

DS #:

4939

APN:

163-06-416-004

PROJECT:

HCA Urgent Care - Update to Sahara Center

SUBMITTAL:

1st Submittal

SCANNED BY/DATE:

CHECKED BY/DATE:



CITY OF LAS VEGAS		DATE:
INTER-OFFICE MEMORANDUM		December 19, 2017
TO: Land Development Services Department of Building & Safety		FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
SUBJECT:	Drainage Study for:	COPIES TO:
	HCA-Urgent Care – Update to Sahara Center	MHP Limited
Cross Streets:	NEC of Sahara Avenue & Hualapai Way	Sahara Center LLC
File Number:	F:\Depot\DSMemos\DS4939A.doc	Bart Anderson, P.E., DevCo
Parcel Number:	163-06-416-006	
Zoning Action:		
FEMA Flood Zone	YES NO X	
Proposed Storm Drain	YES NO X	

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal	12/12/2017	12/19/2017	See Comments Below	\$400.00	492112: \$400
TOTAL FEES (LDDRS):				\$400.00	----

REMARKS:

1st Submittal: Update to Sahara Center Pad D

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.
	is conditionally approved subject to Clark County Public Works Department concurrence.

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 Update 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

ays

T/R/S: T21S/R60E/06
AREA Q-06



December 11, 2017

Mr. Albert Sung, P.E., CFM
Flood Control Project Engineer
Department of Public Works
City of Las Vegas
333 N. Rancho Dr.
Las Vegas, NV 89106

RE: Update #5 for Technical Drainage Study for Sahara Center (CLV DS #4606).

Dear Mr. Sung:

Please accept this letter as Update #5 to the Technical Drainage Study for Sahara Center which was previously approved by City of Las Vegas (CLV) on September 4, 2013. The purpose of this update is to inform CLV that a tenant has selected to construct an Urgent Care on Pad D within the existing Sahara Center. The proposed urgent care will be approximately 4,060 sq. ft. in size. Proposed onsite improvements to include removal/installation of curbs, valley gutters and asphalt.

The overall drainage patterns for the site will remain the same with the added improvements mentioned above. Storm flow generated from the site will flow south via existing valley gutter and U-channel and then discharges onto Sahara Avenue. The flow pattern described follows the previously approved drainage study and the subject site is depicted on Figure 6 – Interim/Ultimate Conditions Basin Map as drainage basin OND3. The previously approved hydrologic analysis has been reviewed and deemed valid since the information remains unchanged. The proposed finished floor elevation of 2895.00 remains unchanged from the approved study which meets the minimum depth of flow criteria.

The project grading plan along with the supplemental information from the previously approved drainage study are included in the appendix of this update. Should you have additional questions regarding this update, please feel free to contact me. Thank you.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Thomas', followed by a long, horizontal, looping flourish.

Thomas Regenhard, P.E.

HYDROLOGIC CRITERIA AND DRAINAGE MANUAL
DRAINAGE STUDY INFORMATION FORM

Name of Development: URGENT CARE AT SAHARA CENTER (PAD D) Date: 12-11-2017

Location of Development: a) Descriptive (Cross Streets) North/South: HUALAPAI WY

East/West: SAHARA AVE

b) Section: 6 Township: 21S Range: 60E

c) APN : 163-06-416-006

Name of Owner: SAHARA CENTER LLC

Telephone No.: 7029406930 Fax No.: _____ E-Mail Address: _____

Address: 1215 S FORT APACHE RD, SUITE 120, Las Vegas, NV 89117

Contact Person-Name: THOMAS REGENHARD P.E. Telephone No.: 7028036223

* E-Mail Address: THOMASR@MHPLIMITED.COM Fax No.: _____

Firm: MHP LIMITED

Address: 6440 SKY POINTE DR #140-385, LAS VEGAS, NV 89131

Type of Land Development/Land Disturbance Process:

☐	Rezoning	☐	Subdivision Map	☐	Clearing and Grading Only
☐	Parcel Map	☐	Planned Unit Development	☐	Other (Please specify below)
☐	Large Parcel Map	☒	Building Permit		

1. Total Owned Land Area: At Site: 18.11 Being Developed/Disturbed: <1.00

2. 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.): COMMERCIAL

5. Approximate upstream land area which drains to the subject site: 0 ACRES

6. Has the site drainage been evaluated in the past? ☒ YES ☐ NO If yes, please identify documentation: TDS AND UPDATES FOR SAHARA CENTER (DS 4606).

7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: ONTO SAHARA AVE PER HISTORICAL DISCHARGE POINT.

8. Briefly describe your proposed schedule for the subject project: A.S.A.P.



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.

***New Required Field**

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

Local Entity File No.	Revision	Date

REFERENCE:

STANDARD FORM 1



CITY OF LAS VEGAS

MINIMUM DRAINAGE STUDY CRITERIA STANDARD FORM 2 CHECKLIST SUPPLEMENT

(Revised 5/18/11)

The following checklist is intended as a supplemental guide for the engineer preparing a Technical Drainage Study submittal to the City of Las Vegas. This supplement focuses on requirements specific to the City of Las Vegas. The requirements presented are in addition to the Clark County Regional Flood Control District (CCRFCD) Manual Standard Form 2. The listed items are the minimum information required prior to the City performing a review. The engineer will remain responsible to ensure the Technical Drainage Study is prepared within the guidelines as set forth in the CCRFCD Hydrologic Criteria and Drainage Design Manual (Design Manual).

An appointment must be made to preview this checklist in conjunction with CCRFCD Standard Form 2 prior to the City accepting a new drainage study for review. The engineer must contact the Flood Control Section at (702) 229-6541 to schedule a submittal appointment.

If items are not applicable for the subject site, provide N/A.

I. GENERAL REQUIREMENT		
Yes	No	
	N/A	A notarized letter from the adjacent property owner(s) allowing off-site grading. (A copy of the letter must be received prior to final acceptance of the drainage study.)
	N/A	Copies of all conditions of approval for development related to this property. (e.g. zoning, use permit, tentative map, etc.) Verify compliance with conditions.
✓		An electronic copy of the complete submittal is required to be submitted with one original hard copy of the study. Electronic documents should be on a universal computer-readable digital output device replicating your submittal. An Indexed Portable Document Format (PDF) or Print Ready CAD file formats with a minimum of 300dpi are the desired formats. If figures are in color, they must be scanned in color and saved as a separate file. TR by initial here, the engineer on record acknowledges that the electronic copy is an identical replicate of the original hard copy submitted to the City of Las Vegas.

II. GRADING PLAN INFORMATION		
Yes	No	
✓		(1) 24" X 36" copy of the Grading Plan, (including all Detail Sheets) sealed by the engineer.
✓		Proposed future and existing spot grades for top of curbs and street crowns at lot lines, grade breaks, and along curb returns on both sides of the street. Note: Proposed top of curb elevations must be provided for both sides of roadways even if only half street construction is required.
✓		Label existing topography at a minimum 5 foot elevation interval including adjacent developments, finished floor elevations of existing buildings and top of existing curbs extending 100 feet around the perimeter of the site. (*Measured from the centerline of the adjacent roadway.)

CITY OF LAS VEGAS MINIMUM DRAINAGE STUDY CRITERIA CHECKLIST

II. GRADING PLAN INFORMATION		
Yes	No	
	N/A	Proposed on-site and off-site storm drains and other flood control facilities with plan and profile sheets for public storm drains showing the class of pipe, (Class III, IV, V, etc.), design hydraulic grade line, (HGL) and 100 year storm flow. A public drainage easement must be provided over on-site storm drains conveying off-site flows. An overflow path must be provided over all storm drains.
	N/A	All existing and "to be constructed" walls with cross-sections showing wall type, (e.g. block wall, retaining wall, flood wall, etc.), with limits clearly defined, adjacent ground elevations. Wall heights must meet current ordinances and in no case exceed 14 feet above the adjacent property.
✓		Street slopes for both interior and perimeter streets. Note: The minimum slope for a roadway is 0.4 percent, a minimum 18-inch storm drain must be provided where minimum slopes cannot be met.
	N/A	Back of lot elevations and lot drainage pattern for all lots including common lots.
	N/A	Sites with a grade difference two feet above or below existing ground are required to have approval from City of Las Vegas Current Planning. Current Planning approval is required prior to final approval of the drainage study.
✓		On-site facilities must perpetuate flows through or around the site without significantly impacting adjacent property owners. (The project must pass flows through the site every 600 feet where the project is blocking flow paths.)
	N/A	This project uses a solid grouted stem wall (or approved alternate) at the back of sidewalk to provide erosion protection for landscaped areas where the depth of flow in the roadway exceeds the back of walk elevation. A corresponding cross-section detail is included.
	N/A	Commercial and Common Lot Landscape areas are not allowed to drain over the sidewalk. The grading plans show flow lines with grades and sidewalk under drains for all landscape areas draining to the public ROW.

III. Local Entity Criteria - City of Las Vegas – Manual Section 1600		
Yes	No	
✓		Concrete valley gutters are required in parking lots with slopes less than 1 percent. Slopes through cul-de-sac must be at a 1 percent minimum where flow is drained through the cul-de-sac.
	N/A	Ten-foot wide public drainage easements to be privately maintained are allowed for flow less than 20 cfs. The depth of flow entering the easement must be checked using the submerged weir calculation.
	N/A	The limits of the flood zones and the base flood elevations (BFE) must be shown on all grading plans for all developments within a Special Flood Hazard Zone A, AO, AE, etc.
✓		Minimum finish floor elevation is 6 inches above highest adjacent top of curb. Finish floor calculations must include allowances for super elevations on curves and velocity head for tee intersections.
✓		Finished floor elevations for buildings adjacent to public drainage easements must be a minimum of 18 inches above the Q100 weir of submerged weir elevation, whichever is greater.

CITY OF LAS VEGAS MINIMUM DRAINAGE STUDY CRITERIA CHECKLIST

III. Local Entity Criteria - City of Las Vegas – Manual Section 1600		
Yes	No	
	N/A	Lots with "B and C Type Drainage" that drain from one lot to another through a drainage easement shall be required to install an underground nuisance drainage system or a 2-foot valley gutter. 16" x 24" minimum block wall openings are required for both options.
	N/A	Bubblers are required across 80 foot and greater ROW streets. When flows exceed 10 cfs, bubblers larger than 18 inches will be required up to a maximum of 36". Inlets must be sized to match the pipe size provided.

- Contact the Flood Control Section regarding the drainage study review fee. These fees are payable at the time of submittal.
- The Drainage Study must be conditionally approved prior to submitting improvement plans to the Civil and Planning Development of the Department of Building and Safety for review.

This document is intended as an **aid** in preparing Technical Drainage Studies for the City of Las Vegas. Each study submitted is reviewed for compliance with local and regional criteria. This form is not intended to be all-inclusive and does not limit the extent of the information, calculations or exhibits which may be necessary to properly evaluate the intended land use.

APPENDIX

REFERENCE MATERIALS

TDS FOR SAHARA CENTER (DS 4606)



CITY OF LAS VEGAS		DATE:
INTER-OFFICE MEMORANDUM		September 4, 2013
TO: Land Development Services Department of Building and Safety		FROM: Albert Sung, P.E. Flood Control Project Engineer Department of Public Works
SUBJECT:	Drainage Study for: Sahara Center	COPIES TO: GC Wallace
Cross Streets:	NEC of Sahara Ave. & Hualapai Blvd.	SH Northeast Land Company, LLC
File Number:	F:\Depot\DSMemos\DS4606C.doc	Bart Anderson, P.E., DevCo
Parcel Number:	163-06-416-006	CCRFCD
Zoning Action:	SDR-48469, VAC-49335 & TMP-49515	CCPW
FEMA Flood Zone	YES NO X	
Proposed Storm Drain	YES X NO	

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1 st Submittal	5/30/2013	6/13/2013	Not Approved	\$400.00	321498: \$400
2 nd Submittal	6/25/2013	6/27/2013	Conditional Approval	\$400.00	324275: \$400
Concurrences Received	9/3/2013	9/4/2013	CCRFCD & CCPW	N/C	N/C
			TOTAL FEES (LDDRS):	\$400.00	----

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.
	is conditionally approved subject to Clark County Public Works Department concurrence.

The following comments/conditions are repeated until they are complete:

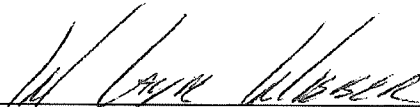
The drainage study has identified that about 113 cfs of off-site flow that impacts the site from west of Hualapai Way. This flow has an impact on the CCRFCD 2008 MPU in that flows in the existing condition cross an MPU watershed boundary. The study perpetuates this flow in the interim condition. This added flow at the Sahara & Durango intersection impacts the existing MPU collection facility by adding about 100 cfs to the existing 90-inch RCP storm drain within Durango. The City believes that this existing MPU storm drain does not have sufficient capacity to convey the added 100 cfs flow from the Sahara & Durango intersection south to the Lakes Detention Basin. The Durango storm drain connects into the Lakes Detention Basin, which the 2008 MPU identified as needing expansion. The provided HEC-1 analysis identified as *2008 MPU Modified*, routes the flow to the Lakes Detention Basin without sufficient capacity within the storm drain system conveyance to get the added flow to the basin. This study has preliminarily identified that an additional 48-inch storm drain would need to be added within Durango Drive to convey the additional flows that were not included within the 2008 MPU.

1. The City intends to propose that the MPU facility within Hualapai Way be extended north of Sahara to collect the flow from the 54-inch storm drain to meet the intent of the CCRFCD Master Plan.
2. All drainage easements must be public drainage easements with the surface to be privately maintained and labeled on the grading plans and dedicated as such in the final map. The Vacation of the existing drainage easement needs to be processed concurrently with the Commercial Subdivision Final Map.
3. 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.
4. The proposed extension of the existing 54-inch storm drain through the site to perpetuate the existing condition flow rates with this development will be considered as an interim facility. The plan and profile of the storm drain needs to be shown as a Public facility and the easement dedicated as such.
5. The provided manhole details for the shallow manholes shows that a greater distance is needed for construction (minimum of 1' – 8") from the rim to the top of pipe than the remaining available distance shown on the plans. Provide special details and/or revise the grading to accommodate the manhole construction.
6. Provide an enlarged detail of the storm drain outlet structure discharging onto Sahara Avenue. Provide additional elevations and sections. The wrought iron fence proposed for the storm drain outlet structure must utilize *City of Las Vegas* Standard Drawing 421. Provide an access gate for the structure maintenance.
7. Provide a typical section of the flume at the southeast corner of the site that includes the 6.21-foot drainage flume (u-channel), rip-rap and the retaining wall.
8. Label the existing 54-inch storm drain system in *Hualapai Way* with the *City of Las Vegas* drawing number on the grading plan.
9. Provide Type-II base under the rip-rap section as outlined in Section 705.4.3 of the CCRFCD's *Hydrologic Criteria and Drainage Design Manual*.
10. Provide the standard drainage compliance note on the grading plan: "*I CERTIFY THAT THIS GRADING PLAN IS IN CONFORMANCE WITH THE APPROVED DRAINAGE STUDY ON FILE AT THE CITY OF LAS VEGAS FOR THIS PROJECT (DS4606)*".
11. Remove the Marker Ball Note from the CLV General Notes (#22).
12. Revise the plans to number the storm drain manholes.
13. This drainage study assumes that the project will be constructed in one phase. If improvement plans are submitted to break the project into separate phases, a drainage study update will be required.

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.

The County's review is solely based on the information submitted by the Engineer of Record. The County's review is strictly limited to compliance with minimum County Codes and Standards. The Engineer of Record is responsible for researching and addressing situations that may require designs above and beyond the minimum codes for issues of public safety and impacts to upstream, downstream and adjacent properties. The County assumes no liability for information data, designs or conclusions of the Engineer of Record.

By


W. Layne Weber, P.E., CFM
Principal Engineer
Clark County Public Works
Development Review

cc: SH Northeast Land Co.
Albert Sung, P.E., City of Las Vegas

REGIONAL FLOOD
CONTROL DISTRICT



Rec'd: 9/10/13

DS 4606

Q-06

n/c

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

BOARD OF DIRECTORS

Lawrence L. Brown, III
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Clark County

Robert L. Eliason
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City of Mesquite

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City of Las Vegas

Dr. Lois Tarkanian
City of Las Vegas

Mayor Roger Tobler
City of Boulder City

August 12, 2013

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

DISTRICT CONCURRENCE: SAHARA CENTER
(DS #4606B) (RFCD No. 13-9184)

Dear Mr. Kwon:

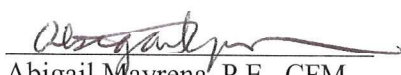
Clark County Regional Flood Control District (District) reviewed Technical Drainage Study dated May 30, 2013 and Addendum #1 dated June 24, 2013 for above-mentioned project as submitted by G.C. WALLACE COMPANIES. In addition, District is in receipt of the Conditional Letter of Acceptance from City of Las Vegas dated June 27, 2013.

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

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 G.C. WALLACE COMPANIES 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, P.E., CFM
Senior Engineer

AM:sa

c: Grant Y. Tokumi, P.E., G.C. Wallace Companies

P:\Letters and Memos\Local Drainage\Land Development & Drainage\2013\L-13-9184.doc

840-044



Department of Public Works

500 S Grand Central Pky • Box 554000 • Las Vegas NV 89155-4000
(702) 455-6000 • Fax (702) 455-6040

Denis Cederburg, P.E., Director • E-Mail: dlc@ClarkCountyNV.gov

Concurrence Letter

Rec'd: 9/3/13

Date: September 3, 2013
Firm: GC Wallace
Engineer: Grant Tokumi, P.E.
Address: 1555 South Rainbow Boulevard, Las Vegas, NV 89146
Phone: (702) 804-2000
Fax: (702) 804-2299
E-mail: gtokumi@gcwallace.com

Subject: Technical Drainage Study Sahara Center (CLV)
Location: NEC of Sahara Avenue and Hualapai Way
APN: 163-06-416-006
Sec, Township, Range: S06, T21S, R60E
Flood Zone & Panel: Zone X, 2150E, 2145F, Dated November 16, 2011
Application Tracking #: 13-28804



HTE13-28804

Submittals	Date Received	Date Returned	Reviewer	Miscellaneous
Concurrence	07/16/2013	08/19/2013	WG	
Addendum #1	07/16/2013	09/03/2013	WG	

The above-referenced project is located within the **City of Las Vegas** adjacent to Clark County unincorporated areas. The drainage study was submitted to the County for concurrence on July 16, 2013. In addition, the County has received the City of Las Vegas acceptance letter dated June 27, 2013 for the Technical Drainage Study (DS4606B).

The County concurs with the acceptance of this Drainage Study by the City of Las Vegas. Please note that the County's review of this development is limited to drainage issues significant to Clark County unincorporated areas.

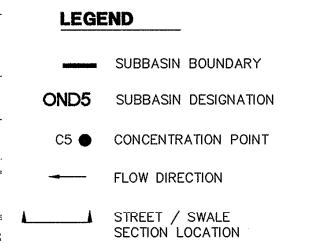
NOTE: Please be advised that all land surface area disturbances over 1 acre or any area adjacent to a water way must submit to the *Nevada Division of Environmental Protection* a "Notice of Intent" to discharge that certifies a stormwater pollution prevention plan has been developed and is maintained 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

PBJ/AYS

T/R/S: T21S/R60E/06

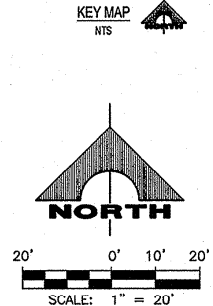
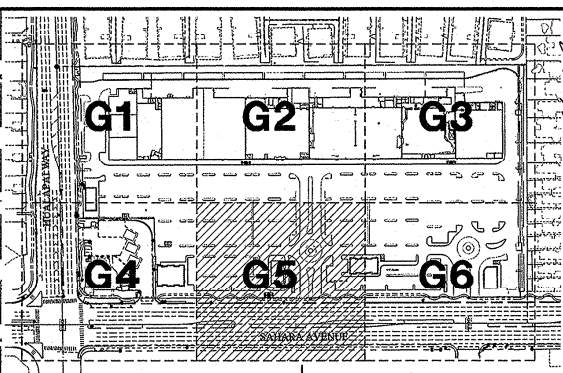
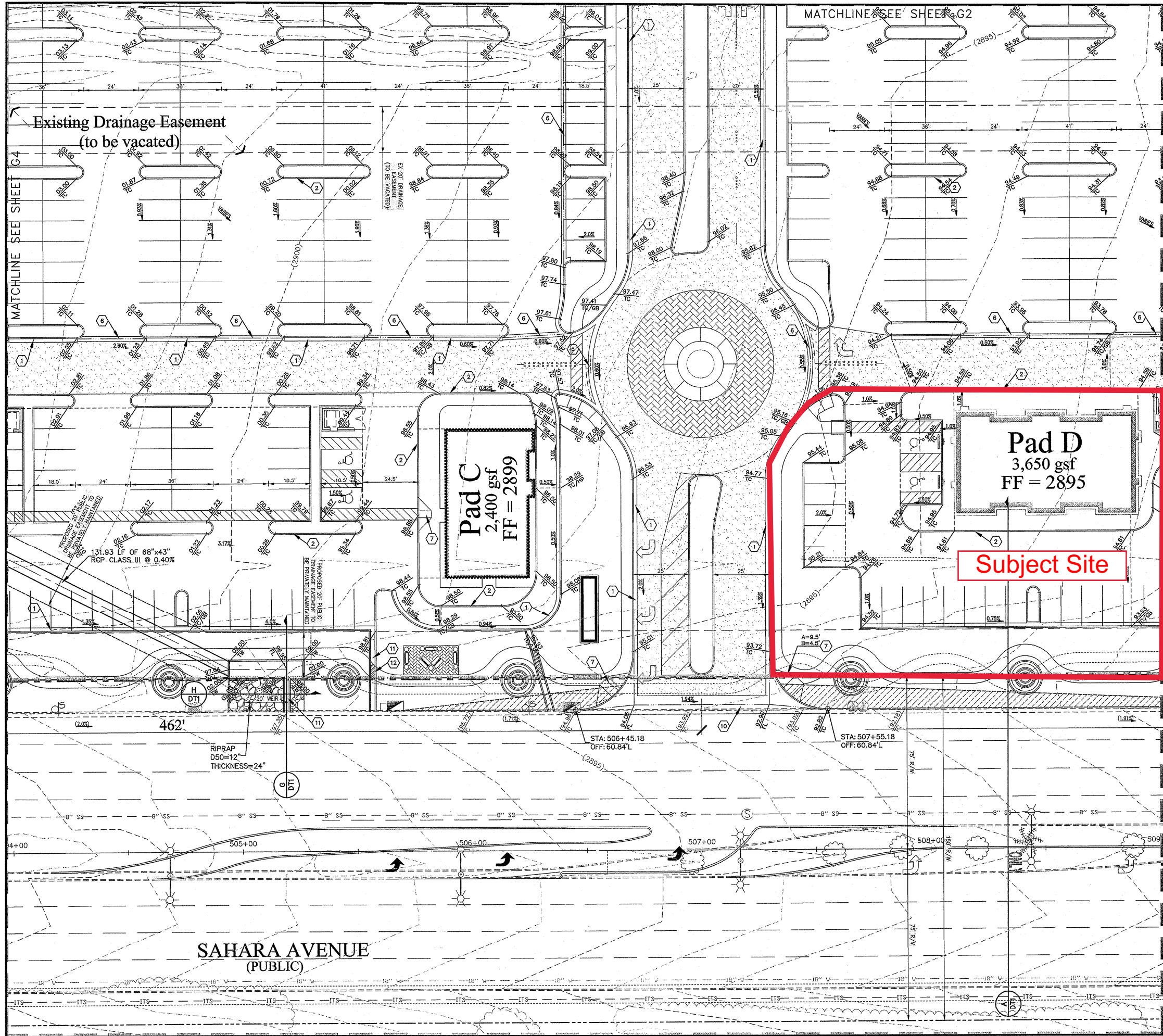
AREA Q-06



100-YEAR STREET FLOW CHARACTERISTICS		INTERIM CONDITIONS				
Location	Slope (%)	Q ₁₀₀ (cfs)	Depth (ft)	Velocity (ft/s)	D'V	
SECTION A - HUALAPAI - 100-YEAR EAST HALF STREET	0.46	6	0.48	2.0	1.0	
SECTION A - HUALAPAI - 100-YEAR WEST HALF STREET	0.46	57	0.94	3.2	3.0	
SECTION B - SAHARA - 100-YEAR NORTH HALF STREET	2.00	113	0.93	7.1	6.6	
SECTION C - SAHARA - 100-YEAR NORTH HALF STREET	2.00	139	0.89	7.5	7.4	
SECTION D - SAHARA - 100-YEAR NORTH HALF STREET	5.00	176	0.93	11.2	10.4	

10-YEAR STREET FLOW CHARACTERISTICS		INTERIM CONDITIONS				
Location	Slope (%)	Q ₁₀ (cfs)	Depth (ft)	Velocity (ft/s)	D'V	Dry Lane (ft/s)
SECTION A - HUALAPAI - 10-YEAR EAST HALF STREET	0.46	3	0.40	1.7	0.7	31.5
SECTION B - SAHARA - 10-YEAR NORTH HALF STREET	2.00	53	0.73	5.9	4.3	20.0
SECTION C - SAHARA - 10-YEAR NORTH HALF STREET	2.00	66	0.78	6.2	4.8	17.5
SECTION D - SAHARA - 10-YEAR NORTH HALF STREET	5.00	84	0.73	9.3	6.8	20.0

[illegible]



- CONSTRUCTION NOTES:**
- 1) CONSTRUCT "L" TYPE CURB AND GUTTER PER USD DWG #216.
 - 2) CONSTRUCT MODIFIED "A" CURB PER DETAIL 1 ON SHEET DT1.
 - 3) CONSTRUCT 4" THICK CONCRETE SIDEWALK PER USD DWG #234.
 - 4) CONSTRUCT SIDEWALK RAMP PER USD DWG #235 CASE I, "A" & "B" = 8", UNLESS NOTED ON PLAN.
 - 5) CONTRACTOR TO VERIFY EXISTING ELEVATIONS PRIOR TO CONSTRUCTION.
 - 6) CONSTRUCT 2" CONCRETE VALLEY GUTTER PER DETAIL 2 ON SHEET DT1.
 - 7) CONSTRUCT SIDEWALK RAMP PER USD DWG #235 CASE II, "A" & "B" = 8", UNLESS NOTED ON PLAN.
 - 8) CONSTRUCT NDS 12" PRO SERIES DEEP CHANNEL DRAIN W/ HEAVY TRAFFIC CHANNEL GRATE OR APPROVED EQUAL.
 - 9) CONSTRUCT CLEANOUT PER DETAIL 4 ON SHEET DT1.
 - 10) CONSTRUCT 8" WIDE CROSS GUTTER PER USD DWG #228.
 - 11) CONSTRUCT 2" WIDE FLUME PER DETAIL 3 ON SHEET DT1.
 - 12) CONSTRUCT SIDEWALK DRAIN PER USD DWG # 326.
 - 13) SAWCUT & MATCH EXISTING.
 - 14) ADJUST TO GRADE.
 - 15) PROTECT IN PLACE.

PAVEMENT LEGEND

	ASPHALT PAVEMENT 2" AC OVER 6" TYPE II AB
	HEAVY ASPHALT PAVEMENT 3" AC OVER 6" TYPE II AB

BASIS OF BEARINGS
NORTH 89°46'34" EAST BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 6, TOWNSHIP 21 SOUTH, RANGE 60 EAST, MOUNT DIABLO BASE AND MERIDIAN, AS SHOWN BY MAP THEREOF FILED IN BOOK 71, PAGE 76 PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA.

BENCHMARK

DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
RIVET AND PLATE IN TOP OF CURB @ SOUTHEAST CORNER OF SAHARA AND HUALAPAI.	2808.16 (FEET)	886.409 (METERS)
CLV BM NO. 1LV10 7NWS		

H# _____ CLV DRAWING NO. _____

PROJECT NO. **840-044**

DESIGN: LG
DRAWN: LG
CHECK: M.F.
PLOT DATE: 06-23-13
PLOT TIME: 11:49:52

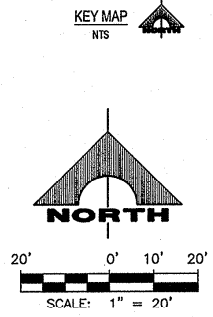
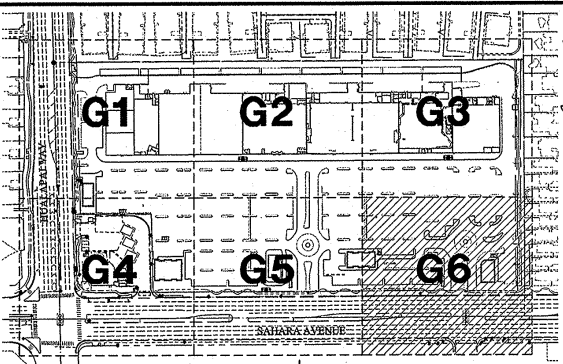
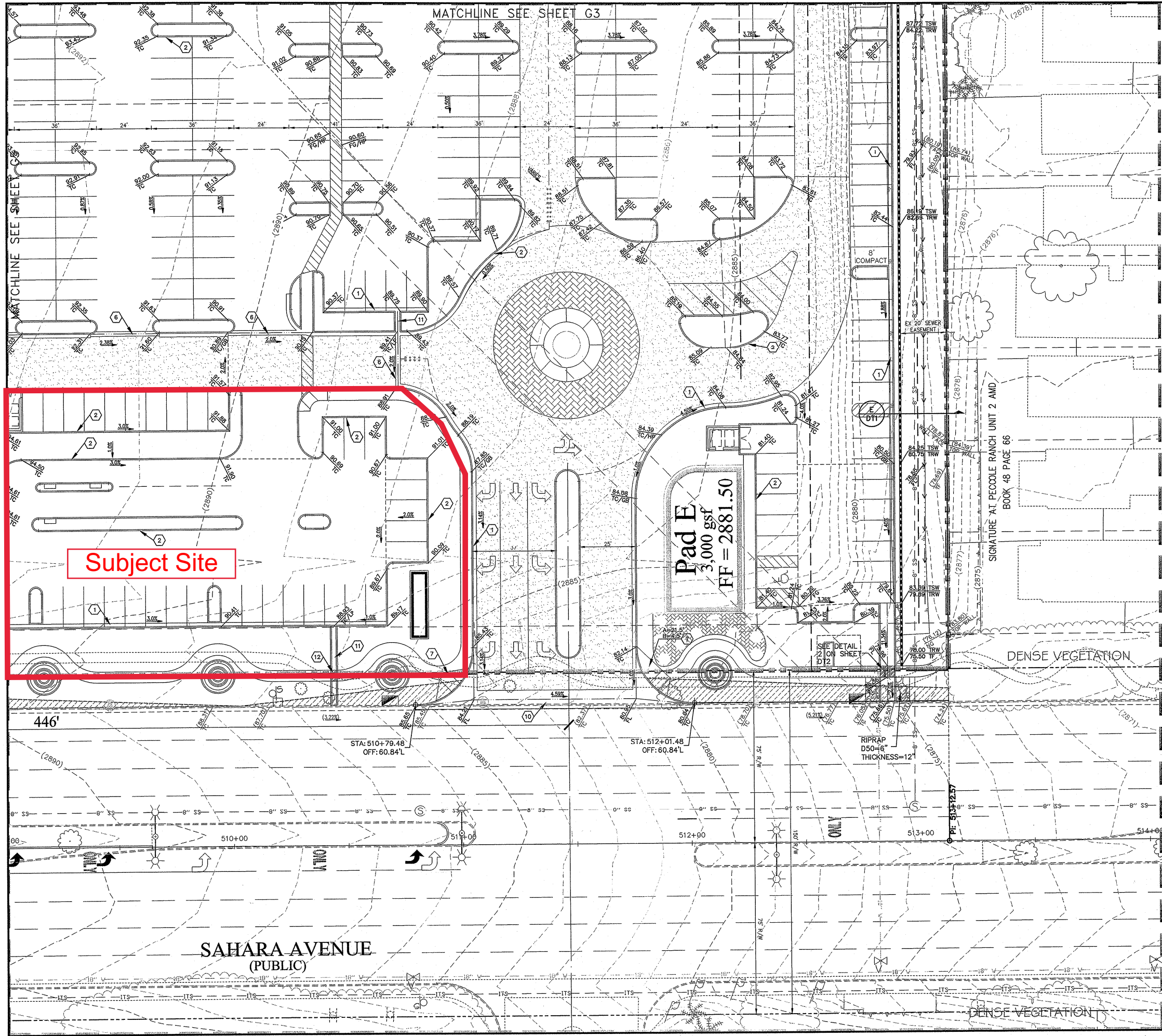
G.C. WALLACE COMPANIES
ENGINEERS | PLANNERS | SURVEYORS
1555 S. BROADWAY, SUITE 200, LAS VEGAS, NV 89146
TEL: 702.420.1700 FAX: 702.420.2299 G.WALLACE.COM

SH NORTHEAST LAND COMPANY, LLC

SAHARA CENTER

GRADING PLAN V

DRAWING **G5**
10 OF 27 SHTS



Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call 811
1-800-227-2600
CLARK COUNTY TRADING OPERATIONS
1-702-452-7344

AVOID HITTING OVERHEAD POWER LINES. IT'S COSTLY.
CALL BEFORE YOU DIG OVERHEAD
1-702-227-2929

FAST
Call before you UnderGround.
1-702-432-5300
HEAVY AND HEAVY SYSTEMS OF TRANSPORTATION

- CONSTRUCTION NOTES:**
- 1) CONSTRUCT "L" TYPE CURB AND GUTTER PER USD DWG #216.
 - 2) CONSTRUCT MODIFIED "A" CURB PER DETAIL 1 ON SHEET DT1.
 - 3) CONSTRUCT 4" THICK CONCRETE SIDEWALK PER USD DWG #234.
 - 4) CONSTRUCT SIDEWALK RAMP PER USD DWG #235 CASE I, "A" & "B" = 8", UNLESS NOTED ON PLAN.
 - 5) CONTRACTOR TO VERIFY EXISTING ELEVATIONS PRIOR TO CONSTRUCTION.
 - 6) CONSTRUCT 2' CONCRETE VALLEY GUTTER PER DETAIL 2 ON SHEET DT1.
 - 7) CONSTRUCT SIDEWALK RAMP PER USD DWG #235 CASE II, "A" & "B" = 8", UNLESS NOTED ON PLAN.
 - 8) CONSTRUCT NDS 12" PRO SERIES DEEP CHANNEL DRAIN W/ HEAVY TRAFFIC CHANNEL GRATE OR APPROVED EQUAL.
 - 9) CONSTRUCT CLEANOUT PER DETAIL 4 ON SHEET DT1.
 - 10) CONSTRUCT 8" WIDE CROSS GUTTER PER USD DWG #228.
 - 11) CONSTRUCT 2' WIDE FLUME PER DETAIL 3 ON SHEET DT1.
 - 12) CONSTRUCT SIDEWALK DRAIN PER USD DWG # 326.
 - 13) SAWCUT & MATCH EXISTING.
 - 14) ADJUST TO GRADE.
 - 15) PROTECT IN PLACE.

PAVEMENT LEGEND

	ASPHALT PAVEMENT 2" AC OVER 6" TYPE II AB
	HEAVY ASPHALT PAVEMENT 3" AC OVER 6" TYPE II AB

BASIS OF BEARINGS
NORTH 89°46'34" EAST BEING THE BEARING OF THE SOUTH LINE OF THE SOUTHWEST QUARTER (SW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION 6, TOWNSHIP 21 SOUTH, RANGE 60 EAST, MOUNT DIABLO BASE AND MERIDIAN, AS SHOWN BY MAP THEREOF FILED IN BOOK 71, PAGE 76 PLATS IN THE CLARK COUNTY RECORDER'S OFFICE, CLARK COUNTY, NEVADA.

BENCHMARK

DESCRIPTION	NAVD 88 DATUM	NAVD 88 DATUM
RIVET AND PLATE IN TOP OF CURB @ SOUTHEAST CORNER OF SAHARA AND HUALAPAI.	2908.16 (FEET)	886.409 (METERS)
CLV BM No. 1LV10 7NWS		

H# _____ CLV DRAWING NO. _____

PROJECT NO. **840-044**

DESIGN: LG
DRAWN: LG
CHECK: M.F.
PLOT DATE: 05-23-13
PLOT TIME: 11:50:02

PROJECT: **G6**

SAHARA CENTER

GRADING PLAN VI

11 OF 27 SHTS

G.C. WALLACE COMPANIES
ENGINEERS | PLANNERS | SURVEYORS
1855 S. RAINBOW BOULEVARD, SUITE 200, LAS VEGAS, NV 89146
702.733.0000 F. 702.733.0099 G.WALLACE.COM

SH NORTHEAST LAND COMPANY, LLC

PROJECT PLANS

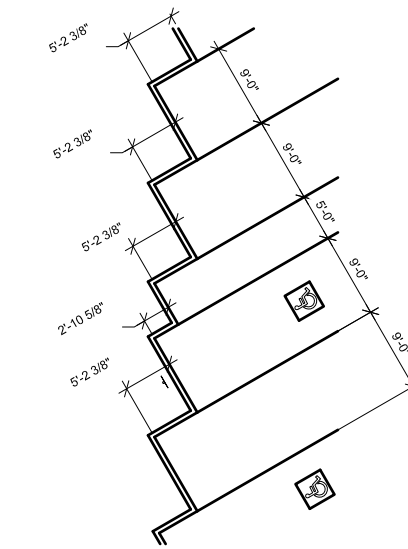
- SAHARA
CENTER LLC

HCA - URGENT CARE
SAHARA CENTER
10030 W. SAHARA AVE
LAS VEGAS, NV 81117

If you are in possession of only a partial set of drawings (See Drawing Index Sheet), or only some of the divisions of the specifications, you should immediately obtain a complete set of contract documents prior to beginning any work, including preparation of shop and erection drawings.

HORIZONTAL CONTROL PLAN

SCALE:



2 ENLARGED OFFSET CURB LAYOUT

CLV DRAWING NO. _____

- HCA - URGENT CARE
SAHARA CENTER**
- 10030 W. SAHARA AVE
LAS VEGAS, NV 89117**

[illegible]

If you are in possession of only a partial set of drawings (See Drawing Index Sheet), or only some of the divisions of the specifications, you should immediately obtain a complete set of contract documents prior to beginning any work, including preparation of shop and erection drawings.

This drawing is the property of Sahara Center LLC. Reproduction of this drawing must be approved by Sahara Center LLC representative in writing.

C4.01

SCALE:



GRADING PLAN LEGEND:	
(00.00)	EXISTING GRADES
00.00	PROPOSED GRADES

CLV DRAWING NO. _____