

DS #: 5052-1

APN: 137-26-101-001

PROJECT: Summerlin West Village @ 21 - Desert Foothills Drive - Update #1
(Red point Drive to Summerlin Parkway)

SUBMITTAL: 5th

SCANNED BY/DATE:

CHECKED BY/DATE:



CITY OF LAS VEGAS		DATE:
INTER-OFFICE MEMORANDUM		September 8, 2020
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:	
	Summerlin West Village 21 - Desert Foothills Drive – Update #1 (Redpoint Drive to Summerlin Parkway)	
Cross Streets:	Desert Foothills Dr. from Redpoint Drive to Summerlin Parkway	COPIES TO: VTN Nevada
File Number:	F:\Depot\DSMemos\DS5052F.doc	Howard Hughes Company, LLC
Parcel Number:	137-26-101-001	Bart Anderson, P.E., DevCo
Zoning Action:	N/A	CCRFCD
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	10/24/2018	11/8/2018	Not Approved	\$400.00	500378: \$400
2 nd Submittal	2/4/2018	2/21/2018	Conditional Approval	\$400.00	502878: \$400
3 rd Submittal	4/25/2019	5/9/2019	Not Approved	\$400.00	3105168: \$400
4 th Submittal	5/15/2019	6/11/2019	Conditional Approval	\$400.00	3133317: \$400
CCRFCD	6/20/2019	6/25/2019	Concurrence Recv'd	N/C	N/C
5 th Submittal	8/27/2020	9/8/2020	See Comments Below	\$100.00	3969964: \$100
			TOTAL FEES (LDDRS):	\$1,700.00	----

REMARKS:

5th Submittal: Update #1 to address the removal of lateral stubs to Red Pass Drive due to the consolidation of Parcels P, Q and R into One

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 project proposes to build temporary drainage facilities including drainage berms/swales along the west side of the proposed *Desert Foothills Drive*. Prior to final plan approval the developer must complete a **Maintenance & Liability Agreement** for the interim drainage improvements and post a minimum maintenance bond of \$50,000 or 50-percent of the construction cost for the improvements, whichever is greater. The engineer must submit an estimate of the quantities for constructing the facilities and an exhibit that adequately shows the location and limits of the drainage facilities to *City of Las Vegas Flood Control* for approval. Once the drainage study is conditionally approved, the engineer should contact the *City's Land Development Section* (229-6371) to begin the agreement process.

In order for the maintenance bond to be released in the future, a drainage update / letter will be required to justify that the offsite berms / channels are no longer necessary and can be removed.

2. Since the street and the associated storm drain facilities will eventually be accepted by the *City of Las Vegas*, the engineer/developer must coordinate with *City of Las Vegas Streets & Sanitation Department* for their review and approval prior to the final acceptance of the subject improvement plans.

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
WSP/AYS

T/R/S: T20S/R59E/26
AREA K-26

Update #1 to the Technical Drainage Study for

Summerlin West Village 21 Desert Foothills Drive (Redpoint to Summerlin Parkway)

Las Vegas, Nevada

Prepared for:

Howard Hughes Company, LLC

Submitted to:

City of Las Vegas
Public Works



HYDROLOGIC CRITERIA AND DRAINAGE MANUAL
DRAINAGE STUDY INFORMATION FORM

Name of Development: Summerlin West Village 21 Desert Foothills (Redpoint to Summerlin Pkwy) Date: August 26, 2020

Location of Development: a) Descriptive (Cross Streets) North/South: Desert Foothills Drive

East/West: Redpoint Drive

b) Section: 26 Township: 20S Range: 59E

c) APN : 137-23-499-002; 137-26-199-003

Name of Owner: The Howard Hughes Company, LLC

Telephone No.: (702) 791-4336 Fax No.: (702) 791-4453 E-Mail Address: April.Chapman@howardhughes.com

Address: 10801 W. Charleston Blvd. LV, NV, 89135

Contact Person-Name: Joanna Ayson Telephone No.: (702)-873-7550

* E-Mail Address: jayson@vtnnv.com Fax No.: (702)-362-2597

Firm: VTN Nevada

Address: 2727 S. Rainbow Blvd, LV, NV, 89146

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		Roadway, Storm Drain, Grading

1. Total Owned Land Area: At Site: +/-6 Acres Being Developed/Disturbed: +/-6 Acres

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

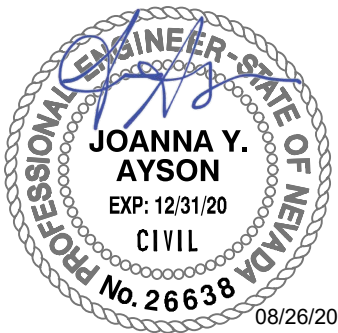
4. Proposed type of development (Residential, Commercial, Etc.): Roadway

5. Approximate upstream land area which drains to the subject site: +/- 640 acres

6. Has the site drainage been evaluated in the past? ☒ YES ☐ NO If yes, please identify documentation: SWPA MPU (DS4926), Desert Foothills Drive - Far Hills to Street A (DS5013)

7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: Existing 10x10 RCB south of the project (CCRFGD Facility in Desert Foothills)

8. Briefly describe your proposed schedule for the subject project: As soon as possible



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.**

	Revision	Date

Local Entity File No.

REFERENCE:

STANDARD FORM 1

August 26, 2020

Albert Sung, P.E.
Flood Control Division
Department of Public Works
City of Las Vegas
333 N. Rancho Blvd, 7th Floor
Las Vegas, NV 89106

Subject: Update #1 to the Technical Drainage Study for Summerlin West Village 21 – Desert Foothills Drive (Redpoint Drive to Summerlin Parkway)

Mr. Sung:

This letter certifies that all items on the **Update #1 to the Technical Drainage Study for Summerlin West Village 21 – Desert Foothills Drive (Redpoint Drive to Summerlin Parkway)** electronic submittal matches the paper version bound into the study.

Respectfully submitted,



Joanna Ayson, P.E.

UPDATE #1
TO THE TECHNICAL DRAINAGE STUDY
FOR
SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DR
REDPOINT DRIVE TO SUMMERLIN PARKWAY
CLARK COUNTY, NEVADA
W.O. # 7851

Prepared for:
HOWARD HUGHES COMPANY

Submitted to:
CITY OF LAS VEGAS
PUBLIC WORKS





August 26, 2020
W.O. #7851

City of Las Vegas
500 S Grand Central Parkway
Box 55400
Las Vegas, NV 89155-4000

Attention: Albert Sung, P.E.
Flood Control Project Engineer

**SUBJECT: UPDATE #1 TO THE TECHNICAL DRAINAGE STUDY FOR SUMMERLIN WEST VILLAGE
21 – DESERT FOOTHILLS DRIVE (REDPOINT DRIVE TO SUMMERLIN PARKWAY)**

Mr. Sung:

This Update #1 to the Technical Drainage Study for Desert Foothills Drive (Redpoint Drive to Summerlin Parkway) is being submitted to the City of Las Vegas to address revisions to the improvement plans.

The SDMH#14 on Sheet UT5 has been moved approximately 29-feet south from Station 44+67.28 to Station 44+38.00. The alignment of the 10-ft by 8-ft RCB has not changed. This revision is being brought to the attention of City of Las Vegas Flood Control for documentation purposes. This revision does not impact the approved hydraulic models due to manhole losses having no hydraulic impacts to RCBs. Therefore, the approved WSPG model for the 10-foot by 8-foot RCB mainline does not require any revisions.

In the approved drainage study, Village 21 Parcels P, Q, and R were expected to drain to three separate stubs. Parcel P was expected to drain east into the proposed 30-inch RCP (Lateral 3) in Desert Foothills. Parcels Q and R were expected to drain north into stubs in Red Pass Drive and subsequently drain east to the proposed 36-inch RCP (Lateral 2) in Desert Foothills. This update addresses the removal of the stubs in Red Pass Drive, and the total flow generated by Parcels P, Q, and R will now drain into the proposed 30-inch RCP in Desert Foothills Drive. The combined flow generated by P, Q, and R is expected to be 33 cfs ($P+Q+R=11+11+11=33$ cfs). Now that Parcels Q and R will no longer drain into Red Pass Drive, the anticipated flow in the proposed 36-inch RCP in Desert Foothills Drive (Lateral 2) will reduce by approximately 22 cfs. Figures 8 and 9 have been updated to depict the revised flow patterns and are included in Appendix A. A Standard Form 6 calculation for the proposed 30-inch stub on Sheet UT14 has been provided in Appendix B to demonstrate that the stub has capacity for the increased flow of 33 cfs. Revisions to the approved WSPG model for the 10-foot by 8-foot stub in Desert Foothills is not required, because the model has already accounted for the total flow generated by all three parcels P, Q, and R. Appendix C includes the previously approved Figure 8, Figure 9, Sheet UT5 and UT14 which have been redlined to show the revisions for your reference.

If you have any questions or any additional information is required, please contact this office.

Respectfully Submitted,

VTN Consulting

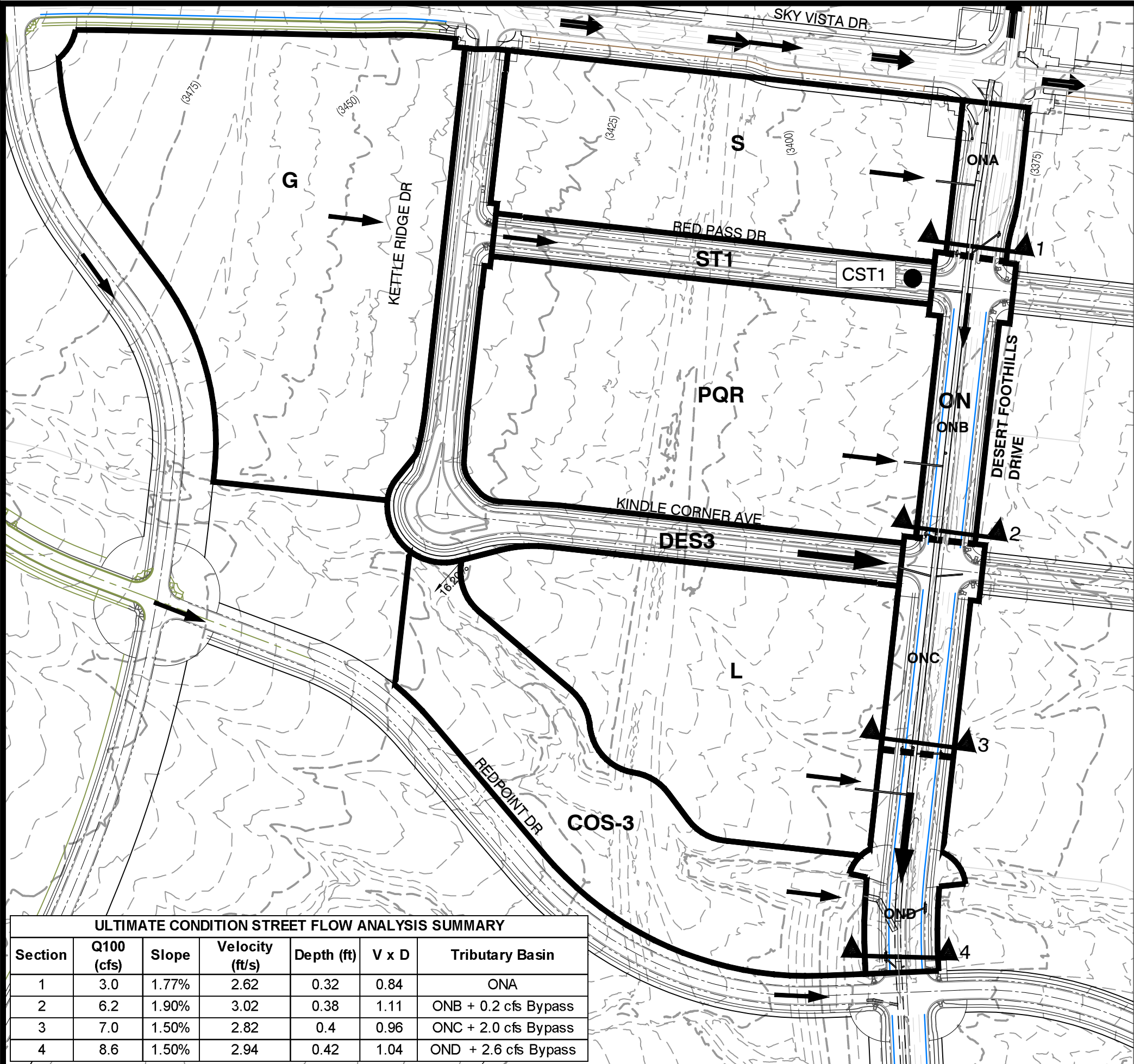


Joanna Ayson, P.E.

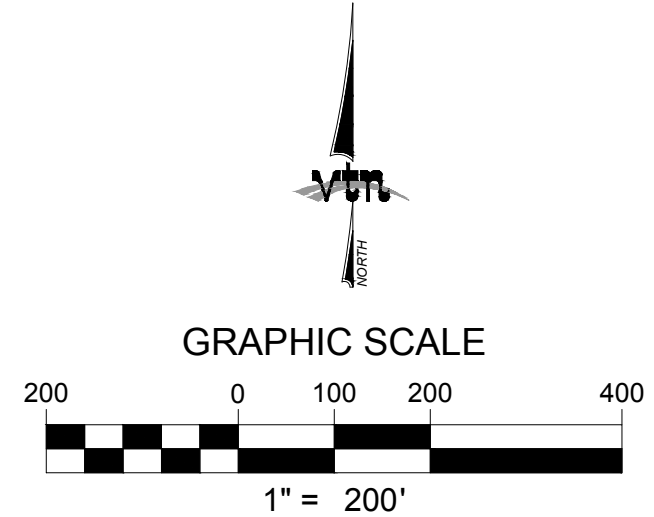
APPENDIX

APPENDIX A

FIGURES



ULTIMATE CONDITION STREET FLOW ANALYSIS SUMMARY						
Section	Q100 (cfs)	Slope	Velocity (ft/s)	Depth (ft)	V x D	Tributary Basin
1	3.0	1.77%	2.62	0.32	0.84	ONA
2	6.2	1.90%	3.02	0.38	1.11	ONB + 0.2 cfs Bypass
3	7.0	1.50%	2.82	0.4	0.96	ONC + 2.0 cfs Bypass
4	8.6	1.50%	2.94	0.42	1.04	OND + 2.6 cfs Bypass

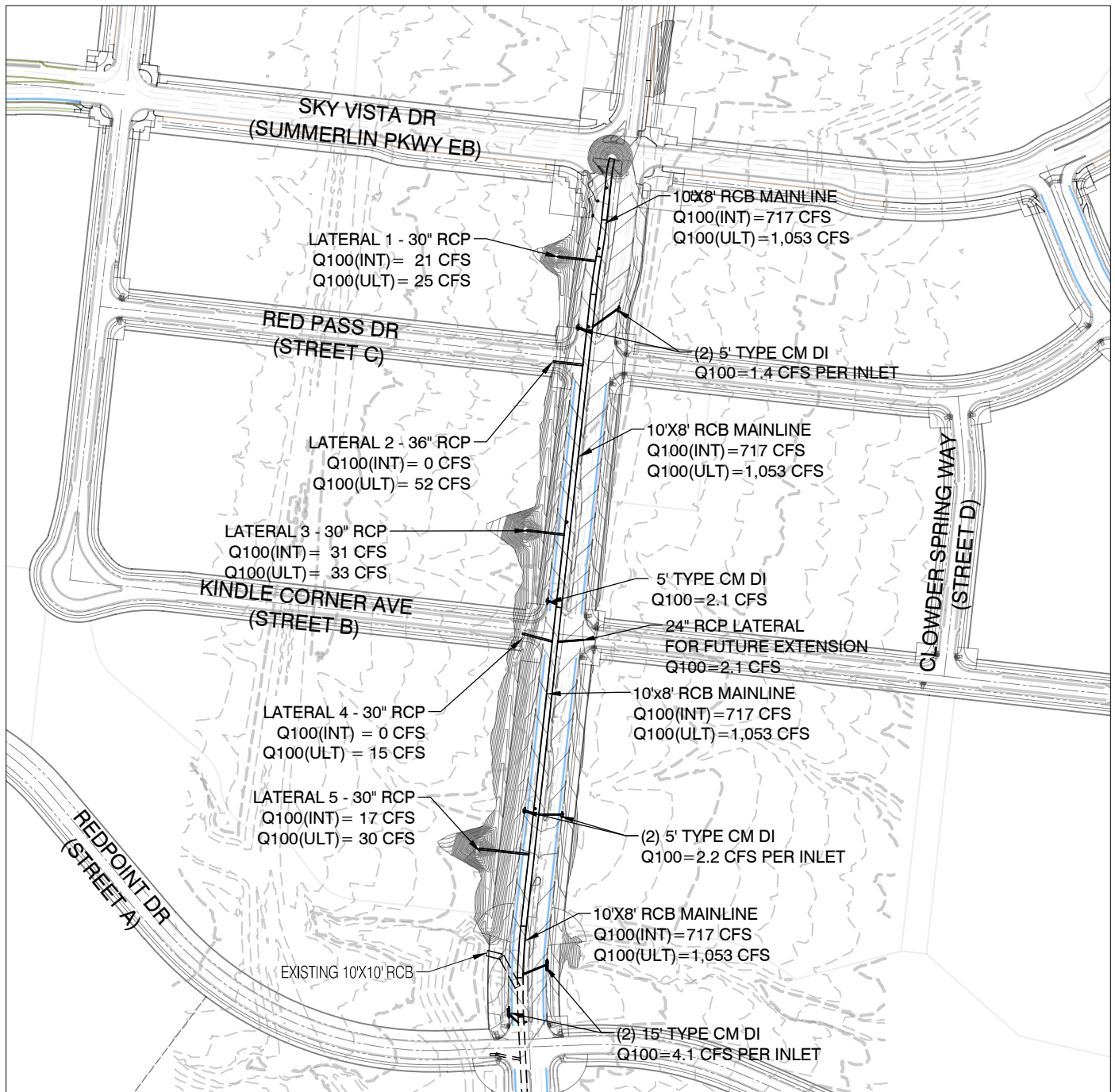


LEGEND	
	BASIN BOUNDARY
	BASIN DESIGNATION
	CROSS SECTION
	CONCENTRATION POINT

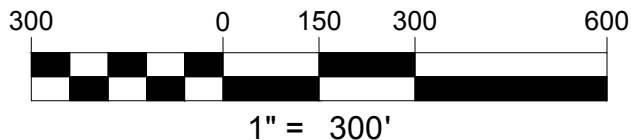
ULTIMATE CONDITION HEC-1 SUMMARY TABLE		
BASIN ID	AREA (ac)	Q100 (CFS)
S	6.33	25
G	11.43	44
ST1	1.58	7
CST1	-	52
PQR	9.26	33
DES3	3.73	15
L	7.44	30
COS-3	5.9	18
ON	5.18	20

PRORATED SUBBASIN SUMMARY ULTIMATE CONDITION			
BASIN	BASIN AREA		Q100
ON	5.18		20
SUBBASIN	SUB AREA	SUB AREA	Q100
ONA	0.85	16.4%	3
ONB	1.54	29.7%	6
ONC	1.36	26.3%	5
OND	1.43	27.6%	6
TOTAL	5.18	100.0%	20

FIGURE 8: ULTIMATE CONDITION BASIN MAP
DESERT FOOTHILLS DRIVE
(REDPOINT DR TO SUMMERLIN PKWY)



GRAPHIC SCALE



H:\7851\Desert Foothills-Street A to Summerlin Pkwy\Drainage\5_U\A Figures\Figure 9 - Storm Drain Facilities Map.dwg

APPENDIX B

HYDRAULIC

CALCULATIONS

Starting HGL and EGL

Tailwater Elevation	Outlet Invert Elevation	Tailwater Depth (ft)	Critical Depth-Dc (ft)	Pipe Diameter-D (ft)	(Dc+D)/2 (ft)	Starting HGL (ft)	Hv (ft)	Starting EGL (ft)
3358.30	3354.21	4.08	1.43	2.5	1.967	3358.298	0.70	3359.00

Phi Index

n Value	Phi
0.013	0.004925

Sf= $\frac{\Phi Hv}{R^{1.33}}$

$\Phi = \frac{2g \left(n^2\right)}{2.21}$

STANDARD FORM 6

DEVELOPMENT:	Desert Foothills (Redpoint to Summerlin)
CALCULATED BY:	JYA WO# 7851-5.6
STORM DRAIN SEGMENT:	Stub - Sheet UT14 - West
DESCRIPTION:	100-Year Ultimate Condition

$H_j = \left(V_2^2 / 2g\right) - K_j \left(V_1^2 / 2g\right)$

$H_m = K_m \left(V_2^2 / 2g\right)$

$H_b = K_b \left(V_2^2 / 2g\right)$

$H_i = K_i \left(V_2^2 / 2g\right)$

Segment Number	Segment Type	Starting Station	Ending Station	Diameter (ft)	D/S Invert	U/S Invert	Length (ft)	Area (sq, ft)	Phi	Flow (cfs)	Slope (%)	Velocity (fps)	Hv (ft)	Sf (ft/ft)	Ave. Sf (ft/ft)	Hf (ft)	Hj (ft)	Hm (ft)	Hb (ft)	Hi (ft)	H_ (ft)	H Total (ft)	U/S EGL Elevation	U/S HGL Elevation	Pressure Flow ?	D/S EGL of U/S Segment	Final U/S EGL	Final U/S HGL
1	PIPE	10+00.00	10+74.73	2.5	3354.21	3359.01	74.7	4.91	0.00492	33.0	6.42	6.72	0.70	0.00646	0.00646	0.48						0.48	3359.48	3358.78	Yes	3362.21	3362.21	3361.51
2	INLET	10+74.73	10+74.73	2.5	3359.01	3359.01	0.0	4.91	0.00492	33.0	N/A	6.72	0.70	0.00646	0.00646	0.00						0.00	3362.21	3361.51				

Manholes/Transition Losses

	Straight Through Manhole				Junction Manhole					Bend Losses				Inlet Losses		
Segment Number	Deflection Angle	Km	Hv (ft)	Hm (ft)	Junction Angle	Kj	D/S Hv (ft)	U/S Hv (ft)	Hj (ft)	Bend Angle	Kb	Hv (ft)	Hb (ft)	Ki	Hv (ft)	Hi (ft)
1																
2																

HGL Criteria Check			
Segment Description	TMH Elevation	Cover (ft)	Criteria Met?
PIPE			
INLET	3379.5	17.99	Yes

APPENDIX C
APPROVED PLANS
(REDLINED TO SHOW REVISIONS)

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM		DATE: June 25, 2019
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: Summerlin West Village 21 - Desert Foothills Drive (Redpoint Drive to Summerlin Parkway)	
Cross Streets:	Desert Foothills Dr. from Redpoint Drive to Summerlin Parkway	COPIES TO: VTN Nevada
File Number:	F:\Depot\DSMemos\DS5052E.doc	Howard Hughes Company, LLC
Parcel Number:	137-26-101-001	Bart Anderson, P.E., DevCo
Zoning Action:	N/A	CCRFC
FEMA Flood Zone	YES NO X	
Proposed Storm Drain	YES X NO	

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
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CCRFC	6/20/2019	6/25/2019	Concurrence Recv'd	N/C	N/C
TOTAL FEES (LDDRS):				\$1,600.00	----

REMARKS:

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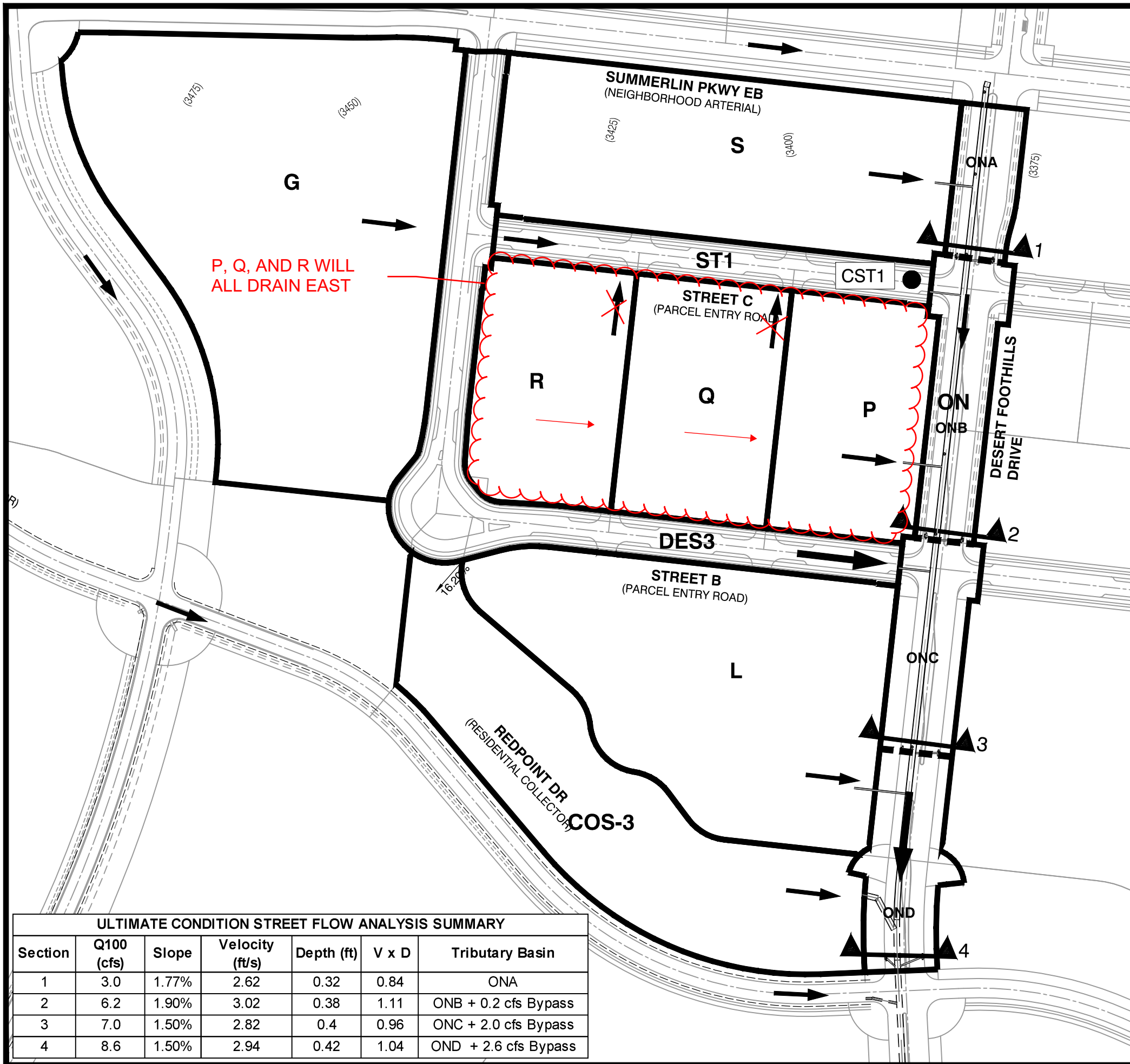
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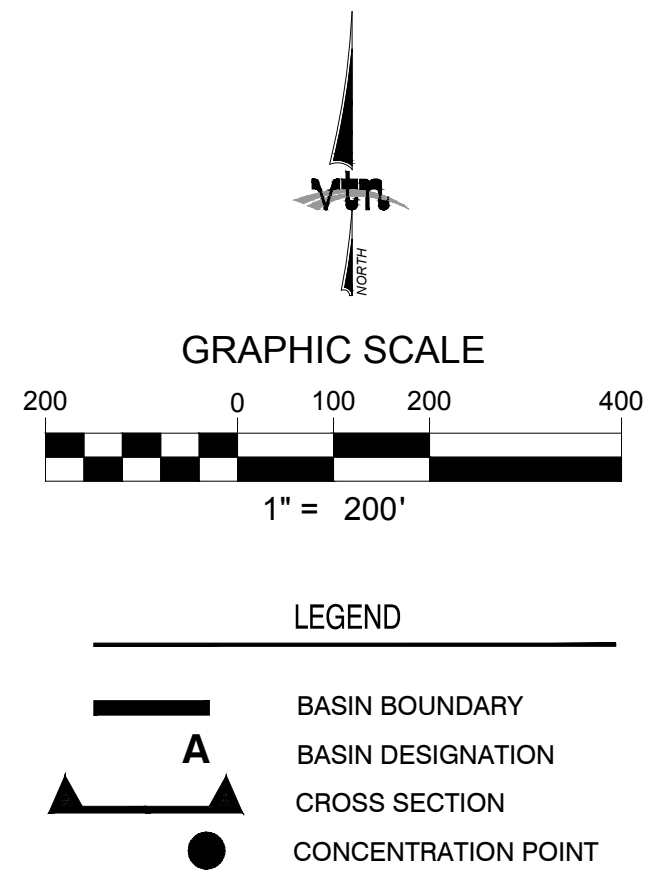
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WSP/AYS

T/R/S: T20S/R59E/26
AREA K-26

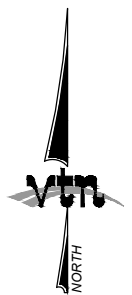
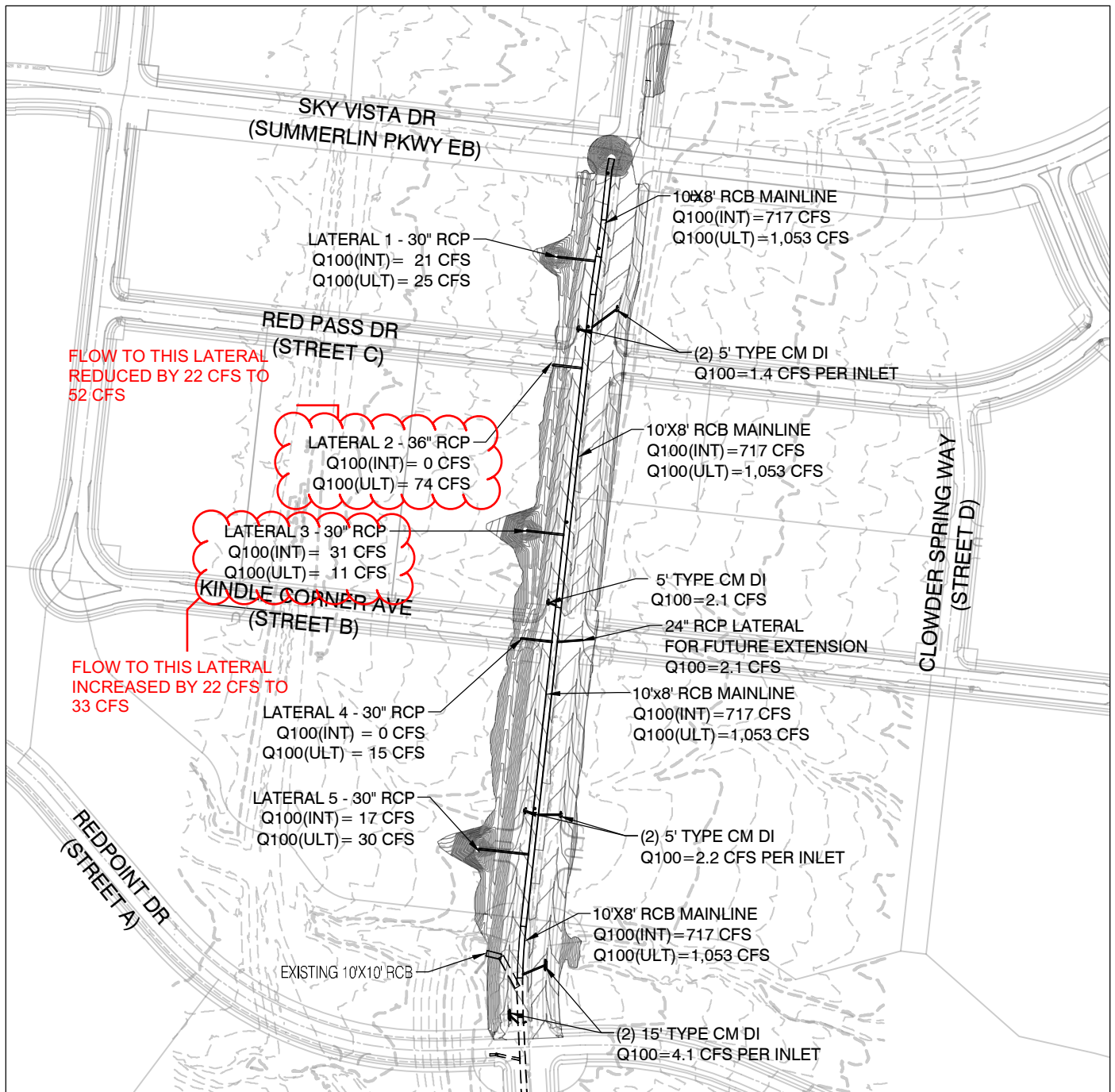


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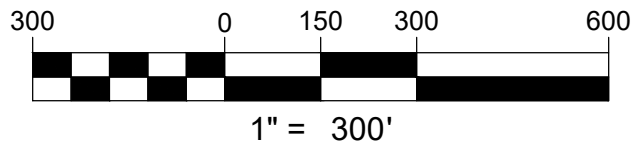


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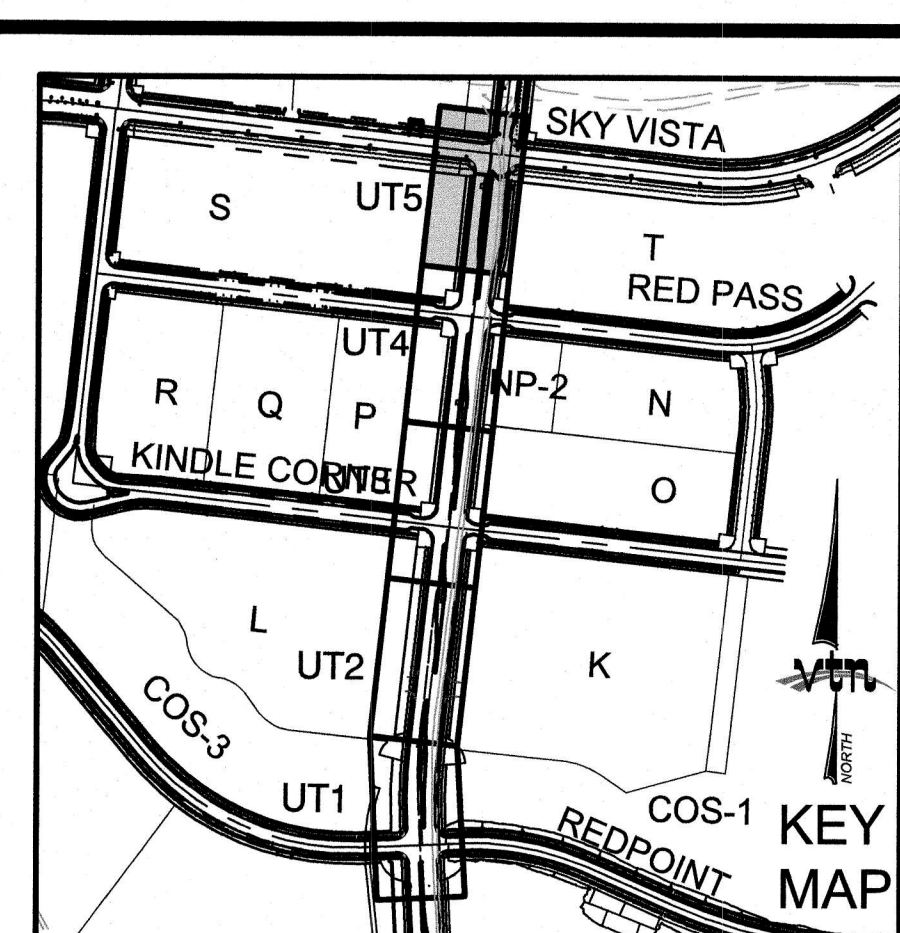
H:\7851\Desert Foothills-Street A to Summerlin Pkwy\Drainage\3_ADD#2\A Figures\Figure 9 - Storm Drain Facilities Map.dwg

vtm
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NV 89146-5148

SUMMERLIN WEST VILLAGE 21 DESERT FOOTHILLS DRIVE (STREET A TO SUMMERLIN PARKWAY)

FIGURE 9: PROPOSED STORM DRAIN FACILITIES MAP

SCALE	HORZ. 1" = 300'
	VERT. N/A
W.O. NO.	7851-5.6
DRAWN BY:	JYA
DATE:	APRIL 2018
SHEET	1 OF 1



APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEER

PROJECT: 136301 FIRST APPROVED DATE: 01/11/2017

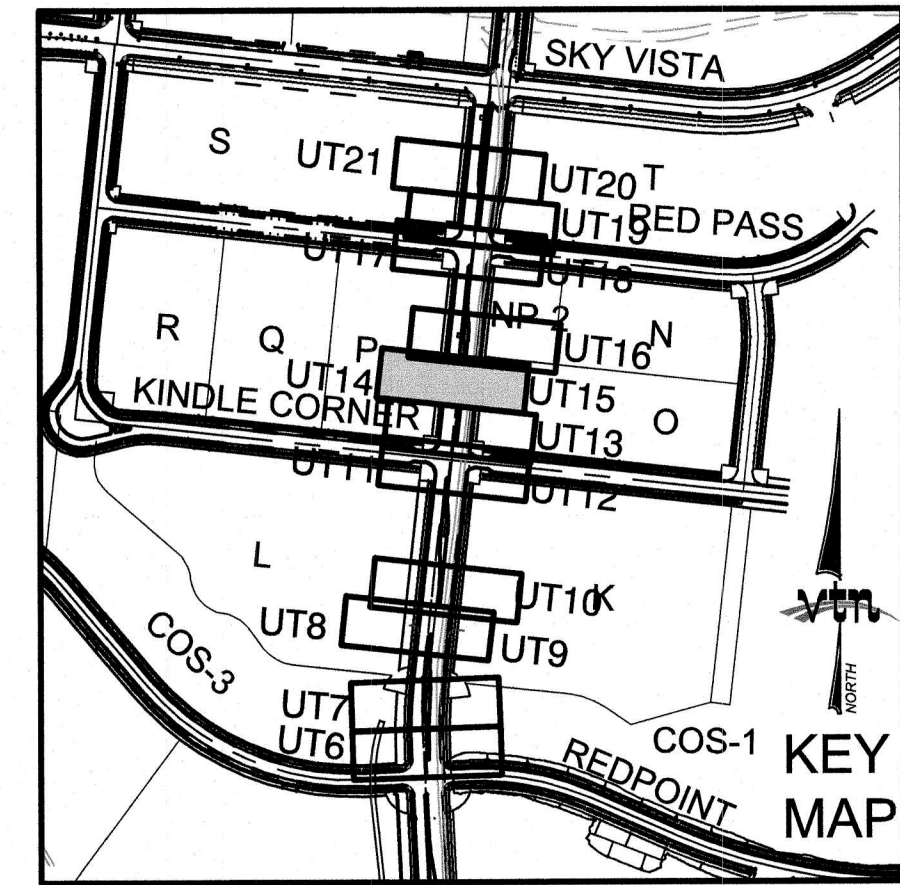
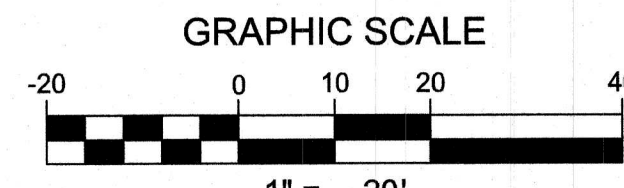
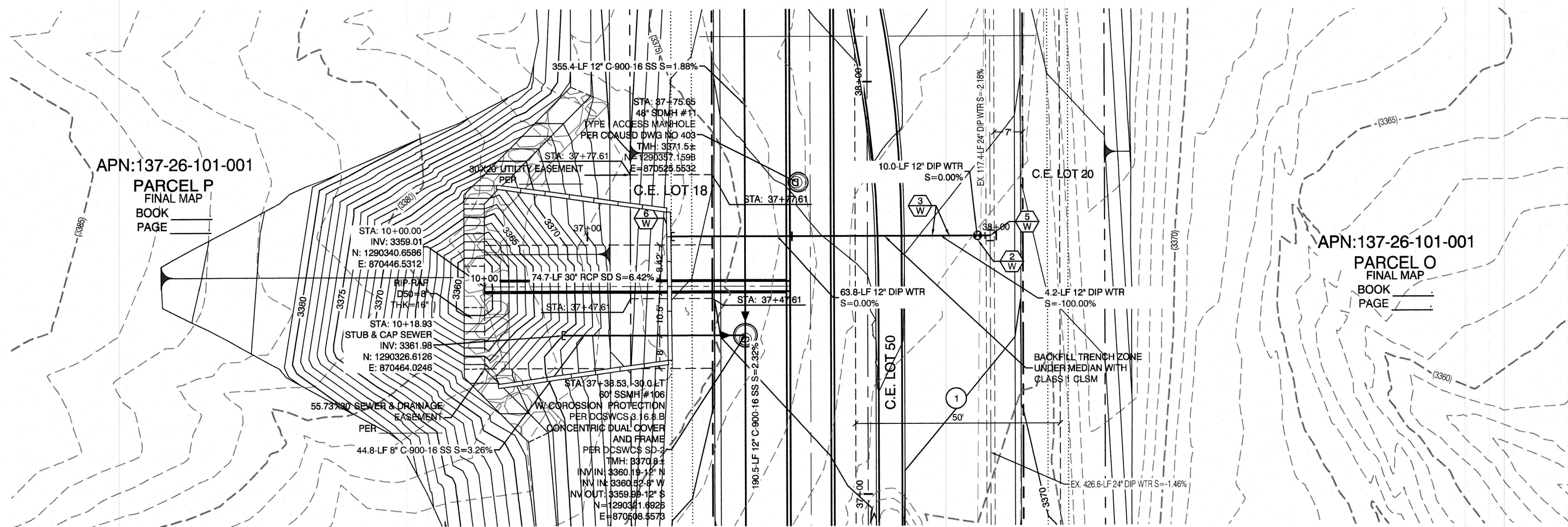
1. ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE; LOCATE MAKER 8' FROM FACE OF CURB ON HYDRANT SIDE.
2. ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE; LOCATE MAKER 16' FROM FACE OF CURB ON HYDRANT SIDE.

WATERLINE TRENCH NOTE:

 19 OF 40 SHEETS	DRAWN BY: _____ BCC _____	07/23/2018	UTILITY SHEET 5 42+00 TO 48+00	HOWARD HUGHES COMPANY, LLC A DELAWARE LIMITED LIABILITY COMPANY 10801 W. CHARLESTON BLVD SUITE 500 LAS VEGAS, NEVADA 89135 702.931.4330	 2727 SOUTH RAINBOW BOULEVARD LAS VEGAS, NEVADA 89146-5148 PH. (702) 873-7550 FAX (702) 362-2527 WEB WWW.VTNNV.COM CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS	REV	DATE
	DESIGNED BY: _____ BCC _____	07/23/2018				CITY OF LAS VEGAS	
	CHECKED BY: _____ V.M. _____	05/02/2019	SUMMERLIN WEST VILLAGE 21 DESERT FOOTHILLS DRIVE REDPOINT TO SKY VISTA				
	PROJECT NO: _____ 7851 _____	SCALE: _____ 1"=30' HORIZ 1"=4' VERT.					



Professional Engineer Seal for William J. Meyer, State of Nevada, Civil, No. 15745, dated 5/14/19.



CONSTRUCTION NOTES		
WATER		
	FIRE HYDRANT ASSEMBLY: (PER UDACS PLATE NO. 30, 39, 40 & 41) INCLUDING 24\"/>	3 EA.
	12\"/>	9 EA.
	12\"/>	12 EA.
	12\"/>	6 EA.
	24\"/>	9 EA.
	12\"/>	9 EA.
	1.5\"/>	2 EA.
	12\"/>	2 EA.
	6\"/>	109 LF.
	12\"/>	155 LF.
	12\"/>	448 LF.
	WATER POINT OF CONNECTION	
SEWER		
	STANDARD MANHOLE PER SD-1A & 1B W/ SINGLE 24\"/>	9 EA.
	8\"/>	184 LF.
	12\"/>	1,711 LF.
	SEWER POINT OF CONNECTION	

EASEMENT REFERENCE LEGEND	
1	50' WIDE LAS VEGAS VALLEY WATER DISTRICT EASEMENT GRANTED PER OR: 20070529-0001401. STA-28+75.21 TO STA-44+96.10
SANITATION SEWER NOTES	
1.	ALL SEWER STATIONING IS BASED ON CENTER OF PIPE LENGTHS FROM MANHOLE TO MANHOLE AND IS NOT RELATIVE IN ANY WAY TO STREET CENTERLINE STATIONING. STREET CENTERLINE STATIONING IS SHOWN ON PLAN FOR ROAD REFERENCE ONLY.
2.	ALL MANHOLES ARE 48\"/>
3.	ALL MANHOLES ARE TO BE CONSTRUCTED PER DCSWCS SD-1A AND SD-1B.
4.	ALL MANHOLE COVERS AND FRAMES ARE TO BE CONSTRUCTED PER DCSWCS SD-2.
5.	ALL MANHOLE COLLARS ARE TO BE CONSTRUCT PER DCSWCS SD-4.
6.	ALL SEWER LATERAL CONNECTIONS TO SEWER MAINS ARE TO BE CONSTRUCTED PER DCSWCS SD-22 UNLESS OTHERWISE NOTED ON PLAN.

WATER CONSTRUCTION NOTES	
ALL DIMENSIONS TO UTILITIES ARE TO CENTERLINE OF PIPE UNLESS INDICATED OTHERWISE.	
CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.	
ALL EXISTING UTILITY STRUCTURES WITHIN CONSTRUCTION AREA SHALL BE ADJUSTED TO MATCH FINISH GRADE (I.E. W.V. BOX, M.H. ANNODE BOX, FH, TEL. BOX, ETC.)	
1.	WATER LINE STATIONING IS BASED ON THE CENTERLINE OF STREET RIGHT OF WAY
2.	WATER LINE SHALL BE C-900 PVC APPROVED BY THE LAS VEGAS VALLEY WATER DISTRICT.
3.	EXISTING ASPHALT SHALL BE REMOVED AND REPLACED PER CITY OF LAS VEGAS SPECIFICATIONS. BACKFILL AND INSTALL PERMANENT PATCH PER CITY STANDARD FOR THIS PLAN.
4.	SEE SHEET NT FOR PUBLIC UTILITY NOTES AND GENERAL WATER CONSTRUCTION NOTES.
5.	ALL WATER LINE IN STREET RIGHT OF WAY IS PUBLIC WATER SYSTEM AND MUST BE INSPECTED BY THE LAS VEGAS VALLEY WATER DISTRICT.

WATER PRESSURE ZONE:	
WATER SERVICE LOCATED IN THE 3550 PRESSURE ZONE.	

WATER MAIN COVER NOTE:	
ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08	

WATERLINE TRENCH NOTE:	
CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.	

LAS VEGAS FIRE & RESCUE APPROVAL	
BY: _____	DATE: _____
APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW 1500 GPM AT 20 P.S.I. RESIDUAL.	

WATER MAIN JOINT DEFLECTION	
PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.02.	
FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.	

FIRE HYDRANT MARKER NOTES	
BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED:	
1.	ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE; LOCATE MAKER 8' FROM FACE OF CURB ON HYDRANT SIDE.
2.	ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE; LOCATE MARKER 16' FROM FACE OF CURB ON HYDRANT SIDE.

UTILITY CROSSING NOTE:	
ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.	

ENGINEER DISCLAIMER NOTE:	
UTILITY LOCATIONS SHOWN HERE ON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HERE ON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.	

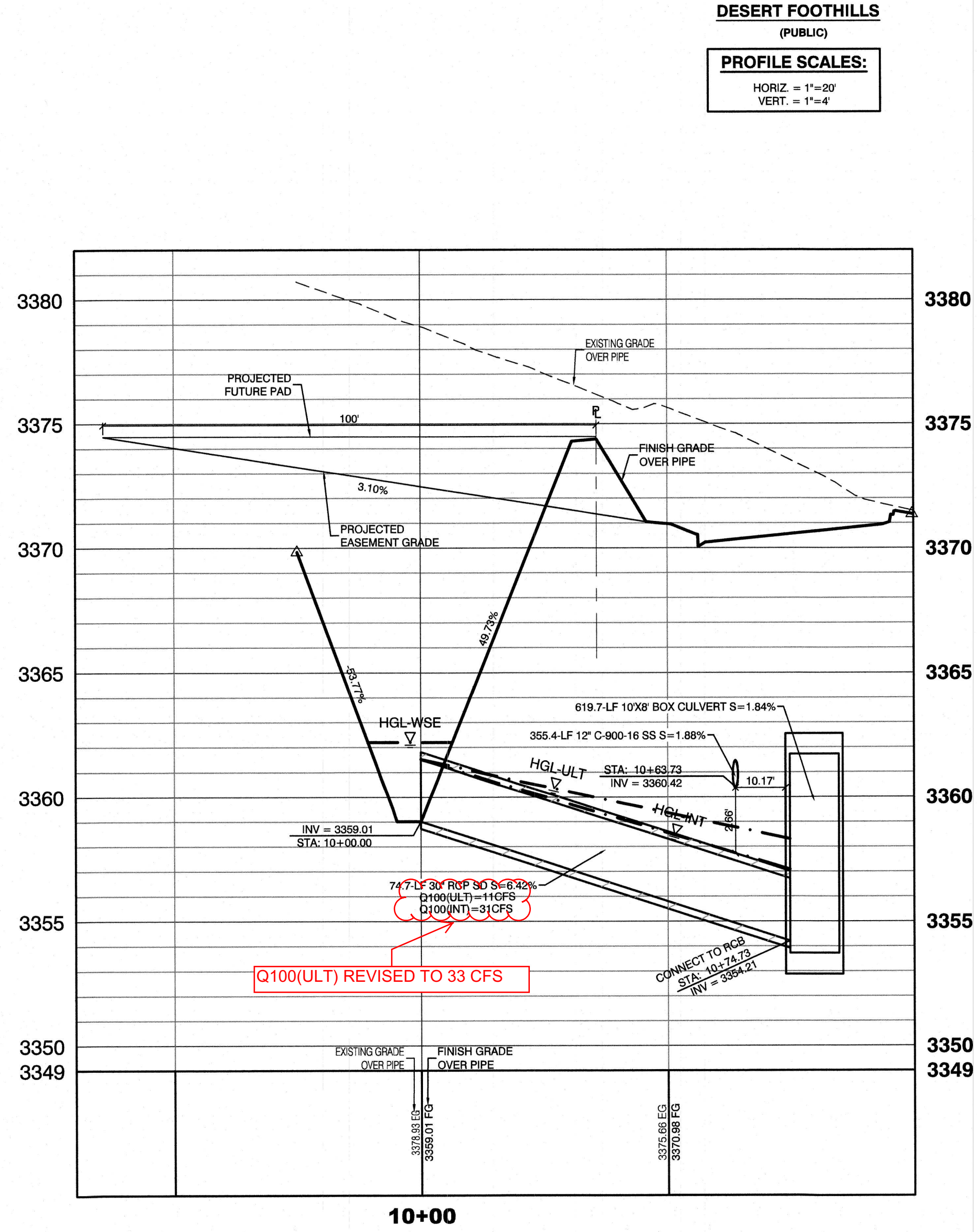
TYPICAL WATER NOTES	
1.	MAINTAIN A MINIMUM OF 12-INCHES VERTICAL SEPARATION AT ALL POINTS OF UTILITY CROSSINGS.
2.	MAINTAIN A MINIMUM OF 3-FEET PARALLEL SEPARATION FROM ADJACENT UTILITIES.
3.	ANY EXCAVATION AT THE BACK OF A CURB MUST REMAIN OPEN FOR INSPECTION OF THE COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL WHICH IS KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.
4.	CAUTION MUST BE EXERCISED NEAR ANY EXCAVATION AROUND AN EXISTING FIRE HYDRANT IN ORDER TO AVOID DISTURBING THE THRUST BLOCK AND SURROUNDING SOIL. SUPPORTING THE THRUST BLOCK. THIS PREVENTS THE POSSIBILITY OF THE HYDRANT SEPARATING FROM THE LATERAL. PROVIDE A DETAIL OF THE PROPOSED INSTALLATION SHOWING ADEQUATE CLEARANCES TO AVOID DISTURBING EXISTING LVWWD FACILITIES.

SIGHT VISIBILITY ZONES:	
NO STRUCTURE, WALLS, VEGETATION, OR OBJECT OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.	

WATER LINE MARKER BALLS NOTE	
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15	

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT:136301 FIRST APPROVED DATE: _____
LVWWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM



Call before you dig
1-800-451-7511
CLARK COUNTY TRAFFIC OPERATIONS
1-702-228-8811
LAS VEGAS AREA COMPUTORIZED TRAFFIC SYSTEM

Call before you dig
1-702-227-2929

Call before you dig
1-800-227-2800
CLARK COUNTY TRAFFIC OPERATIONS

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
10801 W. WAREHOUSES BLVD SUITE 800
LAS VEGAS, NV 89135
702-791-4000

CITY OF LAS VEGAS
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89146-5148
PH: (702) 973-7550 FAX: (702) 362-2397 WEB: WWW.VTNV.COM
CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS

UTILITY LATERAL SHEET 14

SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA

DRAWN BY: BCC
DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO: 7851

DATE: 08/02/2018
DATE: 08/02/2018
DATE: 08/02/2019

SCALE: 1\"/>

WILLIAM J. MEYER
EXP: 12/31/19
CIVIL
NO. 15745
5/14/19

UT14
28 OF 40 SHEETS
DRAWING NO. L19-00350

H:\7851\Desert Foothills\Sheet A to Summerlin\Priv Sheet\801281 UT LAT 2.dwg 2/13/2019 3:57 PM\kcampbell

SHEET #	SHEET	DESCRIPTION	STATION
1	CV	COVER SHEET	
2	NT	NOTE SHEET	
3	HC	HORIZONTAL CONTROL	
4	MUTSS	MASTER UTILITY SEWER	
5	MUTSD	MASTER UTILITY STORM DRAIN	
6	MUTW	MASTER UTILITY WATER	
7	MGRD	MASTER GRADING	
8	GR1	GRADING SHEET 1	
9	GR2	GRADING SHEET 2	
10	GR3	GRADING SHEET 3	
11	GR4	GRADING SHEET 4	
12	GR5	GRADING SHEET 5	
13	DT1	DETAIL SHEET 1	
14	DT2	DETAIL SHEET 2	
15	UT1	UTILITY SHEET 1	26+00 TO 30+00
16	UT2	UTILITY SHEET 2	30+00 TO 34+00
17	UT3	UTILITY SHEET 3	34+00 TO 38+00
18	UT4	UTILITY SHEET 4	38+00 TO 42+00
19	UT5	UTILITY SHEET 5	42+00 TO 46+00
20	UT6	UTILITY LATERAL SHEET 6	46+00 TO 50+00
21	UT7	UTILITY LATERAL SHEET 7	50+00 TO 54+00
22	UT8	UTILITY LATERAL SHEET 8	54+00 TO 58+00
23	UT9	UTILITY LATERAL SHEET 9	58+00 TO 62+00
24	UT10	UTILITY LATERAL SHEET 10	62+00 TO 66+00
25	UT11	UTILITY LATERAL SHEET 11	66+00 TO 70+00
26	UT12	UTILITY LATERAL SHEET 12	70+00 TO 74+00
27	UT13	UTILITY LATERAL SHEET 13	74+00 TO 78+00
28	UT14	UTILITY LATERAL SHEET 14	78+00 TO 82+00
29	UT15	UTILITY LATERAL SHEET 15	82+00 TO 86+00
30	UT16	UTILITY LATERAL SHEET 16	86+00 TO 90+00
31	UT17	UTILITY LATERAL SHEET 17	90+00 TO 94+00
32	UT18	UTILITY LATERAL SHEET 18	94+00 TO 98+00
33	UT19	UTILITY LATERAL SHEET 19	98+00 TO 102+00
34	UT20	UTILITY LATERAL SHEET 20	102+00 TO 106+00
35	UT21	UTILITY LATERAL SHEET 21	106+00 TO 110+00
36	TR1	TRAFFIC PLAN 1	26+50 TO 36+50
37	TR2	TRAFFIC PLAN 2	36+50 TO 46+50
38	S1	DROP INLET DETAIL	
39	S2	STRUCTURAL DETAIL	
40	S3	JUNCTION STRUCTURE DETAIL	

[illegible]

CITY OF LAS VEGAS GENERAL NOTES

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA NEVADA", LATEST ISSUE, THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION, CLARK COUNTY AREA NEVADA" LATEST REVISION EDITION, THE "SUMMERLIN IMPROVEMENT STANDARDS" FOR WORK IN THE SUMMERLIN AREA, AND OTHER APPLICABLE APPROVED STANDARDS ISSUED BY THE CONTROLLING AGENCY, THE "UNIFORM BUILDING CODE" AND ALL LOCAL CITY CODES AND ORDINANCES APPLICABLE, EXCEPT AS NOTED ON THIS SHEET AS "DEVIATIONS FROM STANDARDS".
- THE EXISTENCE AND LOCATION OF ANY OVERHEAD OR UNDERGROUND UTILITY LINES, PIPES, OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A RESEARCH OF THE AVAILABLE RECORDS. EXISTING UTILITIES AS SHOWN FROM CLV PLANS LIBRARY ARE APPROXIMATE AND FOR RECORD PURPOSES. EXISTING UTILITIES ARE LOCATED ON PLANS ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. EXISTING UTILITY SERVICE LATERALS MAY NOT BE SHOWN ON THE PLANS. THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, LOCATE ALL UNDERGROUND AND OVERHEAD INTERFERENCES WHICH MAY AFFECT HIS OPERATION DURING CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO SAME. THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD UTILITIES SO AS TO SAFELY PROTECT ALL PERSONNEL AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COST AND LIABILITY IN CONNECTION THEREWITH.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING UTILITY LINES, STRUCTURES AND STREET IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE, FROM DAMAGE AND ALL SUCH IMPROVEMENTS OR STRUCTURES DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR REPLACED SATISFACTORY TO THE CITY ENGINEER AND OWNING UTILITY COMPANY AT THE EXPENSE OF THE CONTRACTOR.
- ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS, ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.
- TYPE V CEMENT SHALL BE USED IN ALL OFF-SITE CONCRETE WORK. CONCRETE TO BE 3000 P.S.I. MINIMUM @ 28 DAYS. MIX DESIGNS TO BE APPROVED BY THE CITY, PRIOR TO THE USE ON THE PROJECT.
- PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.
- EXPANSION JOINTS REQUIRED, MAXIMUM EVERY 300' IN EXTRUDED-TYPE CURB.
- AC PAVEMENT TO BE ONE-HALF INCH (1/2") ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.
- CURB AND GUTTER FOUND TO BE UNACCEPTABLE TO THE CITY OF LAS VEGAS SHALL BE REMOVED AND REPLACED PER STANDARD DRAWING 216.
- SIDEWALK RAMPS SHALL BE CONSTRUCTED IN EACH QUADRANT OF AN INTERSECTION PER STANDARD DRAWING 235. EXACT LOCATION OF RAMPS MAY BE ADJUSTED IN THE FIELD BY A CITY INSPECTOR.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY HORIZONTAL AND VERTICAL TRANSITIONS BETWEEN NEW CONSTRUCTION AND EXISTING SURFACES TO PROVIDE FOR PROPER DRAINAGE AND FOR INGRESS AND EGRESS TO NEW CONSTRUCTION. THE EXTENT OF THE TRANSITIONS TO BE AS SHOWN ON PLANS.
- ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY: NOVA GEOTECHNICAL, PROJECT NO. G-18-003, DATED MARCH 5, 2018, APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.
- EXACT LOCATION OF ALL SAWCUT LINES MAY BE ADJUSTED OR DETERMINED IN THE FIELD BY A CITY OF LAS VEGAS ENGINEER IF LOCATION ON PLANS IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATIONS.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PROTECT EXISTING PERMANENT SURVEY MONUMENTS, ANY MONUMENTS DISTURBED SHALL BE REPLACED AND ADJUSTED PER AVAILABLE RECORDS IN ACCORDANCE WITH N.R.S. STATUTE NO. 625.380 & CITY OF LAS VEGAS TITLE 18, APPENDIX D.
- UTILITY COMPANY METER BOXES, MANHOLE LIDS, VALVE COVERS, ETC., SHALL BE LOCATED OUT OF DRIVEWAYS, DRIVEWAY APRONS, FLOWLINES, AND CROSS GUTTERS UNLESS WRITTEN APPROVAL IS GRANTED BY THE UTILITY COMPANY AND THE CITY ENGINEER.

WALL NOTES:

- ALL WALLS, NEW OR EXISTING, ARE ONLY SHOWN ON CIVIL PLANS FOR THE PURPOSE OF REVIEWING GRADING RELATIONSHIPS; FLOOD CONTROL AND SIGHT DISTANCE AT INTERSECTIONS. NEW WALLS REQUIRE A SEPARATE PERMIT AND INSPECTION BY THE BUILDING DEPARTMENT.
- ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT WITHIN CITY RIGHT OF WAY.
- CONTRACTOR SHALL ADJUST ALL NEW AND EXISTING INLETS, VALVE BOXES, MANHOLE RIMS, AND SEWER CLEAN OUTS, ETC. TO FINISH GRADE AS APPLICABLE WHETHER OR NOT THEY ARE SHOWN ON THE PLANS.
- MATERIALS, HANDLING AND PLACEMENT OF PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF MDOOT OR THE CLARK COUNTY AREA SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND DETAILS SHOWN HEREON.
- WHEN INSTALLING UNDERGROUND FACILITIES THAT REQUIRE UNDERGROUND LOCATING DEVICES SUCH AS MARKER BALLS, LOCATING RIBBON, ETC., THE CONTRACTOR SHALL PROVIDE WRITTEN DOCUMENTATION TO OFFSITE INSPECTION AND TESTING CERTIFYING THAT ALL DEVICES HAVE BEEN PLACED AND VERIFIED TO BE IN GOOD WORKING CONDITION PRIOR TO THE CONSTRUCTION OF ANY ROAD BASE.
- SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S) SHALL BE PROVIDED TO THE CITY AND APPROVED PRIOR TO ACCEPTANCE OF FACILITY VIDEO INSPECTION. THE MAP(S) SHALL INCLUDE THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES AND TRANSITION STRUCTURES, STORM DRAIN LATERALS AT THE CONNECTION TO THE STORM DRAIN MAIN AND AT THE CONNECTION TO A DROP INLET, THE CONNECTION OF SEWER SERVICE LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PLUMBING ALIGNMENT, INCLUDING DEFLECTION POINTS. THE LOCATION SHALL BE DESCRIBED BY COORDINATES WHICH SHALL BE BASED ON THE OFFICIAL HORIZONTAL AND VERTICAL CONTROL NETWORKS OF THE CITY OF LAS VEGAS. FINAL LOCATION MAPS MUST BE SEALED AND CERTIFIED BY A NEVADA PROFESSIONAL LAND SURVEYOR TO HAVE POSITIONAL CERTAINITIES OF 0.03 METERS (0.12 FEET) HORIZONTALLY AND VERTICALLY. A SEPARATE ELECTRONIC COMMA DELIMITED FILE FOR THE SANITARY SEWER AND STORM DRAIN COORDINATES SHALL ALSO ACCOMPANY THE SANITARY SEWER AND STORM DRAIN FINAL LOCATION MAP(S).
- CITY VIDEO INSPECTION IS REQUIRED FOR ALL SEWERS AND STORM DRAINS. THE CITY VIDEO INSPECTIONS NEED TO BE PERFORMED PER THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS LATEST EDITION.
- A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

24. REVISED 06/04/18

CITY OF LAS VEGAS STREETLIGHT NOTES:

- ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLANS, THE "UNIFORM STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA" LATEST REVISION (USS), AND THE "UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA" (USD), LATEST REVISION.
- DESIGN PROFESSIONAL AND CONTRACTOR SHALL VERIFY CITY'S LATEST LED FIXTURE SPECIFICATIONS AND APPROVED FIXTURES PER CLV WEBSITE, UNDER BUILDING AND SAFETY FORMS, PRIOR TO ORDERING MATERIALS.
- NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS, ETC., LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF THE TRAFFIC AND CITY ENGINEER. ANY DEVIATION FROM THE PLAN LOCATION WILL REQUIRE COMPLIANCE WITH SECTION 623 OF THE USS.
- ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION IN ACCORDANCE WITH SECTION 623 G.03.01 OF THE USS.
- ALL EMPTY CONDUIT SHALL HAVE AT LEAST ONE GREEN NO. #8 AWG WIRE INSTALLED AS TRACER WIRE IN ACCORDANCE WITH SECTION 623 G.02.01 OF THE USS PRIOR TO BACKFILLING AND FINAL INSPECTION.
- ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE IN COMPLIANCE WITH USD NO. 300A WHEN POLE IS TO BE INSTALLED AT NO TIME COMING SIDEWALK, AND SHALL SETBACK ENCLOSE THE STREET LIGHTING POLE.
- AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE TRAFFIC ENGINEERING DIVISION PRIOR TO ANY PRE-FINAL INSPECTION. THE AS-BUILT DRAWING NEEDS TO BE SIGNED BY THE PREPARER.
- SERVICE POINTS SHALL BE COORDINATED WITH NV ENERGY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. SERVICE POINTS SHALL BE SHOWN ON THE PLANS.
- WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREETLIGHTING CIRCUITS AND/OR POLES, THESE CONFLICTS MUST BE RESOLVED BETWEEN THE DEVELOPER AND THE UTILITIES INVOLVED BEFORE STREETLIGHT BASES ARE INSTALLED, AT NO EXPENSE TO THE CITY OF LAS VEGAS.
- THE CONTRACTOR SHALL FURNISH COMPLETE CONDUIT, WIRE, ETC. FROM SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON THE PLANS.

REVISED JUNE 4, 2018 (LD VERSION)

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

CITY OF LAS VEGAS BENCHMARK: D388 (REVISED 2008)

NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)

FND USC&GS DISC SET IN ROCK RIDGE 159' SOUTH OF

CHARLESTON BLVD. & WEST OF DETENTION BASIN.

T21S, R69E, S03

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS HIGH ELEVATION ZONE, NORTH AMERICAN DATUM OF 1983; SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

LINEAR UNIT: US SURVEY FOOT (FUTS)

DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00

SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

ZONE: LAS VEGAS HIGH ELEVATION ZONE

PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 400,000.00 M (1,312,333.3333 FUTS)
EASTING AT CENTRAL MERIDIAN: 300,000 M (984,250.0000 FUTS)
SCALE FACTOR ON CENTRAL MERIDIAN: 1.000135 (EXACT)

NOTES:

- ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.
- GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT: 136301 FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM

CITY OF LAS VEGAS FIRE DEPARTMENT NOTES

- ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LAS VEGAS FIRE AND RESCUE ADOPTED FIRE CODE ORDINANCE #6631 FOR HYDRANT SPECIFICATIONS AND HYDRANT INSTALLATION SPECIFICATIONS.
- ONLY FIRE HYDRANTS THAT ARE ON THE LAS VEGAS VALEY WATER DISTRICTS' - APPROVED PRODUCTS LIST ARE ALLOWED TO BE INSTALLED.
- A PERMIT IS REQUIRED FROM LAS VEGAS FIRE AND RESCUE FOR THE INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTORS MATERIAL TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER BEFORE COMMENCEMENT OF WORK. [IFC § 105.6.15]
- ON ANY RESIDENTIAL OR COMMERCIAL INSTALLATIONS, FIRE HYDRANTS SHALL BE INSTALLED AND FIRE APPARATUS ACCESS ROADS SHALL BE MAINTAINED BEFORE COMMENCEMENT OF ANY COMBUSTIBLE CONSTRUCTION. ALL FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER AND SHALL BE CAPABLE OF DELIVERING THE REQUIRED FIRE FLOW. [IFC § 507.5.3, § 3332]
- TO IDENTIFY THE FIRE HYDRANT LOCATIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTERLINE OF THE STREET ADJACENT TO THE FIRE HYDRANTS. [IFC § 507.5.7.3]
- ALL UNDERGROUND INSPECTIONS, PRESSURE AND FLUSH VERIFICATIONS OF ALL FIRE HYDRANTS AND FIRE LINES, SHALL BE CONDUCTED BEFORE COVERING THE LINES. CENTER LOADING IS ACCEPTABLE FOR THE HYDRO TESTS WITH PRIOR FIRE PREVENTION APPROVAL. [IFC § 106.3]
- ALL ON-SITE UNDERGROUND WATER MAINS AND MATERIALS SHALL BE U.L. LISTED, A.W.W.A. APPROVED AND SHALL BE RATED FOR THE APPROPRIATE WORKING PRESSURE. [IFC § 507.2.1, NFPA 24]
- PAINTING OF CURBS, FIRE HYDRANTS, PADS, PROTECTION OF FIRE HYDRANTS FROM PHYSICAL DAMAGE, AND ALL OTHER WORK NECESSARY PER PLANS SHALL BE COMPLETED BEFORE APPROVAL BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION. [IFC § 507]
- PRIVATE HYDRANTS SHALL BE PAINTED RED. [IFC § 507.5.7.1]
- PRIOR TO THE FINAL OCCUPANCY, A FIRE FLOW TEST SHALL BE WITNESSED BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION TO VERIFY AVAILABILITY OF THE REQUIRED FIRE FLOW. [IFC § 507]
- FIRE HYDRANT SPACING SHALL BE AS FOLLOWS: [IFC § C102]
RESIDENTIAL - 500 FT UNSPRINKLERED; 600 FT SPRINKLERED.
COMMERCIAL - 300 FT UNSPRINKLERED; 400 FT SPRINKLERED.
- WHERE THE WATER MAINS ARE EXTENDED ALONG STREETS OR NEW STREETS ARE INSTALLED WHERE FIRE HYDRANTS ARE NOT NEEDED FOR PROTECTION OF THE STRUCTURES, FIRE HYDRANTS SHALL BE INSTALLED AT A MAXIMUM OF 1000 FT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS OR HAVE FOUR (4) OR MORE TRAFFIC LANES AND HAVE A TRAFFIC COUNT OF MORE THAN 30,000 PER DAY, HYDRANTS ARE REQUIRED ON EACH SIDE OF THE STREET SPACED AT 500 FT ON AN ALTERNATING BASIS. [IFC § C102.8]
- NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE RADIUS OF A CUL-DE-SAC OR WITHIN 20 FT OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
- NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FT OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT OR ANY OTHER OBSTRUCTION. [IFC § C102.10]
- A MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A ONE-TWO FAMILY DWELLING SHALL NOT EXCEED 300 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC § C102.4]
- THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FIRE DEPARTMENT CONNECTION (FDC) SHALL NOT EXCEED 100 FT, AS MEASURED BY AN APPROVED ROUTE. [IFC § C102.7]
- THE MAXIMUM DISTANCE FROM A HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FT. [IFC § C102.6]
- TWO (2) SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE IS 4 OR MORE FIRE HYDRANTS/SPRINKLER LEAD-INS ARE INSTALLED ON A SINGLE SYSTEM. FOR SYSTEMS REQUIRED TO HAVE TWO (2) SOURCES OF WATER SUPPLY, SECTIONAL CONTROL VALVES SHALL BE INSTALLED SO THAT NO MORE THAN 2 FIRE HYDRANTS AND/OR FIRE SPRINKLER LEAD-INS CAN BE OUT OF SERVICE DUE TO A SERVICE INTERRUPTION. FOR SYSTEMS PERMITTED TO HAVE ONE SOURCE OF WATER SUPPLY, SECTIONAL CONTROL VALVES SHALL BE INSTALLED SO THAT NO MORE THAN 3 FIRE HYDRANTS AND/OR FIRE SPRINKLER LEAD-INS CAN BE OUT OF SERVICE DUE TO A SERVICE INTERRUPTION. [IFC § C104]
- ALL FIRE APPARATUS ACCESS ROADS SHALL BE PAVED TO PROVIDE ALL-WEATHER DRIVING CAPABILITIES, AND SHALL BE DESIGNED AND MAINTAINED TO SUPPORT THE IMPOSED LOADS OF THE FIRE APPARATUS. [IFC § 503.2.3]
- THE GRADIENT FOR THE FIRE APPARATUS ACCESS ROADS SHALL NOT EXCEED 12%. ANGLES OF APPROACH AND ANGLES OF DEPARTURE SHALL NOT EXCEED 6% FOR 25 FT PRIOR TO OR AFTER THE GRADE CHANGE. ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT EXCEED 6%. [IFC § 503.2.7, § 503.2.8]
- THE TURNING RADIUS OF THE FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN 52 FT OUTSIDE AND 28 FT INSIDE TURNING RADIUS. [IFC § 503.2.4]
- VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL NOT BE LESS THAN 13FT 6 INS. [IFC § 503.1.1]
- FIRE DEPARTMENT ACCESS ROADS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 33 FT WITH PARKING ON BOTH SIDES MEASURED TO FACE OF CURB. NOT LESS THAN 28 FT WIDE WITH PARKING RESTRICTED TO ONE SIDE MEASURED TO FACE OF CURB. NOT LESS THAN 24 FT WIDE WITH NO PARKING ON EITHER SIDE MEASURED TO FACE OF CURB. FIRE LINES THROUGH PARKING LOTS SHALL BE NOT LESS THAN 24 FT. [IFC § 503.2.1.1]
- A FIRE APPARATUS ACCESS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FT FROM A FIRE DEPARTMENT VEHICLE ACCESS. [IFC § 503.1.1]
- APPROVED SECONDARY FIRE APPARATUS ACCESS SHALL BE PROVIDED FOR 200 OR MORE DWELLING UNITS, ROAD(S) WITH DEAD-ENDS OR A SINGLE POINT OF ACCESS IN EXCESS OF 600 FT, CLV REGULATION AND MOU
- ALL DEAD-END FIRE APPARATUS ROADS AND/OR FIRE LINES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FT IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND HAVING A MINIMUM DIAMETER OF 81 FT, CLV REGULATION
- ALL FIRE APPARATUS ACCESS ROADS SHALL BE MARKED BY PLACING APPROVED SIGNS AT THE START OF THE DESIGNATED FIRE LANE, ONE SIGN AT THE END OF THE FIRE LANE AND WITH SIGNS AT INTERVALS OF 100 FT ALONG THE DESIGNATED FIRE LANE. SIGNS TO BE PLACED ON BOTH SIDES OF AN ACCESS ROADWAY SHALL HAVE TO BE NEEDED TO PREVENT PARKING ON EITHER SIDE. SIGNS TO BE INSTALLED NO HIGHER THAN 10 FT OR LESS THAN 6 FT FROM THE ROADWAY WIDE. THE CURB ALONG OR ON THE PAVEMENT OR CEMENT (IF NO CURB IS PROVIDED) SHALL BE PAINTED WITH A RED WEATHER RESISTANT PAINT IN ADDITION TO THE SIGNS. [IFC § 503.3]
- ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. [IFC § 503.6]
- WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS, OR HAVING FOUR OR MORE TRAVEL LANES AND A TRAFFIC COUNT OF MORE THAN 30,000 VEHICLES PER DAY, ALL HYDRANTS BEING UTILIZED TO DELIVER FIRE FLOW TO THE PROPOSED LOCATION SHALL BE LOCATED ON THE SAME SIDE OF THE STREET AS THE PROPOSED DEVELOPMENT. CLV REGULATION
EFFECTIVE DATE: FEBRUARY 4th, 2019

CITY OF LAS VEGAS TRAFFIC NOTES

- ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
- THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.
- BEFORE ANY WORK IS STARTED IN THE RIGHT-OF-WAY, THE CONTRACTOR SHALL INSTALL ALL ADVANCE WARNING SIGNS FOR THE CONSTRUCTION ZONE. THE CONTRACTOR SHALL INSTALL TEMPORARY STOP SIGNS AT ALL NEW STREET ENCROACHMENTS INTO EXISTING CITY STREETS WHERE WARRANTED IMMEDIATELY AFTER FIRST GRADING WORK IS ACCOMPLISHED, AND SHALL MAINTAIN SAID SIGNS UNTIL PERMANENT SIGNS ARE INSTALLED.
- WHEN A DESIGNATED "SUGGESTED ROUTE TO SCHOOL" IS ENCRoACHED UPON BY A CONSTRUCTION WORK ZONE AND PUBLIC WORKS STAFF IDENTIFIES A NEED FOR CROSSINGS THROUGH THAT WORK ZONE, THE CONTRACTOR SHALL BE REQUIRED TO PROVIDE A QUALIFIED "CROSSING GUARD". THE GUARD SHALL BE PRESENT FOR THE FULL DURATION OF TIME THAT CHILDREN ARE LIKELY TO BE PRESENT.
- IF THE IMPROVEMENTS NECESSITATE THE OBLITERATION, TEMPORARY OBSTRUCTION, TEMPORARY REMOVAL OR RELOCATION OF ANY EXISTING TRAFFIC PAVEMENT MARKING, SUCH PAVEMENT MARKING SHALL BE RESTORED OR REPLACED WITH LIKE MATERIALS TO THE SATISFACTION OF THE CITY TRAFFIC ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. ALL NEW TRAFFIC SIGNS SHALL UTILIZE TYPE X RETROREFLECTIVE SHEETING IN ACCORDANCE WITH COULSS 627 AND 716 AND SHALL HAVE AN ANTI-GRAFFITI PROTECTIVE OVERLAY FILM THAT IS A MATCHING COMPONENT TO, AND OF THE SAME MANUFACTURER AS THE RETROREFLECTIVE SHEETING TO WHICH IT IS APPLIED. STREET NAME SIGNS SHALL CONFORM IN THEIR ENTIRETY TO CURRENT CITY STANDARDS. ALL OTHER SIGNS SHALL BE STANDARD SIZE UNLESS OTHERWISE SPECIFIED ON THE PLANS. ALL SIGN POSTS SHALL BE INSTALLED IN ACCORDANCE WITH THE CURRENT CITY STANDARDS.
- WHEN A PROPOSED STREET LIGHT STANDARD IS LOCATED WITHIN FIVE (5) FEET OF ANY PROPOSED SIGN SHOWN ON THE PLANS TO BE MOUNTED ON A SIGNPOST, THE SIGN SHALL BE MOUNTED ON THE STREET LIGHT STANDARD AND THE SIGNPOST SHALL BE ELIMINATED.
- ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC INTO THE PORTIONS OF THE ROAD(S) BEING IMPROVED HERE UNDER, REGARDLESS OF THE STATUS OF COMPLETION OF PAVING OR OTHER OFF-SITE IMPROVEMENTS CALLED FOR BY THESE PLANS.
- STREET SIGNS AND STOP SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS.
- THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TRAFFIC CONTROL DEVICES AND FLAGGERS TO INSURE THE SAFETY OF THE PUBLIC IN OR AROUND THE WORK AREA. THE CONTRACTOR SHALL HAVE A CERTIFIED ATSSA TRAFFIC CONTROL TECHNICIAN OR ISMA WORK ZONE SAFETY SPECIALIST SET UP, MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES IN THE CITY OF LAS VEGAS RIGHT OF WAY.
- WORK IN PUBLIC STREETS, ONCE BEGUN, SHALL BE EXPEDITED TO COMPLETION SO AS TO PROVIDE MINIMUM INCONVENIENCE TO ADJACENT PROPERTY OWNERS AND TO THE TRAVELING PUBLIC.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING REGIONAL TRANSPORTATION COMMISSION OF SOUTHERN NEVADA (RTC), IF THE CONSTRUCTION INTERFERES OR RELOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON THAT STREET TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.
- GUARDS SHALL BE OBTAINED BY CONTACTING THE METROPOLITAN POLICE DEPARTMENT SPECIAL EVENTS UNIT (PHONE # 828-3442) WHO WILL BE PROVIDED OFFICERS PROPERLY TRAINED IN TRAFFIC CONTROL. THE PROTECTION WILL BE SET BY METRO AND WILL BE PAID BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL ARRANGEMENTS WITH METRO.
- ANY WORK WITHIN 300' OF A SIGNALIZED INTERSECTION WILL BE NIGHT WORK, UNLESS DIRECTED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.
- THE CONTRACTOR SHALL CONTACT THE TRAFFIC ENGINEERING DIVISION (TRANSPORTATION SECTION) THROUGH THE PROJECT'S OFFSITE INSPECTOR PRIOR TO INITIATING PAVING TO RECEIVE DIRECTION FOR ANY PERMANENT OR TEMPORARY MODIFICATIONS TO THE APPROVED DRAWINGS REGARDING FINAL PAVEMENT TRANSITIONS, MARKINGS AND SIGNING THAT ARE REQUIRED TO MATCH ADJACENT ROADWAY SEGMENTS. THE CONTRACTOR SHALL PROVIDE A DRAWING FOR APPROVAL BY THE TRAFFIC ENGINEERING DIVISION DEPICTING ANY ADJUSTMENTS TO THE FINAL PAVEMENT MARKINGS AND SIGNAGE, WHICH MAY INCLUDE OMITTING, ADDING OR MODIFYING PAVEMENT MARKINGS AND TRAFFIC CONTROL SIGNS SUCH THAT ADEQUATE TRANSITIONS AND LANE TERMINATIONS BETWEEN ADJACENT ROADWAY SEGMENTS ARE CONSTRUCTED.

REVISED JUNE 4, 2018

LAS VEGAS VALLEY WATER DISTRICT STANDARD NOTES

LVVWD PROJECT #136301

(REVISED 08/01/2017)

- NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN APPROVED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING WATER PLAN APPROVAL, NOTICE SHALL BE GIVEN TO THE LVVWD COMMUNICATION SUPPORT CENTER (288-7171) TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. FOR FUTURE INSPECTIONS, NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO THE REQUESTED LVVWD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT # IDENTIFIED ABOVE.
- ALL WORK SHALL CONFORM TO LVVWD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS, AND TO THE 2010 EDITION OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS). THE LATEST EDITION OF UDACS SHALL SUPERSEDE ANY CONFLICTS CONTAINED IN THE APPROVED DRAWINGS AND/OR SPECIFICATIONS.
- ALL WORK EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2 ABOVE, SHALL BE DONE IN ACCORDANCE WITH THE MOST RECENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENT, CLARK COUNTY AREA. A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVVWD.
- ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE TYPE K COPPER TUBING WITH LVVWD APPROVED SERVICE SADDLES.
- ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
- ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.
- ALL WATER AND STORM DRAIN OR SANITARY SEWER CROSSESS SHALL CONFORM TO SECTION 2.22 OF THE 2010 EDITION OF THE UDACS.
- ALL WATER FACILITIES AND APPURTENANCES SHALL BE DISINFECTED, PRESSURE TESTED, AND HAVE AN ACCEPTABLE PASSING HEALTH WATER SAMPLE OBTAINED, PRIOR TO OPERATION AND USE.
- THE CONTRACTOR MUST OBTAIN ALL METERS TWO (2) INCHES AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 OR 258-3802, TWO (2) WORKING DAYS PRIOR TO METER PICKUP.
- ANY INTERRUPTION OF SERVICE MUST BE PERFORMED IN ACCORDANCE WITH UDACS SECTION 3.14.01, AND APPROVED BY THE LVVWD INSPECTION DIVISION PRIOR TO SHUTDOWN. PROPER WRITTEN NOTIFICATION MUST BE GIVEN TO ALL AFFECTED CUSTOMERS.
- ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVVWD APPROVED PRODUCT'S LIST FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS BY SUBMITTING SHOP DRAWINGS.
- TELEPHONE "CALL BEFORE YOU DIG" AT "811" OR 1-800-227-2800.
- THE INSTALLATION OF LAS VEGAS VALLEY WATER DISTRICT (LVVWD) MUNICIPAL WATER FACILITIES WITHIN ALL STREETS IS ASSUMED TO BE IN COMPLIANCE WITH THE UNIFORM STANDARDS, INCLUDING THE PLACEMENT OF ASPHALT PAVING STREET SURFACES. ANY REPAIR WORK DONE BY THE LVVWD TO THE MUNICIPAL WATER FACILITIES WILL INCLUDE THE PLACEMENT OF AN APPROPRIATELY SIZED ASPHALT REPAIR PATCH ON THE STREET SURFACE.
- ANY DECORATIVE PAVING SURFACE WITHIN THE STREET IS THE RESPONSIBILITY OF THE OWNER'S ASSOCIATION, OR THE INDIVIDUAL PROPERTY OWNERS IF NO OWNERS ASSOCIATION IS IN EXISTENCE, OR THE AGENCY HAVING JURISDICTION. DECORATIVE SURFACE MATERIALS PLACED WITHIN THE TEN FOOT EASEMENT ADJUTING A PUBLIC OR PRIVATE STREET, IF DISTURBED BY THE LVVWD DURING THE REPAIR OR OPERATION OF ITS FACILITIES, WILL BE REPLACED BY LVVWD WITH AN APPROPRIATELY SIZED PLAIN FINISH CONCRETE PATCH. THE LVVWD WILL NOT RESTORE, AND WILL NOT BE RESPONSIBLE FOR THE RESTORATION OF, ANY DECORATIVE PAVING SURFACE WITHIN THE STREET. THE LVVWD WILL NOT ATTEMPT TO MATCH COLOR OR FINISH OF ANY ADJACENT MATERIALS.
- NO LEAD COMPLIANCE NOTE:
TO COMPLY WITH THE FEDERAL SAFE DRINKING WATER ACT, ALL WATER WORKS BRASS PRODUCTS PROPOSED TO BE RELOCATED, OR INSTALLED AS NEW MUST BE INSTALLED WITH THE LEAD FREE APPROVED PRODUCT. THE OLD LEADED PRODUCT MAY NOT BE REUSED.

CITY OF LAS VEGAS SEWER NOTES

- ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA, AS AMENDED. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATIONS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM CONSTRUCTION AS PER PLANS. ANY ADDITIONS, DELETIONS, OR CHANGES SHALL FIRST MEET WITH THE APPROVAL OF THE CITY ENGINEER.
- CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
- POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACK FILL OF TYPE II AGGREGATE BASE.
- ALL MANHOLES IN PAVED STREETS 80' R/W AND LARGER, SHALL HAVE CONCRETE COLLARS. STREETS LESS THAN EIGHTY (80) FOOT R/W WILL REQUIRE RETROFIT IF PAVING DOES NOT CONFORM TO CITY STANDARDS AT THE MANHOLE.
- TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO TWELVE INCH (12") DIAMETER. CONNECTIONS TO FIFTEEN INCH (15") OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES. IN LINE "Y" S SHALL BE USED ON LINES TWELVE INCHES (12") OR ABOVE.
- WATER MAINS SHALL BE PROTECTED IN ACCORDANCE WITH LVVWD STANDARDS WHENEVER A SEWER MAIN CROSSES OVER A WATER MAIN OR THE SEWER IS LESS THAN EIGHTEEN INCH (18") UNDER A WATER MAIN.
- ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CITY OF LAS VEGAS MUST BE STATE OF NEVADA CLASS "A" CONTRACTORS.
- THE CITY OF LAS VEGAS WILL NOT ACCEPT ANY SEWER MAINS WHICH HAVE A VERTICAL DEFLECTION OF MORE THAN ONE TENTH (0.1) OF A FOOT FROM THE PROPOSED CONSTRUCTION PLANS AT ANY LOCATION. SEWER MAINS FOLANS AT ANY LOCATION, SEWER MAINS WILL HAVE TO BE REPAIRED OR REMOVED OR REPLACED TO THE SATISFACTION OF THE CITY ENGINEER PRIOR TO ACCEPTANCE BY THE CITY OF LAS VEGAS.
- INSTALLATION OF CURVED SEWER REQUIRES THE USE OF C-900 PVC PIPE WHICH ALLOWS FOR PIPE DEFLECTION AT THE JOINTS.

REVISED 04/05/10

CITY OF LAS VEGAS GRADING NOTES

- IN THE EVENT THAT ANY UNFORESEEN CONDITIONS NOT COVERED BY THESE NOTES ARE ENCOUNTERED DURING GRADING OPERATIONS, THE OWNER/ENGINEER SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTION.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PERFORM ALL NECESSARY CUTS AND FILLS WITHIN THE LIMITS OF THIS PROJECT AND THE RELATED OFF-SITE WORK, SO AS TO GENERATE THE DESIRED SUBGRADE, FINISH GRADING AND SLOPES SHOWN.
- CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL EXCAVATION, ADEQUATE SHORES SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR TO PREVENT UNDERMINING OF ANY ADJACENT FEATURES OR FACILITIES AND/OR CAVING OF THE EXCAVATION.
- THE CONTRACTOR IS WARNED THAT AN EARTHWORK BALANCE WAS NOT NECESSARILY THE INTENT OF THIS PROJECT. ANY ADDITIONAL MATERIAL REQUIRED OR LEFTOVER MATERIAL FOLLOWING EARTHWORK OPERATIONS BECOMES THE RESPONSIBILITY OF THE CONTRACTOR.
- THE GRADING CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH THE OWNER TO PROVIDE FOR THE REQUIREMENTS OF THE PROJECT STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND ASSOCIATED PERMIT.
- CONTRACTOR SHALL GRADE TO THE LINES AND ELEVATIONS SHOWN ON THE PLANS WITHIN THE FOLLOWING HORIZONTAL AND VERTICAL TOLERANCES AND DEGREES OF COMPACTION, IN THE AREAS INDICATED:
HORIZONTAL VERTICAL COMPACTION
A PAVEMENT AREA SUBGRADE 0.1" + 0.00-0.1" SEE SOILS REPORT
B ENGINEERED FILL 0.5" + 0.10-0.1" SEE SOILS REPORT
REPORT COMPACTION TESTING WILL BE PERFORMED BY THE OWNER OR HIS REPRESENTATIVE.
- ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.
- THE USE OF POTABLE WATER WITHOUT A SPECIAL PERMIT FOR BUILDING OR CONSTRUCTION PURPOSES INCLUDING CONSOLIDATION OF BACKFILL OR DUST CONTROL IS PROHIBITED. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS FOR CONSTRUCTION WATER.
- THE CONTRACTOR SHALL MAINTAIN THE STREETS, SIDEWALKS AND ALL OTHER PUBLIC RIGHT-OF-WAY IN A CLEAN, SAFE AND USABLE CONDITION. ALL SPILLS OF SOIL, ROCK OR CONSTRUCTION DEBRIS SHALL BE PROMPTLY REMOVED FROM THE PUBLICLY OWNED PROPERTY DURING CONSTRUCTION AND UPON COMPLETION OF THE PROJECT. ALL ADJACENT PROPERTY, PRIVATE OR PUBLIC SHALL BE MAINTAINED IN A CLEAN, SAFE AND USABLE CONDITION.
- IN THE EVENT THAT ANY TEMPORARY CONSTRUCTION ITEM IS REQUIRED THAT IS NOT SHOWN ON THESE DRAWINGS, THE OWNER AGREES TO PROVIDE AND INSTALL SUCH ITEM AT HIS OWN EXPENSE AND AT THE DIRECTION OF THE CITY ENGINEER. TEMPORARY CONSTRUCTION INCLUDES DITCHES, BERMS, ROAD SIGNS AND BARRICADES, ETC.

REVISED 04/15/10

SOUTHWEST GAS CORPORATION

GENERAL NOTES

- IN THE EVENT OF NATURAL GAS EMERGENCIES CALL 911 AND 1-877-860-6020

MINIMUM HORIZONTAL AND VERTICAL CLEARANCES BETWEEN NATURAL GAS FACILITIES AND ANY UNDERGROUND UTILITIES AND STRUCTURES, INCLUDING BUT NOT LIMITED TO WATER, SEWER, STORM DRAIN, COMMUNICATIONS, AND ELECTRIC SHALL BE AT LEAST 12 INCHES OR GREATER AS DICTATED BY LOCAL CODES AND STANDARDS.

A) ANY DEVIATION FROM SPECIFIED MINIMUM CLEARANCES MUST BE APPROVED BY ALL AFFECTED UTILITIES AND/OR MUNICIPALITIES

- FOR VALVE ADJUSTMENT CALL 702-668-6107 48 HOURS PRIOR TO CONSTRUCTION

IN THE EVENT OF A NATURAL GAS CONFLICT WITH EARTHWORKS CUTS AND STRUCTURES CONTACT 702-365-2099

SOUTHWEST GAS CORPORATION DATE _____

ESTIMATED GRADING QUANTITIES

5' MODIFIED TYPE "C" DROP INLET

15' MODIFIED TYPE "C" DROP INLET

ESTIMATED TRAFFIC QUANTITIES

PERMANENT STRIPING (GROUND MOUNTED)

PAVEMENT STRIPING (COLLECTOR)

PAVEMENT BUTTON (REFLECTIVE)

TWO-WAY REFLECTIVE BLUE RAISED PAVEMENT MARKER

PAVEMENT BUTTON (NON-REFLECTIVE)

YELLOW REFLECTIVE PAINT FOR MEDIAN NOSE

RED PAINTED CURB

DUAL LED STREET LIGHT

SINGLE LED STREET LIGHT

1 1/2" PVC CONDUIT (STLT) - 2820 LF / 4" PVC CONDUIT (ITS) - 6078 LF

2" PVC CONDUIT - 1709 LF / 4" PVC CONDUIT (ITS) - 2863 LF

PULLBOX

TYPE 1 PAVEMENT MARKING FILM FOR BIKE LEGEND

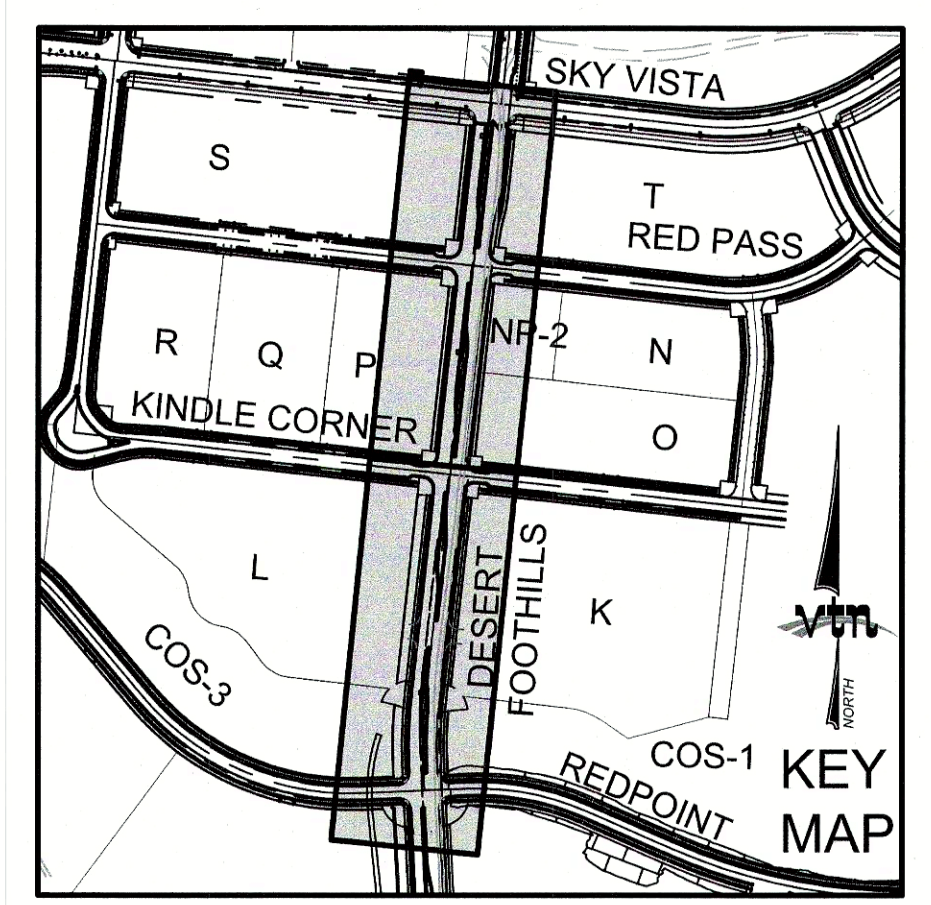
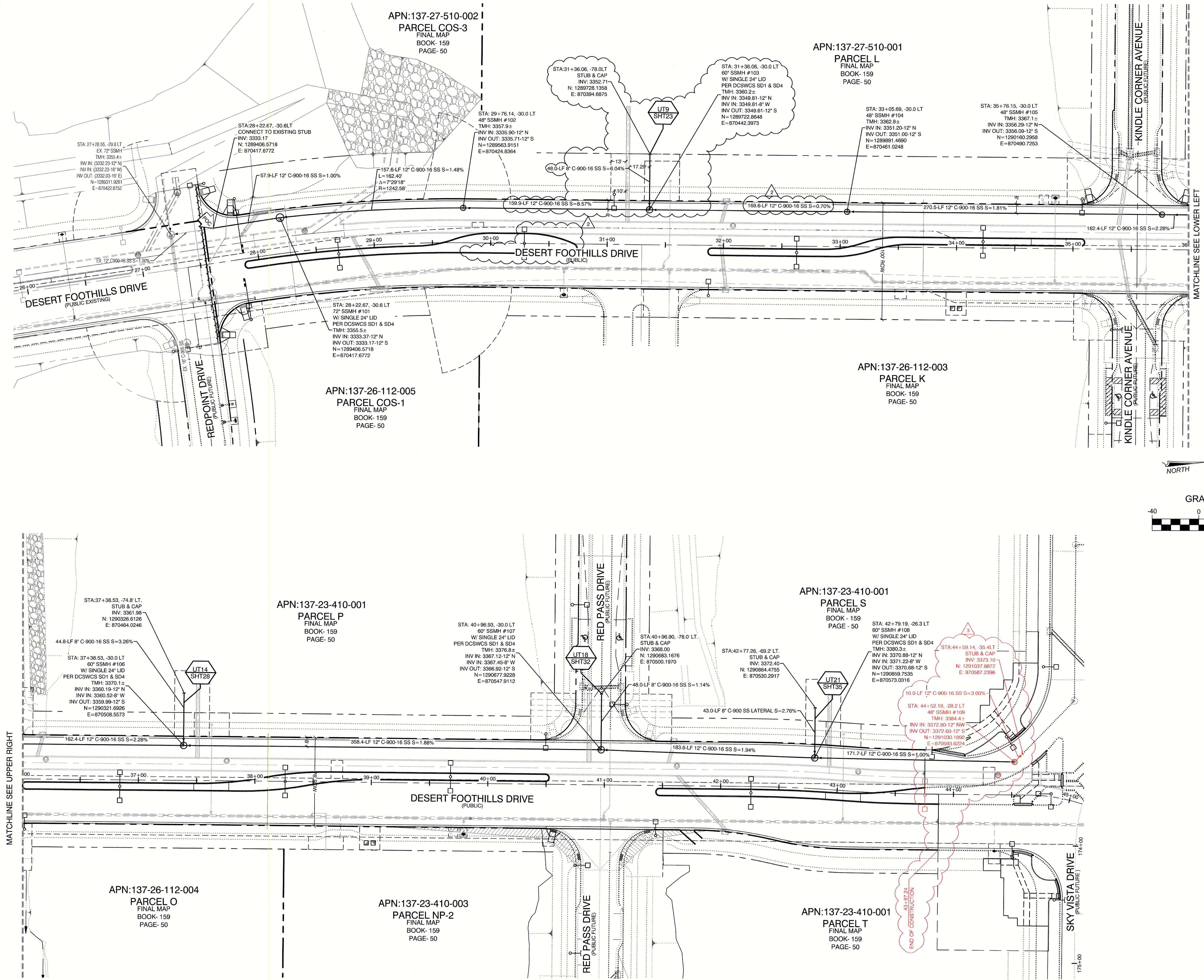
TYPE 1 PAVEMENT MARKING FILM FOR STOP BARS AND CROSSWALKS

100X8 RCB STORM DRAIN

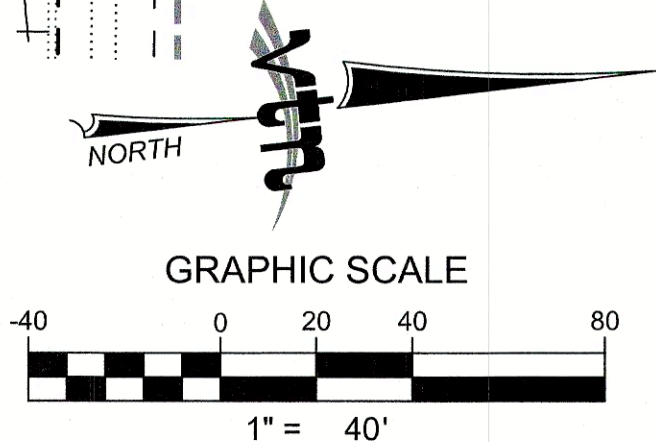
TYPE 2 PAVEMENT MARKING FILM FOR ARROWS

ABBREVIATIONS

FF	FINISH FLOOR	DI	DROP INLET
FG	FINISH GRADE	BFE	BASE FLOOD ELEVATION
FL	FLOW LINE	COUSD	CLARK COUNTY UNIFORM STANDARD DRAWINGS
TC	TOP OF CURB	SW	SIDEWALK
TRC	TOP OF ROLL CURB	TSW	TOP OF SIDEWALK
EOP	EDGE OF ASPHALT PAVEMENT	INT	INTERSECTION
FUT	FUTURE	D.G.	DESIGN GRADE
EX	EXISTING	C/L	CENTER LINE
VG	VALLEY GUTTER	OC	OFFSET CROWN
NG	NATURAL GROUND	B/C	BACK OF CURB
H.P.	HIGH POINT	BE	BEHIND CURB L/CORN
LSP	LOW POINT	BCL	BACK OF CURB



- CONSTRUCTION NOTES**
- SEWER**
- STANDARD MANHOLE PER SD-1 & SD-4
- 8" C-900-16 SANITARY
- 12" C-900-16 SANITARY
- SEWER POINT OF CONNECTION
- WATER PRESSURE ZONE:**
- WATER SERVICE LOCATED IN THE 3550 PRESSURE ZONE.
- WATER MAIN COVER NOTE:**
- ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08
- WATERLINE TRENCH NOTE:**
- CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.
- LAS VEGAS FIRE & RESCUE APPROVAL**
- BY: DATE:
- APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW 1500 GPM AT 20 P.S.I. RESIDUAL.
- UTILITY CROSSING NOTE:**
- ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.
- ENGINEER DISCLAIMER NOTE:**
- UTILITY LOCATIONS SHOWN HERE ON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HERE ON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
- WATER LINE MARKER BALLS NOTE**
- INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15
- WATER MAIN JOINT DEFLECTION**
- PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.02.
- FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.
- FIRE HYDRANT MARKER NOTES**
- BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED:
- ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE; LOCATE MARKER 8' FROM FACE OF CURB ON HYDRANT SIDE.
 - ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE; LOCATE MARKER 16' FROM FACE OF CURB ON HYDRANT SIDE.



Call before you Dig

1-702-227-2929

Call before you Dig

1-702-227-2929

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT: 136301 FIRST APPROVED DATE:

LWWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM

LWWD APPROVAL IS VALID FOR ONE (1) YEAR FROM SIGNATURE DATE. IF CONSTRUCTION IS NOT STARTED, PLANS **MUST** BE RESUBMITTED FOR REVIEW AND APPROVAL.

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89146-5148
PH: (702) 877-7550 FAX: (702) 382-2597 WEB: WWW.VTNM.COM
CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS

CITY OF LAS VEGAS

MASTER UTILITY SEWER

SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA

DRAWN BY: BCC 07/03/2019

DESIGNED BY: BCC 07/03/2019

CHECKED BY: WJM 09/15/2019

PROJECT NO: 7851

SCALE: 1"=40'

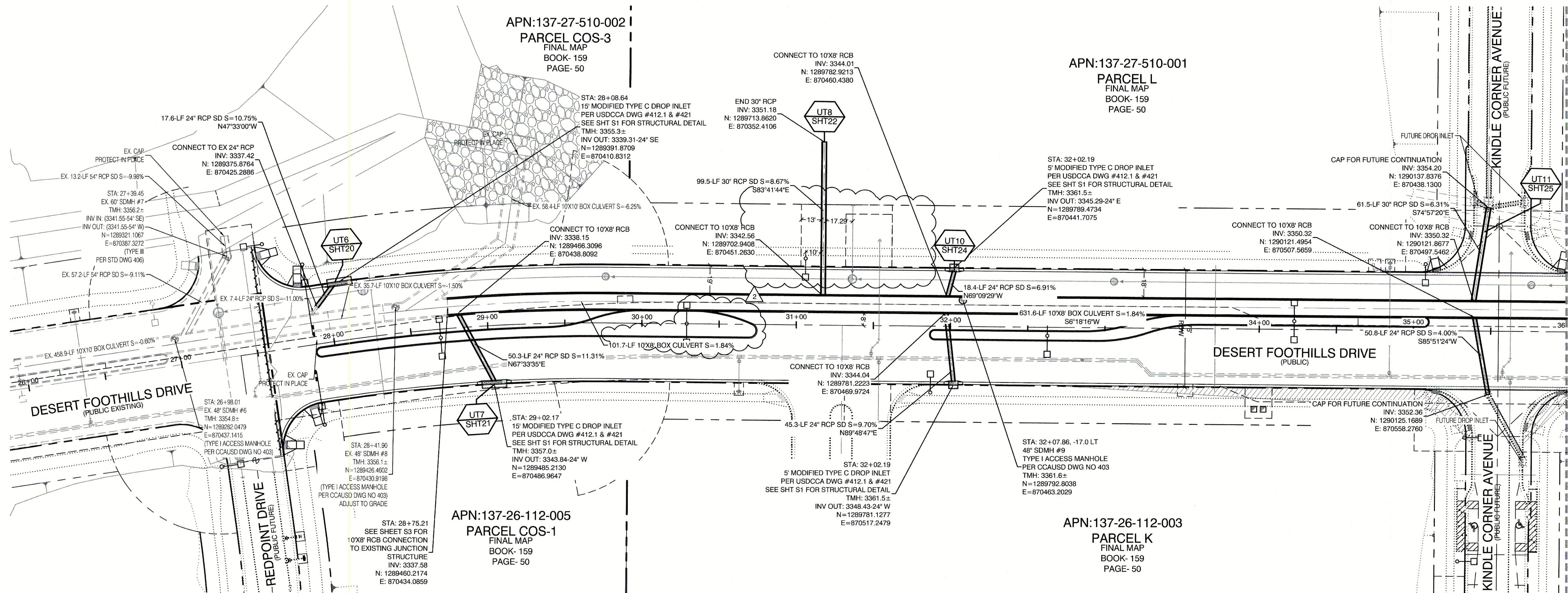
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VERT. N/A

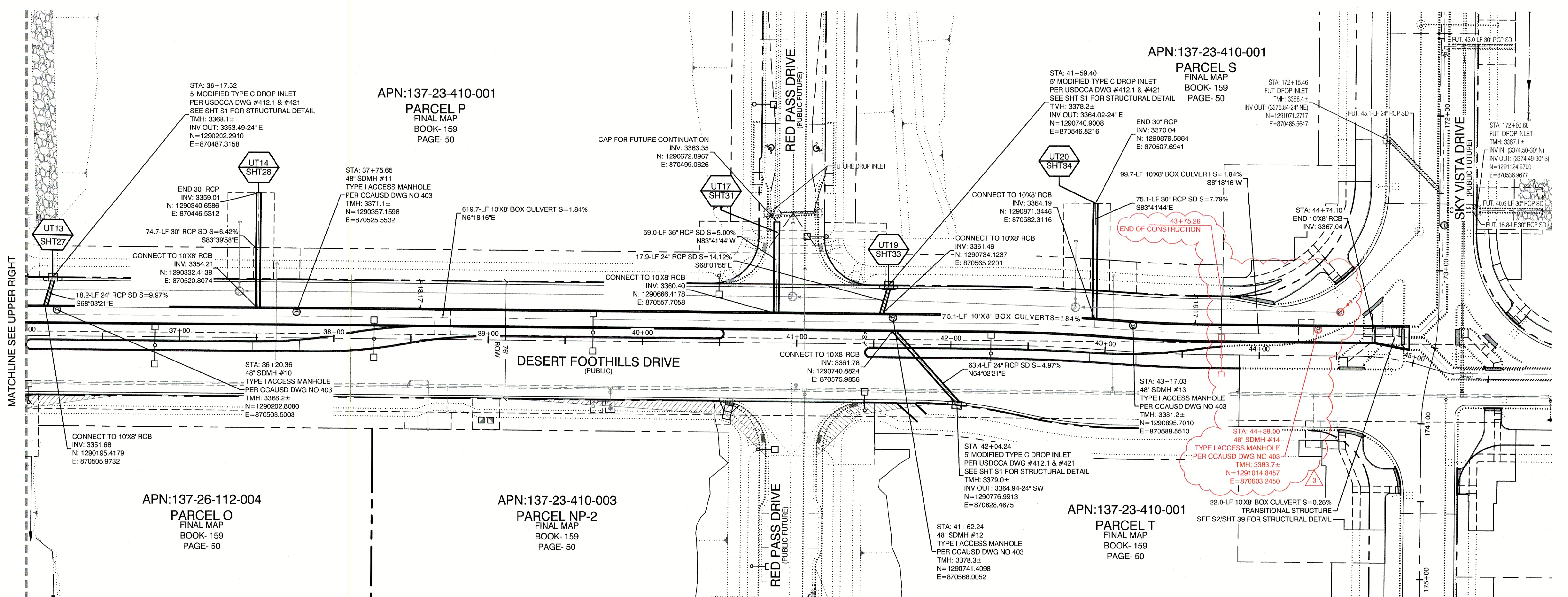
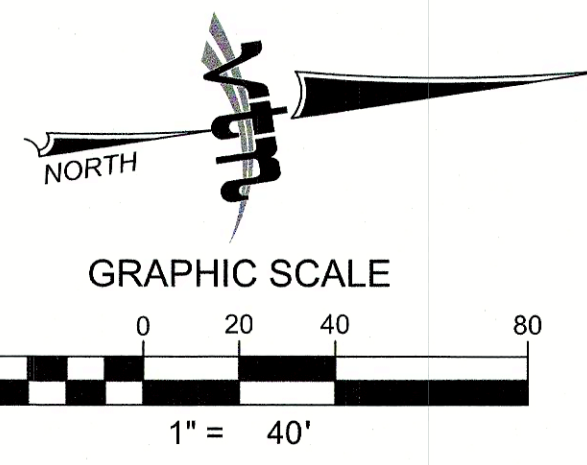
MUTSS
4 OF 40 SHEETS

DRAWING NO. L19-00350 107V7663

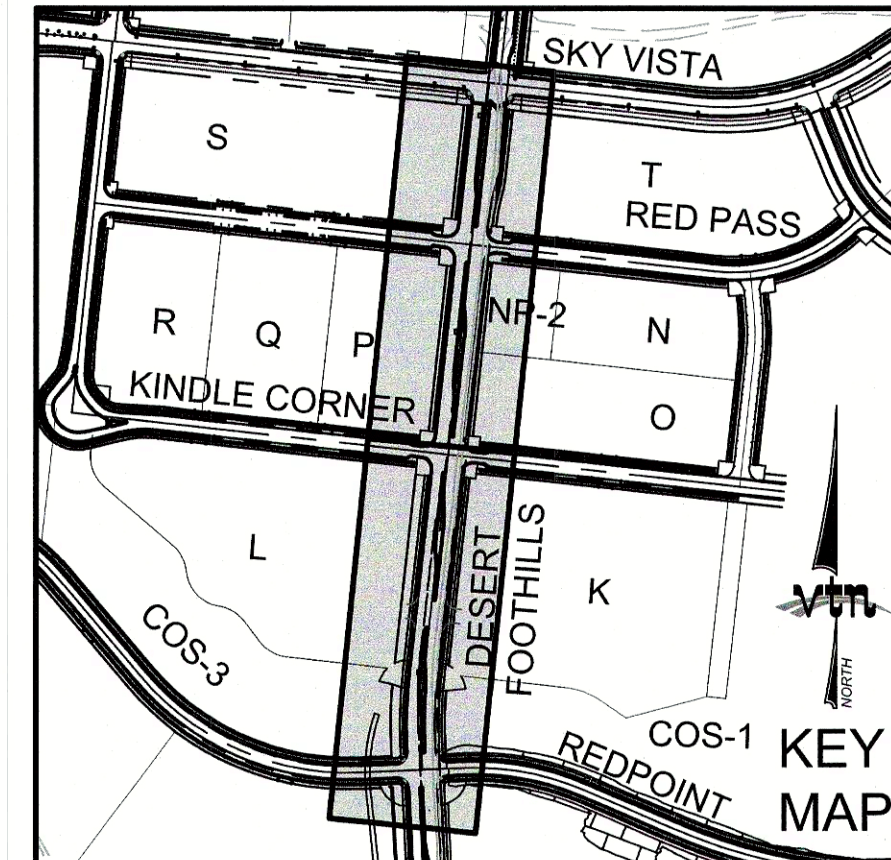
WILLIAM J. MEYER
EXP. 12/31/21
CIVIL
No. 15745



MATCHLINE SEE LOWER LEFT



MATCHLINE SEE UPPER RIGHT



BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS). LAS VEGAS HIGH ELEVATION ZONE, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

LINEAR UNIT: US SURVEY FOOT (FTUS)

DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00

SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

ZONE: LAS VEGAS HIGH ELEVATION ZONE

PROJECTION: TRANSVERSE MERCATOR

ORIGIN: 36°10'00"N

LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W

NORTHING AT GRID ORIGIN: 400,000.00 M (1,312,333.333 FTUS)

EASTING AT CENTRAL MERIDIAN: 300,000.00 M (984,250.000 FTUS)

SCALE FACTOR ON CENTRAL MERIDIAN: 1.000135 (EXACT)

NOTES:
1. ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.
2. GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008)

NAVD88 ELEVATION: 988.574 METERS (3,246.63 FEET)

FND USCGS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.

1215.859E, 503

STORM DRAIN DROP INLET NOTE:

ALL STORM DRAIN INLETS SHALL INCLUDE A STORM WATER INLET CONCRETE STAMP IN ACCORDANCE WITH CCAUSD DWG NO. 421

ENGINEER DISCLAIMER NOTE:

UTILITY LOCATIONS SHOWN HERE ON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HERE ON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

I CERTIFY THAT THIS GRADING PLAN CONFORMS TO THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE WITH CITY OF LAS VEGAS, #DS0502A

WILLIAM J MEYER, P.E. NO. 15745 DATE

GRADING PERMIT NOTE

THIS GRADING PERMIT DOES NOT INCLUDE THE CONSTRUCTION OF RETAINING WALLS AND OTHERS STRUCTURES. SEPARATE PERMITS AND APPLICATIONS ARE REQUIRED FOR THESE.

GEOTECHNICAL NOTE:

REFER TO SOILS REPORT: NOVA GEOTECHNICAL PROJECT #G-18-003, DATED MARCH 5, 2018

SIGHT VISIBILITY ZONES:

NO STRUCTURE, WALLS, VEGETATION, OR OBJECT OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

Call before you Dig

Avoid cutting underground utility lines. It's costly.

811

1-800-227-2600
OR
1-702-455-6000

CLARK COUNTY TRAFFIC DEPARTMENT

Call before you Dig

Avoid hitting underground utility lines. It's costly.

1-702-227-2929

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT: 136301 FIRST APPROVED DATE:
LVVWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM
LVVWD APPROVAL IS VALID FOR ONE (1) YEAR FROM SIGNATURE DATE. IF CONSTRUCTION IS NOT STARTED, PLANS **MUST** BE RESUBMITTED FOR REVIEW AND APPROVAL.

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89146-5148
PH. (702) 872-7550 FAX (702) 382-2597 WEB WWW.VTNV.COM
CONSULTING ENGINEERS • PLANNERS • AND SURVEYORS

CITY OF LAS VEGAS
NORTHING
CITY OF LAS VEGAS
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89146-5148
PH. (702) 872-7550 FAX (702) 382-2597 WEB WWW.VTNV.COM
CONSULTING ENGINEERS • PLANNERS • AND SURVEYORS

MASTER UTILITY STORM DRAIN

SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA

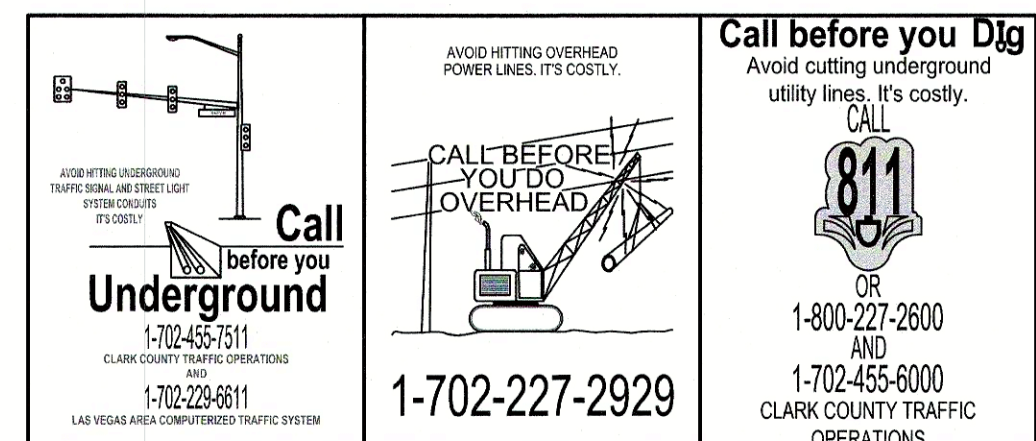
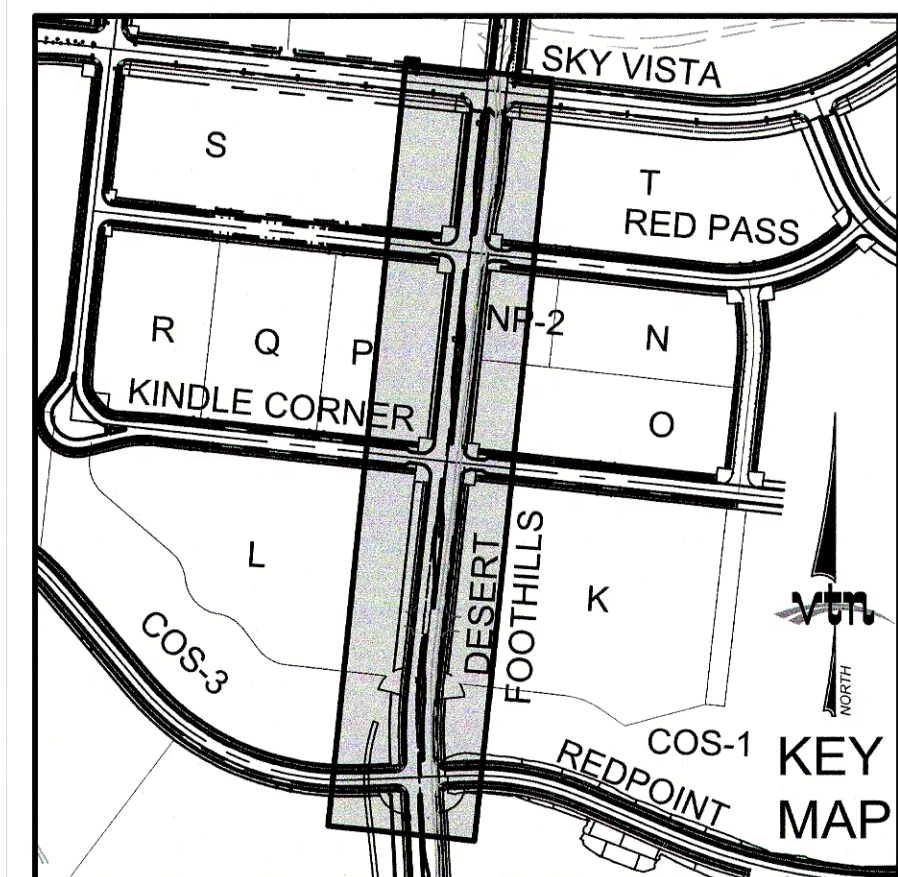
DRAWN BY: BOC
DESIGNED BY: BOC
CHECKED BY: WJM
PROJECT NO: 7561

07/03/2018
07/03/2018
09/15/2019
1-40
N/A

SCALE: 1"=40'

APPROVED FOR CONSTRUCTION
WILLIAM J MEYER
P.E. NO. 15745
CIVIL
8/27/20

MUTSD
5 OF 40 SHEETS
DRAWING NO
L19-00350
10/7/2013



LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

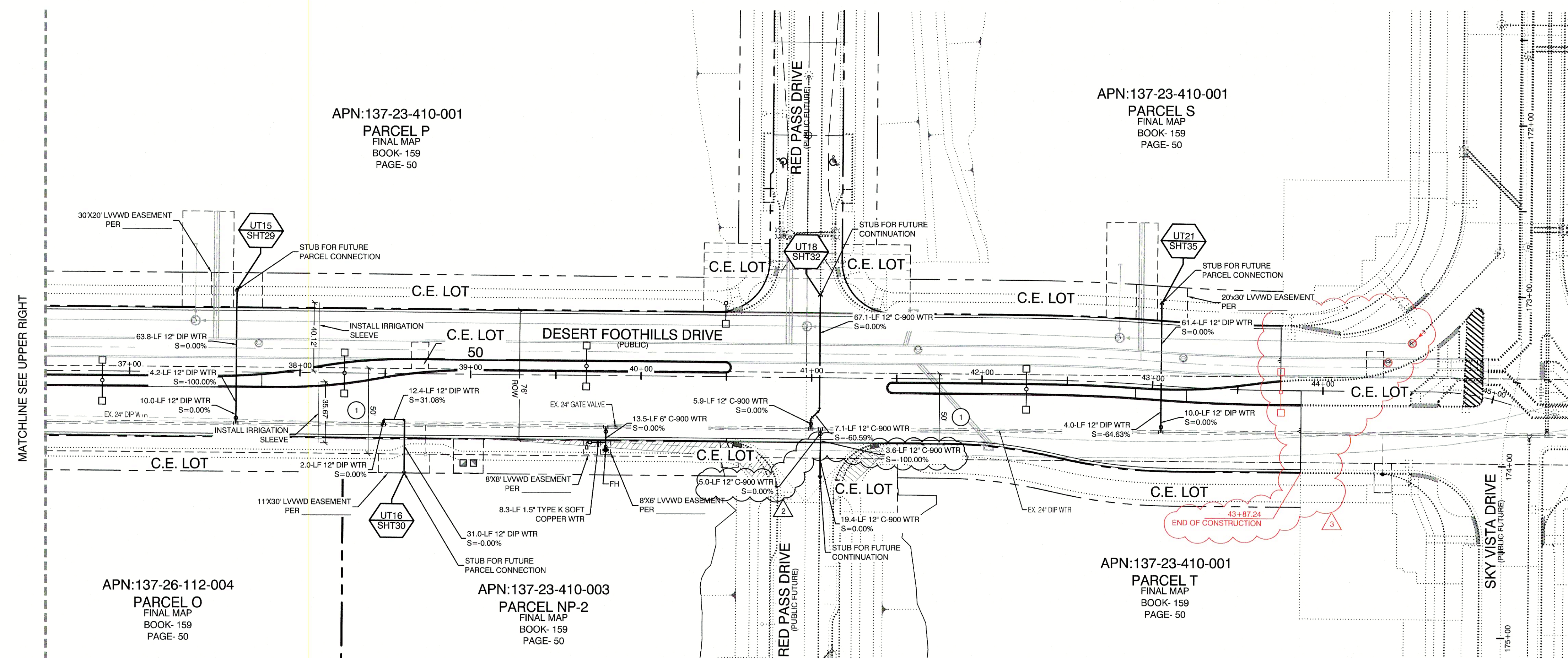
PROJECT: 136301 FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM

LVVWD APPROVAL IS VALID FOR ONE (1) YEAR FROM SIGNATURE DATE. IF

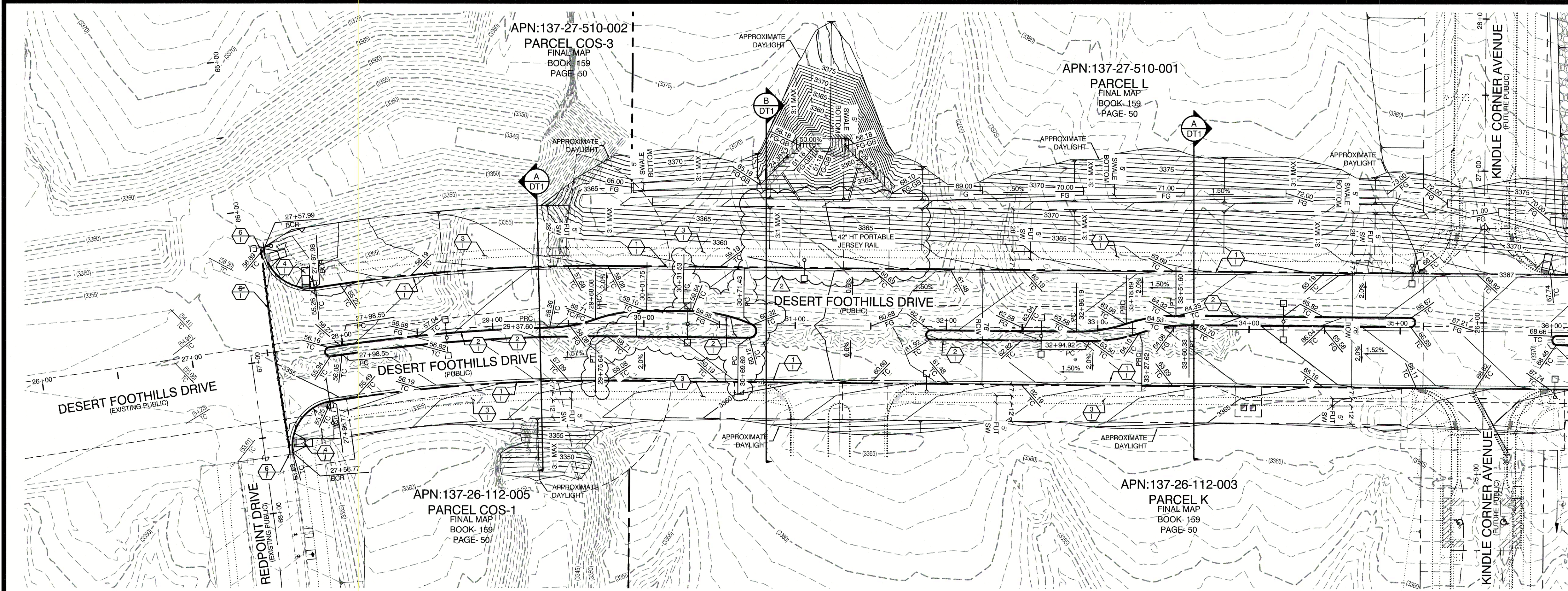
CONSTRUCTION IS NOT STARTED, PLANS MUST BE RESUBMITTED FOR REVIEW AND

APPROVAL.

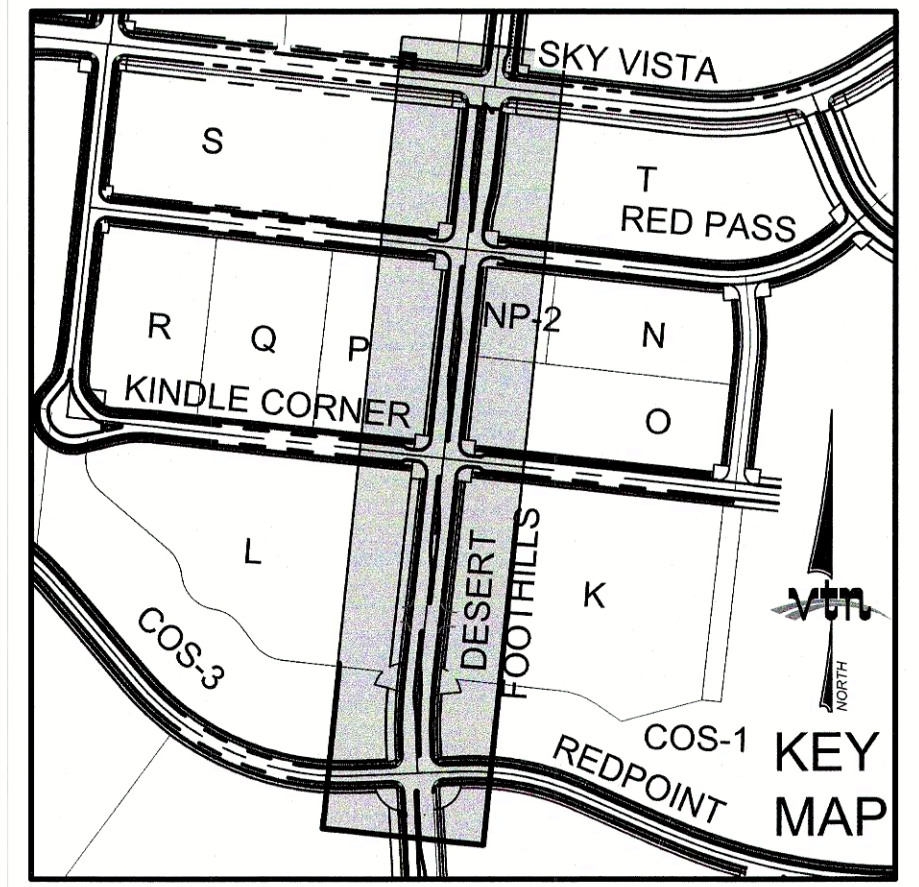


PROFESSIONAL ENGINEER
M
6
D

		CHECKED BY: <u>WJM</u> PROJECT NO: <u>7851</u>		SCALE: _____ DATE: _____	
BCC _____ 07/03/2018		09/15/2019		08/20/2020	
CITY OF LAS VEGAS 702-791-4000		2727 SOUTH RAINBOW BOULEVARD LAS VEGAS, NEVADA 89146-5148 PH. (702) 875-7590 FAX. (702) 362-2697 WEB WWW.VTNV.NV.COM CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS		12/05/2019 12/05/2019	
SUMMERLIN WEST VILLAGE 21 DESERT FOOTHILLS DRIVE REDPOINT TO SKY VISTA		2727 SOUTH RAINBOW BOULEVARD LAS VEGAS, NEVADA 89146-5148 PH. (702) 875-7590 FAX. (702) 362-2697 WEB WWW.VTNV.NV.COM CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS		12/05/2019 12/05/2019	
107V7663		107V7663		107V7663	



MATCHLINE SEE LOWER LEFT



CONSTRUCTION NOTES

- CONSTRUCT 24" TYPE 'L' CURB & GUTTER PER STD. DWG. 216.
- CONSTRUCT TYPE 'A' CURB PER STD. DWG. 219.
- FUTURE 5' SIDEWALK
- CONSTRUCT HANDICAP RAMP PER STD. DWG. 235 CASE II SEE SHEET DT2
- SAWCUT AND REMOVE ASPHALT PAVING AND MATCH WITH NEW CONSTRUCTION PER CAUSD #500.5 & #503.
- FIELD VERIFY AND MATCH EXISTING
- CONSTRUCT COMMERCIAL DRIVEWAY PER STD DWG #224
- CONSTRUCT VALLEY GUTTER PER STD DWG #228

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS HIGH ELEVATION ZONE, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°56' WEST OF THE GREENWICH MERIDIAN.

LINEAR UNIT: US SURVEY FOOT (FTUS)

DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00

SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

ZONE: LAS VEGAS HIGH ELEVATION ZONE

PROJECTION: TRANSVERSE MERCATOR STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN): 36°15'00"N LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W NORTHING AT GRID ORIGIN: 400,000.00 M (1,312,333.3333 FTUS) EASTING AT CENTRAL MERIDIAN: 300,000.00 M (984,250.0000 FTUS) SCALE FACTOR ON CENTRAL MERIDIAN: 1.000135 (EXACT)

NOTES:

- ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.
- GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008) NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)

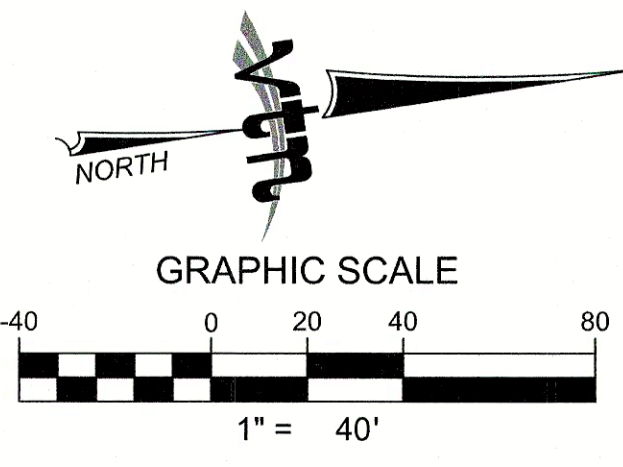
FND USGAGS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN. T21S,R98E,S53

ENGINEER DISCLAIMER NOTE:

UTILITY LOCATIONS SHOWN HERE ON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HERE ON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

I CERTIFY THAT THIS GRADING PLAN CONFORMS TO THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE WITH CITY OF LAS VEGAS, #DS5062A

WILLIAM J MEYER, P.E. No. 15745 DATE



OFFSITE FLOOD CONTROL NOTE:

ALL OFFSITE INTERIM FLOOD CONTROL FACILITIES SUCH AS BUT NOT LIMITED TO BERMS, DITCHES AND TEMPORARY SUMPS ARE PRIVATELY OWNED AND TO BE PRIVATELY MAINTAINED BY THE HOWARD HUGHES COMPANY.

GRADING PERMIT NOTE

THIS GRADING PERMIT DOES NOT INCLUDE THE CONSTRUCTION OF RETAINING WALLS AND OTHERS STRUCTURES. SEPARATE PERMITS AND APPLICATIONS ARE REQUIRED FOR THESE.

GEOTECHNICAL NOTE:

REFER TO SOILS REPORT: NOVA GEOTECHNICAL PROJECT #G-18-003, DATED MARCH 5, 2018

FLOOD ZONE NOTE

SITE IS LOCATED IN A SHADED ZONE X AS SHOWN IN FIRM MAP 32003C22150E, DATED SEPTEMBER 27, 2002. A SHADED ZONE X IS DETERMINED TO BE OUTSIDE THE 2.0% ANNUAL CHANCE FLOODPLAIN. ENTIRE SITE BOUNDARY IS WITHIN ZONE X.

SIGHT VISIBILITY ZONES:

NO STRUCTURE, WALLS, VEGETATION, OR OBJECT OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

Call before you Dig

Avoid cutting underground utility lines. It's costly.

811

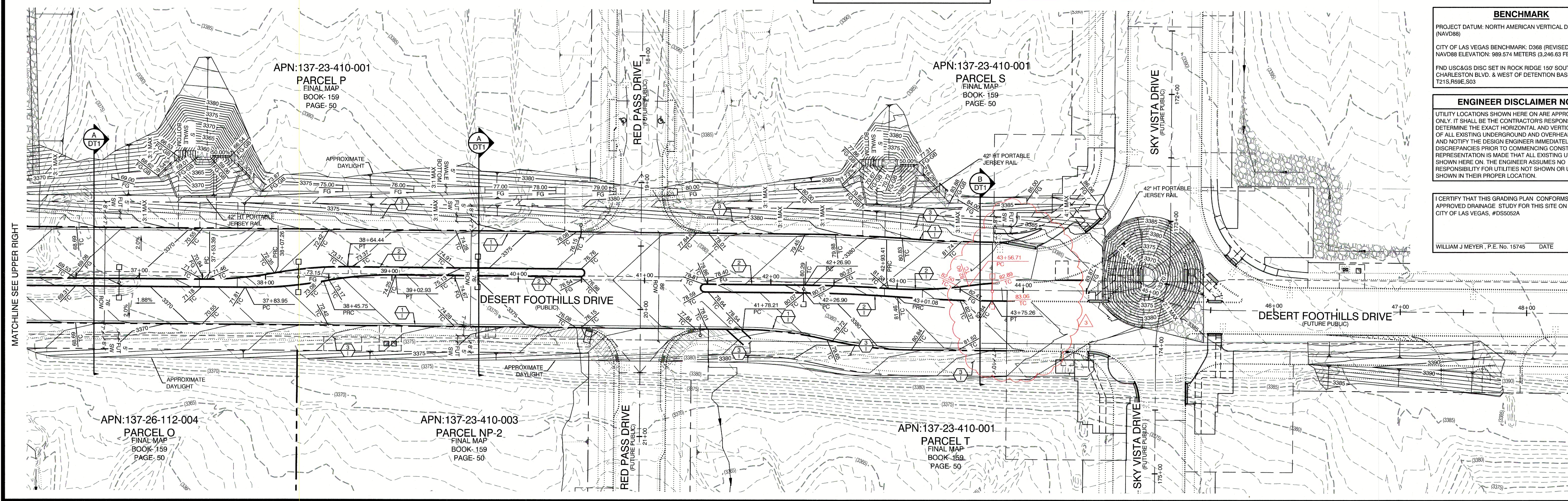
1-800-227-2800
OR
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS

Call before you Dig

Avoid hitting overhead power lines. It's costly.

Call before you Dig

1-702-455-7511
1-702-228-6811
CLARK COUNTY TRAFFIC OPERATIONS



MATCHLINE SEE UPPER RIGHT

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89135
702-791-1000

CITY OF LAS VEGAS

MASTER GRADING

SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA

DRAWN BY: BCC
DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO.: 2021

DATE: 07/03/2018
DATE: 07/03/2018
DATE: 09/15/2019

SCALE: 1"=40'

SHEET
MGRD
7 OF 40 SHEETS

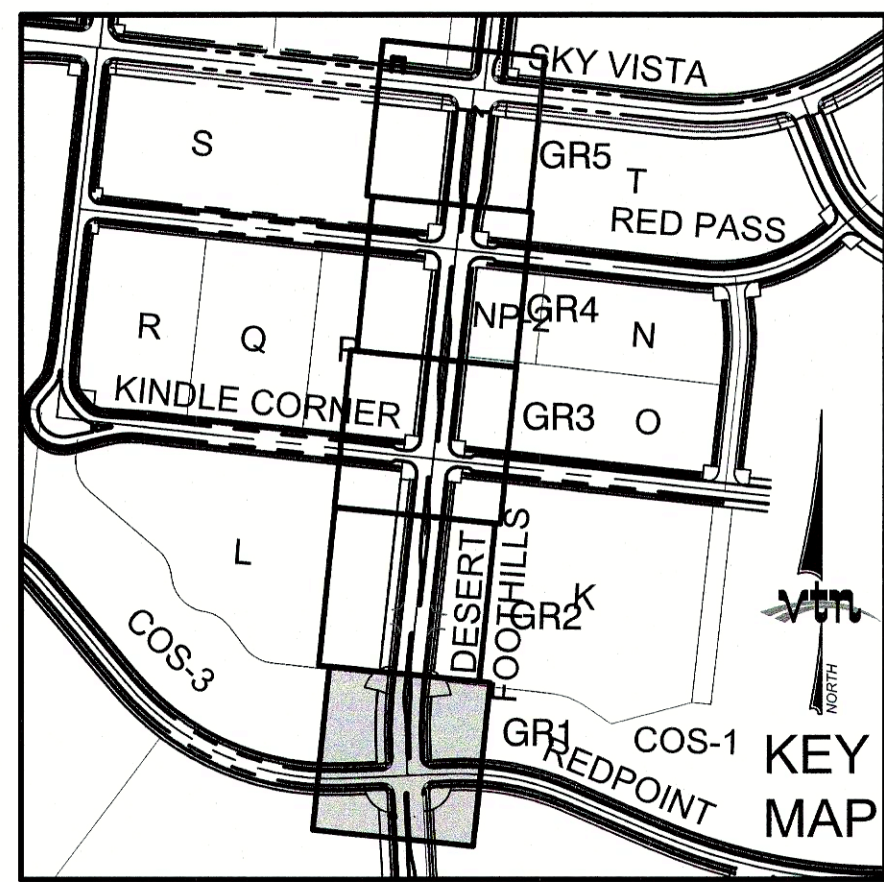
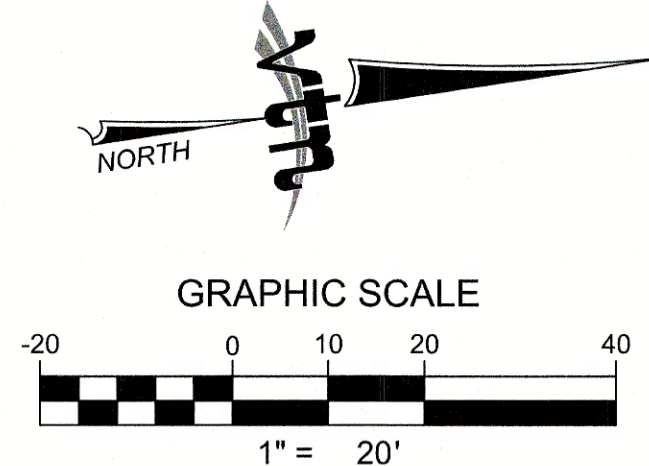
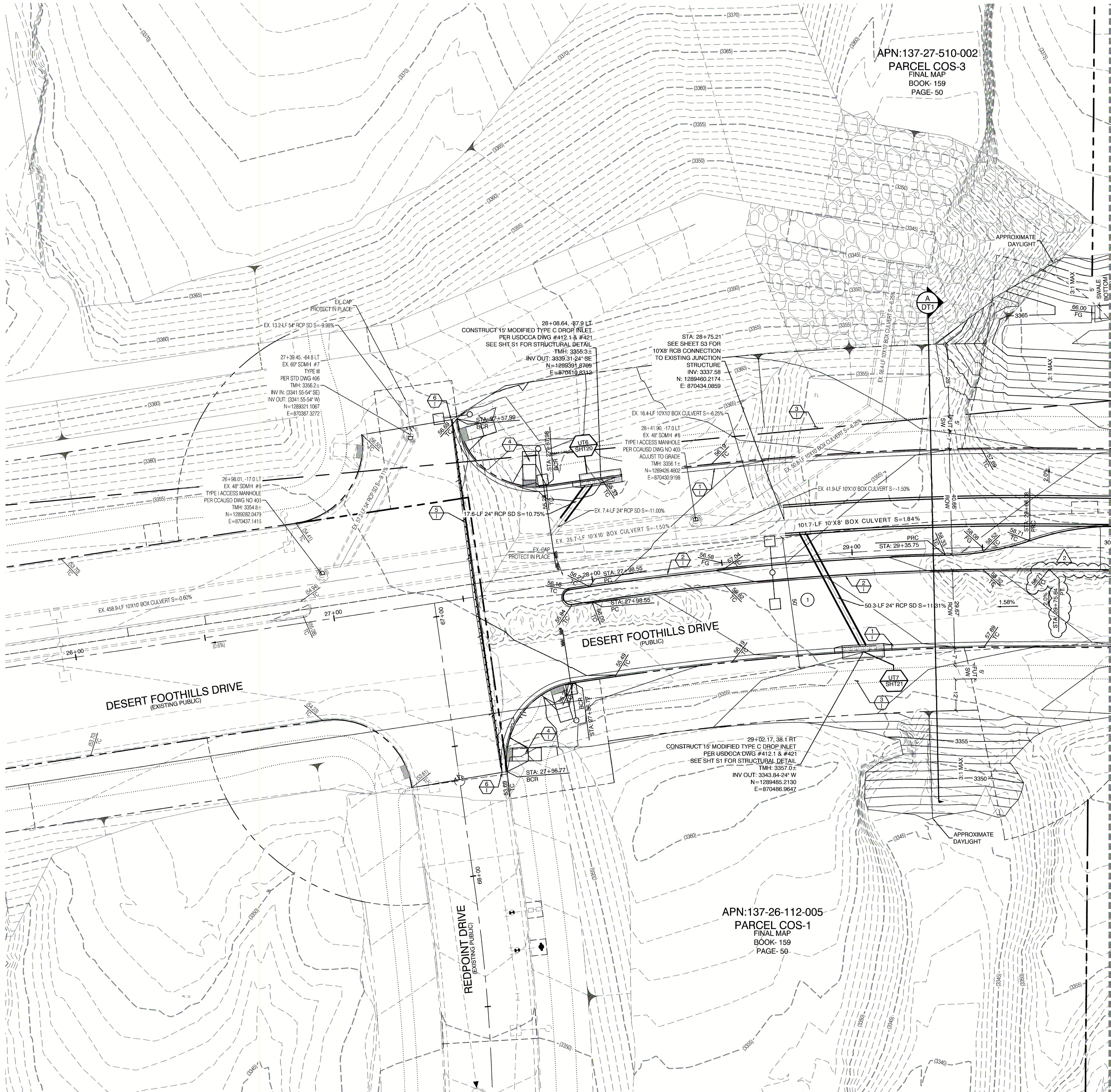
DRAWING NO.
L19-00350
107V7663

PROFESSIONAL ENGINEER - STATE OF NEVADA
WILLIAM J. MEYER
EXP. 12/31/21
CIVIL
No. 15745
8/27/20

REVISIONS

REV	DATE	BY	DESCRIPTION
1	08/20/2020	CP	REVISE COP & S1T LOCATIONS
2	12/05/2019	CP	REMOVE FUT. PARCEL ENTRY, ADJUST GRID FOR UPDATED MEDIAN;
3			RELOCATE STREET LIGHTS, UPDATE UTILITY EASEMENT

H:\17651\Desert Foothills\Sheet A to Summerlin Pkwy\Sheet\17651-MGRD.dwg, 8/27/2020 9:08 AM, Trevor



FLOOD ZONE NOTE
SITE IS LOCATED IN A SHADED ZONE X AS SHOWN IN FIRM MAP #2003C22150E, DATED SEPTEMBER 27, 2002. A SHADED ZONE X IS DETERMINED TO BE OUTSIDE THE 2.0% ANNUAL CHANCE FLOODPLAIN, ENTIRE SITE BOUNDARY IS WITHIN ZONE X.

STORM DRAIN DROP INLET NOTE:
ALL STORM DRAIN INLETS SHALL INCLUDE A STORM WATER INLET CONCRETE STAMP IN ACCORDANCE WITH CCAUSD DWG NO. 421.

GRADING PERMIT NOTE
THIS GRADING PERMIT DOES NOT INCLUDE THE CONSTRUCTION OF RETAINING WALLS AND OTHER STRUCTURES. SEPARATE PERMITS AND APPLICATIONS ARE REQUIRED FOR THESE.

GEOTECHNICAL NOTE:
REFER TO SOILS REPORT, NOVA GEOTECHNICAL PROJECT #G-18-003, DATED MARCH 5, 2018.

SIGHT VISIBILITY ZONES:
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EASEMENT REFERENCE LEGEND
① 50' WIDE LAS VEGAS VALLEY WATER DISTRICT EASEMENT GRANTED PER OR: 20070529-0001401. STA:28+75.21 TO STA:44+96.10.

OFFSITE FLOOD CONTROL NOTE:
ALL OFFSITE INTERIM FLOOD CONTROL FACILITIES SUCH AS BUT NOT LIMITED TO BERMS/DITCHES AND TEMPORARY SLUMPS ARE PRIVATELY OWNED AND TO BE PRIVATELY MAINTAINED BY THE HOWARD HUGHES COMPANY.

- CONSTRUCTION NOTES**
- CONSTRUCT 24" TYPE "L" CURB & GUTTER PER STD. DWG. 216.
 - CONSTRUCT TYPE "A" CURB PER STD. DWG. 219.
 - FUTURE 5' SIDEWALK
 - CONSTRUCT HANDICAP RAMP PER STD. DWG. 235 CASE II SEE SHEET DT2
 - SAWCUT AND REMOVE ASPHALT PAVING AND MATCH WITH NEW CONSTRUCTION PER CCAUSD #500.5 & #503.
 - FIELD VERIFY AND MATCH EXISTING
 - CONSTRUCT COMMERCIAL DRIVEWAY PER STD DWG #224
 - CONSTRUCT VALLEY GUTTER PER STD DWG #228

BASIS OF BEARING
GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS HIGH ELEVATION ZONE, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.
LINEAR UNIT: US SURVEY FOOT (FTUS)
DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00
SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)
ZONE: LAS VEGAS HIGH ELEVATION ZONE
PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 400,000.00 M (1,312,333.3333 FTUS)
EASTING AT CENTRAL MERIDIAN: 300,000.00 M (984,250.0000 FTUS)
SCALE FACTOR ON CENTRAL MERIDIAN: 1.000135 (EXACT)
NOTES:
1. ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.
2. GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

BENCHMARK
PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)
FND USCGS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN. 721S, R59E, S03.

ENGINEER DISCLAIMER NOTE:
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I CERTIFY THAT THIS GRADING PLAN CONFORMS TO THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE WITH CITY OF LAS VEGAS, #J555052A
William J. Meyer 8/27/20
WILLIAM J MEYER, P.E. No. 15745 DATE

Call before you Dig
1-702-455-5511
CLARK COUNTY TRAFFIC OPERATIONS
1-702-228-6611
LAS VEGAS AREA COMPREHENSIVE TRAFFIC SYSTEM
Call before you Dig
Avoid cutting underground utility lines. It's costly.
1-702-227-2929
OR
1-800-227-2600
AND
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS

LAS VEGAS VALLEY CONSTRUCTION SITE BEST MANAGEMENT PRACTICES NOTES:

- THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATED IN, THE PUBLIC RIGHTS OF WAY OF THE CITY OF LAS VEGAS AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
- ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN THE CITY OF LAS VEGAS AND THE LAS VEGAS VALLEY CONSTRUCTION SITE BMP GUIDANCE MANUAL.
- TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS AS SOON AS PRACTICABLE AND NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.5.
- AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIT LOCATIONS, AND ALL BMPs WEEKLY, AND WITHIN 24 HOURS AFTER ANY RAIN EVENT OF 0.5 INCHES OR MORE. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO THE NEVADA STORMWATER GENERAL PERMIT FOR CONSTRUCTION ACTIVITY NVR100000, SECTION III.A.12.
- ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT, WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
LAS VEGAS, NEVADA 89103
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89146-5148
PH: (702) 875-7550 FAX: (702) 382-2597 WEB: WWW.HHCO.COM
CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS

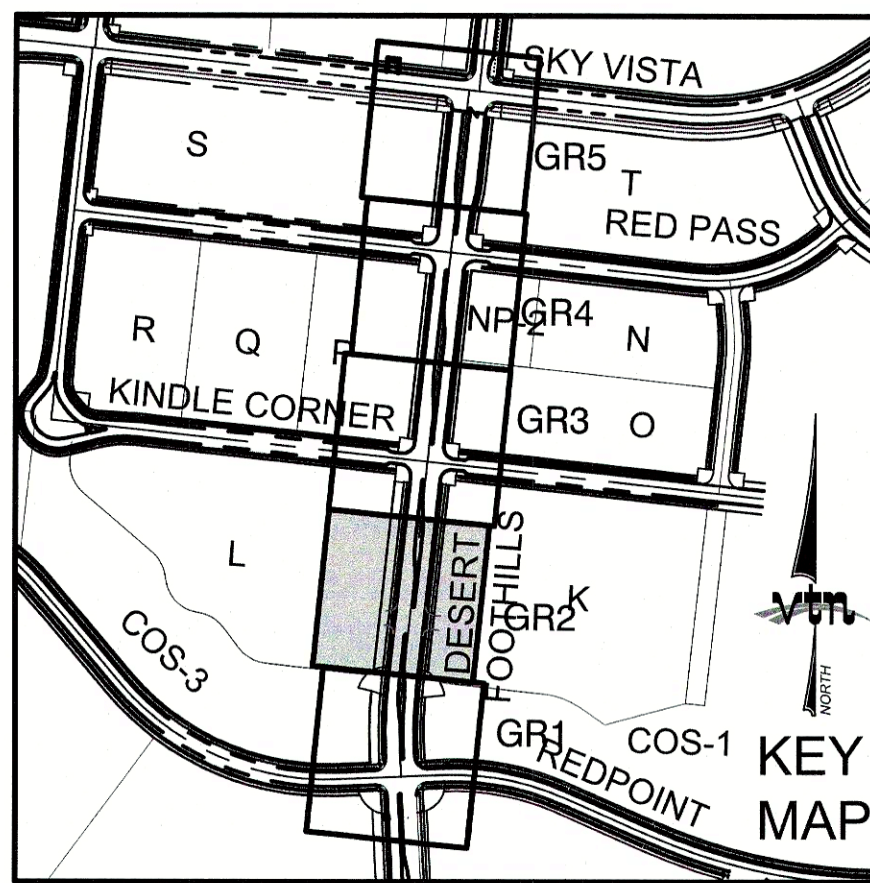
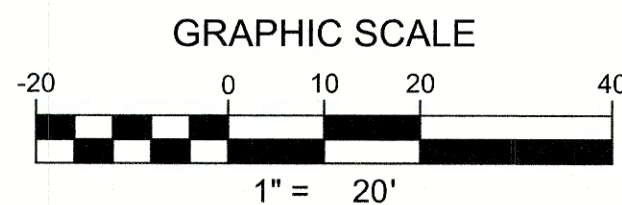
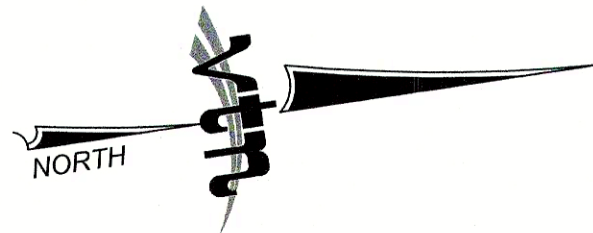
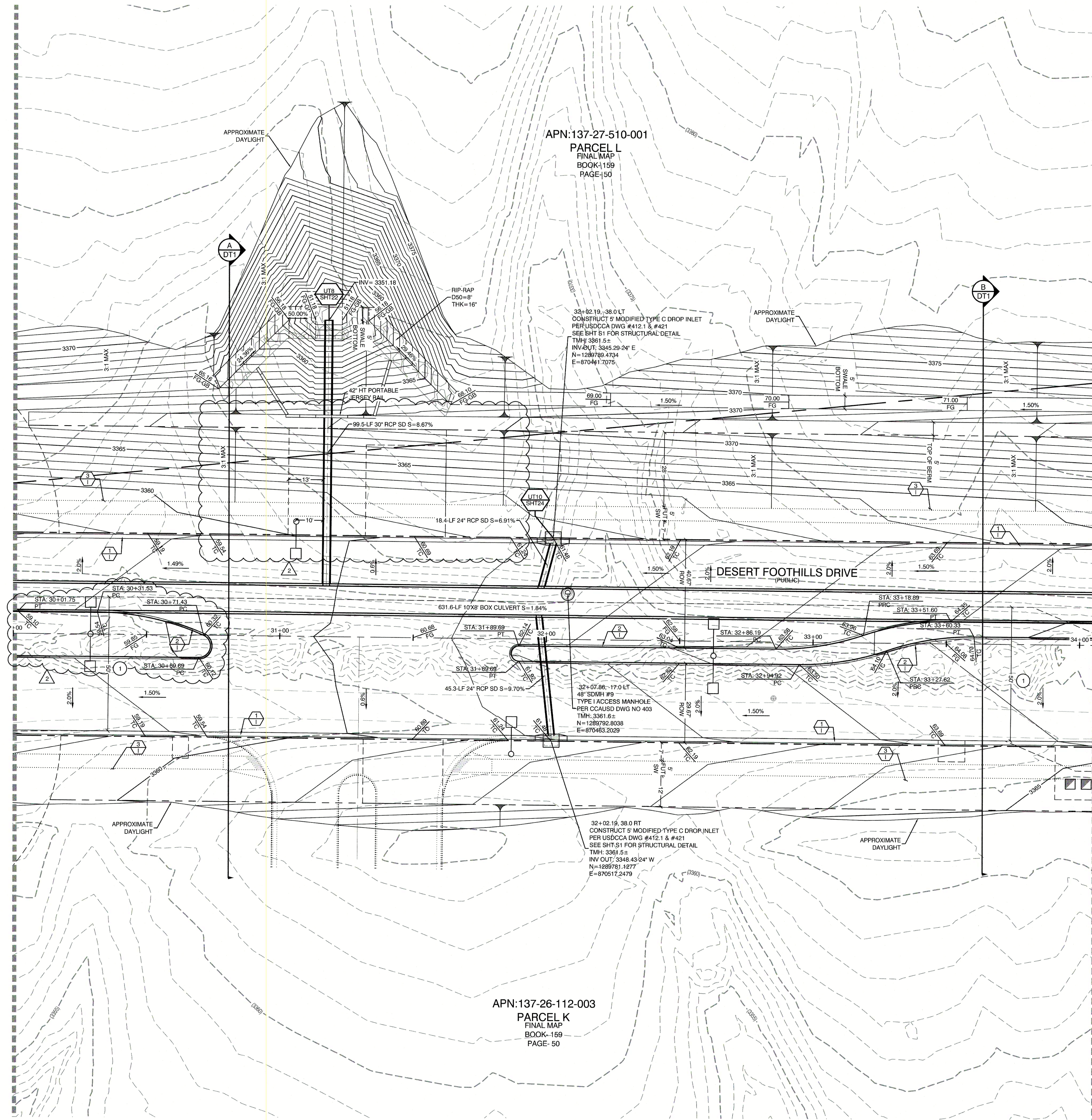
CITY OF LAS VEGAS
GRADING SHEET 1
SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA

DRAWN BY: BCC
DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO: 7651
SCALE: N/A
VERT: N/A
SHEET 8 OF 40 SHEETS
DRAWING NO. L19-00350 10/7/2016

WILLIAM J MEYER
EXP: 10/31/21
CIVIL
No. 15745
8/27/20

SEE SHEET GR1 FOR CONTINUATION

SEE SHEET GR3 FOR CONTINUATION



- ### CONSTRUCTION NOTES
- CONSTRUCT 24" TYPE "L" CURB & GUTTER PER STD. DWG. 216.
 - CONSTRUCT TYPE "A" CURB PER STD. DWG. 219.
 - FUTURE 5' SIDEWALK
 - CONSTRUCT HANDICAP RAMP PER STD. DWG. 235 CASE II SEE SHEET DT2
 - SAWCUT AND REMOVE ASPHALT PAVING AND MATCH WITH NEW CONSTRUCTION PER CCAUSD #500.5 & #503.
 - FIELD VERIFY AND MATCH EXISTING
 - CONSTRUCT COMMERCIAL DRIVEWAY PER STD DWG #224
 - CONSTRUCT VALLEY GUTTER PER STD DWG #228

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS HIGH ELEVATION ZONE, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

LINEAR UNIT: US SURVEY FOOT (FTUS)

DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00

SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

ZONE: LAS VEGAS HIGH ELEVATION ZONE

GRADING PERMIT NOTE

THIS GRADING PERMIT DOES NOT INCLUDE THE CONSTRUCTION OF RETAINING WALLS AND OTHERS STRUCTURES. SEPARATE PERMITS AND APPLICATIONS ARE REQUIRED FOR THESE.

GEOTECHNICAL NOTE:

REFER TO SOILS REPORT: NOVA GEOTECHNICAL PROJECT #G-18-003, DATED MARCH 5, 2018

SIGHT VISIBILITY ZONES:

NO STRUCTURE, WALLS, VEGETATION, OR OBJECT OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

STORM DRAIN DROP INLET NOTE:

ALL STORM DRAIN INLETS SHALL INCLUDE A STORM WATER INLET CONCRETE STAMP IN ACCORDANCE WITH CCAUSD DWG NO. 421

EASEMENT REFERENCE LEGEND

50' WIDE LAS VEGAS VALLEY WATER DISTRICT EASEMENT GRANTED PER OR: 20070529-0001401. STA.29+75.21 TO STA.44+98.10

OFFSITE FLOOD CONTROL NOTE:

ALL OFFSITE INTERIM FLOOD CONTROL FACILITIES SUCH AS BUT NOT LIMITED TO BERMS/DITCHES AND TEMPORARY SUMPS ARE PRIVATELY OWNED AND TO BE PRIVATELY MAINTAINED BY THE HOWARD HUGHES COMPANY.

FLOOD ZONE NOTE

SITE IS LOCATED IN A SHADED ZONE X AS SHOWN IN FIRM MAP 3200X222150E, DATED SEPTEMBER 27, 2002. A SHADED ZONE X IS DETERMINED TO BE OUTSIDE THE 2.0% ANNUAL CHANCE FLOODPLAIN, ENTIRE SITE BOUNDARY IS WITHIN ZONE X.

BENCHMARK

PROJECT DATUM: NORTH AMERICAN DATUM OF 1988 (NAD88)

CITY OF LAS VEGAS BENCHMARK: 0368 (REVISED 2008) NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)

FND USCGS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN. T21S.R59E.S03

ENGINEER DISCLAIMER NOTE:

UTILITY LOCATIONS SHOWN HERE ON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HERE ON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

I CERTIFY THAT THIS GRADING PLAN CONFORMS TO THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE WITH CITY OF LAS VEGAS, #DS5052A

WILLIAM J MEYER, P.E. No. 15745 DATE 8/27/20

Call before you Dig

1-702-227-2929

811

1-800-227-2600

AND

1-702-455-6000

CLARK COUNTY TRAFFIC OPERATIONS

Call before you Dig

Avoid cutting underground utility lines. It's costly.

811

1-800-227-2600

AND

1-702-455-6000

CLARK COUNTY TRAFFIC OPERATIONS

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY

2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89146-5148
PH: (702) 873-7559 FAX: (702) 382-2887 WEB: WWW.VTNV.COM
CONSULTING ENGINEERS & LAND SURVEYORS

CITY OF LAS VEGAS

SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA

DRAWN BY: BCC 07/17/2019

DESIGNED BY: BCC 07/17/2019

CHECKED BY: WJM 09/15/2019

PROJECT NO: 2021 SCALE: N/A HORIZ. VERT.

WILLIAM J. MEYER
EXP. 12/31/21
CIVIL
No. 15745

8/27/20

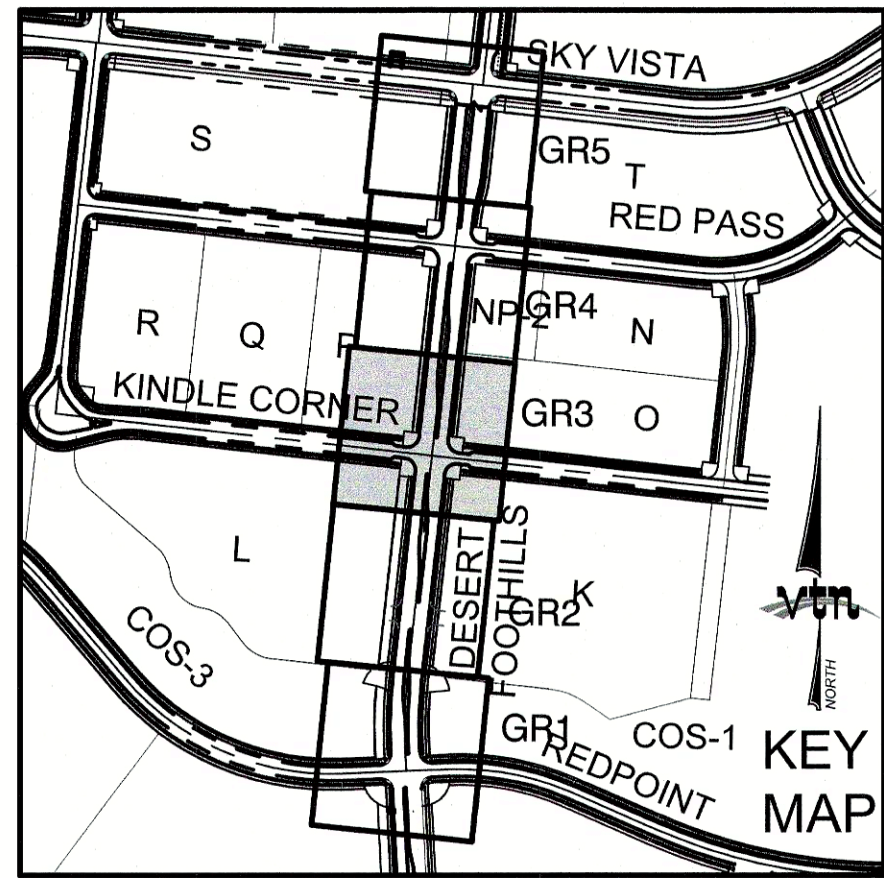
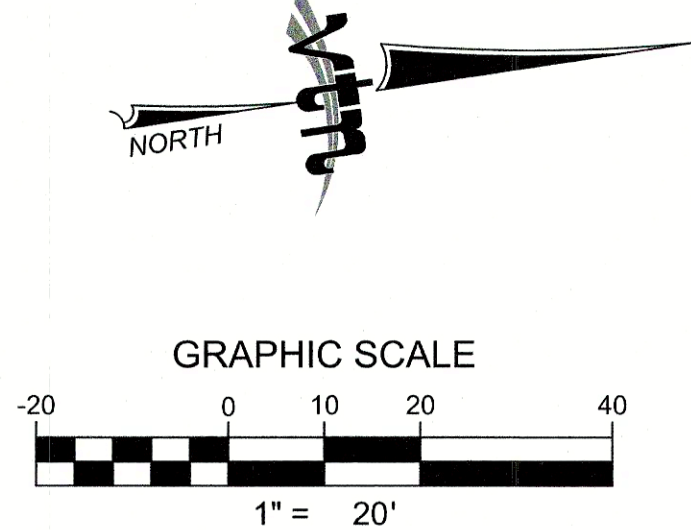
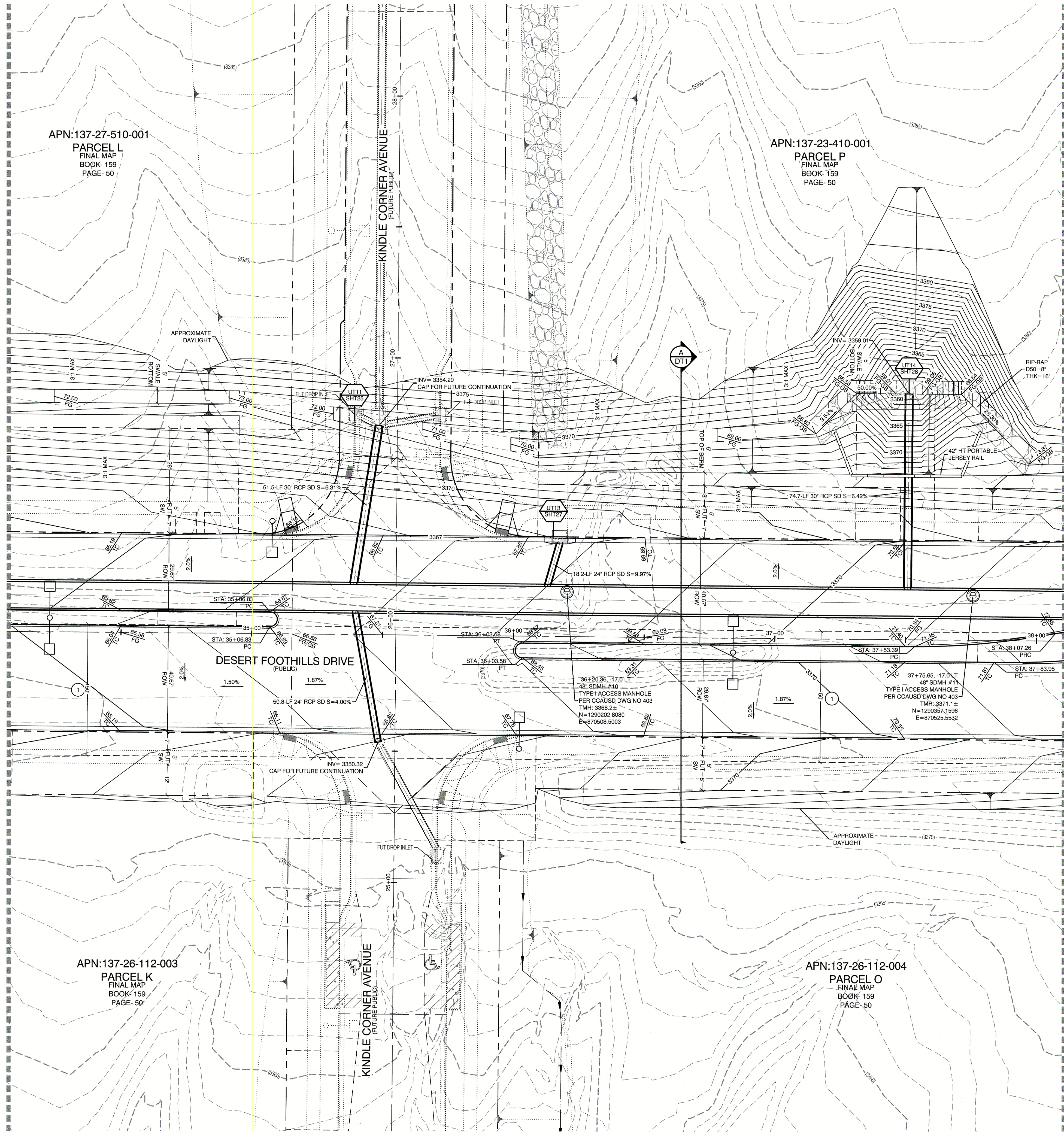
SHEET
GR2
9 OF 40 SHEETS

DRAWING NO.
L19-00350
107V7663

H:\7663\Desert Foothills Sheet A to Summerlin Pkwy Sheet\Grading\Gr2.dwg 8/27/2020 9:36 AM\wtrav

SEE SHEET GR2 FOR CONTINUATION

SEE SHEET GR4 FOR CONTINUATION



- CONSTRUCTION NOTES**
- 1. CONSTRUCT 24" TYPE "L" CURB & GUTTER PER STD. DWG. 216.
 - 2. CONSTRUCT TYPE "A" CURB PER STD. DWG. 219.
 - 3. FUTURE 5' SIDEWALK
 - 4. CONSTRUCT HANDICAP RAMP PER STD. DWG. 235 CASE II SEE SHEET DT2
 - 5. SAWCUT AND REMOVE ASPHALT PAVING AND MATCH WITH NEW CONSTRUCTION PER CCAUSD #500.5 & #503.
 - 6. FIELD VERIFY AND MATCH EXISTING
 - 7. CONSTRUCT COMMERCIAL DRIVEWAY PER STD DWG #224
 - 8. CONSTRUCT VALLEY GUTTER PER STD DWG #228

GRADING PERMIT NOTE
THIS GRADING PERMIT DOES NOT INCLUDE THE CONSTRUCTION OF RETAINING WALLS AND OTHERS STRUCTURES. SEPARATE PERMITS AND APPLICATIONS ARE REQUIRED FOR THESE.

GEOTECHNICAL NOTE:
REFER TO SOILS REPORT: NOVA GEOTECHNICAL PROJECT #G-18-003, DATED MARCH 5, 2018

SIGHT VISIBILITY ZONES:
NO STRUCTURE, WALLS, VEGETATION, OR OBJECT OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

STORM DRAIN DROP INLET NOTE:
ALL STORM DRAIN INLETS SHALL INCLUDE A STORM WATER INLET CONCRETE STAMP IN ACCORDANCE WITH CCAUSD DWG NO. 421

EASEMENT REFERENCE LEGEND
1. 50' WIDE LAS VEGAS VALLEY WATER DISTRICT EASEMENT GRANTED PER OR: 20070529-0001401. STA: 28+75.21 TO STA: 44+96.10

OFFSITE FLOOD CONTROL NOTE:
ALL OFFSITE INTERIM FLOOD CONTROL FACILITIES SUCH AS BUT NOT LIMITED TO BERMS/DITCHES AND TEMPORARY SUMPS ARE PRIVATELY OWNED AND TO BE PRIVATELY MAINTAINED BY THE HOWARD HUGHES COMPANY.

FLOOD ZONE NOTE
SITE IS LOCATED IN A SHADED ZONE X AS SHOWN IN FIRM MAP 32003C22150E, DATED SEPTEMBER 27, 2002. A SHADED ZONE X IS DETERMINED TO BE OUTSIDE THE 2.0% ANNUAL CHANCE FLOODPLAIN, ENTIRE SITE BOUNDARY IS WITHIN ZONE X.

BASIS OF BEARING
GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS HIGH ELEVATION ZONE, NORTH AMERICAN DATUM OF 1983; SAID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.
LINEAR UNIT: US SURVEY FOOT (FTUS)
DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00
SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)
ZONE: LAS VEGAS HIGH ELEVATION ZONE
PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN): 36°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 400,000.00 M (1,312,333.3333 FTUS)
EASTING AT CENTRAL MERIDIAN: 300,000.00 M (984,250.0000 FTUS)
SCALE FACTOR ON CENTRAL MERIDIAN: 1.000135 (EXACT)
NOTES:
1. ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO 'GROUND' DISTANCES IN THE PROJECT AREA.
2. GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

BENCHMARK
PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)
CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)
FND USGAS DISC SET IN ROCK RIDGE 150' SOUTH OF CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S, R99E, S03

ENGINEER DISCLAIMER NOTE:
UTILITY LOCATIONS SHOWN HERE ON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

I CERTIFY THAT THIS GRADING PLAN CONFORMS TO THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE WITH CITY OF LAS VEGAS, #DS5052A
William J Meyer 8/22/20
WILLIAM J MEYER P.E. No. 15745 DATE

Call before you Dig
Avoid cutting underground utility lines. It's costly.
1-702-227-2929

Call before you Dig
Avoid cutting underground utility lines. It's costly.
1-702-227-2929

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
2727 SOUTH RANBOUR BOULEVARD
LAS VEGAS, NEVADA 89146
PH: (702) 877-5500 FAX: (702) 382-2597 WEB: WWW.VINNY.COM
CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS

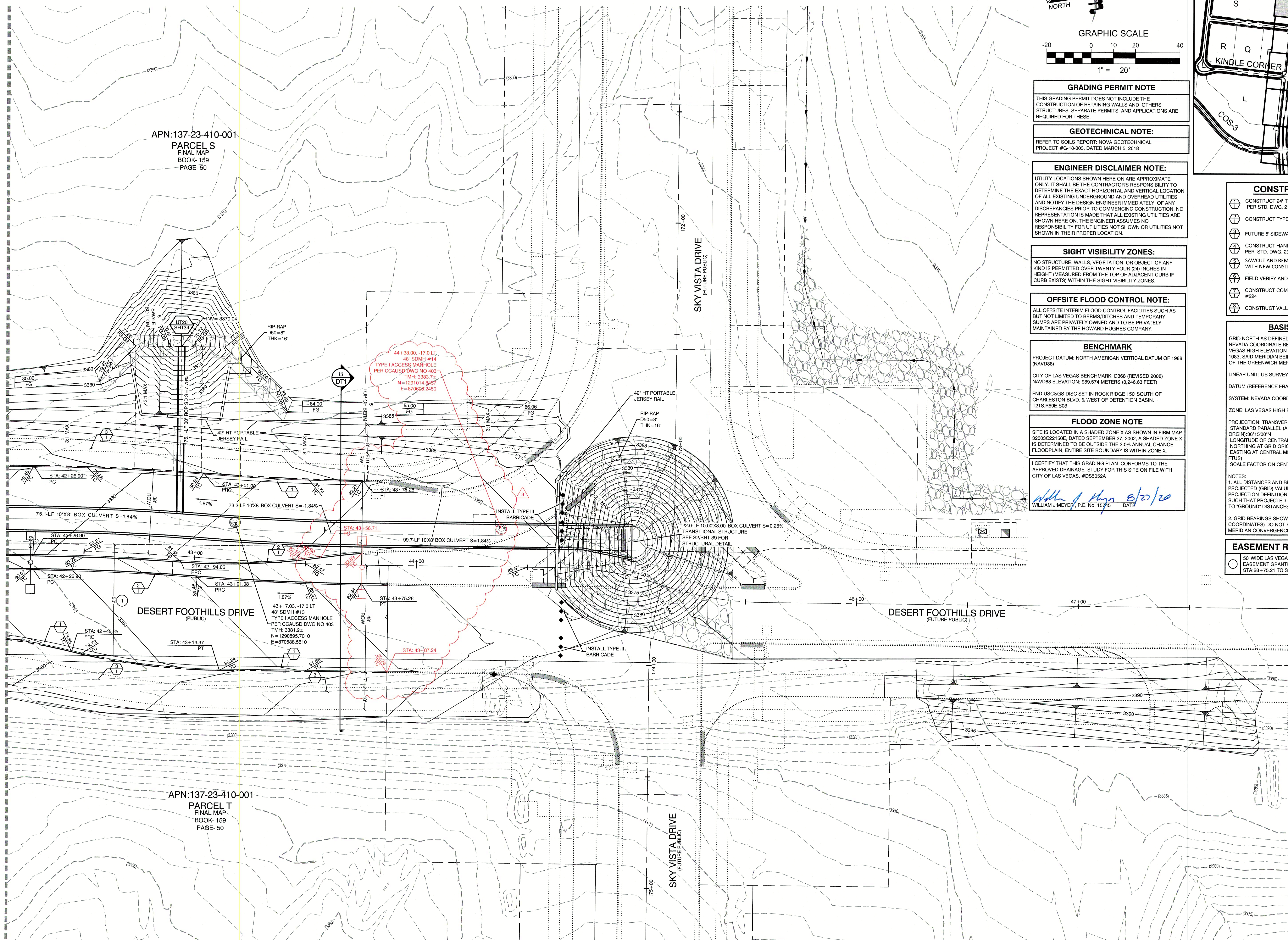
CITY OF LAS VEGAS
2727 SOUTH RANBOUR BOULEVARD
LAS VEGAS, NEVADA 89146
PH: (702) 877-5500 FAX: (702) 382-2597 WEB: WWW.VINNY.COM
CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS

GRADING SHEET 3
SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA

DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO.: 7551
SCALE: N/A
HORIZ. VERT.: N/A

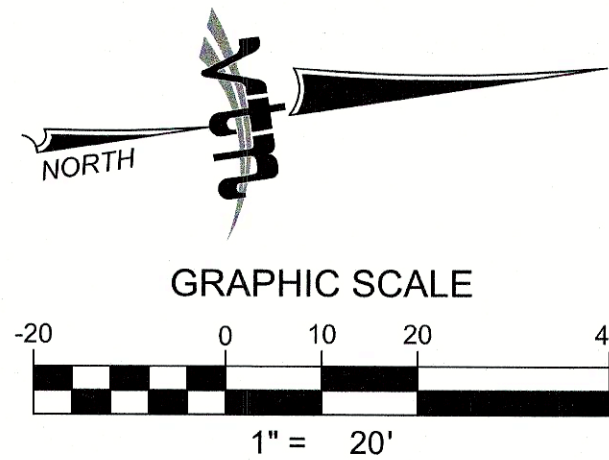
WILLIAM J MEYER
P.E. No. 15745
8/22/20
CIVIL
No. 15745

10 OF 40 SHEETS
DRAWING NO. L19-00350 107V7663



APN:137-23-410-001
PARCEL S
FINAL MAP
BOOK- 159
PAGE- 50

APN:137-23-410-001
PARCEL T
FINAL MAP
BOOK- 159
PAGE- 50



GRADING PERMIT NOTE THIS GRADING PERMIT DOES NOT INCLUDE THE CONSTRUCTION OF RETAINING WALLS AND OTHERS STRUCTURES. SEPARATE PERMITS AND APPLICATIONS ARE REQUIRED FOR THESE.
--

GEOTECHNICAL NOTE: REFER TO SOILS REPORT: NOVA GEOTECHNICAL PROJECT #G-18-003, DATED MARCH 5, 2018

ENGINEER DISCLAIMER NOTE:

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BENCHMARK

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88)

CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008)
NAVD88 ELEVATION: 969.574 METERS (3,246.63 FEET)

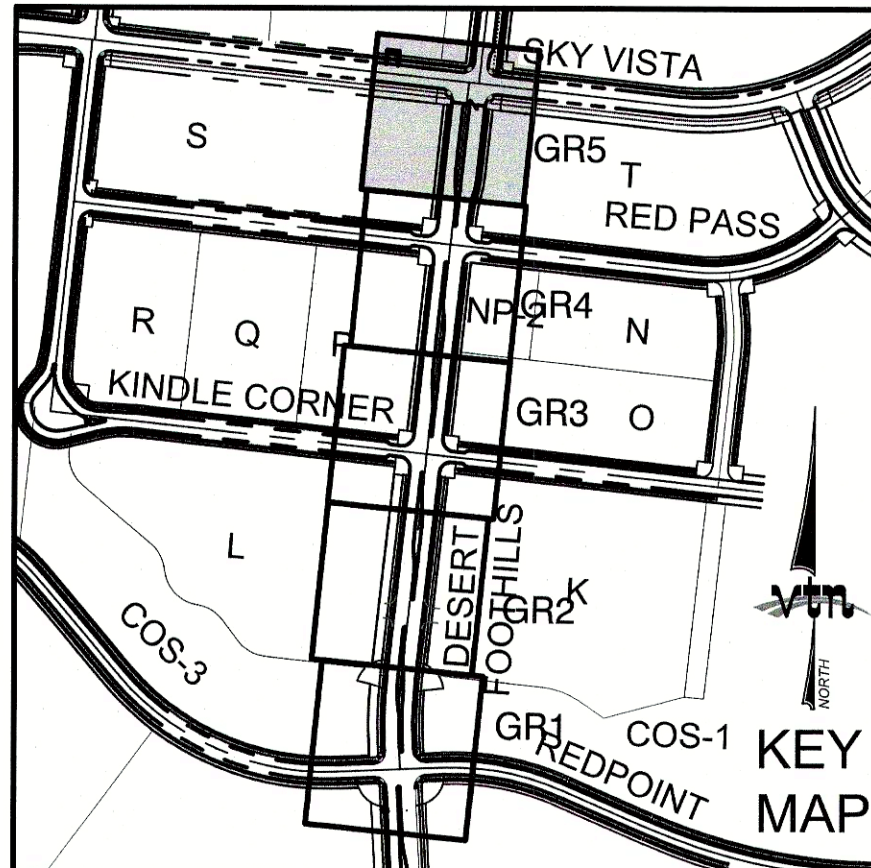
FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF
CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

FLOOD ZONE NOTE

SITE IS LOCATED IN A SHADED ZONE X AS SHOWN IN FIRM MAP 32003C22150E, DATED SEPTEMBER 27, 2002. A SHADED ZONE X IS DETERMINED TO BE OUTSIDE THE 2.0% ANNUAL CHANCE FLOODPLAIN, ENTIRE SITE BOUNDARY IS WITHIN ZONE X.

I CERTIFY THAT THIS GRADING PLAN CONFORMS TO THE APPROVED DRAINAGE STUDY FOR THIS SITE ON FILE WITH CITY OF LAS VEGAS, #DS0502A

WILLIAM J MEYER, P.E. No. 15745 DATE 8/27/20



CONSTRUCTION NOTES

	CONSTRUCT 34" TYPE "1" CURB & GUTTER PER STD. DWG. 216.
	CONSTRUCT TYPE "A" CURB PER STD. DWG. 219.
	FUTURE 5' SIDEWALK
	CONSTRUCT HANDICAP RAMP PER STD. DWG. 236. CASE I SEE SHEET D72
	SAWCUT AND REMOVE ASPHALT PAVING AND MATCH WITH NEW CONSTRUCTION PER CCAUSD #500.5 & #503.
	FIELD VERIFY AND MATCH EXISTING
	CONSTRUCT COMMERCIAL DRIVEWAY PER STD DWG #224
	CONSTRUCT VALLEY GUTTER PER STD DWG #228

BASIS OF BEARING

GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS HIGH ELEVATION ZONE, NORTH AMERICAN DATUM OF 1983, SAID MERIDIAN BEING INTERSECTED WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

LINEAR UNIT: US SURVEY FOOT (FT/US)

DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00

SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

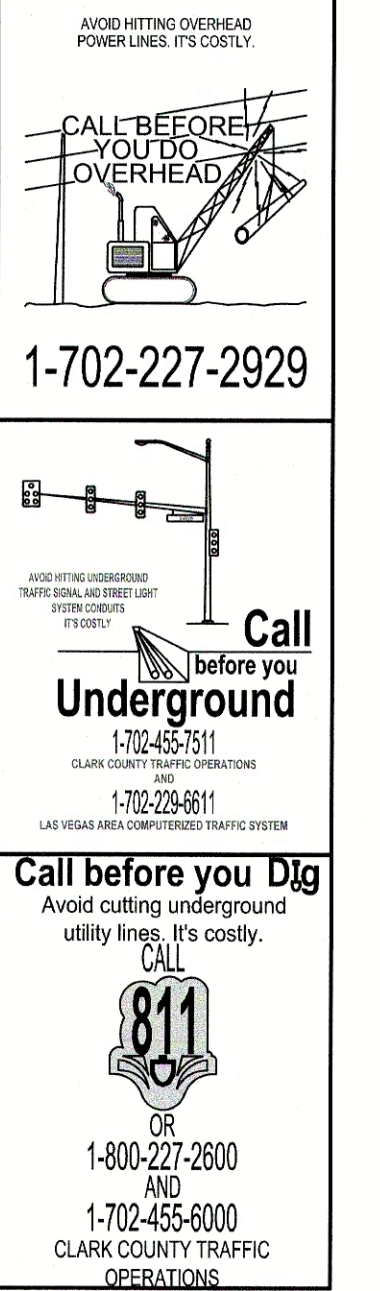
ZONE: LAS VEGAS HIGH ELEVATION ZONE

PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL (AND LATITUDE OF GRID ORIGIN): 36°50'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 400,000.00 m (1,312,333.3333 FT/US)
EASTING AT CENTRAL MERIDIAN: 300,000.00 m (984,251.9685 FT/US)
SCALE FACTOR ON CENTRAL MERIDIAN: 1.000135 (EXACT)

NOTES:

1. ALL DISTANCES AND BEARINGS SHOWN HEREON ARE PROJECTED (GRID) VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT PROJECTED (GRID) DISTANCES ARE EQUIVALENT TO 'GROUND' DISTANCES IN THE PROJECT AREA.
2. GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MATHEMATICAL CONVERSIONS.

EASEMENT REFERENCE LEGEND	
1	50' WIDE LAS VEGAS VALLEY WATER DISTRICT EASEMENT GRANTED PER OR: 20070529:0001401. STA:28+75.21 TO STA:44+96.10



	DRAWN BY:		
	BCC	07/17/2018	
	DESIGNED BY:	07/17/2018	
	BCC		
	WJM	09/15/2019	
	CHECKED BY:		
	PROJECT NO:	SCALE:	HORIZ. VERT.
	7501	N/A	N/A
SHEET			
GR5			
12 OF 40 SHEETS			
DRAWING NO. L19-00350 107V7663			
HOWARD HUGHES COMPANY, LLC A DELAWARE LIMITED LIABILITY COMPANY 10845 GRIFFITH PEAK DRIVE SUITE 100 LAS VEGAS, NEVADA 89135 702 791-4000		CITY OF LAS VEGAS	
		2727 SOUTH RAINBOW BOULEVARD LAS VEGAS, NEVADA 89146-5148 PH. (702) 875-7550 FAX (702) 382-2597 WEB WWW.VISTANV.COM CONSULTING ENGINEERS ● PLANNERS ● LAND SURVEYORS	
SUMMERLIN WEST VILLAGE 21 DESERT FOOTHILLS DRIVE REDPOINT TO SKY VISTA		GRADING SHEET 5	

DRAWN BY: BCC		07/17/2018
DESIGNED BY: BCC		07/17/2018
CHECKED BY: WJM		09/15/2019
PROJECT NO: 7851	SCALE: N/A HORIZ. N/A VERT.	

PROFESSIONAL ENGINEER - STATE OF NEVADA

WILLIAM J. MEYER

EXP: 12/31/21

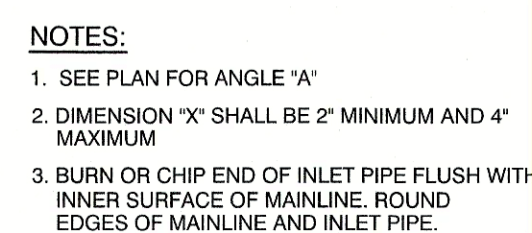
CIVIL

No. 15745

SHEET
GR5
12 of 40 SHEETS

DRAWING NO.
L19-00350
107V7663

d:\7851\Desert Foothills-Street A to Summerlin Pkwy\Sheet Set\7851-GRD.dwg:8/27/2020 8:36 AM:trevor



RCB PENETRATION DETAIL



APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT: 136301 FIRST APPROVED DATE: _____
LVWVD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
 10945 GRIFFITH PEAK DRIVE, SUITE 160
 LAS VEGAS, NEVADA 89135
CITY OF LAS VEGAS

DETAIL SHEET 1

**SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA**

DRAWN BY: GCC	07/17/2018
DESIGNED BY: GCC	07/17/2018
CHECKED BY: NMM	09/15/2019
PROJECT NO: 7851	SCALE: N/A
	HORIZ. N/A
	VERT.

WILLIAM J. MEYER
EXP: 12/31/21
CIVIL
PROFESSIONAL ENGINEER - STATE OF NEVADA
No. 15745

02/27/20

SHEET
DT1
13 OF 40 SHEETS

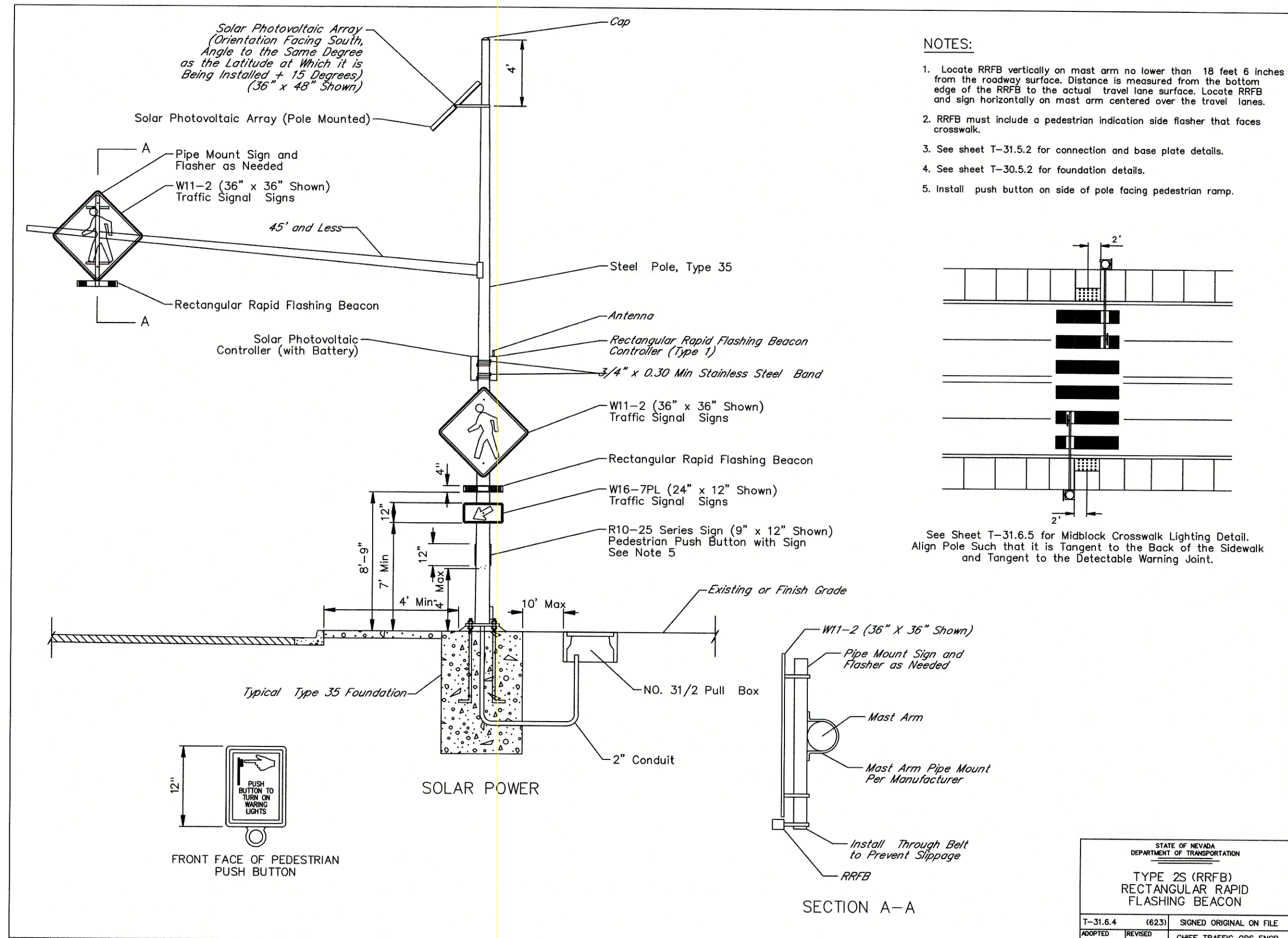
DRAWING NO.
L19-00350
107V7663

7851

FUTURE
REDPOINT DRIVE
(PUBLIC)

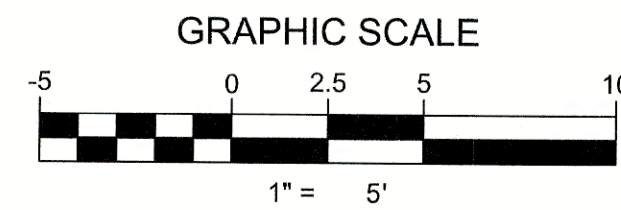
DESERT FOOTHILLS AND FAR HILLS HANDICAP RAMP NORTHWEST CORNER

NTS



TRAFFIC DETAIL "A" - PEDESTRIAN FLASHING BEACON

NTS



SIDEWALK RAMPS TABLE				
(PER CCAUSD No. 235, CASE II)				
NO.	DIM "A"	DIM "B"	CASE	
1	4.5'	12'	II	
2	4.5'	9.5'	II	
3	8'	8'	II	
4	9.5'	4.5'	II	
5	12'	4.5'	II	

DESERT FOOTHILLS AND FAR HILLS HANDICAP RAMP NORTHWEST CORNER

NTS

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
1084 GRIFFIN PEAK DRIVE, SUITE 105
LAS VEGAS, NEVADA 89135
702.791.4000

2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89146-5148
PH: (702) 873-1550 FAX: (702) 362-2597 WEB: WWW.VTNV.COM
CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS

DETAIL SHEET 2

SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA

DRAWN BY:
BCC
07/17/2018

DESIGNED BY:
BCC
07/17/2018

CHECKED BY:
WJM
08/15/2019

PROJECT NO:
7951

SCALE:
N/A
HORIZ.
VERT.

PROFESSIONAL ENGINEER - STATE OF NEVADA
WILLIAM J. MEYER
EXP: 12/31/21
CIVIL
No. 15745

8/22/20

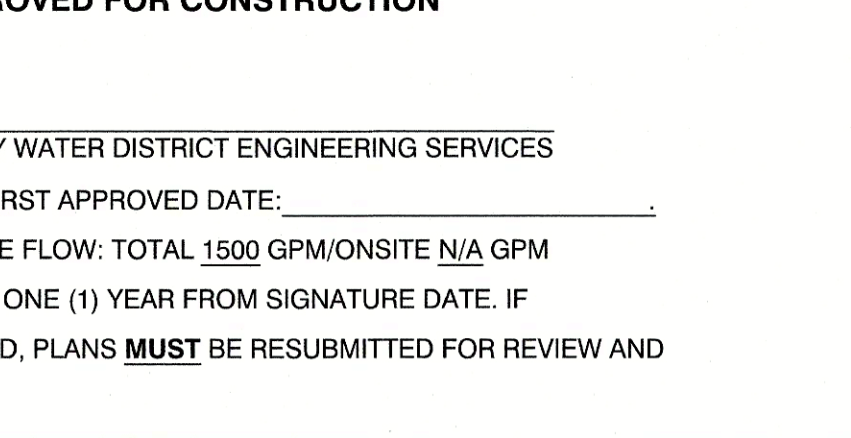
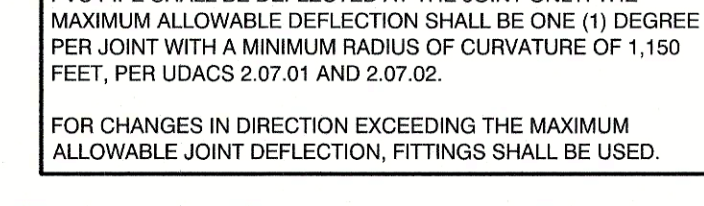
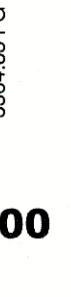
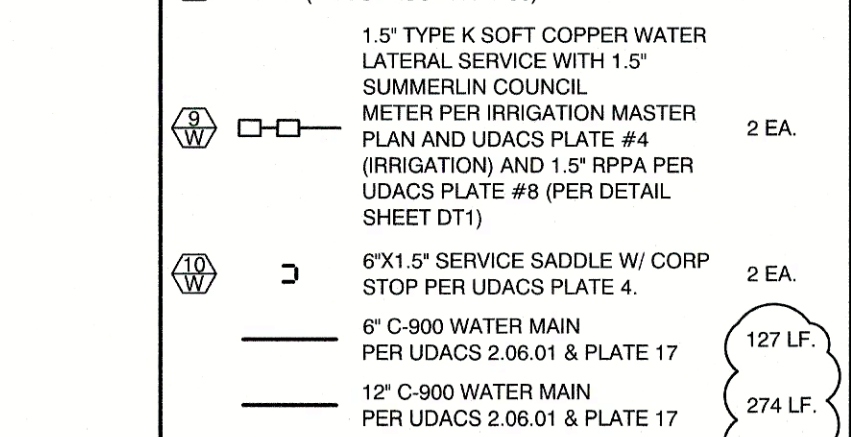
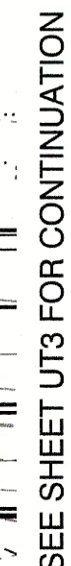
SHEET
DT2
14 OF 40 SHEETS

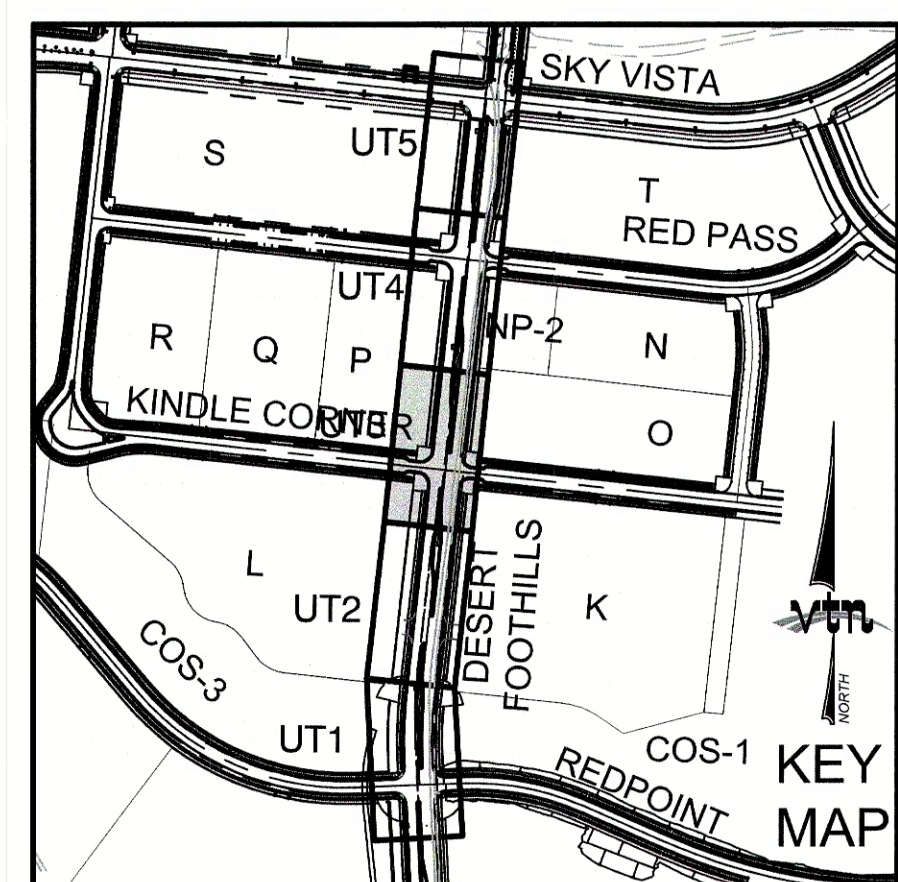
DRAWING NO.
L19-000550
107V7663

REVISION

DATE

BY





LVVWD APPROVED FIRE FLOW: TOTAL 1500 GPM
WD APPROVAL IS VALID FOR ONE (1) YEAR FROM SIGN
CONSTRUCTION IS NOT STARTED, PLANS **MUST** BE RESUB
APPROVAL

APPROVAL. _____

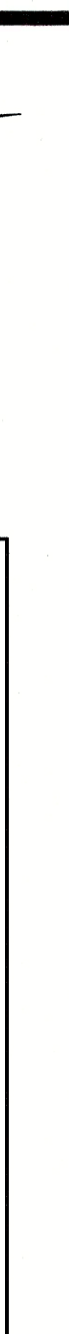
DRAWN BY: BCC		07/23/2018
DESIGNED BY: BCC		07/23/2018
CHECKED BY: WJM		09/15/2019
PROJECT NO.:	SCALE: 1"=20'	

17 OF 40 SHEETS

UT3

DRAWING NO.
119-00350
107/7663

107V7663



GRID NORTH AS DEFINED BY THE CENTRAL MERIDIAN OF THE NEVADA COORDINATE REFERENCE SYSTEM (NCRS), LAS VEGAS HIGH ELEVATION ZONE, NORTH AMERICAN DATUM OF 1983, THE GRID MERIDIAN BEING COINCIDENT WITH 114°58' WEST OF THE GREENWICH MERIDIAN.

LINEAR UNIT: US SURVEY FOOT (FTUS)

DATUM (REFERENCE FRAME): NAD 83 (2011) EPOCH 2010.00

SYSTEM: NEVADA COORDINATE REFERENCE SYSTEM (NCRS)

ZONE: LAS VEGAS HIGH ELEVATION ZONE

PROJECTION: TRANSVERSE MERCATOR
STANDARD PARALLEL AND LATITUDE OF GRID
ORIGIN: 38°15'00"N
LONGITUDE OF CENTRAL MERIDIAN: 114°58'00"W
NORTHING AT GRID ORIGIN: 400,000.00 M (1:312,333.3333 FTUS)
EASTING AT CENTRAL MERIDIAN: 300,000.00 M (984,250,000 FTUS)

SCALE FACTOR ON CENTRAL MERIDIAN: 1.000135 (EXACT)

PROJECT DATUM: NORTH AMERICAN VERTICAL DATUM OF 1988
(NAVD88)

CITY OF LAS VEGAS BENCHMARK: D368 (REVISED 2008)
NAVD88 ELEVATION: 989.574 METERS (3,246.63 FEET)

FND USC&GS DISC SET IN ROCK RIDGE 150' SOUTH OF
CHARLESTON BLVD. & WEST OF DETENTION BASIN.
T21S,R59E,S03

1. ALL SEWER STATIONING IS BASED ON CENTER OF PIPE LENGTHS FROM MANHOLE TO MANHOLE AND IS NOT RELATIVE IN ANY WAY TO STREET CENTERLINE STATIONING. STREET CENTERLINE STATIONING IS SHOWN ON PLAN FOR ROAD REFERENCE ONLY.
2. ALL MANHOLES ARE 48" SIZED MANHOLES PER DCSWS SD-1, UNLESS OTHERWISE NOTED ON PLAN.
3. ALL MANHOLES ARE TO BE CONSTRUCTED PER DCSWS SD-1A AND SD-1B
4. ALL MANHOLE COVERS AND FRAMES ARE TO BE SINGLE 24" I.D.
5. ALL MANHOLE COLLARS ARE TO BE CONSTRUCT PER DCSWS SD-4.

ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

UTILITY LOCATIONS SHOWN HERE ON ARE APPROXIMATE. ONLY IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HERE ON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

1. MAINTAIN A MINIMUM OF 12-INCHES FOR DRY UTILITIES
AND 18-INCHES FOR WET UTILITIES VERTICAL SEPARATION
AT ALL POINTS OF UTILITY CROSSINGS.
2. MAINTAIN A MINIMUM OF 3-FEET PARALLEL SEPARATION
FROM ADJACENT UTILITIES.
 - ANY EXCAVATION AT THE BACK OF A CURB MUST REMAIN
OPEN FOR INSPECTION OF THE COPPER SERVICE
LATERALS. ANY COPPER SERVICE LATERAL WHICH IS
SPLIT, BENT OR OTHERWISE DAMAGED MUST BE
REPLACED FROM THE MAIN TO THE ANGLE METER STOP.
- CAUTION MUST BE EXERCISED NEAR ANY EXCAVATION
AROUND AN EXISTING FIRE HYDRANT IN ORDER TO AVOID
DISTURBING THE THRUST BLOCK AND SURROUNDING SOIL
STRUCTURE. THE THRUST BLOCK MUST BE PROTECTED.
4. POSSIBILITY OF THE HYDRANT SEPARATING FROM THE
LATERAL. PROVIDE A DETAIL OF THE PROPOSED
REPAIR TO SHOW HOW THE EXISTING HYDRANT IS TO BE
AVOID DISTURBING EXISTING LVWMD FACILITIES.

NO STRUCTURE, WALLS, VEGETATION, OR OBJECT OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

INSTALL PIPELINE MARKER BALLS IN
TRENCH ABOVE EACH
HORIZONTAL ELBOW FITTING, PER UDACS
PLATE No. 15

WATER SERVICE LOCATED IN THE 3550 PRESSURE ZONE.

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT: 136301 FIRST APPROVED DATE: _____

LVVWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM

LVVWD APPROVAL IS VALID FOR ONE (1) YEAR FROM SIGNATURE DATE. IF

CONSTRUCTION IS NOT STARTED, PLANS **MUST** BE RESUBMITTED FOR REVIEW AND

APPROVAL.

<u>WATER</u>		PUBLIC
	FIRE HYDRANT ASSEMBLY: PER UDACS PLATE NO. 30, 39, 40 & 41) INCLUDING 24" X 6" TAPPING SLEEVE WITH 6" TAPPING VALVE PER UDACS PLATE NO. 34 & SECTION 2.24.01B	3 EA.
	12" GATE VALVE (PER UDACS PLATE 30 & 39)	9 EA.
	6" 45° VERTICAL BEND (PER UDACS PLATE 31)	2 EA.
	12" 45° VERTICAL BEND (PER UDACS PLATE 31)	16 EA.
	12" 45° BEND (PER UDACS PLATE 31)	6 EA.
	12" 90° BEND (PER UDACS PLATE 31)	2 EA.
	24"X12" TAPPING SLEEVE W/12" TAPPING VALVE (PER UDACS PLATE 30, 34 & 39 & PER SECTION 2.24.01B)	9 EA.
	12" CAP & BLOW OFF (PER UDACS PLATE 39)	9 EA.
	1.5" TYPE K SOFT COPPER WATER LATERAL SERVICE WITH 1.5" SUMMERLIN COUNCIL METER (PER IRRIGATION MASTER PLAN AND UDACS PLATE #4 (IRRIGATION) AND 1.5" RPPA PER UDACS PLATE #9 (PER DETAIL SECT DT1)	2 EA.
	6"X1.5" SERVICE SADDLE W/ CORP STOP PER UDACS PLATE 4.	2 EA.
	6" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17	127 LF.
	12" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17	274 LF.
	12" DIP WATER MAIN PER UDACS 2.06.01 & PLATE 17	277 LF.
	WATER POINT OF CONNECTION	2
<u>SEWER</u>		PUBLIC
	48" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	4 EA.
	60" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	4 EA.
	72" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	1 EA.
	CORROSION PROTECTION	
	8" C-900-16 SANITARY SEWER MAIN	184 LF.
	12" C-900-16 SANITARY SEWER MAIN	1,711 LF.
	SEWER POINT OF CONNECTION	

ALL DIMENSIONS TO UTILITIES ARE TO CENTERLINE OF PIPE UNLESS INDICATED OTHERWISE. CONTRACTOR SHALL VARYIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. ALL EXISTING UTILITY STRUCTURES WITHIN CONSTRUCTION AREA SHALL BE ADJUSTED TO MATCH FINISH GRADE (I.E. WV. BOX, MH, ANNOODE BOX, FH, TEL BOX, ETC.). 1. WATER LINE STATIONING IS BASED ON THE CENTERLINE OF STREET RIGHT OF WAY. 2. WATER LINE SHALL BE C-400 PVC APPROVED BY THE LAS VEGAS VALLEY WATER DISTRICT. 3. EXISTING ASPHALT SHALL BE REMOVED AND REPLACED PER CITY OF LAS VEGAS SPECIFICATIONS. BACKFILL AND INSTALL PERMANENT PATCH PER CITY STANDARD FOR THIS PAVEN. 4. SEE SHEET MH FOR PUBLIC UTILITY NOTES AND GENERAL WATER CONSTRUCTION NOTES. 5. ALL WATER LINE IN STREET RIGHT OF WAY IS PUBLIC WATER SYSTEM AND MUST BE INSPECTED BY THE LAS VEGAS VALLEY WATER DISTRICT.
DEPTH OF COVER NOTE: MAINTAIN MINIMUM TWENTY-FOUR (24) INCH COVER PER UDMAS SECTION 2.0. IF GRADING MUST BE COMPLETED PRIOR TO TWENTY-FOUR INCH COVER.

BY: _____ DATE: _____

APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW 1500 GPM AT 20 P.S.I. RESIDUAL.

BLUE COLORED REFLECTIVE RAISED
PAVEMENT MARKERS ARE TO BE INSTALLED:

1. ON ROADWAYS WITH NO PARKING PERMITTED
ON HYDRANT SIDE; LOCATE MAKER 8' FROM FACE
OF CURB ON HYDRANT SIDE.
2. ON ROADWAYS WITH PARKING PERMITTED ON
HYDRANT SIDE; LOCATE MARKER 16' FROM FACE
OF CURB ON HYDRANT SIDE.

702-791-4000

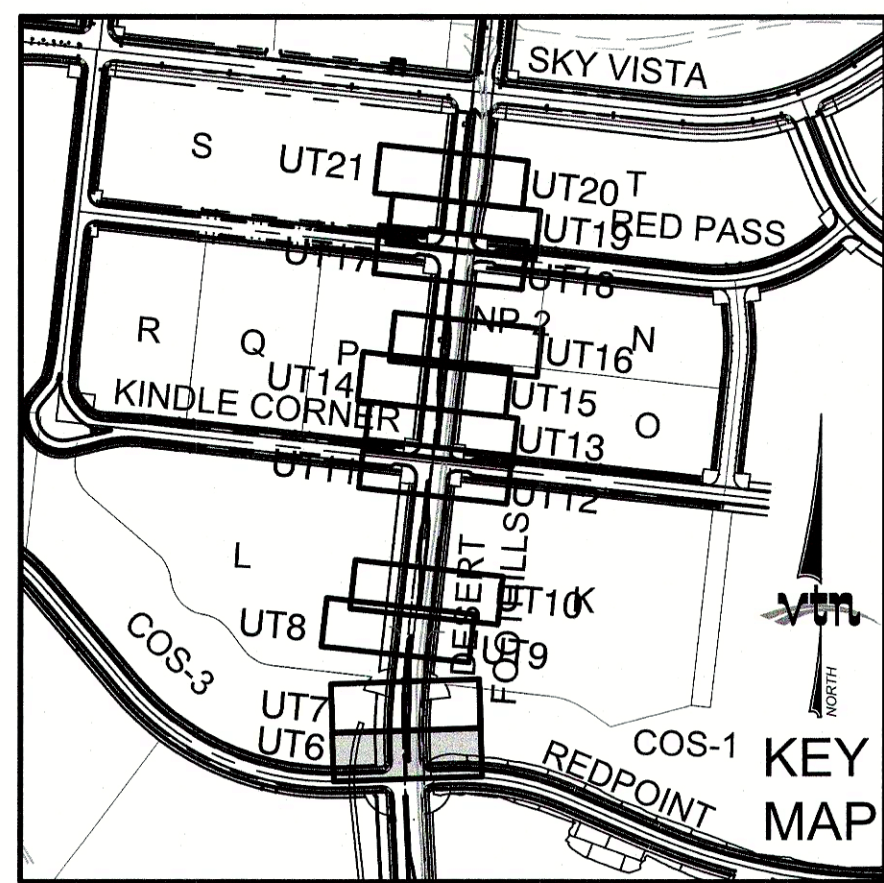
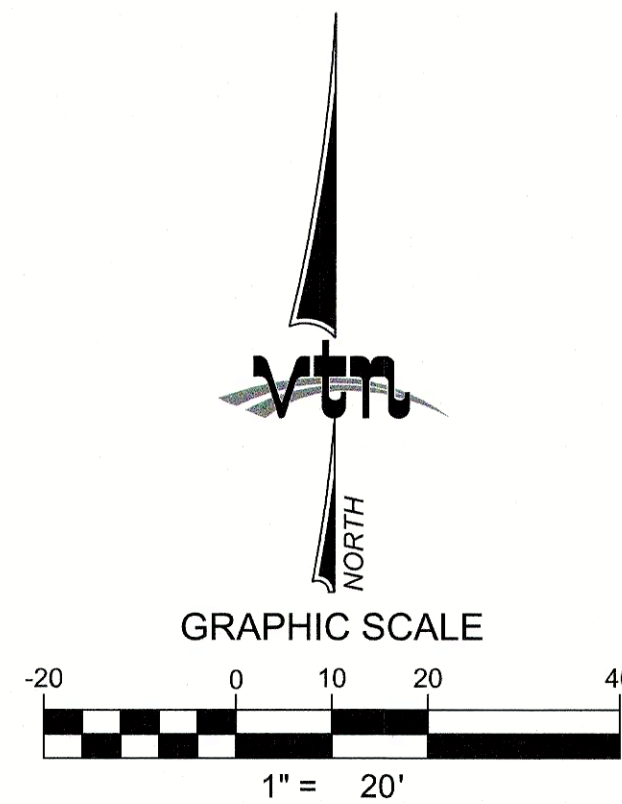
2727 SOUTH RAINBOW BOULEVARD

FBI IN WEST VIRGINIA 21

CHECKED BY: _____

ENGINEER
WILLIAM MEYER
P: 12/31/2017
CIVIL
1574
27
SHEET
JT4
40
DRAWING NO.
9-0035
7V766

4) 7854 | Dorset Earthfill, Street A to Summerlin Blvd./Shoot Cat) 7854 | IT class: 8/06/2000 5:00 PM | 10/10/2000 5:00 PM



APN:137-26-112-005
PARCEL COS-1
FINAL MAP
BOOK- 159
PAGE- 50

UTILITY CROSSING NOTE: ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

CONSTRUCTION NOTES

WATER LINE MARKER BALLS NOTE

EASEMENT REFERENCE LEGEND	
1	50' WIDE LAS VEGAS VALLEY WATER DISTRICT EASEMENT GRANTED PER OR: 20070529:0001401. STA:28+75.21 TO STA:44+96.10

SANITATION SEWER NOTES

ALL SEWER STATIONING IS BASED ON CENTER OF PIPE LENGTHS FROM MANHOLE TO MANHOLE AND IS NOT RELATIVE IN ANY WAY TO STREET CENTERLINE STATIONING. STREET CENTERLINE STATIONING IS SHOWN ON PLAN FOR ROAD REFERENCE ONLY.

1. ALL MANHOLES ARE 48" SIZED MANHOLES PER DCSWCS SD-1, UNLESS OTHERWISE NOTED ON PLAN.

2. ALL MANHOLES ARE TO BE CONSTRUCTED PER DCSWCS SD-1A AND SD-1B.

3. ALL MANHOLE COVERS AND FRAMES ARE TO BE CONSTRUCTED PER DCSWCS SD-2.

4. ALL MANHOLE COLLARS ARE TO BE CONSTRUCT PER DCSWCS SD-4.

ALL SEWER LATERAL CONNECTIONS TO SEWER MAINS ARE TO BE CONSTRUCTED PER DCSWCS SD-22 UNLESS OTHERWISE NOTED ON PLAN.

WATER CONSTRUCTION NOTES

ALL DIMENSIONS TO UTILITIES ARE TO CENTERLINE OF PIPE UNLESS INDICATED OTHERWISE.

CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

ALL EXISTING UTILITY STRUCTURES WITHIN CONSTRUCTION AREA SHALL BE ADJUSTED TO MATCH FINISH GRADE (I.E. W.V. BOX, MIN. ANNODE BOX, FH, TEL. BOX, ETC.)

1. WATER LINE STATIONING IS BASED ON THE CENTERLINE OF STREET RIGHT OF WAY
2. WATER LINE SHALL BE C-900 PVC APPROVED BY THE LAS VEGAS VALLEY WATER DISTRICT.
3. EXISTING ASPHALT SHALL BE REMOVED AND REPLACED PER CITY OF LAS VEGAS SPECIFICATIONS. BACKFILL AND INSTALL PERMANENT PATCH PER CITY STANDARD FOR THIS PLAN.

SEE SHEET NT FOR PUBLIC UTILITY NOTES AND GENERAL WATER CONSTRUCTION NOTES.

4. ALL WATER LINE IN STREET RIGHT OF WAY IS PUBLIC WATER SYSTEM AND MUST BE INSPECTED BY THE LAS VEGAS VALLEY WATER DISTRICT.

WATER PRESSURE ZONE:
WATER SERVICE LOCATED IN THE 3550 PRESSURE ZONE.

WATER MAIN COVER NOTE:
ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER
PER UDACS SECTION 2.08

WATERLINE TRENCH NOTE:
CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER
UDACS PLATE NO. 17.

LAS VEGAS FIRE & RESCUE APPROVAL

BY: _____ DATE: _____

APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO
BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF
ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS.
FIRE FLOW 1500 GPM AT 20 P.S.I. RESIDUAL.

WATER MAIN JOINT DEFLECTION

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.02.

FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

FIRE HYDRANT MARKER NOTES

BLUE COLORED REFLECTIVE RAISED
PAVEMENT MARKERS ARE TO BE INSTALLED:

1. ON ROADWAYS WITH NO PARKING PERMITTED
ON HYDRANT SIDE; LOCATE MAKER 8' FROM FACE
OF CURB ON HYDRANT SIDE.
2. ON ROADWAYS WITH PARKING PERMITTED ON
HYDRANT SIDE; LOCATE MARKER 16' FROM FACE
OF CURB ON HYDRANT SIDE.

ENGINEER DISCLAIMER NOTE:

UTILITY LOCATIONS SHOWN HERE ON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HERE ON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

TYPICAL WATER NOTES

1. MAINTAIN A MINIMUM OF 12-INCHES VERTICAL SEPARATION AT ALL POINTS OF UTILITY CROSSINGS.
2. MAINTAIN A MINIMUM OF 3- FEET PARALLEL SEPARATION FROM ADJACENT UTILITIES.
3. ANY EXCAVATION AT THE BACK OF A CURB MUST REMAIN OPEN FOR INSPECTION OF THE COPPER SERVICE.
3. LATERALS: ANY COPPER SERVICE LATERAL WHICH IS KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.
- CAUTION MUST BE EXERCISED NEAR ANY EXCAVATION AROUND AN EXISTING FIRE HYDRANT IN ORDER TO AVOID DISTURBING THE THRUST BLOCK AND SURROUNDING SOIL SUPPORTING THE THRUST BLOCK. THIS PREVENTS THE POSSIBILITY OF THE LATERAL MOVING AWAY FROM THE LATERAL. PROVIDE A DETAIL OF THE PROPOSED INSTALLATION SHOWING ADEQUATE CLEARANCES TO AVOID DISTURBING EXISTING LVWD FACILITIES.

SIGHT VISIBILITY ZONES:

NO STRUCTURE, WALLS, VEGETATION, OR OBJECT OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.



AVOID HITTING UNDERGROUND TRAFFIC SIGNAL AND STREET LIGHT SYSTEM CONDUITS IT'S COSTLY!

Call before you Underground

1-702-455-7511

CLARK COUNTY TRAFFIC OPERATIONS
AND
1-702-229-6611

LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM

AVOID HITTING OVERHEAD
POWER LINES. IT'S COSTLY.

CALL BEFORE
YOU DO
OVERHEAD

1-702-227-2929

Call before you Dig
Avoid cutting underground utility lines. It's costly.

CALL
811

OR
1-800-227-2600
AND
1-702-455-6000

**CLARK COUNTY TRAFFIC
OPERATIONS**

[illegible]

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
 10948 GREIFFTH PEAK DRIVE, SUITE 100
 LAS VEGAS, NEVADA 89135
 702-791-4000

CITY OF LAS VEGAS

2737 SOUTH RAINBOW BOULEVARD
 LAS VEGAS, NEVADA 89146-5148
 PH. (702) 872-7550 FAX (702) 382-2397 WEB WWW.VTNV.COM

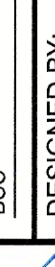
CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS



UTILITY LATERAL SHEET 6

SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA

DRAWN BY:	06/02/2018
BY:	
DESIGNED BY:	06/02/2018
BY:	
CHECKED BY:	09/15/2019
BY:	
PROJECT NO:	7851
SCALE:	1"=20' HORIZ 1"=4' VERT

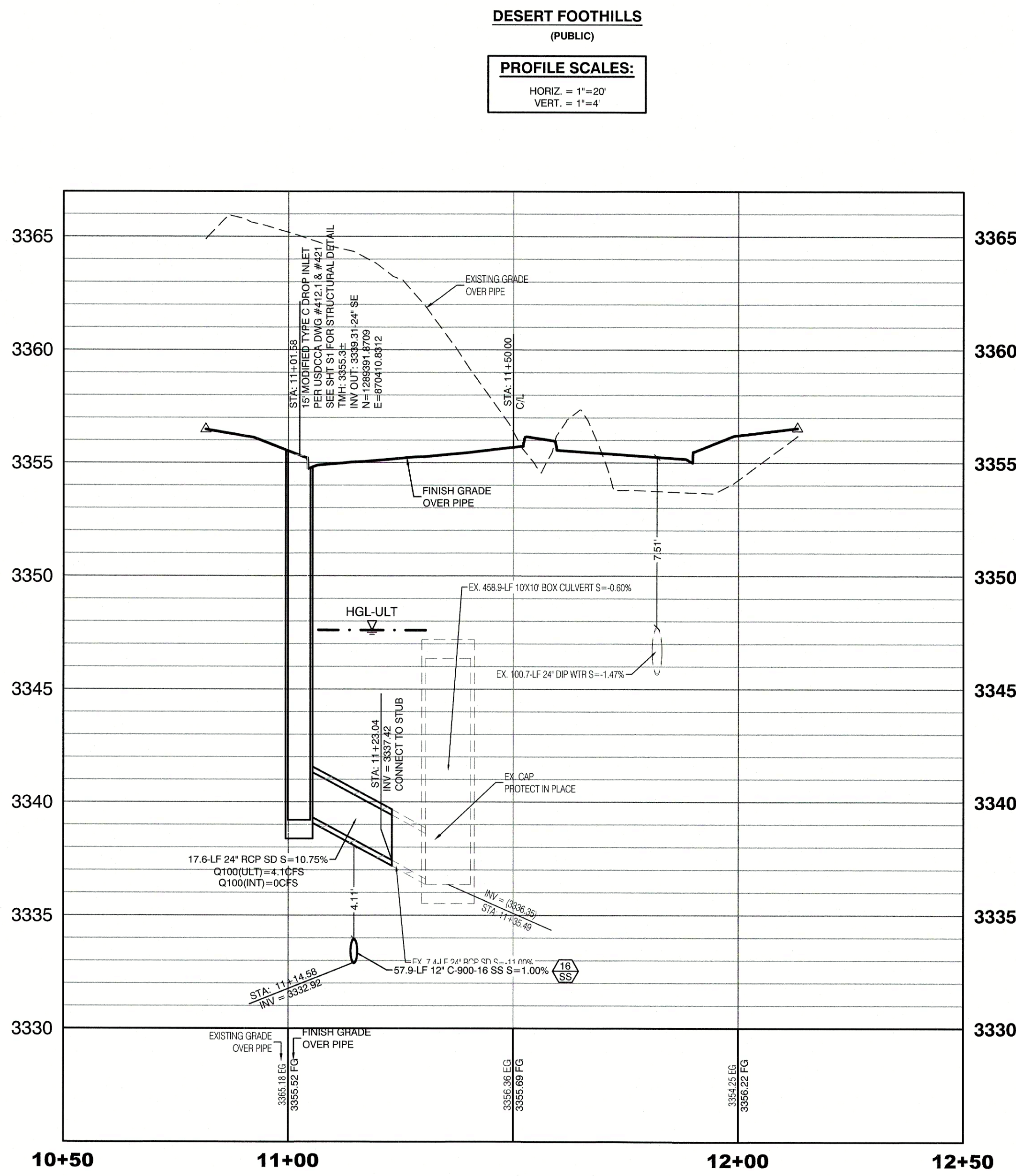


William J. Meyer

UT6

20 OF 40 SHEETS

DRAWING NO.
1-18-00350
1077663



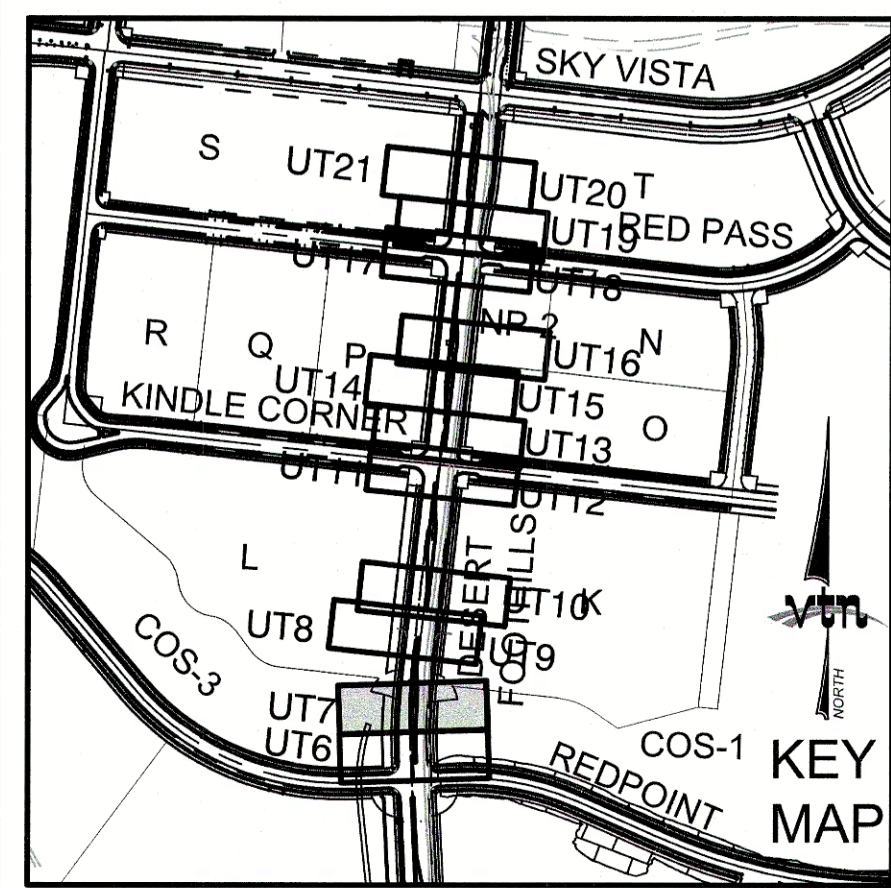
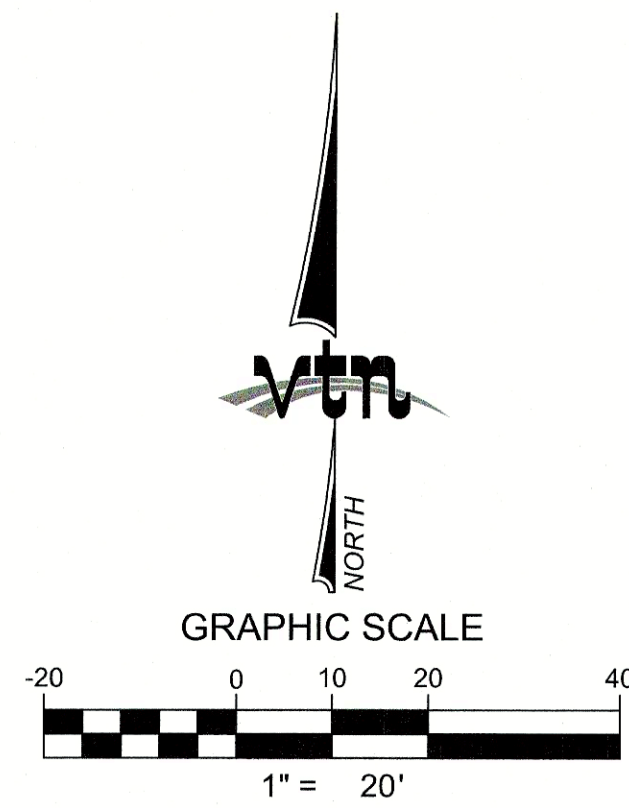
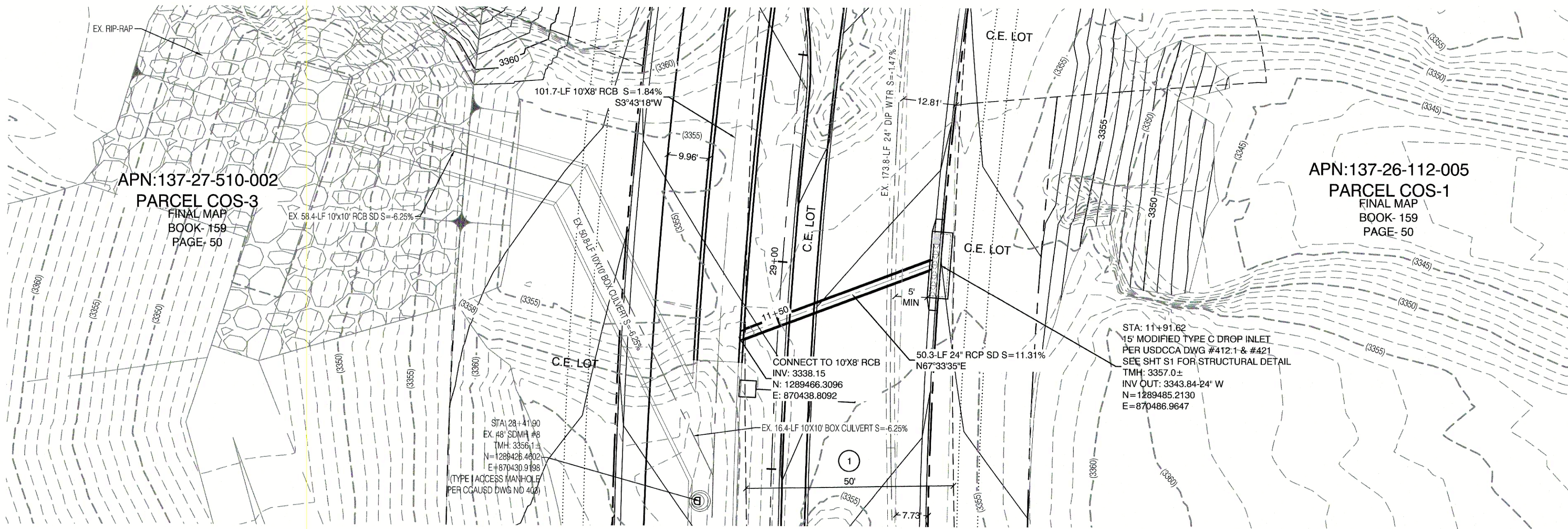
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT: 136301 FIRST APPROVED DATE: _____.

LVVWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM

LVVWD APPROVAL IS VALID FOR ONE (1) YEAR FROM SIGNATURE DATE. IF
CONSTRUCTION IS NOT STARTED, PLANS **MUST** BE RESUBMITTED FOR REVIEW AND
APPROVAL.

APPROVED FOR CONSTRUCTION



UTILITY CROSSING NOTE:
ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

NOTE:
5' MINIMUM HORIZONTAL SEPARATION FROM OUTSIDE EDGE OF THE WATER MAIN TO OUTSIDE EDGE OF DROP INLET

CONSTRUCTION NOTES

WATER

- FIRE HYDRANT ASSEMBLY:**
(PER UDACS PLATE NO. 30, 39, 40 & 41)
INCLUDING 24" X 6" TAPPING SLEEVE WITH 6" TAPPING VALVE PER UDACS PLATE NO. 34 & SECTION 2.24.01B
- 12" GATE VALVE (PER UDACS PLATE 30 & 39) 9 EA.
- 6" 45° VERTICAL BEND (PER UDACS PLATE 31) 2 EA.
- 12" 45° VERTICAL BEND (PER UDACS PLATE 31) 16 EA.
- 12" 45° BEND (PER UDACS PLATE 31) 6 EA.
- 12" 90° BEND (PER UDACS PLATE 31) 2 EA.
- 24"X12" TAPPING SLEEVE W/12" TAPPING VALVE (PER UDACS PLATE 30, 34 & 39 & PER SECTION 2.24.01B) 9 EA.
- 12" CAP & BLOW OFF (PER UDACS PLATE 36) 9 EA.
- 1.5" TYPE K SOFT COPPER WATER LATERAL SERVICE WITH 1.5" SUMMERLIN COUNCIL METER PER IRRIGATION MASTER PLAN AND UDACS PLATE #4 (IRRIGATION) AND 1.5" RPPA PER UDACS PLATE #8 (PER DETAIL SHEET DT1)
- 6"X1.5" SERVICE SADDLE W/ CORP STOP PER UDACS PLATE 4. 2 EA.
- 6" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17 127 LF.
- 12" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17 274 LF.
- 12" DIP WATER MAIN PER UDACS 2.06.01 & PLATE 17 277 LF.
- WATER POINT OF CONNECTION

SEWER

- 48" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID 4 EA.
- 60" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID 4 EA.
- 72" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID 1 EA.
- CORROSION PROTECTION
- 8" C-900-16 SANITARY SEWER MAIN 184 LF.
- 12" C-900-16 SANITARY SEWER MAIN 1,711 LF.
- SEWER POINT OF CONNECTION

ENGINEER DISCLAIMER NOTE:

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TYPICAL WATER NOTES

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- MAINTAIN A MINIMUM OF 3-FEET PARALLEL SEPARATION FROM ADJACENT UTILITIES.
- ANY EXCAVATION AT THE BACK OF A CURB MUST REMAIN OPEN FOR INSPECTION OF THE COPPER SERVICE LATERALS. ANY COPPER SERVICE LATERAL WHICH IS KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP. CAUTION MUST BE EXERCISED NEAR ANY EXCAVATION AROUND AN EXISTING FIRE HYDRANT IN ORDER TO AVOID DISTURBING THE THRUST BLOCK AND SURROUNDING SOIL. SUPPORTING THE THRUST BLOCK THIS PREVENTS THE POSSIBILITY OF THE HYDRANT SEPARATING FROM THE LATERAL. PROVIDE A DETAIL OF THE PROPOSED INSTALLATION SHOWING ADEQUATE CLEARANCES TO AVOID DISTURBING EXISTING LVWD FACILITIES.
-

SIGHT VISIBILITY ZONES:

NO STRUCTURE, WALLS, VEGETATION, OR OBJECT OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

WATER LINE MARKER BALLS NOTE

INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15

EASEMENT REFERENCE LEGEND

- 1 50' WIDE LAS VEGAS VALLEY WATER DISTRICT EASEMENT GRANTED PER OR: 20070629.0001401. STA:28+75.21 TO STA:44+96.10

SANITATION SEWER NOTES

- ALL SEWER STATIONING IS BASED ON CENTER OF PIPE LENGTHS FROM MANHOLE TO MANHOLE AND IS NOT RELATIVE IN ANY WAY TO STREET CENTERLINE STATIONING. STREET CENTERLINE STATIONING IS SHOWN ON PLAN FOR ROAD REFERENCE ONLY.
- ALL MANHOLES ARE 48" SIZED MANHOLES PER DCSWCS SD-1, UNLESS OTHERWISE NOTED ON PLAN.
- ALL MANHOLES ARE TO BE CONSTRUCTED PER DCSWCS SD-1A AND SD-1B.
- ALL MANHOLE COVERS AND FRAMES ARE TO BE CONSTRUCTED PER DCSWCS SD-2.
- ALL MANHOLE COLLARS ARE TO BE CONSTRUCT PER DCSWCS SD-4.
- ALL SEWER LATERAL CONNECTIONS TO SEWER MAINS ARE TO BE CONSTRUCTED PER DCSWCS SD-22 UNLESS OTHERWISE NOTED ON PLAN.

WATER CONSTRUCTION NOTES

ALL DIMENSIONS TO UTILITIES ARE TO CENTERLINE OF PIPE UNLESS INDICATED OTHERWISE.

CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

ALL EXISTING UTILITY STRUCTURES WITHIN CONSTRUCTION AREA SHALL BE ADJUSTED TO MATCH FINISH GRADE (I.E. WY. BOX, MH, ANNOUE BOX, FH, TEL BOX, ETC.)

- WATER LINE STATIONING IS BASED ON THE CENTERLINE OF STREET RIGHT OF WAY
- WATER LINE SHALL BE C-900 PVC APPROVED BY THE LAS VEGAS VALLEY WATER DISTRICT.
- EXISTING ASPHALT SHALL BE REMOVED AND REPLACED PER CITY OF LAS VEGAS SPECIFICATIONS. BACKFILL AND INSTALL PERMANENT PATCH PER CITY STANDARD FOR THIS PLAN.
- SEE SHEET NT FOR PUBLIC UTILITY NOTES AND GENERAL WATER CONSTRUCTION NOTES.
- ALL WATER LINE IN STREET RIGHT OF WAY IS PUBLIC WATER SYSTEM AND MUST BE INSPECTED BY THE LAS VEGAS VALLEY WATER DISTRICT.

WATER PRESSURE ZONE:

WATER SERVICE LOCATED IN THE 3550 PRESSURE ZONE.

WATER MAIN COVER NOTE:

ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08

WATERLINE TRENCH NOTE:

CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.

LAS VEGAS FIRE & RESCUE APPROVAL

BY: _____ DATE: _____

APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW 1500 GPM AT 20 P.S.I. RESIDUAL.

WATER MAIN JOINT DEFLECTION

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.02.

FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

FIRE HYDRANT MARKER NOTES

- BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED:
- ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE, LOCATE MARKER 8' FROM FACE OF CURB ON HYDRANT SIDE.
 - ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE, LOCATE MARKER 16' FROM FACE OF CURB ON HYDRANT SIDE.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

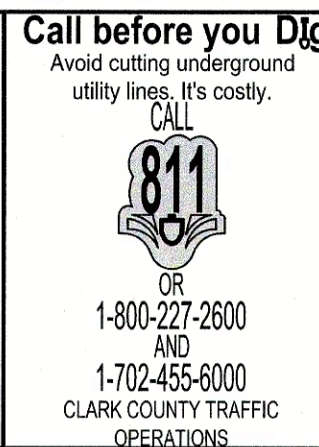
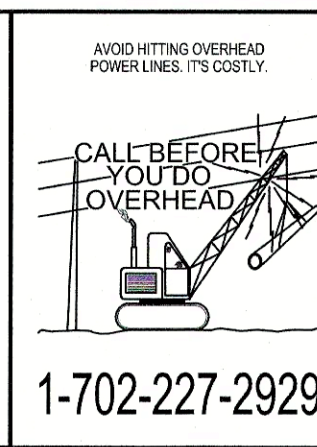
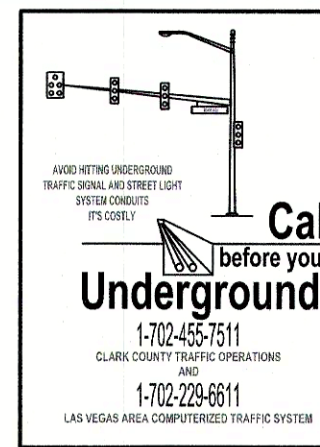
PROJECT:136301 FIRST APPROVED DATE: _____

LVWVD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM

LVWVD APPROVAL IS VALID FOR ONE (1) YEAR FROM SIGNATURE DATE. IF

CONSTRUCTION IS NOT STARTED, PLANS **MUST** BE RESUBMITTED FOR REVIEW AND

APPROVAL.



HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
CITY OF LAS VEGAS
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89146-5148
PH. (702) 875-7591 FAX (702) 382-2897 WEB WWW.VTNV.COM
LAS VEGAS, NEVADA 89105
702-791-4000

UTILITY LATERAL SHEET 7

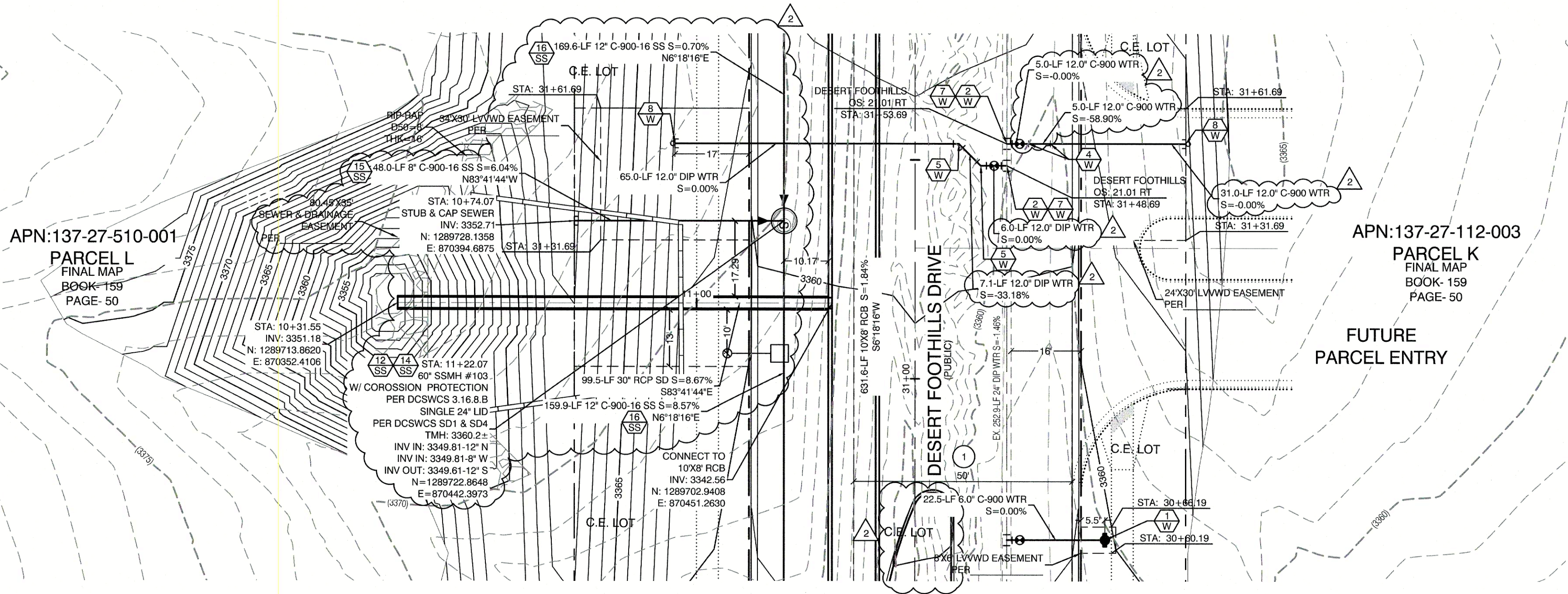
SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA

DRAWN BY: BCC
DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO: 136301

SCALE: 1"=20'
HORIZ.
VERT. 1"=4'

21 OF 40 SHEETS

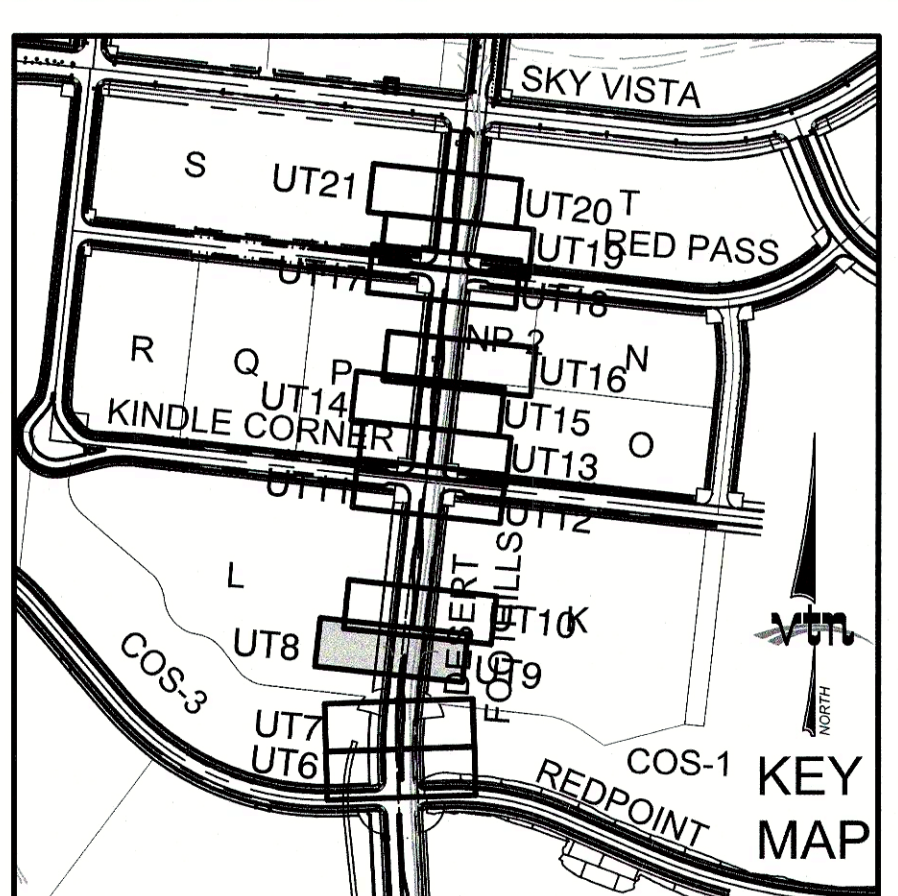
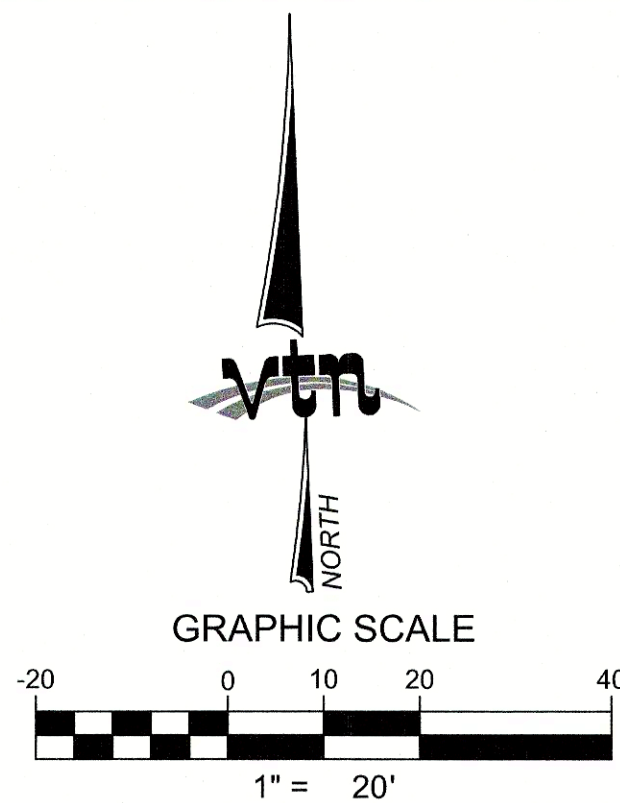
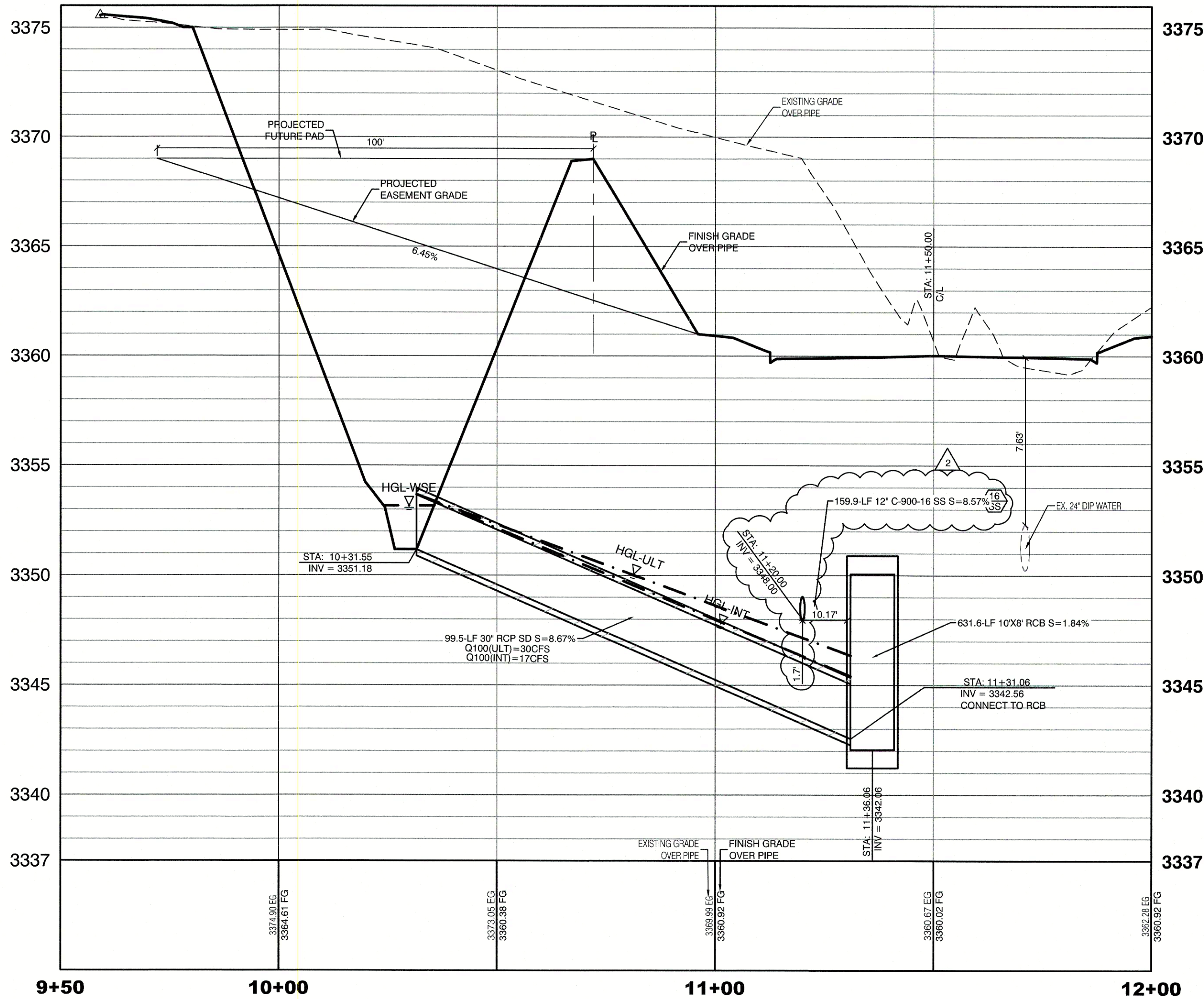
DRAWING NO. L19-00350
107V7663



DESERT FOOTHILLS
(PUBLIC)

PROFILE SCALES:
HORIZ. = 1"=20'
VERT. = 1"=4'

(SEE SHEET UT2 FOR REFERENCE)



UTILITY CROSSING NOTE:
ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

CONSTRUCTION NOTES	
WATER	PUBLIC
1. FIRE HYDRANT ASSEMBLY: (PER UDACS PLATE NO. 30, 39, 40 & 41) INCLUDING 24" X 8" TAPPING SLEEVE WITH 6" TAPPING VALVE PER UDACS PLATE NO. 34 & SECTION 2.24.01B	3 EA.
2. 12" GATE VALVE (PER UDACS PLATE 30 & 39)	9 EA.
3. 6" 45° VERTICAL BEND (PER UDACS PLATE 31)	2 EA.
4. 12" 45° VERTICAL BEND (PER UDACS PLATE 31)	16 EA.
5. 12" 45° BEND (PER UDACS PLATE 31)	6 EA.
6. 12" 90° BEND (PER UDACS PLATE 31)	2 EA.
7. 24"X12" TAPPING SLEEVE W/12" TAPPING VALVE (PER UDACS PLATE 30, 34 & 39 & PER SECTION 2.24.01B)	9 EA.
8. 12" CAP & BLOW OFF (PER UDACS PLATE 36)	9 EA.
9. 1.5" TYPE K SOFT COPPER WATER LATERAL SERVICE WITH 1.5" SUMMERLIN COUNCIL METER PER IRRIGATION MASTER PLAN AND UDACS PLATE #4 (IRRIGATION) AND 1.5" RPPA PER UDACS PLATE #8 (PER DETAIL SHEET DT1)	2 EA.
10. 6"X1.5" SERVICE SADDLE W/ CORP STOP PER UDACS PLATE 4.	2 EA.
11. 6" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17	127 LF.
12. 12" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17	274 LF.
13. 12" DIP WATER MAIN PER UDACS 2.06.01 & PLATE 17	27 LF.
14. WATER POINT OF CONNECTION	
SEWER	PUBLIC
15. 48" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	4 EA.
16. 60" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	4 EA.
17. 72" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	1 EA.
18. CORROSION PROTECTION	
19. 8" C-900-16 SANITARY SEWER MAIN	184 LF.
20. 12" C-900-16 SANITARY SEWER MAIN	1,711 LF.
21. SEWER POINT OF CONNECTION	

WATER LINE MARKER BALLS NOTE
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE No. 15

EASEMENT REFERENCE LEGEND
1. 50' WIDE LAS VEGAS VALLEY WATER DISTRICT EASEMENT GRANTED PER OR: 20070529-0001401. STA:28+75.21 TO STA:44+96.10

SANITATION SEWER NOTES
1. ALL SEWER STATIONING IS BASED ON CENTER OF PIPE LENGTHS FROM MANHOLE TO MANHOLE AND IS NOT RELATIVE IN ANY WAY TO STREET CENTERLINE STATIONING. STREET CENTERLINE STATIONING IS SHOWN ON PLAN FOR ROAD REFERENCE ONLY.
2. ALL MANHOLES ARE 48" SIZED MANHOLES PER DCSWCS SD-1, UNLESS OTHERWISE NOTED ON PLAN.
3. ALL MANHOLES ARE TO BE CONSTRUCTED PER DCSWCS SD-1A AND SD-1B.
4. ALL MANHOLE COVERS AND FRAMES ARE TO BE CONSTRUCTED PER DCSWCS SD-2.
5. ALL MANHOLE COLLARS ARE TO BE CONSTRUCT PER DCSWCS SD-4.
6. ALL SEWER LATERAL CONNECTIONS TO SEWER MAINS ARE TO BE CONSTRUCTED PER DCSWCS SD-22 UNLESS OTHERWISE NOTED ON PLAN.

WATER CONSTRUCTION NOTES
ALL DIMENSIONS TO UTILITIES ARE TO CENTERLINE OF PIPE UNLESS INDICATED OTHERWISE.
CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
ALL EXISTING UTILITY STRUCTURES WITHIN CONSTRUCTION AREA SHALL BE ADJUSTED TO MATCH FINISH GRADE (I.E. W.V. BOX, M.H. ANNODE BOX, F.H. TEL. BOX, ETC.)
1. WATER LINE STATIONING IS BASED ON THE CENTERLINE OF STREET RIGHT OF WAY
2. WATER LINE SHALL BE C-900 PVC APPROVED BY THE LAS VEGAS VALLEY WATER DISTRICT.
3. EXISTING ASPHALT SHALL BE REMOVED AND REPLACED PER CITY OF LAS VEGAS SPECIFICATIONS. BACKFILL AND INSTALL PERMANENT PATCH PER CITY STANDARD FOR THIS PLAN.
4. SEE SHEET NT FOR PUBLIC UTILITY NOTES AND GENERAL WATER CONSTRUCTION NOTES.
5. ALL WATER LINE IN STREET RIGHT OF WAY IS PUBLIC WATER SYSTEM AND MUST BE INSPECTED BY THE LAS VEGAS VALLEY WATER DISTRICT.

WATER PRESSURE ZONE:
WATER SERVICE LOCATED IN THE 3650 PRESSURE ZONE.

WATER MAIN COVER NOTE:
ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08

WATERLINE TRENCH NOTE:
CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.

LAS VEGAS FIRE & RESCUE APPROVAL
BY: _____ DATE: _____

APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW 1500 GPM AT 20 P.S.I. RESIDUAL.

WATER MAIN JOINT DEFLECTION
PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.02.
FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

FIRE HYDRANT MARKER NOTES
BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED:
1. ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE. LOCATE MAKER 8" FROM FACE OF CURB ON HYDRANT SIDE.
2. ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE. LOCATE MAKER 16" FROM FACE OF CURB ON HYDRANT SIDE.

ENGINEER DISCLAIMER NOTE:
UTILITIES LOCATIONS SHOWN HERE ON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HERE ON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

TYPICAL WATER NOTES
1. MAINTAIN A MINIMUM OF 12-INCHES VERTICAL SEPARATION AT ALL POINTS OF UTILITY CROSSINGS
2. MAINTAIN A MINIMUM OF 3- FEET PARALLEL SEPARATION FROM ADJACENT UTILITIES.
ANY EXCAVATION AT THE BACK OF A CURB MUST REMAIN OPEN FOR INSPECTION OF THE COPPER SERVICE
3. LATERALS. ANY COPPER SERVICE LATERAL WHICH IS KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP. CAUTION MUST BE EXERCISED NEAR ANY EXCAVATION AROUND AN EXISTING FIRE HYDRANT IN ORDER TO AVOID DISTURBING THE THRUST BLOCK AND SURROUNDING SOIL SUPPORTING THE THRUST BLOCK. THIS PREVENTS THE POSSIBILITY OF THE HYDRANT SEPARATING FROM THE LATERAL. PROVIDE A DETAIL OF THE PROPOSED INSTALLATION SHOWING ADEQUATE CLEARANCES TO AVOID DISTURBING EXISTING LVWD FACILITIES.

SIGHT VISIBILITY ZONES:
NO STRUCTURE, WALLS, VEGETATION, OR OBJECT OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT: 136301 FIRST APPROVED DATE: _____
LVWWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM
LVWWD APPROVAL IS VALID FOR ONE (1) YEAR FROM SIGNATURE DATE. IF CONSTRUCTION IS NOT STARTED, PLANS **MUST** BE RESUBMITTED FOR REVIEW AND APPROVAL.

Call before you Dig
1-702-227-2929

Call before you Dig
1-702-227-2929

Call before you Dig
Avoid cutting underground utility lines. It's costly.

1-800-227-2600
AND
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89146
702-791-1000

CITY OF LAS VEGAS
LAS VEGAS, NEVADA 89146
702-791-1000

UTILITY LATERAL SHEET 8
SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA

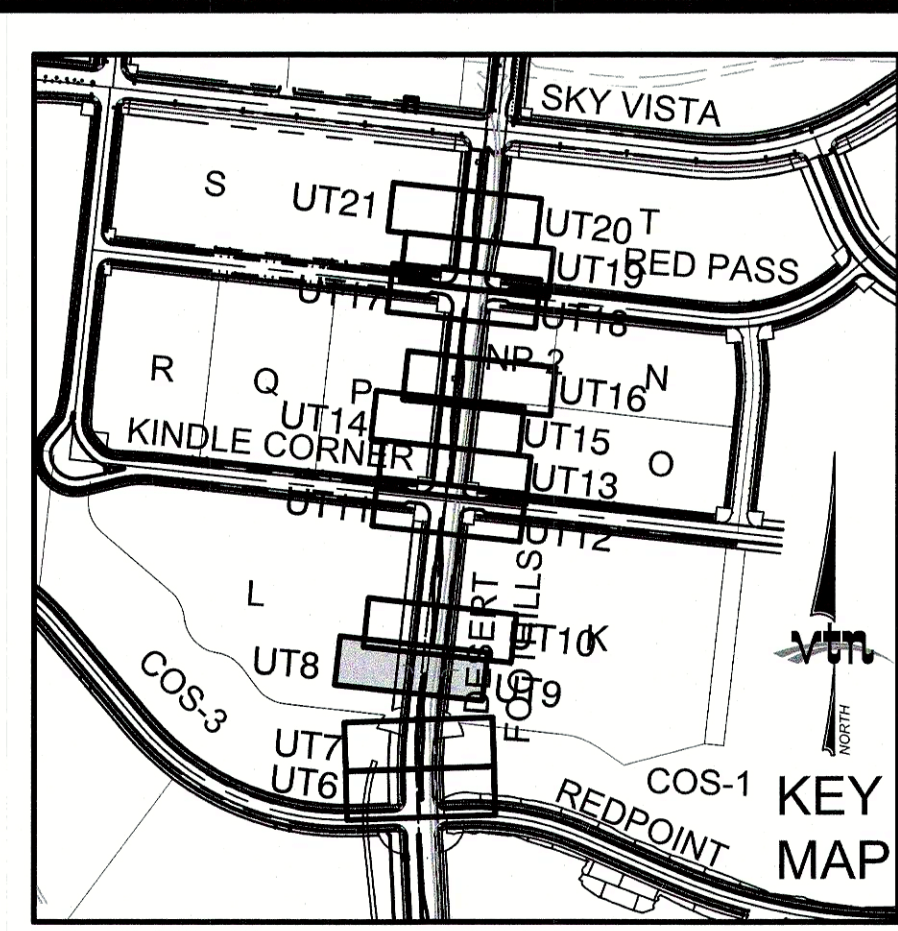
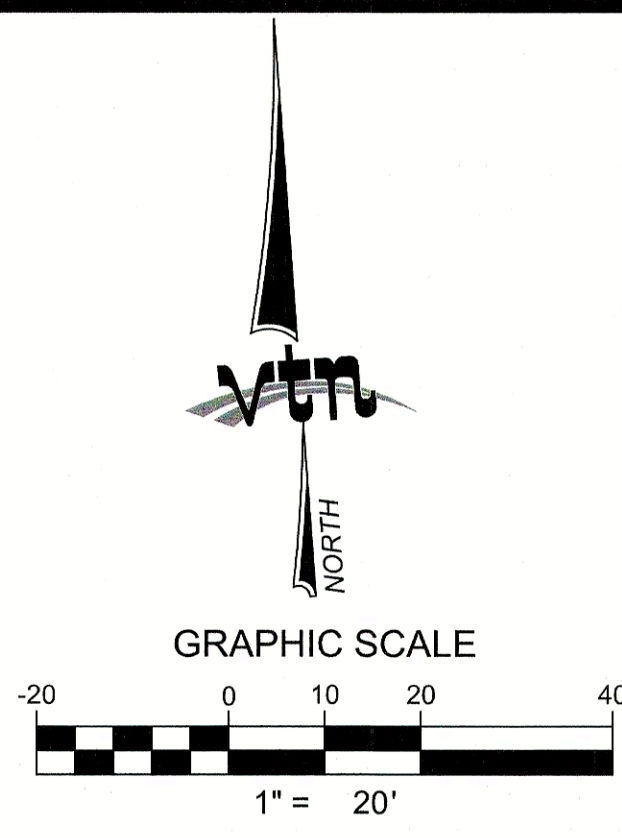
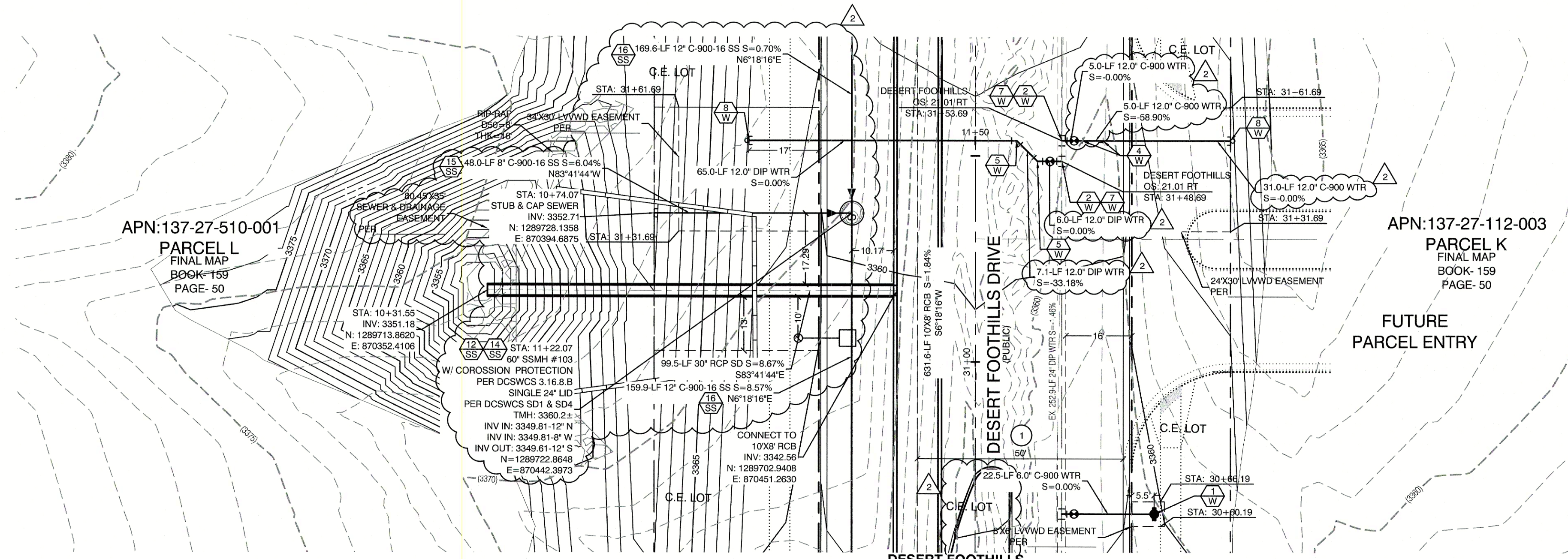
ENGINEER
WILLIAM J. MEYER
EXP. 10/31/21
CIVIL
No. 15743
8/21/20

DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO.: 7551
SCALE: 1"=20' HORIZ.
1"=4' VERT.

DATE: 08/02/2018
DATE: 08/02/2018
DATE: 08/15/2019

REVISION

12/05/2019
RELOCATE STUBS & STREET LIGHTS. REMOVE FUTURE PARCEL ENTRY.
UPDATE MEDIAN UTIL EASEMENT & QTY'S. REVISE WTR PIPES MATERIAL.
BY: _____
DATE: _____
REV: _____



UTILITY CROSSING NOTE:
ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

CONSTRUCTION NOTES	
WATER	PUBLIC
FIRE HYDRANT ASSEMBLY: (PER UDACS PLATE NO. 30, 39, 40 & 41) INCLUDING 24" X 6" TAPPING SLEEVE WITH 6" TAPPING VALVE PER UDACS PLATE NO. 34 & SECTION 2.24.01B	3 EA.
12" GATE VALVE (PER UDACS PLATE 30 & 39)	9 EA.
6" 45° VERTICAL BEND (PER UDACS PLATE 31)	2 EA.
12" 45° VERTICAL BEND (PER UDACS PLATE 31)	16 EA.
12" 45° BEND (PER UDACS PLATE 31)	6 EA.
12" 90° BEND (PER UDACS PLATE 31)	2 EA.
24"X12" TAPPING SLEEVE W/12" TAPPING VALVE (PER UDACS PLATE 30, 34 & 39 & PER SECTION 2.24.01B)	9 EA.
12" CAP & BLOW OFF (PER UDACS PLATE 36)	9 EA.
1.5" TYPE K SOFT COPPER WATER LATERAL SERVICE WITH 1.5" SUMMERLIN COUNCIL METER PER IRRIGATION MASTER PLAN AND UDACS PLATE #4 (IRRIGATION) AND 1.5" RPPA PER UDACS PLATE #8 (PER DETAIL SHEET DT1)	2 EA.
6"X1.5" SERVICE SADDLE W/ CORP STOP PER UDACS PLATE 4.	2 EA.
6" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17	127 LF.
12" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17	274 LF.
12" DIP WATER MAIN PER UDACS 2.06.01 & PLATE 17	277 LF.
WATER POINT OF CONNECTION	
SEWER	PUBLIC
48" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	4 EA.
60" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	4 EA.
72" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	1 EA.
CORROSION PROTECTION	
8" C-900-16 SANITARY SEWER MAIN	184 LF.
12" C-900-16 SANITARY SEWER MAIN	1,711 LF.
SEWER POINT OF CONNECTION	

WATER LINE MARKER BALLS NOTE
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15

EASEMENT REFERENCE LEGEND
1 50' WIDE LAS VEGAS VALLEY WATER DISTRICT EASEMENT GRANTED PER OR: 20070529.0001401. STA:28+75.21 TO STA:44+96.10

SANITATION SEWER NOTES
1. ALL SEWER STATIONING IS BASED ON CENTER OF PIPE LENGTHS FROM MANHOLE TO MANHOLE AND IS NOT RELATIVE IN ANY WAY TO STREET CENTERLINE STATIONING. STREET CENTERLINE STATIONING IS SHOWN ON PLAN FOR ROAD REFERENCE ONLY.
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5. ALL MANHOLE COLLARS ARE TO BE CONSTRUCT PER DCSWCS SD-4.
6. ALL SEWER LATERAL CONNECTIONS TO SEWER MAINS ARE TO BE CONSTRUCTED PER DCSWCS SD-22 UNLESS OTHERWISE NOTED ON PLAN.

WATER CONSTRUCTION NOTES
ALL DIMENSIONS TO UTILITIES ARE TO CENTERLINE OF PIPE UNLESS INDICATED OTHERWISE.
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ALL EXISTING UTILITY STRUCTURES WITHIN CONSTRUCTION AREA SHALL BE ADJUSTED TO MATCH FINISH GRADE (I.E. W.V. BOX, M.H. ANNODE BOX, F.H. TEL BOX, ETC.)

1. WATER LINE STATIONING IS BASED ON THE CENTERLINE OF STREET RIGHT OF WAY
2. WATER LINE SHALL BE C-900 PVC APPROVED BY THE LAS VEGAS VALLEY WATER DISTRICT.
3. EXISTING ASPHALT SHALL BE REMOVED AND REPLACED PER CITY OF LAS VEGAS SPECIFICATIONS. BACKFILL AND INSTALL PERMANENT PATCH PER CITY STANDARD FOR THIS PLAN.
4. SEE SHEET NT FOR PUBLIC UTILITY NOTES AND GENERAL WATER CONSTRUCTION NOTES.
5. ALL WATER LINE IN STREET RIGHT OF WAY IS PUBLIC LAS VEGAS VALLEY WATER DISTRICT.

WATER PRESSURE ZONE:
WATER SERVICE LOCATED IN THE 3550 PRESSURE ZONE.

WATER MAIN COVER NOTE:
ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08

WATERLINE TRENCH NOTE:
CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.

LAS VEGAS FIRE & RESCUE APPROVAL
BY: _____ DATE: _____
APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW 1500 GPM AT 20 P.S.I. RESIDUAL.

WATER MAIN JOINT DEFLECTION
PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.02.

FIRE HYDRANT MARKER NOTES
BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED:
1. ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE; LOCATE MARKER 8" FROM FACE OF CURB ON HYDRANT SIDE.
2. ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE; LOCATE MARKER 16" FROM FACE OF CURB ON HYDRANT SIDE.

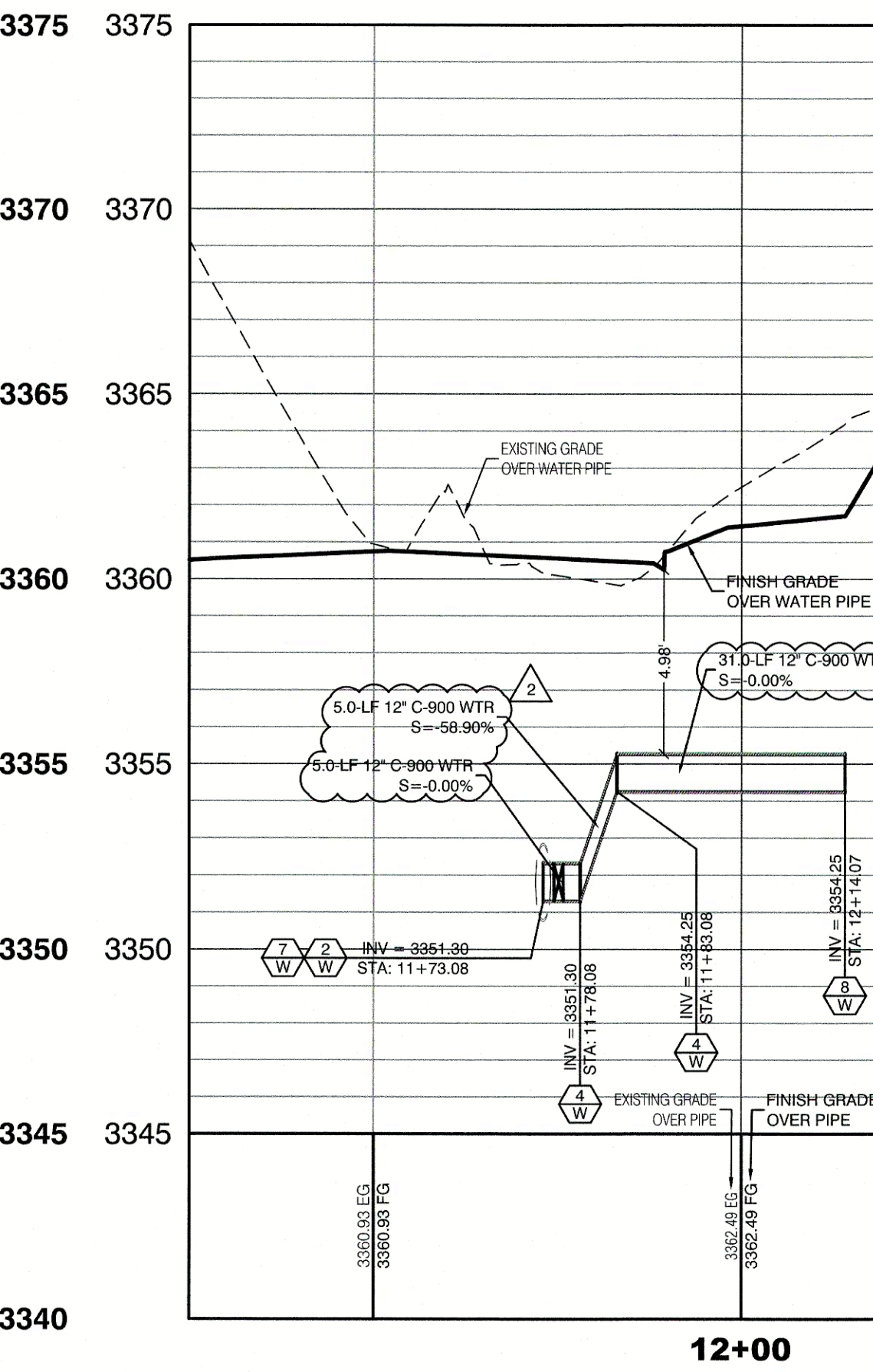
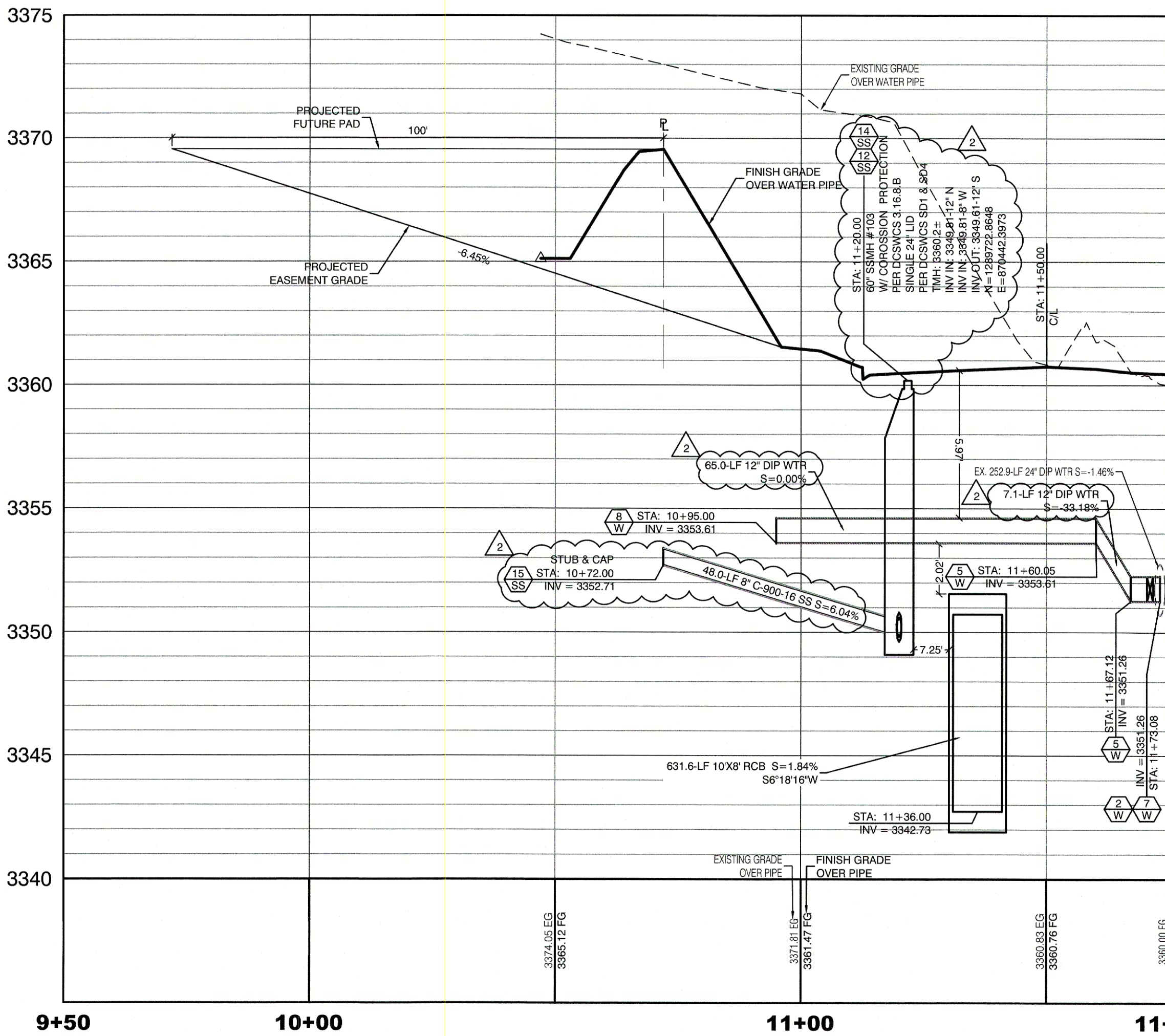
ENGINEER DISCLAIMER NOTE:
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TYPICAL WATER NOTES
1. MAINTAIN A MINIMUM OF 12-INCHES VERTICAL SEPARATION AT ALL POINTS OF UTILITY CROSSINGS.
2. MAINTAIN A MINIMUM OF 3- FEET PARALLEL SEPARATION FROM ADJACENT UTILITIES.
ANY EXCAVATION AT THE BACK OF A CURB MUST REMAIN OPEN FOR INSPECTION OF THE COPPER SERVICE
3. LATERALS. ANY COPPER SERVICE LATERAL WHICH IS KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP.
CAUTION MUST BE EXERCISED NEAR ANY EXCAVATION AROUND AN EXISTING FIRE HYDRANT IN ORDER TO AVOID DISTURBING THE THRUST BLOCK AND SURROUNDING SOIL SUPPORTING THE THRUST BLOCK. THIS PREVENTS THE POSSIBILITY OF THE HYDRANT SEPARATING FROM THE LATERAL. PROVIDE A DETAIL OF THE PROPOSED INSTALLATION SHOWING ADEQUATE CLEARANCES TO AVOID DISTURBING EXISTING LVWD FACILITIES.

SIGHT VISIBILITY ZONES:
NO STRUCTURE, WALLS, VEGETATION, OR OBJECT OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

PROFILE SCALES:
HORIZ. = 1"=20'
VERT. = 1"=4'

(SEE SHEET UT2 FOR REFERENCE)



APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT:136301 FIRST APPROVED DATE: _____
LVWVD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM
LVWVD APPROVAL IS VALID FOR ONE (1) YEAR FROM SIGNATURE DATE. IF
CONSTRUCTION IS NOT STARTED, PLANS **MUST** BE RESUBMITTED FOR REVIEW AND
APPROVAL.

Call before you Dig
Avoid cutting underground utility lines. It's costly.

811
OR
1-800-227-2600
AND
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89148
PH: (702) 975-7550 FAX: (702) 382-2597 WEB: WWW.VVWN.COM
CONSULTING ENGINEERS & LAND SURVEYORS

UTILITY LATERAL SHEET 9
SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA

DRAWN BY: BCC
DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO: 2551

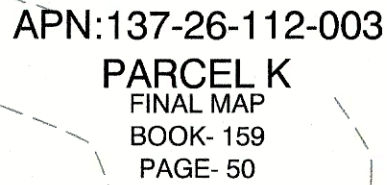
DATE: 08/02/2018
DATE: 08/02/2018
DATE: 09/15/2019

SCALE: 1"=20' HORIZ.
1"=4' VERT.

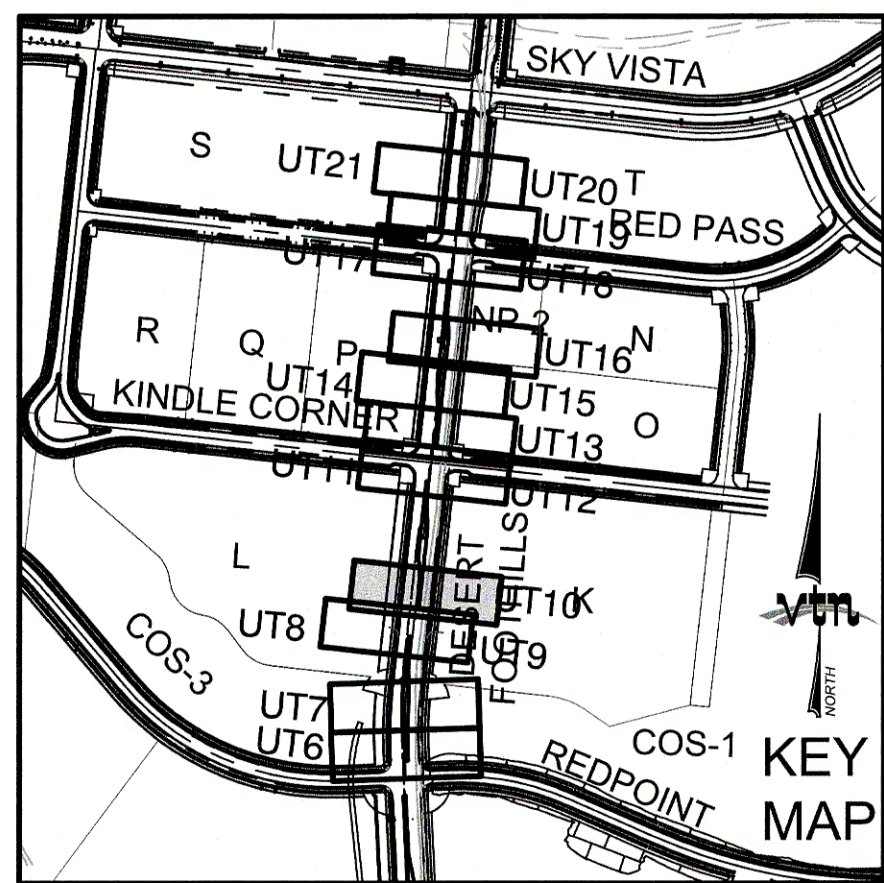
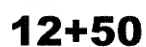
SHEET
UT9
23 OF 40 SHEETS

DRAWING NO.
L19-00350
107V7663

RELOCATE SS STUB & STREETLIGHTS. REMOVE FUTURE PARCEL ENTRY.
UPDATE MEDIAN UTIL EASEMENT & QTY'S. REVISE WITH PIPES MATERIAL.
BY: _____
DATE: 12/05/2019
REV: _____



(SEE SHEET UT2 FOR REFERENCE)



5' MINIMUM HORIZONTAL SEPARATION FROM OUTSIDE EDGE
OF THE WATER MAIN TO OUTSIDE EDGE OF DROP INLET

PUBLIC

 WATER POINT OF CONNECTION 

	12" C-900-16 SANITARY SEWER MAIN	1,711 LF
---	-------------------------------------	----------

ENGINEER DISCUSSION NOTE

INSTALL PIPELINE MARKER BALLS IN
TRENCH ABOVE EACH
HORIZONTAL ELBOW FITTING, PER UDACS
PLATE No. 15

1 50' WIDE LAS VEGAS VALLEY WATER DISTRICT
EASEMENT GRANTED PER OR: 20070529:0001401.
STA:28+75.21 TO STA:44+96.10

1. ALL SEWER STATIONING IS BASED ON CENTER OF PIPE LENGTHS FROM MANHOLE TO MANHOLE AND IS NOT RELATIVE IN ANY WAY TO STREET CENTERLINE STATIONING. STREET CENTERLINE STATIONING IS SHOWN ON PLAN FOR ROAD REFERENCE ONLY.

2. ALL MANHOLES ARE 48" SIZED MANHOLES PER DCSWCS SD-1, UNLESS OTHERWISE NOTED ON PLAN.
3. ALL MANHOLES ARE TO BE CONSTRUCTED PER DCSWCS SD-1A AND SD-1B.
4. ALL MANHOLE COVERS AND FRAMES ARE TO BE CONSTRUCTED PER DCSWCS SD-2.
5. ALL MANHOLE COLLARS ARE TO BE CONSTRUCT PER DCSWCS SD-4.
6. ALL SEWER LATERAL CONNECTIONS TO SEWER MAINS ARE TO BE CONSTRUCTED PER DCSWCS SD-22 UNLESS OTHERWISE NOTED ON PLAN.

ALL DIMENSIONS TO UTILITIES ARE TO CENTERLINE OF PIPE
UNLESS INDICATED OTHERWISE.

CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

ALL EXISTING UTILITY STRUCTURES WITHIN CONSTRUCTION AREA SHALL BE ADJUSTED TO MATCH FINISH GRADE (I.E. WV. BOX, MH, ANNODE BOX, FH, TEL BOX, ETC.)

- | | |
|----|--|
| 1. | WATER LINE STATIONING IS BASED ON THE CENTERLINE OF STREET RIGHT OF WAY. |
| 2. | WATER LINE SHALL BE C-900 PVC APPROVED BY THE LAS VEGAS VALLEY WATER DISTRICT. |
| 3. | EXISTING ASPHALT SHALL BE REMOVED AND REPLACED PER CITY OF LAS VEGAS SPECIFICATIONS. BACKFILL AND INSTALL PERMANENT PATCH PER CITY STANDARD FOR THIS PLAN. |
| 4. | SEE SHEET NT FOR PUBLIC UTILITY NOTES AND GENERAL WATER CONSTRUCTION NOTES. |
| 5. | ALL WATER LINE IN STREET RIGHT OF WAY IS PUBLIC WATER SYSTEM AND MUST BE INSPECTED BY THE LAS VEGAS VALLEY WATER DISTRICT. |

WATER SERVICE LOCATED IN THE 3550 PRESSURE ZONE.

ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER
PER UDACS SECTION 2.08

CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER
UDACS PLATE NO. 17.

LAS VEGAS FIRE & RESCUE APPROVAL

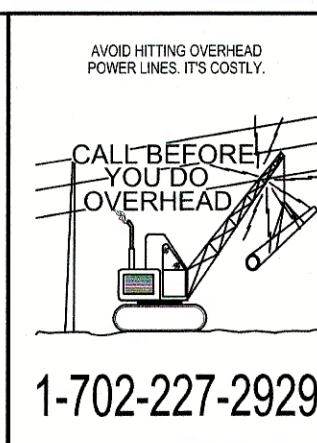
PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.02.

FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

BLUE COLORED REFLECTIVE RAISED
PAVEMENT MARKERS ARE TO BE INSTALLED:

1. ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE; LOCATE MAKER 8' FROM FACE OF CURB ON HYDRANT SIDE.
2. ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE; LOCATE MARKER 16' FROM FACE OF CURB ON HYDRANT SIDE.

CONSTRUCTION IS NOT STARTED, FEE IS NOT BE REISSUED FOR REVIEW
APPROVAL



Call before you Dig
Avoid cutting underground utility lines. It's costly.

CALL
811
OR
1-800-227-2600
AND
1-702-455-6000
CLARK COUNTY TRAFFIC
OPERATIONS

SUMMERLIN WEST VILLAGE 21

CHECKED BY: WJM 09/15/2019

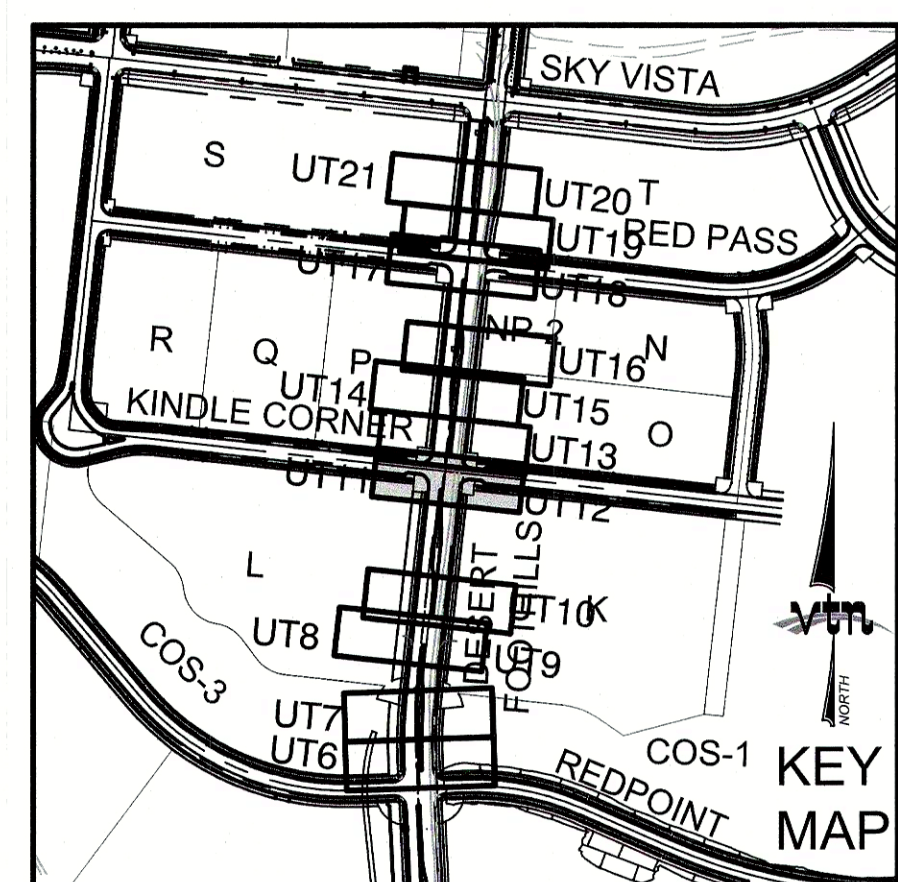
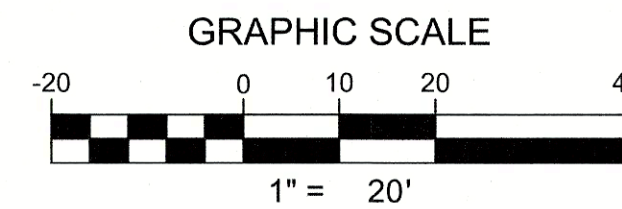
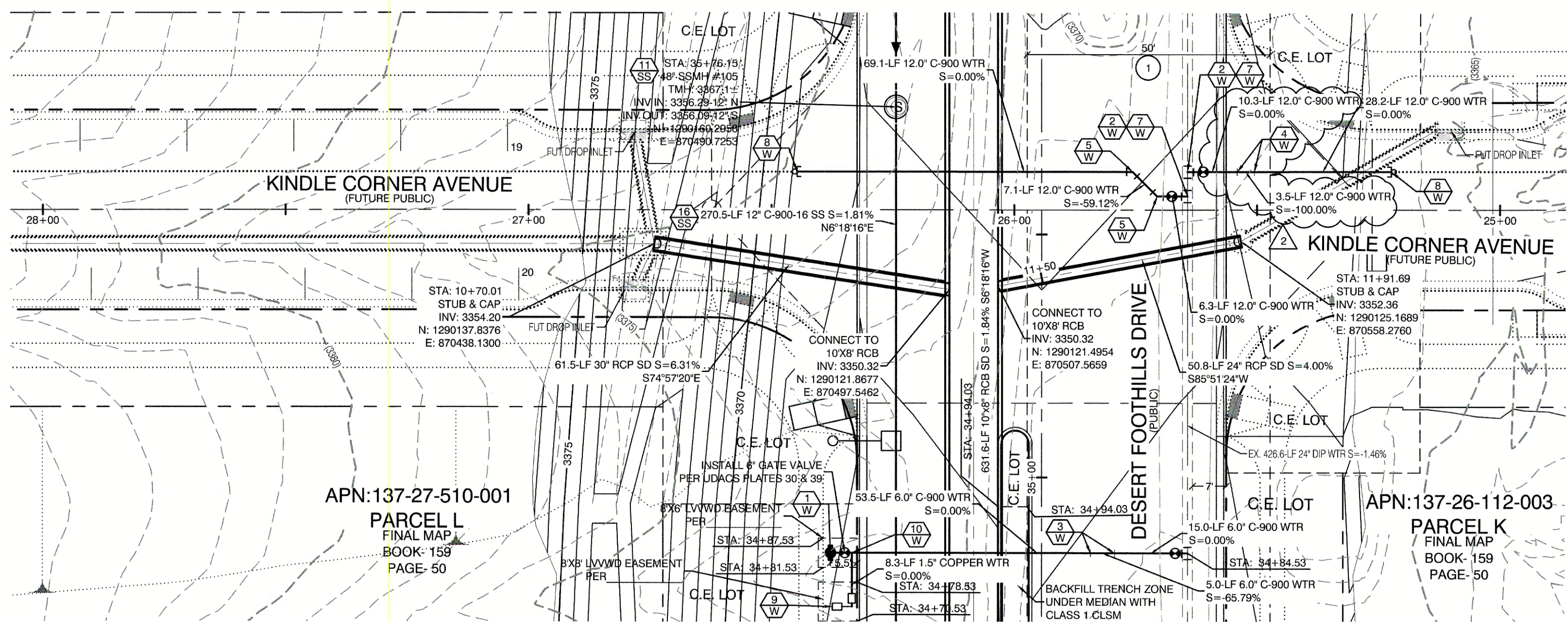


Professional Engineer - State of Nevada
 WILLIAM J. MEYER
 EXP. 12/31/21
 CIVIL
 No. 15745
 8/22/20

SHEET
UT10
 24 OF 40 SHEETS

DRAWING NO.
 L19-00350
 107V7663

\\dsf\work\7851\Desert Foothills-Street A to Summerlin Pkwy\Sheet Set\7851-JT LAT 1.dwg;2/9/2020 8:58 AM;chrisp



UTILITY CROSSING NOTE:
ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

GENERAL CONSTRUCTION NOTE:
THE FOLLOWING SUMMERLIN VILLAGE 21 ROADWAY INFRASTRUCTURE PLANS ARE TO BE CONSTRUCTED CONCURRENTLY:
1. DESERT FOOTHILLS (REDPOINT DRIVE TO SKY VISTA)
2. CARRIAGE HILL (REDPOINT DRIVE TO SKY VISTA)
3. KINDIE CORNER (CARRIAGE HILL TO DESERT FOOTHILLS)
4. RED PASS DRIVE (CARRIAGE HILL TO DESERT FOOTHILLS)
5. CLOWDER SPRING (KINDIE CORNER TO RED PASS)

CONSTRUCTION NOTES	
WATER	
1" FIRE HYDRANT ASSEMBLY: (PER UDACS PLATE NO. 30, 39, 40 & 41) INCLUDING 24" X 6" TAPPING SLEEVE WITH 6" TAPPING VALVE PER UDACS PLATE NO. 34 & SECTION 2.24.01B	3 EA.
12" GATE VALVE (PER UDACS PLATE 30 & 39)	9 EA.
6" 45° VERTICAL BEND (PER UDACS PLATE 31)	2 EA.
12" 45° VERTICAL BEND (PER UDACS PLATE 31)	16 EA.
12" 45° BEND (PER UDACS PLATE 31)	6 EA.
12" 90° BEND (PER UDACS PLATE 31)	2 EA.
24"X12" TAPPING SLEEVE W/12" TAPPING VALVE (PER UDACS PLATE 30, 34 & 39 & PER SECTION 2.24.01B)	9 EA.
12" CAP & BLOW OFF (PER UDACS PLATE 36)	9 EA.
1.5" TYPE K SOFT COPPER WATER LATERAL SERVICE WITH 1.5" SUMMERLIN COUNCIL METER PER IRRIGATION MASTER PLAN AND UDACS PLATE #4 (IRRIGATION) AND 1.5" RPPA PER UDACS PLATE #8 (PER DETAIL SHEET DT1)	2 EA.
6"X1.5" SERVICE SADDLE W/ CORP STOP PER UDACS PLATE 4.	2 EA.
6" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17	127 LF.
12" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17	274 LF.
12" DIP WATER MAIN PER UDACS 2.06.01 & PLATE 17	277 LF.
WATER POINT OF CONNECTION	
SEWER	
48" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	4 EA.
60" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	4 EA.
72" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	1 EA.
CORROSION PROTECTION	
8" C-900-16 SANITARY SEWER MAIN	184 LF.
12" C-900-16 SANITARY SEWER MAIN	1,711 LF.
SEWER POINT OF CONNECTION	

WATER LINE MARKER BALLS NOTE
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15

EASEMENT REFERENCE LEGEND
1 50' WIDE LAS VEGAS VALLEY WATER DISTRICT EASEMENT GRANTED PER OR: 20070529.0001401, STA 28+75.21 TO STA 44+96.10

SANITATION SEWER NOTES
1. ALL SEWER STATIONING IS BASED ON CENTER OF PIPE LENGTHS FROM MANHOLE TO MANHOLE AND IS NOT RELATIVE IN ANY WAY TO STREET CENTERLINE STATIONING. STREET CENTERLINE STATIONING IS SHOWN ON PLAN FOR ROAD REFERENCE ONLY.
2. ALL MANHOLES ARE 48" SIZED MANHOLES PER DCSWCS SD-1, UNLESS OTHERWISE NOTED ON PLAN.
3. ALL MANHOLES ARE TO BE CONSTRUCTED PER DCSWCS SD-1A AND SD-1B.
4. ALL MANHOLE COVERS AND FRAMES ARE TO BE CONSTRUCTED PER DCSWCS SD-2.
5. ALL MANHOLE COLLARS ARE TO BE CONSTRUCT PER DCSWCS SD-4.
6. ALL SEWER LATERAL CONNECTIONS TO SEWER MAINS ARE TO BE CONSTRUCTED PER DCSWCS SD-22 UNLESS OTHERWISE NOTED ON PLAN.

WATER CONSTRUCTION NOTES
ALL DIMENSIONS TO UTILITIES ARE TO CENTERLINE OF PIPE UNLESS INDICATED OTHERWISE.
CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
ALL EXISTING UTILITY STRUCTURES WITHIN CONSTRUCTION AREA SHALL BE ADJUSTED TO MATCH FINISH GRADE (I.E. W.V. BOX, M.H., ANNODE BOX, F.H., TEL BOX, ETC.)
1. WATER LINE STATIONING IS BASED ON THE CENTERLINE OF STREET RIGHT OF WAY
2. WATER LINE SHALL BE C-900 PVC APPROVED BY THE LAS VEGAS VALLEY WATER DISTRICT.
3. EXISTING ASPHALT SHALL BE REMOVED AND REPLACED PER CITY OF LAS VEGAS SPECIFICATIONS. BACKFILL AND INSTALL PERMANENT PATCH PER CITY STANDARD FOR THIS PLAN.
4. SEE SHEET NT FOR PUBLIC UTILITY NOTES AND GENERAL WATER CONSTRUCTION NOTES.
5. ALL WATER LINE IN STREET RIGHT OF WAY IS PUBLIC WATER SYSTEM AND MUST BE INSPECTED BY THE LAS VEGAS VALLEY WATER DISTRICT.

WATER PRESSURE ZONE:
WATER SERVICE LOCATED IN THE 3550 PRESSURE ZONE.

WATER MAIN COVER NOTE:
ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08

WATERLINE TRENCH NOTE:
CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.

LAS VEGAS FIRE & RESCUE APPROVAL
BY: _____ DATE: _____
APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW 1500 GPM AT 20 P.S.I. RESIDUAL.

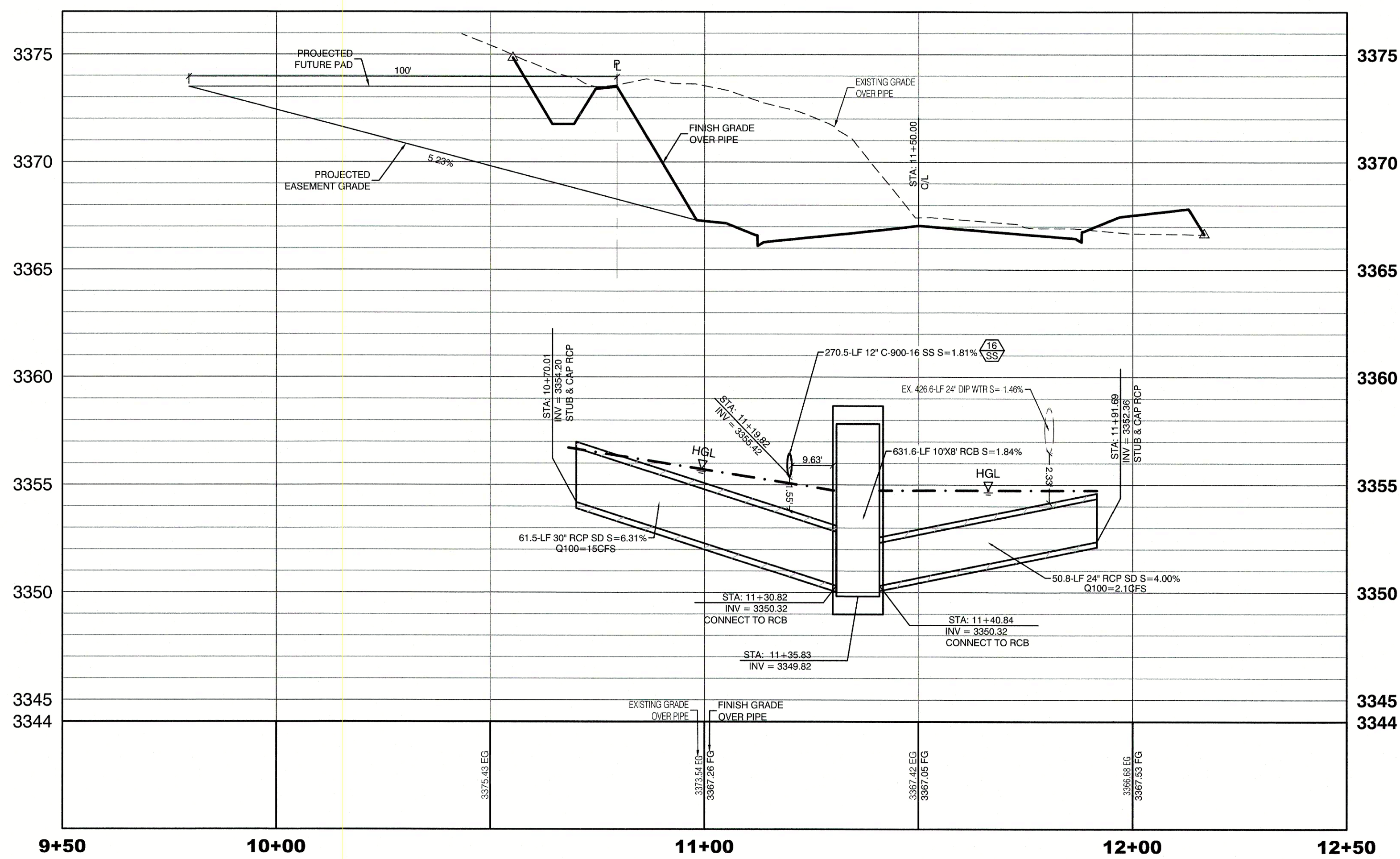
WATER MAIN JOINT DEFLECTION
PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.02.
FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

FIRE HYDRANT MARKER NOTES
BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED:
1. ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE; LOCATE MAKER 8' FROM FACE OF CURB ON HYDRANT SIDE.
2. ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE; LOCATE MAKER 16' FROM FACE OF CURB ON HYDRANT SIDE.

ENGINEER DISCLAIMER NOTE:
UTILITY LOCATIONS SHOWN HERE ON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HERE ON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

TYPICAL WATER NOTES
1. MAINTAIN A MINIMUM OF 12-INCHES VERTICAL SEPARATION AT ALL POINTS OF UTILITY CROSSINGS.
2. MAINTAIN A MINIMUM OF 3- FEET PARALLEL SEPARATION FROM ADJACENT UTILITIES.
ANY EXCAVATION AT THE BACK OF A CURB MUST REMAIN OPEN FOR INSPECTION OF THE COPPER SERVICE
3. LATERALS, ANY COPPER SERVICE LATERAL WHICH IS KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP. CAUTION MUST BE EXERCISED NEAR ANY EXCAVATION AROUND AN EXISTING FIRE HYDRANT IN ORDER TO AVOID DISTURBING THE THRUST BLOCK AND SURROUNDING SOIL SUPPORTING THE THRUST BLOCK. THIS PREVENTS THE POSSIBILITY OF THE HYDRANT SEPARATING FROM THE LATERAL. PROVIDE A DETAIL OF THE PROPOSED INSTALLATION SHOWING ADEQUATE CLEARANCES TO AVOID DISTURBING EXISTING LVWD FACILITIES.

SIGHT VISIBILITY ZONES:
NO STRUCTURE, WALLS, VEGETATION, OR OBJECT OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.



LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT: 136301 FIRST APPROVED DATE: _____
LVWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM
LVWD APPROVAL IS VALID FOR ONE (1) YEAR FROM SIGNATURE DATE. IF CONSTRUCTION IS NOT STARTED, PLANS **MUST** BE RESUBMITTED FOR REVIEW AND APPROVAL.

Call before you Dig
Avoid cutting underground utility lines. It's costly.

811
OR
1-800-227-2600
AND
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS

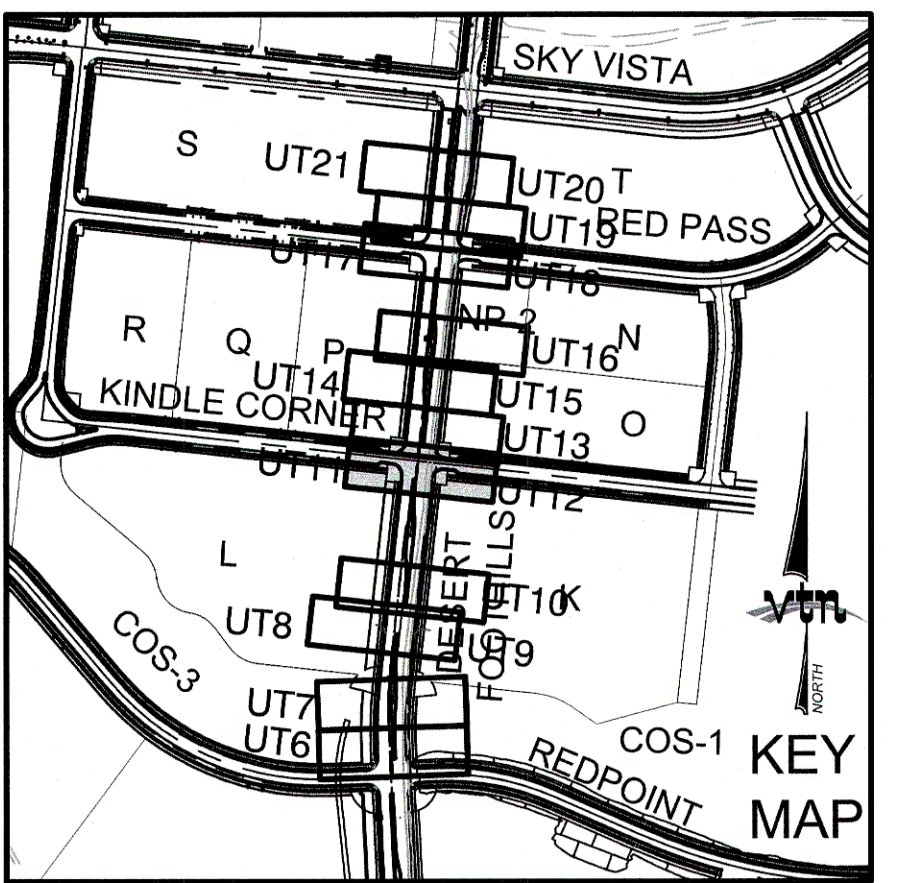
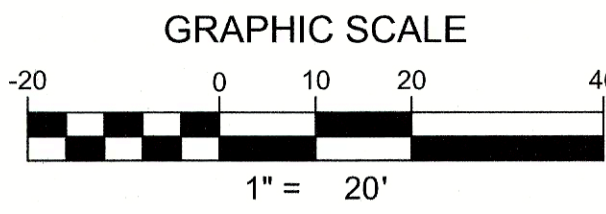
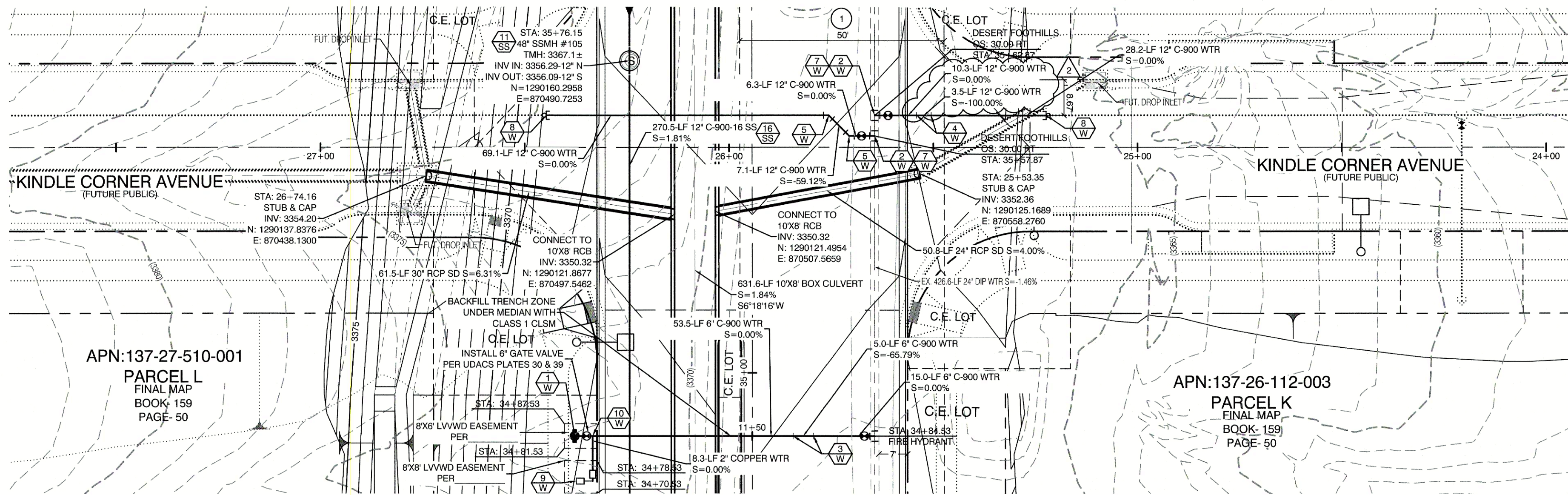
HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89148
PH. (702) 877-7550 FAX (702) 382-2597 WEB WWW.HHCC.COM
LAS VEGAS, NEVADA 89135
702-791-1000

UTILITY LATERAL SHEET 11
SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA

DRAWN BY: BCC
DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO: 136301
SHEET NO: 25 OF 40 SHEETS
DATE: 08/02/2018
SCALE: 1"=20'
VERT. 1"=4'

WILLIAM J. MEYER
PROFESSIONAL ENGINEER - STATE OF NEVADA
No. 15745
9/12/20
SHEET
UT11
DRAWING NO. L19-00350
107V7663

CP
DATE
BY
REVISION
12/05/2019
UPDATE QTY'S, REVISE WITH PIPE MATERIAL

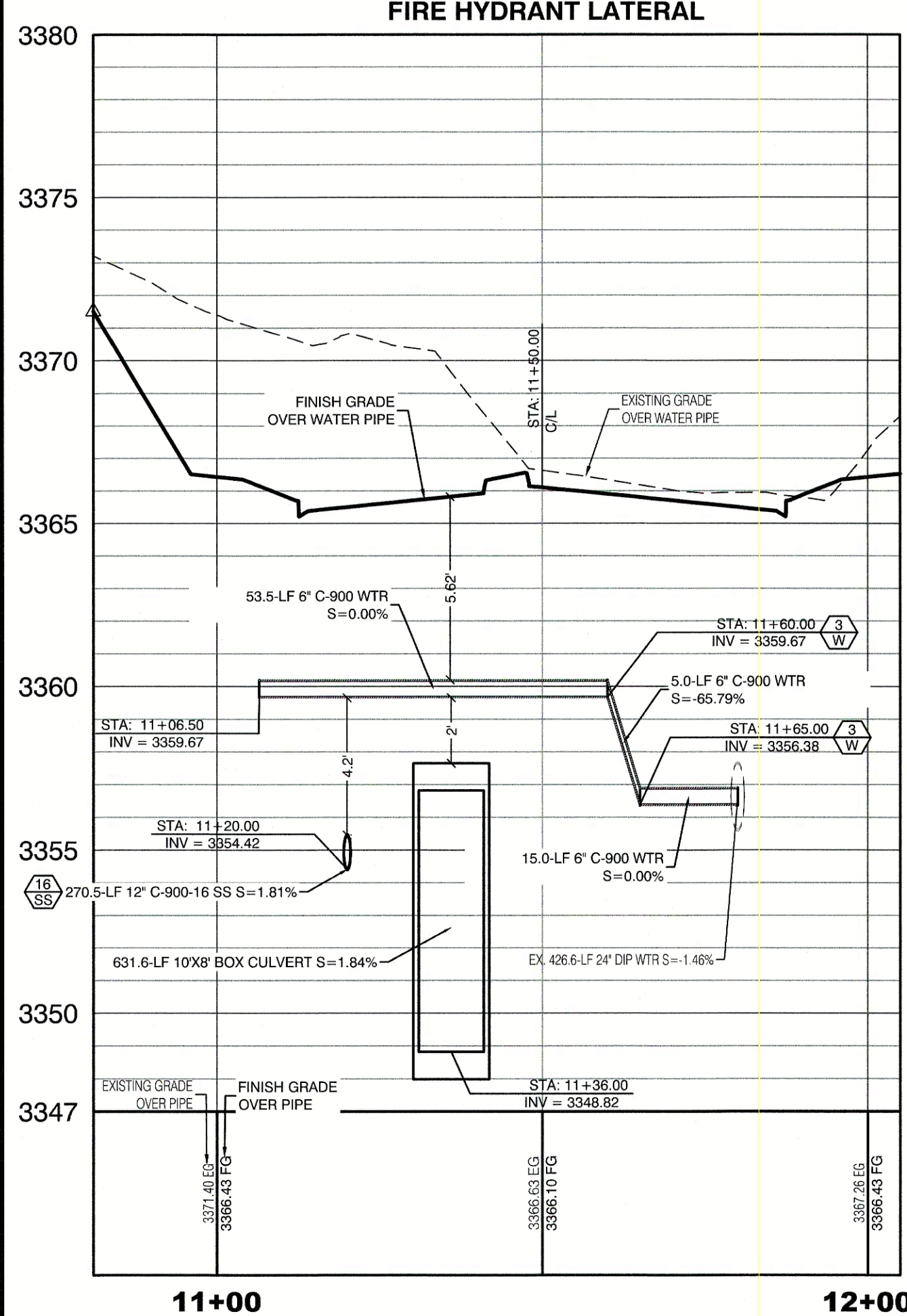


APN:137-27-510-001
PARCEL L
FINAL MAP
BOOK 159
PAGE 50

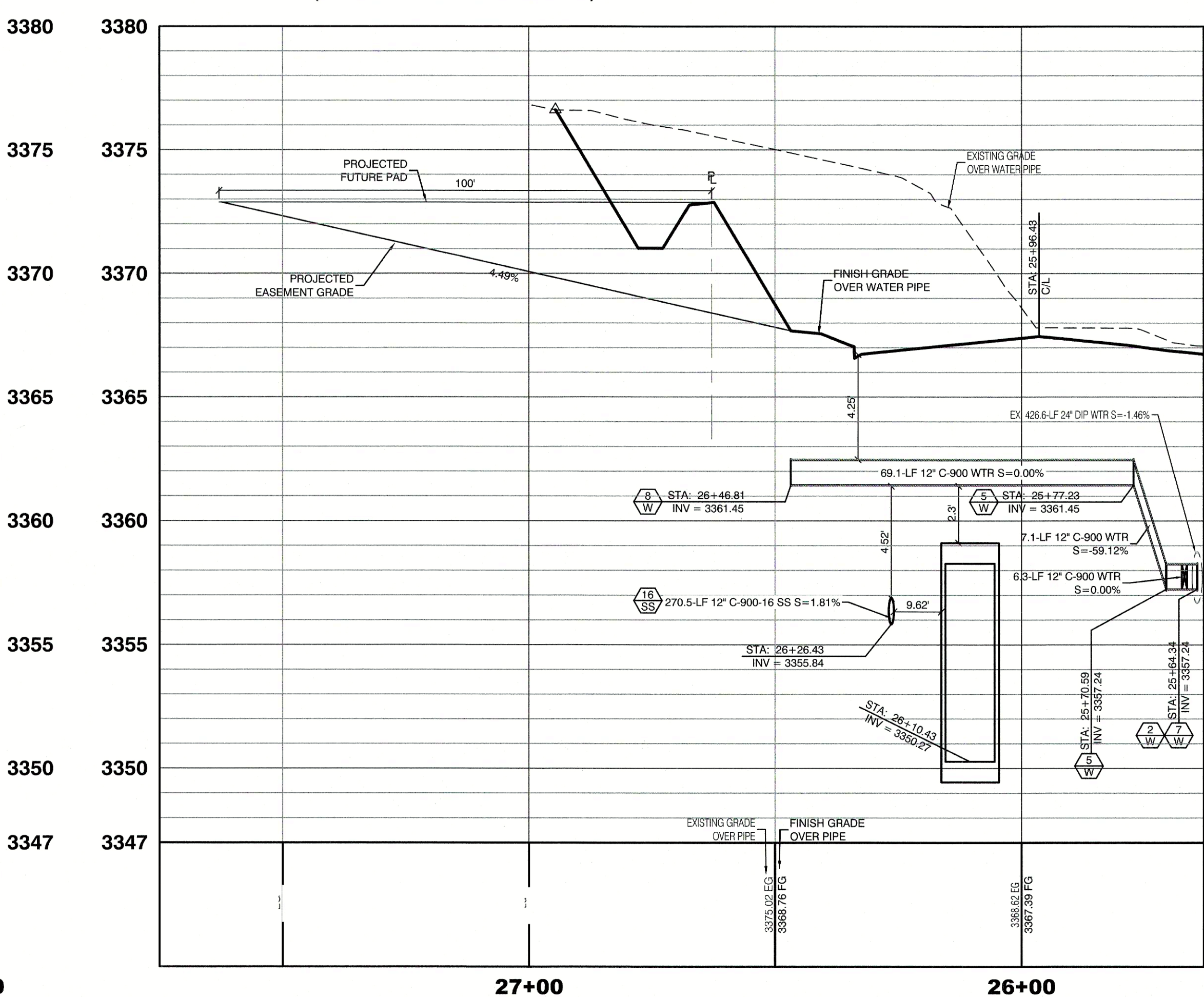
APN:137-26-112-003
PARCEL K
FINAL MAP
BOOK 159
PAGE 50

DESERT FOOTHILLS
(PUBLIC)
PROFILE SCALES:
HORIZ. = 1"=20'
VERT. = 1"=4'

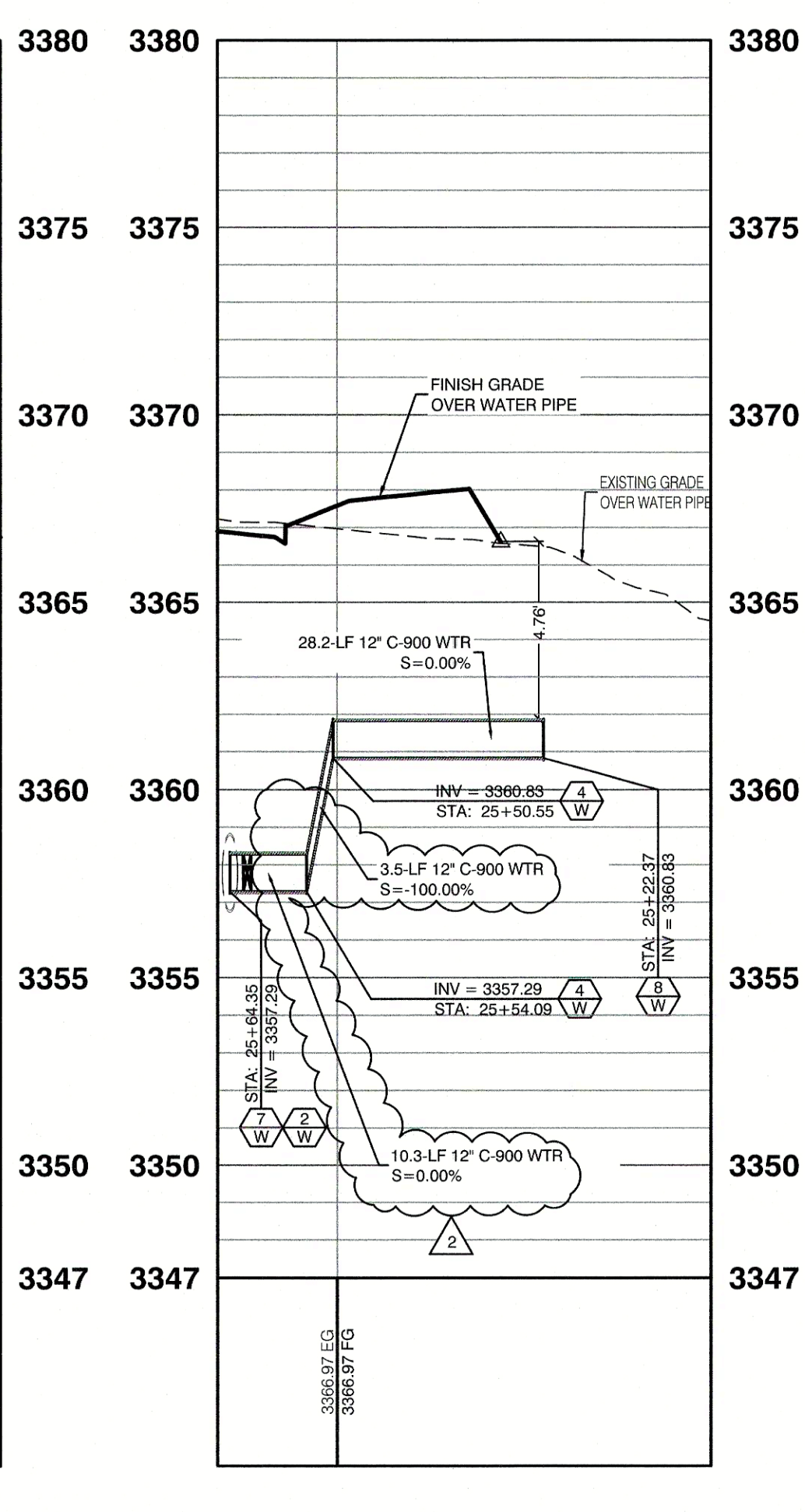
(SEE SHEET UT3 FOR REFERENCE)



PROFILE 1
(34+84.53)



PROFILE 2



CONSTRUCTION NOTES	
WATER	PUBLIC
FIRE HYDRANT ASSEMBLY (PER UDACS PLATE NO. 30, 39, 40 & 41) INCLUDING 24" X 6" TAPPING SLEEVE WITH 6" TAPPING VALVE PER UDACS PLATE NO. 34 & SECTION 2.24.01B	3 EA.
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WATER POINT OF CONNECTION	2
SEWER	
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WATER LINE MARKER BALLS NOTE	
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE No. 15	
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50' WIDE LAS VEGAS VALLEY WATER DISTRICT EASEMENT GRANTED PER OR. 20070529.0001401. STA 28+75.21 TO STA 44+96.10	
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WATER PRESSURE ZONE:	
WATER SERVICE LOCATED IN THE 3550 PRESSURE ZONE.	
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ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08	
WATERLINE TRENCH NOTE:	
CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.	
LAS VEGAS FIRE & RESCUE APPROVAL	
BY: _____ DATE: _____ APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW 1500 GPM AT 20 P.S.I. RESIDUAL.	
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APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT:136301 FIRST APPROVED DATE: _____

LVWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM

LVWD APPROVAL IS VALID FOR ONE (1) YEAR FROM SIGNATURE DATE. IF CONSTRUCTION IS NOT STARTED, PLANS **MUST** BE RESUBMITTED FOR REVIEW AND APPROVAL.

Call before you Dig
1-800-227-2800
1-702-455-7511

Call before you Dig
1-702-227-2929

Call before you Dig
Avoid cutting underground utility lines. It's costly.

811

1-800-227-2800
AND
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
LAS VEGAS, NEVADA 89101
702-791-1000

CITY OF LAS VEGAS
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89146
PH. (702) 877-7550 FAX (702) 382-2597 WEB WWW.VNVM.COM
LAS VEGAS, NEVADA 89101
CONSULTING ENGINEERS • PLANNERS • AND SURVEYORS

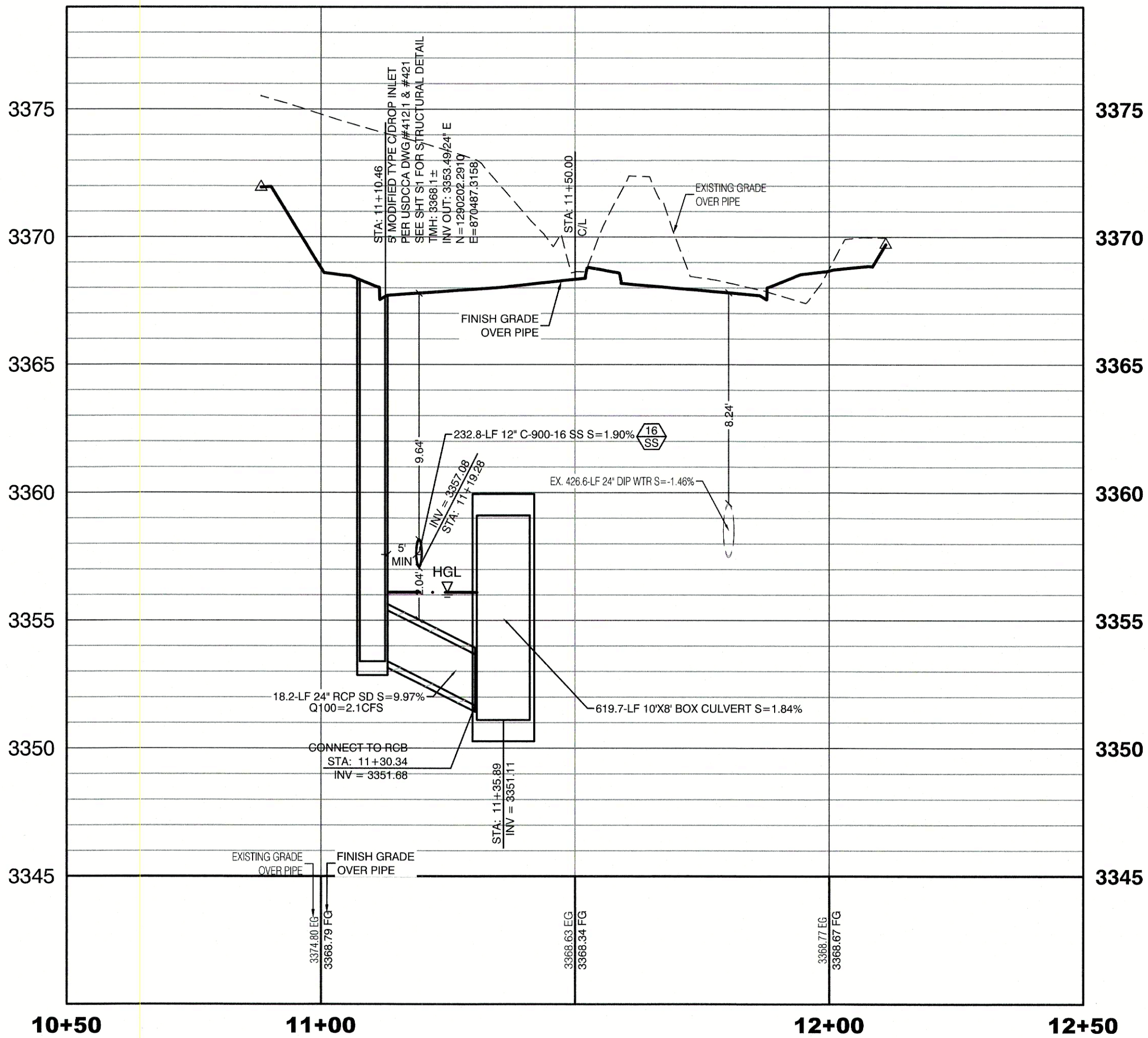
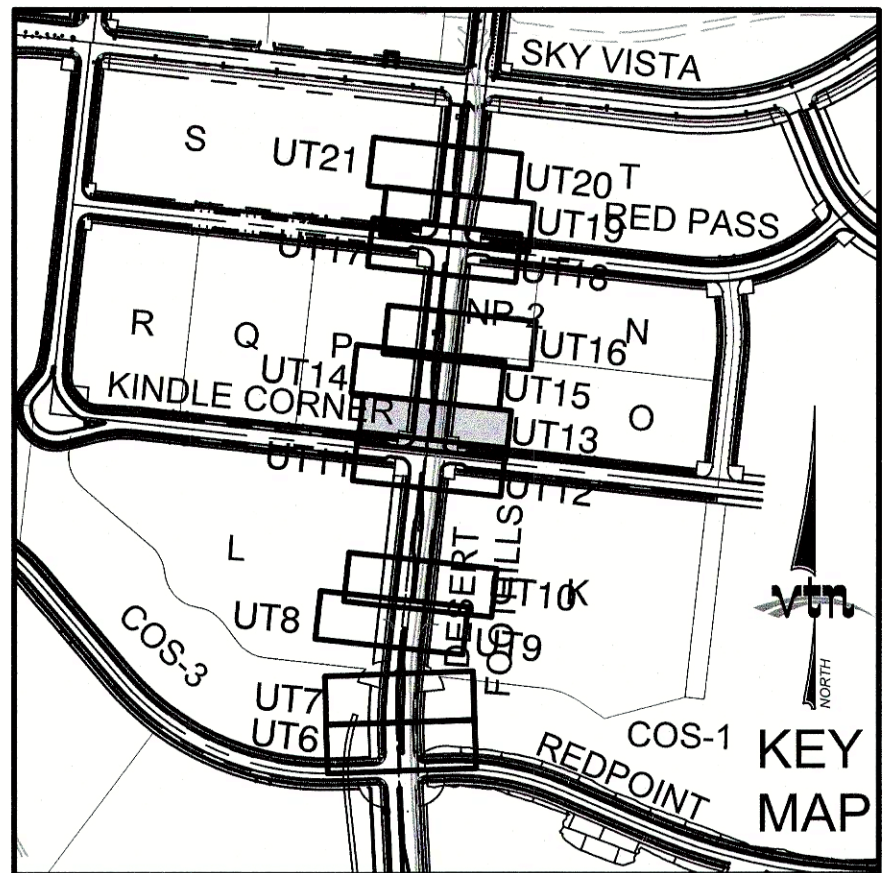
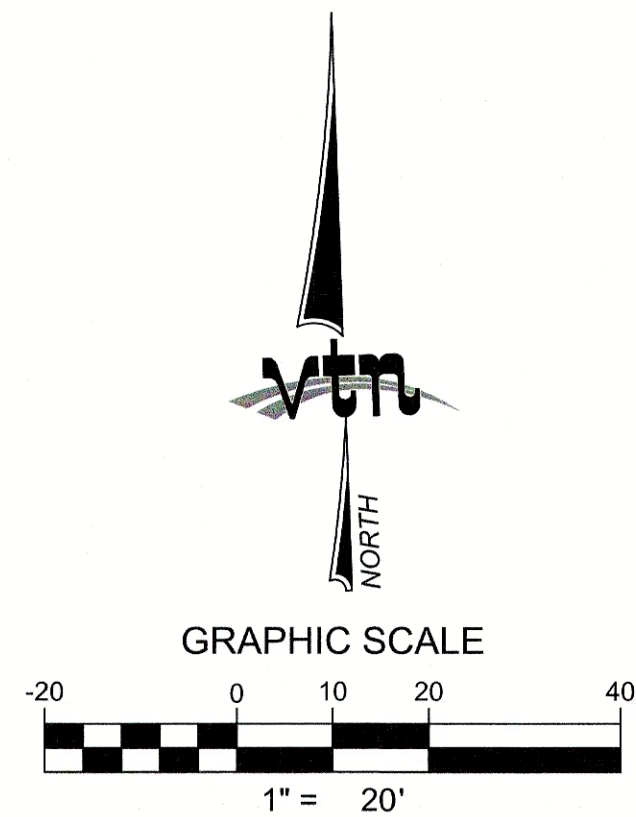
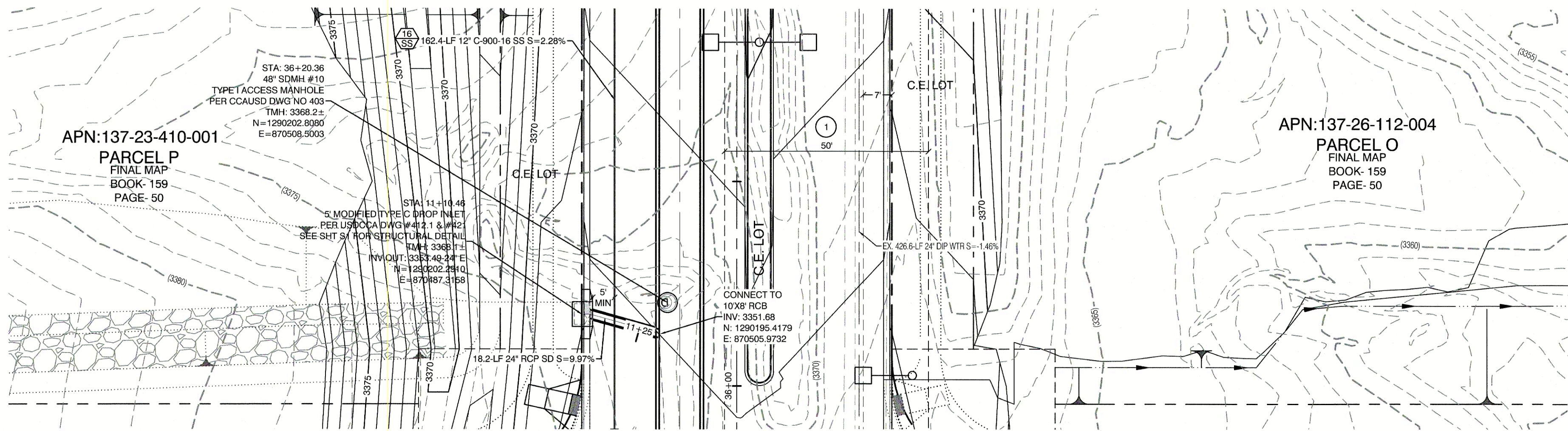
UTILITY LATERAL SHEET 12
SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA

DRAWN BY: BCC
DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO: 7551

DATE: 08/02/2018
DATE: 08/02/2018
DATE: 09/15/2019

SCALE: 1"=20'
HORIZ. 1"=40'
VERT. 1"=4'

PROFESSIONAL ENGINEER STATE OF NEVADA
No. 15745
8/27/20
SHEET
UT 12
26 OF 40 SHEETS
DRAWING NO. L19-00350
10/7/2018



CONSTRUCTION NOTES		
WATER		PUBLIC
	FIRE HYDRANT ASSEMBLY: (PER UDACS PLATE NO. 30, 39, 40 & 41) INCLUDING 24" X 6" TAPPING SLEEVE WITH 6" TAPPING VALVE PER UDACS PLATE NO. 34 & SECTION 2.24.01B	3 EA.
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	6"X1.5" SERVICE SADDLE W/ CORP STOP PER UDACS PLATE 4.	2 EA.
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	WATER POINT OF CONNECTION	2
SEWER		PUBLIC
	48" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	4 EA.
	60" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	4 EA.
	72" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	1 EA.
	CORROSION PROTECTION	
	6" C-900-16 SANITARY SEWER MAIN	184 LF.
	12" C-900-16 SANITARY SEWER MAIN	1,711 LF.
	SEWER POINT OF CONNECTION	

ENGINEER DISCLAIMER NOTE:	
UTILITY LOCATIONS SHOWN HERE ON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HERE ON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.	
TYPICAL WATER NOTES	
1. MAINTAIN A MINIMUM OF 12 INCHES VERTICAL SEPARATION AT ALL POINTS OF UTILITY CROSSINGS. 2. MAINTAIN A MINIMUM OF 3 FEET PARALLEL SEPARATION FROM ADJACENT UTILITIES. 3. ANY EXCAVATION AT THE BACK OF A CURB MUST REMAIN OPEN FOR INSPECTION OF THE COPPER SERVICE. 4. LATERALS: ANY COPPER SERVICE LATERAL WHICH IS KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP. CAUTION MUST BE EXERCISED NEAR ANY EXCAVATION AROUND AN EXISTING FIRE HYDRANT IN ORDER TO AVOID DISTURBING THE THRUST BLOCK AND SURROUNDING SOIL. SUPPORTING THE THRUST BLOCK, THIS PREVENTS THE POSSIBILITY OF THE HYDRANT SEPARATING FROM THE LATERAL. PROVIDE A DETAIL OF THE PROPOSED INSTALLATION SHOWING ADEQUATE CLEARANCES TO AVOID DISTURBING EXISTING LVWD FACILITIES.	
UTILITY CROSSING NOTE:	
ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.	
SIGHT VISIBILITY ZONES:	
NO STRUCTURE, WALLS, VEGETATION, OR OBJECT OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.	

WATER LINE MARKER BALLS NOTE	
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE No. 15	
EASEMENT REFERENCE LEGEND	
1	50' WIDE LAS VEGAS VALLEY WATER DISTRICT EASEMENT GRANTED PER OR: 20070529.0001401. STA+28+75.21 TO STA+44+96.10
SANITATION SEWER NOTES	
1. ALL SEWER STATIONING IS BASED ON CENTER OF PIPE LENGTHS FROM MANHOLE TO MANHOLE AND IS NOT RELATIVE IN ANY WAY TO STREET CENTERLINE STATIONING. STREET CENTERLINE STATIONING IS SHOWN ON PLAN FOR ROAD REFERENCE ONLY. 2. ALL MANHOLES ARE 48" SIZED MANHOLES PER DCSCWS SD-1, UNLESS OTHERWISE NOTED ON PLAN. 3. ALL MANHOLES ARE TO BE CONSTRUCTED PER DCSCWS SD-1A AND SD-1B. 4. ALL MANHOLE COVERS AND FRAMES ARE TO BE CONSTRUCTED PER DCSCWS SD-2. 5. ALL MANHOLE COLLARS ARE TO BE CONSTRUCT PER DCSCWS SD-4. 6. ALL SEWER LATERAL CONNECTIONS TO SEWER MAINS ARE TO BE CONSTRUCTED PER DCSCWS SD-22 UNLESS OTHERWISE NOTED ON PLAN.	
WATER CONSTRUCTION NOTES	
ALL DIMENSIONS TO UTILITIES ARE TO CENTERLINE OF PIPE UNLESS INDICATED OTHERWISE. CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION. ALL EXISTING UTILITY STRUCTURES WITHIN CONSTRUCTION AREA SHALL BE ADJUSTED TO MATCH FINISH GRADE (I.E. W.V. BOX, MH, ANNODE BOX, FH, TEL BOX, ETC.) 1. WATER LINE STATIONING IS BASED ON THE CENTERLINE OF STREET RIGHT OF WAY 2. WATER LINE SHALL BE C-900 PVC APPROVED BY THE LAS VEGAS VALLEY WATER DISTRICT. 3. EXISTING ASPHALT SHALL BE REMOVED AND REPLACED PER CITY OF LAS VEGAS SPECIFICATIONS. BACKFILL AND INSTALL PERMANENT PATCH PER CITY STANDARD FOR THIS PLAN. 4. SEE SHEET NT FOR PUBLIC UTILITY NOTES AND GENERAL WATER CONSTRUCTION NOTES. 5. ALL WATER LINE IN STREET RIGHT OF WAY IS PUBLIC WATER SYSTEM AND MUST BE INSPECTED BY THE LAS VEGAS VALLEY WATER DISTRICT.	
WATER PRESSURE ZONE:	
WATER SERVICE LOCATED IN THE 3650 PRESSURE ZONE.	
WATER MAIN COVER NOTE:	
ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08	
WATERLINE TRENCH NOTE:	
CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.	
LAS VEGAS FIRE & RESCUE APPROVAL	
BY: _____ DATE: _____ APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW 1500 GPM AT 20 P.S.I. RESIDUAL.	
WATER MAIN JOINT DEFLECTION	
PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.02. FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.	
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BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED: 1. ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE; LOCATE MAKER 8' FROM FACE OF CURB ON HYDRANT SIDE. 2. ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE; LOCATE MAKER 16' FROM FACE OF CURB ON HYDRANT SIDE.	

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT:136301 FIRST APPROVED DATE: _____
LVWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM
LVWD APPROVAL IS VALID FOR ONE (1) YEAR FROM SIGNATURE DATE. IF CONSTRUCTION IS NOT STARTED, PLANS **MUST** BE RESUBMITTED FOR REVIEW AND APPROVAL.

Call before you Dig
Avoid hitting overhead power lines. It's costly.

Call before you Dig
Avoid hitting underground utility lines. It's costly.

Call before you Dig
Avoid hitting underground utility lines. It's costly.

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Avoid hitting underground utility lines. It's costly.

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89148
PH: (702) 872-7550 FAX: (702) 382-2597 WEB: WWW.VTN.COM
LAS VEGAS, NEVADA 89135
702-791-1400

CITY OF LAS VEGAS

UTILITY LATERAL SHEET 13

SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA

DRAWN BY: BCC 06/02/2018
DESIGNED BY: BCC 08/02/2016
CHECKED BY: WJM 09/15/2019
PROJECT NO: 7851
SCALE: 1"=20' HORIZ.
1"=4' VERT.

WILLIAM J. MEYER
EXP: 10/31/21
CIVIL
No. 15745
SHEET
UT13
27 OF 40 SHEETS
DRAWING NO.
L19-00350
1077663

REVISION

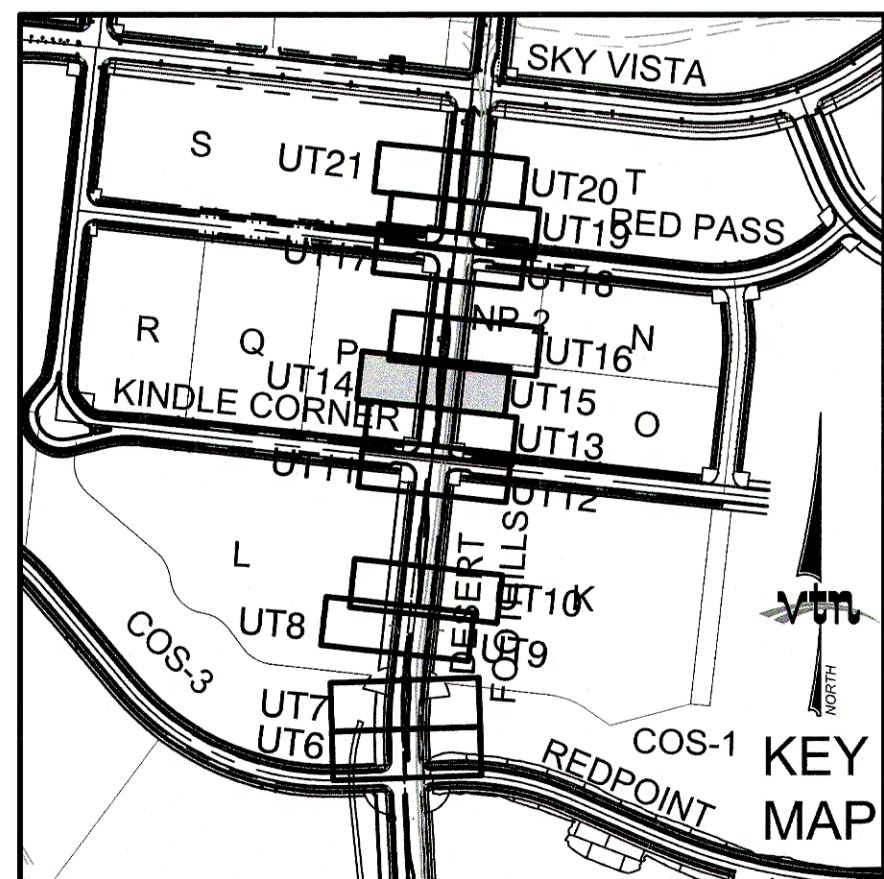
DATE

BY

CP

UPDATE QTY'S

REVISION



APN:137-26-112-004
PARCEL O
 FINAL MAP
 BOOK- 159
 PAGE- 50

(SEE SHEET UT3 FOR REFERENCE)

COLORED REFLECTIVE RAISED

Avoid cutting underground utility lines. It's costly.

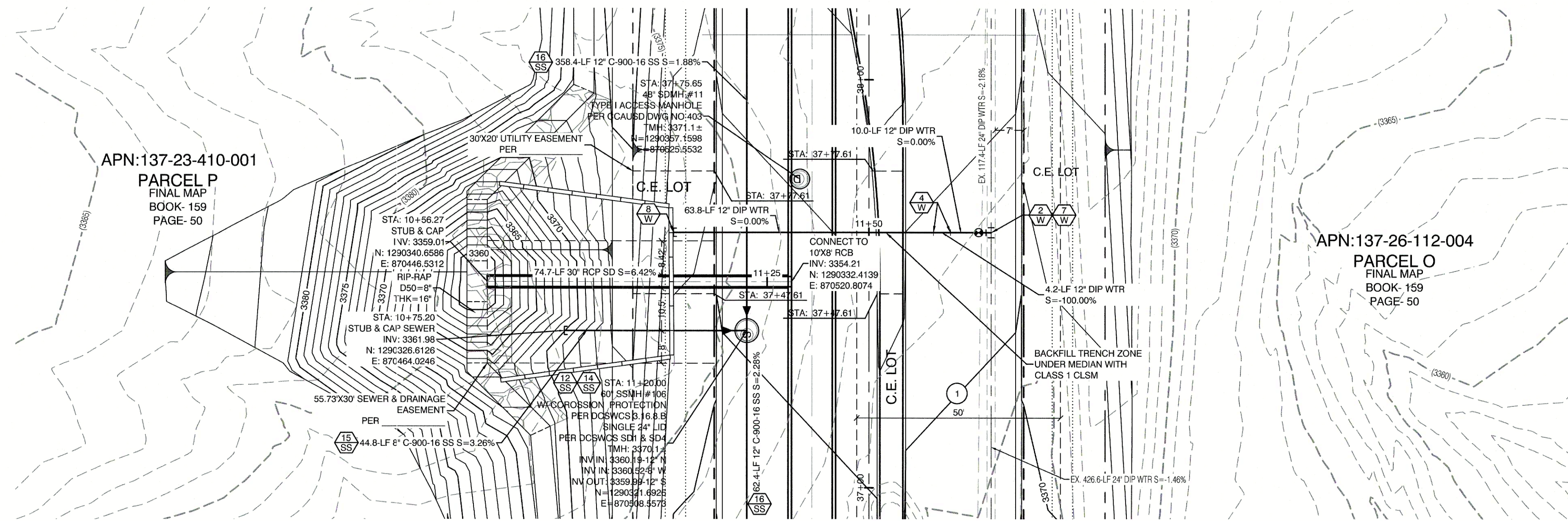
Call before you Dig
Avoid cutting underground utility lines. It's costly.

CALL
811

OR
1-800-227-2

AND
1.702-455-6

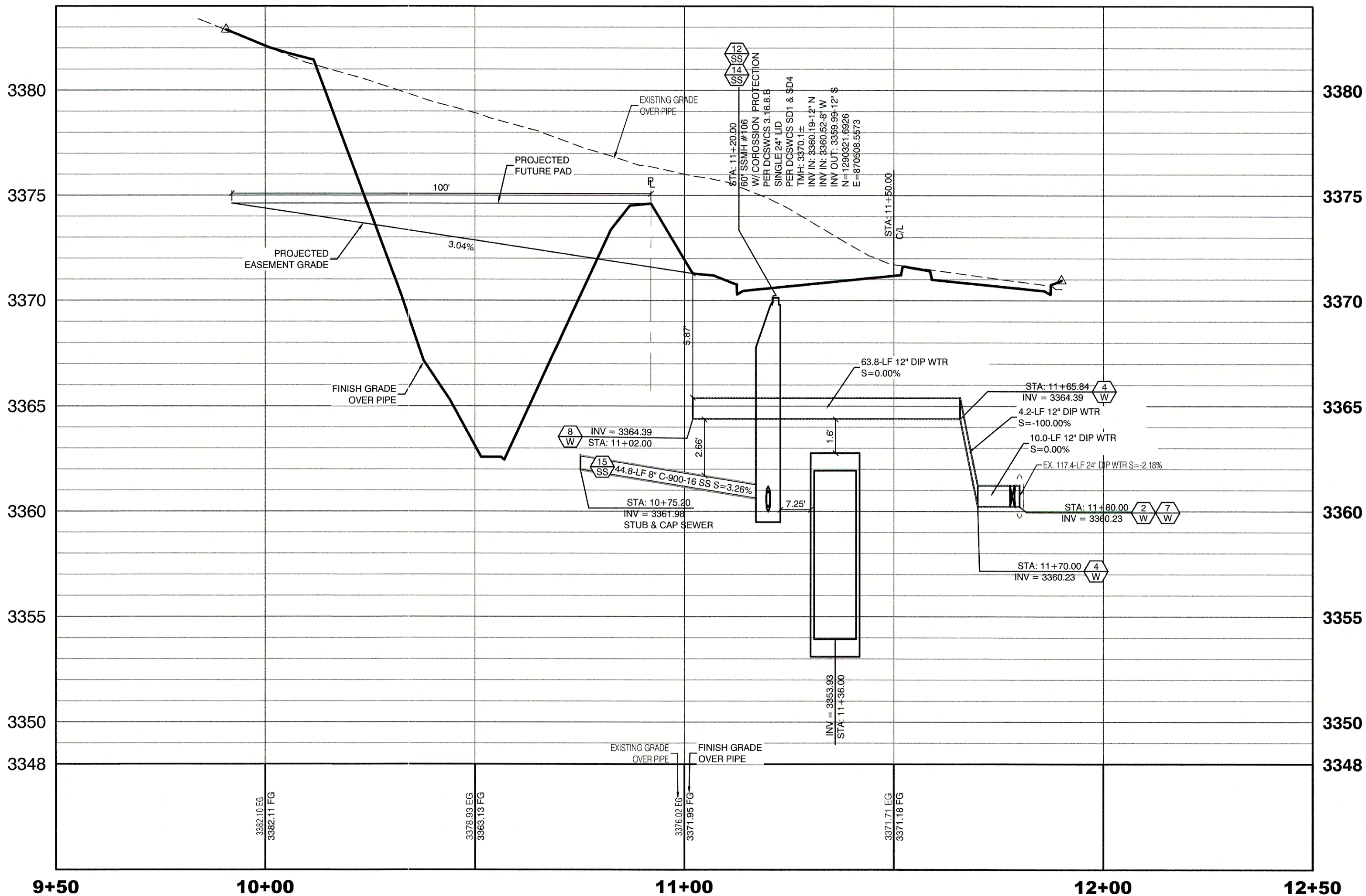
CLARK COUNTY T
OPERATION



DESERT FOOTHILLS
(PUBLIC)

PROFILE SCALES:
HORIZ. = 1"=20'
VERT. = 1"=4'

(SEE SHEET UT3 FOR REFERENCE)



UTILITY CROSSING NOTE:
ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

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APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT:136301 FIRST APPROVED DATE: _____
LVVWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM
LVVWD APPROVAL IS VALID FOR ONE (1) YEAR FROM SIGNATURE DATE. IF
CONSTRUCTION IS NOT STARTED, PLANS **MUST** BE RESUBMITTED FOR REVIEW AND
APPROVAL.

CONSTRUCTION NOTES	
WATER	PUBLIC
12" GATE VALVE (PER UDACS PLATE 30 & 39)	9 EA.
6" 45° VERTICAL BEND (PER UDACS PLATE 31)	2 EA.
12" 45° VERTICAL BEND (PER UDACS PLATE 31)	16 EA.
12" 90° BEND (PER UDACS PLATE 31)	6 EA.
12" 90° BEND (PER UDACS PLATE 31)	2 EA.
24"x12" TAPPING SLEEVE W/12" TAPPING VALVE (PER UDACS PLATE 30, 34 & 39 & PER SECTION 2.24 (B))	9 EA.
12" CAP & BLOW OFF (PER UDACS PLATE 36)	9 EA.
1.5" TYPE K SOFT COPPER WATER LATERAL SERVICE WITH 1.5" SUMMERLIN COUNCIL METER PER IRRIGATION MASTER PLAN AND UDACS PLATE #4 (IRRIGATION) AND 1.5" RPPA PER UDACS PLATE #8 (PER DETAIL SHEET DT1)	2 EA.
6"x1.5" SERVICE SADDLE W/ CORP STOP PER UDACS PLATE 4.	2 EA.
6" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17	127 LF.
12" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17	274 LF.
12" DIP WATER MAIN PER UDACS 2.06.01 & PLATE 17	277 LF.
WATER POINT OF CONNECTION	
SEWER	PUBLIC
48" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	4 EA.
60" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	4 EA.
72" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	1 EA.
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8" C-900-16 SANITARY SEWER MAIN	184 LF.
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SEWER POINT OF CONNECTION	

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WATER LINE MARKER BALLS NOTE
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE No. 15

EASEMENT REFERENCE LEGEND

1 50' WIDE LAS VEGAS VALLEY WATER DISTRICT EASEMENT GRANTED PER OR: 20070529-0001401. STA:28+75.21 TO STA:44+96.10

SANITATION SEWER NOTES

- ALL SEWER STATIONING IS BASED ON CENTER OF PIPE LENGTHS FROM MANHOLE TO MANHOLE AND IS NOT RELATIVE IN ANY WAY TO STREET CENTERLINE STATIONING. STREET CENTERLINE STATIONING IS SHOWN ON PLAN FOR ROAD REFERENCE ONLY.
- ALL MANHOLES ARE 48" SIZED MANHOLES PER DCSWCS SD-1, UNLESS OTHERWISE NOTED ON PLAN.
- ALL MANHOLES ARE TO BE CONSTRUCTED PER DCSWCS SD-1A AND SD-1B.
- ALL MANHOLE COVERS AND FRAMES ARE TO BE CONSTRUCTED PER DCSWCS SD-2 UNLESS OTHERWISE NOTED ON PLAN.
- ALL MANHOLE COLLARS ARE TO BE CONSTRUCT PER DCSWCS SD-4.
- ALL SEWER LATERAL CONNECTIONS TO SEWER MAINS ARE TO BE CONSTRUCTED PER DCSWCS SD-22 UNLESS OTHERWISE NOTED ON PLAN.

WATER CONSTRUCTION NOTES

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CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.

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- WATER LINE STATIONING IS BASED ON THE CENTERLINE OF STREET RIGHT OF WAY
- WATER LINE SHALL BE C-900 PVC APPROVED BY THE LAS VEGAS VALLEY WATER DISTRICT.
- EXISTING ASPHALT SHALL BE REMOVED AND REPLACED PER CITY OF LAS VEGAS SPECIFICATIONS. BACKFILL AND INSTALL PERMANENT PATCH PER CITY STANDARD FOR THIS PLAN.
- SEE SHEET NT FOR PUBLIC UTILITY NOTES AND GENERAL WATER CONSTRUCTION NOTES.
- ALL WATER LINE IN STREET RIGHT OF WAY IS PUBLIC WATER SYSTEM AND MUST BE INSPECTED BY THE LAS VEGAS VALLEY WATER DISTRICT.

WATER PRESSURE ZONE:
WATER SERVICE LOCATED IN THE 3560 PRESSURE ZONE.

WATER MAIN COVER NOTE:
ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08

WATERLINE TRENCH NOTE:
CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.

LAS VEGAS FIRE & RESCUE APPROVAL

BY: _____ DATE: _____

APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW 1500 GPM AT 20 P.S.I. RESIDUAL.

WATER MAIN JOINT DEFLECTION

PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1:150 FEET, PER UDACS 2.07.01 AND 2.07.02.

FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

FIRE HYDRANT MARKER NOTES

BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED:

- ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE: LOCATE MARKER 9' FROM FACE OF CURB ON HYDRANT SIDE.
- ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE: LOCATE MARKER 16' FROM FACE OF CURB ON HYDRANT SIDE.

Call before you dig
1-702-455-7511
1-702-229-6811

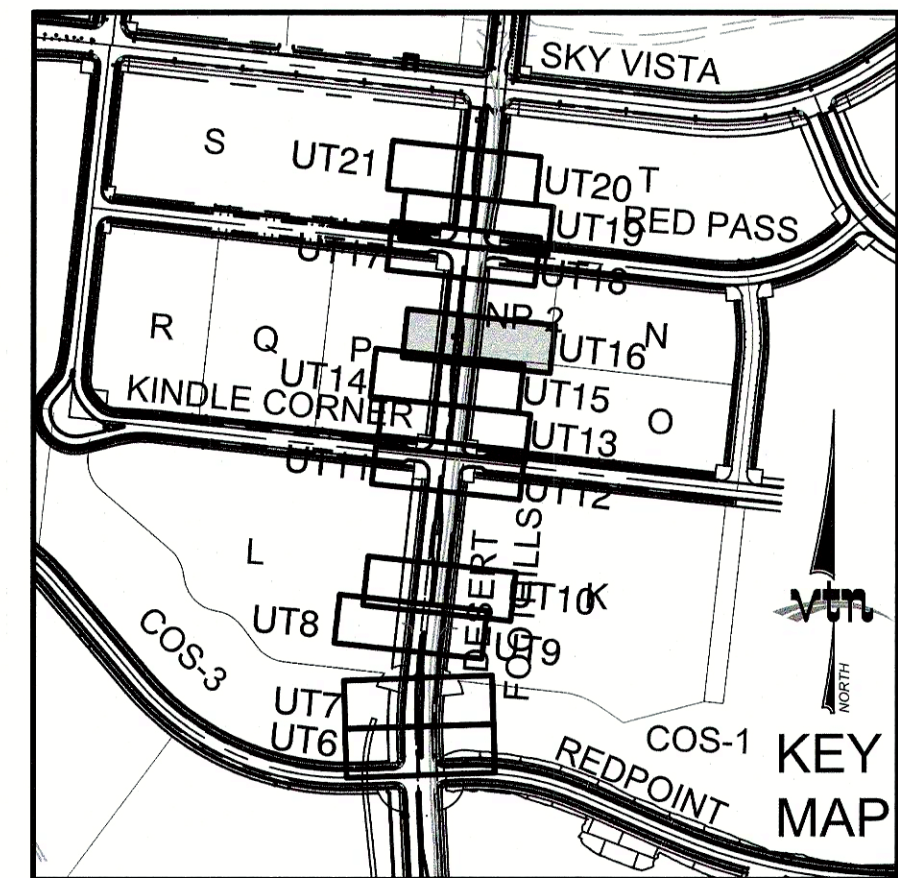
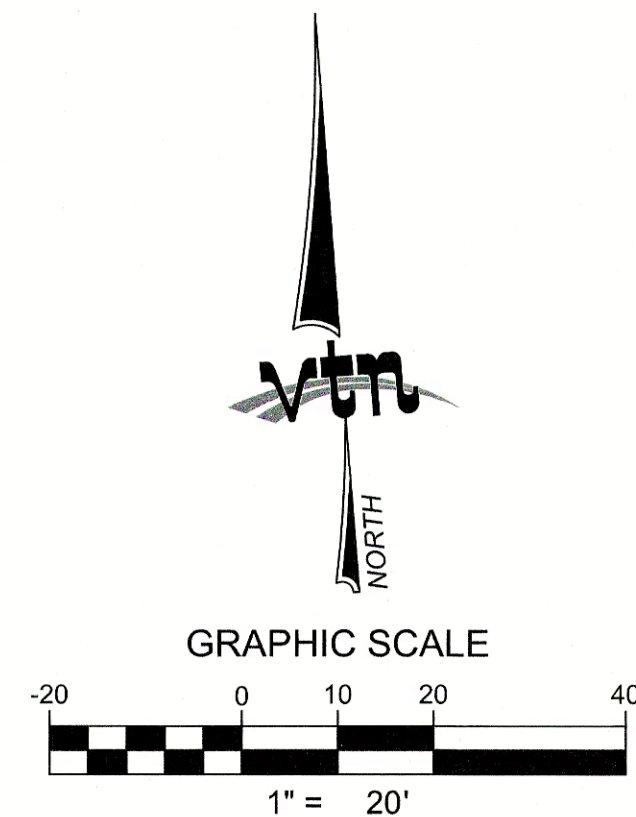
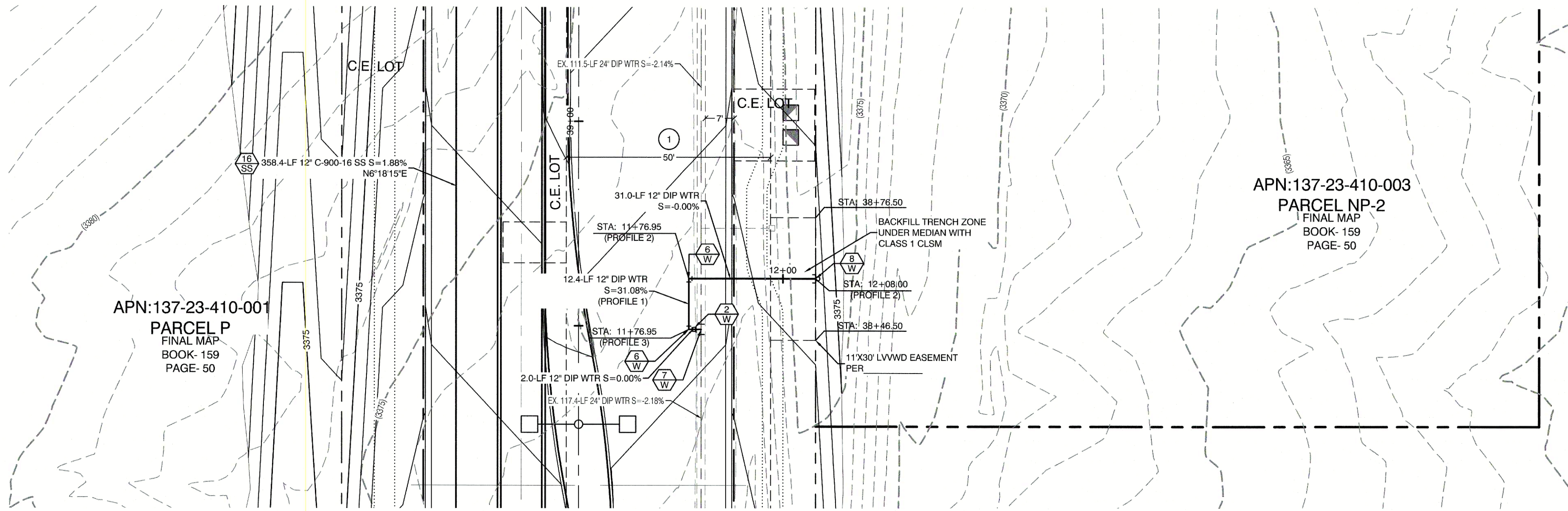
Call before you dig
1-702-455-7511
1-702-229-6811

Call before you Dig
Avoid cutting underground utility lines. It's costly.

811
OR
1-800-227-2600
AND
1-702-455-8000
CLARK COUNTY TRAFFIC OPERATIONS

12/05/2019	BY	DATE	REVISION
12/05/2019	BY	DATE	REVISION

HOWARD HUGHES COMPANY, LLC A DELAWARE LIMITED LIABILITY COMPANY 10845 GREYTH PEAK DRIVE, SUITE 100 LAS VEGAS, NEVADA 89135 702.791.4000	CITY OF LAS VEGAS 2727 SOUTH RAINBOW BOULEVARD LAS VEGAS, NEVADA 89146-5148 PH: (702) 877-7500 FAX: (702) 362-2597 WEB: WWW.VTNV.COM CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS		
UTILITY LATERAL SHEET 15	SUMMERLIN WEST VILLAGE 21 DESERT FOOTHILLS DRIVE REDPOINT TO SKY VISTA		
DRAWN BY: BCC	DESIGNED BY: BCC	CHECKED BY: WJM	PROJECT NO: 7851
08/02/2018	08/02/2018	09/15/2019	SCALE: 1"=20' HORIZ. 1"=4' VERT.
PROFESSIONAL ENGINEER - STATE OF NEVADA WILLIAM J. MEYER EXP: 12/31/21 CIVIL No. 15745			
SHEET UT15 29 OF 40 SHEETS DRAWING NO. L19-00350 107V7663			



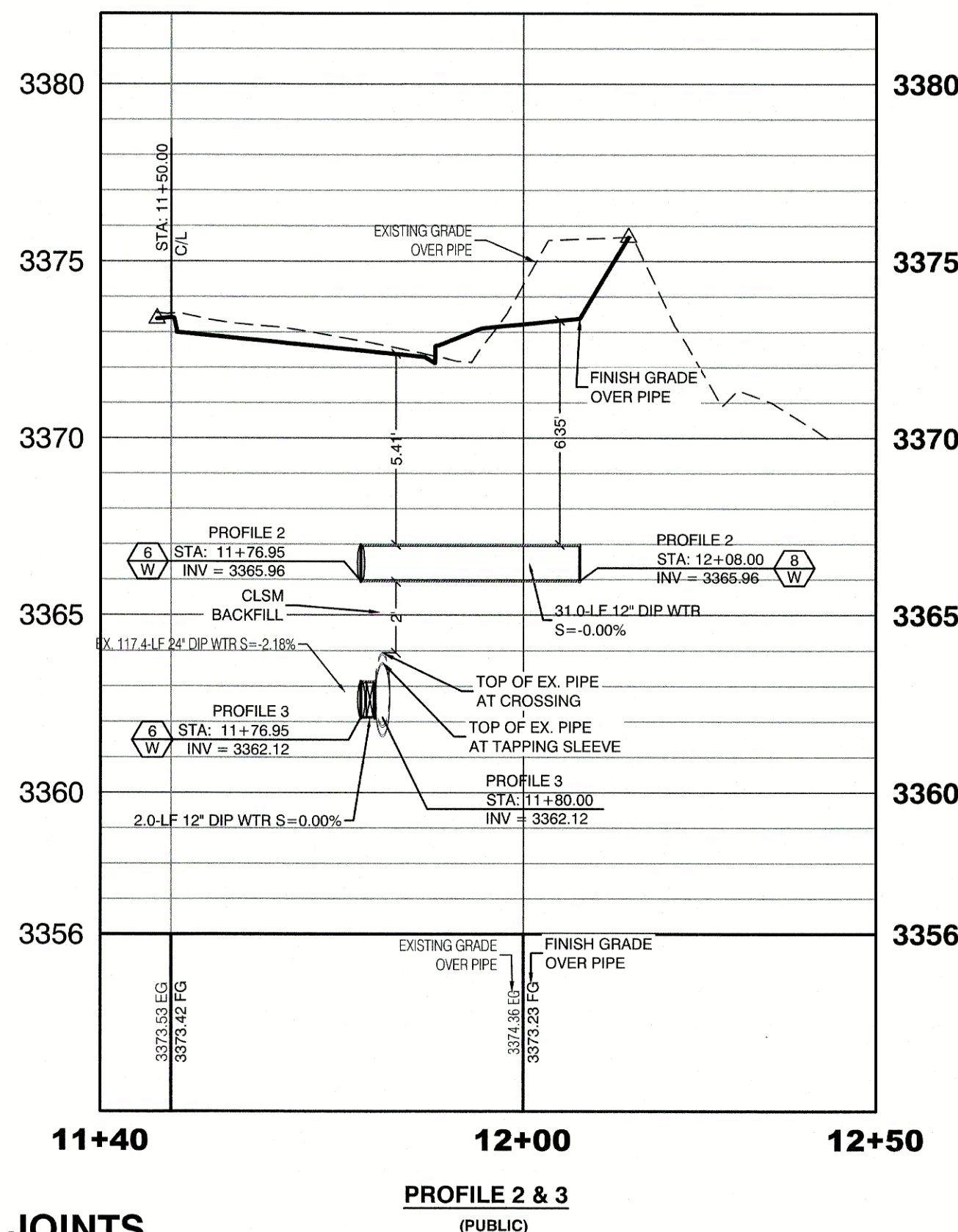
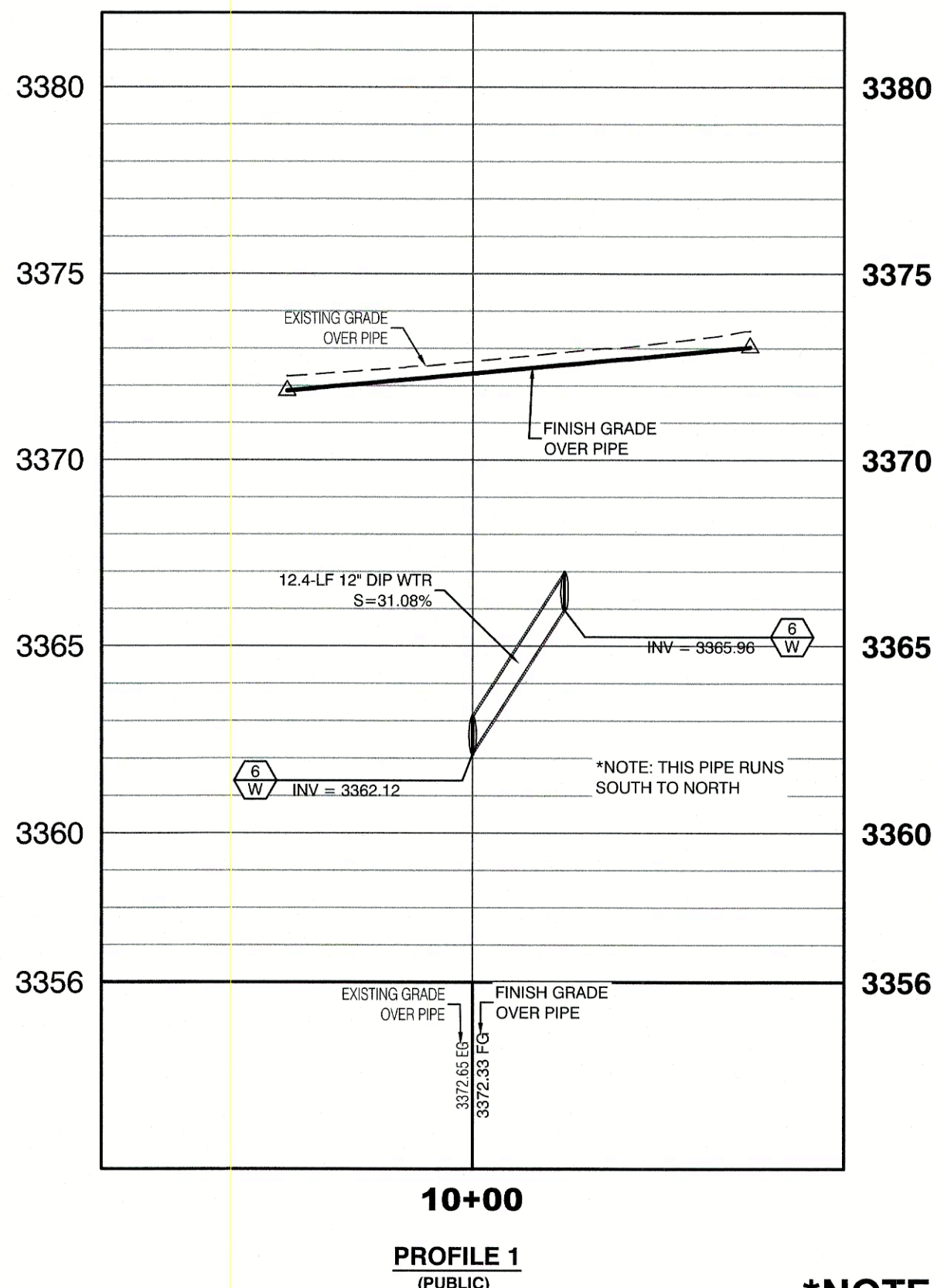
APN:137-23-410-001
PARCEL P
FINAL MAP
BOOK: 159
PAGE: 50

APN:137-23-410-003
PARCEL NP-2
FINAL MAP
BOOK: 159
PAGE: 50

DESERT FOOTHILLS
(PUBLIC)

PROFILE SCALES:
HORIZ. = 1"=20'
VERT. = 1"=4'

(SEE SHEET UT4 FOR REFERENCE)



*NOTE: ALL JOINTS
ARE TO BE RESTRAINED

CONSTRUCTION NOTES	
WATER	PUBLIC
FIRE HYDRANT ASSEMBLY: (PER UDACS PLATE NO. 30, 38, 40 & 41) INCLUDING 24" X 6" TAPPING SLEEVE WITH 6" TAPPING VALVE PER UDACS PLATE NO. 34 & SECTION 2.24.01B	3 EA.
12" GATE VALVE (PER UDACS PLATE 30 & 39)	9 EA.
	2 EA.
	16 EA.
	6 EA.
	2 EA.
	9 EA.
	9 EA.
	2 EA.
	2 EA.
	127 LF.
	274 LF.
	277 LF.
	2
SEWER	PUBLIC
	4 EA.
	4 EA.
	1 EA.
	184 LF.
	1,711 LF.

EASEMENT REFERENCE LEGEND	
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WATER LINE MARKER BALLS NOTE	
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15	
UTILITY CROSSING NOTE:	
ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.	

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT:136901 FIRST APPROVED DATE: _____
LVWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM
LVWD APPROVAL IS VALID FOR ONE (1) YEAR FROM SIGNATURE DATE. IF CONSTRUCTION IS NOT STARTED, PLANS **MUST** BE RESUBMITTED FOR REVIEW AND APPROVAL.

Call before you Dig
Avoid cutting underground utility lines. It's costly.

811
OR
1-800-227-2600
AND
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS

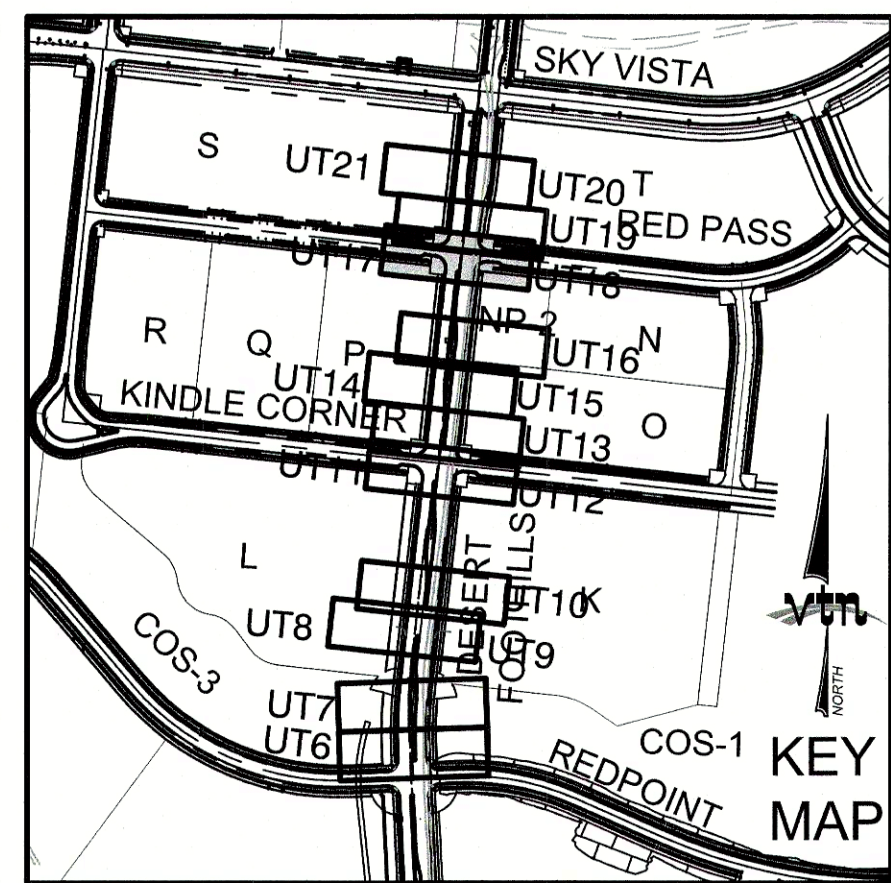
HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
CITY OF LAS VEGAS
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89146-5148
PH: (702) 872-7550 FAX: (702) 362-2897 WEB: WWW.VVNM.COM
CONSULTING ENGINEERS & LAND SURVEYORS

UTILITY LATERAL SHEET 16
SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA

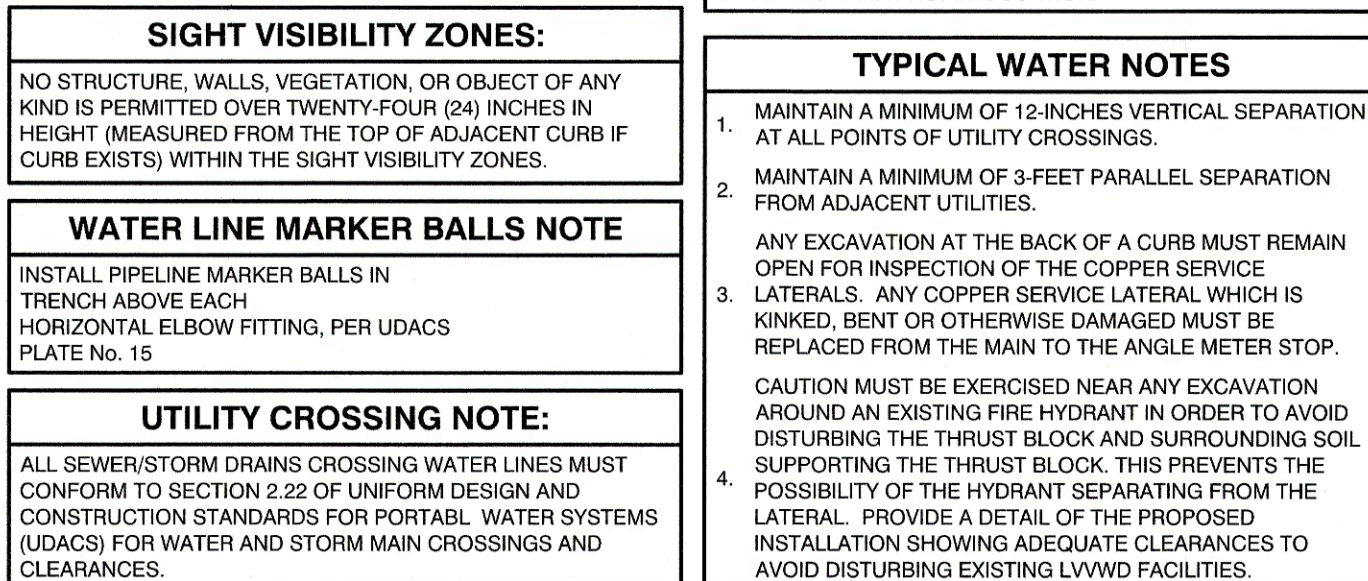
DRAWN BY: BCC
DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO: 7851
DATE: 08/02/2018
SCALE: 1"=20'
SHEET: 30 OF 40 SHEETS
DRAWING NO: L19-00350
107V7663

WILLIAM J. MEYER
EXP: 12/31/21
CIVIL
No. 15745
8/12/20
SHEET
UT16
30 OF 40 SHEETS
DRAWING NO: L19-00350
107V7663

REVISION
DATE
BY
CP
UPDATE QTY'S
12/05/2019



EASEMENT REFERENCE LEGEND	
①	50' WIDE LAS VEGAS VALLEY WATER DISTRICT EASEMENT GRANTED PER OR: 20070529/0001.0041, STA.28+75.21 TO STA.34+98.10
SANITATION SEWER NOTES	
1. ALL SEWER STATIONING IS BASED ON CENTER OF PIPE LENGTHS FROM MANHOLE TO MANHOLE AND IS NOT RELATIVE IN ANY WAY TO STREET CENTERLINE. STATIONING, STREET CENTERLINE STATIONING IS SHOWN ON PLAN FOR ROAD REFERENCE ONLY.	
2. ALL MANHOLES ARE 48" SIZED MANHOLES PER DCSWGS SD-1, UNLESS OTHERWISE NOTED ON PLAN.	
3. ALL MANHOLES ARE TO BE CONSTRUCTED PER DCSWGS SD-1A AND SD-1B.	
4. ALL MANHOLE COVERS AND FRAMES ARE TO BE CONSTRUCTED PER DCSWGS SD-2.	
5. ALL MANHOLE COLLARS ARE TO BE CONSTRUCT PER DCSWGS SD-4.	
6. ALL SEWER LATERAL CONNECTIONS TO SEWER MAINS ARE TO BE CONSTRUCTED PER DCSWGS SD-22 UNLESS OTHERWISE NOTED ON PLAN.	
WATER CONSTRUCTION NOTES	
ALL DIMENSIONS TO UTILITIES ARE TO CENTERLINE OF PIPE UNLESS INDICATED OTHERWISE.	
CONTRACTOR SHALL VARY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.	
ALL EXISTING UTILITY STRUCTURES WITHIN CONSTRUCTION AREA SHALL BE ADJUSTED TO MATCH FINISH GRADE (I.E. WY. BOX, MH, ANNODE BOX, FH, TEL. BOX, ETC.)	
1. WATER LINE STATIONING IS BASED ON THE CENTERLINE OF STREET RIGHT OF WAY	
2. WATER LINE SHALL BE 8" 900 PVC APPROVED BY THE LAS VEGAS VALLEY WATER DISTRICT.	
3. EXISTING ASPHALT SHALL BE REMOVED AND REPLACED PER CITY OF LAS VEGAS SPECIFICATIONS. BACKFILL AND INSTALL PERMANENT PATCH PER CITY STANDARD FOR THIS PLAN.	
4. SEE SHEET NT FOR PUBLIC UTILITY NOTES AND GENERAL WATER CONSTRUCTION NOTES.	
5. ALL WATER LINE IN STREET RIGHT OF WAY IS PUBLIC WATER SYSTEM AND MUST BE INSPECTED BY THE LAS VEGAS VALLEY WATER DISTRICT.	
WATER PRESSURE ZONE:	
WATER SERVICE LOCATED IN THE 3550 PRESSURE ZONE.	
WATER MAIN COVER NOTE:	
ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08	
WATERLINE TRENCH NOTE:	
CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER	



PROJECT: 136301 FIRST APPROVED DATE: _____
LVVWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM

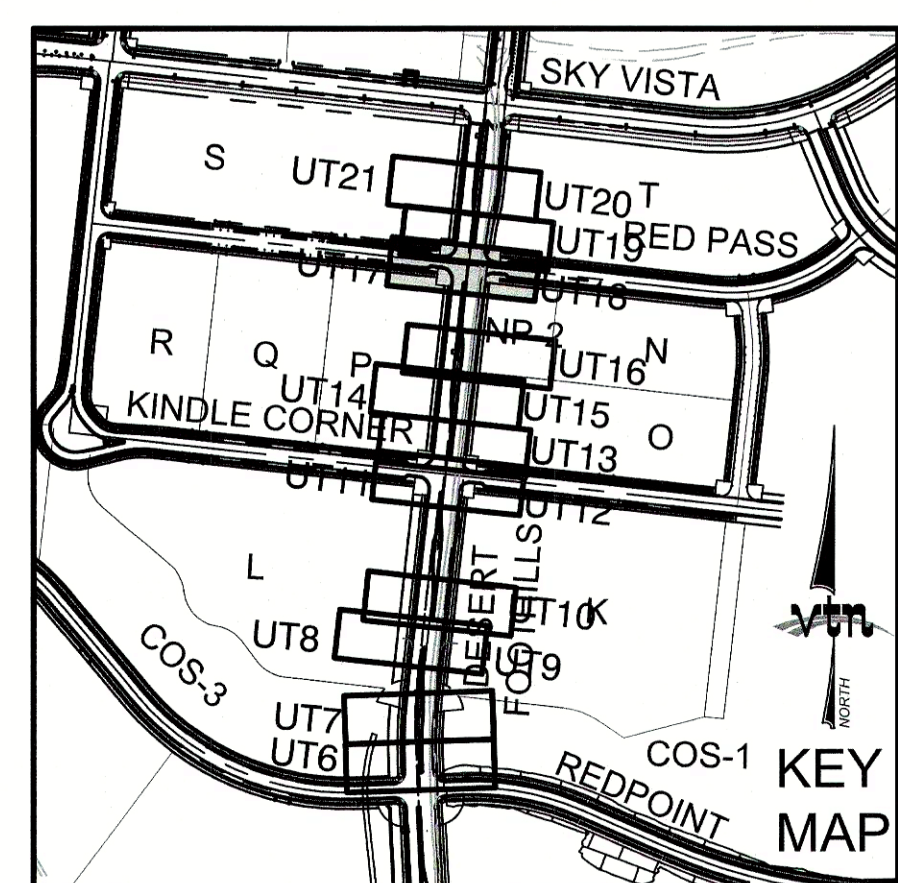
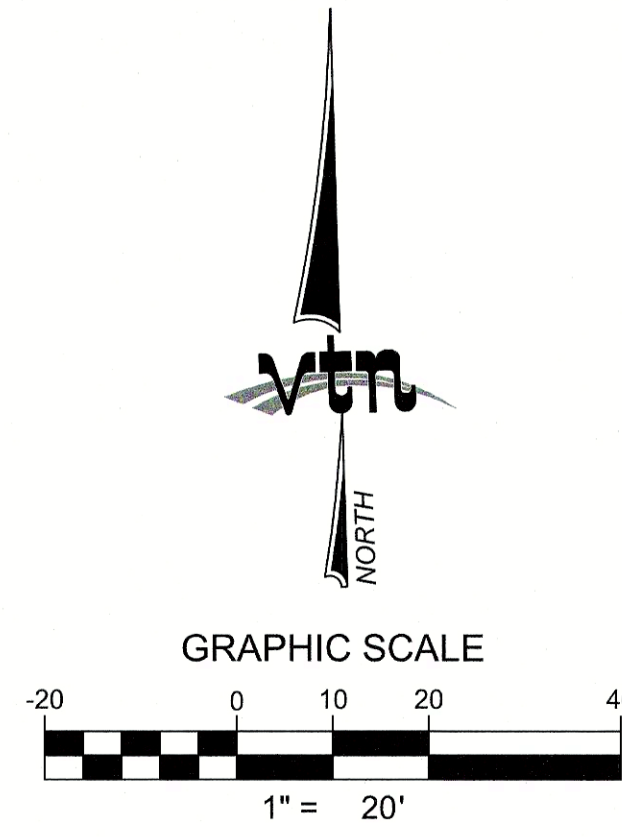
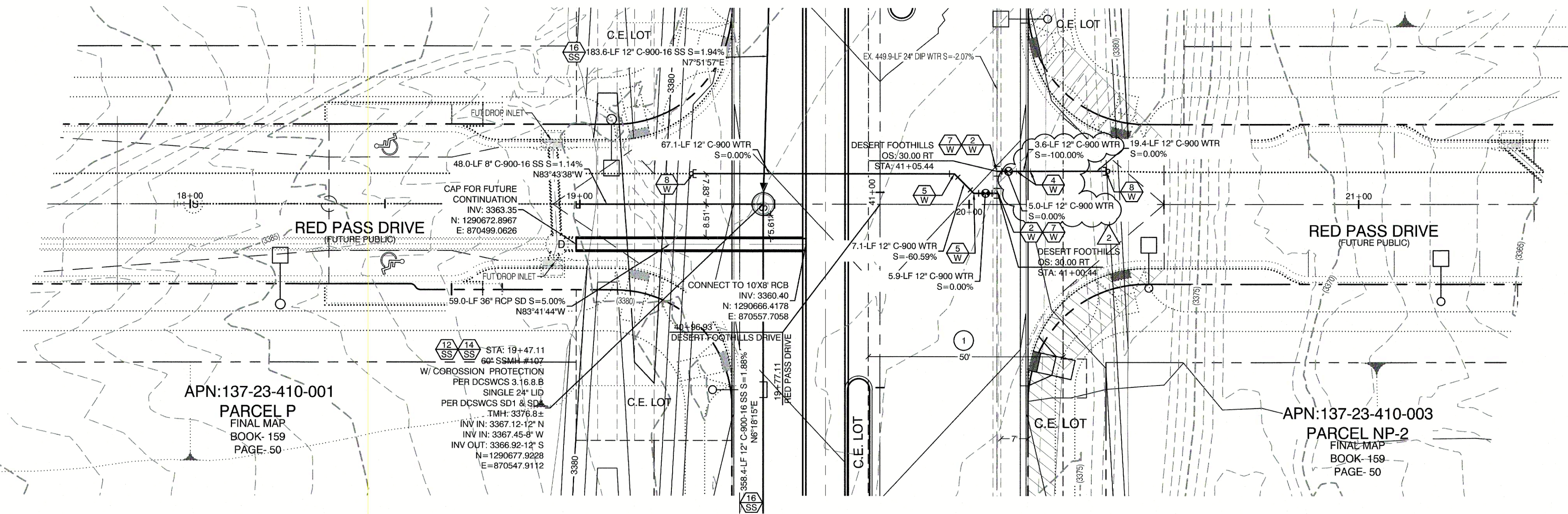


**SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA**

[illegible]

DRAWN BY: _____ BCC _____ 10/10/2018 _____	DESIGNED BY: _____ BCC _____ 10/10/2018 _____	CHECKED BY: _____ WJM _____ 09/15/2019 _____	SCALE: _____ 1"=20' _____ 1"=4' _____	PROJECT NO: _____ 7651 _____	HORIZ _____ VERT _____
SHEET UT17 31 OF 40 SHEETS					
DRAWING NO. L19-00350 10717653					

\\Fs1\7851\Desert Foothills-Street A to Summerlin Pkwy\Sheet Set\7851-UT LAT 3.dwg:2/9/2020 8:57 AM:chrisp



CONSTRUCTION NOTES	
WATER	
	FIRE HYDRANT ASSEMBLY: (PER UDACS PLATE NO. 30, 39, 40 & 41) INCLUDING 24" X 6" TAPPING SLEEVE WITH 6" TAPPING VALVE PER UDACS PLATE NO. 34 & SECTION 2.24.01B
	12" GATE VALVE (PER UDACS PLATE 30 & 39)
	6" 45° VERTICAL BEND (PER UDACS PLATE 31)
	12" 45° VERTICAL BEND (PER UDACS PLATE 31)
	12" 45° BEND (PER UDACS PLATE 31)
	12" 90° BEND (PER UDACS PLATE 31)
	24" X 12" TAPPING SLEEVE W/ 12" TAPPING VALVE (PER UDACS PLATE 30, 34 & 39 & PER SECTION 2.24.01B)
	12" CAP & BLOW OFF (PER UDACS PLATE 36)
	1.5" TYPE K SOFT COPPER WATER LATERAL SERVICE WITH 1.5" SUMMERLIN COUNCIL METER PER IRRIGATION MASTER PLAN AND UDACS PLATE #4 (IRRIGATION) AND 1.5" RPPA PER UDACS PLATE #8 (PER DETAIL SHEET DTY)
	6" X 1.5" SERVICE SADDLE W/ CORP STOP PER UDACS PLATE 4.
	6" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17
	12" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17
	12" DIP WATER MAIN PER UDACS 2.06.01 & PLATE 17
	WATER POINT OF CONNECTION
SEWER	
	48" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID
	60" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID
	72" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID
	CORROSION PROTECTION
	8" C-900-16 SANITARY SEWER MAIN
	12" C-900-16 SANITARY SEWER MAIN
	SEWER POINT OF CONNECTION

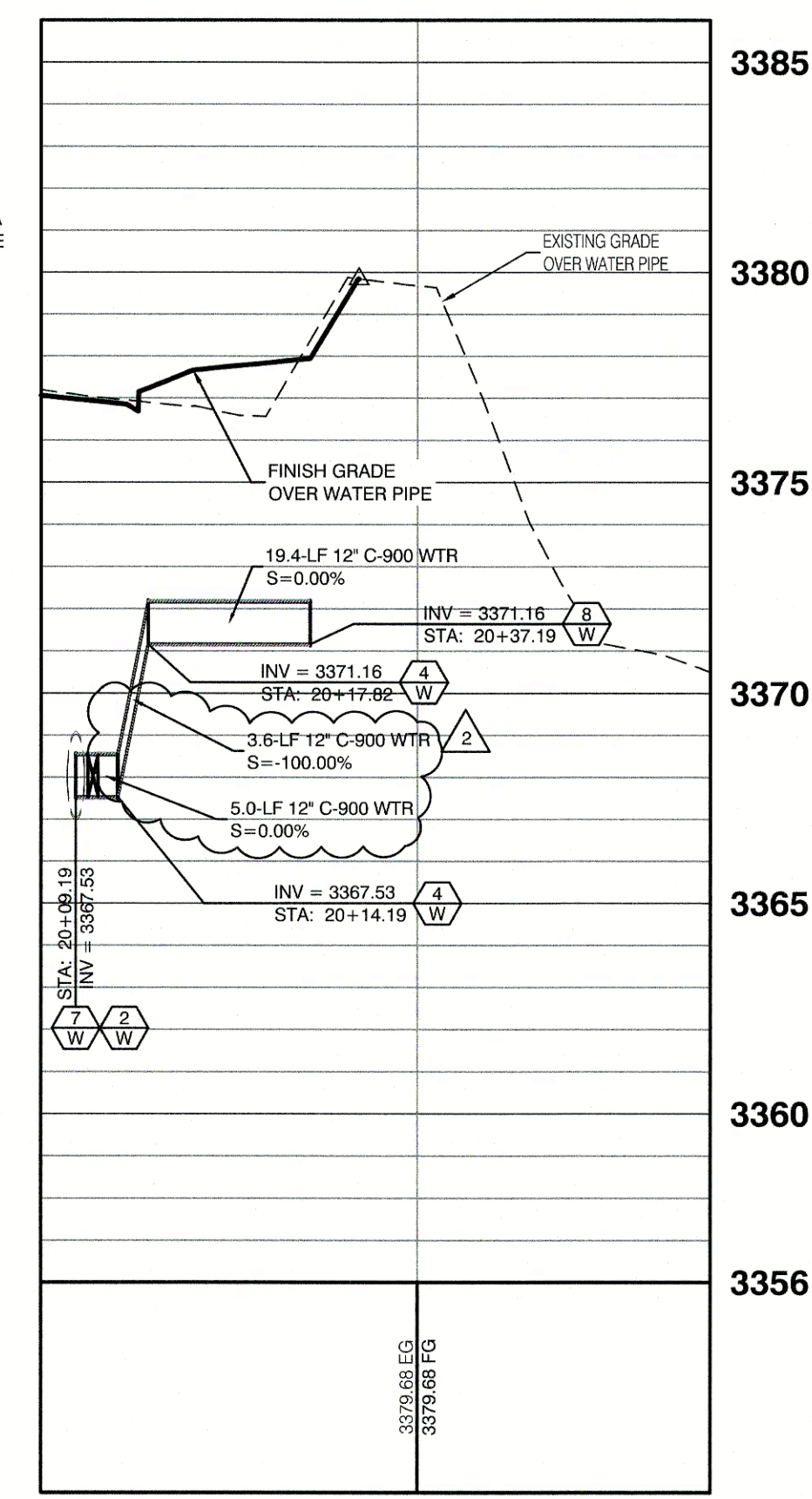
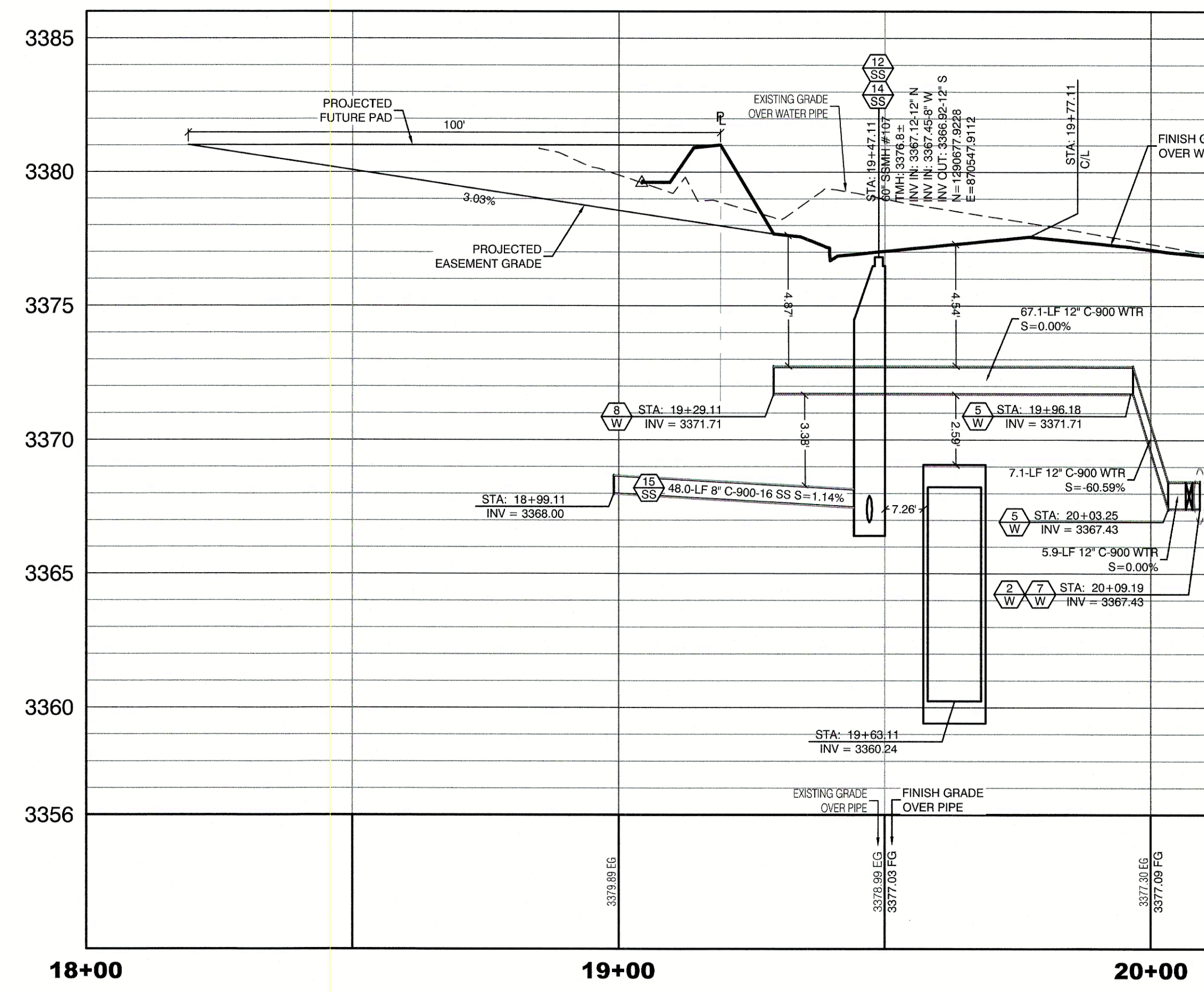
EASEMENT REFERENCE LEGEND	
	50' WIDE LAS VEGAS VALLEY WATER DISTRICT EASEMENT GRANTED PER OR. 20070529-0001401. STA: 28+75.21 TO STA: 44+96.10
SANITATION SEWER NOTES	
1.	ALL SEWER STATIONING IS BASED ON CENTER OF PIPE LENGTHS FROM MANHOLE TO MANHOLE AND IS NOT RELATIVE IN ANY WAY TO STREET CENTERLINE STATIONING. STREET CENTERLINE STATIONING IS SHOWN ON PLAN FOR ROAD REFERENCE ONLY.
2.	ALL MANHOLES ARE 48" SIZED MANHOLES PER DCSWCS SD-1, UNLESS OTHERWISE NOTED ON PLAN.
3.	ALL MANHOLES ARE TO BE CONSTRUCTED PER DCSWCS SD-1A AND SD-1B.
4.	ALL MANHOLE COVERS AND FRAMES ARE TO BE CONSTRUCTED PER DCSWCS SD-2.
5.	ALL MANHOLE COLLARS ARE TO BE CONSTRUCT PER DCSWCS SD-4.
6.	ALL SEWER LATERAL CONNECTIONS TO SEWER MAINS ARE TO BE CONSTRUCTED PER DCSWCS SD-22 UNLESS OTHERWISE NOTED ON PLAN.
WATER CONSTRUCTION NOTES	
ALL DIMENSIONS TO UTILITIES ARE TO CENTERLINE OF PIPE UNLESS INDICATED OTHERWISE.	
CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.	
ALL EXISTING UTILITY STRUCTURES WITHIN CONSTRUCTION AREA SHALL BE ADJUSTED TO MATCH FINISH GRADE (I.E. W.W. BOX, MH, ANNOUE BOX, FH, TEL BOX, ETC.)	
1.	WATER LINE STATIONING IS BASED ON THE CENTERLINE OF STREET RIGHT OF WAY
2.	WATER LINE SHALL BE C-900 PVC APPROVED BY THE LAS VEGAS VALLEY WATER DISTRICT.
3.	EXISTING ASPHALT SHALL BE REMOVED AND REPLACED PER CITY OF LAS VEGAS SPECIFICATIONS. BACKFILL AND INSTALL PERMANENT PATCH PER CITY STANDARD FOR THIS PLAN.
4.	SEE SHEET NT FOR PUBLIC UTILITY NOTES AND GENERAL WATER CONSTRUCTION NOTES.
5.	ALL WATER LINE IN STREET RIGHT OF WAY IS PUBLIC WATER SYSTEM AND MUST BE INSPECTED BY THE LAS VEGAS VALLEY WATER DISTRICT.

WATER PRESSURE ZONE:	
WATER SERVICE LOCATED IN THE 3550 PRESSURE ZONE.	
WATER MAIN COVER NOTE:	
ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.06	
WATERLINE TRENCH NOTE:	
CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.	

ENGINEER DISCLAIMER NOTE:	
UTILITY LOCATIONS SHOWN HERE ON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HERE ON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.	
TYPICAL WATER NOTES	
1.	MAINTAIN A MINIMUM OF 12-INCHES VERTICAL SEPARATION AT ALL POINTS OF UTILITY CROSSINGS.
2.	MAINTAIN A MINIMUM OF 3- FEET PARALLEL SEPARATION FROM ADJACENT UTILITIES.
3.	ANY EXCAVATION AT THE BACK OF A CURB MUST REMAIN OPEN FOR INSPECTION OF THE COPPER SERVICE
4.	LATERALS: ANY COPPER SERVICE LATERAL WHICH IS KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP. CAUTION MUST BE EXERCISED NEAR ANY EXCAVATION AROUND AN EXISTING FIRE HYDRANT IN ORDER TO AVOID DISTURBING THE THRUST BLOCK AND SURROUNDING SOIL SUPPORTING THE THRUST BLOCK. THIS PREVENTS THE POSSIBILITY OF THE HYDRANT SEPARATING FROM THE LATERAL. PROVIDE A DETAIL OF THE PROPOSED INSTALLATION SHOWING ADEQUATE CLEARANCES TO AVOID DISTURBING EXISTING LVWD FACILITIES.

WATER LINE MARKER BALLS NOTE	
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15	
SIGHT VISIBILITY ZONES:	
NO STRUCTURE, WALLS, VEGETATION, OR OBJECT OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.	
UTILITY CROSSING NOTE:	
ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.	

LAS VEGAS FIRE & RESCUE APPROVAL	
BY: _____	DATE: _____
APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW 1500 GPM AT 20 P.S.I. RESIDUAL.	
WATER MAIN JOINT DEFLECTION	
PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY, THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.02.	
FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.	
FIRE HYDRANT MARKER NOTES	
BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED:	
1.	ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE; LOCATE MAKER 8" FROM FACE OF CURB ON HYDRANT SIDE.
2.	ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE; LOCATE MAKER 16" FROM FACE OF CURB ON HYDRANT SIDE.



APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT: 136301 FIRST APPROVED DATE: _____

LVWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM

LVWD APPROVAL IS VALID FOR ONE (1) YEAR FROM SIGNATURE DATE. IF CONSTRUCTION IS NOT STARTED, PLANS MUST BE RESUBMITTED FOR REVIEW AND APPROVAL.

Call before you dig

1-702-227-8811

Call before you dig

1-702-227-2929

Call before you dig

1-800-227-2600

1-702-455-6000

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY

CITY OF LAS VEGAS

2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89146
PH. (702) 672-7550 FAX (702) 382-2597 WEB WWW.VVWN.COM

CONSULTING ENGINEERS & LAND SURVEYORS

UTILITY LATERAL SHEET 18

SUMMERLIN WEST VILLAGE 21

DESERT FOOTHILLS DRIVE

REDPOINT TO SKY VISTA

DRAWN BY: ECC 08/02/2018

DESIGNED BY: ECC 08/02/2018

CHECKED BY: WJM 09/15/2019

PROJECT NO: 2551

SCALE: 1"=20' HORIZ. 1"=4' VERT.

SHEET 32 OF 40 SHEETS

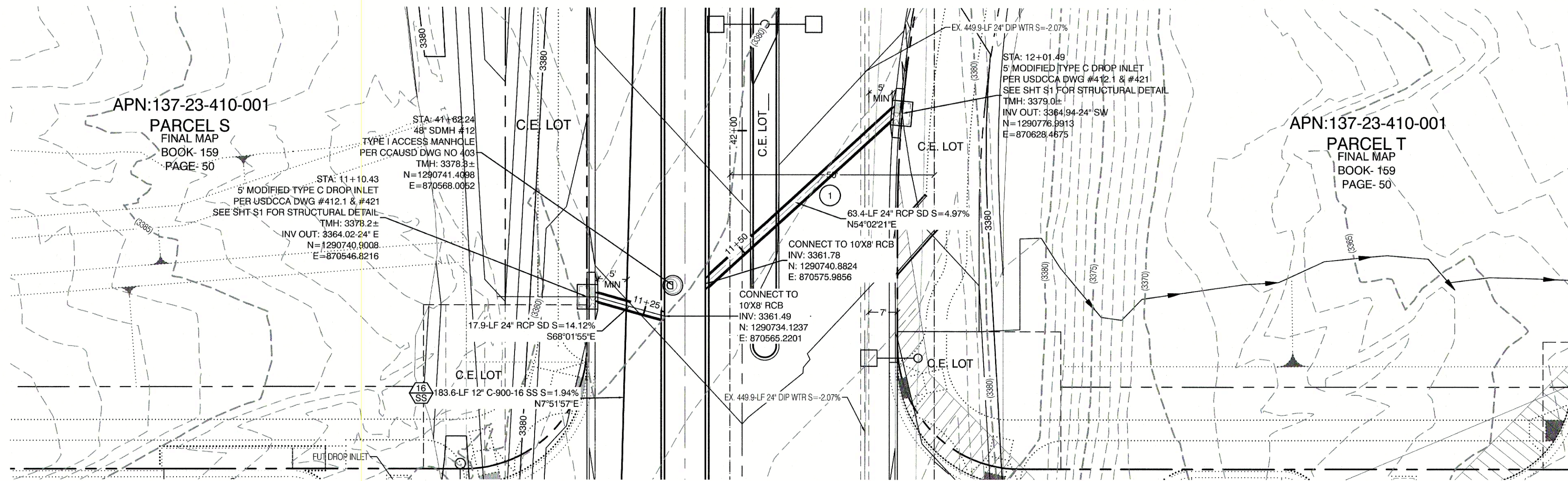
UT18

DRAWING NO. L19-00350 10/7/2018

WILLIAM J. MEYER
EXP. 10/31/21
CIVIL
No. 15745

9/27/20

17851 Desert Foothills Street A to Summerlin Pkwy Sheet SW17851-UT 18.dwg 2/18/2020 8:57 AM lchp



NOTE:
5' MINIMUM HORIZONTAL SEPARATION FROM OUTSIDE EDGE OF THE WATER MAIN TO OUTSIDE EDGE OF DROP INLET

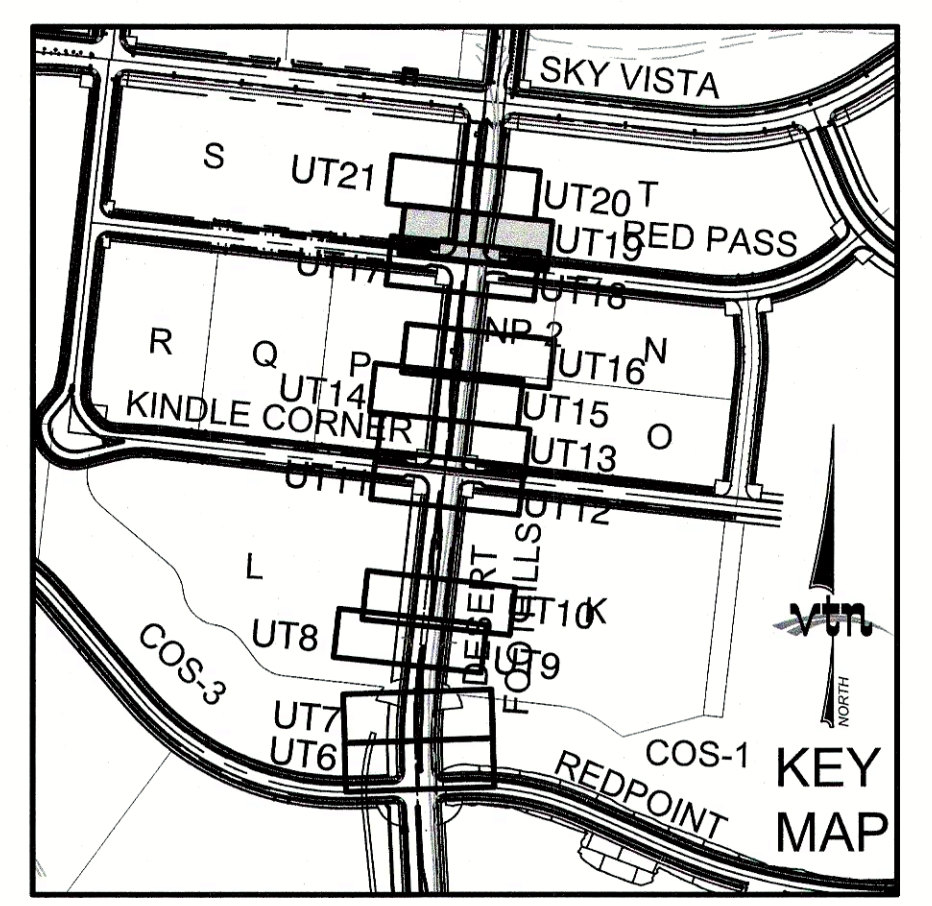
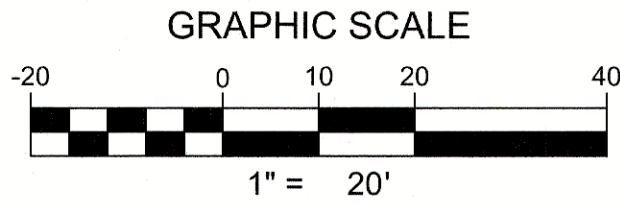
UTILITY CROSSING NOTE:
ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

SIGHT VISIBILITY ZONES:
NO STRUCTURE, WALLS, VEGETATION, OR OBJECT OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

WATER LINE MARKER BALLS NOTE
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15

DROP INLET NOTE:
WHERE 10 FEET PARALLEL SEPARATION IS NOT PRACTICABLE: CAST-IN-PLACE MONOLITHIC POUR WITH WATERSTOP BETWEEN SLAB AND WALLS, BASE WALLS AND TOP TO BE CONSTRUCTED WITH WATERSTOPS, CENTER BULB, OR FLAT STRIP. (VINYLEX, GREENSTREAK PLASTIC PRODUCTS OR APPROVED EQUAL)

EASEMENT REFERENCE LEGEND
1 50' WIDE LAS VEGAS VALLEY WATER DISTRICT EASEMENT GRANTED PER OR. 20070529-0001401. STA.28+75.21 TO STA.44+95.10



DESERT FOOTHILLS (PUBLIC)

PROFILE SCALES:
HORIZ. = 1"=20'
VERT. = 1"=4'

(SEE SHEET UT4 & UT5 FOR REFERENCE)

CONSTRUCTION NOTES	
WATER	PUBLIC
1. FIRE HYDRANT ASSEMBLY: (PER UDACS PLATE NO. 30, 39, 40 & 41) INCLUDING 24" X 6" TAPPING SLEEVE WITH 6" TAPPING VALVE PER UDACS PLATE NO. 34 & SECTION 2.24.01B	3 EA.
2. 12" GATE VALVE (PER UDACS PLATE 30 & 39)	9 EA.
3. 6" 45° VERTICAL BEND (PER UDACS PLATE 31)	2 EA.
4. 12" 45° VERTICAL BEND (PER UDACS PLATE 31)	16 EA.
5. 12" 45° BEND (PER UDACS PLATE 31)	6 EA.
6. 12" 90° BEND (PER UDACS PLATE 31)	2 EA.
7. 24"X12" TAPPING SLEEVE W/12" TAPPING VALVE (PER UDACS PLATE 30, 34 & 39 & PER SECTION 2.24.01B)	9 EA.
8. 12" CAP & BLOW OFF (PER UDACS PLATE 36)	9 EA.
9. 1.5" TYPE K SOFT COPPER WATER LATERAL SERVICE WITH 1.5" SUMMERLIN COUNCIL METER PER IRRIGATION MASTER PLAN AND UDACS PLATE #4 (IRRIGATION) AND 1.5" RPPA PER UDACS PLATE #8 (PER DETAIL SHEET 071)	2 EA.
10. 6X1.5" SERVICE SADDLE W/ CORP STOP PER UDACS PLATE 4.	2 EA.
11. 6" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17	127 LF.
12. 12" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17	274 LF.
13. 12" DIP WATER MAIN PER UDACS 2.06.01 & PLATE 17	277 LF.
14. WATER POINT OF CONNECTION	
SEWER	PUBLIC
15. 48" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	4 EA.
16. 60" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	4 EA.
17. 72" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	1 EA.
18. CORROSION PROTECTION	184 LF.
19. 8" C-900-16 SANITARY SEWER MAIN	1,711 LF.
20. 12" C-900-16 SANITARY SEWER MAIN	
21. SEWER POINT OF CONNECTION	

STORM DRAIN DROP INLET NOTE:
ALL STORM DRAIN INLETS SHALL INCLUDE A STORM WATER INLET CONCRETE STAMP IN ACCORDANCE WITH CCAUSD DWG NO. 421

SANITATION SEWER NOTES
1. ALL SEWER STATIONING IS BASED ON CENTER OF PIPE LENGTHS FROM MANHOLE TO MANHOLE AND IS NOT RELATIVE IN ANY WAY TO STREET CENTERLINE STATIONING. STREET CENTERLINE STATIONING IS SHOWN ON PLAN FOR ROAD REFERENCE ONLY.
2. ALL MANHOLES ARE 48" SIZED MANHOLES PER DCSWCS SD-1, UNLESS OTHERWISE NOTED ON PLAN.
3. ALL MANHOLES ARE TO BE CONSTRUCTED PER DCSWCS SD-1A AND SD-1B.
4. ALL MANHOLE COVERS AND FRAMES ARE TO BE CONSTRUCTED PER DCSWCS SD-2.
5. ALL MANHOLE COLLARS ARE TO BE CONSTRUCTED PER DCSWCS SD-4.
6. ALL SEWER LATERAL CONNECTIONS TO SEWER MAINS ARE TO BE CONSTRUCTED PER DCSWCS SD-22 UNLESS OTHERWISE NOTED ON PLAN.

WATER CONSTRUCTION NOTES
ALL DIMENSIONS TO UTILITIES ARE TO CENTERLINE OF PIPE UNLESS INDICATED OTHERWISE.
CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.
ALL EXISTING UTILITY STRUCTURES WITHIN CONSTRUCTION AREA SHALL BE ADJUSTED TO MATCH FINISH GRADE (I.E. VV, BOX, MH, ANNOUE BOX, RHT, TEL BOX, ETC.).
1. WATER LINE STATIONING IS BASED ON THE CENTERLINE OF STREET RIGHT OF WAY.
2. WATER LINE SHALL BE C-900 PVC APPROVED BY THE LAS VEGAS VALLEY WATER DISTRICT.
3. EXISTING ASPHALT SHALL BE REMOVED AND REPLACED PER CITY OF LAS VEGAS SPECIFICATIONS. BACKFILL AND INSTALL PERMANENT PATCH PER CITY STANDARD FOR THIS PLAN.
4. SEE SHEET NT FOR PUBLIC UTILITY NOTES AND GENERAL WATER CONSTRUCTION NOTES.
5. ALL WATER LINE IN STREET RIGHT OF WAY IS PUBLIC WATER SYSTEM AND MUST BE INSPECTED BY THE LAS VEGAS VALLEY WATER DISTRICT.

WATER PRESSURE ZONE:
WATER SERVICE LOCATED IN THE 3550 PRESSURE ZONE.

WATER MAIN COVER NOTE:
ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.06

WATERLINE TRENCH NOTE:
CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.

LAS VEGAS FIRE & RESCUE APPROVAL
BY: _____ DATE: _____
APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW 1500 GPM AT 20 P.S.I. RESIDUAL.

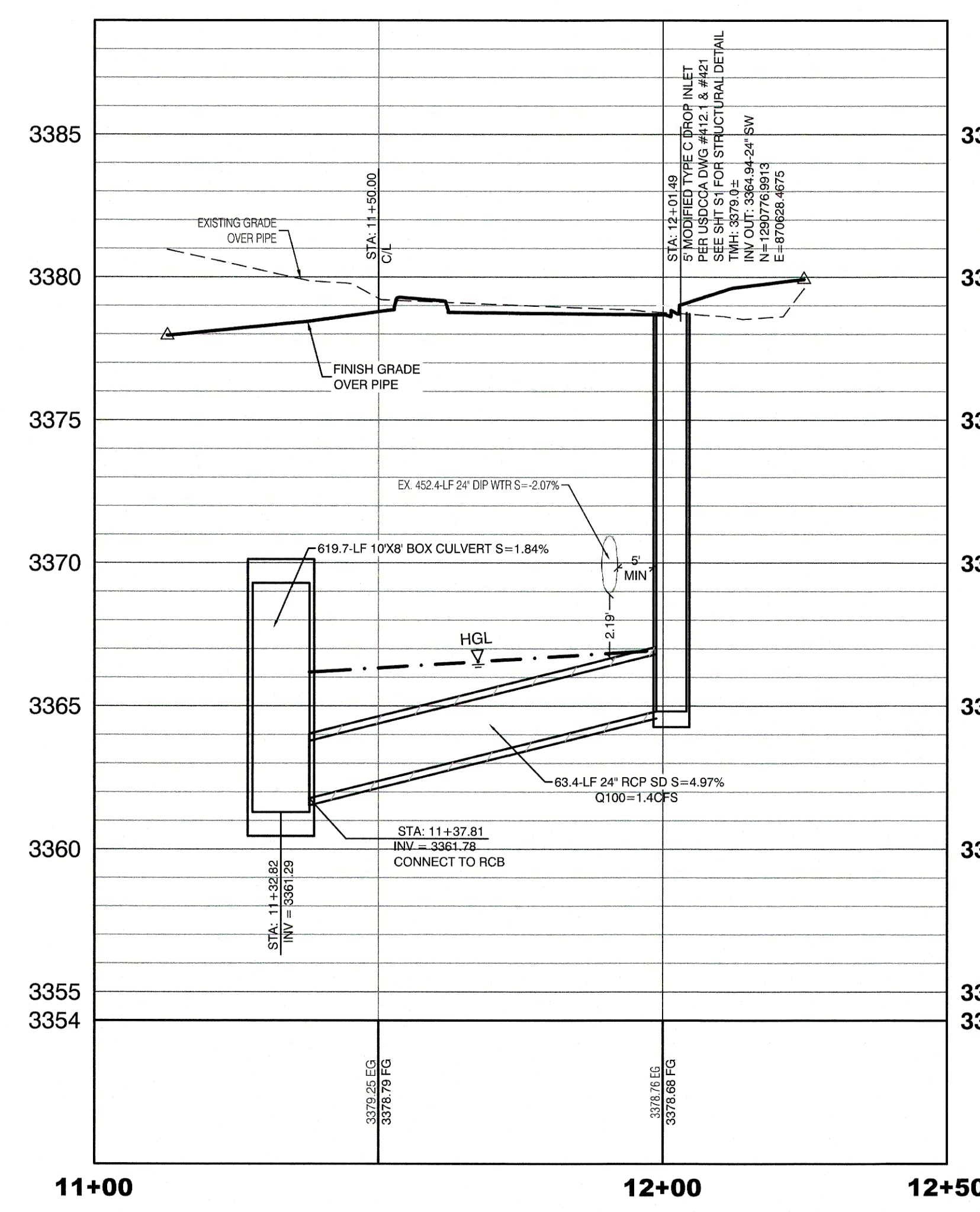
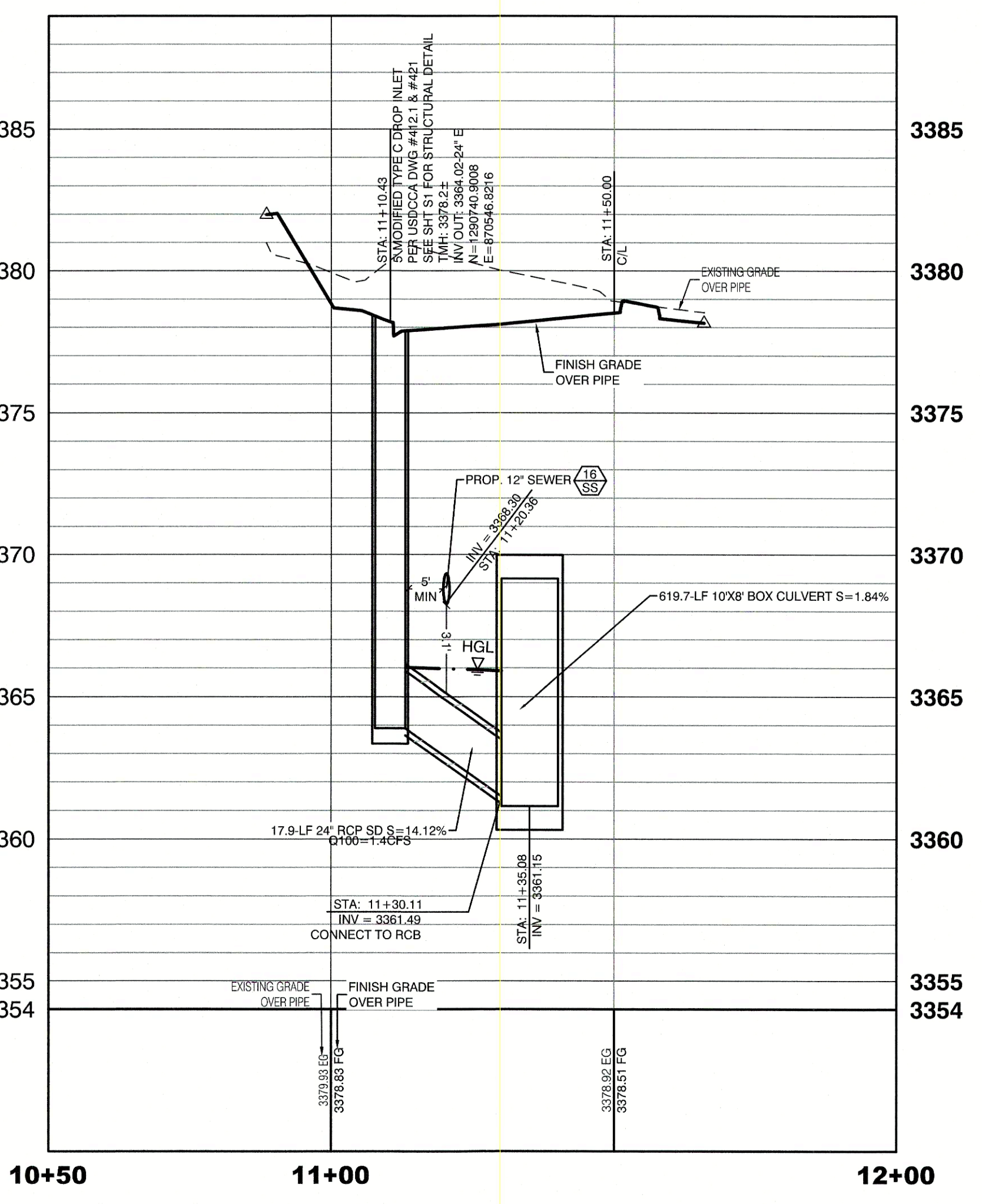
WATER MAIN JOINT DEFLECTION
PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY, THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.02.
FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

FIRE HYDRANT MARKER NOTES
BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED:
1. ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE, LOCATE MARKER 8' FROM FACE OF CURB ON HYDRANT SIDE.
2. ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE, LOCATE MARKER 16' FROM FACE OF CURB ON HYDRANT SIDE.

ENGINEER DISCLAIMER NOTE:
UTILITY LOCATIONS SHOWN HERE ON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT HORIZONTAL AND VERTICAL LOCATION OF ALL EXISTING UNDERGROUND AND OVERHEAD UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL EXISTING UTILITIES ARE SHOWN HERE ON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.

TYPICAL WATER NOTES
1. MAINTAIN A MINIMUM OF 12-INCHES VERTICAL SEPARATION AT ALL POINTS OF UTILITY CROSSINGS.
2. MAINTAIN A MINIMUM OF 3-Feet PARALLEL SEPARATION FROM ADJACENT UTILITIES.
ANY EXCAVATION AT THE BACK OF A CURB MUST REMAIN OPEN FOR INSPECTION OF THE COPPER SERVICE.
3. LATERALS. ANY COPPER SERVICE LATERAL WHICH IS KINKED, BENT OR OTHERWISE DAMAGED MUST BE REPLACED FROM THE MAIN TO THE ANGLE METER STOP. CAUTION MUST BE EXERCISED NEAR ANY EXCAVATION AROUND AN EXISTING FIRE HYDRANT IN ORDER TO AVOID DISTURBING THE THRUST BLOCK AND SURROUNDING SOIL.
4. SUPPORTING THE THRUST BLOCK. THIS PREVENTS THE POSSIBILITY OF THE HYDRANT SEPARATING FROM THE LATERAL. PROVIDE A DETAIL OF THE PROPOSED INSTALLATION SHOWING ADEQUATE CLEARANCES TO AVOID DISTURBING EXISTING LVWD FACILITIES.

NOTE:
5' MINIMUM HORIZONTAL SEPARATION FROM OUTSIDE EDGE OF THE WATER MAIN TO OUTSIDE EDGE OF DROP INLET



ENGINEER DISCLAIMER NOTE:
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TYPICAL WATER NOTES
1. MAINTAIN A MINIMUM OF 12-INCHES VERTICAL SEPARATION AT ALL POINTS OF UTILITY CROSSINGS.
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NOTE:
5' MINIMUM HORIZONTAL SEPARATION FROM OUTSIDE EDGE OF THE WATER MAIN TO OUTSIDE EDGE OF DROP INLET

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT:136301 FIRST APPROVED DATE: _____
LVWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM
LVWD APPROVAL IS VALID FOR ONE (1) YEAR FROM SIGNATURE DATE. IF CONSTRUCTION IS NOT STARTED, PLANS **MUST** BE RESUBMITTED FOR REVIEW AND APPROVAL.

Call before you Dig

Avoid hitting overhead power lines. It's costly.

811

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AND

1-702-455-6000

CLARK COUNTY TRAFFIC OPERATIONS

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AND

1-702-455-6000

CLARK COUNTY TRAFFIC OPERATIONS

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89146
PH. (702) 877-7550 FAX (702) 362-2597 WEB WWW.HHCC.COM
702-791-1000

CITY OF LAS VEGAS
LAS VEGAS, NEVADA 89135
702-791-1000

UTILITY LATERAL SHEET 19
SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA

DRAWN BY: BCC
DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO: 7551

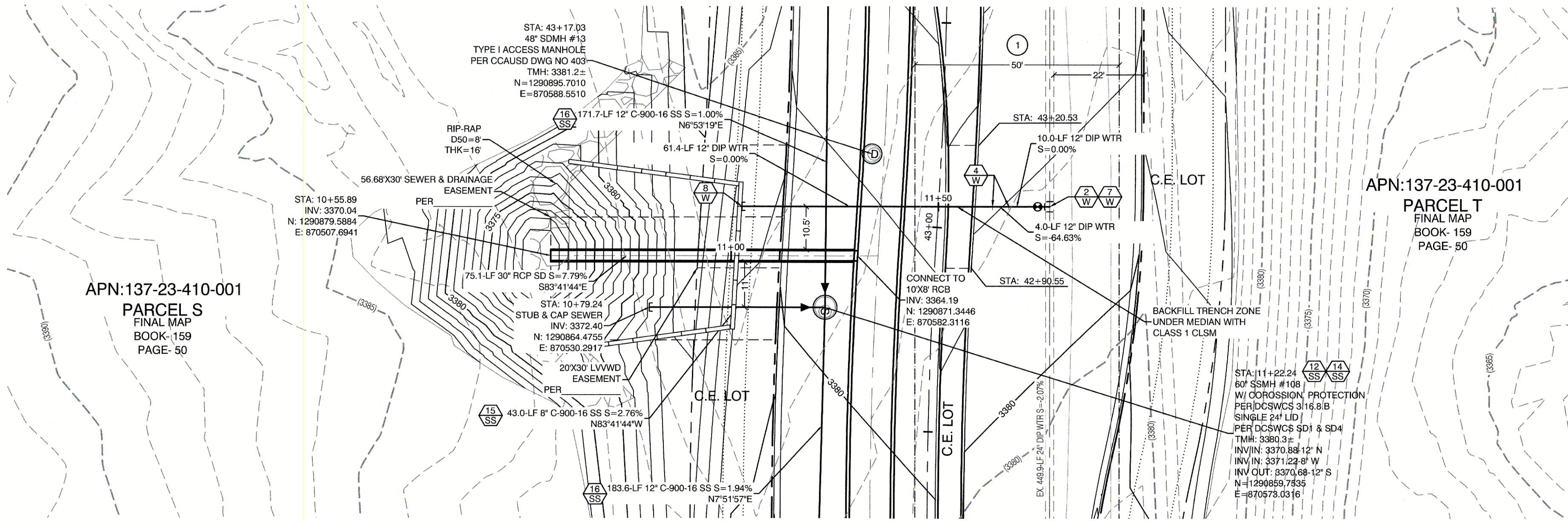
DATE: 08/02/2018
DATE: 08/02/2018
DATE: 09/15/2019

SCALE: 1"=20' HORIZ.
1"=4' VERT.

WILLIAM J. MEYER
EXP. 10/31/21
CIVIL
No. 15745
8/2/20
SHEET
33 OF 40 SHEETS
DRAWING NO. L19-00350
10/7/2018

REVISION
DATE
BY
UPDATE QTY'S
CP
12/05/2019
BY

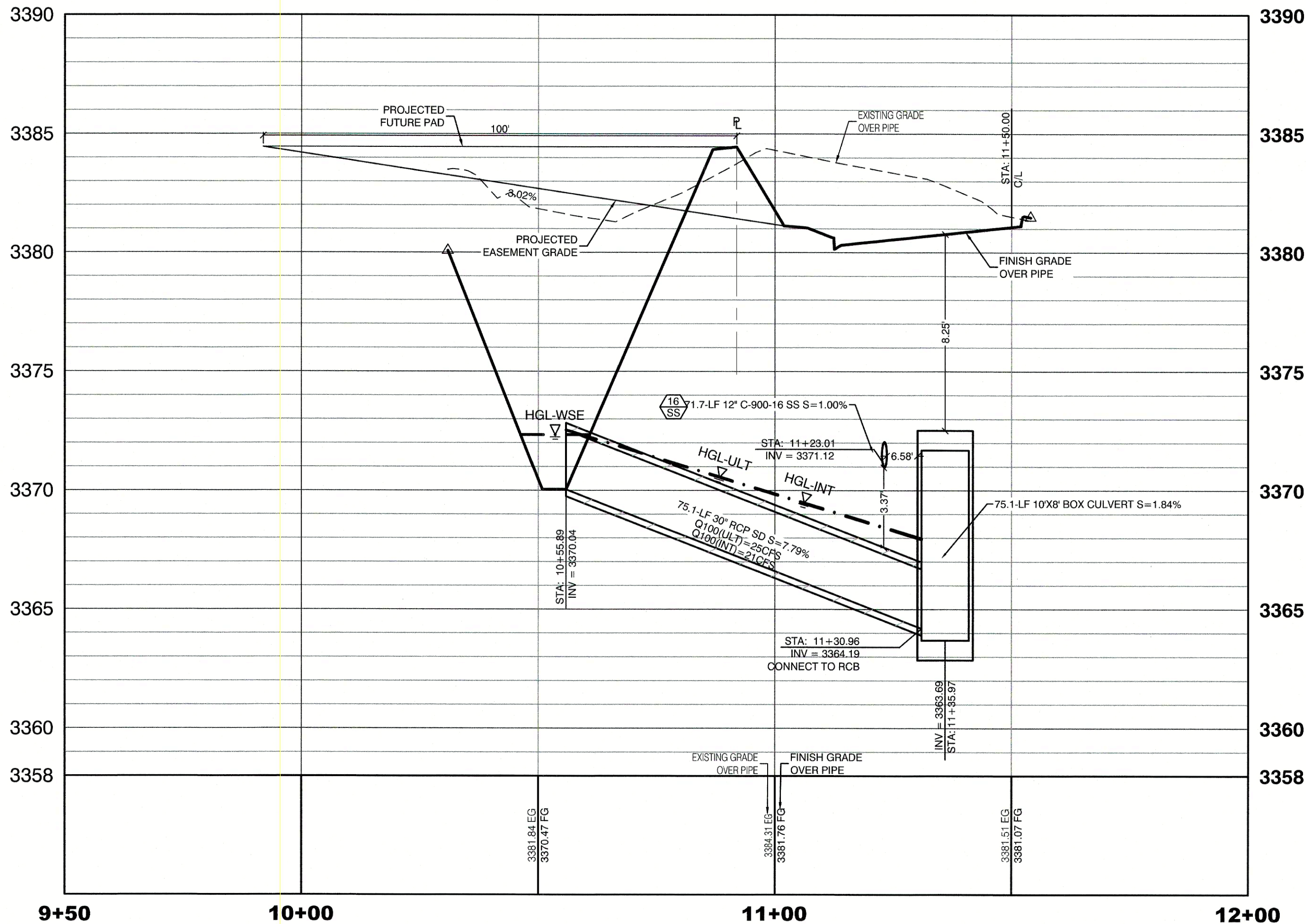
H:\7551\Desert Foothills\Sheet A to Summerlin Pkg\Sheet\Sheet\7551-UT 19.dwg, 2/19/2020 8:57 AM, chp



DESERT FOOTHILLS
(PUBLIC)

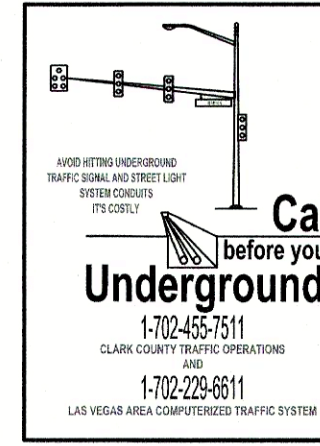
PROFILE SCALES:
HORIZ. = 1"=20'
VERT. = 1"=4'

(SEE SHEET UT5 FOR REFERENCE)



APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT:136301 FIRST APPROVED DATE: _____
LVVWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM
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CONSTRUCTION IS NOT STARTED, PLANS **MUST** BE RESUBMITTED FOR REVIEW AND
APPROVAL.



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Avoid cutting overhead
utility lines. It's costly.
811
OR
1-800-227-2600
AND
1-702-455-6000
CLARK COUNTY TRAFFIC
OPERATIONS

CONSTRUCTION NOTES		
WATER		
	FIRE HYDRANT ASSEMBLY: (PER UDACS PLATE NO. 30, 39, 40 & 41) INCLUDING 24" X 6" TAPPING SLEEVE WITH 6" TAPPING VALVE PER UDACS PLATE NO. 34 & SECTION 2.24.01B	3 EA.
	12" GATE VALVE (PER UDACS PLATE 30 & 39)	9 EA.
	6" 45° VERTICAL BEND (PER UDACS PLATE 31)	2 EA.
	12" 45° VERTICAL BEND (PER UDACS PLATE 31)	16 EA.
	12" 45° BEND (PER UDACS PLATE 31)	6 EA.
	12" 90° BEND (PER UDACS PLATE 31)	2 EA.
	24"X12" TAPPING SLEEVE W/12" TAPPING VALVE (PER UDACS PLATE 30, 34 & 39 & PER SECTION 2.24.01B)	9 EA.
	12" CAP & BLOW OFF (PER UDACS PLATE 36)	9 EA.
1.5" TYPE K SOFT COPPER WATER LATERAL SERVICE WITH 1.5" SUMMERLIN COUNCIL METER PER IRRIGATION MASTER PLAN AND UDACS PLATE #4 (IRRIGATION) AND 1.5" RPPA PER UDACS PLATE #8 (PER DETAIL SHEET 011)		
	6"X1.5" SERVICE SADDLE W/ CORP STOP PER UDACS PLATE 4.	2 EA.
	6" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17	127 LF.
	12" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17	274 LF.
	12" DIP WATER MAIN PER UDACS 2.06.01 & PLATE 17	277 LF.
	WATER POINT OF CONNECTION	2
SEWER		
	48" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	4 EA.
	60" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	4 EA.
	72" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	1 EA.
	CORROSION PROTECTION	
	8" C-900-16 SANITARY SEWER MAIN	184 LF.
	12" C-900-16 SANITARY SEWER MAIN	1,711 LF.
	SEWER POINT OF CONNECTION	

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UTILITY CROSSING NOTE:
ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR PORTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES.

SIGHT VISIBILITY ZONES:
NO STRUCTURE, WALLS, VEGETATION, OR OBJECT OF ANY KIND IS PERMITTED OVER TWENTY-FOUR (24) INCHES IN HEIGHT (MEASURED FROM THE TOP OF ADJACENT CURB IF CURB EXISTS) WITHIN THE SIGHT VISIBILITY ZONES.

WATER LINE MARKER BALLS NOTE
INSTALL PIPELINE MARKER BALLS IN TRENCH ABOVE EACH HORIZONTAL ELBOW FITTING, PER UDACS PLATE NO. 15

EASEMENT REFERENCE LEGEND	
	50' WIDE LAS VEGAS VALLEY WATER DISTRICT EASEMENT GRANTED PER OR: 20070529.0001401. STA:28+75.21 TO STA:44+56.10
SANITATION SEWER NOTES	
1.	ALL SEWER STATIONING IS BASED ON CENTER OF PIPE LENGTHS FROM MANHOLE TO MANHOLE AND IS NOT RELATIVE IN ANY WAY TO STREET CENTERLINE STATIONING. STREET CENTERLINE STATIONING IS SHOWN ON PLAN FOR ROAD REFERENCE ONLY.
2.	ALL MANHOLES ARE 48" SIZED MANHOLES PER DCSWCS SD-1, UNLESS OTHERWISE NOTED ON PLAN.
3.	ALL MANHOLES ARE TO BE CONSTRUCTED PER DCSWCS SD-1A AND SD-1B.
4.	ALL MANHOLE COVERS AND FRAMES ARE TO BE CONSTRUCTED PER DCSWCS SD-2.
5.	ALL MANHOLE COLLARS ARE TO BE CONSTRUCT PER DCSWCS SD-4.
6.	ALL SEWER LATERAL CONNECTIONS TO SEWER MAINS ARE TO BE CONSTRUCTED PER DCSWCS SD-22 UNLESS OTHERWISE NOTED ON PLAN.
WATER CONSTRUCTION NOTES	
ALL DIMENSIONS TO UTILITIES ARE TO CENTERLINE OF PIPE UNLESS INDICATED OTHERWISE.	
CONTRACTOR SHALL VERIFY HORIZONTAL AND VERTICAL LOCATION OF EXISTING UTILITIES AND NOTIFY THE DESIGN ENGINEER IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO CONSTRUCTION.	
ALL EXISTING UTILITY STRUCTURES WITHIN CONSTRUCTION AREA SHALL BE ADJUSTED TO MATCH FINISH GRADE (I.E. W.V. BOX, M.H. ANNOUE BOX, P.H. TEL BOX, ETC.).	
1.	WATER LINE STATIONING IS BASED ON THE CENTERLINE OF STREET RIGHT OF WAY
2.	WATER LINE SHALL BE C-900 PVC APPROVED BY THE LAS VEGAS VALLEY WATER DISTRICT.
3.	EXISTING ASPHALT SHALL BE REMOVED AND REPLACED PER CITY OF LAS VEGAS SPECIFICATIONS. BACKFILL AND INSTALL PERMANENT PATCH PER CITY STANDARD FOR THIS PLAN.
4.	SEE SHEET NT FOR PUBLIC UTILITY NOTES AND GENERAL WATER CONSTRUCTION NOTES.
5.	ALL WATER LINE IN STREET RIGHT OF WAY IS PUBLIC WATER SYSTEM AND MUST BE INSPECTED BY THE LAS VEGAS VALLEY WATER DISTRICT.

WATER PRESSURE ZONE:
WATER SERVICE LOCATED IN THE 3550 PRESSURE ZONE.

WATER MAIN COVER NOTE:
ALL NEW WATER MAIN TO HAVE MINIMUM DEPTH OF COVER PER UDACS SECTION 2.08

WATERLINE TRENCH NOTE:
CONSTRUCT WATERLINE TRENCH SECTION AND BACKFILL PER UDACS PLATE NO. 17.

LAS VEGAS FIRE & RESCUE APPROVAL
BY: _____ DATE: _____
APPROVAL OF THESE PLANS SHALL NOT BE CONSTRUED TO BE A PERMIT FOR, OR AN APPROVAL OF, ANY VIOLATION OF ANY OF THE PROVISIONS OF THE STATE OR COUNTY LAWS. FIRE FLOW 1500 GPM AT 20 P.S.I. RESIDUAL.

WATER MAIN JOINT DEFLECTION
PVC PIPE SHALL BE DEFLECTED AT THE JOINT ONLY. THE MAXIMUM ALLOWABLE DEFLECTION SHALL BE ONE (1) DEGREE PER JOINT WITH A MINIMUM RADIUS OF CURVATURE OF 1,150 FEET, PER UDACS 2.07.01 AND 2.07.02.
FOR CHANGES IN DIRECTION EXCEEDING THE MAXIMUM ALLOWABLE JOINT DEFLECTION, FITTINGS SHALL BE USED.

FIRE HYDRANT MARKER NOTES
BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED:
1. ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE; LOCATE MARKER 6" FROM FACE OF CURB ON HYDRANT SIDE.
2. ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE; LOCATE MARKER 16" FROM FACE OF CURB ON HYDRANT SIDE.

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY
2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89146
PH: (702) 872-7550 FAX: (702) 382-2597
WWW.HHC.COM
LAS VEGAS, NEVADA 89135
702-791-1000

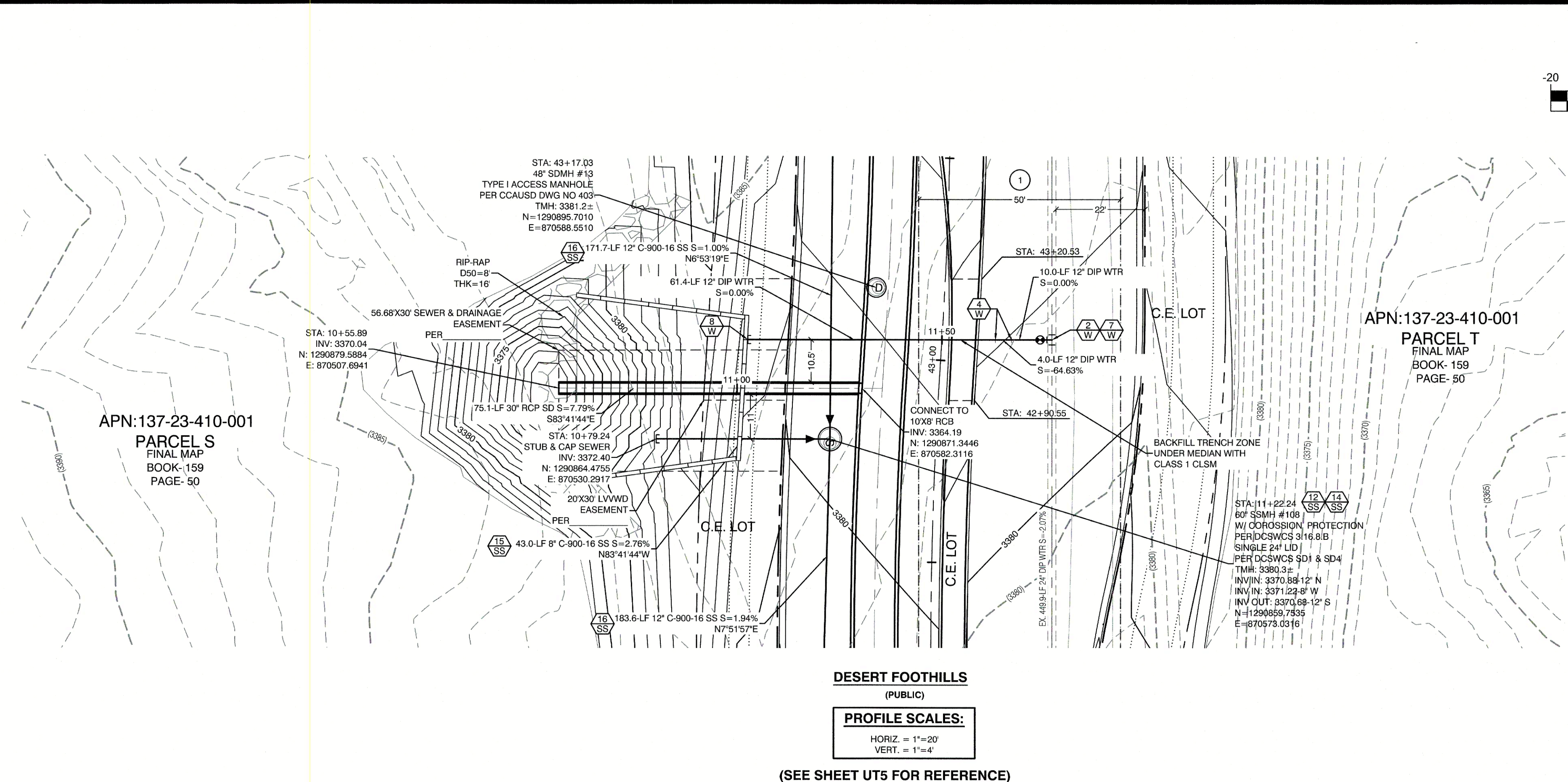
CITY OF LAS VEGAS
LAS VEGAS, NEVADA 89146
PH: (702) 872-7550 FAX: (702) 382-2597
WWW.VNVM.COM
LAS VEGAS, NEVADA 89135
702-791-1000

UTILITY LATERAL SHEET 20
SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA

DRAWN BY: ECC
DESIGNED BY: ECC
CHECKED BY: WJM
PROJECT NO: 7551
DATE: 08/02/2018
SCALE: 1"=20'
HORIZ. 1"=4'
VERT. 1"=4'

WILLIAM J. MEYER
EXP: 10/31/21
CIVIL
No. 19745
8/27/20
SHEET
UT20
34 OF 40 SHEETS
DRAWING NO. L19-00350
10/7/2023

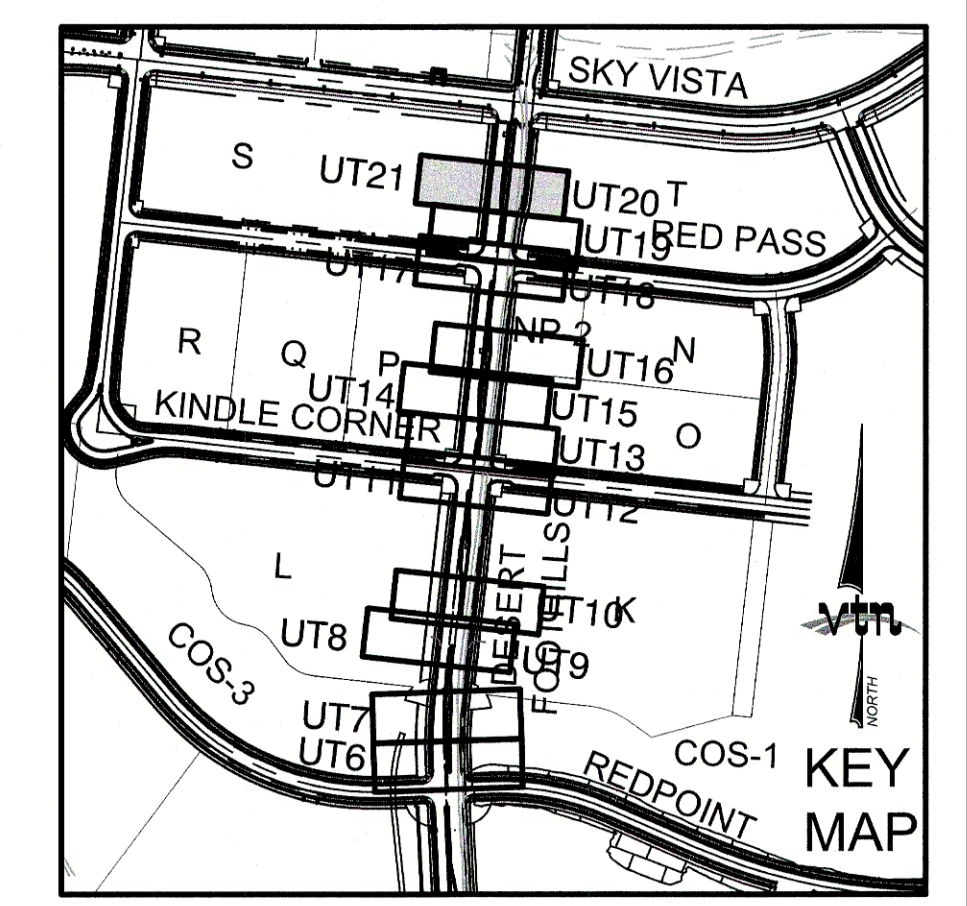
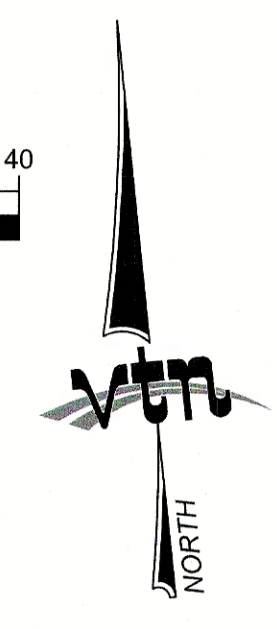
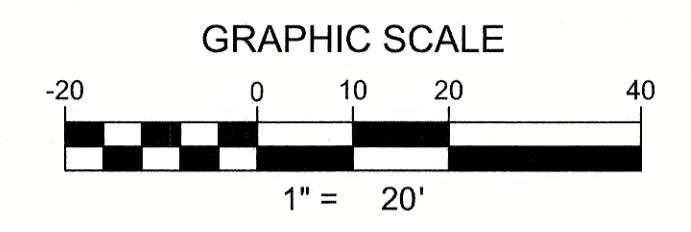
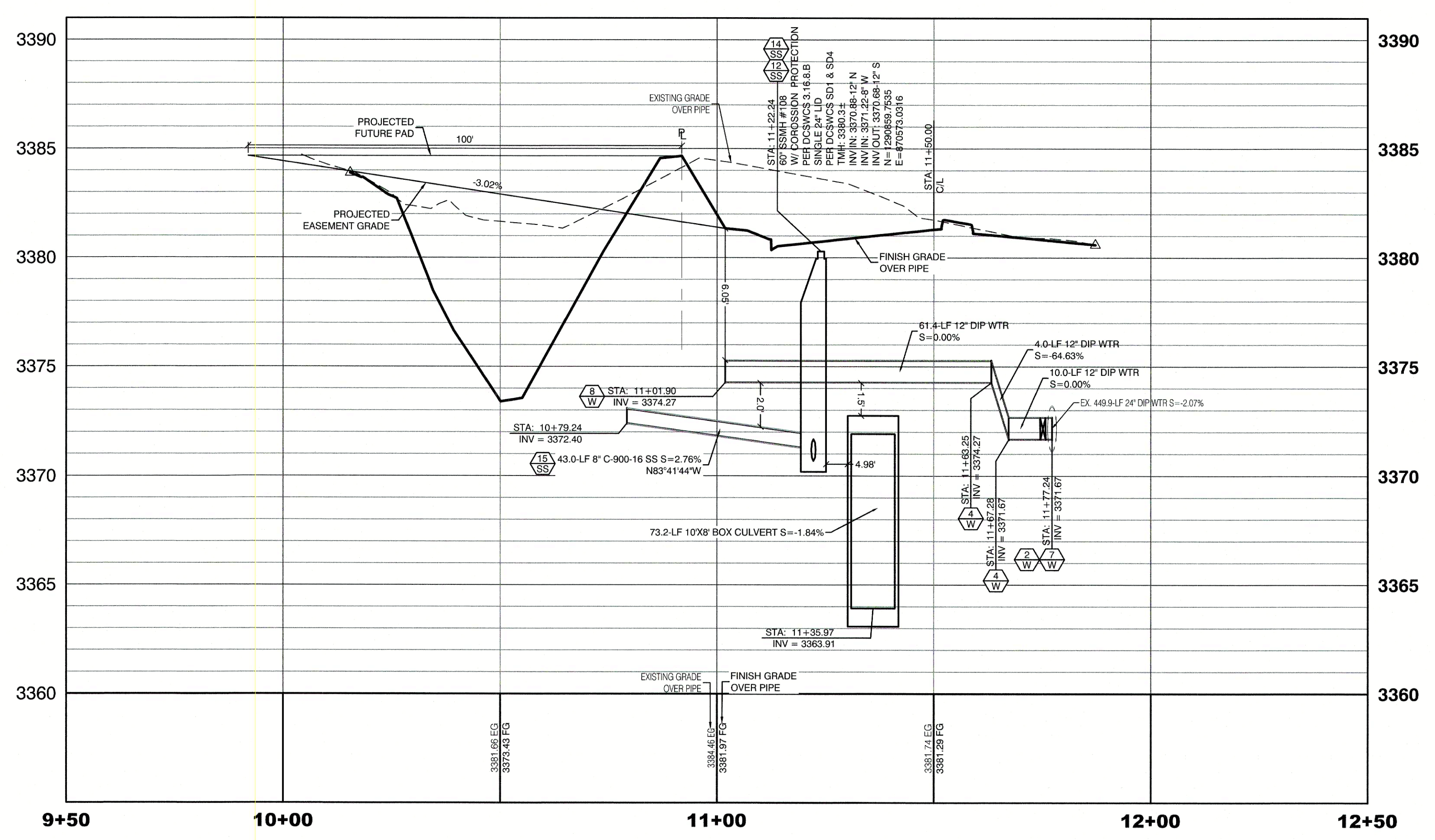
REVISION
DATE
BY
CP
UPDATE QTY'S
12/05/2019



APN:137-23-410-001
PARCEL S
FINAL MAP
BOOK- 159
PAGE- 50

APN:137-23-410-001
PARCEL T
FINAL MAP
BOOK- 159
PAGE- 50

DESERT FOOTHILLS
(PUBLIC)
PROFILE SCALES:
HORIZ. = 1"=20'
VERT. = 1"=4'
(SEE SHEET UT5 FOR REFERENCE)



CONSTRUCTION NOTES	
WATER	
1. FIRE HYDRANT ASSEMBLY: (PER UDACS PLATE NO. 30, 39, 40 & 41) INCLUDING 24" X 6" TAPPING SLEEVE WITH 6" TAPPING VALVE PER UDACS PLATE NO. 34 & SECTION 2.24.01B	3 EA.
2. 12" GATE VALVE (PER UDACS PLATE 30 & 39)	9 EA.
3. 6" 45° VERTICAL BEND (PER UDACS PLATE 31)	2 EA.
4. 12" 45° VERTICAL BEND (PER UDACS PLATE 31)	16 EA.
5. 12" 45° BEND (PER UDACS PLATE 31)	8 EA.
6. 12" 90° BEND (PER UDACS PLATE 31)	2 EA.
7. 24"X12" TAPPING SLEEVE W/12" TAPPING VALVE (PER UDACS PLATE 30, 34 & 39 & PER SECTION 2.24.01B)	9 EA.
8. 12" CAP & BLOW OFF (PER UDACS PLATE 36)	9 EA.
9. 1.5" TYPE K SOFT COPPER WATER LATERAL SERVICE WITH 1.5" SUMMERLIN COUNCIL METER PER IRRIGATION MASTER PLAN AND UDACS PLATE #4 (IRRIGATION) AND 1.5" RPPA PER UDACS PLATE #8 (PER DETAIL SHEET 011)	2 EA.
10. 6"X1.5" SERVICE SADDLE W/ CORP STOP PER UDACS PLATE 4.	2 EA.
11. 6" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17	127 LF.
12. 12" C-900 WATER MAIN PER UDACS 2.06.01 & PLATE 17	274 LF.
13. 12" DIP WATER MAIN PER UDACS 2.06.01 & PLATE 17	277 LF.
WATER POINT OF CONNECTION	
SEWER	
14. 48" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	4 EA.
15. 60" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	4 EA.
16. 72" STANDARD MANHOLE PER SD-1 & SD-4 W/ SINGLE 24" LID	1 EA.
CORROSION PROTECTION	
17. 8" C-900-16 SANITARY SEWER MAIN	184 LF.
18. 12" C-900-16 SANITARY SEWER MAIN	1,711 LF.
SEWER POINT OF CONNECTION	

EASEMENT REFERENCE LEGEND	
1. 50' WIDE LAS VEGAS VALLEY WATER DISTRICT EASEMENT GRANTED PER OR. 20070529-0001401. STA:28+75.21 TO STA:44+56.10	
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LAS VEGAS FIRE & RESCUE APPROVAL	
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BLUE COLORED REFLECTIVE RAISED PAVEMENT MARKERS ARE TO BE INSTALLED:	
1. ON ROADWAYS WITH NO PARKING PERMITTED ON HYDRANT SIDE, LOCATE MARKER 8' FROM FACE OF CURB ON HYDRANT SIDE.	
2. ON ROADWAYS WITH PARKING PERMITTED ON HYDRANT SIDE, LOCATE MARKER 16' FROM FACE OF CURB ON HYDRANT SIDE.	

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1-702-228-8611
LAS VEGAS AREA COMPUTERIZED TRAFFIC SYSTEM

Call before you Dig
1-702-227-2929

Call before you Dig
1-800-227-2800
1-702-455-6000
CLARK COUNTY TRAFFIC OPERATIONS

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT:136301 FIRST APPROVED DATE: 8/22/20

LVWD APPROVED FIRE FLOW: TOTAL 1500 GPM/ONSITE N/A GPM

LVWD APPROVAL IS VALID FOR ONE (1) YEAR FROM SIGNATURE DATE. IF CONSTRUCTION IS NOT STARTED, PLANS **MUST** BE RESUBMITTED FOR REVIEW AND APPROVAL.

WILLIAM J. MEYER
EXP. 12/31/21
CIVIL
No. 15745

35 OF 40 SHEETS

DRAWING NO. L19-00350 107V7663

HOWARD HUGHES COMPANY, LLC
A DELAWARE LIMITED LIABILITY COMPANY

CITY OF LAS VEGAS

2727 SOUTH RAINBOW BOULEVARD
LAS VEGAS, NEVADA 89146-5148
PH. (702) 879-7550 FAX. (702) 362-3597 WEB WWW.VTNV.COM
CONSULTING ENGINEERS • PLANNERS • LAND SURVEYORS

UTILITY LATERAL SHEET 21

SUMMERLIN WEST VILLAGE 21
DESERT FOOTHILLS DRIVE
REDPOINT TO SKY VISTA

DRAWN BY: BCC
DESIGNED BY: BCC
CHECKED BY: WJM
PROJECT NO: 7851

DATE: 08/02/2018
DATE: 08/02/2018
DATE: 09/15/2019

SCALE: 1"=20'
1"=4'

SHEET
UT21
35 OF 40 SHEETS

DRAWING NO. L19-00350 107V7663