429°  | 29.58'  | 40.12'  |
| C15         | 250.00' | 18.7429°  | 29.58'  | 40.12'  |
| C16         | 250.00' | 18.7429°  | 29.58'  | 40.12'  |
| C17         | 250.00' | 18.7429°  | 29.58'  | 40.12'  |
| C18         | 15.00'  | 72.4253°  | 20.87'  | 12.52'  |
| C19         | 218.50' | 7.5840°   | 30.30'  | 15.17'  |
| C20         | 15.00'  | 90.0000°  | 23.56'  | 15.00'  |
| C21         | 15.00'  | 90.0000°  | 23.56'  | 15.00'  |
| C22         | 5.00'   | 90.0000°  | 7.85'   | 5.00'   |
| C23         | 5.00'   | 90.0000°  | 7.85'   | 5.00'   |
| C24         | 10.00'  | 18.7429°  | 11.81'  | 5.97'   |
| C25         | 15.00'  | 104.3020° | 26.36'  | 19.37'  |
| C26         | 15.00'  | 90.0000°  | 23.56'  | 15.00'  |
| C27         | 3.00'   | 90.0000°  | 7.85'   | 5.00'   |
| C28         | 5.00'   | 7.5840°   | 7.85'   | 5.00'   |
| C29         | 15.00'  | 90.0000°  | 23.56'  | 15.00'  |
| C30         | 15.00'  | 90.0000°  | 23.56'  | 15.00'  |
| C31         | 15.00'  | 90.0000°  | 23.56'  | 15.00'  |
| C32         | 40.50'  | 234.3202° | 129.97' | 54.33'  |
| C33         | 15.00'  | 74.3302°  | 25.37'  | 14.84'  |
| C34         | 15.00'  | 90.0000°  | 23.56'  | 15.00'  |
| C35         | 15.00'  | 90.0000°  | 23.56'  | 15.00'  |
| C36         | 15.00'  | 90.0000°  | 23.56'  | 15.00'  |
| C37         | 15.00'  | 90.0000°  | 23.56'  | 15.00'  |
| C38         | 15.00'  | 90.0000°  | 23.56'  | 15.00'  |

| CURVE TABLE |         |           |         |         |
|-------------|---------|-----------|---------|---------|
| CURVE       | RADIUS  | DELTA     | LENGTH  | TANGENT |
| C39         | 5.00'   | 90.0000°  | 7.85'   | 5.00'   |
| C40         | 5.00'   | 90.0000°  | 7.85'   | 5.00'   |
| C41         | 15.00'  | 90.0000°  | 23.56'  | 15.00'  |
| C42         | 231.50' | 18.7429°  | 23.68'  | 32.15'  |
| C43         | 250.00' | 18.7429°  | 29.58'  | 40.12'  |
| C44         | 15.00'  | 18.7429°  | 23.68'  | 32.15'  |
| C45         | 15.00'  | 71.4346°  | 18.79'  | 10.93'  |
| C46         | 200.00' | 18.7429°  | 55.44'  | 27.00'  |
| C47         | 200.00' | 18.7429°  | 55.44'  | 27.00'  |
| C48         | 40.50'  | 7.5840°   | 12.85'  | 6.44'   |
| C49         | 40.50'  | 36.2815°  | 25.79'  | 13.34'  |
| C50         | 40.50'  | 210.3429° | 148.85' | 148.17' |
| C51         | 15.00'  | 42.124°   | 13.81'  | 8.91'   |
| C52         | 15.00'  | 42.124°   | 13.81'  | 8.91'   |
| C53         | 15.00'  | 33.0748°  | 13.91'  | 7.50'   |
| C54         | 15.00'  | 33.0748°  | 13.91'  | 7.50'   |
| C55         | 40.50'  | 18.7429°  | 55.44'  | 27.00'  |
| C56         | 40.50'  | 36.2815°  | 25.79'  | 13.34'  |
| C57         | 40.50'  | 210.3429° | 148.85' | 148.17' |
| C58         | 15.00'  | 42.124°   | 13.81'  | 8.91'   |
| C59         | 15.00'  | 42.124°   | 13.81'  | 8.91'   |
| C60         | 15.00'  | 42.124°   | 13.81'  | 8.91'   |
| C61         | 15.00'  | 42.124°   | 13.81'  | 8.91'   |
| C62         | 15.00'  | 42.124°   | 13.81'  | 8.91'   |
| C63         | 15.00'  | 42.124°   | 13.81'  | 8.91'   |
| C64         | 15.00'  | 42.124°   | 13.81'  | 8.91'   |
| C65         | 15.00'  | 42.124°   | 13.81'  | 8.91'   |
| C66         | 15.00'  | 42.124°   | 13.81'  | 8.91'   |
| C67         | 15.00'  | 42.124°   | 13.81'  | 8.91'   |
| C68         | 15.00'  | 42.124°   | 13.81'  | 8.91'   |
| C69         | 15.00'  | 42.124°   | 13.81'  | 8.91'   |
| C70         | 15.00'  | 42.124°   | 13.81'  | 8.91'   |
| C71         | 15.00'  | 42.124°   | 13.81'  | 8.91'   |
| C72         | 15.00'  | 42.124°   | 13.81'  | 8.91'   |
| C73         | 15.00'  | 42.124°   | 13.81'  | 8.91'   |
| C74         | 15.00'  | 42.124°   | 13.81'  | 8.91'   |
| C75         | 15.00'  | 42.124°   | 13.81'  | 8.91'   |
| C76         | 20.00'  | 90.0000°  | 31.42'  | 20.00'  |

**FLOOD CONTROL**

| ITEM # | DESCRIPTION                             |
|--------|-----------------------------------------|
| 1      | 93 LF ~ 24" STORM DRAIN                 |
| 2      | 233 LF ~ 36" STORM DRAIN                |
| 3      | 890 LF ~ 8" CMU SOLID GROUTED STEM WALL |
| 4      | 445 LF ~ 6" MILL CONCRETE PAVEMENT      |

**SIDEWALK RAMP DATA**  
PER STD. DWS 235

| A  | B     | TYPE |
|----|-------|------|
| 1  | 8' 8" | I    |
| 2  | 8' 8" | I    |
| 3  | 8' 8" | I    |
| 4  | 8' 8" | I    |
| 5  | 8' 8" | I    |
| 6  | 8' 8" | I    |
| 7  | 8' 8" | I    |
| 8  | 8' 8" | I    |
| 9  | 8' 8" | I    |
| 10 | 8' 8" | I    |
| 11 | 8' 8" | I    |

**EARTHWORK QUANTITIES**  
NOTE: RAW VOLUMES ONLY.  
CUT: 10,301 CY  
FILL: 8,035 CY  
TOTAL: 2,245 CY (EXPORT)

**DROP INLET DATA**

| NUMBER | TYPE   | NO. GRATES | LENGTH | DEPTH | INV OUT |
|--------|--------|------------|--------|-------|---------|
| 1      | NEENAH | 3          | 9'     | 4.28' | 2323.61 |
| 2      | NEENAH | 3          | 9'     | 4.28' | 2323.44 |
| 3      | NEENAH | 3          | 9'     | 4.44' | 2324.63 |

**PRIVATE STREET NOTE**  
ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS, AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

**BENCHMARK**  
CITY OF LAS VEGAS VERTICAL CONTROL POINT "BLV90 34NES", BEING A RIVET AND PLATE IN THE TOP OF CURB AT THE SOUTHWEST CORNER OF ANN ROAD AND RAINBOW.

**ELEVATION: 2325.54 (FEET)**  
709.8256 (METERS)  
CITY OF LAS VEGAS VERTICAL CONTROL v.2002 BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

**BASIS OF BEARINGS**  
SOUTH 89°13'48" WEST, BEING THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 27, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., BEING THE CENTERLINE OF ANN ROAD AS RECORDED IN BOOK 88 OF PLATS, AT PAGE 1, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.

**Call before you dig**  
1-800-227-2600  
UNDERGROUND SERVICE (USG)

**Call before you overhead**  
1-702-227-2929  
UTILITY SERVICE (USG)

**Call before you underground**  
1-702-227-2929  
UTILITY SERVICE (USG)

88261 941954

**THOMSON CONSULTING ENGINEERS**  
3161 E. WARM SPRINGS ROAD, SUITE 200  
LAS VEGAS, NEVADA 89120  
702-932-6125 FAX: 702-932-6125

**SILVER DOLLAR LAND CO., LLC**  
TOSCANA

**GRADING PLAN**

**ENGINEER'S SEAL**  
JOSEPH D. THOMSON, P.E. NO. 11907

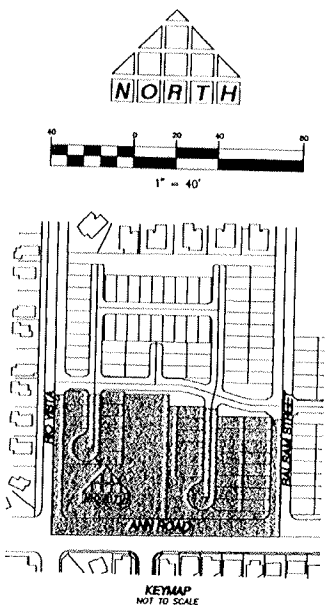
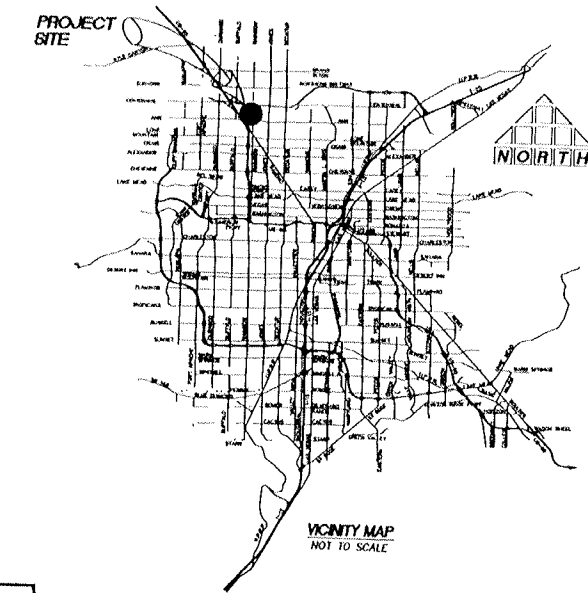
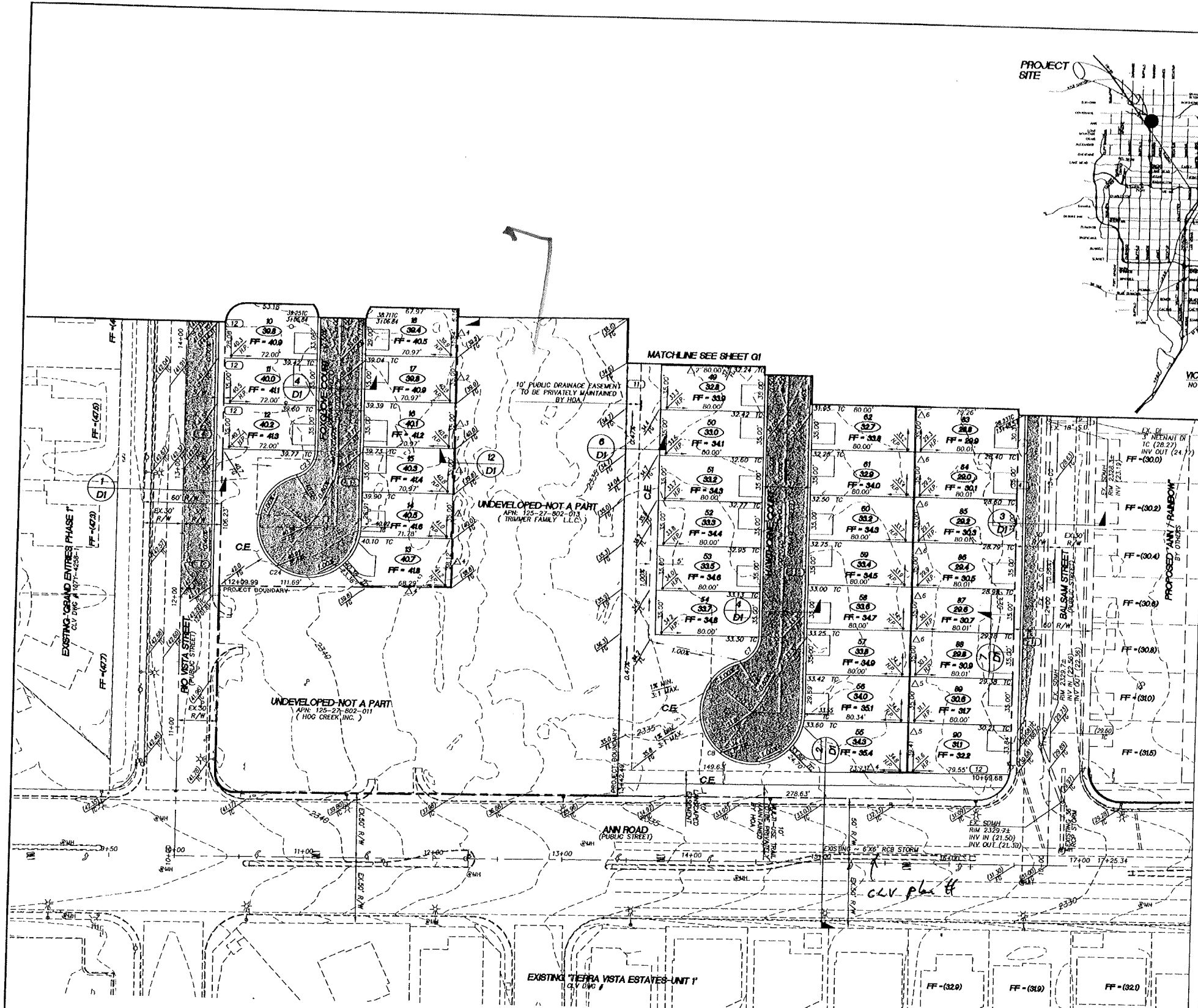
**DRAINAGE STUDY**  
# 3824-2 which was received on 7/30/09 and approved on 7/30/09

**DRAINAGE STUDY NOTE**  
I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE THE CITY OF LAS VEGAS DRAINAGE STUDY # DS3824.

**DATE**  
12.22.05

**SHEET**  
5 of 18

**PROJECT NO.**  
008.05001



- LEGEND**
- PROPERTY LINE / RIGHT-OF-WAY
  - "L" TYPE CURB AND GUTTER
  - "A" TYPE CURB
  - EXISTING CURB AND GUTTER
  - PROPOSED WATER LINE (SIZE AS SHOWN)
  - PROPOSED SEWER LINE (SIZE AS SHOWN)
  - EXISTING UTILITY (AS SHOWN)
  - CROSS GUTTER
  - WHEELCHAIR RAMP
  - CUT OR FILL SLOPE
  - PROPOSED PAVEMENT AREA
  - PROPOSED ELEVATION (DESCRIPTION AS SHOWN)
  - EXISTING ELEVATION (DESCRIPTION AS SHOWN)
  - FUTURE DESIGN ELEVATION (DESCRIPTION AS SHOWN)
  - LOT NUMBER
  - PAD ELEVATION
  - FINISHED FLOOR ELEVATION
  - EXISTING PAVEMENT TO BE REMOVED AND REPLACED
  - PHASE LINE
  - SIGHT VISIBILITY RESTRICTION ZONES PER STD. DWG. 201.1 (NOTHING OVER 24" IN HEIGHT ALLOWED IN SVZ EXCEPT TRAFFIC CONTROL DEVICES)
  - 6" SCREEN WALL
  - STEM WALL
  - RETAINING WALL

| CURVE TABLE |        |        |         |
|-------------|--------|--------|---------|
| CURVE       | LENGTH | RADIUS | TANGENT |
| C1          | 31.22  | 20.08  | 19.76   |
| C2          | 31.48  | 19.85  | 20.16   |
| C3          | 73.64  | 249.69 | 37.09   |
| C4          | 85.45  | 274.81 | 43.07   |
| C5          | 28.34  | 15.00  | 10.85   |
| C6          | 18.79  | 15.00  | 20.74   |
| C7          | 25.37  | 19.50  | 14.84   |
| C8          | 180.00 | 40.50  | 53.12   |
| C9          | 20.87  | 15.00  | 12.52   |
| C10         | 27.36  | 15.00  | 19.37   |
| C11         | 85.42  | 268.50 | 43.08   |
| C12         | 73.65  | 231.50 | 37.14   |
| C13         | 23.56  | 15.00  | 15.00   |
| C14         | 23.56  | 15.00  | 15.00   |
| C15         | 7.85   | 5.00   | 5.00    |
| C16         | 7.85   | 5.00   | 5.00    |
| C17         | 23.56  | 15.00  | 15.00   |
| C18         | 23.56  | 15.00  | 15.00   |
| C19         | 23.56  | 15.00  | 15.00   |
| C20         | 23.56  | 15.00  | 15.00   |
| C21         | 31.42  | 20.00  | 20.00   |
| C22         | 31.42  | 20.00  | 20.00   |
| C23         | 25.37  | 19.50  | 14.84   |
| C24         | 179.92 | 40.50  | 53.23   |
| C25         | 23.56  | 15.00  | 15.00   |
| C26         | 23.56  | 15.00  | 15.00   |
| C27         | 7.85   | 5.00   | 5.00    |
| C28         | 7.85   | 5.00   | 5.00    |
| C29         | 23.56  | 15.00  | 15.00   |
| C30         | 23.56  | 15.00  | 15.00   |
| C31         | 7.85   | 5.00   | 5.00    |
| C32         | 7.85   | 5.00   | 5.00    |
| C33         | 11.61  | 181.50 | 5.91    |
| C34         | 30.30  | 218.50 | 15.17   |

- CONSTRUCTION NOTES**
- CONSTRUCT "L" TYPE CURB AND GUTTER PER CCASD 216
  - CONSTRUCT FLUME PER DETAIL ON SHEET D2
  - CONSTRUCT CROSS GUTTER PER CCASD 228
  - CONSTRUCT 5" SIDEWALK PER CCASD 234
  - CONSTRUCT SIDEWALK UNDERDRAIN PER CCASD 236
  - CONSTRUCT SIDEWALK RAMP PER CCASD 235 SEE TABLE FOR LENGTHS
  - CONSTRUCT DEPRESSED CURB PER CCASD 227
  - SAW CUT AND MATCH EXISTING
  - CONSTRUCT 2" DEPTH OF FINISH D2
  - CONSTRUCT 2" DEPTH OF FINISH D2
  - CONSTRUCT 2" DEPTH OF FINISH D2
  - CONSTRUCT 2" DEPTH OF FINISH D2
  - CONSTRUCT 2" DEPTH OF FINISH D2
  - CONSTRUCT 2" DEPTH OF FINISH D2

**NOTE**  
ALL PRIVATE STREETS ARE P.U.E. PUBLIC DRAINAGE EASEMENTS AND PUBLIC SEWER EASEMENTS TO BE PRIVATELY MAINTAINED BY H.O.A.

**BASIS OF BEARINGS**  
SOUTH 89°13'48" WEST, BEING THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 27, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., BEING THE CENTERLINE OF ANN ROAD AS RECORDED IN BOOK 68 OF PLATS, AT PAGE 1, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.

**BENCHMARK**  
CITY OF LAS VEGAS VERTICAL CONTROL POINT "BLV90 34NES", BEING A RIVET AND PLATE IN THE TOP OF CURB AT THE SOUTHWEST CORNER OF ANN ROAD AND RAINBOW.  
ELEVATION: 2325.54 (FEET)  
708.8256 (METERS)  
CITY OF LAS VEGAS VERTICAL CONTROL v.2002 BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

| SIDEWALK RAMP DATA |     |            |
|--------------------|-----|------------|
| PER STD. DWG. 235  |     |            |
| A                  | B   | TYPE       |
| [A]                | 4.5 | 8' (1 crs) |
| [B]                | 4.5 | 8' (1 crs) |

| RETAINING WALL HEIGHT |                              |             |
|-----------------------|------------------------------|-------------|
| PAD DIFFERENCE        | RET. WALL HEIGHT (# COURSES) |             |
| Δ1                    | 4'-7"                        | 8" (1 crs)  |
| Δ2                    | 7'-11"                       | 14" (2 crs) |
| Δ3                    | 8'-15"                       | 2" (3 crs)  |
| Δ4                    | 1'-11"                       | 2" (4 crs)  |
| Δ5                    | 2'-11"                       | 3" (5 crs)  |
| Δ6                    | 2'-11"                       | 4" (6 crs)  |
| Δ7                    | 3'-11"                       | 4" (6 crs)  |
| Δ8                    | 4'-11"                       | 5" (7 crs)  |
| Δ9                    | 4'-11"                       | 6" (8 crs)  |
| Δ10                   | 5'-11"                       | 6" (8 crs)  |
| Δ11                   | 6'-11"                       | 7" (9 crs)  |

**DRAINAGE STUDY NOTE**  
I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE THE CITY OF LAS VEGAS DRAINAGE STUDY #

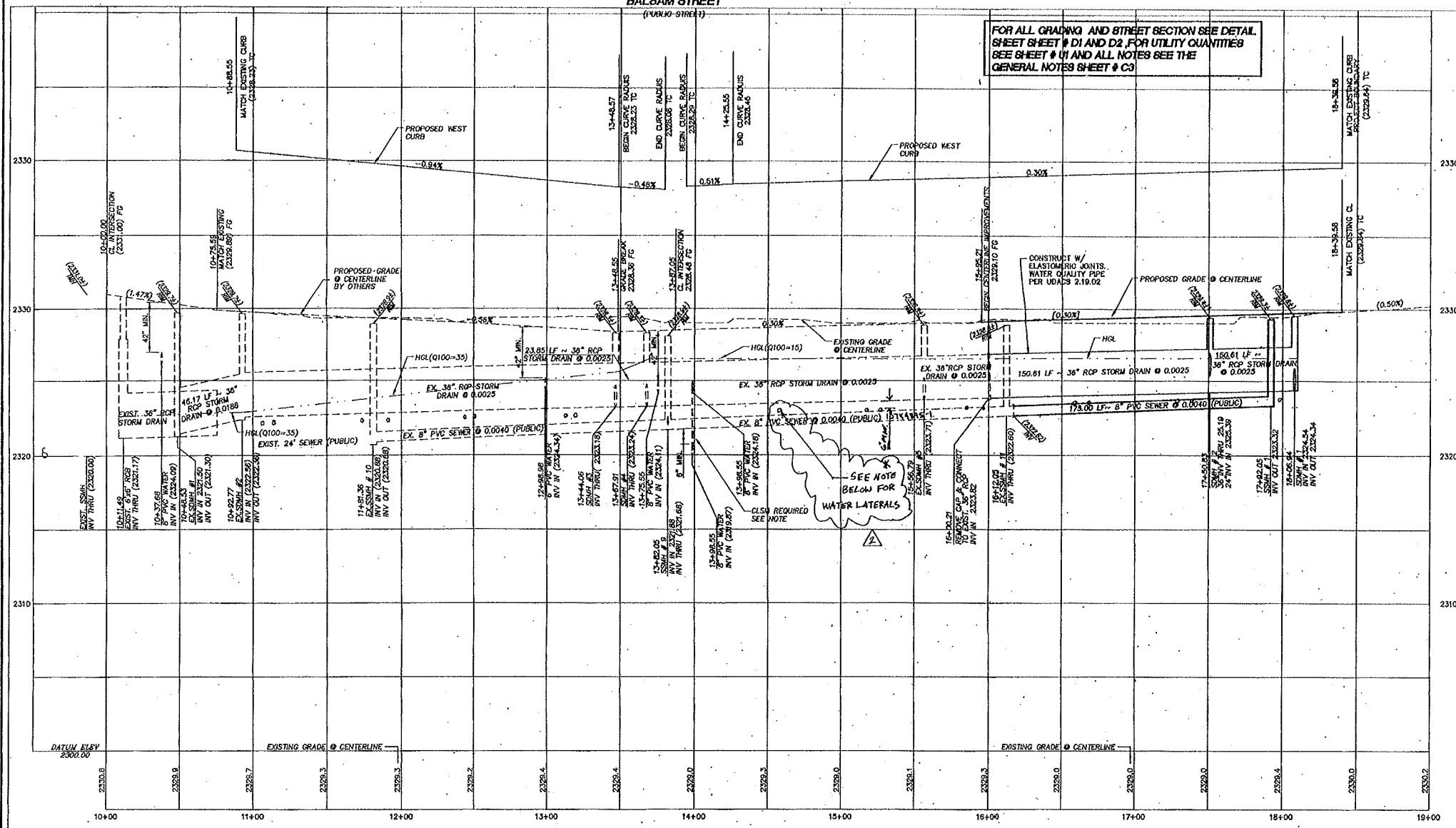
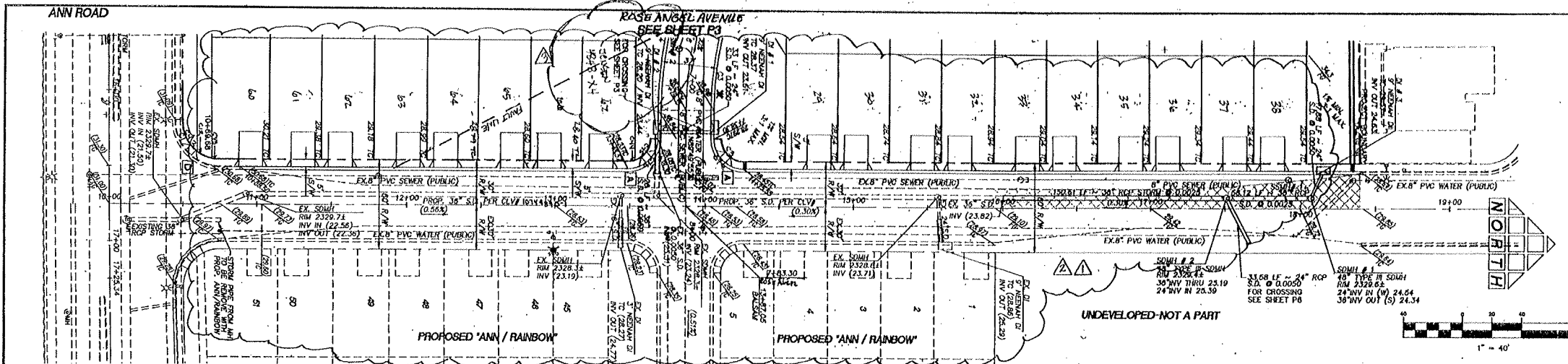
JOSEPH D. THOMASON, P.E. NO. 11907

THOMASON CONSULTING ENGINEERS  
3161 E. WARM SPRINGS ROAD, SUITE 200  
LAS VEGAS, NEVADA 89120  
702-932-6125  
FAX: 702-932-6125

SILVER DOLLAR LAND CO., LLC  
TOSCANA  
GRADING PLAN

008.05001  
DATE: 6/27/05  
BY: JDT

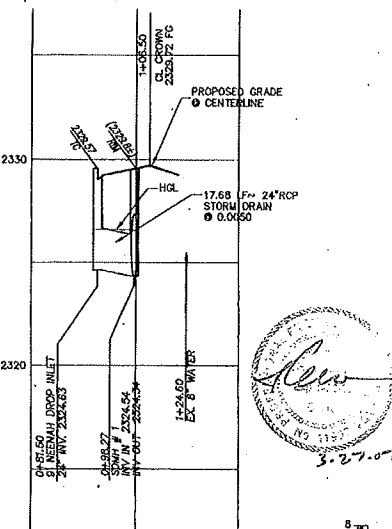
6 of 18  
DRAWING NO.



- LEGEND**
- PROPERTY LINE / RIGHT-OF-WAY
  - "I" TYPE CURB AND GUTTER
  - "A" TYPE CURB
  - EXISTING CURB AND GUTTER
  - PROPOSED WATER LINE (SIZE AS SHOWN)
  - PROPOSED SEWER LINE (SIZE AS SHOWN)
  - EXISTING UTILITY (AS SHOWN)
  - CROSS GUTTER
  - WHEELCHAIR RAMP
  - CUT OR FILL SLOPE
  - PROPOSED PAVEMENT AREA
  - PROPOSED ELEVATION (DESCRIPTION AS SHOWN)
  - EXISTING ELEVATION (DESCRIPTION AS SHOWN)
  - FUTURE DESIGN ELEVATION (DESCRIPTION AS SHOWN)
  - LOT NUMBER
  - PAD ELEVATION
  - FINISHED FLOOR ELEVATION
  - EXISTING PAVEMENT TO BE REMOVED AND REPLACED
  - PHASE LINE
  - SIGHT VISIBILITY RESTRICTION ZONES PER STD. DMS 2011 (NOTHING OVER 24" IN HEIGHT ALLOWED IN SVZ EXCEPT TRAFFIC CONTROL DEVICES)
  - 6" SCREEN WALL
  - STEM WALL
  - RETAINING WALL

**SIDEWALK RAMP DATA**  
PER STD. DMS 235

|   | A   | B   | C   | D    | E    | F    | G    | H    | I    | J    | K    | L    | M    | N    |
|---|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 4.5 | 6.0 | 8.0 | 10.0 | 12.0 | 14.0 | 16.0 | 18.0 | 20.0 | 22.0 | 24.0 | 26.0 | 28.0 | 30.0 |
| 2 | 4.5 | 6.0 | 8.0 | 10.0 | 12.0 | 14.0 | 16.0 | 18.0 | 20.0 | 22.0 | 24.0 | 26.0 | 28.0 | 30.0 |
| 3 | 4.5 | 6.0 | 8.0 | 10.0 | 12.0 | 14.0 | 16.0 | 18.0 | 20.0 | 22.0 | 24.0 | 26.0 | 28.0 | 30.0 |
| 4 | 4.5 | 6.0 | 8.0 | 10.0 | 12.0 | 14.0 | 16.0 | 18.0 | 20.0 | 22.0 | 24.0 | 26.0 | 28.0 | 30.0 |



**CURVE TABLE**

| CURVE | RADIUS | DELTA    | LENGTH | TANGENT |
|-------|--------|----------|--------|---------|
| C1    | 25.00' | 88.2324° | 39.01' | 24.74'  |
| C2    | 15.00' | 80.0000° | 23.56' | 15.00'  |
| C3    | 15.00' | 80.0000° | 23.56' | 15.00'  |
| C4    | 25.00' | 120.226° | 5.23'  | 2.84'   |
| C5    | 25.00' | 88.2324° | 28.98' | 18.37'  |
| C6    | 25.00' | 105.557° | 4.77'  | 2.39'   |
| C7    | 15.00' | 18.181°  | 4.79'  | 2.42'   |
| C8    | 15.00' | 71.4149° | 18.77' | 10.84'  |
| C9    | 25.00' | 80.0000° | 31.42' | 20.00'  |

This grading plan is a part of drainage study # 3824-2 which was received on 7/13/07 and approved on 7/30/07. Page 2 of 80.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT PROJECT # 11012 DATE 4-22-07

**BENCHMARK**  
CITY OF LAS VEGAS VERTICAL CONTROL POINT "BLV90 34NES", BEING A RIVET AND PLATE IN THE TOP OF CURB AT THE SOUTHWEST CORNER OF ANN ROAD AND RAINBOW.

ELEVATION: 2325.54 (FEET)  
708.8256 (METERS)  
CITY OF LAS VEGAS VERTICAL CONTROL v.2002 BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

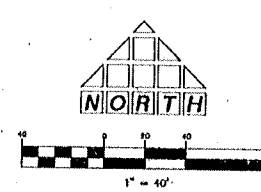
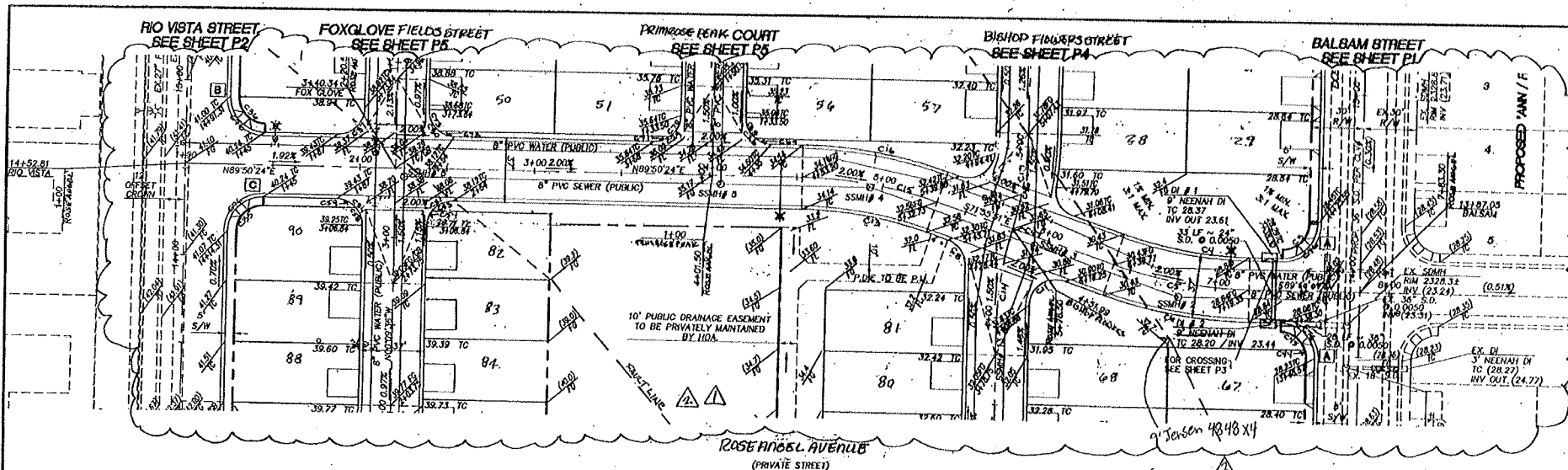
**BASIS OF BEARINGS**  
SOUTH 89°13'48" WEST, BEING THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 27, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., BEING THE CENTERLINE OF ANN ROAD AS RECORDED IN BOOK 68 OF PLATS, AT PAGE 1, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.

\* LOTS (21-38 & 40-47)  
CONSTRUCT WATER LATERALS PER UDALS PLATE 18 (INSTALL LATERALS IN PVC SLEEVES BELOW STORM DRAIN)

**THOMSON CONSULTING ENGINEERS**  
3167 E. WARM SPRINGS ROAD, SUITE 200  
LAS VEGAS, NEVADA 89119  
702-832-6125  
FAC 702-832-6125

**SILVER DOLLAR LAND CO., LLC**  
TOSCANA  
PLAN AND PROFILE  
BALSAM STREET

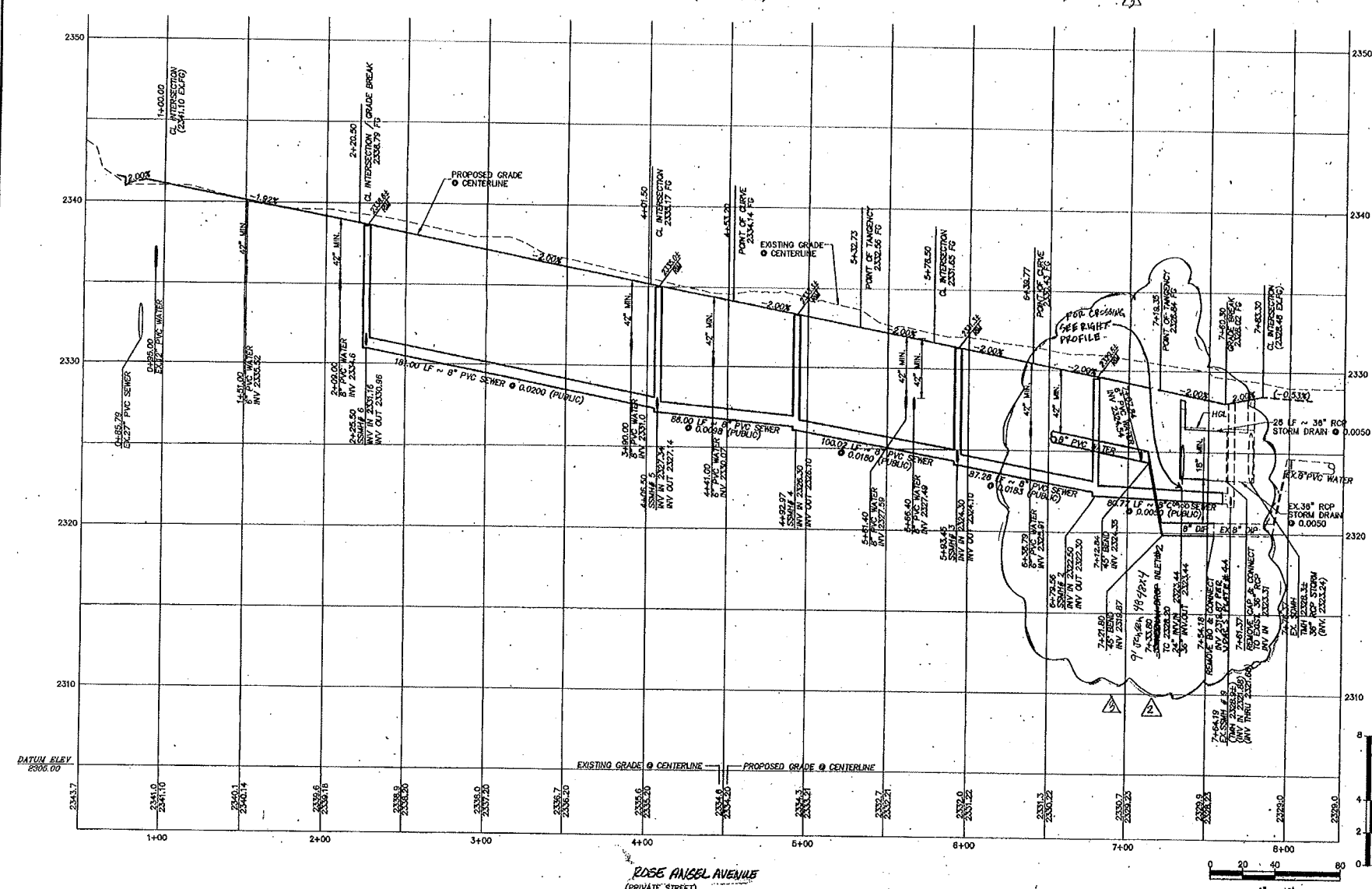
SHEET **P1**  
9 OF 18  
DRAWING NO. 1014914



**SIDEWALK RAMP DATA**  
PER STD. DWS 235

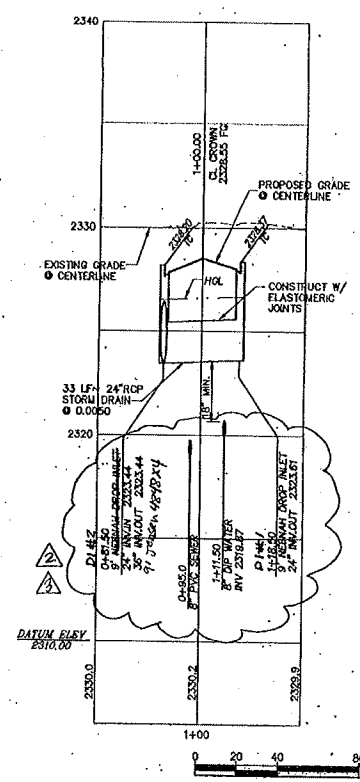
|   | A    | B    | TYPE |
|---|------|------|------|
| A | 8'   | 8'   | I    |
| B | 4.5  | 9.5' | I    |
| C | 9.5' | 4.5  | I    |
| D | 8'   | 8'   | N    |

- LEGEND**
- PROPERTY LINE / RIGHT-OF-WAY
  - "L" TYPE CURB AND GUTTER
  - "A" TYPE CURB
  - EXISTING CURB AND GUTTER
  - PROPOSED WATER LINE (SIZE AS SHOWN)
  - PROPOSED SEWER LINE (SIZE AS SHOWN)
  - EXISTING UTILITY (AS SHOWN)
  - CROSS GUTTER
  - WHEELCHAIR RAMP
  - CUT OR FILL SLOPE
  - PROPOSED PAVEMENT AREA
  - PROPOSED ELEVATION (DESCRIPTION AS SHOWN)
  - EXISTING ELEVATION (DESCRIPTION AS SHOWN)
  - FUTURE DESIGN ELEVATION (DESCRIPTION AS SHOWN)
  - LOT NUMBER
  - PAD ELEVATION
  - FINISHED FLOOR ELEVATION
  - EXISTING PAVEMENT TO BE REMOVED AND REPLACED
  - PHASE LINE
  - SIGHT VISIBILITY RESTRICTION ZONES PER STD. DWS 2011 (NOTHING OVER 24" IN HEIGHT ALLOWED IN SIZE EXCEPT TRAFFIC CONTROL DEVICES)
  - 6" SCREEN WALL
  - STEM WALL
  - RETAINING WALL



**PRIVATE STREET NOTE**  
ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

**FOR ALL GRADING AND STREET SECTION SEE DETAIL SHEET SHEET # D1 AND D2 FOR UTILITY QUANTITIES SEE SHEET # U1 AND ALL NOTES SEE THE GENERAL NOTES SHEET # C3**



**CURVE TABLE**

| CURVE | RADIUS | DELTA    | LENGTH | TANGENT |
|-------|--------|----------|--------|---------|
| C2    | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C3    | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C4    | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C5    | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C6    | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C7    | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C8    | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C9    | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C10   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C11   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C12   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C13   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C14   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C15   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C16   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C17   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C18   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C19   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C20   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C21   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C22   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C23   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C24   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C25   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C26   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C27   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C28   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C29   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C30   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C31   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C32   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C33   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C34   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C35   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C36   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C37   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C38   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C39   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C40   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C41   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C42   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C43   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C44   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C45   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C46   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C47   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C48   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C49   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C50   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C51   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C52   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C53   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C54   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C55   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C56   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C57   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C58   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C59   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C60   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C61   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C62   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C63   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C64   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C65   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C66   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C67   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C68   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C69   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C70   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C71   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C72   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C73   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C74   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C75   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C76   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C77   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C78   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C79   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C80   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C81   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C82   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C83   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C84   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C85   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C86   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C87   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C88   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C89   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C90   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C91   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C92   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C93   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C94   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C95   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C96   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C97   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C98   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C99   | 15.00' | 90.0000° | 23.56' | 15.00'  |
| C100  | 15.00' | 90.0000° | 23.56' | 15.00'  |

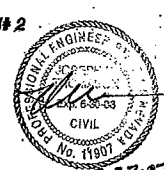
**BENCHMARK**  
CITY OF LAS VEGAS VERTICAL CONTROL POINT "6LY90 34NES", BEING A RIVET AND PLATE IN THE TOP OF CURB AT THE SOUTHWEST CORNER OF ANN ROAD AND RAINBOW.

**ELEVATION: 2325.54 (FEET)**  
708.8256 (METERS)

**CITY OF LAS VEGAS VERTICAL CONTROL v.2002 BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).**

**BASIS OF BEARINGS**  
SOUTH 89°13'48" WEST, BEING THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 27, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., BEING THE CENTERLINE OF ANN ROAD AS RECORDED IN BOOK 88 OF PLATS, AT PAGE 1, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.

DI#1 AND DI#2



APPROVED FOR CONSTRUCTION on 7/12/2011  
3 of 4  
LAS VEGAS VALLEY WATER DISTRICT PROJECT # 111012 DATE 10/7/49/14

THOMSON  
CONSULTING  
ENGINEERS

3161 E. WARM SPRINGS ROAD, SUITE 200  
LAS VEGAS, NEVADA 89120  
702-932-6125 FAX: 702-932-6129

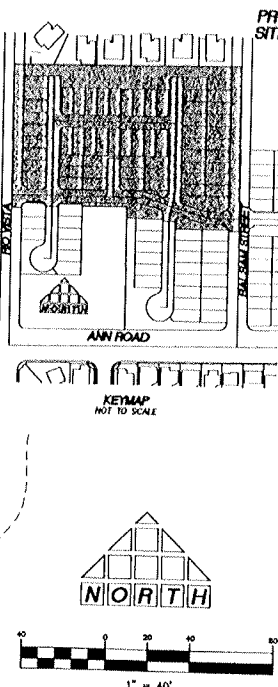
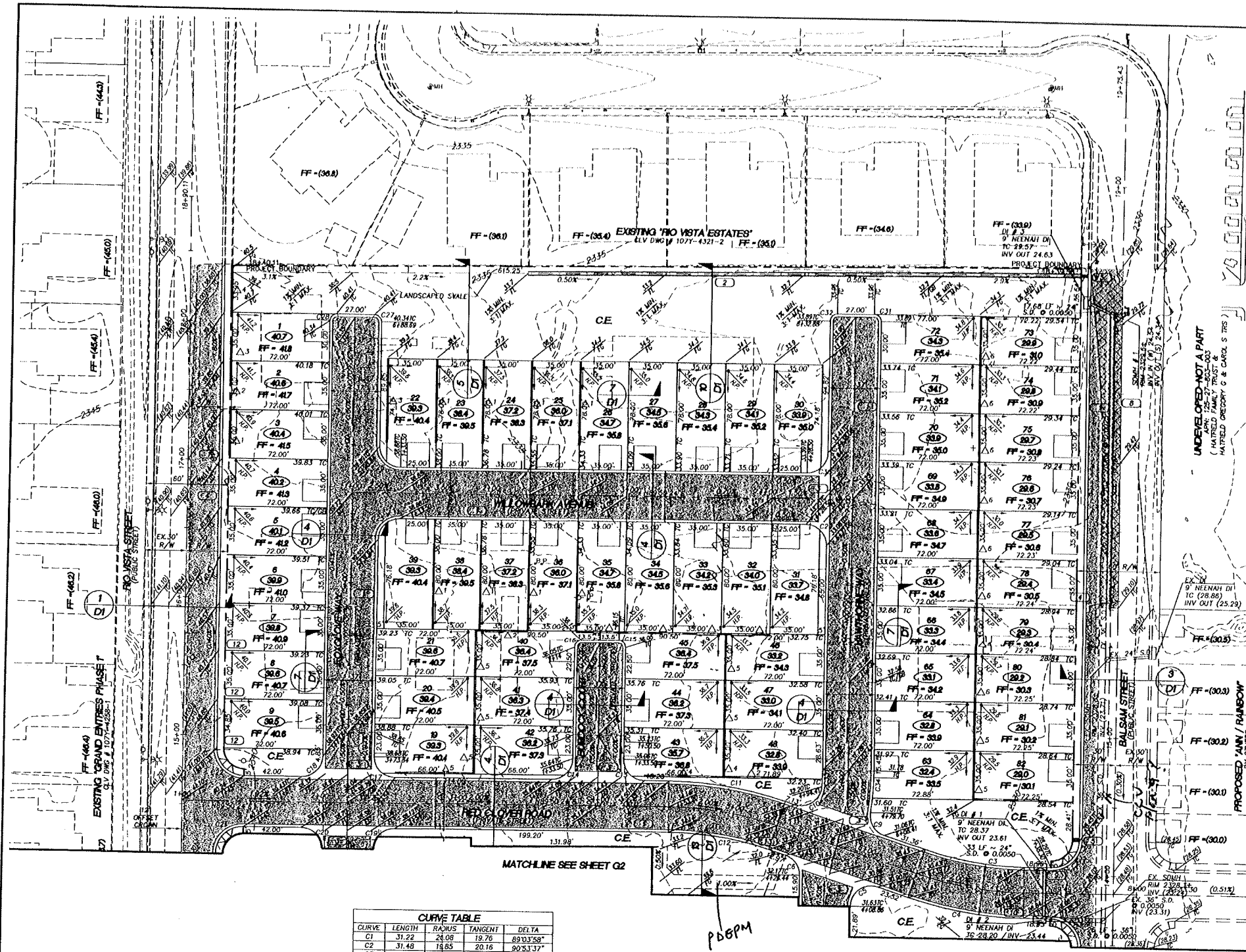
SILVER DOLLAR LAND CO., LLC  
TOSCANA

PLAN AND PROFILE  
ROSE ANGEL AVENUE

11 of 18

10749/14

10/7/49/14



- LEGEND**
- PROPERTY LINE / RIGHT-OF-WAY
  - "L" TYPE CURB AND GUTTER
  - "A" TYPE CURB
  - EXISTING CURB AND GUTTER
  - PROPOSED WATER LINE (SIZE AS SHOWN)
  - PROPOSED SEWER LINE (SIZE AS SHOWN)
  - EXISTING UTILITY (AS SHOWN)
  - CROSS GUTTER
  - WHEELCHAIR RAMP
  - CUT OR FILL SLOPE
  - PROPOSED PAVEMENT AREA
  - PROPOSED ELEVATION (DESCRIPTION AS SHOWN)
  - EXISTING ELEVATION (DESCRIPTION AS SHOWN)
  - FUTURE DESIGN ELEVATION (DESCRIPTION AS SHOWN)
  - LOT NUMBER
  - PAD ELEVATION
  - FINISHED FLOOR ELEVATION
  - EXISTING PAVEMENT TO BE REMOVED AND REPLACED
  - PHASE LINE
  - SIGHT VISIBILITY RESTRICTION ZONES PER STD. DNG. 201.1 (NOTHING OVER 24" IN HEIGHT ALLOWED IN SVZ EXCEPT TRAFFIC CONTROL DEVICES)
  - 6" SCREEN WALL
  - STEM WALL
  - RETAINING WALL

**CONSTRUCTION NOTES**

- CONSTRUCT "L" TYPE CURB AND GUTTER PER CCASD 216
- CONSTRUCT FLUME PER DETAIL ON SHEET D1
- CONSTRUCT CROSS GUTTER PER CCASD 228
- CONSTRUCT 5' SIDEWALK PER CCASD 234
- CONSTRUCT SIDEWALK UNDERDRAIN PER CCASD 236
- CONSTRUCT SIDEWALK RAMP PER CCASD 235 SEE TABLE FOR LENGTHS
- CONSTRUCT DEPRESSED CURB PER CCASD 227
- SAWCUT AND MATCH EXISTING
- CONSTRUCT 9" DROP INLET PER DETAIL SHEET D2 INV = 23.61, DEPTH = 4.26'
- CONSTRUCT 9" DROP INLET PER DETAIL SHEET D2 INV = 23.44, DEPTH = 4.26'
- CONSTRUCT FENCE PER DETAIL SHEET D2
- 8" CARU WALL SOLID GROUPED COURSES ALONG BACK OF SIDEWALK PER DETAIL SHEET D2
- CONSTRUCT BOLLARDS PER DETAIL SHEET D2

**RETAINING WALL HEIGHT**

| ITEM # | PAD DIFFERENCE                          | RET. WALL HEIGHT (4 COURSES) |
|--------|-----------------------------------------|------------------------------|
| 1      | 51 LF ~ 24"                             | 8" (1 crs)                   |
| 2      | 233 LF ~ 36"                            | 1" (2 crs)                   |
| 3      | 890 LF ~ 8" CMU SOLID GROUPED STEM WALL | 2" (3 crs)                   |
| 4      | 445 LF ~ 6" MIN. CONCRETE PAVEMENT      | 1.51-2.17 2" (4 crs)         |
| 5      |                                         | 2.18-2.83 3" (5 crs)         |
| 6      |                                         | 2.84-3.5 4" (6 crs)          |
| 7      |                                         | 3.51-4.17 4" (7 crs)         |
| 8      |                                         | 4.18-4.83 5" (8 crs)         |
| 9      |                                         | 4.84-5.5 6" (9 crs)          |
| 10     |                                         | 5.51-6.17 6" (10 crs)        |
| 11     |                                         | 6.18-6.83 7" (11 crs)        |

**SIDEWALK RAMP DATA PER STD. DNG. 235**

| A | B    | TYPE |
|---|------|------|
| 1 | 8'   | 1    |
| 2 | 4.5' | 1    |

**CURVE TABLE**

| CURVE | LENGTH | RADIUS | TANGENT | DELTA      |
|-------|--------|--------|---------|------------|
| C1    | 31.22  | 28.08  | 19.76   | 89°03'58"  |
| C2    | 31.48  | 18.85  | 20.16   | 90°33'37"  |
| C3    | 23.64  | 249.69 | 37.09   | 16°35'55"  |
| C4    | 65.45  | 274.81 | 43.07   | 17°48'54"  |
| C5    | 28.34  | 12.00  | 20.74   | 108°14'14" |
| C6    | 18.79  | 15.00  | 10.85   | 71°45'46"  |
| C7    | 25.37  | 18.50  | 14.84   | 74°32'02"  |
| C8    | 180.00 | 46.50  | 53.12   | 25°43'01"  |
| C9    | 20.87  | 15.00  | 12.52   | 79°42'55"  |
| C10   | 27.36  | 15.00  | 19.37   | 104°30'00" |
| C11   | 85.42  | 268.50 | 43.08   | 181°3'44"  |
| C12   | 73.65  | 239.50 | 37.14   | 181°3'44"  |
| C13   | 23.56  | 12.00  | 15.02   | 90°00'00"  |
| C14   | 23.56  | 15.00  | 15.00   | 90°00'00"  |
| C15   | 7.85   | 5.00   | 5.00    | 90°00'00"  |
| C16   | 7.85   | 5.00   | 5.00    | 90°00'00"  |
| C17   | 23.56  | 15.00  | 15.00   | 90°00'00"  |
| C18   | 23.56  | 15.00  | 15.00   | 90°00'00"  |
| C19   | 23.56  | 15.00  | 15.00   | 90°00'00"  |
| C20   | 23.56  | 15.00  | 15.00   | 90°00'00"  |
| C21   | 31.42  | 20.00  | 20.00   | 90°00'00"  |
| C22   | 31.42  | 20.00  | 20.00   | 90°00'00"  |
| C23   | 25.37  | 18.50  | 14.84   | 74°32'02"  |
| C24   | 179.92 | 40.50  | 53.23   | 25°43'02"  |
| C25   | 23.56  | 15.00  | 15.00   | 90°00'00"  |
| C26   | 23.56  | 15.00  | 15.00   | 90°00'00"  |
| C27   | 7.85   | 5.00   | 5.00    | 90°00'00"  |
| C28   | 7.85   | 5.00   | 5.00    | 90°00'00"  |
| C29   | 23.56  | 15.00  | 15.00   | 90°00'00"  |
| C30   | 23.56  | 15.00  | 15.00   | 90°00'00"  |
| C31   | 7.85   | 5.00   | 5.00    | 90°00'00"  |
| C32   | 7.85   | 5.00   | 5.00    | 90°00'00"  |
| C33   | 11.81  | 181.50 | 5.91    | 3°43'44"   |
| C34   | 30.30  | 218.50 | 15.17   | 7°26'40"   |

**NOTE**

ALL PRIVATE STREETS ARE P.U.E. PUBLIC DRAINAGE EASEMENTS AND PUBLIC SEWER EASEMENTS TO BE PRIVATELY MAINTAINED BY H.O.A.

**FLOOD CONTROL**

| ITEM # | DESCRIPTION                             |
|--------|-----------------------------------------|
| 1      | 51 LF ~ 24" STORM DRAIN                 |
| 2      | 233 LF ~ 36" STORM DRAIN                |
| 3      | 890 LF ~ 8" CMU SOLID GROUPED STEM WALL |
| 4      | 445 LF ~ 6" MIN. CONCRETE PAVEMENT      |

**DROP INLET DATA**

| NUMBER | TYPE   | NO. GRATES | LENGTH | DEPTH | INV. OUT |
|--------|--------|------------|--------|-------|----------|
| 1      | NEENAH | 3          | 9'     | 4.26' | 2323.61  |
| 2      | NEENAH | 3          | 9'     | 4.26' | 2323.44  |
| 3      | NEENAH | 3          | 9'     | 4.44' | 2324.63  |

**BENCHMARK**  
CITY OF LAS VEGAS VERTICAL CONTROL POINT "BLV90 34NES", BEING A RIVET AND PLATE IN THE TOP OF CURB AT THE SOUTHWEST CORNER OF ANN ROAD AND RAINBOW.  
ELEVATION: 2325.54 (FEET)  
708.8256 (METERS)  
CITY OF LAS VEGAS VERTICAL CONTROL v.2002 BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

**BASIS OF BEARINGS**  
SOUTH 89°13'48" WEST, BEING THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 27, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., BEING THE CENTERLINE OF ANN ROAD AS RECORDED IN BOOK 68 OF PLATS, AT PAGE 1, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.

Call before you dig  
1-800-227-2600  
UNDERGROUND UTILITY LOCATING SERVICE (DMS)

Call before you dig  
1-702-227-2923  
NEVADA POWER CORPORATION  
UTILITY SERVICES DEPARTMENT

Call before you dig  
1-702-227-2923  
UNDERGROUND UTILITY LOCATING SERVICE (DMS)

**THOMSON CONSULTING ENGINEERS**  
3161 E. WASH. SPRINGS ROAD, SUITE 200  
LAS VEGAS, NEVADA 89119  
702-932-6125 FAX: 702-932-6129

**SILVER DOLLAR LAND CO., LLC**  
TOSCANA  
GRADING PLAN

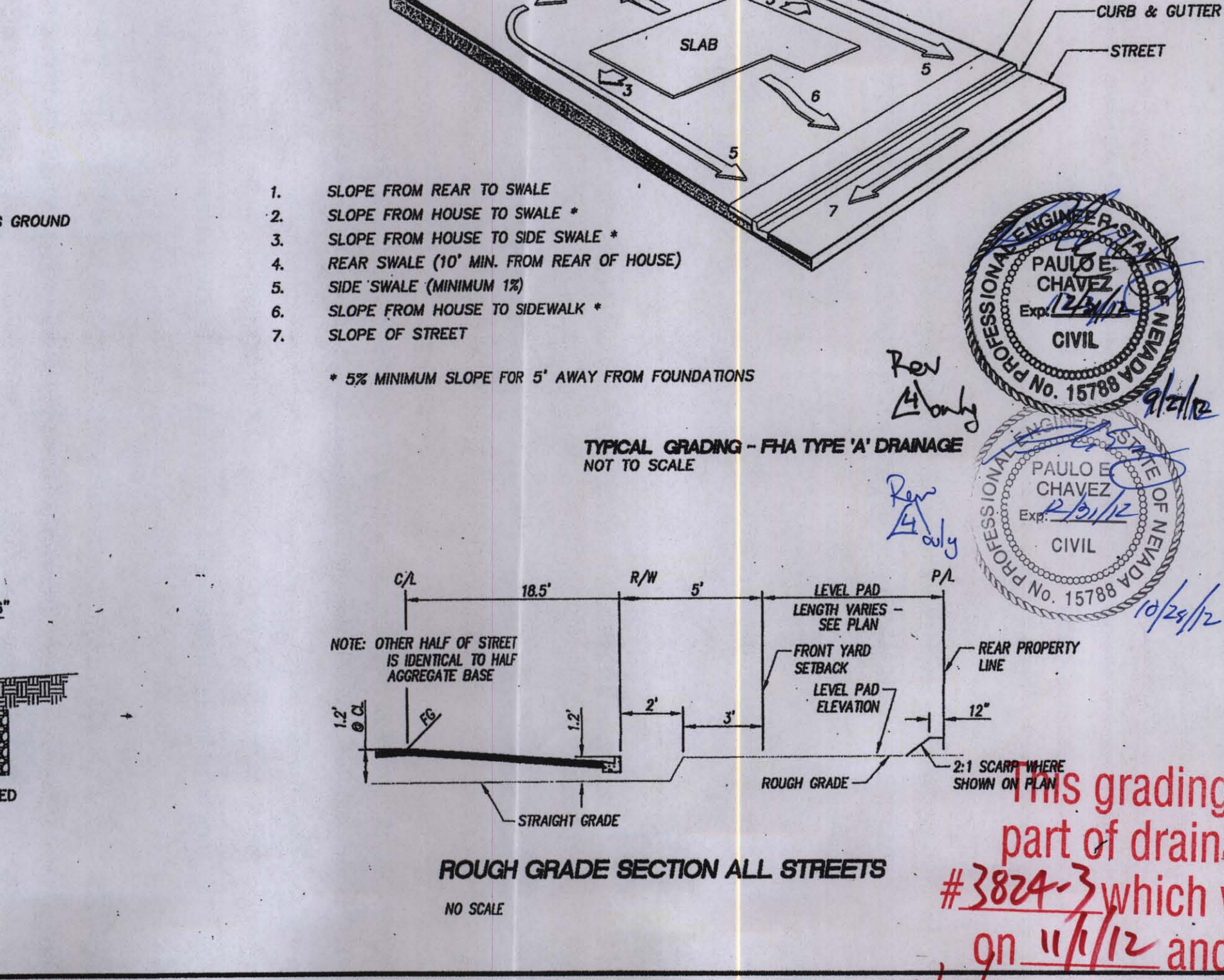
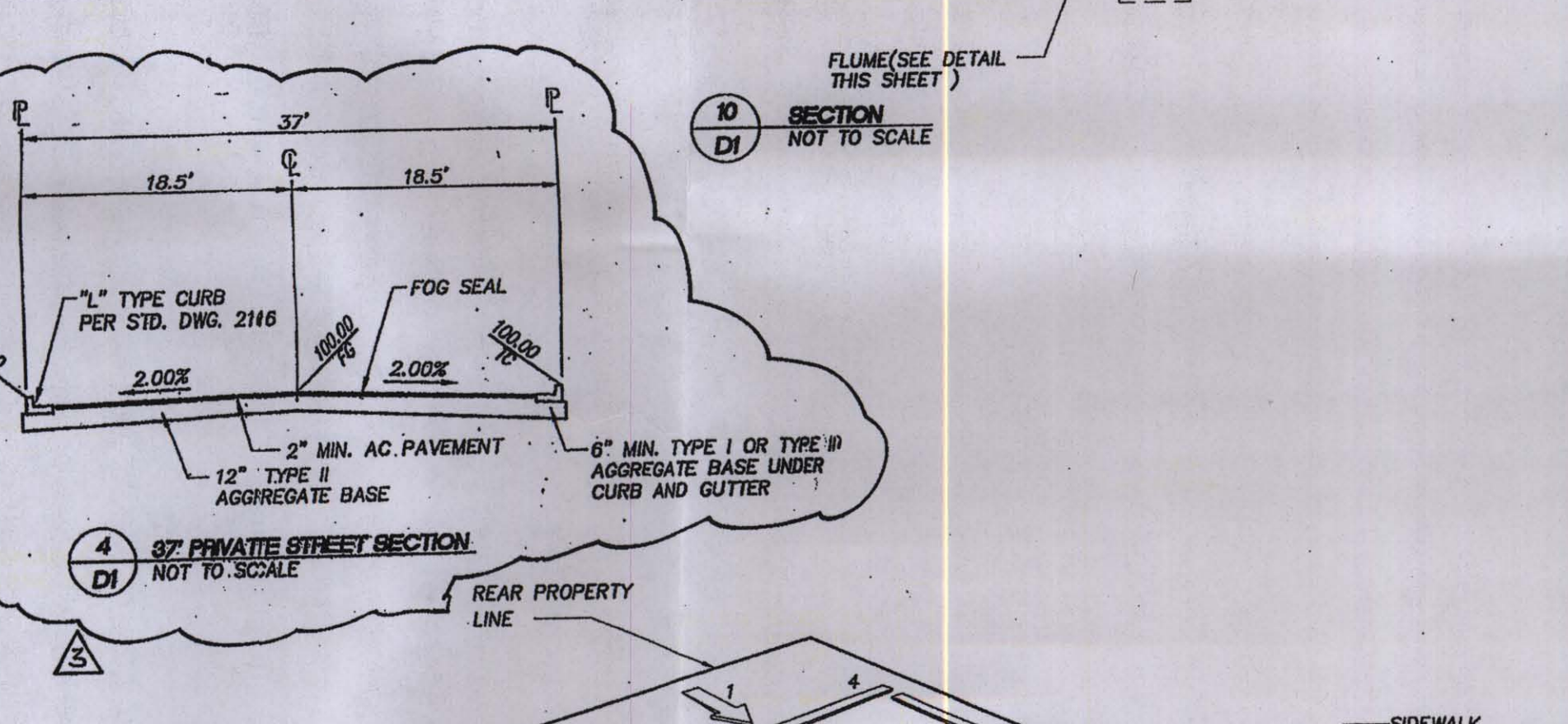
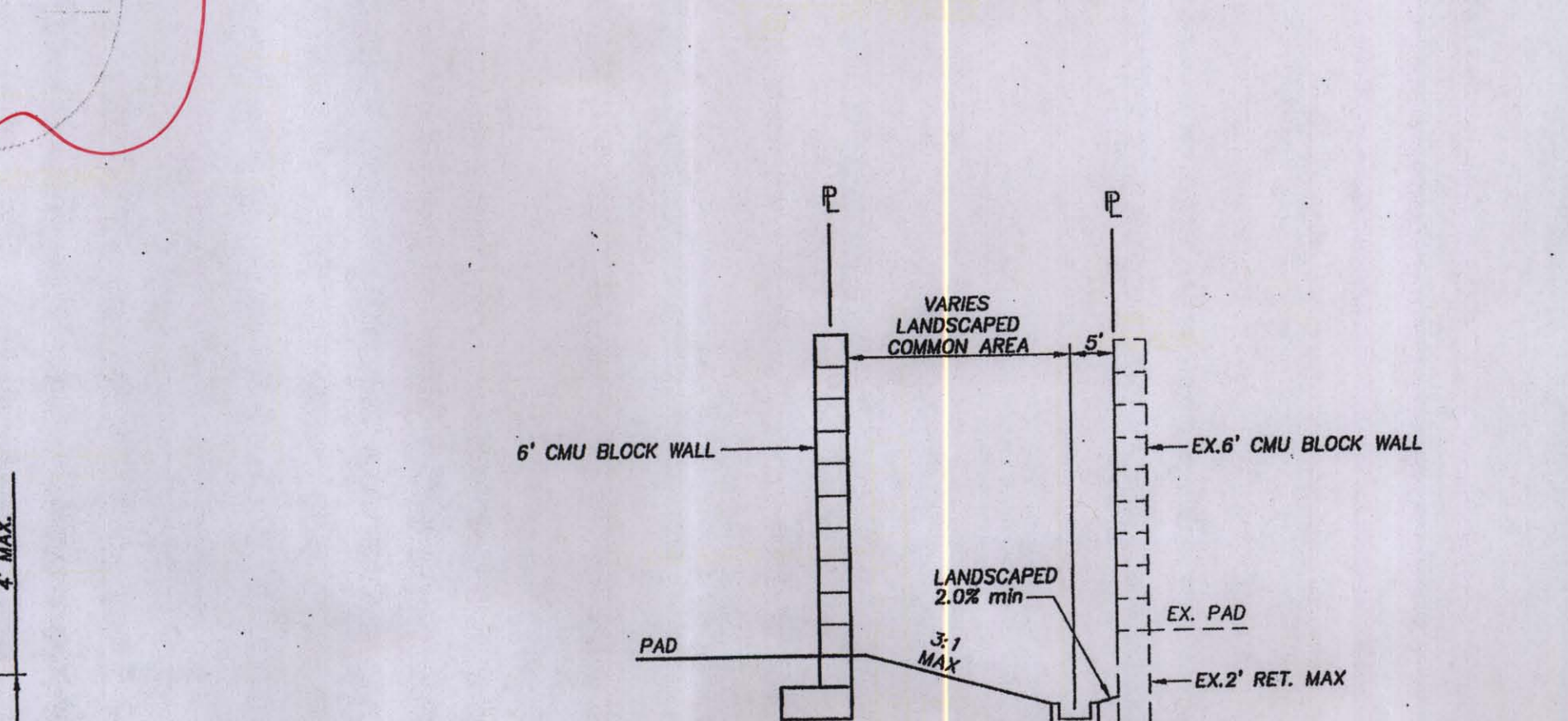
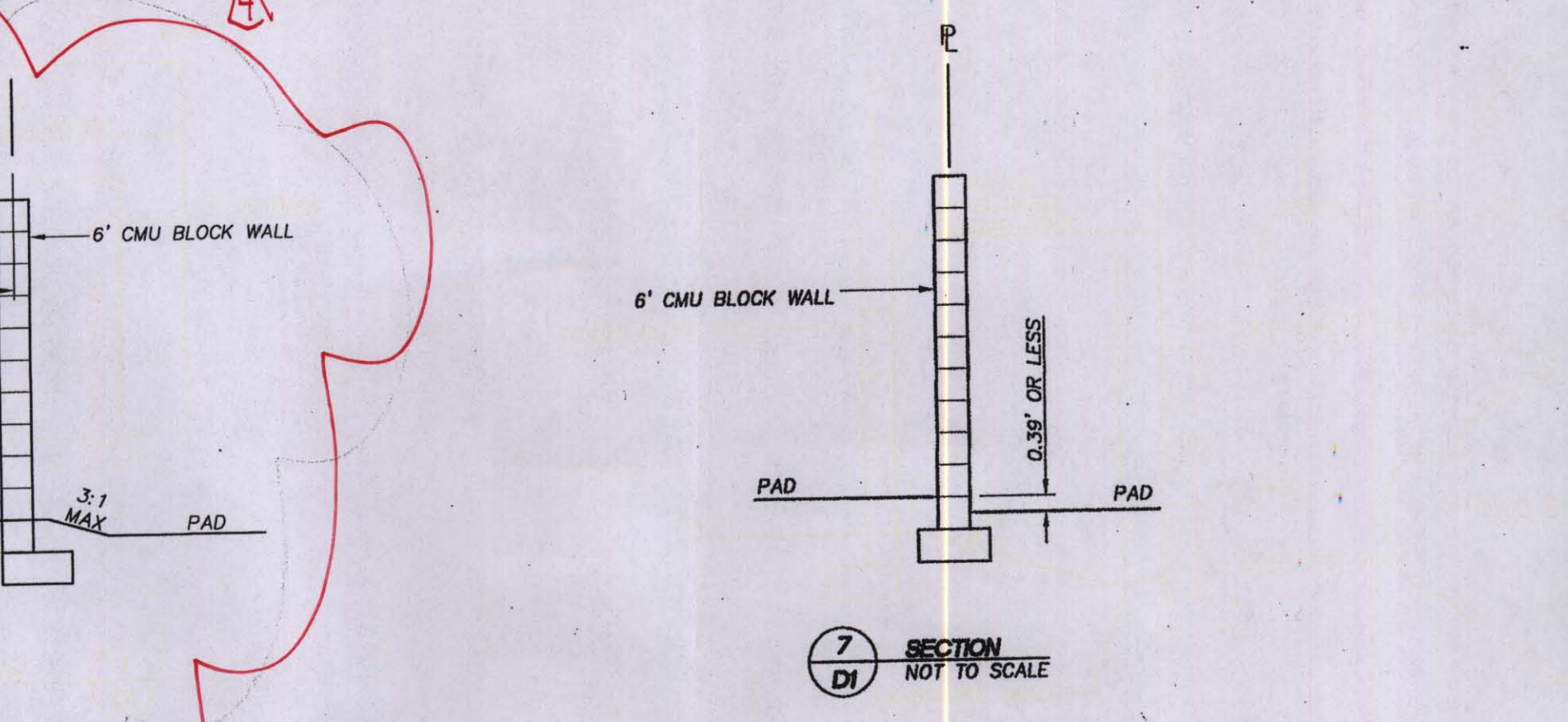
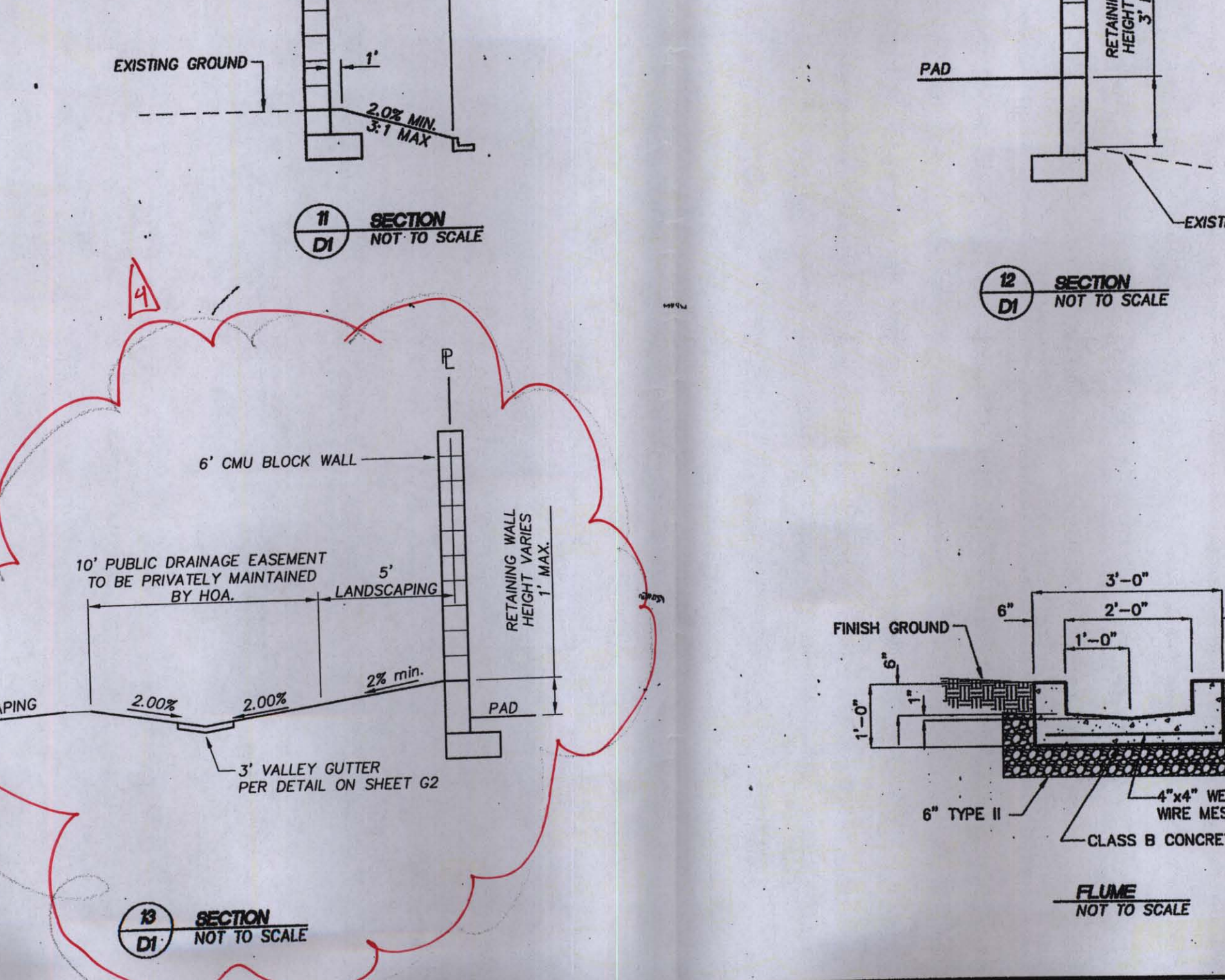
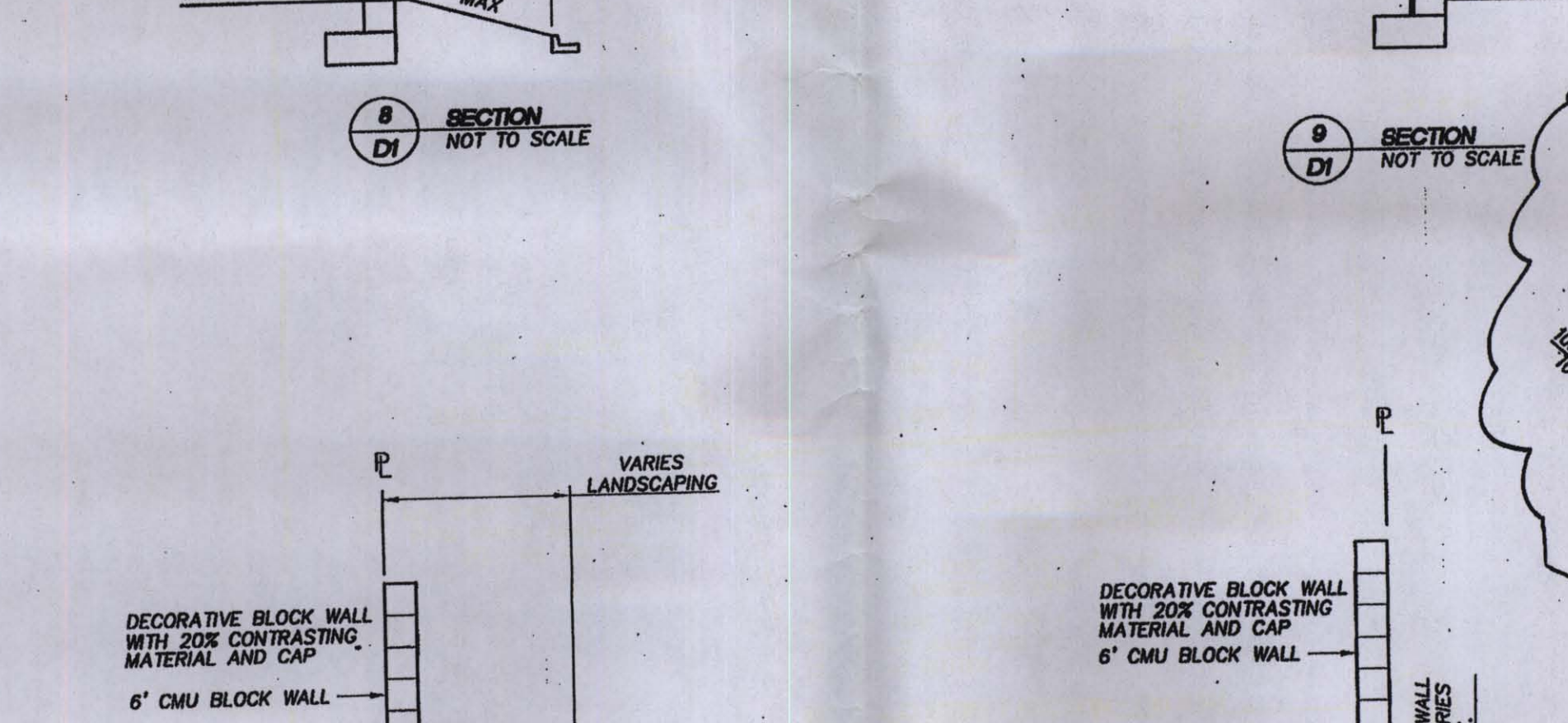
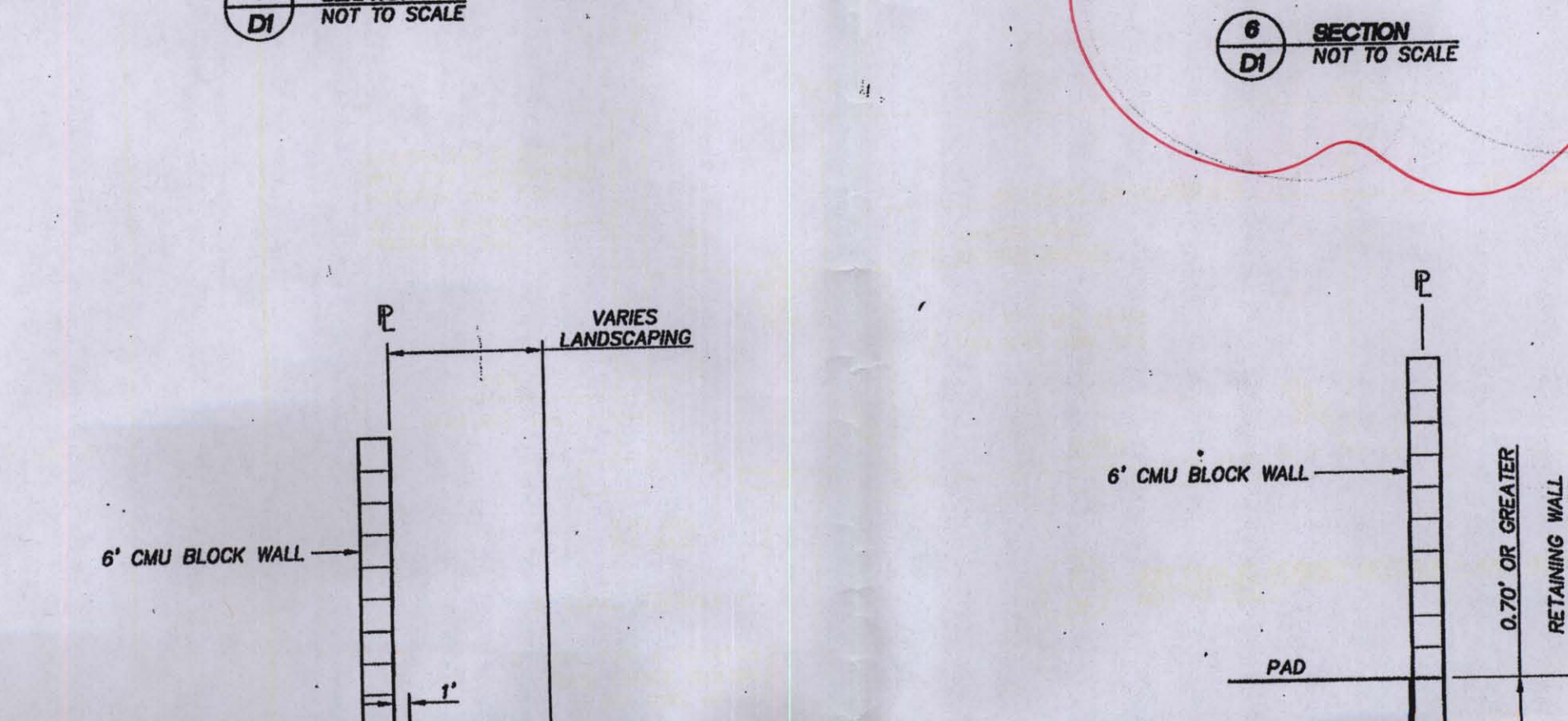
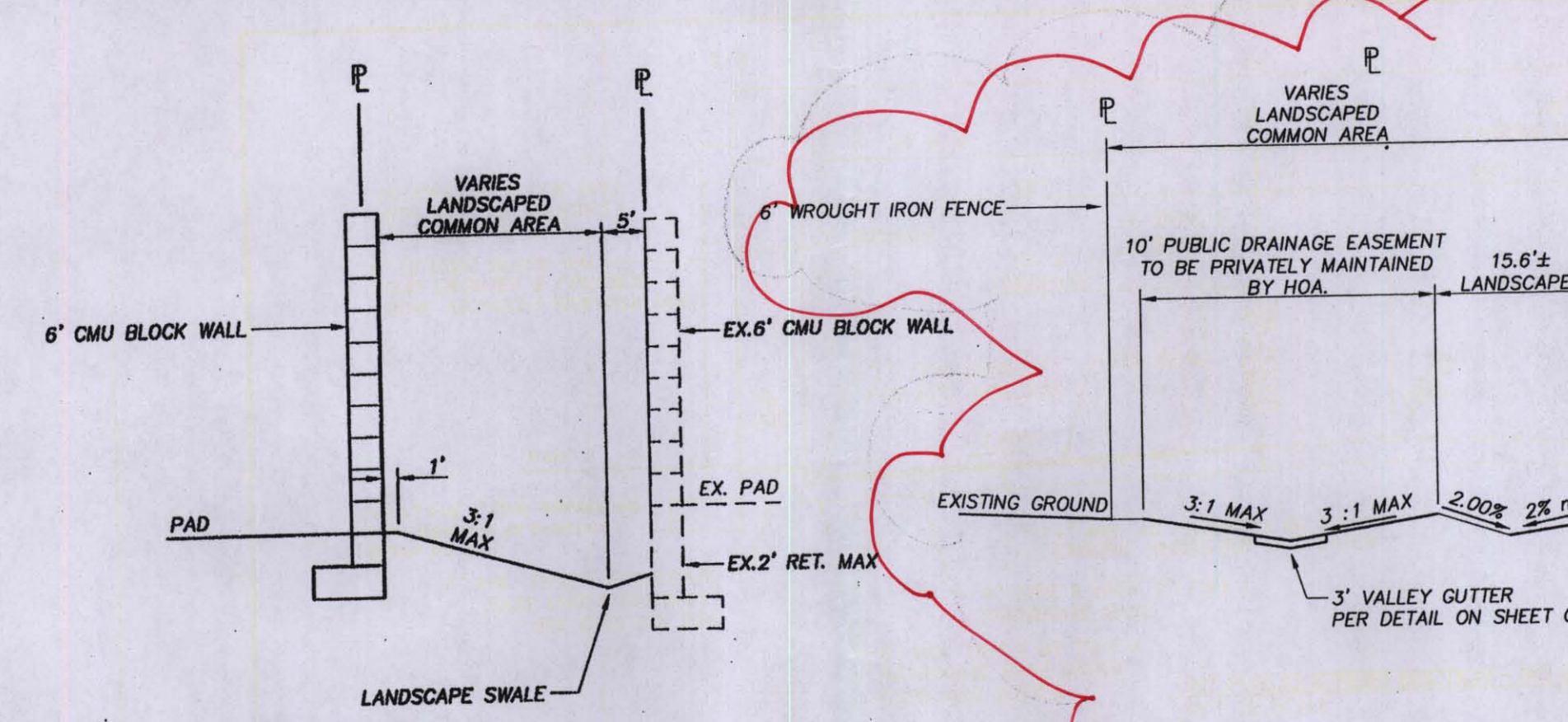
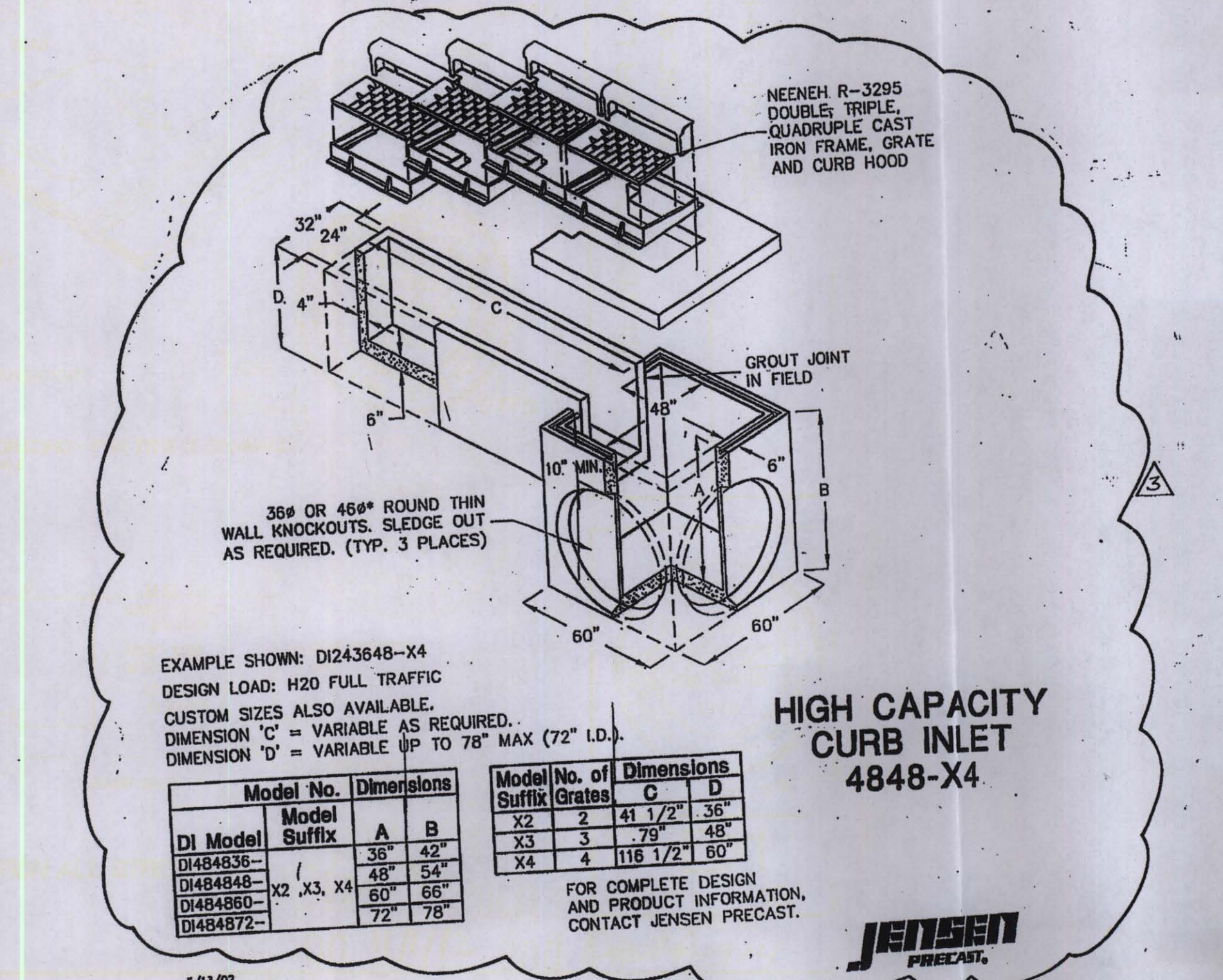
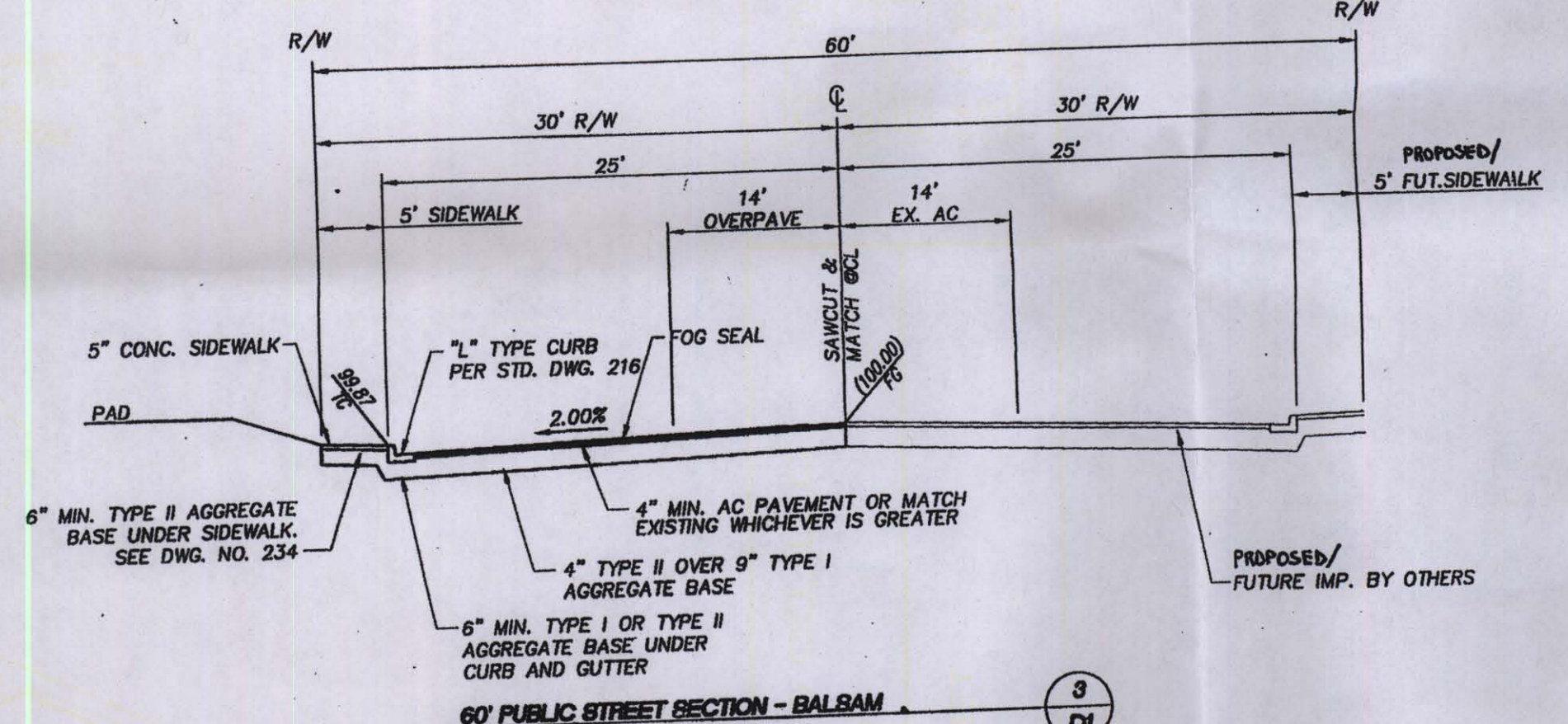
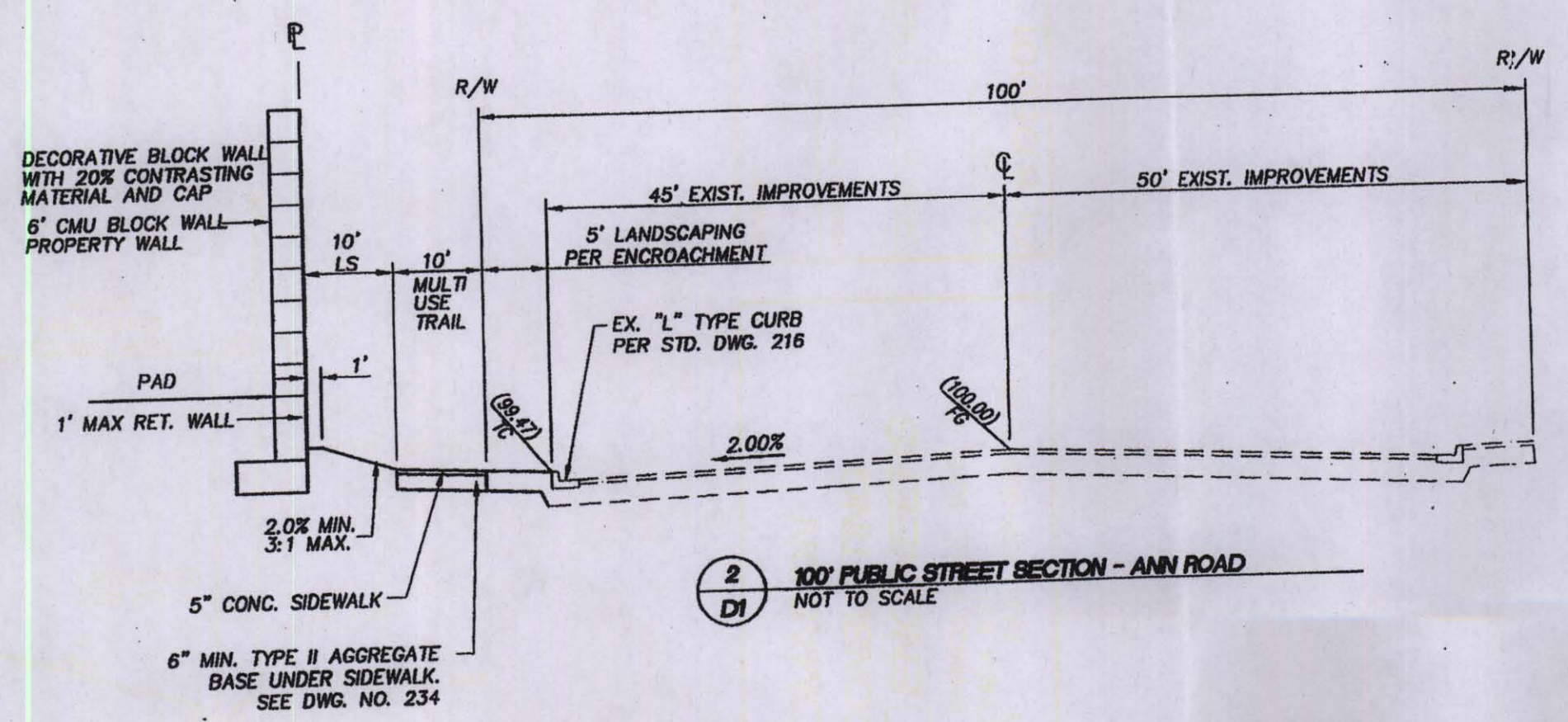
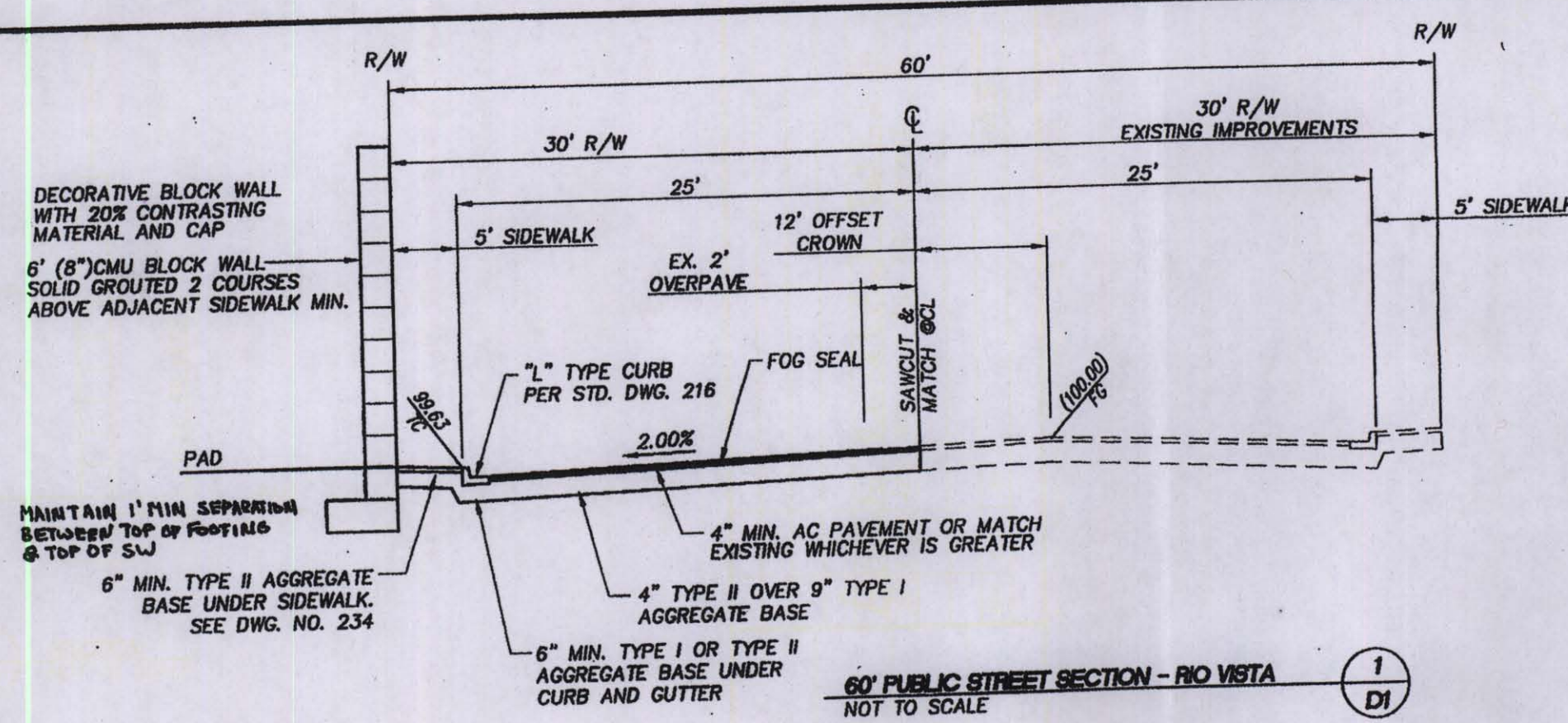
This grading plan is a part of drainage study #3624 which was received on 6/28/05 and approved on 6/21/05

**DRAINAGE STUDY NOTE**  
I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE THE CITY OF LAS VEGAS

JOSEPH D. THOMSON, P.E. NO. 11907

DATE

5 of 18



**THOMASON CONSULTING ENGINEERS**

3161 E. WARM SPRINGS ROAD, SUITE 200  
LAS VEGAS, NEVADA 89120  
702-852-6125

**SILVER DOLLAR LAND CO., LLC**

**TOSCANA**

**DETAIL SHEET**

DESIGNED BY: **PAULO E. CHAVEZ**

CHECKED BY: **PAULO E. CHAVEZ**

PROJECT NO: **008.05001**

SCALE: 1"=40'

REV. DATE BY

**PAULO E. CHAVEZ**

**CIVIL**

EXPIRATION DATE: 12/31/12

**JOSEPH D. THOMASON**

**CIVIL**

EXPIRATION DATE: 12/31/12

**PAULO E. CHAVEZ**

**CIVIL**

EXPIRATION DATE: 12/31/12

**JOSEPH D. THOMASON**

**CIVIL**

EXPIRATION DATE: 12/31/12

**PAULO E. CHAVEZ**

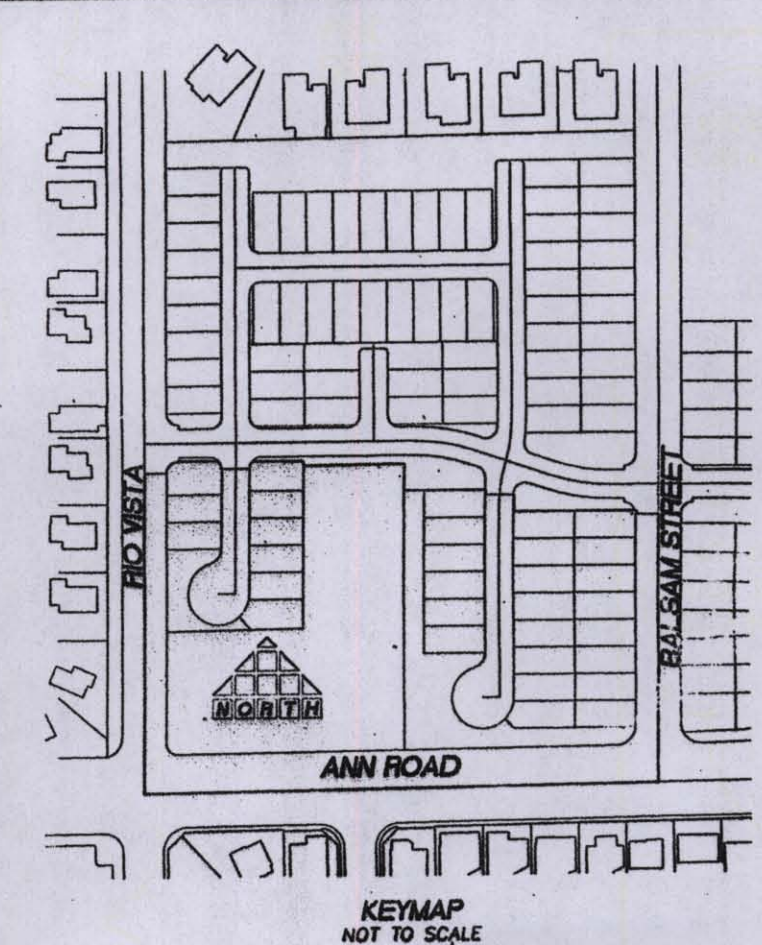
**CIVIL**

EXPIRATION DATE: 12/31/12

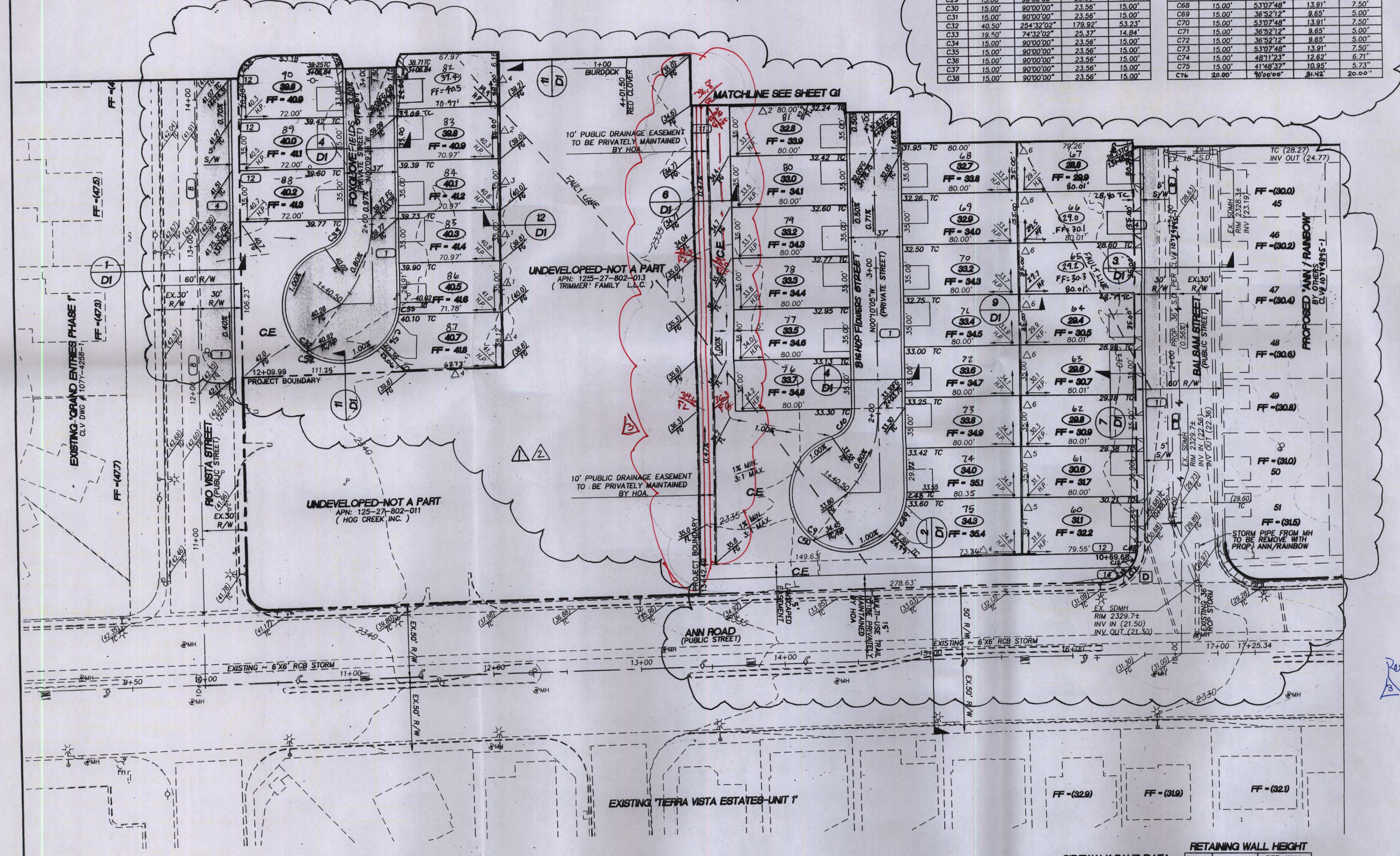
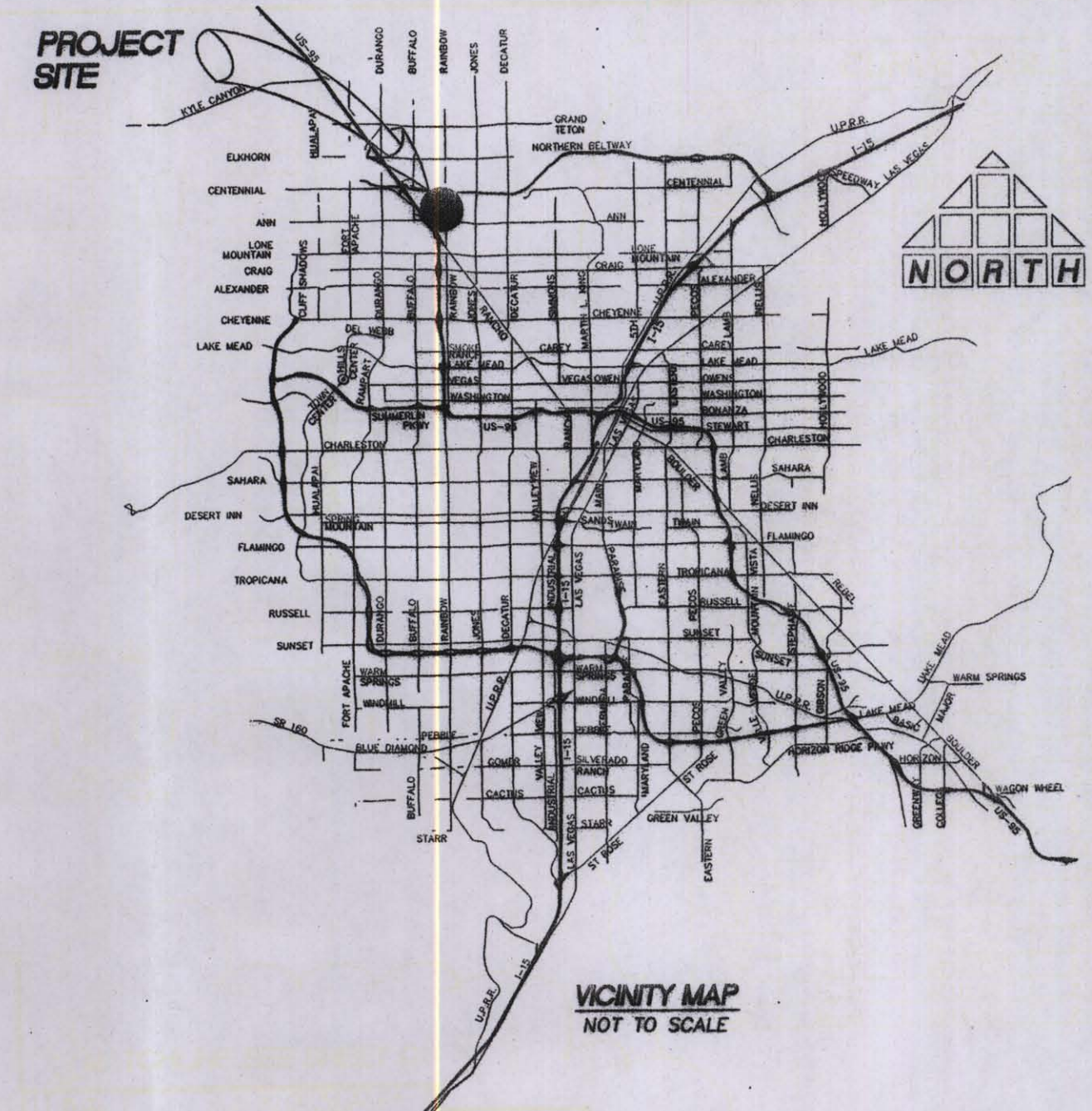
**JOSEPH D. THOMASON**

**CIVIL**

EXPIRATION DATE: 12/31/12



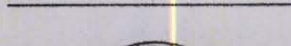
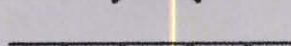
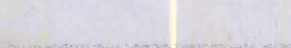
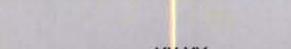
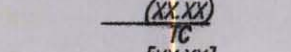
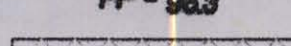
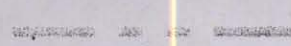
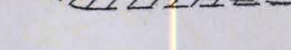
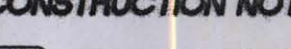
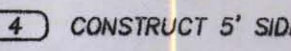
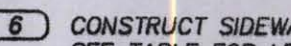
| CURVE | RADIUS  | DELTA      | LENGTH  | TANGENT |
|-------|---------|------------|---------|---------|
| C39   | 5'00"   | 90°00'00"  | 7.85'   | 5'00"   |
| C40   | 5'00"   | 90°00'00"  | 7.85'   | 5'00"   |
| C41   | 15'00"  | 90°00'00"  | 23.46'  | 15'00"  |
| C42   | 15'00"  | 90°25'19"  | 26.25'  | 16.37'  |
| C43   | 25'00"  | 10°55'57"  | 4.77'   | 2'36"   |
| C44   | 11'30"  | 18°17'11"  | 4.79'   | 2.42'   |
| C45   | 15'00"  | 71°41'49"  | 18.77'  | 12.80'  |
| C46   | 200'00" | 15°35'47"  | 58.44'  | 20.84'  |
| C47   | 20'00"  | 0°15'05"   | 0.98'   | 0.44'   |
| C48   | 40'50"  | 7°29'18"   | 5.59'   | 2.65'   |
| C49   | 40'50"  | 36°28'15"  | 25.76'  | 13.34'  |
| C50   | 40'50"  | 210°24'26" | 148.85' | 148.17' |
| C51   | 15'00"  | 41°48'37"  | 10.95'  | 5.73'   |
| C52   | 15'00"  | 48°11'23"  | 12.62'  | 6.71'   |
| C53   | 15'00"  | 53°07'48"  | 13.91'  | 7.50'   |
| C54   | 15'00"  | 36°52'12"  | 9.65'   | 5.00'   |
| C55   | 40'50"  | 11°31'27"  | 8.15'   | 4.09'   |
| C56   | 40'50"  | 36°13'01"  | 13.24'  | 6.33'   |
| C57   | 15'00"  | 48°11'23"  | 14.65'  | 17.05'  |
| C58   | 15'00"  | 41°48'37"  | 10.95'  | 5.73'   |
| C59   | 15'00"  | 48°11'23"  | 12.62'  | 6.71'   |
| C60   | 15'00"  | 48°11'23"  | 12.62'  | 6.71'   |
| C61   | 15'00"  | 41°48'37"  | 10.95'  | 5.73'   |
| C62   | 15'00"  | 41°48'37"  | 10.95'  | 5.73'   |
| C63   | 15'00"  | 48°11'23"  | 12.62'  | 6.71'   |
| C64   | 218'50" | 50°59'58"  | 19.58'  | 9.79'   |
| C65   | 218'50" | 2°48'41"   | 0.72'   | 5.36'   |
| C66   | 181'50" | 20°04'42"  | 6.37'   | 3.19'   |
| C67   | 181'50" | 143°26'42" | 5.44'   | 2.22'   |
| C68   | 15'00"  | 53°07'48"  | 13.91'  | 7.50'   |
| C69   | 15'00"  | 36°52'12"  | 9.65'   | 5.00'   |
| C70   | 15'00"  | 53°07'48"  | 13.91'  | 7.50'   |
| C71   | 15'00"  | 36°52'12"  | 9.65'   | 5.00'   |
| C72   | 15'00"  | 36°52'12"  | 9.65'   | 5.00'   |
| C73   | 15'00"  | 53°07'48"  | 13.91'  | 7.50'   |
| C74   | 15'00"  | 48°11'23"  | 12.62'  | 6.71'   |
| C75   | 15'00"  | 41°48'37"  | 10.95'  | 5.73'   |
| C76   | 20'00"  | 0°09'09"   | 0.14'   | 20.00"  |



**SIDEWALK RAMP DATA**  
PER STD. DWG. 235

|          | A    | B    | TYPE |
|----------|------|------|------|
| <b>A</b> | 8'   | 8'   | I    |
| <b>B</b> | 4.5  | 9.5' | I    |
| <b>C</b> | 9.5' | 4.5  | I    |
| <b>D</b> | 8'   | 8'   | II   |

| RETAINING WALL HEIGHT |                |                                 |
|-----------------------|----------------|---------------------------------|
|                       | PAD DIFFERENCE | RET. WALL HEIGHT<br>(# COURSES) |
| $\Delta 1$            | .4-.7          | 8" (1 crs)                      |
| $\Delta 2$            | .71-.83        | 1'4" (2 crs)                    |
| $\Delta 3$            | .84-1.5        | 2' (3 crs)                      |
| $\Delta 4$            | 1.51-2.17      | 2'8" (4 crs)                    |
| $\Delta 5$            | 2.18-2.83      | 3'4" (5 crs)                    |
| $\Delta 6$            | 2.84-3.5       | 4' (6 crs)                      |
| $\Delta 7$            | 3.51-4.17      | 4'8" (7 crs)                    |
| $\Delta 8$            | 4.18-4.83      | 5'4" (8 crs)                    |
| $\Delta 9$            | 4.84-5.5       | 6' (9 crs)                      |
| $\Delta 10$           | 5.51-6.17      | 6'8" (10 crs)                   |
| $\Delta 11$           | 6.18-6.83      | 7'4" (11 crs)                   |

- LEGEND**
- |                                                                                       |                                                                                                                                               |
|---------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
|    | PROPERTY LINE / RIGHT-OF-WAY                                                                                                                  |
|    | "L" TYPE CURB AND GUTTER                                                                                                                      |
|    | "A" TYPE CURB                                                                                                                                 |
|    | EXISTING CURB AND GUTTER                                                                                                                      |
|    | PROPOSED WATER LINE (SIZE AS SHOWN)                                                                                                           |
|    | PROPOSED SEWER LINE (SIZE AS SHOWN)                                                                                                           |
|    | EXISTING UTILITY (AS SHOWN)                                                                                                                   |
|    | CROSS GUTTER                                                                                                                                  |
|    | WHEELCHAIR RAMP                                                                                                                               |
|    | CUT OR FILL SLOPE                                                                                                                             |
|  | PROPOSED PAVEMENT AREA                                                                                                                        |
|  | PROPOSED ELEVATION (DESCRIPTION AS SHOWN)                                                                                                     |
|  | EXISTING ELEVATION (DESCRIPTION AS SHOWN)                                                                                                     |
|  | FUTURE DESIGN ELEVATION (DESCRIPTION AS SHOWN)                                                                                                |
|  | LOT NUMBER                                                                                                                                    |
|  | PAD ELEVATION                                                                                                                                 |
|  | FINISHED FLOOR ELEVATION                                                                                                                      |
|  | EXISTING PAVEMENT TO BE REMOVED AND REPLACED                                                                                                  |
|  | PHASE LINE                                                                                                                                    |
|  | SIGHT VISIBILITY RESTRICTION ZONES<br>PER STD. DMG. 201.1<br>(NOTHING OVER 24" IN HEIGHT<br>ALLOWED IN SVZ EXCEPT TRAFFIC<br>CONTROL DEVICES) |
|  | 6' SCREEN WALL                                                                                                                                |
|  | STEM WALL                                                                                                                                     |
|  | RETAINING WALL                                                                                                                                |

- ## CONSTRUCTION NOTES

  - 1 CONSTRUCT "L" TYPE CURB AND GUTTER PER CCASD 216
  - 2 CONSTRUCT FLUME PER DETAIL ON SHEET D1
  - 3 CONSTRUCT CROSS GUTTER PER CCASD 228
  - 4 CONSTRUCT 5' SIDEWALK PER CCASD 234
  - 5 CONSTRUCT SIDEWALK UNDERDRAIN PER CCASD 236
  - 6 CONSTRUCT SIDEWALK CASE 1 RAMP PER CCASD 235  
SEE TABLE FOR LENGTHS
  - 7 CONSTRUCT DEPRESSIONED CURB PER CCASD 227
  - 8 SAWCUT AND MATCH EXISTING
  - 9 CONSTRUCT 9' DROP INLET PER DETAIL SHEET D2  
INV = 23.61, DEPTH = 4.26'
  - 10 CONSTRUCT 9' DROP INLET PER DETAIL SHEET D2  
INV = 23.44, DEPTH = 4.26'
  - 11 CONSTRUCT FENCE PER DETAIL SHEET D1
  - 12 8" CMU WALL SOLID GROUTED 2 COURSES ABOVE BACK OF SIDEWALK
  - 13 CONSTRUCT BOLLARDS PER DETAIL SHEET D2
  - 14 CONSTRUCT CASE II SIDEWALK RAMP PER CCASD 235  
SEE TABLE FOR LENGTHS
  - 15 CONSTRUCT 9' DROP INLET PER DETAIL SHEET D2  
INV = 24.02, DEPTH = 4.44'

DRAINAGE STUDY NOTE

I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE THE CITY OF LAS VEGAS DRAINAGE STUDY # DS3824

This grading plan is a part of drainage study

IS IN CONFORMANCE WITH THE SHEET  
THE TITLE OF LAS VEGAS **Q12**  
on 11/1/12 and Rejected on 11/8/12  
DATE DRAWING NO.  
11/5/12 Page 2 107144914

**PRIVATE STREET NOTE**  
ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS, AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

**BASIS OF BEARINGS**  
SOUTH 89°13'48" WEST, BEING THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 27, TOWNSHIP 19 SOUTH, RANGE 60N EAST, M.D.M., BEING THE CENTERLINE OF ANN ROAD AS RECORDED IN BOOK 68 OF PLATS, AT PAGE 1, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.

**BENCHMARK**  
CITY OF LAS VEGAS VERTICAL CONTROL POINT "8LV90 34NES", BEING  
A RIVET AND PLATE IN THE TOP OF CURB AT THE SOUTHWEST  
CORNER OF ANN ROAD AND RAINBOW.

ELEVATION: 2325.54 (FEET)  
708.8256 (METERS)  
CITY OF LAS VEGAS VERTICAL CONTROL v.2002 BASED ON NORTH  
AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

|                                                                                                                                                                  |                                                                                                                                                                                  |                                                                                                                                                                                                   |                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| <p><b>Avoid cutting underground utility lines. It's costly.</b></p> <p><b>Call before you Dig</b></p> <p><b>1-800-227-2600</b><br/>UNDERGROUND SERVICE (USA)</p> | <p><b>Avoid overhead power line contact.</b></p> <p><b>Call before you Overhead</b></p> <p><b>1-702-227-2929</b><br/>NEVADA POWER ENVIRONMENT<br/>SAFETY SERVICES DEPARTMENT</p> | <p><b>AVOID BETTING UNDERGROUND</b><br/>NATURAL GAS, OIL, WATER<br/>SERVICES TO GOVERNMENT<br/>AND INDUSTRY</p> <p><b>Call before you Dig</b></p> <p><b>1-702-455-7511</b><br/>1-702-229-6611</p> | <p><b>Call before you Dig</b></p> <p><b>1-702-455-7511</b><br/>1-702-229-6611</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|

**T** ☐ **THOMASON**  
**C** ☐ **CONSULTING**  
**E** ☐ **ENGINEERS**

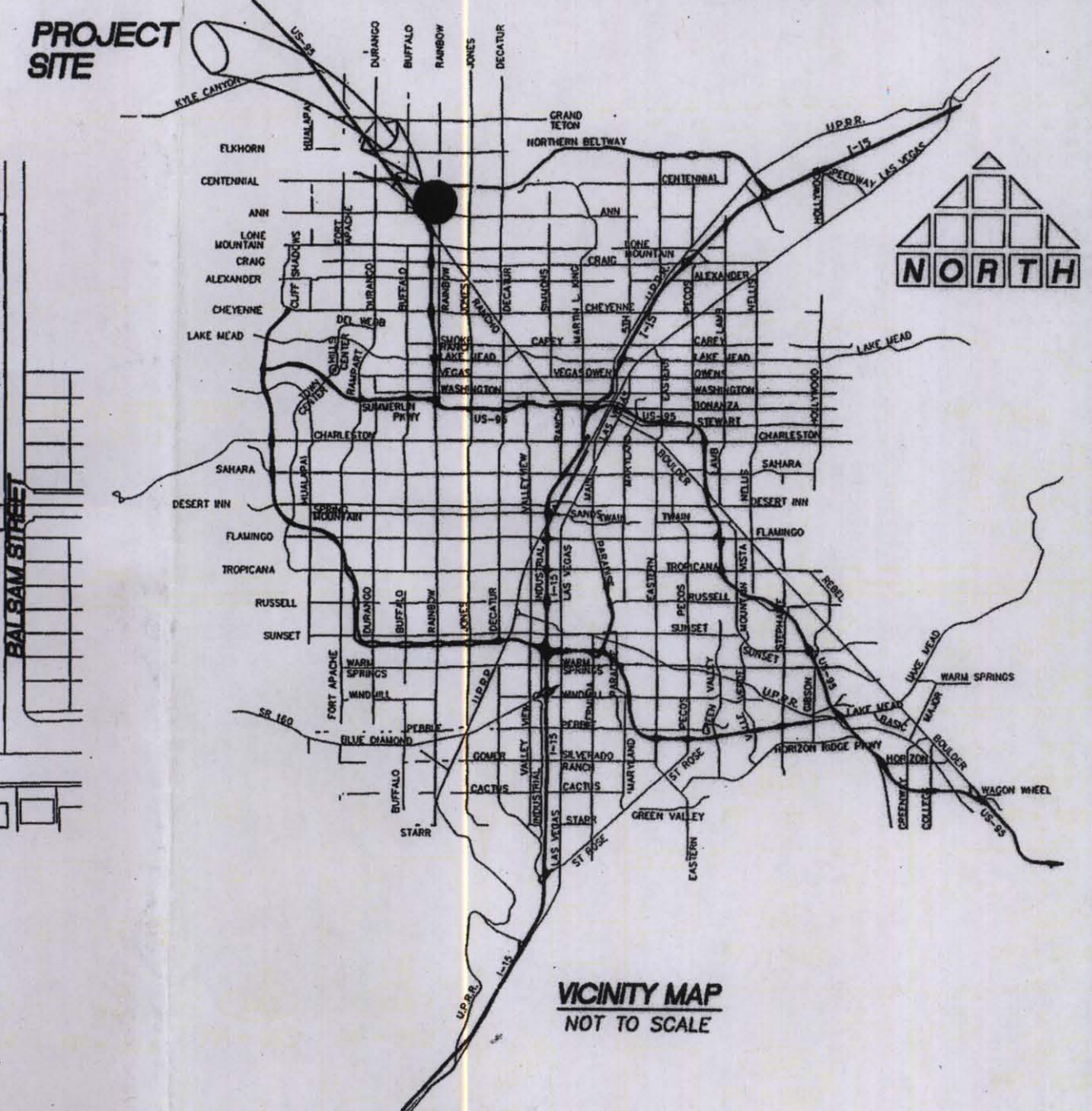
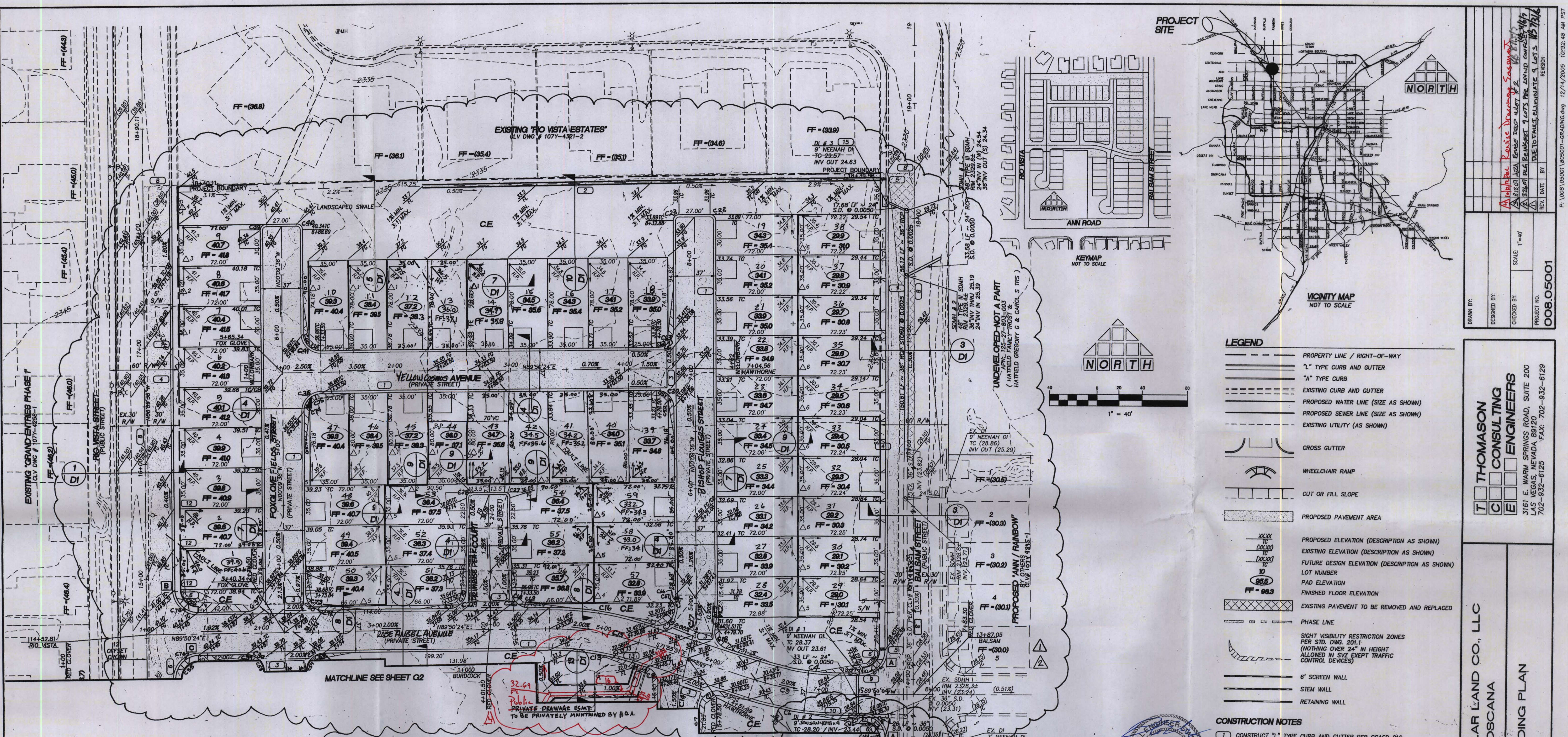
3161 E. WARM SPRINGS ROAD, SUITE 200  
LAS VEGAS, NEVADA 89120 FAX: 702-932-6120  
702-932-6125

SILVER DOLLAR LAND CO., LLC  
TOSCANA  
GRADING PLAN



plan is a

008.05001



- LEGEND**
- PROPERTY LINE / RIGHT-OF-WAY
  - "L" TYPE CURB AND GUTTER
  - "A" TYPE CURB
  - EXISTING CURB AND GUTTER
  - PROPOSED WATER LINE (SIZE AS SHOWN)
  - PROPOSED SEWER LINE (SIZE AS SHOWN)
  - EXISTING UTILITY (AS SHOWN)
  - CROSS GUTTER
  - WHEELCHAIR RAMP
  - CUT OR FILL SLOPE
  - PROPOSED PAVEMENT AREA
  - PROPOSED ELEVATION (DESCRIPTION AS SHOWN)
  - EXISTING ELEVATION (DESCRIPTION AS SHOWN)
  - FUTURE DESIGN ELEVATION (DESCRIPTION AS SHOWN)
  - LOT NUMBER
  - PAD ELEVATION
  - FINISHED FLOOR ELEVATION
  - EXISTING PAVEMENT TO BE REMOVED AND REPLACED
  - PHASE LINE
  - SIGHT VISIBILITY RESTRICTION ZONES PER STD. DWG. 201.1 (NOTHING OVER 24" IN HEIGHT ALLOWED IN SVZ EXCEPT TRAFFIC CONTROL DEVICES)
  - 6" SCREEN WALL
  - STEM WALL
  - RETAINING WALL

- CONSTRUCTION NOTES**
- CONSTRUCT "L" TYPE CURB AND GUTTER PER CCASD 216
  - CONSTRUCT FLUME PER DETAIL ON SHEET D1
  - CONSTRUCT CROSS GUTTER PER CCASD 228
  - CONSTRUCT 5" SIDEWALK PER CCASD 234
  - CONSTRUCT SIDEWALK UNDERDRAIN PER CCASD 236
  - CONSTRUCT SIDEWALK CASE 1 RAMP PER CCASD 235 SEE TABLE FOR LENGTHS
  - CONSTRUCT DEEPENED CURB PER CCASD 227
  - SAW CUT AND MATCH EXISTING
  - CONSTRUCT 9" DROP INLET PER DETAIL SHEET D2 INV = 23.61, DEPTH = 4.26'
  - CONSTRUCT 9" DROP INLET PER DETAIL SHEET D2 INV = 23.44, DEPTH = 4.26'
  - CONSTRUCT FENCE PER DETAIL SHEET D1
  - 8" CMU WALL SOLID GROUTED 2 COURSES ABOVE BACK OF SIDEWALK
  - CONSTRUCT BOLLARDS PER DETAIL SHEET D2
  - CONSTRUCT CASE II SIDEWALK RAMP PER CCASD 235 SEE TABLE FOR LENGTHS
  - CONSTRUCT 9" DROP INLET PER DETAIL SHEET D2 INV = 23.44, DEPTH = 4.26'
  - Construct 3" Valley Gutter per Detail on Sheet D2.

**DRAINAGE STUDY NOTE**

I CERTIFY THAT THIS GRADING PLAN IS IN ACCORDANCE WITH THE APPROVED DRAINAGE STUDY ON FILE IN THE CITY OF LAS VEGAS DRAINAGE STUDY # D53824

JOSEPH D. THOMASON, P.E. No. 11907 DATE 11/5/12

**PRIVATE STREET NOTE**

ALL PRIVATE STREETS ARE P.U.E., PUBLIC SEWER EASEMENTS, AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED BY HOA.

**BENCHMARK**

CITY OF LAS VEGAS VERTICAL CONTROL POINT "BLV90 34NES", BEING A RIVET AND PLATE IN THE TOP OF CURB AT THE SOUTHWEST CORNER OF ANN ROAD AND RAINBOW.

**ELEVATION: 2325.54 (FEET)**

CITY OF LAS VEGAS VERTICAL CONTROL v.2002 BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).

**BASIS OF BEARINGS**

SOUTH 89°13'48" WEST, BEING THE SOUTH LINE OF THE SOUTHEAST QUARTER (SE 1/4) OF SECTION 27, TOWNSHIP 19 SOUTH, RANGE 60 EAST, M.D.M., BEING THE CENTERLINE OF ANN ROAD AS RECORDED IN BOOK 68 OF PLATS, AT PAGE 1, OFFICIAL RECORDS OF CLARK COUNTY, NEVADA.

**101160 Rpm**

Call before you Dig  
1-800-227-2600  
Underground Service (USA)

Call before you Overhead  
1-702-227-2929  
Underground Service (USA)

88261 Rpm 941954

| CURVE TABLE |         |            |         |         |
|-------------|---------|------------|---------|---------|
| CURVE       | RADIUS  | DELTA      | LENGTH  | TANGENT |
| C1          | 25.00'  | 88°23'44"  | 39.01'  | 24.74'  |
| C2          | 15.00'  | 90°00'00"  | 23.56'  | 15.00'  |
| C3          | 15.00'  | 90°00'00"  | 23.56'  | 15.00'  |
| C4          | 231.50' | 181°14'05" | 73.68'  | 372.12' |
| C5          | 268.50' | 181°14'05" | 85.45'  | 433.09' |
| C6          | 181.50' | 42°13'44"  | 13.81'  | 6.91'   |
| C7          | 15.00'  | 71°45'46"  | 18.79'  | 10.85'  |
| C8          | 40.50'  | 254°32'02" | 178.92' | 53.23'  |
| C9          | 19.50'  | 74°32'02"  | 25.37'  | 14.84'  |
| C10         | 15.00'  | 103°52'39" | 27.20'  | 19.16'  |
| C11         | 25.00'  | 120°22'28" | 5.25'   | 2.64'   |
| C12         | 231.50' | 181°14'05" | 73.68'  | 372.12' |
| C13         | 25.00'  | 181°14'05" | 73.68'  | 372.12' |
| C14         | 200.00' | 169°08'31" | 56.35'  | 288.38' |
| C15         | 25.00'  | 181°14'05" | 73.68'  | 372.12' |
| C16         | 268.50' | 181°14'05" | 85.45'  | 433.09' |
| C17         | 200.00' | 169°08'31" | 56.35'  | 288.38' |
| C18         | 15.00'  | 79°42'55"  | 20.87'  | 12.52'  |
| C19         | 218.50' | 75°46'40"  | 30.30'  | 155.17' |
| C20         | 15.00'  | 90°00'00"  | 23.56'  | 15.00'  |
| C21         | 15.00'  | 90°00'00"  | 23.56'  | 15.00'  |
| C22         | 5.00'   | 90°00'00"  | 7.85'   | 5.00'   |
| C23         | 5.00'   | 90°00'00"  | 7.85'   | 5.00'   |
| C24         | 181.50' | 74°32'02"  | 25.37'  | 14.84'  |
| C25         | 15.00'  | 90°00'00"  | 23.56'  | 15.00'  |
| C26         | 15.00'  | 90°00'00"  | 23.56'  | 15.00'  |
| C27         | 5.00'   | 90°00'00"  | 7.85'   | 5.00'   |
| C28         | 5.00'   | 90°00'00"  | 7.85'   | 5.00'   |
| C29         | 15.00'  | 90°00'00"  | 23.56'  | 15.00'  |
| C30         | 15.00'  | 90°00'00"  | 23.56'  | 15.00'  |
| C31         | 15.00'  | 90°00'00"  | 23.56'  | 15.00'  |
| C32         | 40.50'  | 254°32'02" | 178.92' | 53.23'  |
| C33         | 19.50'  | 74°32'02"  | 25.37'  | 14.84'  |
| C34         | 15.00'  | 90°00'00"  | 23.56'  | 15.00'  |
| C35         | 15.00'  | 90°00'00"  | 23.56'  | 15.00'  |
| C36         | 15.00'  | 90°00'00"  | 23.56'  | 15.00'  |
| C37         | 15.00'  | 90°00'00"  | 23.56'  | 15.00'  |
| C38         | 15.00'  | 90°00'00"  | 23.56'  | 15.00'  |

| CURVE TABLE |         |            |         |         |
|-------------|---------|------------|---------|---------|
| CURVE       | RADIUS  | DELTA      | LENGTH  | TANGENT |
| C39         | 5.00'   | 90°00'00"  | 7.85'   | 5.00'   |
| C40         | 5.00'   | 90°00'00"  | 7.85'   | 5.00'   |
| C41         | 15.00'  | 90°00'00"  | 23.56'  | 15.00'  |
| C42         | 25.00'  | 66°23'19"  | 28.98'  | 16.37'  |
| C43         | 25.00'  | 105°55'57" | 4.77'   | 2.39'   |
| C44         | 15.00'  | 181°14'05" | 73.68'  | 372.12' |
| C45         | 15.00'  | 71°45'46"  | 18.79'  | 10.85'  |
| C46         | 200.00' | 135°52'57" | 55.44'  | 22.90'  |
| C47         | 200.00' | 015°05'05" | 0.88'   | 0.44'   |
| C48         | 40.50'  | 72°19'18"  | 5.29'   | 2.65'   |
| C49         | 40.50'  | 36°28'15"  | 25.78'  | 13.34'  |
| C50         | 40.50'  | 210°34'29" | 148.85' | 148.17' |
| C51         | 15.00'  | 41°48'37"  | 10.95'  | 5.73'   |
| C52         | 15.00'  | 48°11'23"  | 12.62'  | 6.71'   |
| C53         | 15.00'  | 53°07'48"  | 13.91'  | 7.50'   |
| C54         | 15.00'  | 36°52'12"  | 9.65'   | 5.00'   |
| C55         | 40.50'  | 11°31'27"  | 8.15'   | 4.09'   |
| C56         | 40.50'  | 36°52'12"  | 28.60'  | 13.24'  |
| C57         | 40.50'  | 206°47'34" | 146.17' | 170.05' |
| C58         | 15.00'  | 41°48'37"  | 10.95'  | 5.73'   |
| C59         | 15.00'  | 48°11'23"  | 12.62'  | 6.71'   |
| C60         | 15.00'  | 48°11'23"  | 12.62'  | 6.71'   |
| C61         | 15.00'  | 41°48'37"  | 10.95'  | 5.73'   |
| C62         | 15.00'  | 41°48'37"  | 10.95'  | 5.73'   |
| C63         | 15.00'  | 48°11'23"  | 12.62'  | 6.71'   |
| C64         | 218.50' | 50°7'59"   | 19.58'  | 9.78'   |
| C65         | 218.50' | 248°41'    | 10.72'  | 5.36'   |
| C66         | 181.50' | 270°42'    | 6.37'   | 3.19'   |
| C67         | 181.50' | 143°02'    | 5.44'   | 2.72'   |
| C68         | 15.00'  | 53°07'48"  | 13.91'  | 7.50'   |
| C69         | 15.00'  | 36°52'12"  | 9.65'   | 5.00'   |
| C70         | 15.00'  | 53°07'48"  | 13.91'  | 7.50'   |
| C71         | 15.00'  | 36°52'12"  | 9.65'   | 5.00'   |
| C72         | 15.00'  | 36°52'12"  | 9.65'   | 5.00'   |
| C73         | 15.00'  | 53°07'48"  | 13.91'  | 7.50'   |
| C74         | 15.00'  | 48°11'23"  | 12.62'  | 6.71'   |
| C75         | 15.00'  | 41°48'37"  | 10.95'  | 5.73'   |
| C76         | 20.00'  | 99°00'00"  | 31.42'  | 20.00'  |

| RETAINING WALL HEIGHT |                              |  |  |
|-----------------------|------------------------------|--|--|
| PAD DIFFERENCE        | RET. WALL HEIGHT (# COURSES) |  |  |
| Δ1 ~ 4'-7"            | 8" (1 crs)                   |  |  |
| Δ2 7'-8"              | 1'4" (2 crs)                 |  |  |
| Δ3 8'-1.5"            | 2' (3 crs)                   |  |  |
| Δ4 1.51'-2.17'        | 2'8" (4 crs)                 |  |  |
| Δ5 2.18'-2.83'        | 3'4" (5 crs)                 |  |  |
| Δ6 2.84'-3.5"         | 4' (6 crs)                   |  |  |
| Δ7 3.51'-4.17'        | 4'8" (7 crs)                 |  |  |
| Δ8 4.18'-4.83'        | 5'4" (8 crs)                 |  |  |
| Δ9 4.84'-5.5"         | 6' (9 crs)                   |  |  |
| Δ10 5.51'-6.17'       | 6'8" (10 crs)                |  |  |
| Δ11 6.18'-6.83'       | 7'4" (11 crs)                |  |  |

| FLOOD CONTROL |                                         |
|---------------|-----------------------------------------|
| ITEM #        | DESCRIPTION                             |
| 1             | 93 LF ~ 24" STORM DRAIN                 |
| 2             | 233 LF ~ 36" STORM DRAIN                |
| 3             | 890 LF ~ 8" CMU SOLID GROUTED STEM WALL |
| 4             | 445 LF ~ 6" MIN. CONCRETE PAVEMENT      |
| 5             | 140 LF ~ 3" Valley Gutter               |

| SIDEWALK RAMP DATA PER STD. DWG. 235 |               |   |   |
|--------------------------------------|---------------|---|---|
| A                                    | B             | C | D |
| Δ1 ~ 4'-7"                           | 8" (1 crs)    |   |   |
| Δ2 7'-8"                             | 1'4" (2 crs)  |   |   |
| Δ3 8'-1.5"                           | 2' (3 crs)    |   |   |
| Δ4 1.51'-2.17'                       | 2'8" (4 crs)  |   |   |
| Δ5 2.18'-2.83'                       | 3'4" (5 crs)  |   |   |
| Δ6 2.84'-3.5"                        | 4' (6 crs)    |   |   |
| Δ7 3.51'-4.17'                       | 4'8" (7 crs)  |   |   |
| Δ8 4.18'-4.83'                       | 5'4" (8 crs)  |   |   |
| Δ9 4.84'-5.5"                        | 6' (9 crs)    |   |   |
| Δ10 5.51'-6.17'                      | 6'8" (10 crs) |   |   |
| Δ11 6.18'-6.83'                      | 7'4" (11 crs) |   |   |

**EARTHWORK QUANTITIES**

NOTE: RAW VOLUMES ONLY.

CUT: 110.31 CY  
FILL: 89.05 CY  
TOTAL: 2,245 CY (EXPORT)

**THOMASON CONSULTING ENGINEERS**

3161 E. WARM SPRINGS ROAD, SUITE 200  
LAS VEGAS, NEVADA 89120  
702-932-6125 FAX: 702-932-6129

**SILVER DOLLAR LAND CO., LLC**  
TOSCANA

**GRADING PLAN**

JOSEPH D. THOMASON, P.E. No. 11907

11/5/12 Page 1