DS #: 5068-1

APN: 139-34-110-012

PROJECT: Symphony Park Residential Update

SUBMITTAL: 3rd

SCANNED BY/DATE:

CHECKED BY/DATE:

CITY OF LAS VEGAS NEVADA

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM				DATE: September 24, 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:			**COPIES TO:**
Symphony Park Residential Update – A.K.A. Aspen Heights				Kimley Horn and Associates Inc.
Cross Streets:	NEC Symphony Park Avenue & City Parkway			Breckenridge Group Las Vegas Nevada LLC
File Number:	F:\Depot\DSMemos\DS5068D.doc			Bart Anderson, P.E., DevCo
Parcel Number:	139-34-110-012			
Zoning Action:	SDR-73538			
FEMA Flood Zone	YES	NO **X**		
Proposed Storm Drain	YES **X**	NO		

HISTORY	DATE RECEIVED	DATE REVIEWED	COMMENTS	REVIEW FEES	FEES PAID Payment Trn #
1st Submittal	11/15/2018	11/28/2018 & 12/5/2018	Not Approved	$400.00	501052: $400
2nd Submittal	12/27/2019	1/9/2019	Not Approved	$400.00	502012: $400
Supplement	1/23/2019	1/24/2019	Approved	N/C	N/C
3rd Submittal	9/23/2019	9/24/2019	See Comments Below	$100.00	3576552: $100
			TOTAL FEES (LDDRS):	**$900.00**	**----**

REMARKS:

3rd Submittal: Update to address minor onsite revision

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

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

The following conditions are repeated until they are complete:

1. The proposed 15'-public drainage easement must be dedicated and recorded by separate document prior to the final approval of improvement plans.
2. Clearly label on the grading plans and the recording document that the surface of the proposed 15'-public drainage easement is privately maintained by the property owner.
3. ***City of Las Vegas*** does not allow HDPE pipe in public right-of-ways or public drainage easements. Note that ***City of Las Vegas*** only allows the use of HDPE storm drain pipes for privately owned and privately maintained storm drain systems which serve and are located exclusively on private properties. Any proposed HDPE storm drain pipes must also meet all design criteria established by the *Clark County Regional Flood Control District* and must be installed per *Clark County Regional Transportation Commission Uniform Standard Drawings and Specifications.*

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/R61E/34
AREA M-34

Kimley»Horn

September 20, 2019
KH Project No: 192008001

Mr. Albert Sung, P.E.
City of Las Vegas Flood Control
333 Rancho Drive
Las Vegas, NV 89106

RE: ***Technical Drainage Study Update Symphony Park Residential (A Portion of APN: 139-34-110-012) (DS5068C)***

Dear Mr. Sung,

We have included one (1) set of the revised information and plans as well as 1 (one) CD containing the identical information included in this Technical Drainage Study Update.

Please contact me at (720)-399-8534 or brice.hammersland@kimley-horn.com should you have any questions or concerns.

Sincerely,

PROFESSIONAL ENGINEER - STATE OF NEVADA
BRICE HAMMERSLAND
Exp: 6/30/21
CIVIL
No. 025841

Brice Hammersland, P.E.

9-20-19

Kimley»Horn

MEMORANDUM

To: Mr. Albert Sung, P.E.
City of Las Vegas-Department of Public Works
Flood Control Section

From: Brice Hammersland, P.E., CFM
Kimley-Horn and Associates, Inc.

Date: 9 September 2019

Subject: Symphony Park Residential TDS Update
Revision to Onsite Grading, no Effect on Drainage Patterns (DS 5068C)

The Symphony Park Residential project has made some minor changes to the site plan that do not affect drainage patterns. The specific changes are:

- Overall Building foot print shifted slightly
- Updated onsite grading which was minor to reflect the building shift. Grading did not impact drainage patterns.
- Wall along the east side of East Frontage Street was raised to provide additional safety for vehicles.
- A small portion of the East Frontage Street located offsite was added to proposed drainage area PR05. The area added was not large enough to change the overall drainage area of 0.4 acres therefore, it did not increase the flow going to the proposed inlet located along East Frontage Street in the southeast corner of the site.
- Drainage patterns remain the same.

The site layout changes have no effect to the drainage patterns or quantities of flow from the TDS (DS 5068C) approved by the City on January 24, 2019.

Please contact Thomas Ackeret at (702) 862-3608 or thomas.ackeret@kimley-horn.com if you have any questions.

HYDROLOGIC CRITERIA AND DRAINAGE MANUAL

DRAINAGE STUDY INFORMATION FORM

Name of Development: Symphony Park Residential (Aspen Heights) Date: 9/20/19

Location of Development: a) Descriptive (Cross Streets) North/South: West Carson Avenue

East/West: S City Parkway

b) Section: 34 Township: 20 Range: 61

c) APN : 139-34-110-012

Name of Owner: Breckenridge Group Las Vegas Nevada, LLC

Telephone No.: 512-910-3561 Fax No.: _____ E-Mail Address: pbrennan@ahpliving.com

Address: 1301 S. Capital of Texas Highway, Ste. B-201, Austin, Texas 78746

Contact Person-Name: Brice Hammersland, P.E. **Telephone No.:** 480-207-2676

* **E-Mail Address:** brice.hammersland@kimley-horn.com **Fax No.:** None

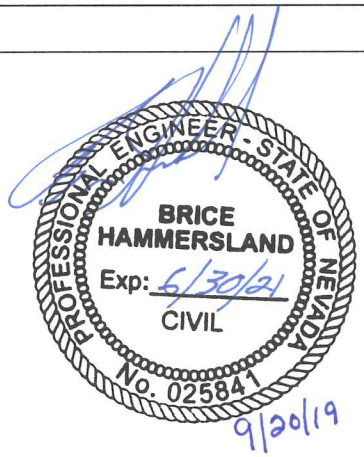
Firm: Kimley-Horn and Associates, Inc.

Address: 6671 Las Vegas Boulevard South, Suite 320, Las Vegas, NV 89119

Type of Land Development/Land Disturbance Process:

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

1. Total Owned Land Area: At Site: 3.7 ac Being Developed/Disturbed: 3.7 ac
2. Is a portion or all of the subject property located in a designated FEMA Flood Hazard Area? ☐ **Yes**** ☑ **No**
3. Is the property bordered or crossed by an existing or proposed Clark County Regional Flood Control District Master Planned Facility? ☐ **Yes**** ☑ **No**
4. Proposed type of development (Residential, Commercial, Etc.): Commercial
5. Approximate upstream land area which drains to the subject site: Approx 5 ac
6. Has the site drainage been evaluated in the past? ☑ **YES** ☐ **NO** If yes, please identify documentation: 61 Acres @ Grand Central Parkway, Union Park Update, Symphony Park at Union Park
7. If known, please briefly identify the proposed discharge point(s) of runoff from the site: Maintaining existing drainage patterns, site drains from the southwest to the northeast
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: KH Project # 192008001

STANDARD FORM 1

Updated 05/01/2008

CITY OF LAS VEGAS INTER-OFFICE MEMORANDUM				DATE: January 24, 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: **Symphony Park Residential – A.K.A. Aspen Heights**			**COPIES TO:** Kimley Horn and Associates Inc.
Cross Streets:	NEC Symphony Park Avenue & City Parkway			Breckenridge Group Las Vegas Nevada LLC
File Number:	F:\Depot\DSMemos\DS5068C.doc			Bart Anderson, P.E., DevCo
Parcel Number:	139-34-110-012			
Zoning Action:	SDR-73538			
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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Supplement	1/23/2019	1/24/2019	See Comments Below	N/C	N/C
			TOTAL FEES (LDDRS):	**$800.00**	**----**

REMARKS:

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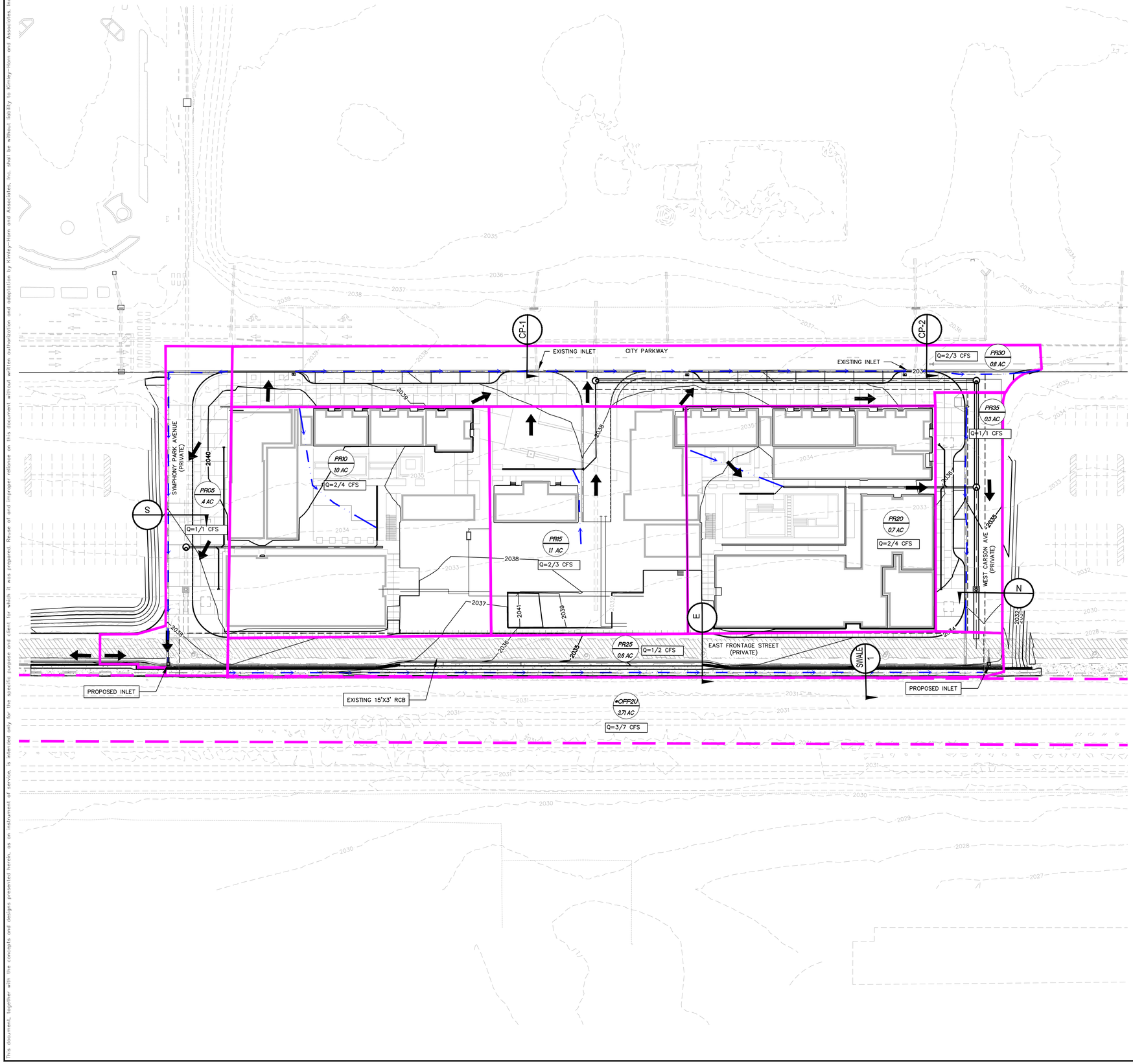
END OF REMARKS
WSP/AYS

T/R/S: T20S/R61E/34
AREA M-34



NORTH

GRAPHIC SCALE IN FEET
0 20 40 80

SCALE: 1" = 40'

LEGEND

- XX / XX-X — BASIN ID / BASIN AREA (ACRES)
- *ULTIMATE BASIN BOUNDARY
- BASIN BOUNDARY
- FLOWPATH
- FLOW ARROW
- xx/xxx — 10YR/100YR CFS SURFACE FLOW ARROW
- (xx CFS) [xx CFS] — 100YR REFERENCED STORM DRAIN FLOW / 100YR DESIGN STORM DRAIN FLOW
- XX / X — SECTION ID

FLOW SUMMARY TABLE

SYMPHONY PARK RESIDENTIAL			
BASIN ID	BASIN AREA	10-YR FLOW	100-YR FLOW
	(ac)	(cfs)	(cfs)
PR05	0.40	1	1
PR10	1.00	2	4
PR15	1.10	2	3
PR20	0.70	2	4
PR25	0.60	1	2
PR30	0.80	2	3
PR35	0.30	1	1
*OFF2U	3.71	3	7

*DRAINAGE AREA AND FLOWS FROM THE TECHNICAL DRAINAGE STUDY FOR: UNION PARK, JANUARY 2008 (DS4486)

STREET SECTIONS

SECTION	Q_{10} (cfs)	FLOW DEPTH (ft)	V_{10} (fps)	D*V	Q_{100} (cfs)	FLOW DEPTH (ft)	V_{100} (fps)	D*V
N	1	0.24	1.66	0.40	1	0.24	1.66	0.40
E	1	0.19	1.75	0.33	2	0.24	2.08	0.50
S	1	0.32	1.78	0.57	1	0.32	1.78	0.57
CP-1	1	0.23	1.21	0.28	1	0.23	1.21	0.28
CP-2	2	0.31	1.60	0.50	3	0.35	1.76	0.62

No.	REVISIONS	DATE	BY

Kimley»Horn
© 2019 KIMLEY-HORN AND ASSOCIATES, INC.
6671 Las Vegas Boulevard South, Suite 320,
Las Vegas, NV 89119 PHONE: 702-862-3600
WWW.KIMLEY-HORN.COM

KHA PROJECT 192008001
DATE SEPTEMBER 2019
SCALE AS SHOWN
DESIGNED BY ACH
DRAWN BY ACH
CHECKED BY BAH

PROPOSED CONDITIONS MAP

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
CITY OF LAS VEGAS NEVADA

SHEET NUMBER
PR-1

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

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CIVIL IMPROVEMENT PLANS

FOR

SYMPHONY PARK RESIDENTIAL

APN: 139-34-110-014
LAS VEGAS, NEVADA

PROJECT CONTACTS

CIVIL ENGINEER
KIMLEY-HORN AND ASSOCIATES, INC.
6671 LAS VEGAS BOULEVARD SOUTH, SUITE 320
LAS VEGAS, NEVADA 89119

CONTACT: THOMAS ACKERET, P.E.
(702) 862-3608

ARCHITECT
CALLISONRTKL INC.
1717 PACIFIC AVE.
DALLAS, TX 75201

CONTACT: CRISTI LANDRUM
(214) 465-7692

LAND SURVEYOR
HERITAGE SURVEYING
1895 VILLAGE CENTER CIRCLE
LAS VEGAS, NV 89134

CONTACT: DENNIS LAYTON, R/PLS, WRS, CFEDS
(702) 474-6277

DEVELOPER
BRECKENRIDGE GROUP LAS VEGAS NEVADA, LLC
1301 S. CAPITAL OF TEXAS HWY, STE. B-201
AUSTIN, TEXAS 78746

CONTACT: PATRICK BRENNAN
(512) 910-3561

OWNER
BRECKENRIDGE GROUP LAS VEGAS NEVADA, LLC
1301 S. CAPITAL OF TEXAS HWY, STE. B-201
AUSTIN, TEXAS 78746

CONTACT: PATRICK BRENNAN
(512) 910-3561

PROJECT INFORMATION

CURRENT ZONING: PLANNED DEVELOPMENT DISTRICT (PD)
ACREAGE: ±3.7 ACRES
NUMBER OF UNITS: 290

FLOOD ZONE NOTE

THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) INDICATES THAT THE SITE IS LOCATED IN ZONE "X" OF THE FLOOD INSURANCE RATE MAP (FIRM) No. 32003C2170F AS SHOWN ON THE FIRM INDEX REVISED NOVEMBER 16, 2011. ZONE "X" IS DEFINED BY FEMA AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN."

BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL
BENCHMARK NO. "BLV0133NE6"

MONUMENT DESCRIPTION IN RIVET & PLATE IN TOP OF CURB AT THE SOUTHWEST CORNER OF SYMPHONY PARK AVENUE AND GRAND CENTRAL PARKWAY.

ELEVATION = 619.999 METERS
2034.12 FEET

CITY OF LAS VEGAS VERTICAL CONTROL DATUM BASED UPON NORTH AMERICAN VERTICAL DATUM OF 2008 (NAVD '88)

BASIS OF BEARING

SOUTH 27°55'16" WEST, BEING THE EAST LINE OF LOT 5 OF THAT COMMERCIAL SUBDIVISION KNOWN AS "PARKWAY CENTER" ON FILE IN THE OFFICE OF THE COUNTY RECORDER, CLARK COUNTY, NEVADA IN BOOK 53 OF PLATS, AT PAGE 61.

UTILITY NOTE

KIMLEY-HORN AND ASSOCIATES TAKES NO RESPONSIBILITY FOR EXISTING UTILITIES SHOWN HEREIN. THE EXISTING UTILITIES SHOWN ARE BASED ON INFORMATION PROVIDED BY-OTHER PARTIES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND VERIFY THE LOCATIONS AND INVERTS OF THE EXISTING WITHIN THE VICINITY OF CONSTRUCTION ACTIVITIES. IF A CONFLICT IS FOUND TO EXIST, THE CONTRACTOR SHALL COORDINATE THE PROJECT ENGINEER, PROJECT ARCHITECT, AND THE OWNER IMMEDIATELY.

SHEET INDEX

PAGE No.	SHEET NO.	SHEET TITLE	REV NO. 1	2	3	4
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2	C0.2	GENERAL NOTES				
3	C1.1	DEMOLITION PLAN 1				
4	C1.2	DEMOLITION PLAN 2				
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17	C3.10	ONSITE STORM DRAIN PLAN 1				
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19	C3.12	STORM DRAIN PLAN & PROFILE 1				
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21	C3.14	STORM DRAIN PLAN & PROFILE 3				
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23	C4.0	MASTER UTILITY PLAN				
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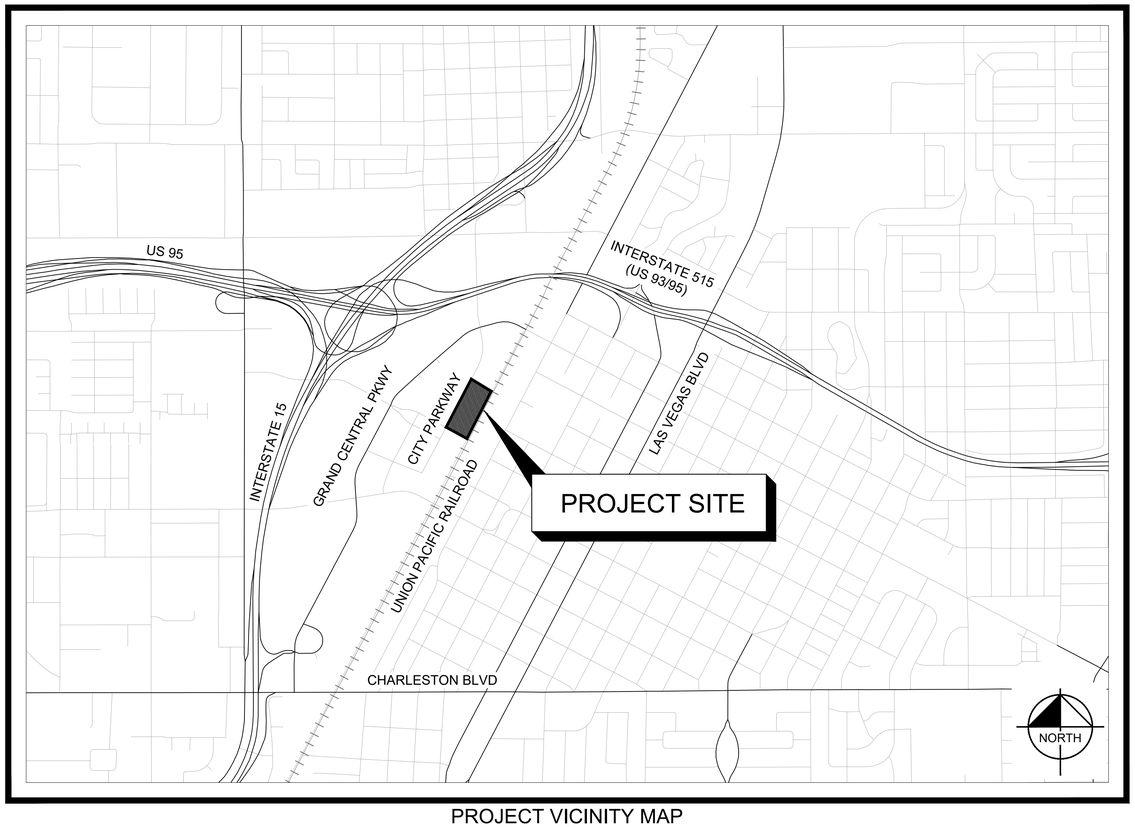
29	C5.2	SYMPHONY PARK AVE PLAN & PROFILE				
30	C5.3	WEST CARSON AVE PLAN & PROFILE				
31	C5.4	EAST FRONTAGE STREET PLAN & PROFILE – STA 0+00 – 44+50				
32	C5.5	EAST FRONTAGE STREET PLAN & PROFILE – STA 44+50 – 8+50				



PROJECT VICINITY MAP
NTS

ORIGINALLY SIGNED BY ROSA CORTEZ 08/15/2019
ALLEN PAVELKA, PE, PE#009029 DATE

APPROVAL OF THESE PLANS BY THE CITY ENGINEER IS LIMITED TO THOSE IMPROVEMENTS CONSTRUCTED IN THE DEDICATED RIGHT-OF-WAY, AND/OR DEDICATED EASEMENTS. THIS APPROVAL DOES NOT AUTHORIZE CONSTRUCTION OF ANY IMPROVEMENTS THAT DEVIATE FROM ADOPTED STANDARDS AND/OR SPECIFICATIONS EXCEPT THOSE SPECIFICALLY LISTED UNDER THE DEVIATION FORM STANDARDS. THE ENGINEER SHALL RESOLVE ANY DEVIATION OTHER THAN THOSE LISTED IN DEVIATIONS FROM STANDARDS IN FAVOR OF THE UNIFORM STANDARD DRAWINGS AND SPECIFICATIONS, CLARK COUNTY AREA, NEVADA.

ORIGINALLY SIGNED BY STEVEN TAULBEE 05/29/2019
CLV FIRE AND RESCUE DATE

ORIGINALLY SIGNED BY FRED SOLIS 08/15/2019
CITY OF LAS VEGAS DEPARTMENT OF PLANNING DATE

THIS PLAN MEETS THE APPLICABLE STANDARDS OF THE DEPARTMENT OF PLANNING

ORIGINALLY SIGNED BY DIANE SCHOMER 05/13/2019
CENTRAL TELEPHONE COMPANY, D/B/A CENTURYLINK DATE

THE AFFIXED CENTURYLINK NEVADA APPROVAL DOES NOT ASSUME OR GUARANTEE LIABILITY FOR KNOWN OR UNKNOWN CONFLICTS WITH EXISTING OR PROPOSED IMPROVEMENTS. RESOLUTION OF ANY CONFLICT WILL BE ACCOMPLISHED PURSUANT TO LOCAL ORDINANCES, NEVADA REVISED STATUTES AND/OR PUBLIC UTILITY COMMISSION STANDARD REGULATIONS.

APPROVED FOR CONSTRUCTION

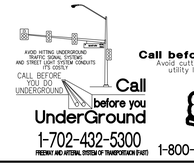
ORIGINALLY SIGNED BY JASON GHADERY
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT No. 136263 FIRST APPROVED DATE: 08/13/2019
SHEETS: C0.1, C0.2, C1.1, C1.2, C4.0, C4.1, C4.2, C4.3

ORIGINALLY SIGNED BY BARBARA GARRISON 05/13/2019
NV ENERGY – DISTRIBUTION DATE

NV ENERGY ACKNOWLEDGES THAT WE HAVE RECEIVED YOUR PLANS AND WILL PROVIDE SERVICE TO ALL ELECTRICAL NEEDS ASSOCIATED WITH THIS PROJECT. NV ENERGY RESERVES THE RIGHT TO ADDRESS ANY EXISTING OR FUTURE CONFLICTS ONCE THE FINAL DESIGN IS COMPLETED. THE NEW SERVICE AND THE RESOLUTION OF ANY CONFLICTS WILL BE ACCOMPLISHED PURSUANT TO THE NEVADA PUBLIC UTILITY COMMISSION'S RULES AND REGULATIONS.

ORIGINALLY SIGNED BY CHRIS ANDERSEN 05/20/2019
SOUTHWEST GAS CORPORATION DATE

ORIGINALLY SIGNED BY CELINA LOPEZ 05/14/2019
COX COMMUNICATIONS LAS VEGAS, INC. DATE



Call before you Dig
Avoid cutting underground utility lines. It's costly.
CALL 811 OR 1-800-227-2600

Avoid overhead power line contact. It's costly.
Call Before You Overhead
1-702-227-2929

No.	REVISIONS	DATE	BY
1	SITE PLAN REV & EFS EXTENSION	08/29/19	TEA

Kimley»Horn
© 2019 KIMLEY-HORN AND ASSOCIATES, INC.
6671 LAS VEGAS BOULEVARD S., SUITE 320, LAS VEGAS, NV 89119
PHONE: 702-862-3600
WWW.KIMLEY-HORN.COM

PROFESSIONAL ENGINEER-STATE OF NEVADA
THOMAS ACKERET
Exp. 12/31/20
CIVIL
No. 18592
09/ 20/ 2019

KHA PROJECT 192008000
DATE 09/ 20/ 2019
SCALE AS SHOWN
DESIGNED BY TEA
DRAWN BY JPH
CHECKED BY TEA

COVER SHEET

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
CITY OF LAS VEGAS NEVADA

CLV PERMIT # L19-00103

SHEET NUMBER
C0.1

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CITY OF LAS VEGAS GENERAL NOTES

1. 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 REVISED 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'.
2. 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.
3. 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.
4. ALL CONSTRUCTION SHALL BE AS SHOWN ON THESE PLANS, ANY REVISIONS SHALL HAVE THE PRIOR WRITTEN APPROVAL OF THE CITY ENGINEER.
5. 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.
6. PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACTOR SHALL SECURE ALL PERMITS AND INSPECTIONS REQUIRED FOR THIS CONSTRUCTION.
7. EXPANSION JOINTS REQUIRED, MAXIMUM EVERY 300'IN EXTRUDED-TYPE CURB.
8. AC PAVEMENT TO BE ONE-HALF INCH (½") ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS AND CROSS GUTTERS.
9. CURB AND GUTTER FOUND TO BE UNACCEPTABLE TO THE CITY OF LAS VEGAS SHALL BE REMOVED AND REPLACED PER STANDARD DRAWING 216.
10. 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.
11. 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.
12. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY NOVA GEOTECHNICAL & INSPECTION SERVICES (PROJECT #G-18-038, DATED: MAY 15, 2018), APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.
13. 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.
14. 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.
15. 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:

16. 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.
17. ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT WITHIN CITY RIGHT OF WAY.
18. 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.
19. MATERIALS, HANDLING AND PLACEMENT OF PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH APPLICABLE SECTIONS OF NDOT OR THE CLARK COUNTY AREA SPECIFICATIONS (AS APPLICABLE) AND THE PLANS AND DETAILS SHOWN HEREON.
20. 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.
21. AFTER HAUNCHING AND PRIOR TO BACKFILL OPERATIONS WHICH WOULD COVER SANITARY SEWER AND STORM DRAIN FACILITIES, CONTRACTOR IS REQUIRED TO SCHEDULE CLV OPEN-TRENCH UTILITY SURVEY INSPECTION FOR DETERMINATION OF FINAL LOCATION COORDINATES. FACILITIES TO BE LOCATED BY CLV SHALL INCLUDE AT A MINIMUM THE HORIZONTAL AND VERTICAL (INVERT) LOCATION OF PUBLIC SEWER MANHOLES, STORM DRAIN MANHOLES AND TRANSITION STRUCTURES, STORM DRAIN LATERALS TO THE SEWER MAIN AND WHERE THE SEWER SERVICE LATERALS EXIT THE PUBLIC RIGHT-OF-WAY, SEWER AND STORM DRAIN MAIN ALIGNMENT, INCLUDING DEFLECTION POINTS.
22. CCTV VIDEO INSPECTION IS REQUIRED FOR ALL SEWER AND STORM DRAINS. THE CCTV VIDEO INSPECTIONS NEED TO BE PERFORMED PER THE DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS LATEST ADDITION.
23. A SEPARATE BORING PERMIT IS REQUIRED FOR ALL BORING ACTIVITIES.

REVISED 02/03/15

CITY OF LAS VEGAS GRADING NOTES

1. 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.
2. 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 GRADES AND SLOPES SHOWN.
3. CONTRACTOR SHALL TAKE FULL RESPONSIBILITY FOR ALL EXCAVATION. ADEQUATE SHORING SHALL BE DESIGNED AND PROVIDED BY THE CONTRACTOR TO PREVENT UNDERMINING OF ANY ADJACENT FEATURES OR FACILITIES AND/OR CAVING OF THE EXCAVATION.
4. 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.
5. 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.
6. 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'± +0.0'TO -0.1' SEE SOILS REPORT
   B. ENGINEERED FILL 0.5'± +0.1'TO -0.1' SEE SOILS REPORT COMPACTION TESTING WILL BE PERFORMED BY THE OWNER OR HIS REPRESENTATIVE.
7. ALL CUT AND FILL SLOPES SHALL BE PROTECTED UNTIL EFFECTIVE EROSION CONTROL HAS BEEN ESTABLISHED.
8. 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.
9. 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.
10. 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

1. ALL STREET LIGHTING INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE STREET LIGHTING PLANS, THE 'UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA', LATEST REVISION, AND THE 'UNIFORM STANDARD DRAWINGS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA', LATEST REVISION, AND ANY ADOPTED SPECIAL AREA STANDARDS.
2. NO DEVIATION OF STREET LIGHT, PULL BOX, CONDUITS (ETC.) LOCATIONS SHALL BE PERMITTED WITHOUT WRITTEN APPROVAL OF TRAFFIC ENGINEERING AND THE CITY ENGINEER.
3. ALL EXISTING STREET LIGHTING SHALL REMAIN OPERATIONAL DURING CONSTRUCTION.
4. ALL STREET LIGHTING CONDUITS STUB SHALL HAVE AT LEAST ONE GREEN #8 THW WIRE INSTALLED, AS TRACER WIRE. WHEN 'EMPTY' CONDUIT IS COMPLETELY INSTALLED FROM PB TO PB, IT SHALL HAVE MINIMUM OF 2 #4 AND 1 #8 THW WIRE WITH THE ENDS TAPED OR "SAFE OFF" PRIOR TO FINAL INSPECTION.
5. ANY STRUCTURE SUCH AS BLOCK WALLS, CHAIN LINK FENCES, RETAINING WALLS, ETC., SHALL LEAVE A MINIMUM CLEARANCE IN ACCORDANCE WITH THE USD NO. 320A.
6. AS-BUILT DRAWINGS SHALL BE SUPPLIED TO THE TEFO PRIOR TO ANY PRE-FINAL INSPECTION. THE AS-BUILT DRAWING NEEDS TO BE STAMPED AS-BUILT AND SIGNED BY THE PREPARER.
7. SERVICE POINT SHALL BE COORDINATED WITH NV ENERGY COMPANY, AND WHEREVER POSSIBLE, BE LOCATED NEAR THE CENTER OF THE CIRCUIT. SERVICE POINTS SHALL BE SHOWN ON THE CIVIL PLANS.
8. IT SHALL BE ASSUMED THAT IN THE ABSENCE OF AN EXISTING, WORKABLE CIRCUIT TO ATTACH TO, ALL INSTALLATIONS SHALL REQUIRE A NEW SERVICE FOR OPERATION OF THE CIRCUIT.
9. WHEREVER THERE IS AN OVERHEAD UTILITY THAT MAY CONFLICT WITH THE INSTALLATION OF STREET LIGHTING CIRCUITS AND/OR POLES, THESE CONFLICTS MUST BE RESOLVED BETWEEN THE DEVELOPER AND THE UTILITIES INVOLVED, AT NO EXPENSE TO THE CITY OF LAS VEGAS, BEFORE STREETLIGHT BASES ARE INSTALLED.
10. THE CONTRACTOR SHALL FURNISH COMPLETE SERVICE TO TRANSFORMERS AND CONTROL SYSTEMS IF REQUIRED ON PLANS.
11. THE DEVELOPER/OWNER WILL BE REQUIRED TO SUPPLY POWER TO ALL NEW PUBLIC STREET LIGHTS INSTALLED UNDER THIS DESIGN PRIOR TO BOND RELEASE OR PROJECT COMPLETION. THE DEVELOPER/OWNER WILL BE RESPONSIBLE FOR ALL ITEMS ASSOCIATED WITH THE INSTALLATION, CONSTRUCTION, ENERGIZING, MAINTENANCE AND OPERATIONAL COST OF SAID STREET LIGHTS PRIOR TO PROJECT COMPLETION. REFER TO PHASING PLAN FOR ANY NEW SERVICE REQUIREMENTS. THE TRANSFER OF OWNERSHIP FROM THE DEVELOPER/OWNER TO THE CITY OF LAS VEGAS FOR ALL NEW PUBLIC STREET LIGHT/S AND/OR SERVICE/S INSTALLED UNDER THIS PLAN DESIGN WILL BE IN CONJUNCTION WITH THIS PROJECT COMPLETION. COORDINATE ALL MAINTENANCE AND OPERATIONAL TRANSFERS WITH THE CITY OF LAS VEGAS TRAFFIC ENGINEERING DEPARTMENT (TEFO) AT (702) 229-6331.

REVISED 04/15/10

CITY OF LAS VEGAS TRAFFIC NOTES

1. ALL CONSTRUCTION SIGNING, BARRICADING, AND TRAFFIC DELINEATION SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATEST EDITION.
2. THE STREET SIGN CONTRACTOR SHALL OBTAIN STREET NAMES AND BLOCK NUMBERING FROM THE PLANNING DEPARTMENT PRIOR TO CONSTRUCTION.
3. 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.
4. WHEN A DESIGNATED "SAFE ROUTE TO SCHOOL" IS ENCROACHED UPON BY A CONSTRUCTION WORK ZONE AND PUBLIC WORKS STAFF IDENTIFIES A NEED FOR STUDENTS TO BE ASSISTED IN THE SAFE CROSSING 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.
5. 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.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ALL PERMANENT SIGNS SHOWN ON THE PLANS. ALL NEW TRAFFIC SIGNS SHALL BE FABRICATED WITH DIAMOND GRADE VIP CLASS 6 REFLECTIVE SHEETING OR APPROVED EQUAL. ALL NEW TRAFFIC SIGNS, EXCEPT STREETNAME AND SCHOOL SPEED LIMIT SIGNS, SHALL HAVE 3M SERIES 1160 OR APPROVED EQUIVALENT ANTI-GRAFFITI PROTECTIVE OVERLAY FILM; SCHOOL ZONE SIGNS SHALL HAVE 3M SERIES 1150 ANTI-GRAFFITI PROTECTIVE OVERLAY FILM. 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.
7. 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.
8. ALL PERMANENT TRAFFIC CONTROL DEVICES CALLED FOR HEREON SHALL BE IN PLACE AND IN FINAL POSITION PRIOR TO ALLOWING ANY PUBLIC TRAFFIC ONTO 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.
9. STREET SIGNS AND STOPS SIGNS SHALL BE INSTALLED PER CITY STANDARD SPECIFICATIONS FOR PLACEMENT OF STREET NAME SIGNS.
10. 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 IMSA WORK ZONE SAFETY SPECIALIST SET UP, MAINTAIN AND/OR REMOVE ALL TRAFFIC CONTROL DEVICES IN THE CITY OF LAS VEGAS RIGHT OF WAY.
11. 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.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING CITIZENS AREA TRANSIT (C.A.T.) IF THE CONSTRUCTION INTERRUPTS OR RELOCATES A BUS STOP OR HAS AN ADVERSE EFFECT ON BUS SERVICE ON THAT STREET TO ARRANGE FOR TEMPORARY RELOCATION OF STOP.
13. GUARDS SHALL BE OBTAINED BY CONTACTING THE METROPOLITAN POLICE DEPARTMENT SPECIAL EVENTS UNIT (PHONE # 828-3442) WHO WILL PROVIDE OFFICERS PROPERLY TRAINED IN TRAFFIC CONTROL. FEES FOR THE USE OF THESE OFFICERS SHALL BE SET BY METRO AND WILL BE PAID BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR ALL ARRANGEMENTS WITH METRO.
14. ANY WORK WITHIN 300' OF A SIGNALIZED INTERSECTION WILL BE NIGHT WORK, UNLESS OTHERWISE DIRECTED BY THE CITY OF LAS VEGAS TRAFFIC ENGINEER.
15. 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 04/15/10

LAS VEGAS FIRE & RESCUE - GENERAL NOTES

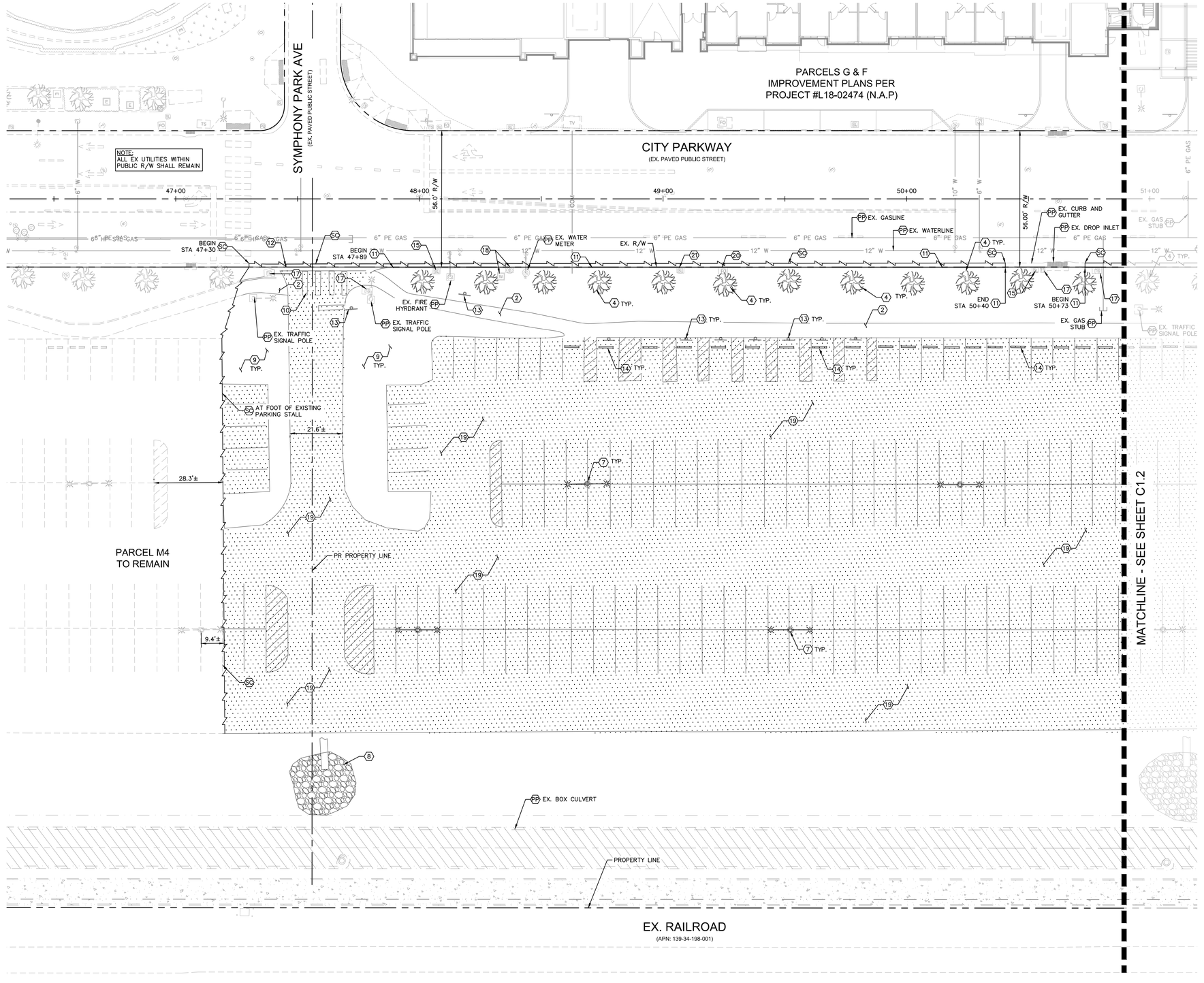
1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE LAS VEGAS FIRE AND RESCUE ADOPTED FIRE ORDINANCE #6325 FOR HYDRANT SPECIFICATIONS AND HYDRANT INSTALLATION SPECIFICATIONS.
2. AUTHORIZED FIRE HYDRANTS ARE AS FOLLOWS:

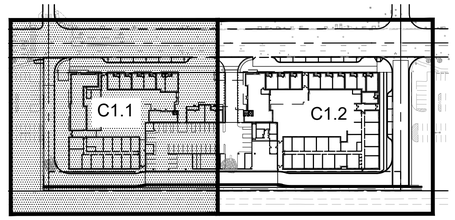
   MUELLER COMPANY – A-423
   CLOW VALVE Co. – F-2546LVD
   AMERICAN FLOW CONTROL – B-84-B5
3. A PERMIT IS REQUIRED FROM LAS VEGAS FIRE AND RESCUE FOR THE INSTALLATION OF ON-SITE WATER LINES AND FIRE HYDRANTS. THE PERMIT AND CONTRACTOR'S MATERIAL TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER BEFORE COMMENCEMENT OF WORK.
4. 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.
5. TO IDENTIFY THE FIRE HYDRANT LOCATIONS, THE CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT THE CENTER LINE OF STREET ADJACENT TO THE FIRE HYDRANTS.
6. 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 WILL PRIOR FIRE PREVENTION APPROVAL.
7. 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.
8. 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.
9. PRIVATE FIRE HYDRANTS SHALL BE PAINTED RED.
10. PRIOR TO THE FINAL OCCUPANCY, A FLOW TEST MUST BE WITNESSED BY LAS VEGAS FIRE AND RESCUE, FIRE PREVENTION DIVISION.
11. FIRE HYDRANTS SPACING SHALL BE AS FOLLOWS:
    RESIDENTIAL – 500 FEET UNSPRINKLERED; 600 FEET SPRINKLERED.
    COMMERCIAL – 300 FEET UNSPRINKLERED; 400 FEET SPRINKLERED.
12. WHERE NEW 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 MAXIMUM 1,000 FOOT SPACING, TO PROVIDE FOR TRANSPORTATION HAZARDS. WHERE STREETS ARE PROVIDED WITH MEDIAN DIVIDERS OR HAVE FOUR 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 FEET ON AN ALTERNATING BASIS.
13. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN THE REQUIRED RADIUS OF A CUL-DE-SAC OR WITHIN 20 FEET OF THE PERIMETER OF THE RADIUS OF THE CUL-DE-SAC.
14. NO FIRE HYDRANTS SHALL BE LOCATED WITHIN 6 FEET OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREETLIGHT OR ANY OTHER OBSTRUCTION.
15. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A ONE-TWO FAMILY DWELLING SHALL NOT EXCEED 300 FEET, AS MEASURED BY AN APPROVED ROUTE.
16. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO A FIRE DEPARTMENT CONNECTION (FDC) SHALL NOT EXCEED 100 FEET, AS MEASURED BY AN APPROVED ROUTE.
17. THE MAXIMUM DISTANCE FROM A FIRE HYDRANT TO THE END OF A DEAD-END STREET SHALL NOT EXCEED 200 FEET.
18. TWO (2) SOURCES OF SUPPLY ARE REQUIRED WHENEVER THERE ARE 4 OR MORE FIRE HYDRANTS/SPRINKLER LEAD-INS ARE INSTALLED ON A SINGLE SYSTEM. SECTIONAL CONTROL VALVES SHALL BE INSTALLED SO THAT NO MORE THAN 2 FIRE HYDRANTS CAN BE OUT OF SERVICE DUE TO A BREAK IN A WATER MAIN.
19. 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.
20. 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 FEET PRIOR TO OR AFTER THE GRADE CHANGE. ADJACENT TO THE STRUCTURES GRADIENT SHALL NOT EXCEED 6%.
21. THE TURNING RADIUS OF THE FIRE APPARATUS ACCESS ROADS SHALL BE NO LESS THAN 52 FEET OUTSIDE AND 28 FEET INSIDE TURNING RADIUS.
22. VERTICAL CLEARANCE OF ALL FIRE APPARATUS ACCESS ROADS SHALL BE NOT LESS THAN 13 FEET 6 INCHES.
23. FIRE DEPARTMENT ACCESS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 40 FEET FLOW LINE TO FLOW LINE WITH PARALLEL PARKING PERMITTED ON BOTH SIDES. NOT LESS THAT 32 FEET WIDE, FLOW LINE TO FLOW LINE, WHERE PARKING IS PERMITTED ONLY ON ONE SIDE OF THE FIRE APPARATUS ACCESS ROAD. NOT LESS THAT 24 FEET WIDE, FLOW LINE TO FLOW LINE, WHERE NO PARKING IS PERMITTED ON EITHER SIDE. FIRE LANES THROUGH PARKING LOTS SHALL NOT BE LESS THAN 24 FEET.
24. A FIRE APPARATUS ACCESS ROAD SHALL BE REQUIRED WHAN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FEET FROM A FIRE DEPARTMENT VEHICLE ACCESS. THIS DISTANCE COULD BE INCREASED TO 250 FEET IF THE BUILDING IS SPRINKLERED.
25. APPROVED SECONDARY FIRE APPARATUS ACCESS SHALL BE PROVIDED FOR 100 OR MORE DWELLING UNITS, ROAD(S) WITH DEAD-ENDS OR WITH A SINGLE POINT OF ACCESS IN EXCESS OF 600 FEET. COMMERCIAL AND INDUSTRIAL DEVELOPMENTS WHERE BUILDINGS EXCEED 2 STORIES OR 30 FEET IN HEIGHT, OR EXCEEDING 62,000 SQUARE FEET IN AREA.
26. ALL DEAD-END FIRE APPARATUS ACCESS ROADS AND/OR FIRE LANES, PUBLIC OR PRIVATE, IN EXCESS OF 150 FEET IN LENGTH SHALL BE PROVIDED WITH AN APPROVED TURN AROUND AREA HAVING A MINIMUM DIAMETER OF 81 FEET.
27. 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 100 FEET ALONG THE DESIGNATED FIRE LANES. SIGNS TO BE PLACED ON BOTH SIDES OF AN ACCESS ROADWAY IF NEEDED TO PREVENT PARKING ON EITHER SIDE. SIGNS TO BE INSTALLED NO HIGHER THAN 10 FEET OR LESS THAN 6 FEET FROM ROADWAY LEVEL. THE CURB ALONG OR ON THE PAVEMENT OR CEMENT (IF NO CURB IS NOT PROVIDED) SHALL BE PAINTED WITH A RED WEATHER RESISTANT PAINT IN ADDITION TO THE SIGNS.
28. ELECTRICALLY CONTROLLED ACCESS GATES SHALL BE PROVIDED WITH AN APPROVED EMERGENCY VEHICLE DETECTOR/RECEIVER SYSTEM. SAID SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE IFC SECTION 503.6 AND IFC APPENDIX M.

EFFECTIVE JULY 15, 2016

CITY OF LAS VEGAS SEWER NOTES

1. 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.
2. 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.
3. CHISEL 'S' OR 'G' IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.
4. POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM D-3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II AGGREGATE BASE.
5. ALL MANHOLES PAVED IN STREETS EIGHTY (80') FOOT 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.
6. 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.
7. WATER MAINS SHALL BE PROTECTED IN ACCORDANCE WITH LVVWD STANDARDS WHENEVER A SEWER MAIN CROSSES OVER A WATER MAIN OR THE SEWER IS LESS THA





KEY MAP

NTS

GENERAL NOTES

1. CONTRACTOR TO VERIFY EXISTING IMPROVEMENTS SHOWN ON THE PLAN.
2. ALL EXISTING UTILITIES SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
3. CONTRACTOR TO PROTECT IN PLACE, DURING DEMOLITION AND CONSTRUCTION, ALL EXISTING IMPROVEMENTS THAT ARE TO REMAIN AS NOTED ON THE PLAN.
4. ANY EXISTING STRUCTURE, IMPROVEMENT, PLAN, OR APPURTENANCE TO REMAIN THAT IS DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE IMMEDIATELY REPAIRED OR REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
5. CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING UNDERGROUND UTILITIES BEFORE CONSTRUCTION AND PROTECT IN PLACE UNLESS OTHERWISE NOTED ON PLANS.
6. ALL DIMENSIONS ARE MEASURED FROM BACK OF CURB UNLESS OTHERWISE NOTED ON THE PLANS.

LEGEND

EX. AC PAVEMENT TO BE REMOVED

DEMOLITION NOTES

(2) REMOVE SIDEWALK TO NEAREST JOINT, LIMITS AS SHOWN ON PLAN.
(4) COORDINATE WITH CITY OF LAS VEGAS FOR RELOCATION OF VEGETATION, PRIOR TO REMOVAL.
(7) REMOVE AND SALVAGE EXISTING LIGHT POLE.
(8) EXISTING IMPROVEMENTS TO BE REMOVED AS PART OF CITY'S BOX CULVERT PROJECT. (CLV DWG# 3274-4229)
(9) REMOVE EXISTING LANDSCAPE.
(10) REMOVE EXISTING CROSSWALK MARKING.
(11) REMOVE EXISTING CURB AND GUTTER TO NEAREST JOINT, LIMITS AS SHOWN ON PLAN.
(12) REMOVE EXISTING CONCRETE VALLEY GUTTER.
(13) REMOVE AND SALVAGE EXISTING SIGN.
(14) REMOVE AND SALVAGE EXISTING BUMPER BLOCK.
(15) PROTECT EXISTING STREET LIGHT PULLBOX IN PLACE. ADJUST TO GRADE AS NECESSARY FOR INSTALLATION OF IMPROVEMENTS.
(17) PROTECT EXISTING TRAFFIC SIGNAL PULLBOX IN PLACE. ADJUST TO GRADE AS NECESSARY FOR INSTALLATION OF IMPROVEMENTS.
(18) REMOVE AND CAP EX. WATER METER PER SHEETS C4.1 AND 4.2.
(19) SAWCUT AND REMOVE AC PAVING, LIMITS AS NOTED ON PLAN.
(20) REMOVE EX. FIBER OPTIC BOX PER SHEET C4.1 AND 4.2.
(21) REMOVE EX. SL BOX PER SHEET C4.1 AND 4.2.
(FP) PROTECT IN PLACE
(SC) SAWCUT LINE/MATCH EXISTING

BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL
BENCHMARK NO. "BLV0133NE6"

MONUMENT DESCRIPTION IN RIVET & PLATE IN TOP OF CURB AT THE SOUTHWEST CORNER OF SYMPHONY PARK AVENUE AND GRAND CENTRAL PARKWAY.

ELEVATION = 619.999 METERS
2034.12 FEET

CITY OF LAS VEGAS VERTICAL CONTROL DATUM BASED UPON NORTH AMERICAN VERTICAL DATUM OF 2008 (NAVD '88)

BASIS OF BEARING

SOUTH 27°55'16" WEST, BEING THE EAST LINE OF LOT 5 OF THAT COMMERCIAL SUBDIVISION KNOWN AS "PARKWAY CENTER" ON FILE IN THE OFFICE OF THE COUNTY RECORDER, CLARK COUNTY, NEVADA IN BOOK 53 OF PLATS, AT PAGE 61.

GRAPHIC SCALE IN FEET
0 10 20 40
SCALE: 1" = 20'

NORTH

APPROVED FOR CONSTRUCTION

ORIGINALLY SIGNED BY JASON GHADERY
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
PROJECT No.: 136263 FIRST APPROVED DATE: 08/13/2019

ORIGINALLY SIGNED BY CHRIS ANDERSEN 05/20/2019
SOUTHWEST GAS CORPORATION DATE

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS ITS OOSLY
CALL BEFORE YOU DO UNDERGROUND
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FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION (FAST)

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No.	DESCRIPTION	DATE	BY
1	SITE PLAN REV & EFS EXTENSION	08/29/19	

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PROFESSIONAL ENGINEER - STATE OF NEVADA
THOMAS ACKERET
Exp. 12/31/20
CIVIL
No. 18592
09/ 20/ 2019

KHA PROJECT 192008000
DATE 09/ 20/ 2019
SCALE AS SHOWN
DESIGNED BY TEA
DRAWN BY JPH
CHECKED BY TEA

DEMOLITION PLAN 1

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
NEVADA

CITY OF LAS VEGAS
CLV PERMIT # L19-00103

SHEET NUMBER
C1.1

SHEET 3 OF 33

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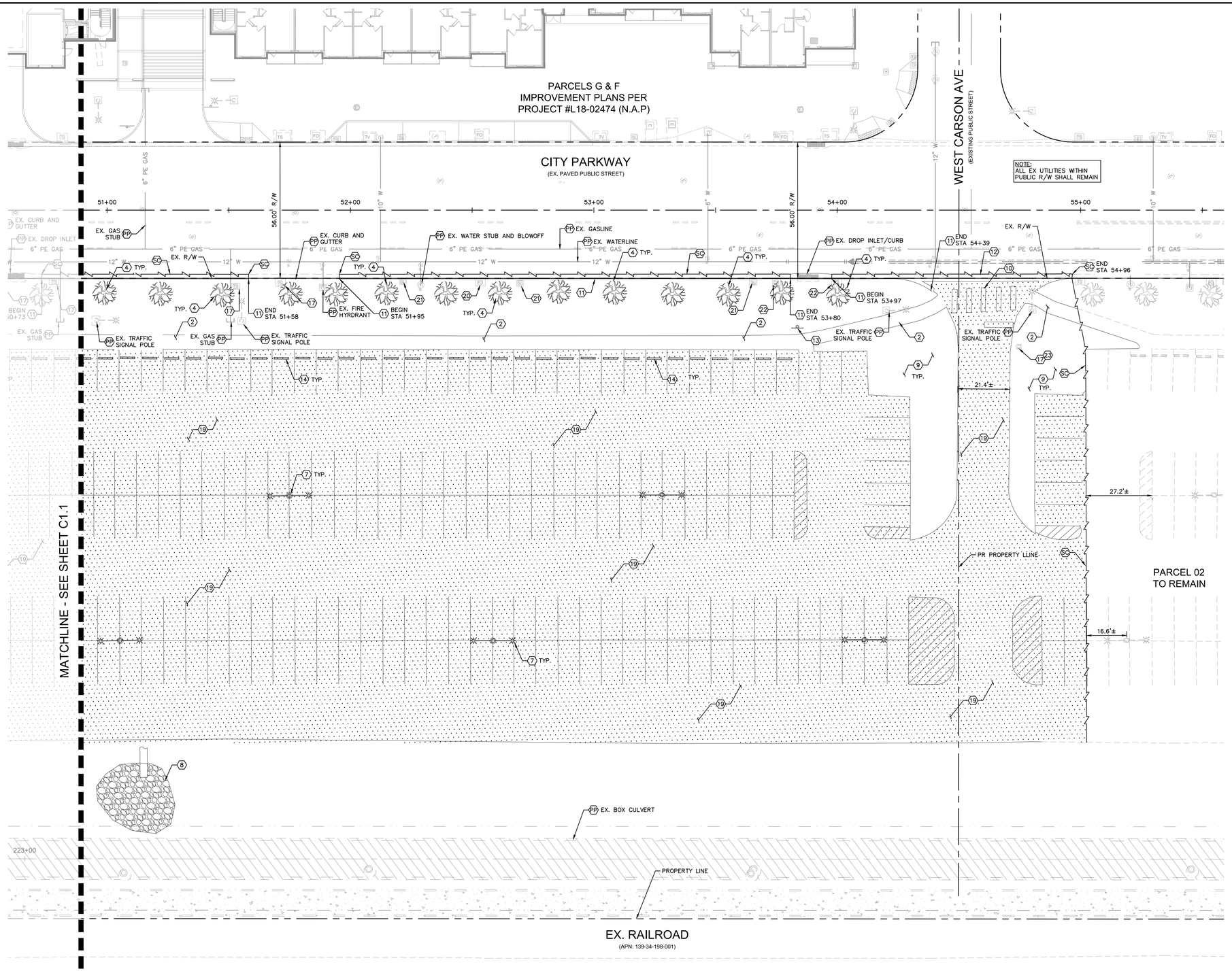

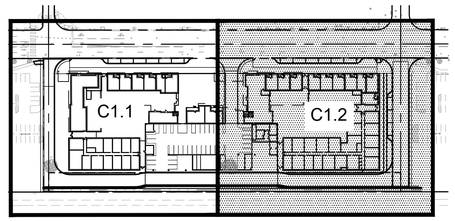

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(19) SAWCUT AND REMOVE AC PAVING, LIMITS AS NOTED ON PLAN.
(20) REMOVE EX. FIBER OPTIC BOX PER SHEET C4.1 AND 4.2.
(21) REMOVE EX. SL BOX PER SHEET C4.1 AND 4.2.
(22) REMOVE EX. TRAFFIC SIGNAL PULL BOX. INTERCEPT EX CONDUIT AND INSTALL NEW PULL BOX (SAME SIZE/TYPE), BEHIND PROPOSED CURB LINE. CONTRACTOR SHALL REPLACE ANY EX. CABLING TO NEAREST EX. SPLICE POINT (INKIND) AS REQUIRED TO SUPPORT RELOCATION.
(23) ADJUST EX. PULLBOX TO GRADE (REMOVE AND REPLACE IN KIND IF REQUIRED).
(PP) PROTECT IN PLACE
(SC) SAWCUT LINE/MATCH EXISTING

BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL
BENCHMARK NO. "BLV033NE6"

MONUMENT DESCRIPTION IN RIVET & PLATE IN TOP OF CURB AT THE SOUTHWEST CORNER OF SYMPHONY PARK AVENUE AND GRAND CENTRAL PARKWAY.

ELEVATION = 619.999 METERS
2034.12 FEET

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GRAPHIC SCALE IN FEET
0 10 20 40
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LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES
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PHONE: 702-862-3600
WWW.KIMLEY-HORN.COM

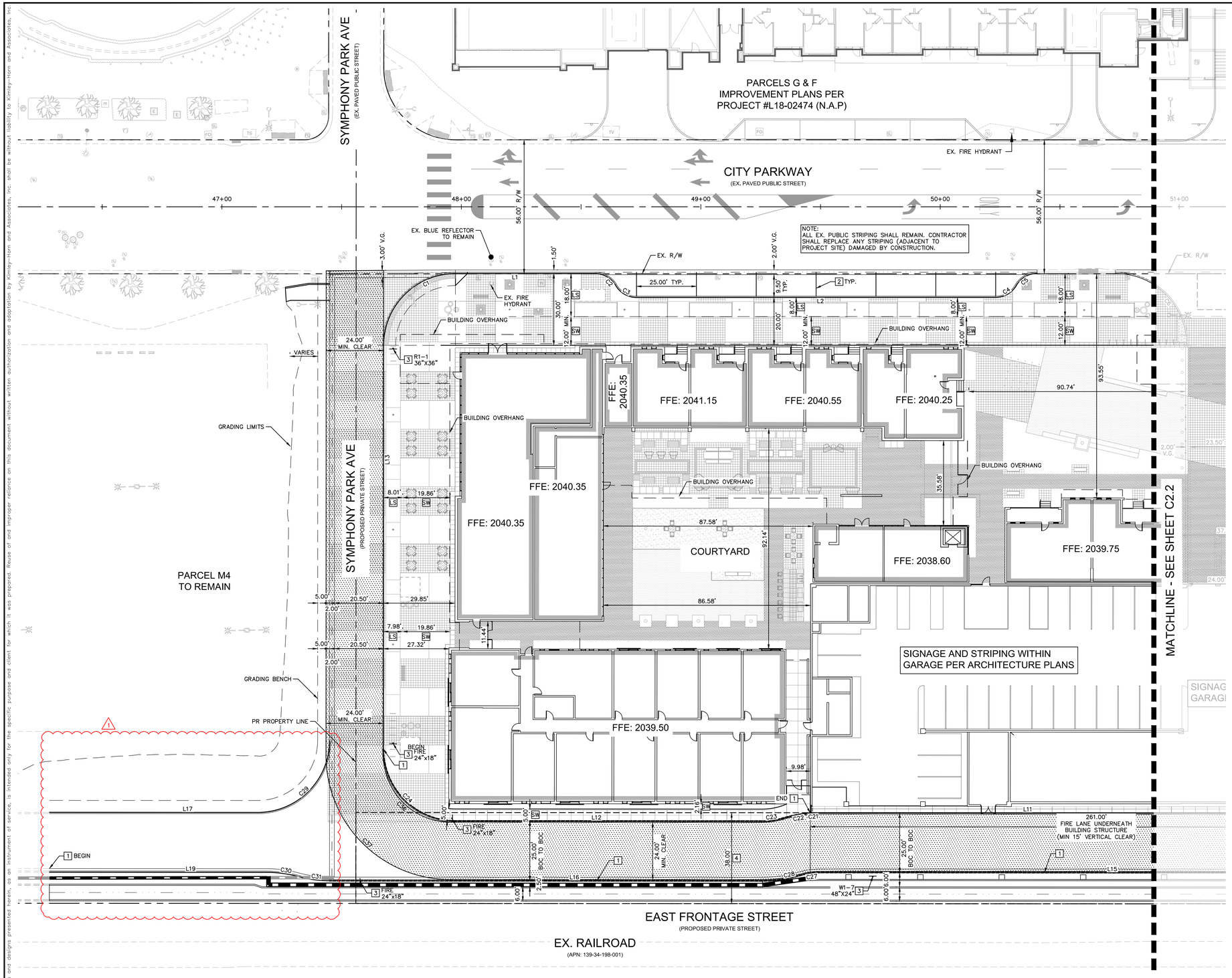
PROFESSIONAL ENGINEER - STATE OF NEVADA
THOMAS ACKERET
No. 18592
Exp. 12/31/20
CIVIL
09/ 20/ 2019

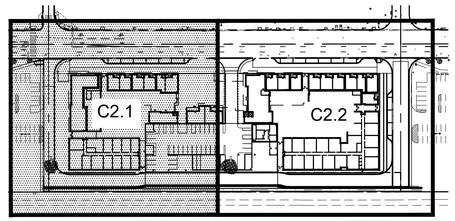
KHA PROJECT	192008000
DATE	09/ 20/ 2019
SCALE	AS SHOWN
DESIGNED BY	TEA
DRAWN BY	JPH
CHECKED BY	TEA

DEMOLITION PLAN 2

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
NEVADA
CITY OF LAS VEGAS
CLV PERMIT # L19-00103

SHEET NUMBER
C1.2





KEY MAP

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6. SEE SHEET C2.3 FOR LINE AND CURVE TABLE.
7. SEE SHEET C2.3 FOR SIGNAGE TABLE.
8. ALL LANDSCAPE AND SIDEWALKS SHALL MEET MINIMUM STANDARDS SHOWN WITHIN THE SYMPHONY PARK DESIGN STANDARDS.

STRIPING & SIGNING NOTES

1. INSTALL RED PAINTED CURB AND STENCIL "NO PARKING FIRE LANE" IN WHITE LETTERING PER CITY OF LAS VEGAS FIRE DEPARTMENT STANDARDS AND SPECIFICATIONS.
2. INSTALL 4" WHITE LINE (PAINT) PER CITY OF LAS VEGAS STANDARDS AND SPECIFICATIONS, LENGTH AS NOTED ON PLAN.
3. INSTALL NEW SIGN PER CCAUSD No. 249.1. SIZE AND TYPE AS NOTED ON SHEET C2.3.
4. EX. DRAINAGE EASEMENT TO REMAIN.

LS LANDSCAPE AREA

SW PUBLIC (ADA COMPLIANT) WALKWAY.

FIRE NOTES/LEGEND

FIRE TRUCK ACCESS ROUTE

INDICATES RED PAINTED CURB WITH "NO PARKING FIRE LANE" PAINTED EVERY 50 FEET.

EXISTING FIRE HYDRANT

MINIMUM FIRE TURNING TEMPLATE

NOTES:

1. TYPICAL TURNING TEMPLATE UNLESS OTHERWISE NOTED ON PLAN (ENLARGED FOR VISUAL PURPOSES, NOT TO SCALE).
2. ALL CURBS ADJACENT TO FIRE ACCESS LANE SHALL BE PAINTED RED IN ACCORDANCE WITH LOCAL STANDARDS.

BUILDING FIRE FLOW DATA (APARTMENTS)

TOTAL BUILDING AREA (SQ. FT)	288,263
BUILDING HEIGHT (FT)	69'-6 1/2"
NUMBER OF STORIES	5 + MEZZANINE
PRIMARY BUILDING OCCUPANCY CLASSIFICATION	R-2
OTHER BUILDING OCCUPANCY CLASSIFICATION	A-3, S-2
TYPE OF CONSTRUCTION	VA
FULL AUTOMATIC FIRE SPRINKLER (YES/NO)	YES
ANTICIPATED SPRINKLER FLOW DEMAND (GPM)	150
FIRE FLOW AT 20 PSI RESIDUAL (GPM) WITH 25% REDUCTION	6,000
TOTAL ONSITE FIRE HYDRANTS (PROPOSED)	0
TOTAL OFFSITE FIRE HYDRANTS (EXISTING)	4

BUILDING FIRE FLOW DATA (GARAGE)

TOTAL BUILDING AREA (SQ. FT)	145,175
BUILDING HEIGHT (FT)	51'-3"
NUMBER OF STORIES	5
PRIMARY BUILDING TYPE AND OCCUPANCY CLASSIFICATION	S-2
TYPE OF CONSTRUCTION	IB
FULL AUTOMATIC FIRE SPRINKLER (YES/NO)	YES
ANTICIPATED SPRINKLER FLOW DEMAND (GPM)	300
FIRE FLOW AT 20 PSI RESIDUAL (GPM) WITH 25% REDUCTION	3,000
TOTAL ONSITE FIRE HYDRANTS (PROPOSED)	0
TOTAL OFFSITE FIRE HYDRANTS (EXISTING)	4

ORIGINALLY SIGNED BY STEVEN TAULBEE — 05/29/2019
LAS VEGAS FIRE AND RESCUE — DATE

BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL
BENCHMARK NO. "BLV013NE6"

MONUMENT DESCRIPTION IN RIVET & PLATE IN TOP OF CURB AT THE SOUTHWEST CORNER OF SYMPHONY PARK AVENUE AND GRAND CENTRAL PARKWAY.

ELEVATION = 619.999 METERS
2034.12 FEET

CITY OF LAS VEGAS VERTICAL CONTROL DATUM BASED UPON NORTH AMERICAN VERTICAL DATUM OF 2008 (NAVD '88)

BASIS OF BEARING

SOUTH 27°55'16" WEST, BEING THE EAST LINE OF LOT 5 OF THAT COMMERCIAL SUBDIVISION KNOWN AS "PARKWAY CENTER" ON FILE IN THE OFFICE OF THE COUNTY RECORDER, CLARK COUNTY, NEVADA IN BOOK 53 OF PLATS, AT PAGE 61.

GRAPHIC SCALE IN FEET
0 10 20 40
SCALE: 1" = 20'

NORTH

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

Avoid overhead power line contact. It's costly.

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1	SITE PLAN REV & EFS EXTENSION	08/29/19	

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PHONE: 702-862-3600
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PROFESSIONAL ENGINEER - STATE OF NEVADA
THOMAS ACKERET
Exp. 12/31/20
CIVIL
No. 18592
09/ 20/ 2019

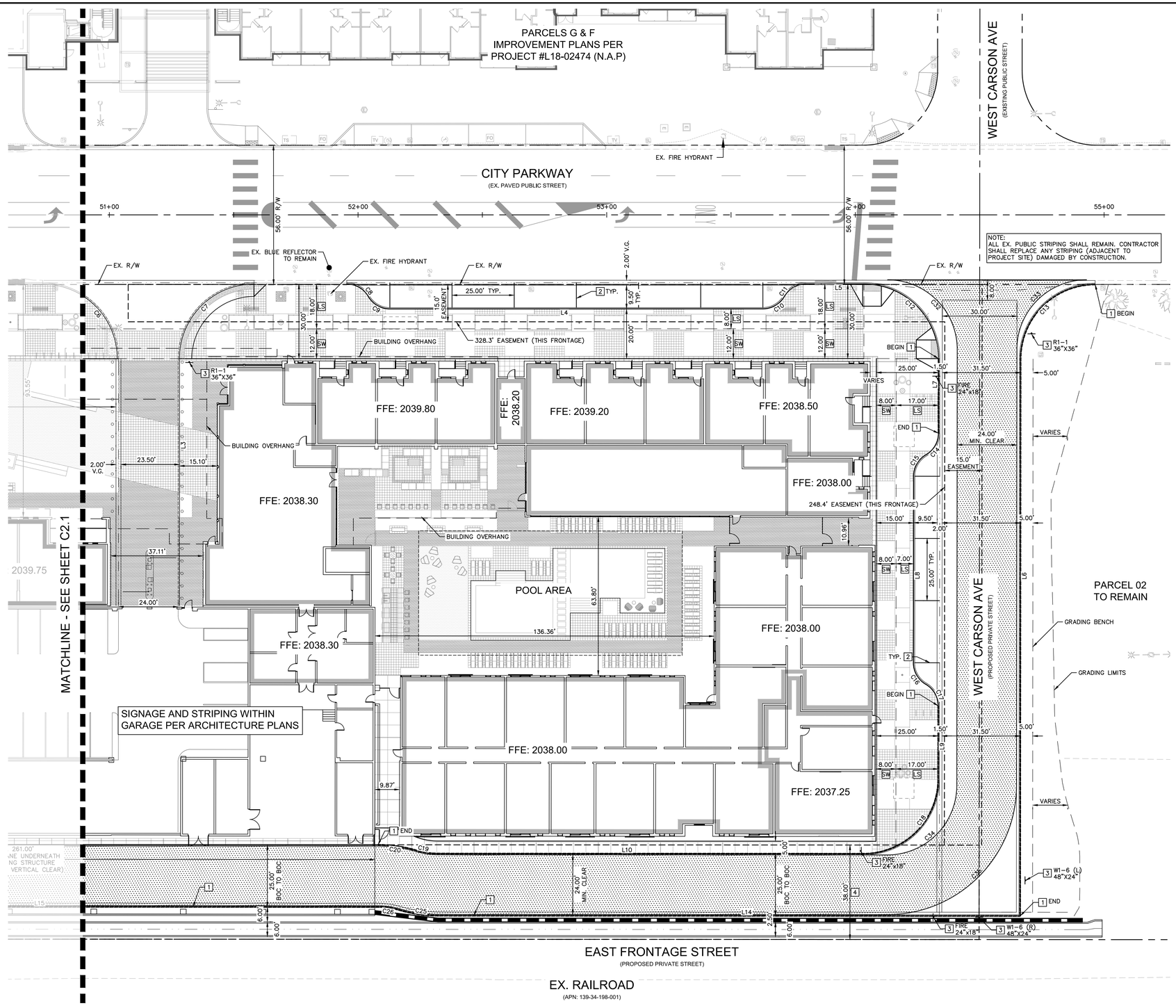
KHA PROJECT 192008000
DATE 09/ 20/ 2019
SCALE AS SHOWN
DESIGNED BY TEA
DRAWN BY JPH
CHECKED BY TEA

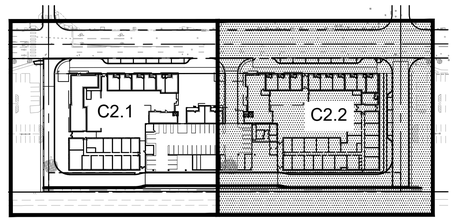
HORIZONTAL CONTROL & SIGNING MARKING PLAN 1

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
NEVADA

CITY OF LAS VEGAS
CLV PERMIT # L19-00103

SHEET NUMBER
C2.1





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KHA PROJECT	192008000
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HORIZONTAL CONTROL & SIGNING MARKING PLAN 2

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PREPARED FOR
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CITY OF LAS VEGAS NEVADA

CLV PERMIT # L19-00103

SHEET NUMBER
C2.2

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4. CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING UNDERGROUND UTILITIES BEFORE CONSTRUCTION AND PROTECT IN PLACE UNLESS NOTED ON THE PLANS.
5. ALL DIMENSIONS ARE MEASURED FROM BACK OF CURB UNLESS OTHERWISE NOTED ON PLANS.

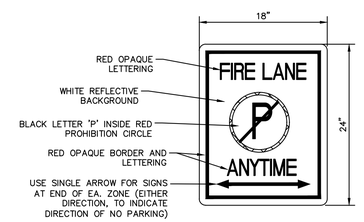
LINE AND CURVE DATA

LINE TABLE		
LINE	LENGTH	BEARING
L1	58.30	S27°59'24.97"W
L2	150.00	S27°59'24.97"W
L3	99.39	S61°59'57.47"E
L4	150.00	N27°59'24.97"E
L5	23.33	N27°59'24.97"E
L6	223.98	S61°56'50.57"E
L7	30.00	S61°56'50.57"E
L8	75.00	S61°56'50.57"E
L9	29.49	S61°56'50.57"E
L10	171.11	N28°01'35.53"E
L11	258.09	N28°01'35.53"E
L12	128.36	N28°01'35.53"E
L13	168.75	S61°58'24.70"E
L14	234.08	N28°01'35.53"E
L15	258.09	N28°01'35.53"E
L16	180.86	N28°01'35.53"E
L17	87.00	N28°01'44.72"E
L19	90.78	N28°01'44.72"E

CURVE TABLE					
CURVE	RADIUS	LENGTH	CHORD	DELTA	TANGENT
C1	30.00'	47.10'	42.41'	89°57'50"	29.98'
C2	10.00'	10.47'	10.00'	60°00'00"	5.77'
C3	10.00'	10.47'	10.00'	60°00'00"	5.77'
C4	10.00'	10.47'	10.00'	60°00'00"	5.77'
C5	10.00'	10.47'	10.00'	60°00'00"	5.77'
C6	30.00'	47.13'	42.43'	90°00'38"	30.01'
C7	30.00'	47.12'	42.42'	89°59'22"	29.99'
C8	10.00'	10.47'	10.00'	60°00'00"	5.77'
C9	10.00'	10.47'	10.00'	60°00'00"	5.77'
C10	10.00'	10.47'	10.00'	60°00'00"	5.77'
C11	10.00'	10.47'	10.00'	60°00'00"	5.77'
C12	30.00'	47.16'	42.45'	90°03'44"	30.03'
C13	30.00'	47.08'	42.39'	89°54'27"	29.95'
C14	10.00'	10.47'	10.00'	60°00'00"	5.77'
C15	10.00'	10.47'	10.00'	60°00'00"	5.77'
C16	10.00'	10.47'	10.00'	60°00'00"	5.77'
C17	10.00'	10.47'	10.00'	60°00'00"	5.77'
C18	30.00'	47.11'	42.42'	89°58'26"	29.99'
C19	30.00'	8.64'	8.61'	16°29'57"	4.35'
C20	55.00'	15.84'	15.78'	16°29'57"	7.97'
C21	55.00'	3.86'	3.86'	4°01'16"	1.93'
C22	55.00'	11.98'	11.95'	12°28'41"	6.01'
C23	30.00'	8.64'	8.61'	16°29'57"	4.35'
C24	30.00'	47.12'	42.43'	90°00'00"	30.00'
C25	55.00'	15.84'	15.78'	16°29'57"	7.97'
C26	30.00'	8.64'	8.61'	16°29'57"	4.35'
C27	30.00'	8.64'	8.61'	16°29'57"	4.35'
C28	55.00'	15.84'	15.78'	16°29'57"	7.97'
C29	30.00'	47.11'	42.42'	89°58'35"	29.99'
C30	50.02'	13.27'	13.23'	15°11'55"	6.67'
C31	50.02'	13.27'	13.23'	15°11'55"	6.67'

SIGN LEGEND

SYMBOL	DESIGNATION	SIZE	QUANTITY
STOP	R1-1	36"X36"	3
	W1-6 (R)	48"X24"	2
	W1-6 (L)	48"X24"	1
	W1-7	48"X24"	1
"NO PARKING – FIRE LANE SIGN"	CUSTON	24"x18"	6



NO PARKING - FIRE LANE SIGN AND LANE MARKING

No.	REVISIONS	DATE	BY
1	SITE PLAN REV & EFS EXTENSION	08/29/19	

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PROFESSIONAL ENGINEER – STATE OF NEVADA
THOMAS ACKERET
Exp. 12/31/20
CIVIL
No. 18592
09/ 20/ 2019

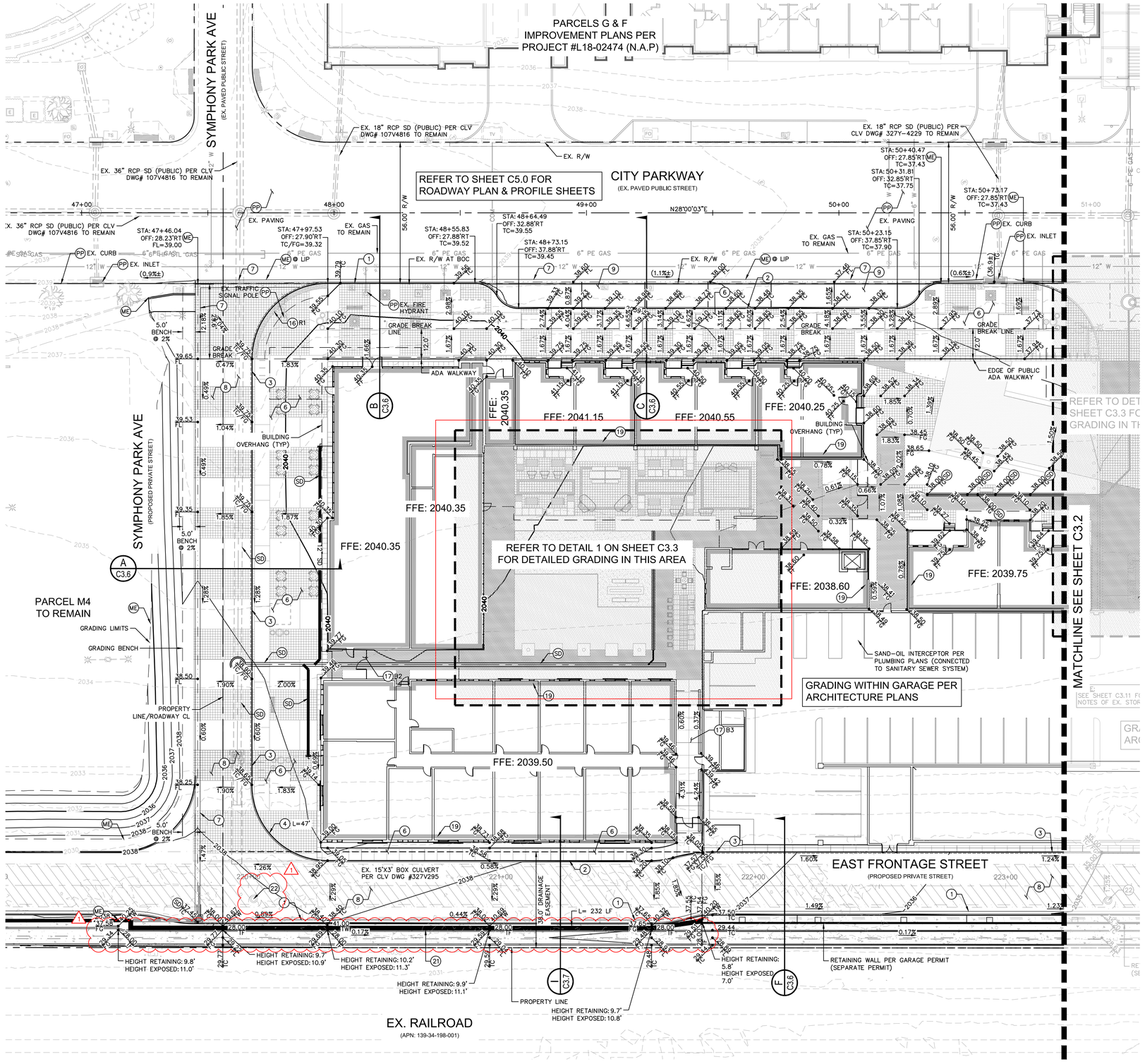
K-HA PROJECT 192008000
DATE 09/ 20/ 2019
SCALE AS SHOWN
DESIGNED BY TEA
DRAWN BY JPH
CHECKED BY TEA

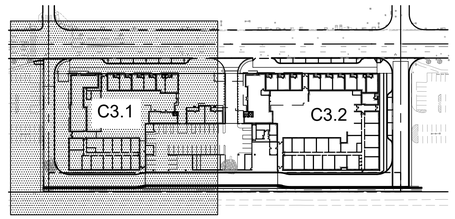
HORIZONTAL CONTROL & SIGNING MARKING TABLES

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
CITY OF LAS VEGAS NEVADA

CLV PERMIT # L19-00103

SHEET NUMBER C2.3





KEY MAP

NTS

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GEOTECHNICAL REPORT

ALL GRADING SHALL CONFORM TO THE GEOTECHNICAL REPORT:

ENGINEER: NOVA GEOTECHNICAL & INSPECTION SERVICES
DATED: MAY 15, 2018
PROJECT No: G-18-038

CONSTRUCTION NOTES

1. INSTALL MODIFIED TYPE 'L' CONCRETE CURB AND GUTTER PER DETAIL 1 ON SHEET C3.8
2. INSTALL MODIFIED TYPE 'A' CONCRETE CURB PER DETAIL PER DETAIL 2 ON SHEET C3.8
3. INSTALL 0" FACE CURB PER DETAIL 3 ON SHEET C3.8.
4. INSTALL TRANSITION FROM TYPE 'A' CURB TO 0" FACE CURB. LENGTH STATED ON PLAN.
6. INSTALL CONCRETE SIDEWALK PER CCAUSD No. 234.
7. INSTALL 2' VALLEY GUTTER PER DETAIL 4 ON SHEET C3.8.
8. INSTALL 3" ASPHALT PAVING OVER 11" TYPE 2 AGGREGATE BASE PER GEOTECHNICAL RECOMMENDATIONS.
9. INSTALL ASPHALT PAVING SECTION (MATCH EXISTING).
16. SEE SHEETS C3.3–C3.4 FOR ADA RAMP DETAIL.
17. SEE SHEETS C3.4–C3.5 FOR BREEZEWAY GRADING DETAILS.
19. EXPOSED BUILDING FOUNDATION STEM WALL. SEE STRUCTURAL & ARCHITECTURAL PLANS FOR DETAILS.
21. INSTALL RETAINING WALL (PER SEPARATE PERMIT).
22. ADJUST EXISTING MANHOLE TO GRADE PER DETAIL 12 ON SHEET C3.8.
(ME) MATCH EXISTING.
(PP) PROTECT IN PLACE.
(SD) REFER TO STORM DRAIN PLANS FOR DETAIL (C3.10–C3.11)

NOTE: CURB FLOW LINES LESS THAN 0.60% GRADE SHALL BE WATER TESTED. ANY CURB THAT DOES NOT FLOW SHALL BE REMOVED AND REPLACED AT NO COST TO THE CITY.

ESTIMATED CUT/FILL QUANTITIES

CUT FILL ANALYSIS

CUT VOLUME:	68 CY
FILL VOLUME:	33658 CY
NET VOLUME:	33590 CY (IMPORT)*

*BASED ON A SURFACE TO SURFACE, UNADJUSTED ANALYSIS

FLOOD ZONE NOTE

THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) INDICATES THAT THE SITE IS LOCATED IN ZONE "X" OF THE FLOOD INSURANCE RATE MAP (FIRM) No. 32003C2170F AS SHOWN ON THE FIRM INDEX REVISED NOVEMBER 16, 2011. ZONE "X" IS DEFINED BY FEMA AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN."

BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL
BENCHMARK NO. "BLV0133NE6"

MONUMENT DESCRIPTION IN RIVET & PLATE IN TOP OF CURB AT THE SOUTHWEST CORNER OF SYMPHONY PARK AVENUE AND GRAND CENTRAL PARKWAY.

ELEVATION = 619.999 METERS
2034.12 FEET

CITY OF LAS VEGAS VERTICAL CONTROL DATUM BASED UPON NORTH AMERICAN VERTICAL DATUM OF 2008 (NAVD '88)

BASIS OF BEARING

SOUTH 27°55'16" WEST, BEING THE EAST LINE OF LOT 5 OF THAT COMMERCIAL SUBDIVISION KNOWN AS "PARKWAY CENTER" ON FILE IN THE OFFICE OF THE COUNTY RECORDER, CLARK COUNTY, NEVADA IN BOOK 53 OF PLATS, AT PAGE 61.

GRAPHIC SCALE IN FEET
0 10 20 40
SCALE: 1" = 20'

NORTH

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

CALL BEFORE YOU DO UNDERGROUND

Call before you UnderGround 1-702-432-5300
PREVENT ANY ACCIDENTAL DISRUPTION OF TRANSPORTATION (FHWY)

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

CALL 811 OR 1-800-227-2600

Avoid overhead power line contact. It's costly.

Call Before You Overhead 1-702-227-2929

No.	REVISIONS	DATE	BY
1	SITE PLAN REV & EFS EXTENSION	08/29/19	

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PROFESSIONAL ENGINEER - STATE OF NEVADA
THOMAS ACKERET
No. 18592
Exp. 12/31/20
CIVIL
09/ 20/ 2019

KHA PROJECT 192008000
DATE 09/ 20/ 2019
SCALE AS SHOWN
DESIGNED BY TEA
DRAWN BY JPH
CHECKED BY TEA

ONSITE GRADING PLAN 1

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
CITY OF LAS VEGAS NEVADA

CLV PERMIT # L19-00103

SHEET NUMBER
C3.1

SHEET 8 OF 33

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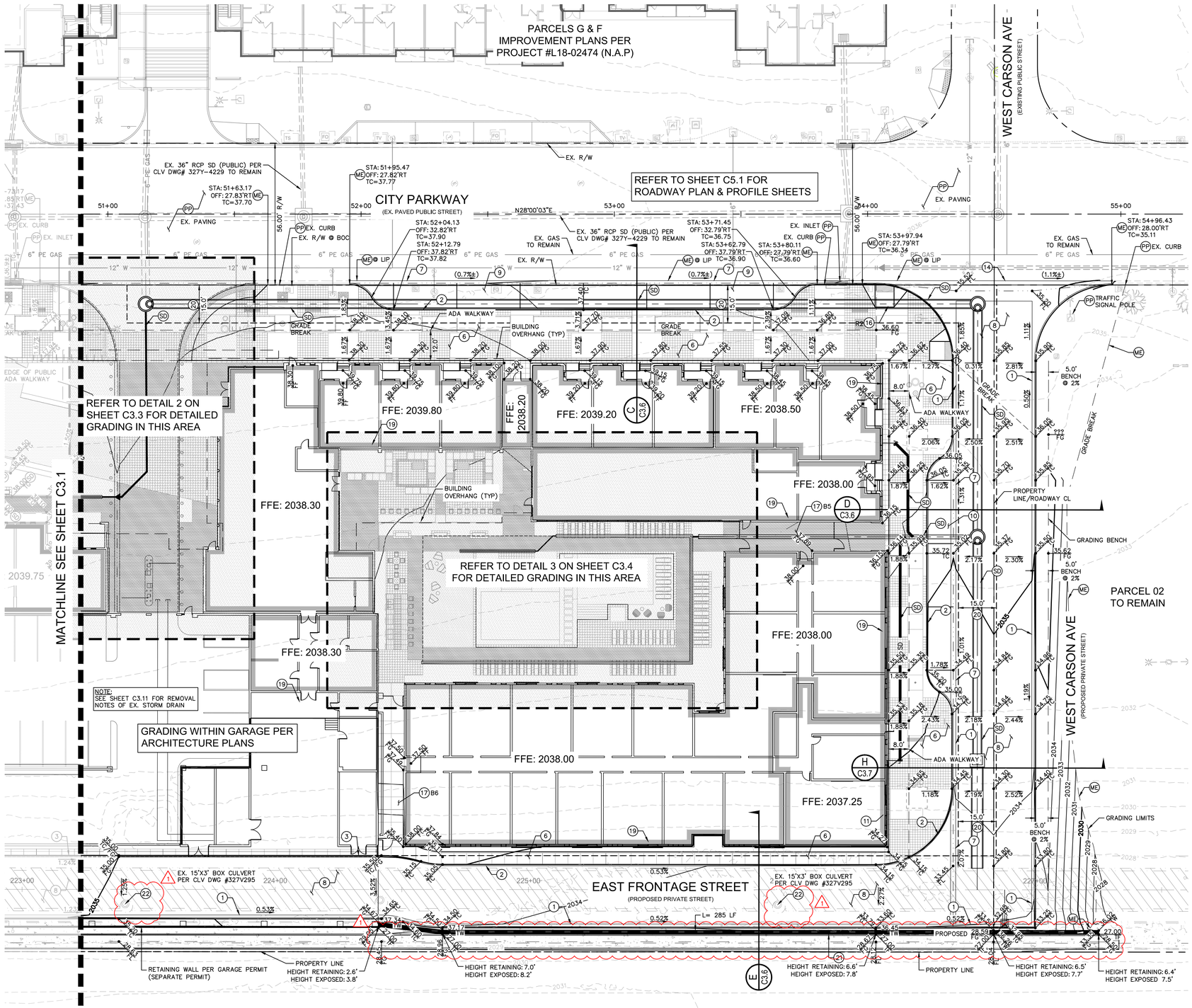

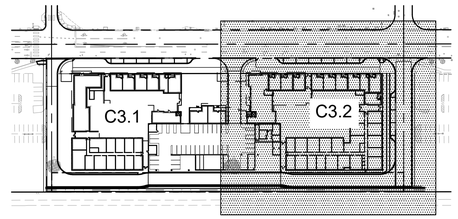

KEY MAP

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GEOTECHNICAL REPORT

ALL GRADING SHALL CONFORM TO THE GEOTECHNICAL REPORT:

ENGINEER: NOVA GEOTECHNICAL & INSPECTION SERVICES
DATED: MAY 15, 2018
PROJECT No: G-18-038

CONSTRUCTION NOTES

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8. INSTALL 3" ASPHALT PAVING OVER 11" TYPE 2 AGGREGATE BASE PER GEOTECHNICAL RECOMMENDATIONS.
9. INSTALL ASPHALT PAVING SECTION (MATCH EXISTING).
10. INSTALL 2" ASPHALT PAVING OVER 7" TYPE 2 AGGREGATE BASE PER GEOTECHNICAL RECOMMENDATIONS.
11. INSTALL HANDRAIL PER ARCHITECTURAL PLANS.
14. INSTALL COMMERCIAL DRIVEWAY PER CCAUSD No. 225 & PER CCAUSD No. 228.
16. SEE SHEETS C3.3–C3.4 FOR ADA RAMP DETAIL.
17. SEE SHEETS C3.4–C3.5 FOR BREEZEWAY GRADING DETAILS.
19. EXPOSED BUILDING FOUNDATION STEM WALL. SEE STRUCTURAL & ARCHITECTURAL PLANS FOR DETAILS.
20. UNDERGROUND PUBLIC DRAINAGE EASEMENT PER DOC #20190702-0002741. SURFACE OF EASEMENT IS TO BE MAINTAINED BY PROPERTY OWNER.
21. INSTALL RETAINING WALL (PER SEPARATE PERMIT).
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SD. REFER TO STORM DRAIN PLANS FOR DETAIL (C3.10–C3.11)

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BENCHMARK NO. "BLV0133NE6"

MONUMENT DESCRIPTION IN RIVET & PLATE IN TOP OF CURB AT THE SOUTHWEST CORNER OF SYMPHONY PARK AVENUE AND GRAND CENTRAL PARKWAY.

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GRAPHIC SCALE IN FEET
0 10 20 40
SCALE: 1" = 20'

NORTH

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No.	REVISIONS	DATE	BY
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PROFESSIONAL ENGINEER - STATE OF NEVADA
THOMAS ACKERET
No. 18592
Exp. 12/31/20
CIVIL
09/ 20/ 2019

KHA PROJECT 192008000
DATE 09/ 20/ 2019
SCALE AS SHOWN
DESIGNED BY TEA
DRAWN BY JPH
CHECKED BY TEA

ONSITE GRADING PLAN 2

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
NEVADA

CITY OF LAS VEGAS
CLV PERMIT # L19-00103

SHEET NUMBER
C3.2

SHEET 9 OF 33

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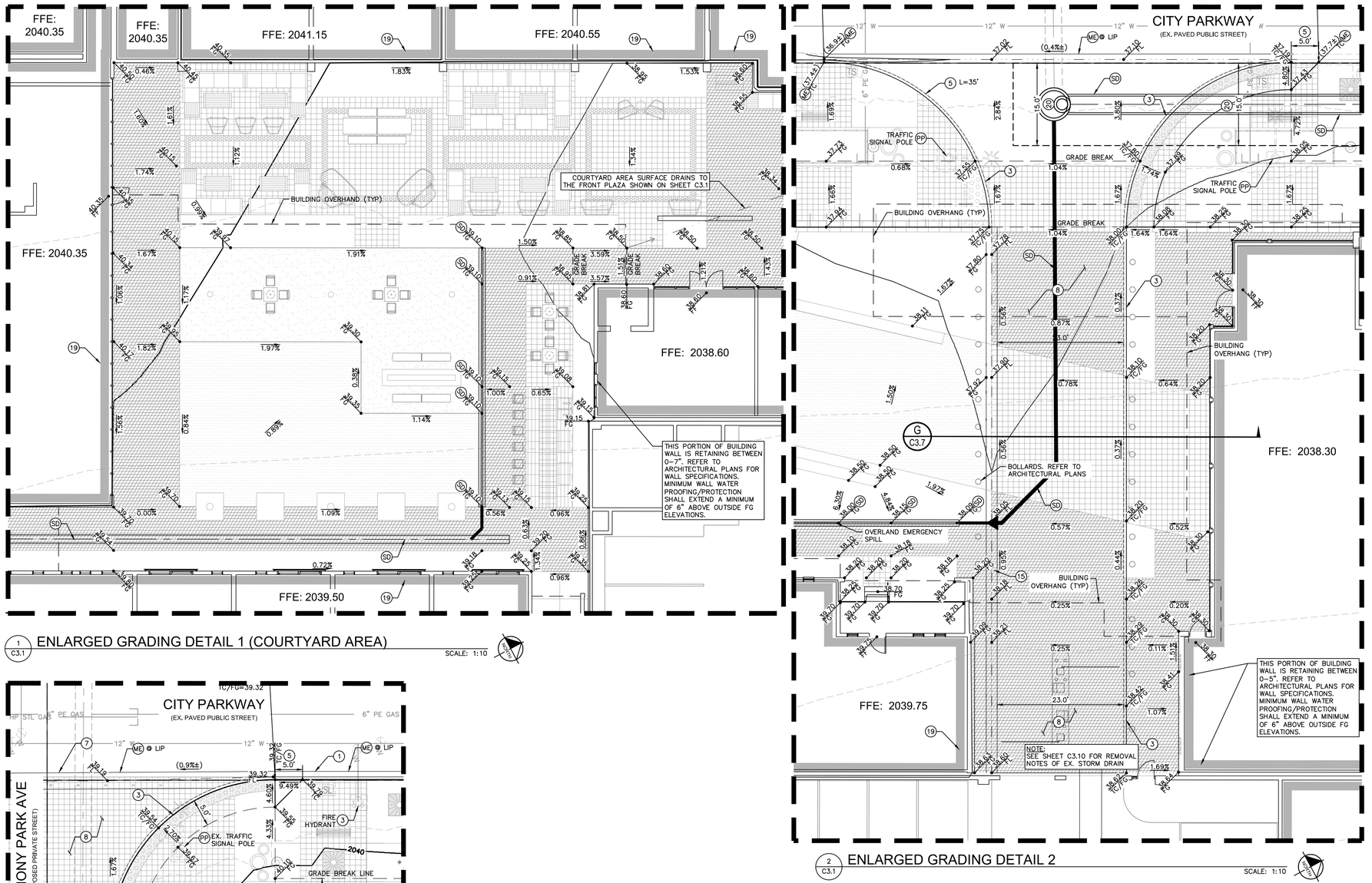

1 / C3.1 ENLARGED GRADING DETAIL 1 (COURTYARD AREA)

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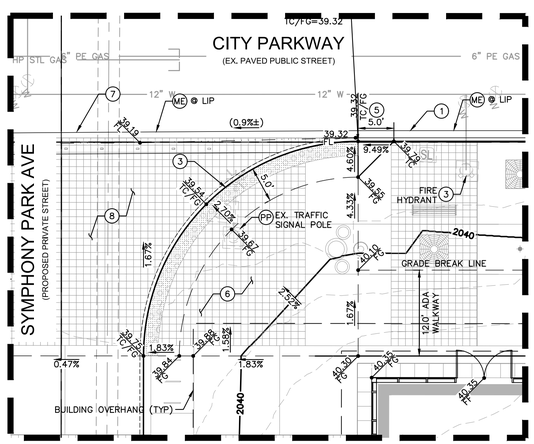
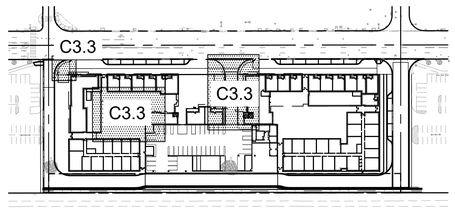


1 / C3.1 SIDEWALK RAMP R1

SCALE: 1:10

2 / C3.1 ENLARGED GRADING DETAIL 2

SCALE: 1:10



KEY MAP

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ENTIRE SHEET

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THOMAS ACKERET
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Exp. 12/31/20
CIVIL

09/ 20/ 2019

KHA PROJECT 192008500

DATE	09/ 20/ 2019
SCALE	AS SHOWN
DESIGNED BY	TEA
DRAWN BY	JPH
CHECKED BY	TEA

ENLARGED GRADING DETAILS SHEET 1

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
CITY OF LAS VEGAS NEVADA

CLV PERMIT # L19-00103

SHEET NUMBER
C3.3

SHEET 10 OF 33

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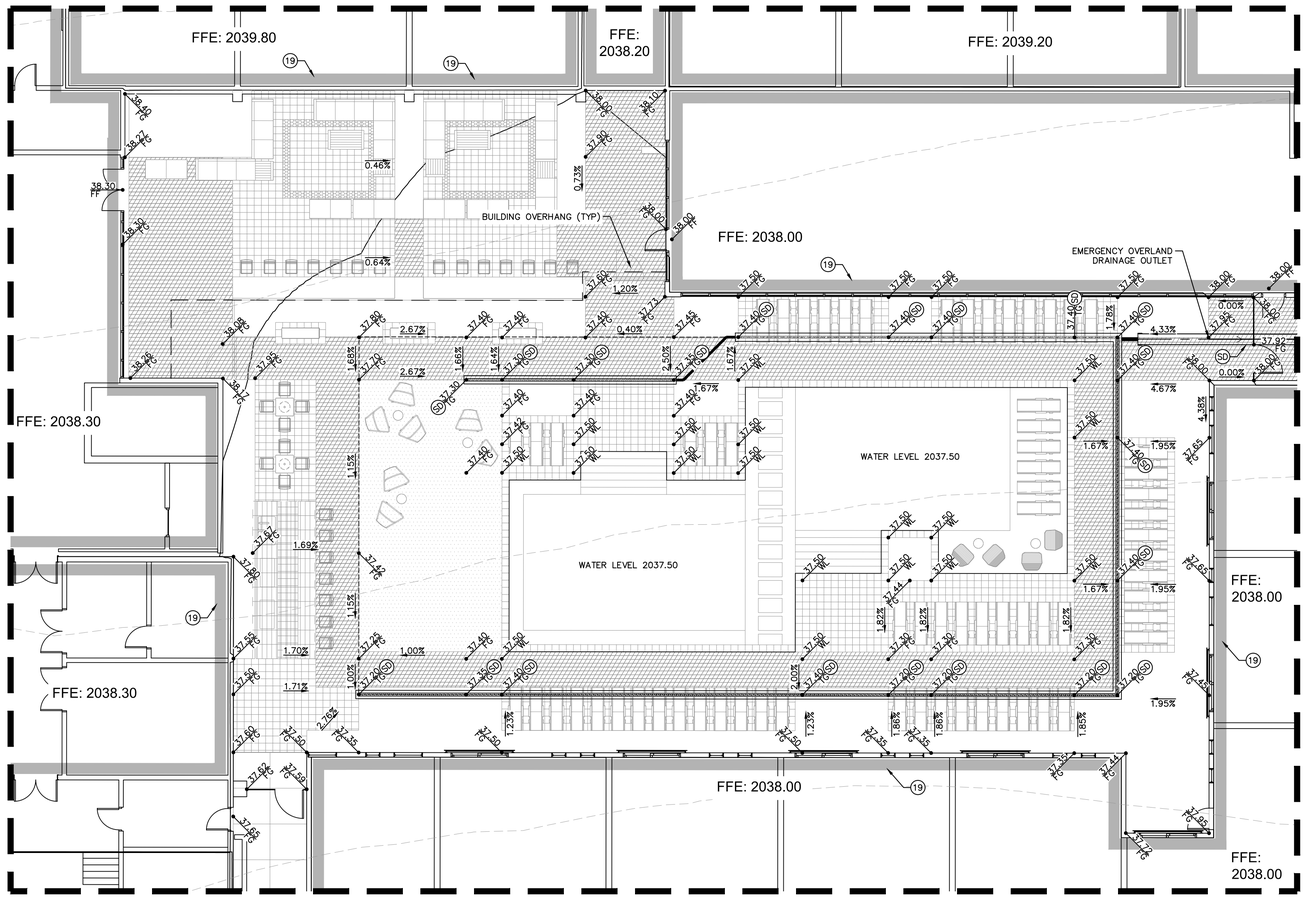
FFE: 2039.80
FFE: 2038.20
FFE: 2039.20
FFE: 2038.00
FFE: 2038.30
FFE: 2038.30
FFE: 2038.00
FFE: 2038.00
BUILDING OVERHANG (TYP)
EMERGENCY OVERLAND DRAINAGE OUTLET
WATER LEVEL 2037.50
WATER LEVEL 2037.50
0.46%
0.64%
0.73%
1.20%
0.40%
2.67%
2.67%
1.67%
4.67%
4.33%
0.00%
0.00%
1.95%
1.67%
1.95%
1.69%
1.70%
1.00%
1.71%
1.00%
2.00%
1.82%
1.82%
1.82%
1.95%
2.26%
1.23%
1.23%
1.68%
1.68%
1.85%
1.15%
1.15%
1.44%
1.50%
4.38%
1.65%
1.65%
1.65

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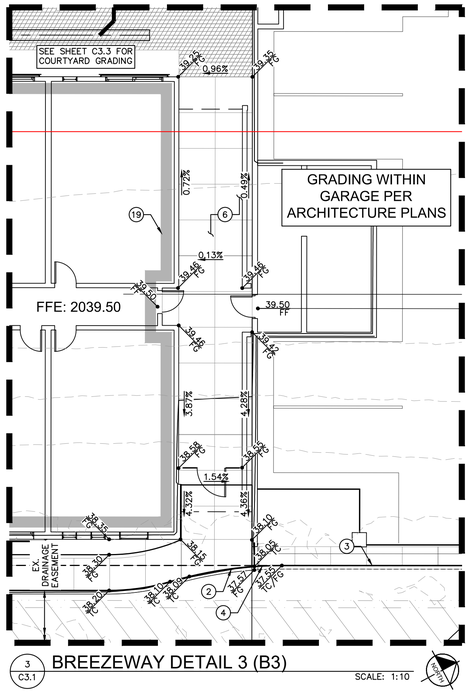
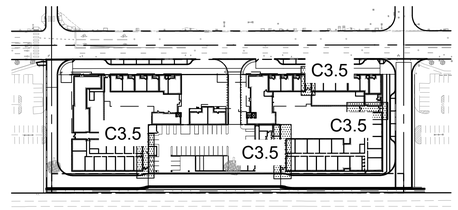


3 C3.1 BREEZEWAY DETAIL 3 (B3) SCALE: 1:10

5 C3.2 BREEZEWAY DETAIL 5 (B5) SCALE: 1:10

6 C3.2 BREEZEWAY DETAIL 6 (B6) SCALE: 1:10



KEY MAP

NTS

GENERAL NOTES

1. CONTRACTOR TO VERIFY EXISTING IMPROVEMENTS SHOWN ON THE PLAN.
2. CONTRACTOR TO PROTECT IN PLACE, DURING DEMOLITION AND CONSTRUCTION, ALL EXISTING IMPROVEMENTS THAT ARE TO REMAIN AS NOTED ON THE PLAN.
3. ANY EXISTING STRUCTURE, IMPROVEMENT, OR APPURTENANCE TO REMAIN THAT IS DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE IMMEDIATELY REPAIRED OR REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
4. CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING UNDERGROUND UTILITIES BEFORE CONSTRUCTION AND PROTECT IN PLACE UNLESS NOTED ON THE PLANS.
5. ALL DIMENSIONS ARE MEASURED FROM BACK OF CURB UNLESS OTHERWISE NOTED ON PLANS.
6. ADD 2000 FEET TO ALL SPOT ELEVATIONS UNLESS OTHERWISE NOTED.

GEOTECHNICAL REPORT

ALL GRADING SHALL CONFORM TO THE GEOTECHNICAL REPORT:

ENGINEER: NOVA GEOTECHNICAL & INSPECTION SERVICES
DATED: MAY 15, 2018
PROJECT No: G-18-038

CONSTRUCTION NOTES

- (2) INSTALL MODIFIED TYPE 'A' CONCRETE CURB PER DETAIL PER DETAIL 2 ON SHEET C3.8
- (3) INSTALL 0" FACE CURB PER DETAIL 3 ON SHEET C3.8.
- (4) INSTALL TRANSITION FROM TYPE 'A' CURB TO 0" FACE CURB. LENGTH STATED ON PLAN.
- (6) INSTALL CONCRETE SIDEWALK PER CCAUSD No. 234.
- (19) EXPOSED BUILDING FOUNDATION STEM WALL. SEE STRUCTURAL & ARCHITECTURAL PLANS FOR DETAILS.
- (SD) REFER TO STORM DRAIN PLANS FOR DETAIL (C3.10-C3.11)

1 ENTIRE SHEET

FLOOD ZONE NOTE

THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) INDICATES THAT THE SITE IS LOCATED IN ZONE "X" OF THE FLOOD INSURANCE RATE MAP (FIRM) No. 32003C2170F AS SHOWN ON THE FIRM INDEX REVISED NOVEMBER 16, 2011. ZONE "X" IS DEFINED BY FEMA AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN."

BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL
BENCHMARK NO. "8LV0133NE6"

MONUMENT DESCRIPTION IN RIVET & PLATE IN TOP OF CURB AT THE SOUTHWEST CORNER OF SYMPHONY PARK AVENUE AND GRAND CENTRAL PARKWAY.

ELEVATION = 619.999 METERS
2034.12 FEET

CITY OF LAS VEGAS VERTICAL CONTROL DATUM BASED UPON NORTH AMERICAN VERTICAL DATUM OF 2008 (NAVD '88)

BASIS OF BEARING

SOUTH 27°55'16" WEST, BEING THE EAST LINE OF LOT 5 OF THAT COMMERCIAL SUBDIVISION KNOWN AS "PARKWAY CENTER" ON FILE IN THE OFFICE OF THE COUNTY RECORDER, CLARK COUNTY, NEVADA IN BOOK 53 OF PLATS, AT PAGE 61.

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY
CALL BEFORE YOU DIG UNDERGROUND
Call before you UnderGround 1-702-432-5300
PREVENT ANY ACCIDENTAL DISRUPTION OF TRANSPORTATION SYSTEMS
Call before you Dig
Avoid cutting underground utility lines. It's costly.
CALL 811 OR 1-800-227-2600
Avoid overhead power line contact. It's costly.
Call Before You Overhead 1-702-227-2929

No.	REVISIONS	DATE	BY
1	SITE PLAN REV & EFS EXTENSION	08/29/19	

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PHONE: 702-862-3600
WWW.KIMLEY-HORN.COM

PROFESSIONAL ENGINEER - STATE OF NEVADA
THOMAS ACKERET
Exp. 12/31/20
CIVIL
No. 18592
09/ 20/ 2019

KHA PROJECT	192008000
DATE	09/ 20/ 2019
SCALE	AS SHOWN
DESIGNED BY	TEA
DRAWN BY	JPH
CHECKED BY	TEA

ENLARGED GRADING DETAILS SHEET 3

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
CITY OF LAS VEGAS NEVADA

CLV PERMIT # L19-00103

SHEET NUMBER
C3.5

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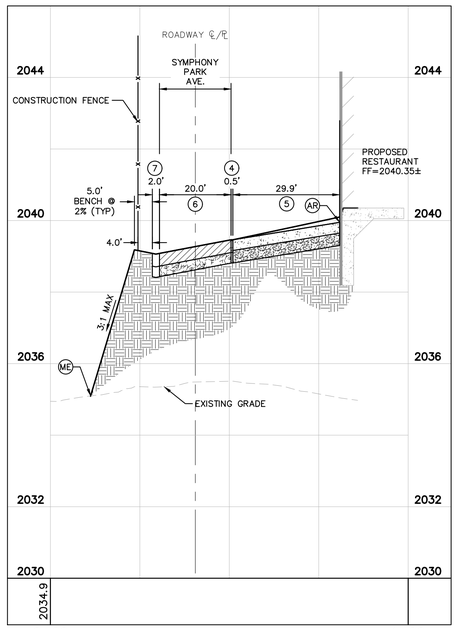
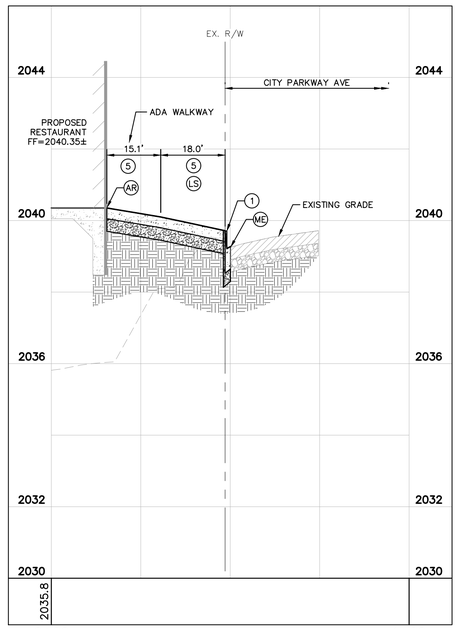


SECTION A



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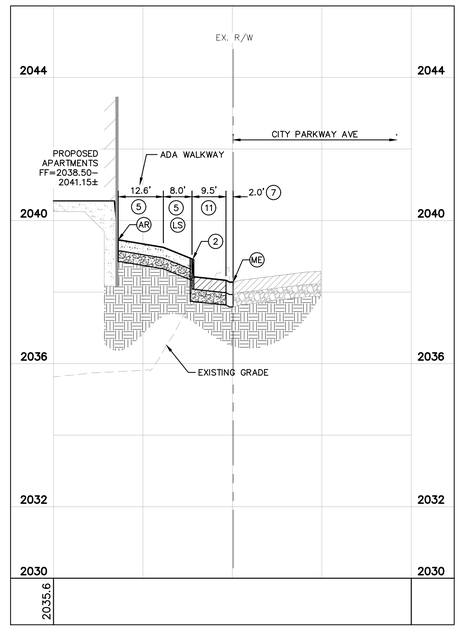

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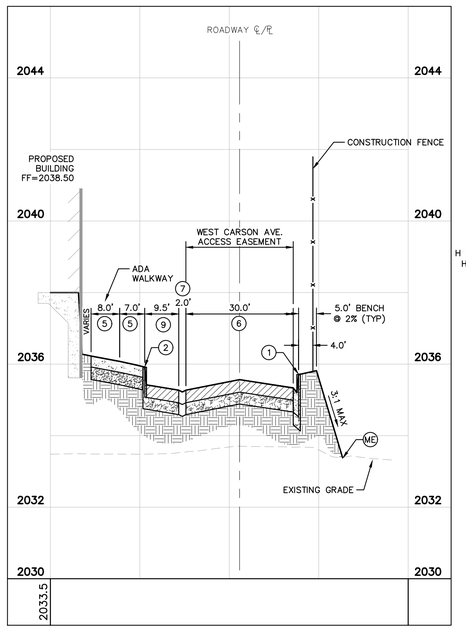

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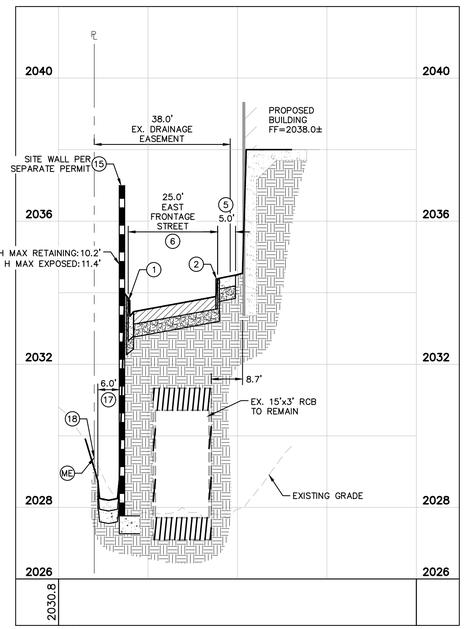

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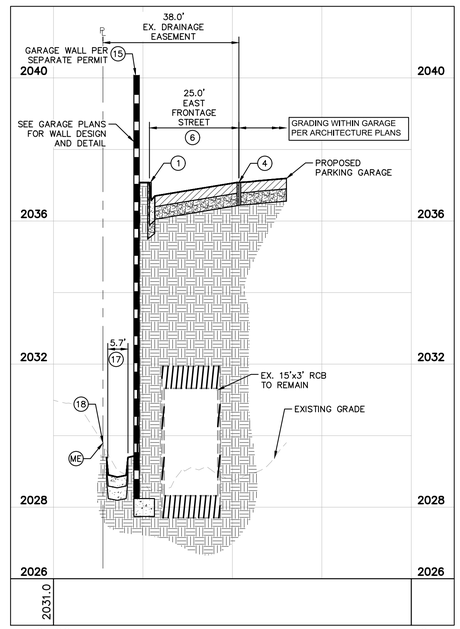

SECTION F

GENERAL NOTES

1. CONTRACTOR TO VERIFY EXISTING IMPROVEMENTS SHOWN ON THE PLAN.
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6. ADD 2000 FEET TO ALL SPOT ELEVATIONS UNLESS OTHERWISE NOTED.

CONSTRUCTION NOTES

1. INSTALL MODIFIED TYPE 'L' CONCRETE CURB AND GUTTER PER DETAIL 1 ON SHEET C3.8
2. INSTALL MODIFIED TYPE 'A' CONCRETE CURB PER DETAIL PER DETAIL 2 ON SHEET C3.8
4. INSTALL 0" FACE CURB PER DETAIL 3 ON SHEET C3.8.
5. INSTALL CONCRETE SIDEWALK PER CCAUSD No. 234.
6. INSTALL 3" ASPHALT PAVING OVER 11" TYPE 2 AGGREGATE BASE PER GEOTECHNICAL RECOMMENDATIONS.
7. INSTALL 2' VALLEY GUTTER PER DETAIL 4 ON SHEET C3.8.
9. INSTALL 2" ASPHALT PAVING OVER 7" TYPE 2 AGGREGATE BASE PER GEOTECHNICAL RECOMMENDATIONS.
11. INSTALL ASPHALT PAVING SECTION (MATCH EXISTING).
12. INSTALL 2' ADA COMPLIANT VALLEY GUTTER PER DETAIL 6 ON SHEET C3.8
15. INSTALL RETAINING WALL (PER SEPARATE PERMIT).
17. INSTALL 5' X 0.5' CONCRETE U-CHANNEL.
- AR REFER TO ARCHITECTURAL PLANS FOR DETAILS.
- LS REFER TO LANDSCAPE PLANS FOR DETAILS.
- ME MATCH EXISTING

BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL
BENCHMARK NO. "8LV0133NE6"

MONUMENT DESCRIPTION IN RIVET & PLATE IN TOP OF CURB AT THE SOUTHWEST CORNER OF SYMPHONY PARK AVENUE AND GRAND CENTRAL PARKWAY.

ELEVATION = 619.999 METERS
2034.12 FEET

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GRAPHIC SCALE IN FEET
0 10 20 40
HORIZONTAL
0 1 2 4
VERTICAL

Call before you Dig
Avoid cutting underground utility lines. It's costly.
Call before you UnderGround
1-702-432-5300
FREEWAY AND INTERNAL SYSTEM OF TRANSPORTATION (FAST)
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Call Before You Overhead
1-702-227-2929

No.	REVISIONS	DATE	BY
1	SITE PLAN REV & EFS EXTENSION	08/29/19	

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PROFESSIONAL ENGINEER - STATE OF NEVADA
THOMAS ACKERET
Exp. 12/31/20
CIVIL
No. 18592
09/ 20/ 2019

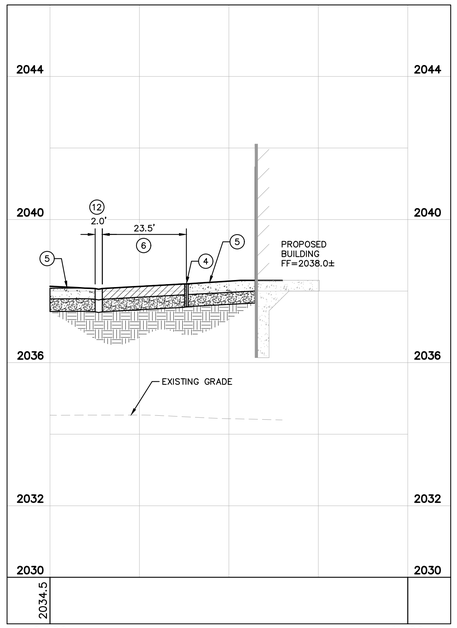
KHA PROJECT	192008900
DATE	09/ 20/ 2019
SCALE	AS SHOWN
DESIGNED BY	TEA
DRAWN BY	JPH
CHECKED BY	TEA

GRADING SECTIONS SHEET 1

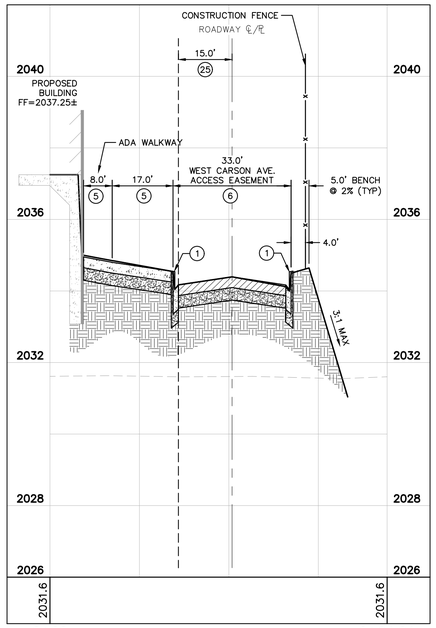
SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
NEVADA
CITY OF LAS VEGAS

CLV PERMIT # L19-00103

SHEET NUMBER
C3.6



SECTION G



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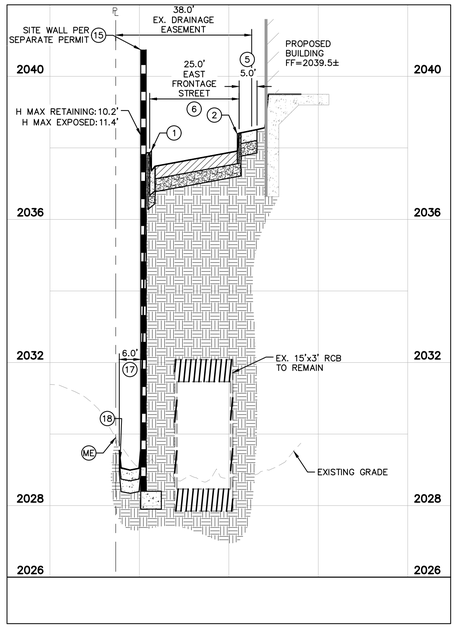
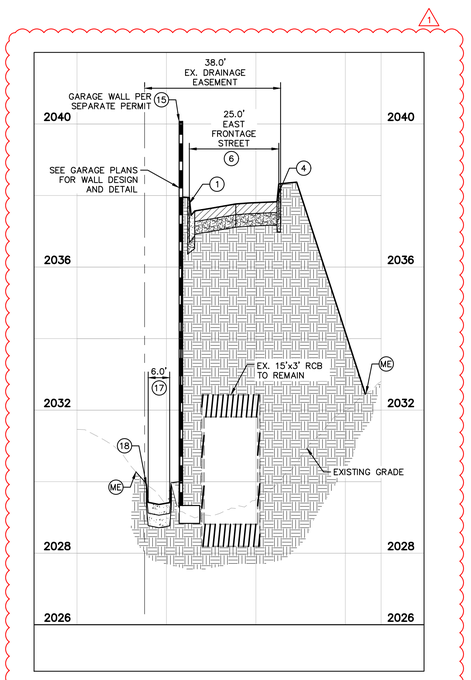


SECTION I



SECTION J

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12. INSTALL 2' ADA COMPLIANT VALLEY GUTTER PER DETAIL 6 ON SHEET C3.8
15. INSTALL RETAINING WALL (PER SEPARATE PERMIT).
17. INSTALL 5' X 0.5' CONCRETE U-CHANNEL.
25. UNDERGROUND PUBLIC DRAINAGE EASEMENT PER DOC #20190702-0002741. SURFACE OF EASEMENT IS TO BE MAINTAINED BY PROPERTY OWNER.

ME. MATCH EXISTING

BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL
BENCHMARK NO. "8LV0133NE6"

MONUMENT DESCRIPTION IN RIVET & PLATE IN TOP OF CURB AT THE SOUTHWEST CORNER OF SYMPHONY PARK AVENUE AND GRAND CENTRAL PARKWAY.

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0 1 2 4
VERTICAL

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FREEWAY AND INTERNAL SYSTEM OF TRANSPORTATION (FAST)

No.	REVISIONS	DATE	BY
1	SITE PLAN REV & EFS EXTENSION	08/29/19	

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PHONE: 702-862-3600
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PROFESSIONAL ENGINEER - STATE OF NEVADA
THOMAS ACKERET
Exp. 12/31/20
CIVIL
No. 18592
09/ 20/ 2019

KHA PROJECT 192008000
DATE 09/ 20/ 2019
SCALE AS SHOWN
DESIGNED BY TEA
DRAWN BY JPH
CHECKED BY TEA

GRADING SECTIONS SHEET 2

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
CITY OF LAS VEGAS NEVADA

CLV PERMIT # L19-00103

SHEET NUMBER
C3.7

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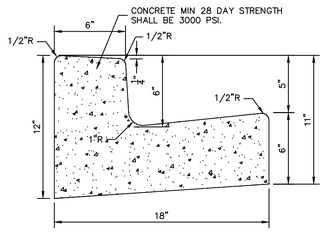
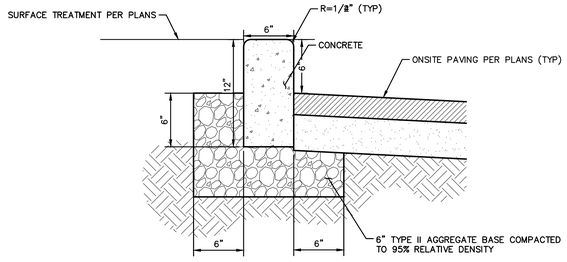
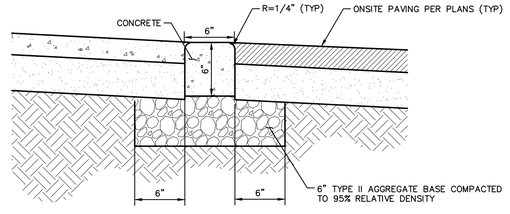


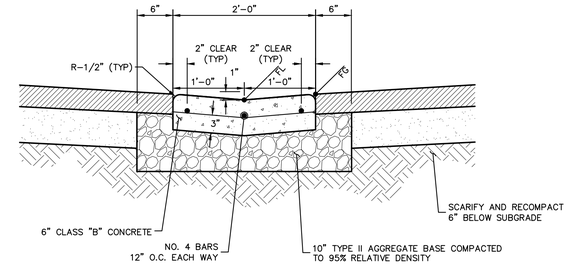
1 — DETAIL 1
MODIFIED "L" CURB & GUTTER
NTS



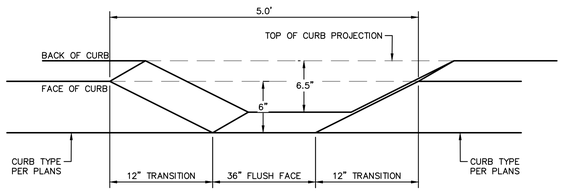
2 — DETAIL 2
MODIFIED 'TYPE A' CURB DETAIL
NTS



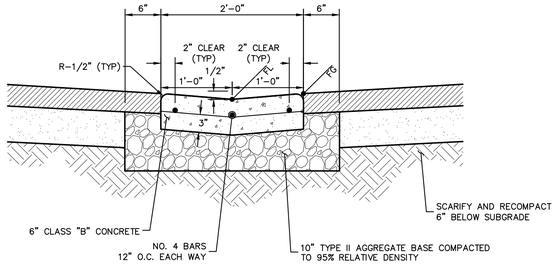
3 — DETAIL 3
FLUSH CURB DETAIL
NTS



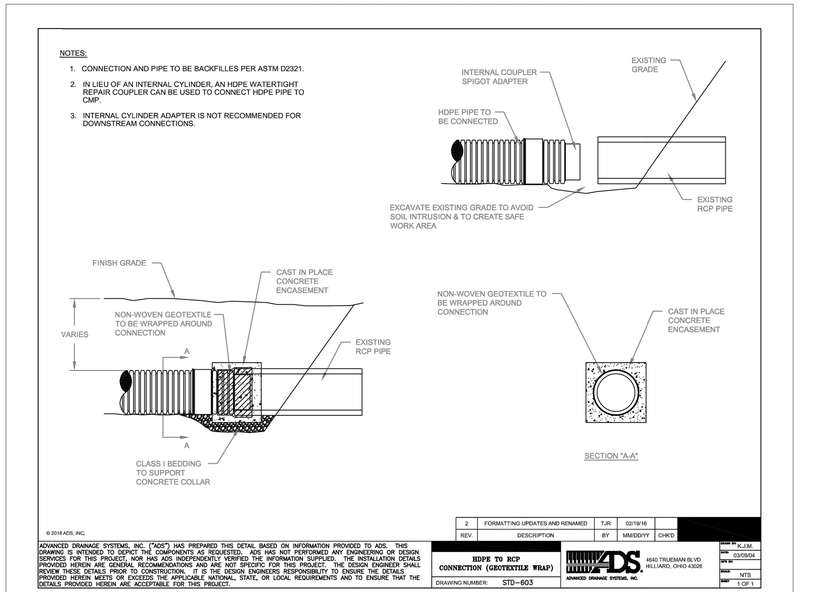
4 — DETAIL 4
ONSITE 2' VALLEY GUTTER DETAIL
NTS



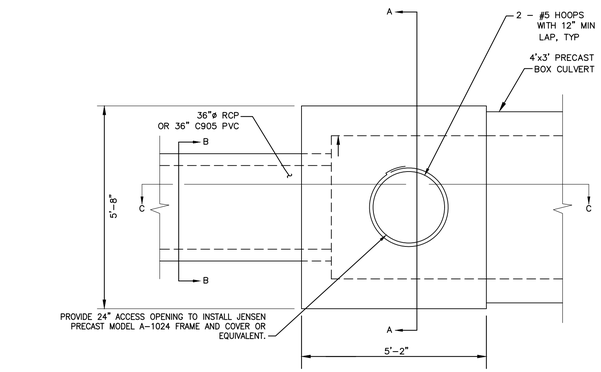
5 — DETAIL 5
3' CURB CUT DETAIL
NTS



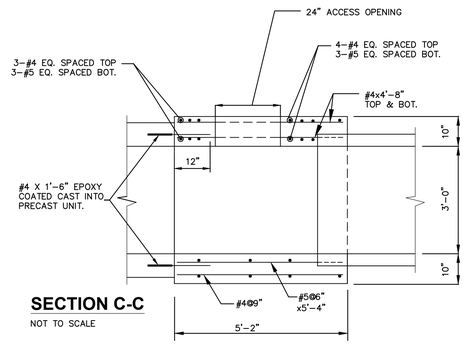
6 — DETAIL 6
2' ADA COMPLIANT VALLEY GUTTER DETAIL
NTS



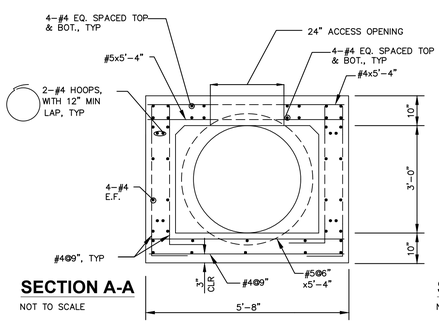
12 — DETAIL 12
RCP TO HDPE ADAPTER DETAIL
NTS



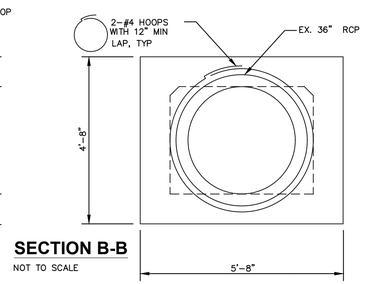
PLAN VIEW
NOT TO SCALE



SECTION C-C
NOT TO SCALE



SECTION A-A
NOT TO SCALE

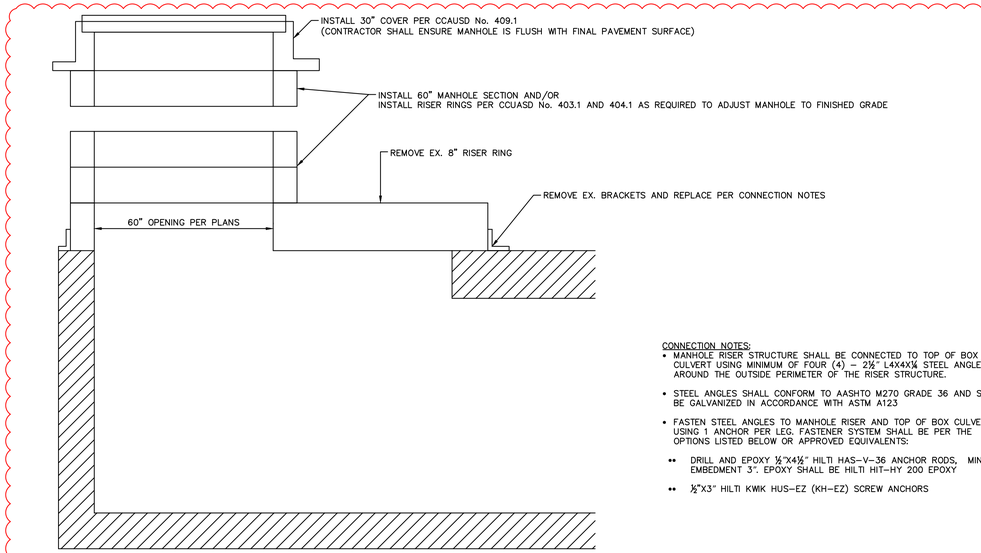


SECTION B-B
NOT TO SCALE

NOTES:

1. MINIMUM CONCRETE STRENGTH TO BE f'c=4500psi AT 28 DAYS.
2. REINFORCING STEEL SHALL BE ASTM 615, GRADE 60.
3. ALL BENDS AND HOOKS SHALL MEET THE REQUIREMENTS OF AASHTO ARTICLE 8.23. ALL BEND DIMENSIONS FOR REINFORCING STEEL SHALL BE OUT-TO-OUT OF BARS. ALL PLACEMENT DIMENSIONS FOR REINFORCING STEEL SHALL BE CENTER-TO-CENTER OF BARS, UNLESS NOTED OTHERWISE.
4. CUT REINFORCING STEEL TO CLEAR OPENING.
5. ALL REINFORCING STEEL SHALL HAVE 2" CLEAR COVER, UNLESS NOTED OTHERWISE.

7 — DETAIL 7
CAST-IN PLACE JUNCTION STRUCTURE
NTS



CONNECTION NOTES:

- MANHOLE RISER STRUCTURE SHALL BE CONNECTED TO TOP OF BOX CULVERT USING MINIMUM OF FOUR (4) – 2½" L4X4X¼ STEEL ANGLES AROUND THE OUTSIDE PERIMETER OF THE RISER STRUCTURE.
- STEEL ANGLES SHALL CONFORM TO AASHTO M270 GRADE 36 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123
- FASTEN STEEL ANGLES TO MANHOLE RISER AND TOP OF BOX CULVERT USING 1 ANCHOR PER LEG. FASTENER SYSTEM SHALL BE PER THE OPTIONS LISTED BELOW OR APPROVED EQUIVALENTS:
  - •• DRILL AND EPOXY ½"X4½" HILTI HAS-V-36 ANCHOR RODS, MINIMUM EMBEDMENT 3". EPOXY SHALL BE HILTI HIT-HY 200 EPOXY
  - •• ½"X3" HILTI KWIK HUS-EZ (KH-EZ) SCREW ANCHORS

12 — MANHOLE ADJUSTMENT TO GRADE DETAIL
NTS

This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

No.	REVISIONS	DATE	BY
1	SITE PLAN REV & EFS EXTENSION	08/29/19	

Kimley»Horn
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PROFESSIONAL ENGINEER - STATE OF NEVADA
THOMAS ACKERET
Exp. 12/31/20
CIVIL
No. 18597
09/ 20/ 2019

KHA PROJECT	192008000
DATE	09/ 20/ 2019
SCALE	AS SHOWN
DESIGNED BY	TEA
DRAWN BY	JPH
CHECKED BY	TEA

GRADING & STORM DRAIN DETAIL SHEET 1

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
NEVADA
CITY OF LAS VEGAS
CLV PERMIT # L19-00103

SHEET NUMBER
C3.8
SHEET 15 OF 33

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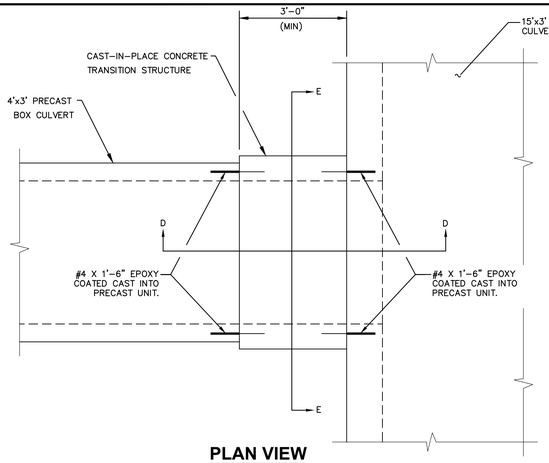
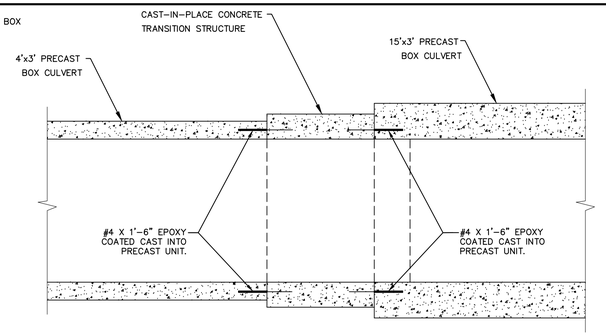
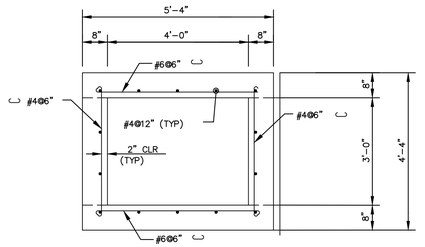


PLAN VIEW
NOT TO SCALE



SECTION D-D
NOT TO SCALE



SECTION E-E
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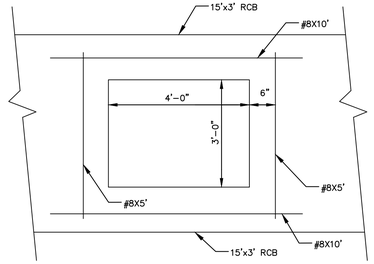
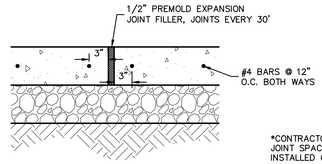


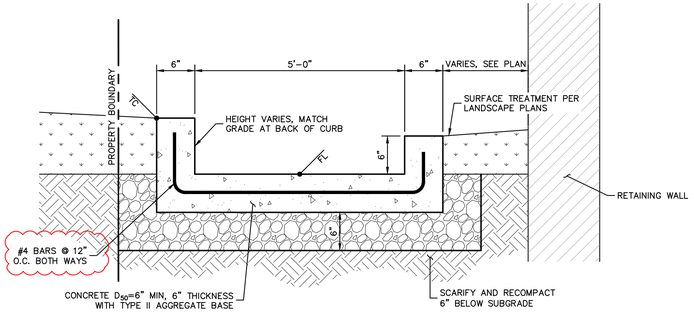
15'X3' RCB OPENING DETAIL
NOT TO SCALE

8 — DETAIL8
15'x3' PRECAST CULVERT-TO-4'x3' PRECAST CULVERT CONNECTION — NTS



*CONTRACTOR SHALL ENSURE EXPANSION JOINT SPACING IS CONSISTENT WITH CITY INSTALLED CHANNEL

7 — DETAIL 7
EXPANSION JOINT DETAIL — NTS



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9 — DETAIL 9
5' WIDE RECTANGULAR CONCRETE DRAINAGE SWALE (U-CHANNEL) — NTS

BILL OF MATERIALS (RCP HDPE CMP)

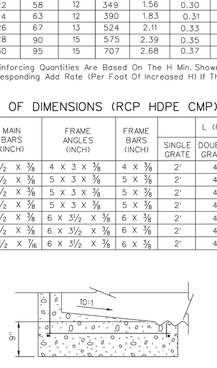
PIPE SIZE (INCH)	SINGLE (ONE GRATE) ✱ CONCRETE (CY) BASE QUAN. (H MIN.)	ADD RATE (CY/FT)	✱ REINF. (LB.) BASE QUAN. (H MIN.)	ADD RATE (LB/FT)	STR STEEL (LB)	DOUBLE (TWO GRATES) ✱ CONCRETE (CY) BASE QUAN. (H MIN.)	ADD RATE (CY/FT)	✱ REINF. (LB.) BASE QUAN. (H MIN.)	ADD RATE (LB/FT)	STR STEEL (LB)	TRIPLE (THREE GRATES) ✱ CONCRETE (CY) BASE QUAN. (H MIN.)	ADD RATE (CY/FT)	✱ REINF. (LB.) BASE QUAN. (H MIN.)	ADD RATE (LB/FT)	STR STEEL (LB)
≤15	0.71	0.19	36	10	211	1.06	0.26	50	13	397	1.41	0.33	70	17	583
18	0.89	0.20	40	10	306	1.31	0.28	56	13	574	1.72	0.35	77	18	842
24	1.08	0.22	58	12	349	1.56	0.30	80	15	652	2.04	0.37	105	20	956
30	1.28	0.24	63	12	390	1.83	0.31	86	16	729	2.38	0.39	113	20	1068
36	1.50	0.26	67	13	524	2.11	0.33	92	16	980	2.72	0.41	120	21	14.35
42	1.71	0.28	90	15	575	2.39	0.35	120	18	1073	3.07	0.43	154	22	1571
48	1.94	0.30	95	15	707	2.68	0.37	127	18	1329	3.42	0.44	163	23	1951

✱The Concrete And Reinforcing Quantities Are Based On The H Min. Shown. Increase The Concrete And Reinforcing Base Quantity By The Corresponding Add Rate (Per Foot Of Increased H) If The H Specified Is Larger Than H Min.

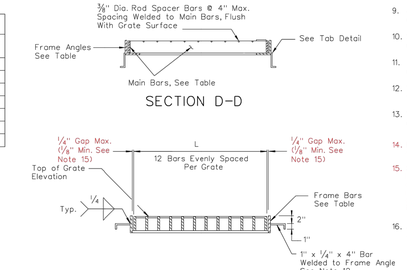
TABLE OF DIMENSIONS (RCP HDPE CMP)

PIPE SIZE (INCH)	A	H Min. (FT)	MAIN BARS (INCH)	FRAME ANGLES (INCH)	FRAME BARS (INCH)	L (FT) SINGLE GRATE	DOUBLE GRATE	TRIPLE GRATE
≤ 15	2'	2.50	3½ x ⅜	4 X 3 X ⅜	4 X ⅜	2'	4'	6'
18	2' 6"	3.00	4½ x ⅜	5 X 3 X ⅜	5 X ⅜	2'	4'	6'
24	3'	3.50	4½ x ⅜	5 X 3 X ⅜	5 X ⅜	2'	4'	6'
30	3' 6"	4.00	4½ x ⅜	5 X 3 X ⅜	5 X ⅜	2'	4'	6'
36	4'	4.50	5½ x ⅜	6 X 3½ X ⅜	6 X ⅜	2'	4'	6'
42	4' 6"	5.00	5½ x ⅜	6 X 3½ X ⅜	6 X ⅜	2'	4'	6'
48	5'	5.50	5½ x ⅜	6 X 3½ X ⅜	6 X ⅜	2'	4'	6'

R-4.3

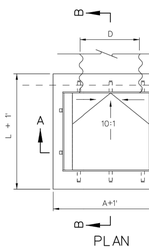


SECTION B-B

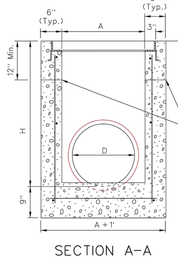


SECTION D-D

SECTION C-C



PLAN



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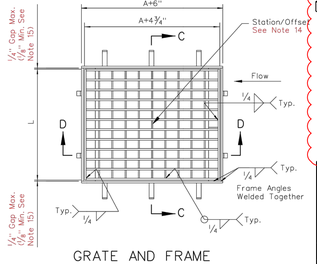
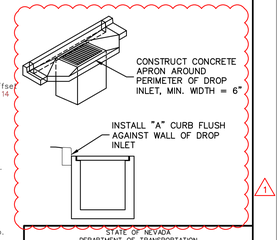


GRATE AND FRAME

NOTES:
1. All concrete shall be class A or AA.
2. Reinforcing steel shall be No.4 bars with maximum spacing at 18 inch centers, wired tightly at all intersections and embedded 2 inches clear of all concrete surfaces.
3. Exposed edges of concrete shall be chamfered 1 inch.
4. Dimensions may be varied to fit local conditions if ordered by the engineer.
5. Commercial prefabricated gratings approved by the bridge division may be used in lieu of the field-welded grating shown.
6. Extreme low cover situations to be reviewed by hydraulics engineer.
7. Slope catch basin floors 10:1 from all directions toward outlet pipe. If basin is used as a junction, shape flow line(s) to outlet pipe and provide a 10:1 slope to flow line(s).
8. See sheet R-2.9.1 for details if connecting HDPE pipe.
9. A single Type 2 drop inlet shall be constructed unless a double or triple is specified.
10. Single grate configuration shown for clarity. Outside dimensions of each grate shall measure 2 feet by A+4¾".
11. Run rebar continuous thru construction joint. Joint must be a minimum of 3 inches from horizontal bars.
12. Weld one tab on ℄ of grate and remaining two tabs 6 inches from edge of frame. Six tabs per inlet, three tabs on each side
13. Weld tabs 6 inches from edge of frame. Four tabs per grate, two on each side.
14. For multiple grate installations, the station/offset is to the center of the concrete drop inlet structure.
15. Grate is to fit in the frame and be easily removed. If the gap between the grate and frame is greater than 1/4" on each side of the grate, the grate and frame shall be removed and reconstructed to the tolerances specified or, with approval of the engineer, a filler strip up to 1/4" in thickness may be welded flush to the top of the frame to reduce the gap to a maximum of 1/4"
16. Additional pipe penetrations may be placed in any wall. Pipe penetrations are to be to the center of the structure wall unless specified otherwise.



1

STATE OF NEVADA
DEPARTMENT OF TRANSPORTATION

DROP INLET TYPE 2

R-4.2.1	(609)	Signed Original On File
ADOPTED 11/70	REVISED 10/15	CHIEF HYDRAULICS ENGR.

10 — DETAIL 10
DROP INLET TYPE 2 DETAIL — NTS

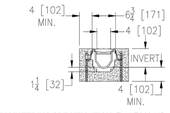
Z886-HD
6-3/4 [171] WIDE REVEAL TRENCH DRAIN SYSTEM WITH HEAVY-DUTY FRAME ASSEMBLY

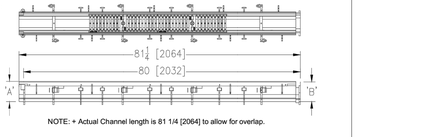
ZURN

SPECIFICATION SHEET
TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice

SPECIFYING ENGINEER IS RESPONSIBLE FOR CONCRETE ENCASEMENT AND REINFORCING BASED UPON APPLICATION AND LOCAL CODES





NOTE: + Actual Channel length is 81 1/4 [2064] to allow for overlap.

ENGINEERING SPECIFICATION: Zurn Z886-HD
Channels are 80" [2032 mm] long, 6-3/4" [171 mm] wide reveal and have a 4" [102 mm] throat. Modular channel sections are made of 0% water absorbent High Density Polyethylene (HDPE). Channels have a positive mechanical connection between channel sections that will not separate during the installation and mechanically lock into the concrete surround every 10" [254 mm]. Channels weigh less than 2.31 lbs.[1.05kg] per linear foot, have a smooth, 1-1/2" [38 mm] radiused self cleaning bottom with a Manning's coefficient of .009 and .75% or neutral 0% built in slope. Channels have rebar clips standard to secure them in final location. Channels provided with standard DGC grates that lock down to frame. Zurn 5.375" [137 mm] wide reveal Ductile Iron Slotted Grate conforming to ASTM specification A536-84, Grade 80-55-06. Ductile Iron grate is rated class C per the DIN EN1433 top load classifications. Supplied in 20" [508 mm] nominal lengths with 1/2" [13 mm] wide slots, and 3/4" [19 mm] bearing depth. Grate has an open area of 28.1 sq. in per ft. [59,463 sq. mm per meter]. The .105" [2.67 mm] thick Heavy-Duty Carbon Steel Frame Assembly conforms to ASTM specification A36 with 10 - 4" [102 mm] long concrete anchors per 80" [2032 mm]. Grate lockdown bars are to be integral to the frame. Frame supplied with powder coated finish. All welds must be performed by a certified welder per ASTM standard AWS D1.1. Frames produced in the U.S.A.

Trench No.	'A' Shallow Inv.	'B' Deep Inv.	Flow (cfs)	(gpm)	(lps)
8601	3.50 [89]	4.10 [104]	0.21	93	6
8602	4.10 [104]	4.70 [119]	0.27	122	8
8603	4.70 [119]	5.30 [135]	0.34	152	10
8603N	5.30 [135]	5.30 [135]	-	-	-
8604	5.30 [135]	5.90 [150]	0.41	183	12
8605	5.90 [150]	6.50 [165]	0.48	214	13
8606	6.50 [165]	7.10 [180]	0.55	245	15
8606N	7.10 [180]	7.10 [180]	-	-	-
8607	7.10 [180]	7.70 [196]	0.62	276	17
8608	7.70 [196]	8.30 [211]	0.69	308	19
8609	8.30 [211]	8.90 [226]	0.76	339	21
8610	8.90 [226]	9.50 [241]	0.83	371	23
8611	9.50 [241]	10.10 [257]	0.90	403	25
8612	10.10 [257]	10.70 [272]	0.97	435	27
8612N	10.70 [272]	10.70 [272]	-	-	-
8613	10.70 [272]	11.30 [287]	1.04	467	29
8614	11.30 [287]	11.90 [302]	1.11	498	31
8615	11.90 [302]	12.50 [318]	1.18	530	33

PREFIX OPTIONS (Check/specify appropriate options)
____ Z Six-foot, Eight-inch High Density Polyethylene (HDPE)*

SUFFIX OPTIONS (Check/specify appropriate options)

Outlet Adapters Add/Each
____ -E1 Closed End Cap
____ -E2 2 [51] No-Hub End Outlet
____ -E3 3 [76] No-Hub End Outlet
____ -E4 4 [102] No-Hub End Outlet
____ -E6 6 [152] No-Hub End Outlet
____ -U2 2 [51] No-Hub Bottom Outlet
____ -U3 3 [76] No-Hub Bottom Outlet
____ -U4 4 [102] No-Hub Bottom Outlet
____ -U6 6 [152] No-Hub Bottom Outlet

Frame Options
____ -CBF Black Acid Resistant Coated Top Frame
____ -LD Light Duty Grates on Heavy Duty Frame
____ -SW Sidewall Extension - 9 [229] High
____ -SW2 Sidewall Extension - 18 [457] High

Grate Options (Load Classifications are per DIN EN1433)
____ -BDC Black Acid Resistant Epoxy Coated Ductile Grate - Class C
____ -BDE Black Acid Resistant Epoxy Coated Ductile Grate - Class E
____ -BG Galvanized Ductile Iron Bar Grate - Class C
____ -DBG Ductile Iron Cast Bar Grate - Class C
____ -DC Ductile Iron Solid Cover - Class C
____ -DGC Ductile Iron Slotted Grate - Class C *
____ -DGE Ductile Iron Slotted Grate - Class E
____ -GDC Galvanized Ductile Iron Slotted Grate - Class C
____ -GDE Galvanized Ductile Iron Slotted Grate - Class E
____ -GHPDE Galvanized Heel-Proof Ductile Grate - Class E
____ -HPDE Heel-Proof Ductile Slotted Grate - Class E
____ -RFGC Reinforced Slotted Galvanized Grate - Class C
____ -RFSC Reinforced Slotted Stainless Steel Grate - Class C
____ -RPGC Reinforced Perforated Galvanized Grate - Class C
____ -RPGRC Reinforced Perforated Galvanized Reverse Punch Grate - Class C
____ -RPSC Reinforced Perforated Stainless Steel Grate - Class C
____ -RPSRC Reinforced Perforated Stainless Steel Reverse Punch Grate - Class C

Miscellaneous Options
____ -JC Joint Connector
____ -VP Vandal-Proof Lockdown

Decorative Grate Options (Load Classifications are per DIN EN1433)
____ -SBG Stainless Steel Bar Grate - Class E

MADE in the U.S.A.
____ -BDE-USA Black Acid Resistant Epoxy Coated Ductile Grate - Class E
____ -DGC-USA Ductile Iron Slotted Grate - Class C
____ -DGE-USA Ductile Iron Slotted Grate - Class E
____ -GDC-USA Galvanized Ductile Slotted Grate - Class C
____ -GDE-USA Galvanized Ductile Slotted Grate - Class E
____ -GHPDE-USA Galvanized Heel-Proof Ductile Grate - Class E
____ -HPDE-USA Heel-Proof Ductile Slotted Grate - Class E
____ -PPC Plastic Perforated Grate - Class C

Miscellaneous Options
____ -DB Bottom Dome Strainer

* Regularly furnished unless otherwise specified.

Zurn Industries, LLC | **Specification Drainage Operation**
1801 Pittsburgh Avenue, Erie, PA U.S.A. 16502 · Ph. 855-663-9876, Fax 814-454-7929
In Canada | **Zurn Industries Limited**
3544 Nashua Drive, Mississauga, Ontario L4V 1L2 · Ph. 905-405-8272, Fax 905-405-1292
www.zurn.com

Rev. F
Date: 1/26/2017
C.N. No. 136162
Prod. | Dwg. No. Z886-HD

11 — DETAIL 11
TRENCH DRAIN DETAIL — NTS

No.	REVISIONS	DATE	BY
1	SITE PLAN REV & EFS EXTENSION	08/29/19	

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PROFESSIONAL ENGINEER - STATE OF NEVADA
THOMAS ACKERET
Exp. 12/31/20
CIVIL
No. 18592
09/ 20/ 2019

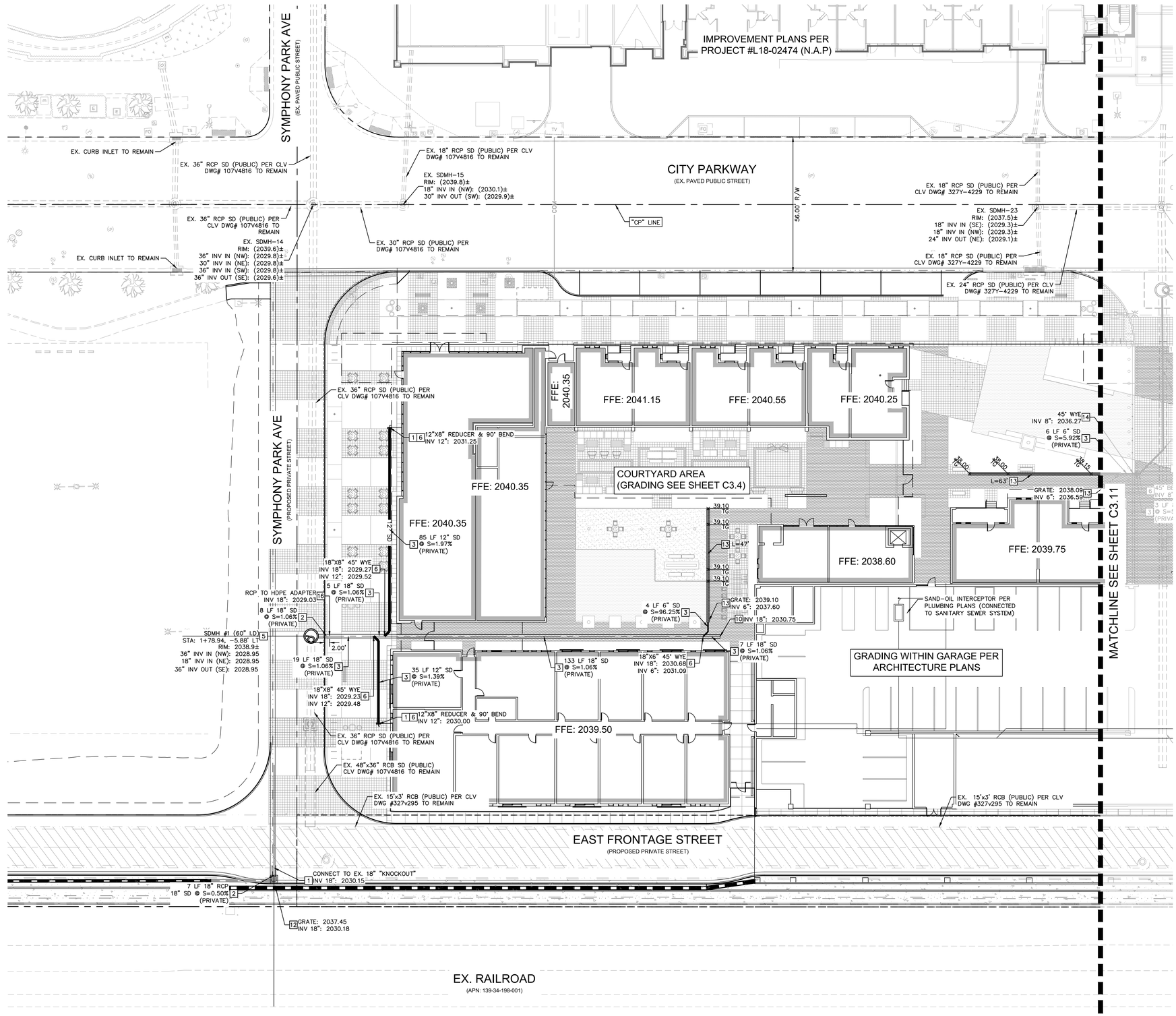
KHA PROJECT 192008000
DATE 09/ 20/ 2019
SCALE AS SHOWN
DESIGNED BY TEA
DRAWN BY JPH
CHECKED BY TEA

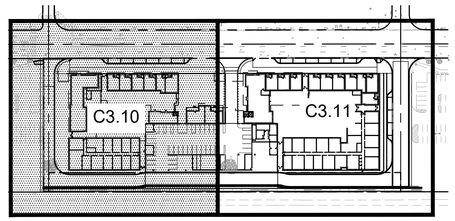
GRADING & STORM DRAIN DETAIL SHEET 2

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
CITY OF LAS VEGAS · NEVADA

CLV PERMIT # L19-00103

SHEET NUMBER
C3.9





KEY MAP NTS

GENERAL NOTES

1. CONTRACTOR TO VERIFY EXISTING IMPROVEMENTS SHOWN ON THE PLAN.
2. CONTRACTOR TO PROTECT IN PLACE, DURING DEMOLITION AND CONSTRUCTION, ALL EXISTING IMPROVEMENTS THAT ARE TO REMAIN AS NOTED ON THE PLAN.
3. ANY EXISTING STRUCTURE, IMPROVEMENT, OR APPURTENANCE TO REMAIN THAT IS DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE IMMEDIATELY REPAIRED OR REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
4. CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING UNDERGROUND UTILITIES BEFORE CONSTRUCTION AND PROTECT IN PLACE UNLESS NOTED ON THE PLANS.
5. ALL DIMENSIONS ARE MEASURED FROM BACK OF CURB UNLESS OTHERWISE NOTED ON PLANS.
6. ADD 2000 FEET TO ALL SPOT ELEVATIONS UNLESS OTHERWISE NOTED.

STORM DRAIN NOTES

1. STORM DRAIN POINT OF CONNECTION. REFER TO MEP PLANS FOR CONTINUATION
2. INSTALL RCP STORM DRAIN PIPE WITH EXCAVATION, BACKFILL AND TYPE 2 BEDDING PER CCAUSD No. 503. CLASS, SIZE, LENGTH AND SLOPE AS NOTED ON PLAN.
3. INSTALL HDPE STORM DRAIN PIPE WITH EXCAVATION, BACKFILL AND TYPE 2 BEDDING PER CCAUSD No. 503.1. SIZE, LENGTH AND SLOPE AS NOTED ON PLAN.
5. INSTALL TYPE III STORM DRAIN MANHOLE PER CCAUSD No. 406.1, COLLAR PER CCAUSD No. 408.1, COVER PER CCAUSD No. 409.1 AND 410.
6. INSTALL HDPE FITTING, SIZE PER PIPE. TYPE AS NOTED ON PLAN.
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BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL
BENCHMARK NO. "8LV0133NE6"

MONUMENT DESCRIPTION IN RIVET & PLATE IN TOP OF CURB AT THE SOUTHWEST CORNER OF SYMPHONY PARK AVENUE AND GRAND CENTRAL PARKWAY.

ELEVATION = 619.999 METERS
2034.12 FEET

CITY OF LAS VEGAS VERTICAL CONTROL DATUM BASED UPON NORTH AMERICAN VERTICAL DATUM OF 2008 (NAVD '88)

BASIS OF BEARING

SOUTH 27°55'16" WEST, BEING THE EAST LINE OF LOT 5 OF THAT COMMERCIAL SUBDIVISION KNOWN AS "PARKWAY CENTER" ON FILE IN THE OFFICE OF THE COUNTY RECORDER, CLARK COUNTY, NEVADA IN BOOK 53 OF PLATS, AT PAGE 61.

GRAPHIC SCALE IN FEET
0 10 20 40

NORTH

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No.	REVISIONS	DATE	BY
1	SITE PLAN REV & EFS EXTENSION	08/29/19	

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PROFESSIONAL ENGINEER-STATE OF NEVADA
THOMAS ACKERET
Exp. 12/31/20
CIVIL
No. 18592
09/ 20/ 2019

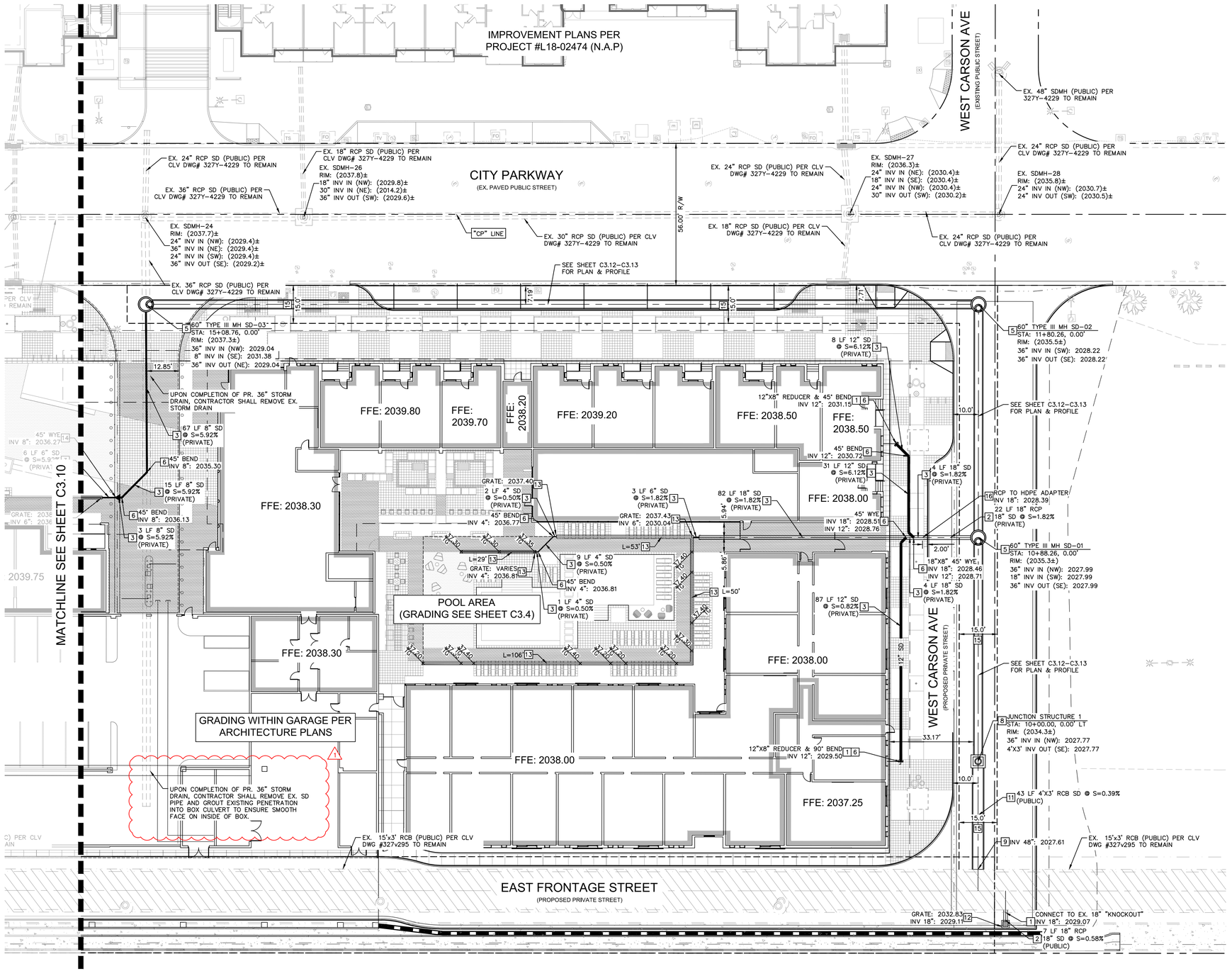
KHA PROJECT 192008000		
DATE	09/ 20/ 2019	
SCALE	AS SHOWN	
DESIGNED BY	TEA	
DRAWN BY	JPH	
CHECKED BY	TEA	

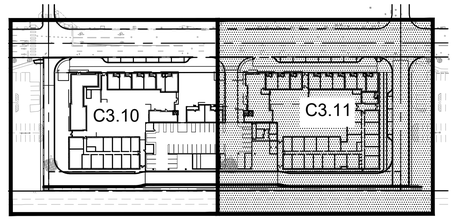
ONSITE STORM DRAIN PLAN 1

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
NEVADA

CITY OF LAS VEGAS
CLV PERMIT # L19-00103

SHEET NUMBER
C3.10





KEY MAP

NTS

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Exp. 12/31/20
CIVIL
09/ 20/ 2019

KHA PROJECT 192008000
DATE 09/ 20/ 2019
SCALE AS SHOWN
DESIGNED BY TEA
DRAWN BY JPH
CHECKED BY TEA

ONSITE STORM DRAIN PLAN 2

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
CITY OF LAS VEGAS NEVADA

CLV PERMIT # L19-00103

SHEET NUMBER
C3.11

SHEET 18 OF 33

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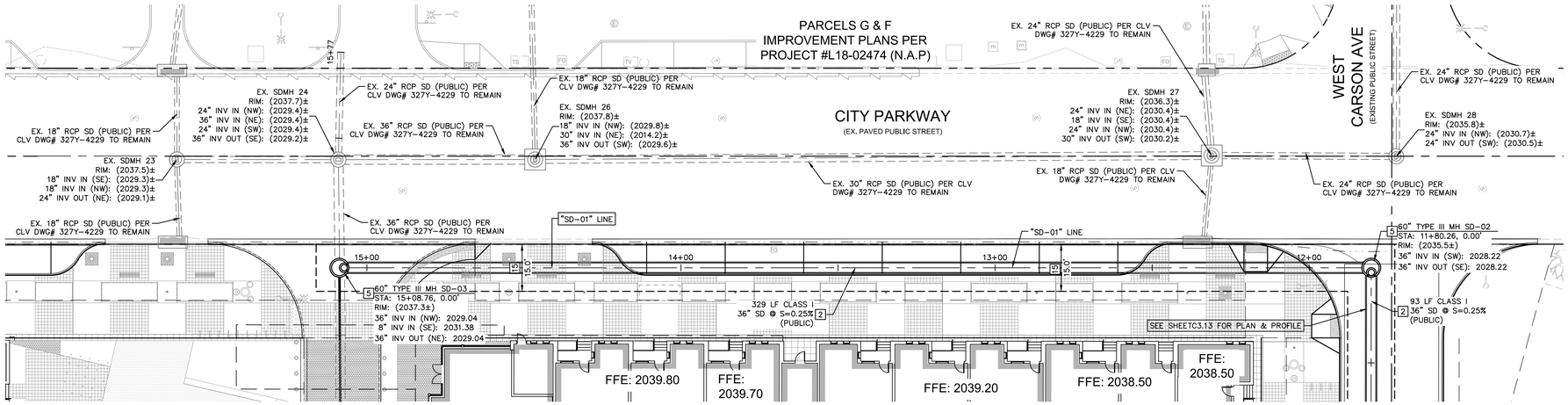
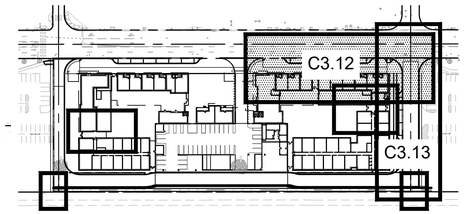


"SD-01" LINE PLAN VIEW

1" = 20'



KEY MAP NTS

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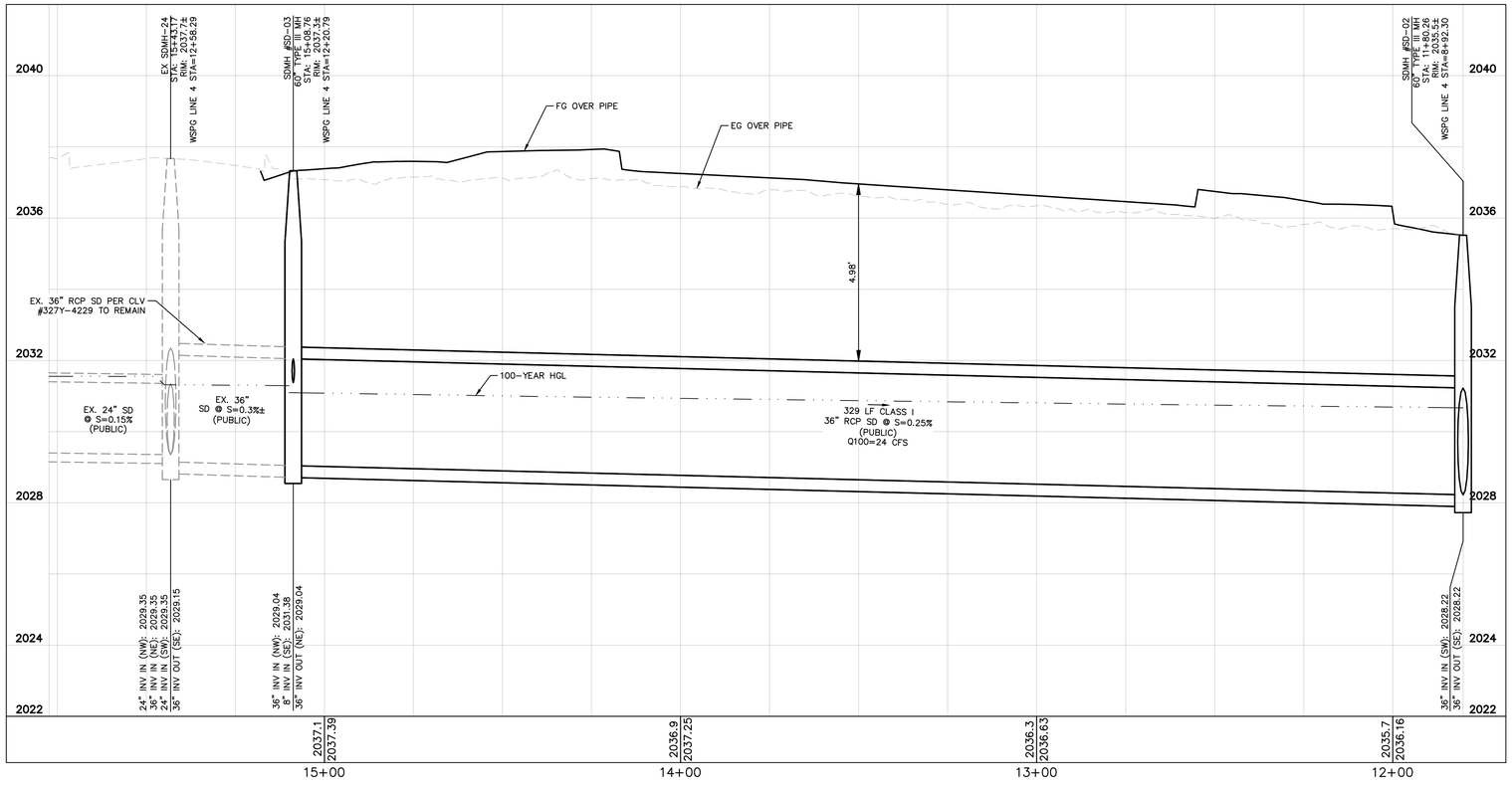

"SD-01" LINE PROFILE VIEW

HORIZONTAL SCALE= 1" = 20'
VERTICAL SCALE= 1" = 2'

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No.	REVISIONS	DATE	BY
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PROFESSIONAL ENGINEER - STATE OF NEVADA
THOMAS ACKERET
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CIVIL
No. 18592
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KHA PROJECT	192008000
DATE	09/ 20/ 2019
SCALE	AS SHOWN
DESIGNED BY	TEA
DRAWN BY	JPH
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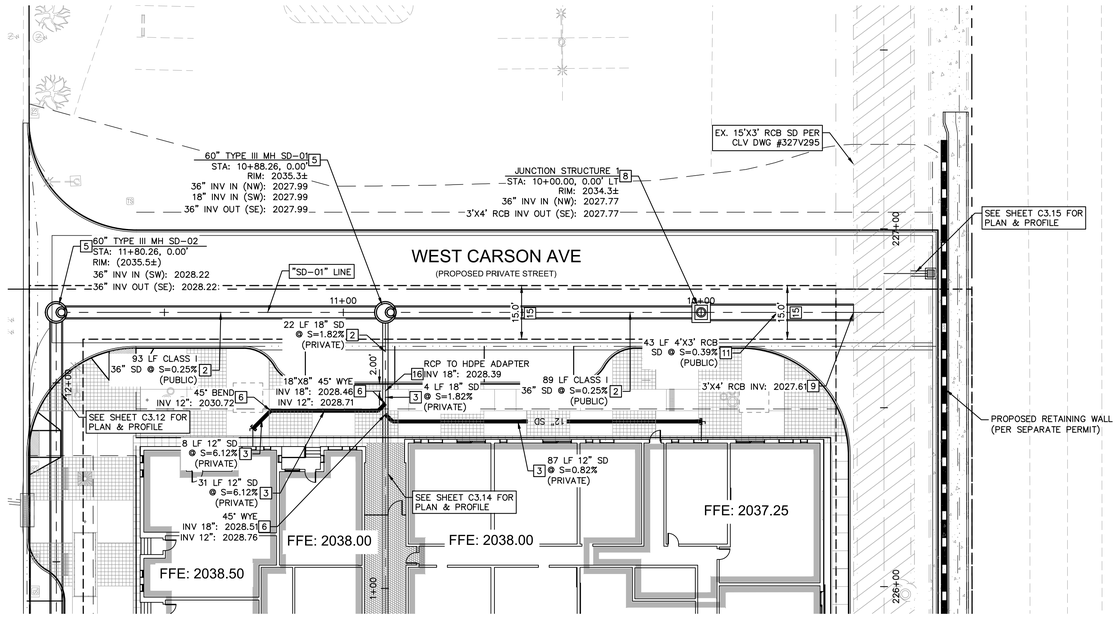
STORM DRAIN PLAN & PROFILE 1

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
CITY OF LAS VEGAS NEVADA

CLV PERMIT # L19-00103

SHEET NUMBER
C3.12



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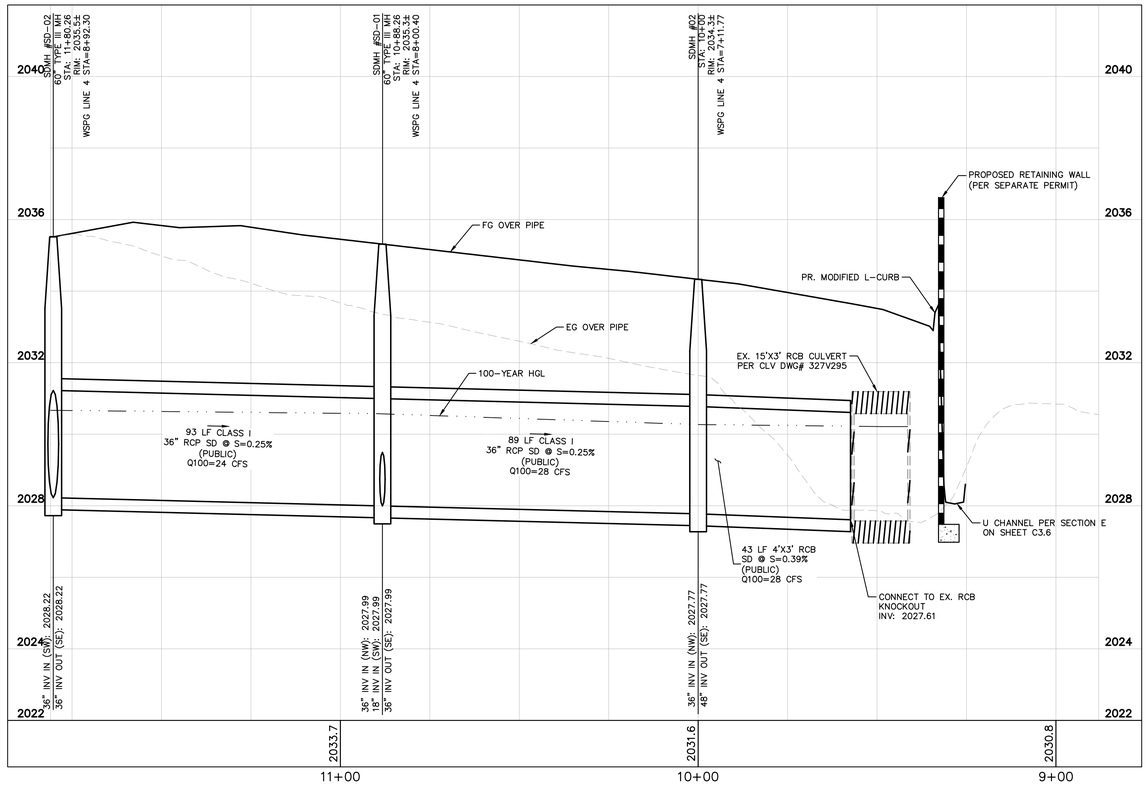
SCALE: 1" = 20'



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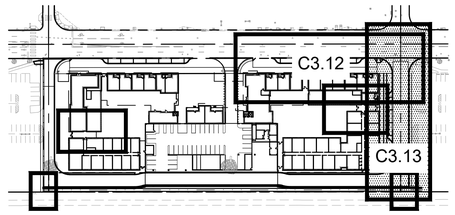

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SHEET NUMBER
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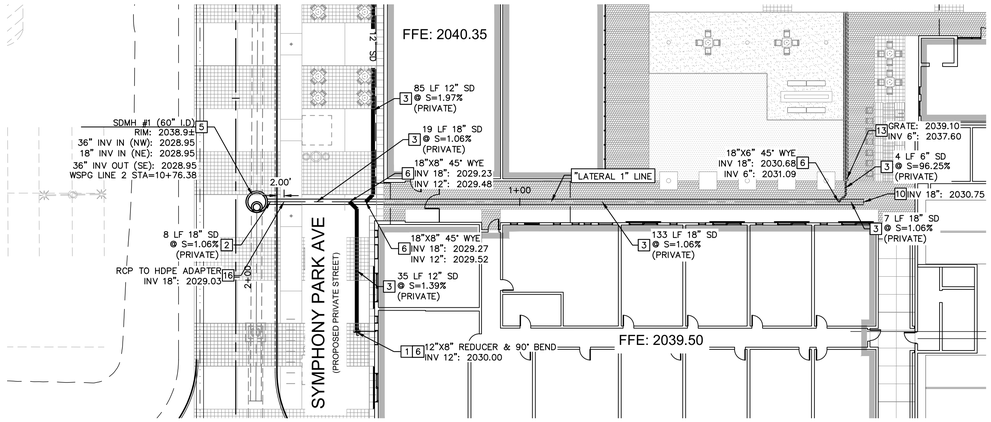
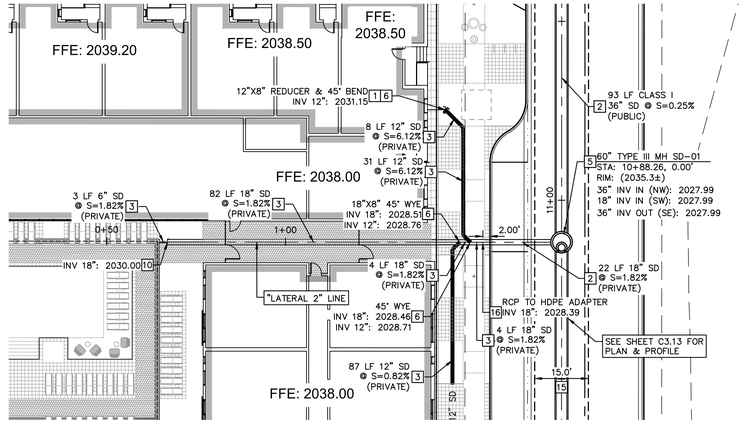


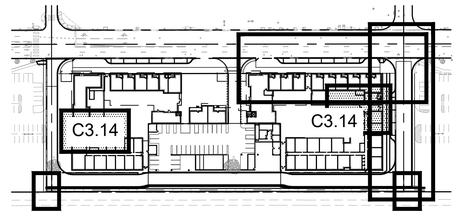
"LATERAL 1" PLAN VIEW

SCALE: 1:20



"LATERAL 2" PLAN VIEW

SCALE: 1:20



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CITY OF LAS VEGAS VERTICAL CONTROL
BENCHMARK NO. "8LV0133NE6"

MONUMENT DESCRIPTION IN RIVET & PLATE IN TOP OF CURB AT THE SOUTHWEST CORNER OF SYMPHONY PARK AVENUE AND GRAND CENTRAL PARKWAY.

ELEVATION = 619.999 METERS
2034.12 FEET

CITY OF LAS VEGAS VERTICAL CONTROL DATUM BASED UPON NORTH AMERICAN VERTICAL DATUM OF 2008 (NAVD '88)

BASIS OF BEARING

SOUTH 27°55'16" WEST, BEING THE EAST LINE OF LOT 5 OF THAT COMMERCIAL SUBDIVISION KNOWN AS "PARKWAY CENTER" ON FILE IN THE OFFICE OF THE COUNTY RECORDER, CLARK COUNTY, NEVADA IN BOOK 53 OF PLATS, AT PAGE 61.

GRAPHIC SCALE IN FEET
0 10 20 40
HORIZONTAL
0 1 2 4
VERTICAL

NORTH

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS TOO CLOSELY
CALL BEFORE YOU DO UNDERGROUND
Call before you UnderGround
1-702-432-5300
FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION (FAST)
Call before you Dig
Avoid cutting underground utility lines. It's costly.
CALL 811 OR 1-800-227-2600
Avoid overhead power line contact. It's costly.
Call Before You Overhead
1-702-227-2929

No.	DESCRIPTION	DATE	BY
1	SITE PLAN REV & EFS EXTENSION	08/29/19	

Kimley»Horn
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6671 LAS VEGAS BOULEVARD S., SUITE 320, LAS VEGAS, NV 89119
PHONE: 702-862-3600
WWW.KIMLEY-HORN.COM

PROFESSIONAL ENGINEER - STATE OF NEVADA
THOMAS ACKERET
No. 18592
Exp. 12/31/20
CIVIL
09/ 20/ 2019

KHA PROJECT 192008900
DATE 09/ 20/ 2019
SCALE AS SHOWN
DESIGNED BY TEA
DRAWN BY JPH
CHECKED BY TEA

STORM DRAIN PLAN & PROFILE 3

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
CITY OF LAS VEGAS NEVADA

CLV PERMIT # L19-00103

SHEET NUMBER
C3.14

SHEET 21 OF 33

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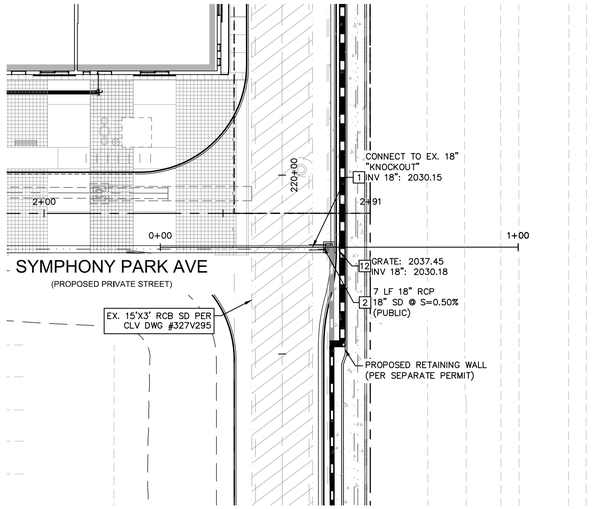
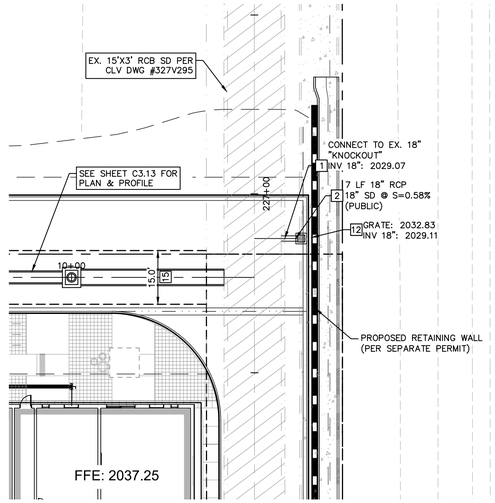


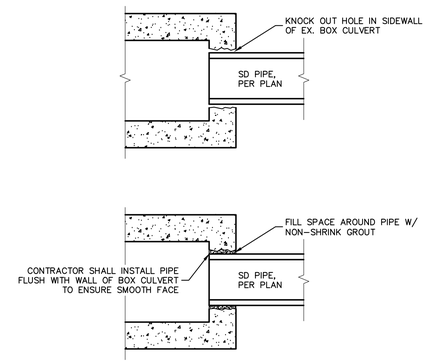
"DI 1" LINE PLAN VIEW

SCALE: 1" = 20'

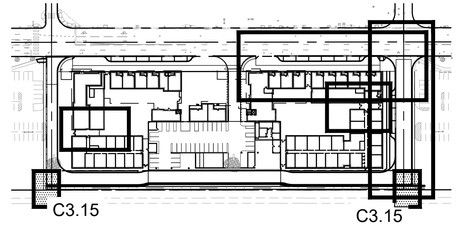


"DI 2" LINE PLAN VIEW

SCALE: 1" = 20'



1 DETAIL 1
BOX CULVERT PIPE CONNECTION DETAIL NTS



KEY MAP

NTS

GENERAL NOTES

1. CONTRACTOR TO VERIFY EXISTING IMPROVEMENTS SHOWN ON THE PLAN.
2. CONTRACTOR TO PROTECT IN PLACE, DURING DEMOLITION AND CONSTRUCTION, ALL EXISTING IMPROVEMENTS THAT ARE TO REMAIN AS NOTED ON THE PLAN.
3. ANY EXISTING STRUCTURE, IMPROVEMENT, OR APPURTENANCE TO REMAIN THAT IS DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE IMMEDIATELY REPAIRED OR REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
4. CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING UNDERGROUND UTILITIES BEFORE CONSTRUCTION AND PROTECT IN PLACE UNLESS NOTED ON THE PLANS.
5. ALL DIMENSIONS ARE MEASURED FROM BACK OF CURB UNLESS OTHERWISE NOTED ON PLANS.
6. ADD 2000 FEET TO ALL SPOT ELEVATIONS UNLESS OTHERWISE NOTED.

STORM DRAIN NOTES

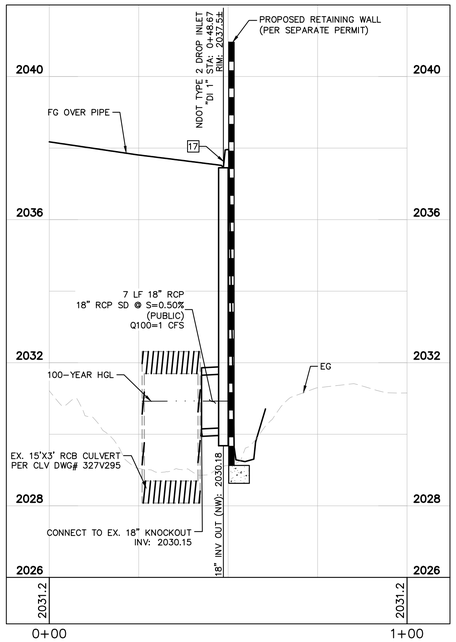
1 STORM DRAIN POINT OF CONNECTION. REFER TO MEP PLANS FOR CONTINUATION

2 INSTALL RCP STORM DRAIN PIPE WITH EXCAVATION, BACKFILL AND TYPE 2 BEDDING PER CCAUSD No. 503. CLASS, SIZE, LENGTH AND SLOPE AS NOTED ON PLAN.

12 INSTALL NDOT TYPE 2 STORM DRAIN DROP INLET PER DETAIL 10 ON SHEET C3.9

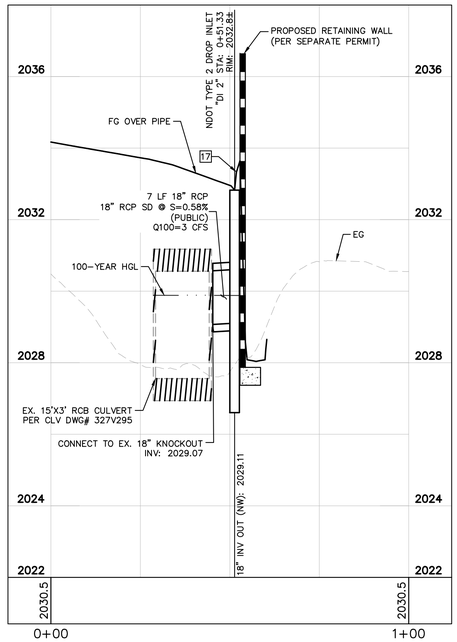
15 UNDERGROUND PUBLIC DRAINAGE EASEMENT PER DOC #20190702-0002741. SURFACE OF EASEMENT IS TO BE MAINTAINED BY PROPERTY OWNER.

17 INSTALL MODIFIED TYPE 'L' CONCRETE CURB AND GUTTER PER DETAIL 1 ON SHEET C3.8



"DI 1" LINE PROFILE VIEW

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'



"DI 2" LINE PROFILE VIEW

HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 2'

FLOOD ZONE NOTE

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BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL
BENCHMARK NO. "8LV0133NE6"

MONUMENT DESCRIPTION IN RIVET & PLATE IN TOP OF CURB AT THE SOUTHWEST CORNER OF SYMPHONY PARK AVENUE AND GRAND CENTRAL PARKWAY.

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2034.12 FEET

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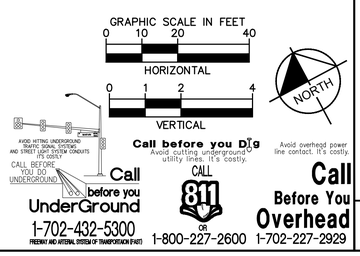

No.	REVISIONS	DATE	BY
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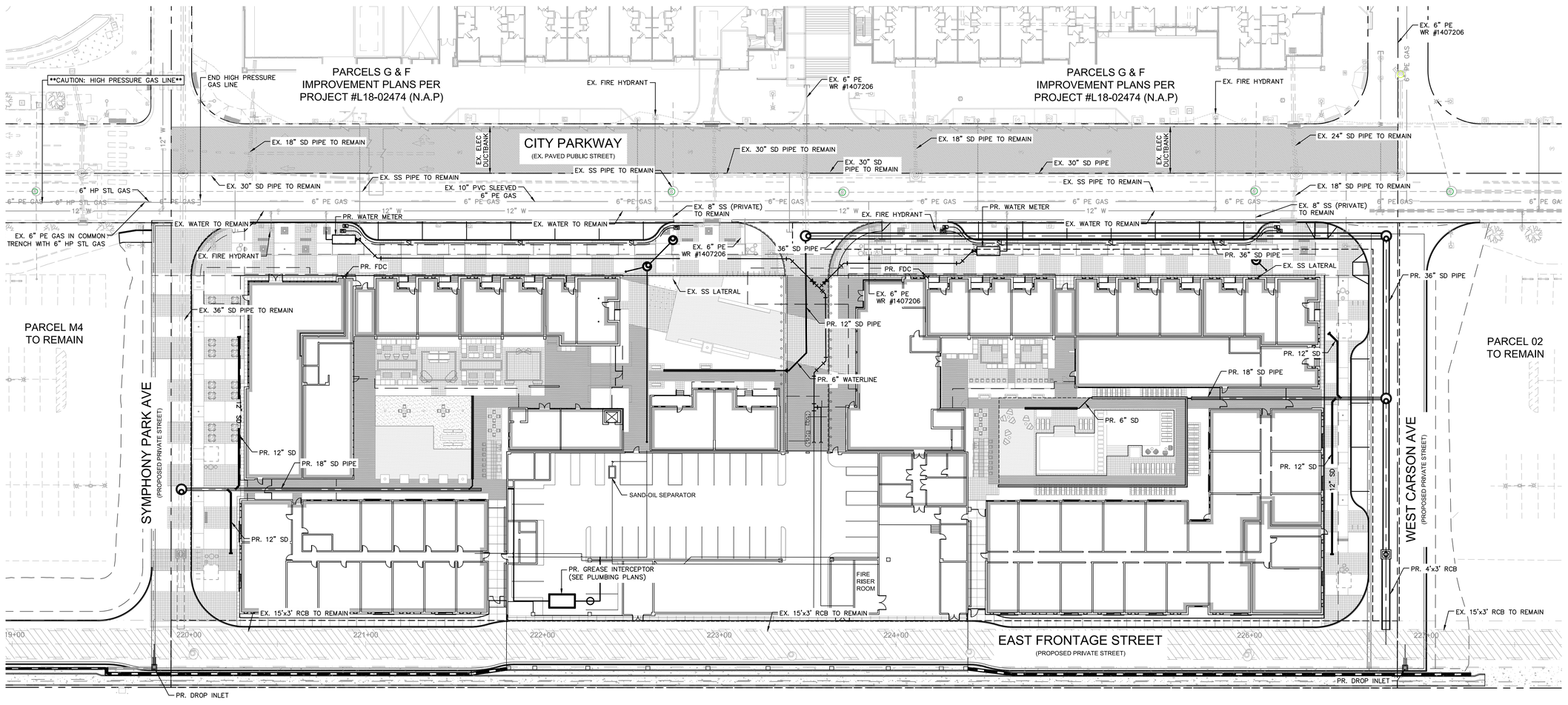
PROFESSIONAL ENGINEER - STATE OF NEVADA
THOMAS ACKERET
Exp. 12/31/20
CIVIL
No. 18592
09/ 20/ 2019

KHA PROJECT	192008000
DATE	09/ 20/ 2019
SCALE	AS SHOWN
DESIGNED BY	TEA
DRAWN BY	JPH
CHECKED BY	TEA

STORM DRAIN PLAN & PROFILE 4

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
NEVADA
CITY OF LAS VEGAS
CLV PERMIT # L19-00103

SHEET NUMBER
C3.15



BUILDING FIRE FLOW DATA (APARTMENTS)

TOTAL BUILDING AREA (SQ. FT)	288,263
BUILDING HEIGHT (FT)	69'-6 1/2"
NUMBER OF STORIES	5 + MEZZANINE
PRIMARY BUILDING OCCUPANCY CLASSIFICATION	R-2
OTHER BUILDING OCCUPANCY CLASSIFICATION	A-3, S-2
TYPE OF CONSTRUCTION	VA
FULL AUTOMATIC FIRE SPRINKLER (YES/NO)	YES
ANTICIPATED SPRINKLER FLOW DEMAND (GPM)	150
FIRE FLOW AT 20 PSI RESIDUAL (GPM) WITH 25% REDUCTION	6,000
TOTAL ONSITE FIRE HYDRANTS (PROPOSED)	0
TOTAL OFFSITE FIRE HYDRANTS (EXISTING)	4

BUILDING FIRE FLOW DATA (GARAGE)

TOTAL BUILDING AREA (SQ. FT)	145,175
BUILDING HEIGHT (FT)	51'-3"
NUMBER OF STORIES	5
PRIMARY BUILDING TYPE AND OCCUPANCY CLASSIFICATION	S-2
TYPE OF CONSTRUCTION	IB
FULL AUTOMATIC FIRE SPRINKLER (YES/NO)	YES
ANTICIPATED SPRINKLER FLOW DEMAND (GPM)	300
FIRE FLOW AT 20 PSI RESIDUAL (GPM) WITH 25% REDUCTION	3,000
TOTAL ONSITE FIRE HYDRANTS (PROPOSED)	0
TOTAL OFFSITE FIRE HYDRANTS (EXISTING)	4

EXTEND SERVICE LATERALS 2" AND SMALLER (2) 2"

WATER METERS IN FINISHED ROADWAYS SHALL BE RELOCATED TO BACK OF CURB, AND SHALL BE INSTALLED PER UDACS PLATE No. 2 OR 4. ALL SERVICE LATERALS 2" AND SMALLER MAY BE EXTENDED PROVIDED THE FOLLOWING CRITERIA ARE MET:

- LATERAL CAN ONLY BE EXTENDED IF CONNECTING TO COPPER.
- LATERAL MUST BE INSTALLED AT 90° TO THE MAIN.
- AN EXISTING SERVICE LATERAL THAT IS NOT COPPER IS TO BE ABANDONED FROM EXISTING WATER MAIN, AND REPLACED WITH A COPPER SERVICE LATERAL PER UDACS PLATE No. 4. IF THE CORPORATION STOP IS DAMAGED BEYOND REPAIR OR PULLED FROM THE EXISTING WATER MAIN, THE MAIN SHALL BE REPAIRED AT THE CONTRACTORS EXPENSE IN A MANNER APPROVED BY THE LVVWD. IF THE CORPORATION STOP IS NOT WATER TIGHT, THE CONTRACTOR SHALL NOTIFY THE LVVWD COMMUNICATION SUPPORT CENTER (702-258-7171) FOR FURTHER DIRECTION.

REDUCED PRESSURE PRINCIPLE ASSEMBLY RPPA (1) 2"

APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE No. 8. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVVWD. ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY. EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.

CAUTION: HIGH PRESSURE GAS!!! CALL SOUTHWEST GAS AT 702-400-1789 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE HAS LINES 48 HOURS PRIOR TO CONSTRUCTION.

NOTE:
THIS SHEET IS PROVIDED FOR REFERENCE ONLY. SEE SHEETS C4.1-C4.2 DESIGN AND ANNOTATION.

ORIGINALLY SIGNED BY CHRIS ANDERSEN 05/20/2019
SOUTHWEST GAS CORPORATION DATE

ORIGINALLY SIGNED BY STEVEN TAULBEE 05/29/2019
LAS VEGAS FIRE AND RESCUE DATE

APPROVED FOR CONSTRUCTION

ORIGINALLY SIGNED BY JASON GHADERY
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT No. 136263 FIRST APPROVED DATE 08/13/2019

LVVWD APPROVED FIRE FLOW: TOTAL _____ GM/ONSITE _____ GPM

GENERAL NOTES

1. ALL EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
2. CONTRACTOR TO FIELD VERIFY EXISTING INVERT ELEVATION PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
3. ALL WATER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS - 3RD EDITION" (UDACS) WHERE APPLICABLE.
4. ALL ABOVE GROUND UTILITY APPURTENANCES SHALL BE ADJUSTED TO MATCH FINISHED GRADE ELEVATIONS.

BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL
BENCHMARK NO. "BLV0133NE6"

MONUMENT DESCRIPTION IN RIVET & PLATE IN TOP OF CURB AT THE SOUTHWEST CORNER OF SYMPHONY PARK AVENUE AND GRAND CENTRAL PARKWAY.

ELEVATION = 619.999 METERS
2034.12 FEET

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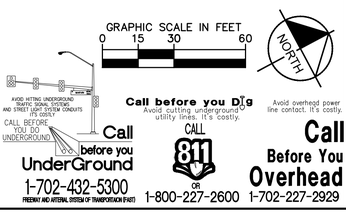
GRAPHIC SCALE IN FEET
0 15 30 60



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No.	REVISIONS	DATE	BY
1	SITE PLAN REV & EFS EXTENSION	08/29/19	

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PHONE: 702-862-3600
WWW.KIMLEY-HORN.COM

PROFESSIONAL ENGINEER - STATE OF NEVADA
THOMAS ACKERET
Exp. 12/31/20
CIVIL
No. 18592
09/ 20/ 2019

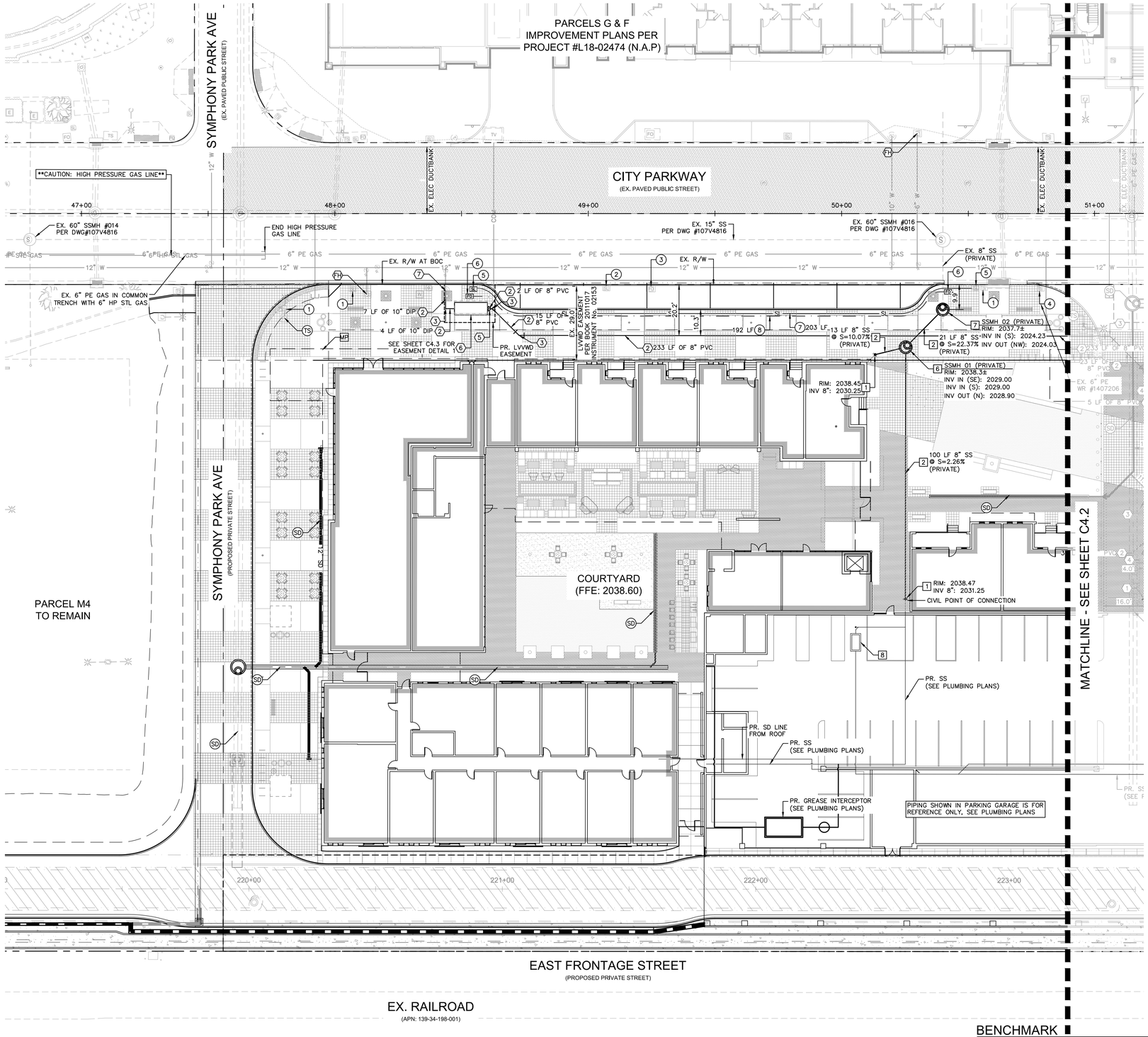
KHA PROJECT 192008000
DATE 09/ 20/ 2019
SCALE AS SHOWN
DESIGNED BY TEA
DRAWN BY JPH
CHECKED BY TEA

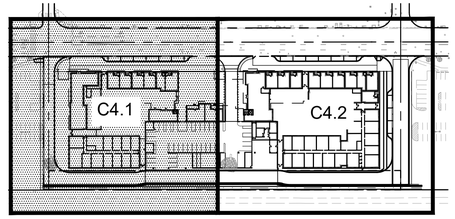
MASTER UTILITY PLAN

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
CITY OF LAS VEGAS NEVADA

CLV PERMIT # L19-00103

SHEET NUMBER
C4.0





KEY MAP

NTS

GENERAL NOTES

1. ALL EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
2. CONTRACTOR TO FIELD VERIFY EXISTING INVERT ELEVATION PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
3. ALL WATER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS – 3RD EDITION" (UDACS) WHERE APPLICABLE.
4. ALL ABOVE GROUND UTILITY APPURTENANCES SHALL BE ADJUSTED TO MATCH FINISHED GRADE ELEVATIONS.

WATER NOTES

1. WATER POINT OF CONNECTION. REFER TO MEP PLANS FOR CONTINUATION
2. INSTALL C-900 PVC WATER LINE (SIZE AS NOTED) PER UDACS PLATE No. 17, SIZE AND LENGTH AS NOTED ON PLAN.
3. INSTALL HORIZONTAL BEND WITH THRUST BLOCKS PER UDACS PLATE No. 31 (PIPE SIZES 12" OR LESS IN DIAMETER), SIZE AND BEND AS NOTED ON PLAN.
4. INSTALL TEE FITTING WITH THRUST BLOCKS PER UDACS PLATE No. 31. TEE SHALL MATCH MATERIAL AND SIZE OF PR. PIPING.
5. INSTALL GATE VALVE PER UDACS PLATE No. 39.
6. INSTALL 3" OCTAVE ULTRASONIC METER WITH 4" RPPA WITH 10"x4" REDUCER BEFORE METER AND 8"x4" REDUCER BEYOND RPPA. METER BOX TO BE SCREENED IN MANNER ACCEPTABLE TO LVVWD AND SYMPHONY PARK DESIGN REVIEW COMMITEE PER DETAIL ON SHEET C4.3.
7. INTERCEPT EX. WATERLINE LATERAL AND INSTALL REQUIRED COUPLER/ADAPTER TO EXTEND LATERAL.
- FH. EX. PUBLIC FIRE HYDRANT TO REMAIN.

SEWER NOTES

1. REFER TO MEP PLANS FOR CONTINUATION. INSTALL TWO-WAY CLEANOUT PER DETAIL ON SHEET C4.3.
2. INSTALL SDR 35 PVC SANITARY SEWER LINE PER DCSWCS SD-17, SIZE, LENGTH AND SLOPE AS NOTED ON PLAN.
6. INSTALL PRECAST PVC LINED 48" SANITARY SEWER MANHOLE PER DCSWCS SD-1A, SD-1B, SD-2, SD-7, CONCRETE COLLAR PER DCSWCS SD-4.
7. INTERCEPT EX. SANITARY SEWER LATERAL AND INSTALL PRECAST PVC LINED 48" SANITARY SEWER MANHOLE PER DCSWCS SD-1A, SD-1B, SD-2, SD-7, CONCRETE COLLAR PER DCSWCS SD-4.
8. SAND-OIL INTERCEPTOR BY-OTHERS.
- MP. SEE PLUMBING PLANS FOR GREASE LINE DESIGN AND ROUTING FROM THE BUILDING TO THE PROPOSED GREASE INTERCEPTION.

GENERAL UTILITY NOTES

1. ADJUST EX. UTILITY BOX TO GRADE. CONTRACTOR SHALL REPLACE (IN KIND) AS REQUIRED FOR ADJUSTMENT IS NOT FEASIBLE).
2. REMOVE EX. PULL BOX UPON CONNECTION AND ACTIVATION OF RELOCATED STREET LIGHT CONDUIT. EX. CONDUIT SHALL BE CUT AND CRUSHED IN PLACE.
3. REMOVE EX. PULL BOX UPON CONNECTION AND ACTIVATION OF RELOCATED FIBER OPTIC CONDUIT. EX. CONDUIT SHALL BE CUT AND CRUSHED IN PLACE.
4. ADJUST LOCATION OF EXISTING TRAFFIC SIGNAL PULL BOX. CONTRACTOR SHALL EXTEND EX. CONDUIT AS REQUIRED AND PROVIDE ANY CITY REQUIRED PULL ROPE AND/OR TRACER WIRE.
5. INTERCEPT EX. STREET LIGHT CONDUIT AND INSTALL NEW No. 3 1/2 PULL BOX PER CCAUSD No. 323, 326, 327, 328 AND 329.
6. INTERCEPT EX. FIBER OPTIC CONDUIT AND INSTALL NEW P30 PULL BOX WITH REINFORCED POLYMER NON-CONDUCTIVE COVER, INSCRIBED "FIBER OPTICE" ON LID PER CCAUSD No. 710, 711, AND 761.
7. INSTALL 1-1/4" PVC STREET LIGHT CONDUIT WITH 2-#4, 1-#8THW AND PULL ROPE PER CCAUSD No. 733. CONTRACTOR SHALL REPLACE CABLING BETWEEN EX. STREET LIGHTS ON EITHER SIDE OF THE RELOCATED CONDUIT.
8. INSTALL 4" FIBER OPTIC PVC CONDUIT. CONTRACTOR SHALL INSTALL REPLACEMENT CABLING (SIZE/TYPE/QUANTITIES SHALL MATCH EX. INFRASTRUCTURE). CONTRACTOR SHALL REPLACE CABLING PER CLV TEFO DIRECTION.
- SD. PR. STORM DRAIN IMPROVEMENT. SEE SHEET C3.10–3.15 FOR DESIGN AND ANNOTATION.
- TS. EX. TRAFFIC SIGNAL POLE AND EQUIPMENT SHALL REMAIN.

CAUTION: HIGH PRESSURE GAS!!! CALL SOUTHWEST GAS AT 702-400-1789 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE HAS LINES 48 HOURS PRIOR TO CONSTRUCTION.

ORIGINALLY SIGNED BY CHRIS ANDERSEN	05/20/2019
SOUTHWEST GAS CORPORATION	DATE

ORIGINALLY SIGNED BY STEVEN TAULBEE	05/29/2019
LAS VEGAS FIRE AND RESCUE	DATE

APPROVED FOR CONSTRUCTION

ORIGINALLY SIGNED BY JASON GHADERY
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT No. 136263 FIRST APPROVED DATE 08/13/2019

LVVWD APPROVED FIRE FLOW: TOTAL _____ GM/ONSITE _____ GPM

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GRAPHIC SCALE IN FEET
0 10 20 40

NORTH

Call before you UnderGround 1-702-432-5300 (NEVADA811.ORG)
Call 811 OR 1-800-227-2600
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UTILITY PLAN 1

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CLV PERMIT # L19-00103

SHEET NUMBER
C4.1

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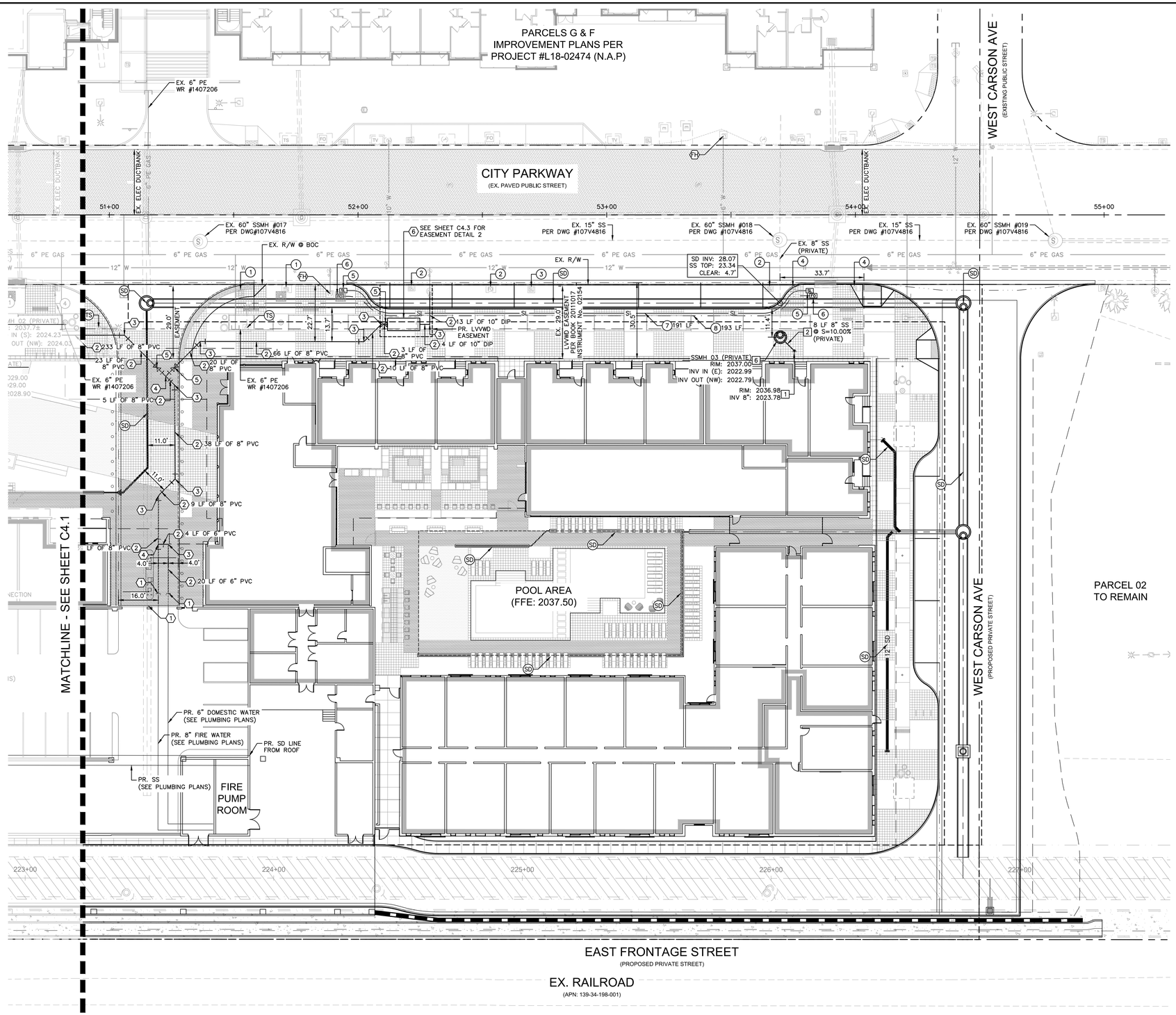

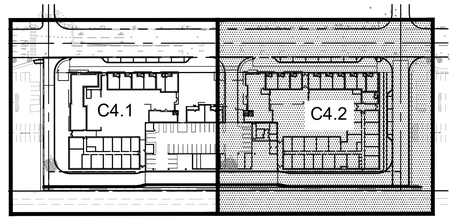

KEY MAP

NTS

GENERAL NOTES

1. ALL EXISTING UTILITY LOCATIONS SHOWN HEREON ARE APPROXIMATE ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT VERTICAL AND HORIZONTAL LOCATION OF ALL EXISTING UNDERGROUND UTILITIES PRIOR TO COMMENCING CONSTRUCTION. NO REPRESENTATION IS MADE THAT ALL UTILITIES ARE SHOWN HEREON. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR UTILITIES NOT SHOWN OR UTILITIES NOT SHOWN IN THEIR PROPER LOCATION.
2. CONTRACTOR TO FIELD VERIFY EXISTING INVERT ELEVATION PRIOR TO CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
3. ALL WATER LINE CONSTRUCTION SHALL BE IN ACCORDANCE WITH "UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS – 3RD EDITION" (UDACS) WHERE APPLICABLE.
4. ALL ABOVE GROUND UTILITY APPURTENANCES SHALL BE ADJUSTED TO MATCH FINISHED GRADE ELEVATIONS.

WATER NOTES

1. WATER POINT OF CONNECTION. REFER TO MEP PLANS FOR CONTINUATION
2. INSTALL C-900 PVC WATER LINE (SIZE AS NOTED) PER UDACS PLATE No. 17, SIZE AND LENGTH AS NOTED ON PLAN.
3. INSTALL HORIZONTAL BEND WITH THRUST BLOCKS PER UDACS PLATE No. 31 (PIPE SIZES 12" OR LESS IN DIAMETER), SIZE AND BEND AS NOTED ON PLAN.
4. INSTALL TEE FITTING WITH THRUST BLOCKS PER UDACS PLATE No. 31. TEE SHALL MATCH MATERIAL AND SIZE OF PR. PIPING.
5. INSTALL GATE VALVE PER UDACS PLATE No. 39.
6. INSTALL 3" OCTAVE ULTRASONIC METER WITH 4" RPPA WITH 10"x4" REDUCER BEFORE METER AND 8"x4" REDUCER BEYOND RPPA. METER BOX TO BE SCREENED IN MANNER ACCEPTABLE TO LVVWD AND SYMPHONY PARK DESIGN REVIEW COMMITEE PER DETAIL ON SHEET C4.3.

FH EX. PUBLIC FIRE HYDRANT TO REMAIN.

SEWER NOTES

1. REFER TO MEP PLANS FOR CONTINUATION. INSTALL TWO-WAY CLEANOUT PER DETAIL ON SHEET C4.3.
2. INSTALL SDR 35 PVC SANITARY SEWER LINE PER DCSWCS SD-17, SIZE, LENGTH AND SLOPE AS NOTED ON PLAN.
6. INSTALL PRECAST PVC LINED 48" SANITARY SEWER MANHOLE PER DCSWCS SD-1A, SD-1B, SD-2, SD-7, CONCRETE COLLAR PER DCSWCS SD-4.

GENERAL UTILITY NOTES

1. ADJUST EX. UTILITY BOX TO GRADE. CONTRACTOR SHALL REPLACE (IN KIND) AS REQUIRED FOR ADJUSTMENT IS NOT FEASIBLE).
2. REMOVE EX. PULL BOX UPON CONNECTION AND ACTIVATION OF RELOCATED STREET LIGHT CONDUIT. EX. CONDUIT SHALL BE CUT AND CRUSHED IN PLACE.
3. REMOVE EX. PULL BOX UPON CONNECTION AND ACTIVATION OF RELOCATED FIBER OPTIC CONDUIT. EX. CONDUIT SHALL BE CUT AND CRUSHED IN PLACE.
4. ADJUST LOCATION OF EXISTING TRAFFIC SIGNAL PULL BOX. CONTRACTOR SHALL EXTEND EX. CONDUIT AS REQUIRED AND PROVIDE ANY CITY REQUIRED PULL ROPE AND/OR TRACER WIRE.
5. INTERCEPT EX. STREET LIGHT CONDUIT AND INSTALL NEW No. 3 1/2 PULL BOX PER CCAUSD No. 323, 326, 327, 328 AND 329.
6. INTERCEPT EX. FIBER OPTIC CONDUIT AND INSTALL NEW P30 PULL BOX WITH REINFORCED POLYMER NON-CONDUCTIVE COVER, INSCRIBED "FIBER OPTICE" ON LID PER CCAUSD No. 710, 711, AND 761.
7. INSTALL 1-1/4" PVC STREET LIGHT CONDUIT WITH 2-#4, 1-#8THW AND PULL ROPE PER CCAUSD No. 733. CONTRACTOR SHALL REPLACE CABLING BETWEEN EX. STREET LIGHTS ON EITHER SIDE OF THE RELOCATED CONDUIT.
8. INSTALL 4" FIBER OPTIC PVC CONDUIT. CONTRACTOR SHALL INSTALL REPLACEMENT CABLING (SIZE/TYPE/QUANTITIES SHALL MATCH EX. INFRASTRUCTURE). CONTRACTOR SHALL REPLACE CABLING PER CLV TEFO DIRECTION.

SD PR. STORM DRAIN IMPROVEMENT. SEE SHEET C3.10-3.15 FOR DESIGN AND ANNOTATION.

TS EX. TRAFFIC SIGNAL POLE AND EQUIPMENT SHALL REMAIN.

BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL
BENCHMARK NO. "8LV0133NE6"

MONUMENT DESCRIPTION IN RIVET & PLATE IN TOP OF CURB AT THE SOUTHWEST CORNER OF SYMPHONY PARK AVENUE AND GRAND CENTRAL PARKWAY.

ELEVATION = 619.999 METERS
2034.12 FEET

CITY OF LAS VEGAS VERTICAL CONTROL DATUM BASED UPON NORTH AMERICAN VERTICAL DATUM OF 2008 (NAVD '88)

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GRAPHIC SCALE IN FEET
0 10 20 40

NORTH

ORIGINALLY SIGNED BY CHRIS ANDERSEN	05/20/2019
SOUTHWEST GAS CORPORATION	DATE

ORIGINALLY SIGNED BY STEVEN TAULBEE	05/29/2019
LAS VEGAS FIRE AND RESCUE	DATE

APPROVED FOR CONSTRUCTION

ORIGINALLY SIGNED BY JASON GHADERY
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT No. 136263 FIRST APPROVED DATE 08/13/2019
LVVWD APPROVED FIRE FLOW: TOTAL _____ GM/ONSITE _____ GPM

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1	SITE PLAN REV & EFS EXTENSION	08/29/19	

Kimley»Horn

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PHONE: 702-862-3600
WWW.KIMLEY-HORN.COM

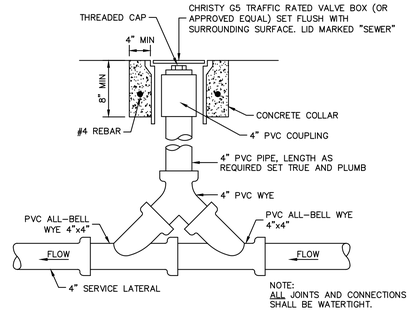
PROFESSIONAL ENGINEER - STATE OF NEVADA
THOMAS ACKERET
Exp. 12/31/20
CIVIL
No. 18592
09/ 20/ 2019

KHA PROJECT 192008000
DATE 09/ 20/ 2019
SCALE AS SHOWN
DESIGNED BY TEA
DRAWN BY JPH
CHECKED BY TEA

UTILITY PLAN 2

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
CITY OF LAS VEGAS NEVADA
CLV PERMIT # L19-00103

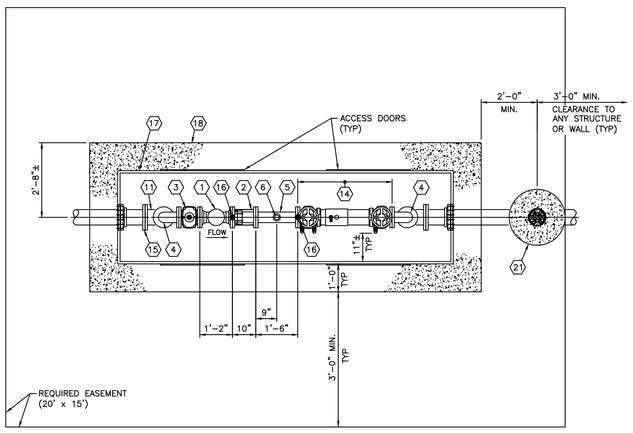
SHEET NUMBER
C4.2



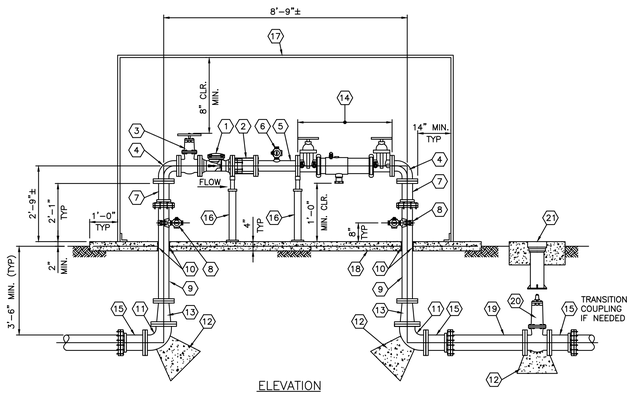
TWO-WAY CLEANOUT DETAIL

B — TWO-WAY CLEANOUT DETAIL

NTS



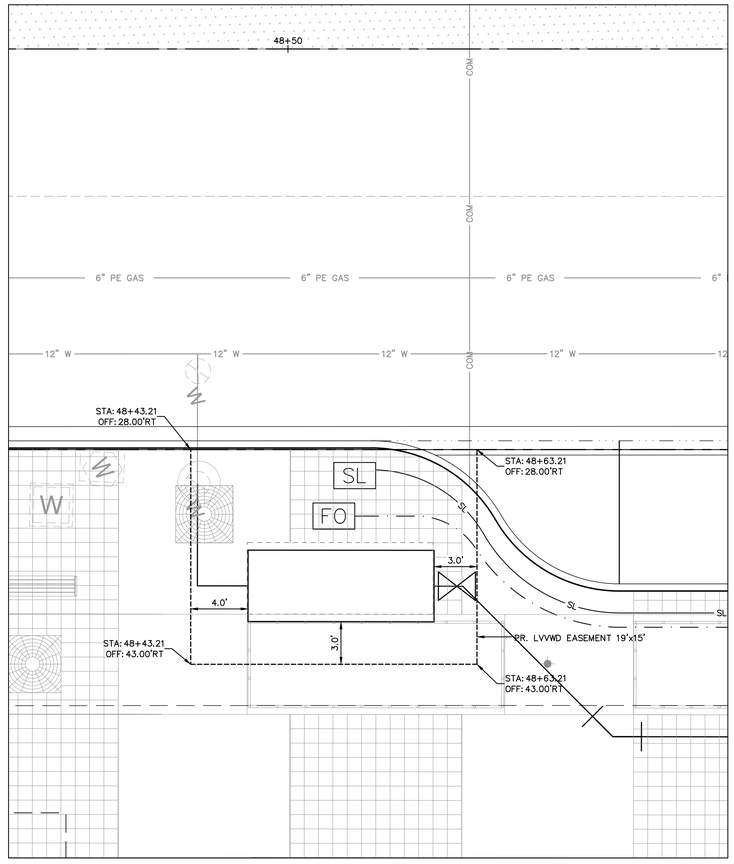
PLAN



ELEVATION

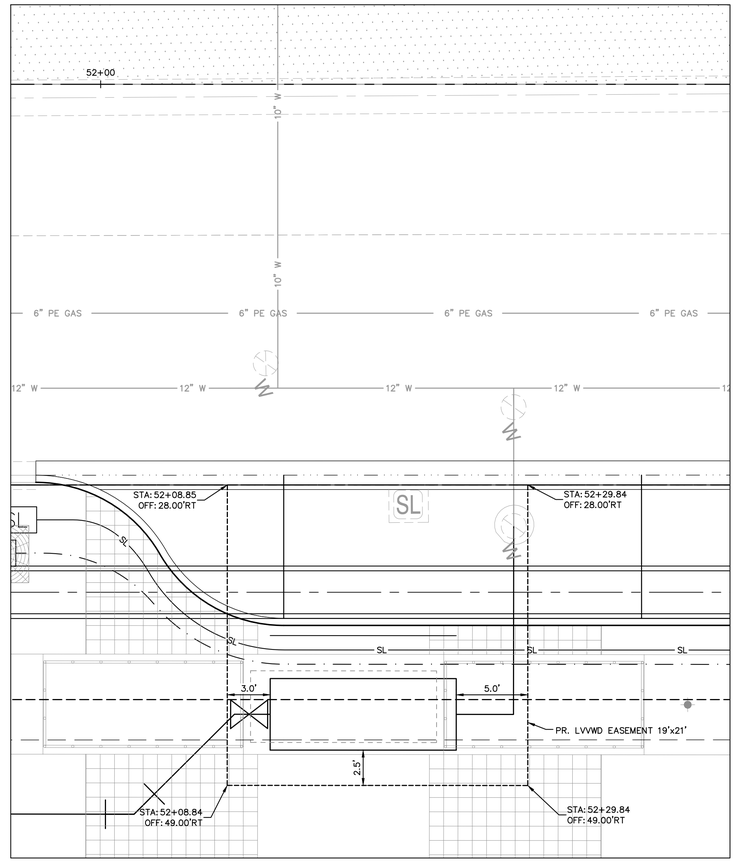
A — 3" OCTAVE WITH 4" COLT MAXIM REDUCED PRESSURE PRINCIPLE ASSEMBLY DETAIL

NTS



1 — WATER METER EASEMENT DETAIL

NTS



2 — WATER METER EASEMENT DETAIL

NTS

INSTALLATION NOTES:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ANY AND ALL DAMAGED OR DISTURBED EXISTING LANDSCAPING AND IRRIGATION FACILITIES, IN AND ADJACENT TO PROJECT SITE, DURING CONSTRUCTION OPERATIONS.
2. CONTRACTOR TO HAVE NEVADA LICENSED PROFESSIONAL LAND SURVEYOR LOCATE LVVWD EASEMENT PRIOR TO CONSTRUCTION.
3. CONTRACTOR TO LOCATE ONSITE PIPING AND CONFIRM DIAMETER, PIPE DEPTH, AND PIPE MATERIAL PRIOR TO ORDERING MATERIAL AND INSTALLATION.
4. CONTRACTOR TO VERIFY DIMENSIONS OF CABINET BASED ON INSTALLED DIMENSIONS OF PIPE AND FITTINGS PRIOR TO FABRICATION.
5. CONTRACTOR TO INSTALL VALVE LOCK DEVICE WITH DISTRICT PROVIDED LOCK (AS REQUIRED).

DESIGNER/ENGINEER NOTES:

1. PRIOR TO SELECTION OF METER/BACKFLOW ASSEMBLY DETAIL ENGINEER TO VERIFY EXISTING METER AND BACKFLOW CAPACITY, FIRE FLOW AND EXISTING PRESSURE AT THE ASSEMBLY INSTALLATION LOCATION.
2. BASED ON RESEARCH RESULTS, IF MORE THAN ONE STANDARD METER/BACKFLOW ASSEMBLIES OR MANUFACTURERS MAY BE UTILIZED THEN ALL APPLICABLE DETAILS ARE TO BE SHOWN ON THE DRAWINGS FOR CONTRACTOR SELECTION.
3. ALL ASSEMBLY PIPING, CONNECTIONS AND EASEMENT SIZES TO ACCOMMODATE THE LARGEST LAYOUT OPTION REGARDLESS OF CONTRACTOR SELECTION TO AVOID CONFLICTS DURING CONSTRUCTION.

REMOVE THESE NOTES WHEN DETAIL USED

MATERIAL LIST

1. 3" METER MASTER OCTAVE WATER METER (LVVWD FURNISHED)
2. 4" RESTRAINED DISMANTLING JOINT
3. 4" FLG GATE VALVE WITH HANDWHEEL
4. 4" FLG 90° BEND
5. 4" FLG x FLG DUCTILE IRON PIPE WITH 2" NPT OUTLET
6. 2" CORP STOP
7. 4" ADAPTER FLANGE (RESTRAINED)
8. 2" SERVICE SADDLE AND 2" CORP STOP, ROTATED 15° (BYPASS NOT REQUIRED ON LOOPED SERVICES)
9. 4" FLG x PE DUCTILE IRON PIPE (CUT TO FIT)
10. 1/2" EXPANSION JOINT MATERIAL
11. 6" FLG 90° BEND
12. CONCRETE THRUST/ANCHOR BLOCK
13. 6" x 4" FLG REDUCER
14. 4" AMES COLT MAXIM 400 REDUCED PRESSURE PRINCIPLE (RPPA) BACKFLOW ASSEMBLY
15. 6" ADAPTER FLANGE (RESTRAINED)
16. ADJUSTABLE PIPE SUPPORT
17. ENCLOSURE TO BE APPROVED BY SHOP DRAWING
18. CONCRETE PAD WITH WELDED WIRE FABRIC, 4 x 4 – W1.4 x W1.4
19. 6" FLG x PE DUCTILE IRON PIPE (CUT TO FIT)
20. 6" FLG GATE VALVE
21. VALVE BOX AND COLLAR (NOTE 5)

ORIGINALLY SIGNED BY CHRIS ANDERSEN — 5/20/2019
SOUTHWEST GAS CORPORATION — DATE

APPROVED FOR CONSTRUCTION

ORIGINALLY SIGNED BY JASON GHADERY
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES

PROJECT No. 136263 FIRST APPROVED DATE 08/13/2019

LVVWD APPROVED FIRE FLOW: TOTAL _____ GM/ONSITE _____ GPM

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY.
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PROFESSIONAL ENGINEER – STATE OF NEVADA
THOMAS ACKERET
Exp. 12/31/20
CIVIL
No. 18592
09/ 20/ 2019

KHA PROJECT	192008000
DATE	09/ 20/ 2019
SCALE	AS SHOWN
DESIGNED BY	TEA
DRAWN BY	JPH
CHECKED BY	TEA

UTILITY DETAIL SHEET

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
NEVADA
CITY OF LAS VEGAS
CLV PERMIT # L19-00103

SHEET NUMBER
C4.3

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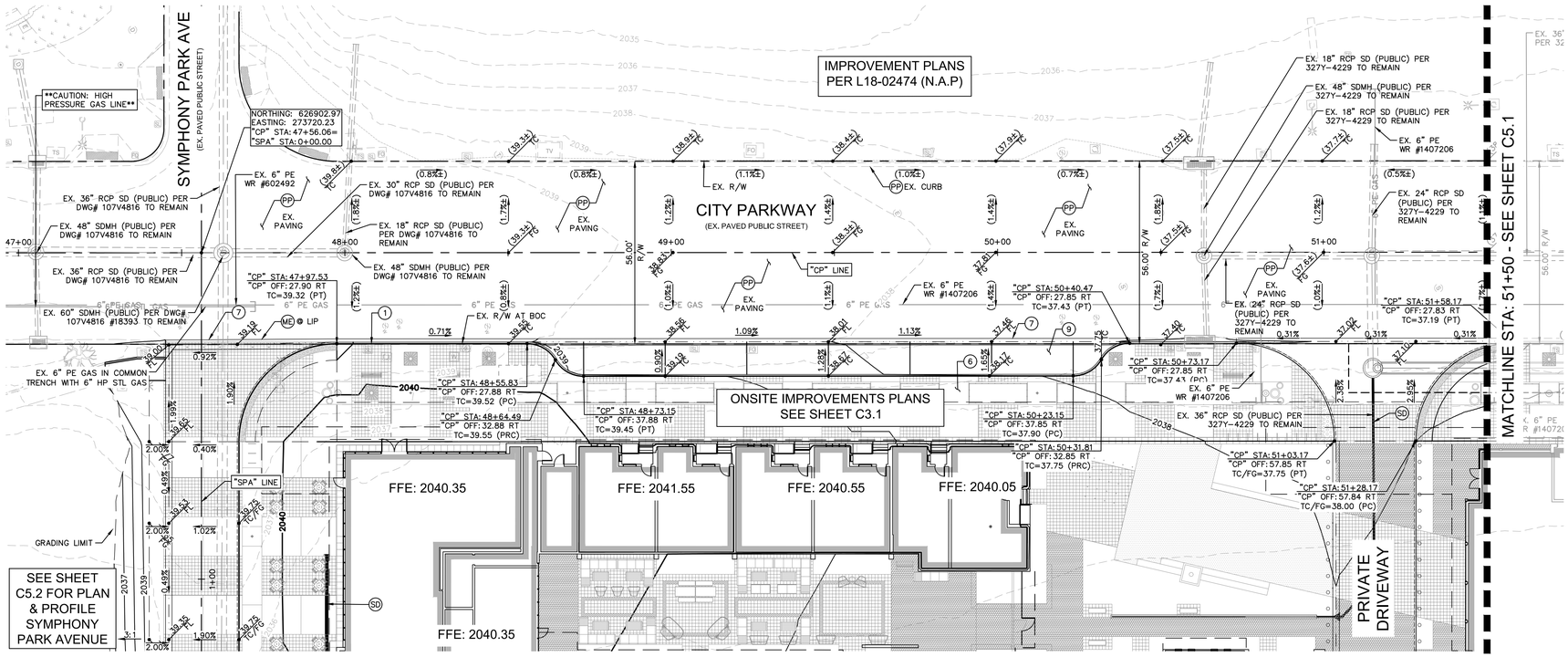
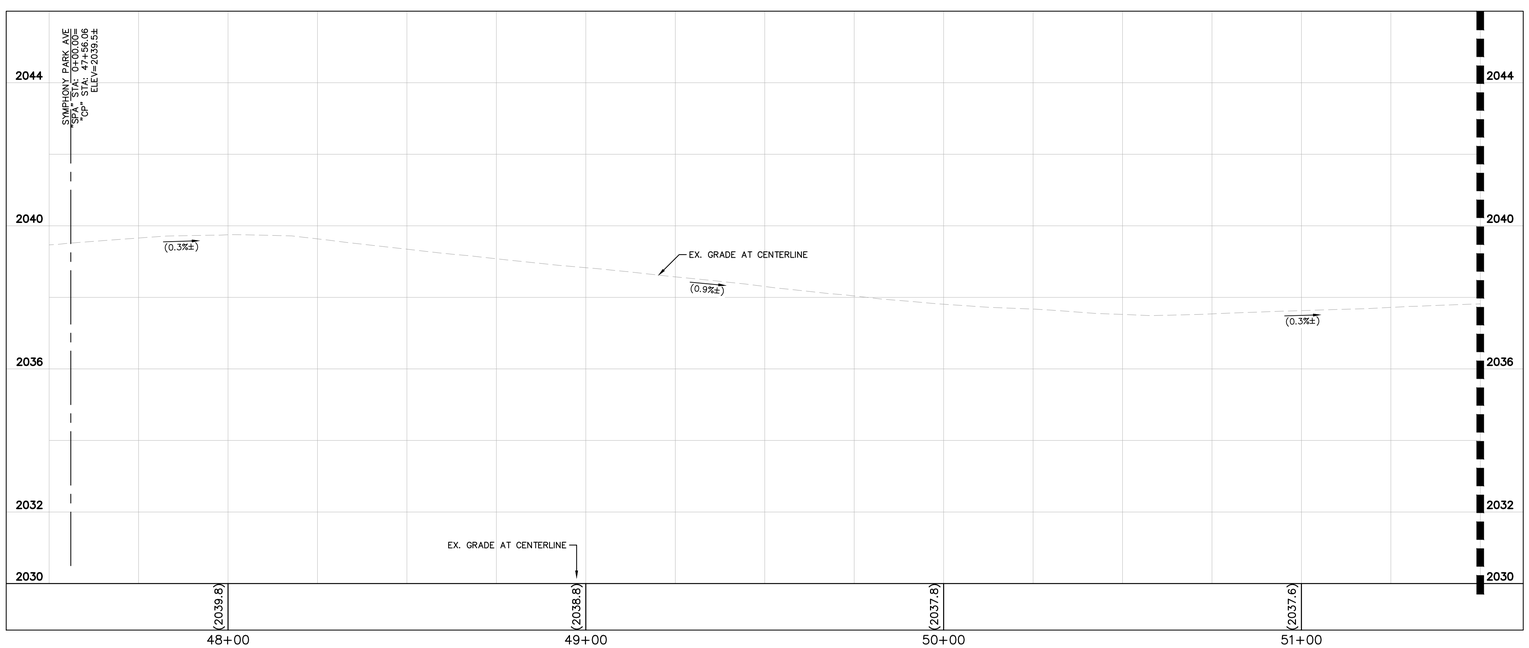
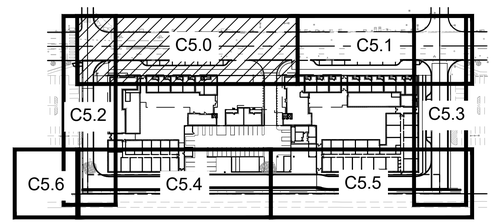




CITY PARKWAY PROFILE



KEY MAP

NTS

GENERAL NOTES

1. CONTRACTOR TO VERIFY EXISTING IMPROVEMENTS SHOWN ON THE PLAN.
2. CONTRACTOR TO PROTECT IN PLACE, DURING DEMOLITION AND CONSTRUCTION, ALL EXISTING IMPROVEMENTS THAT ARE TO REMAIN AS NOTED ON THE PLAN.
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5. ALL DIMENSIONS ARE MEASURED FROM BACK OF CURB UNLESS OTHERWISE NOTED ON PLANS.
6. ADD 2000 FEET TO ALL SPOT ELEVATIONS UNLESS OTHERWISE NOTED.

GEOTECHNICAL REPORT

ALL GRADING SHALL CONFORM TO THE GEOTECHNICAL REPORT:

ENGINEER: NOVA GEOTECHNICAL & INSPECTION SERVICES
DATED: MAY 15, 2018
PROJECT No: G-18-038

CONSTRUCTION NOTES

(1) INSTALL MODIFIED TYPE 'L' CONCRETE CURB AND GUTTER PER DETAIL 1 ON SHEET C3.8
(6) INSTALL CONCRETE SIDEWALK PER CCAUSD No. 234.
(7) INSTALL 2' VALLEY GUTTER PER DETAIL 4 ON SHEET C3.8.
(9) INSTALL ASPHALT PAVING SECTION (MATCH EXISTING).
(ME) MATCH EXISTING.
(PP) PROTECT IN PLACE.
(SD) REFER TO STORM DRAIN PLANS FOR DETAIL (C3.10–C3.11)

CAUTION: HIGH PRESSURE GAS!!! CALL SOUTHWEST GAS AT 702-400-1789 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE HAS LINES 48 HOURS PRIOR TO CONSTRUCTION.

ORIGINALLY SIGNED BY CHRIS ANDERSEN — 05/20/2019
SOUTHWEST GAS CORPORATION — DATE

FLOOD ZONE NOTE

THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) INDICATES THAT THE SITE IS LOCATED IN ZONE "X" OF THE FLOOD INSURANCE RATE MAP (FIRM) No. 32003C2170F AS SHOWN ON THE FIRM INDEX REVISED NOVEMBER 16, 2011. ZONE "X" IS DEFINED BY FEMA AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN."

BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL
BENCHMARK NO. "8LV0133NE6"

MONUMENT DESCRIPTION IN RIVET & PLATE IN TOP OF CURB AT THE SOUTHWEST CORNER OF SYMPHONY PARK AVENUE AND GRAND CENTRAL PARKWAY.

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2034.12 FEET

CITY OF LAS VEGAS VERTICAL CONTROL DATUM BASED UPON NORTH AMERICAN VERTICAL DATUM OF 2008 (NAVD '88)

BASIS OF BEARING

SOUTH 27°55'16" WEST, BEING THE EAST LINE OF LOT 5 OF THAT COMMERCIAL SUBDIVISION KNOWN AS "PARKWAY CENTER" ON FILE IN THE OFFICE OF THE COUNTY RECORDER, CLARK COUNTY, NEVADA IN BOOK 53 OF PLATS, AT PAGE 61.

GRAPHIC SCALE IN FEET
0 10 20 40
HORIZONTAL
0 1 2 4
VERTICAL

NORTH

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PROFESSIONAL ENGINEER - STATE OF NEVADA
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DATE 09/ 20/ 2019
SCALE AS SHOWN
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DRAWN BY JPH
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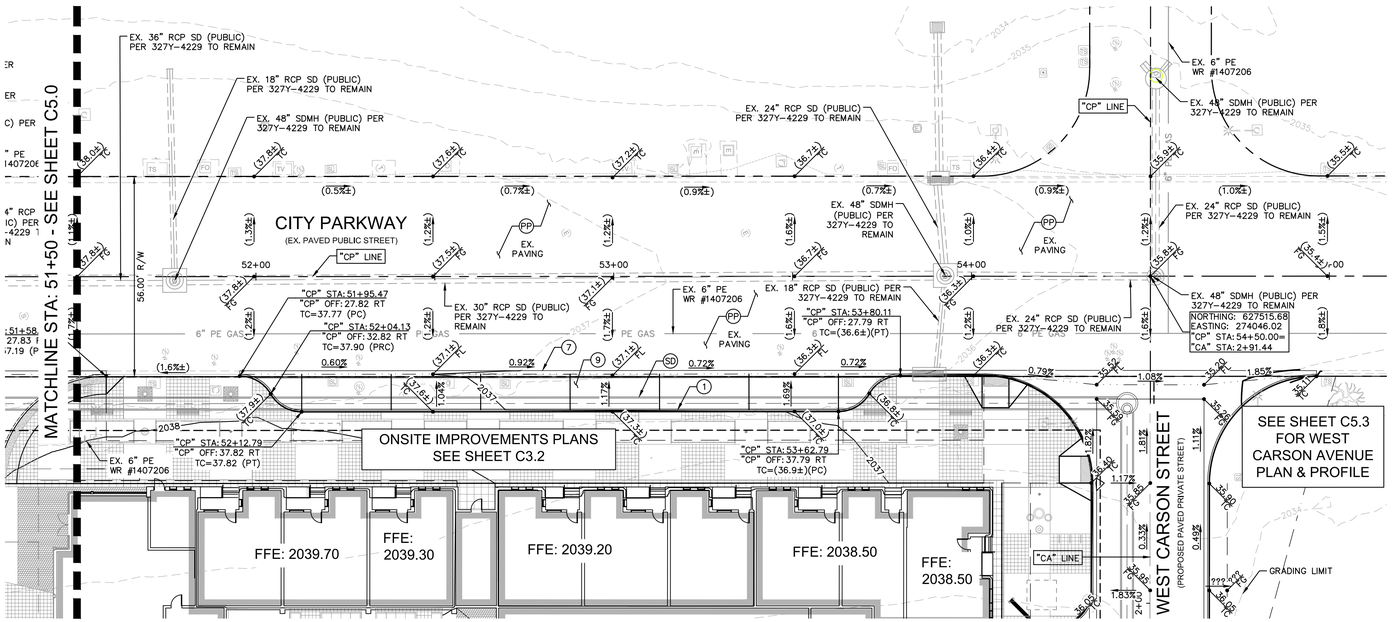
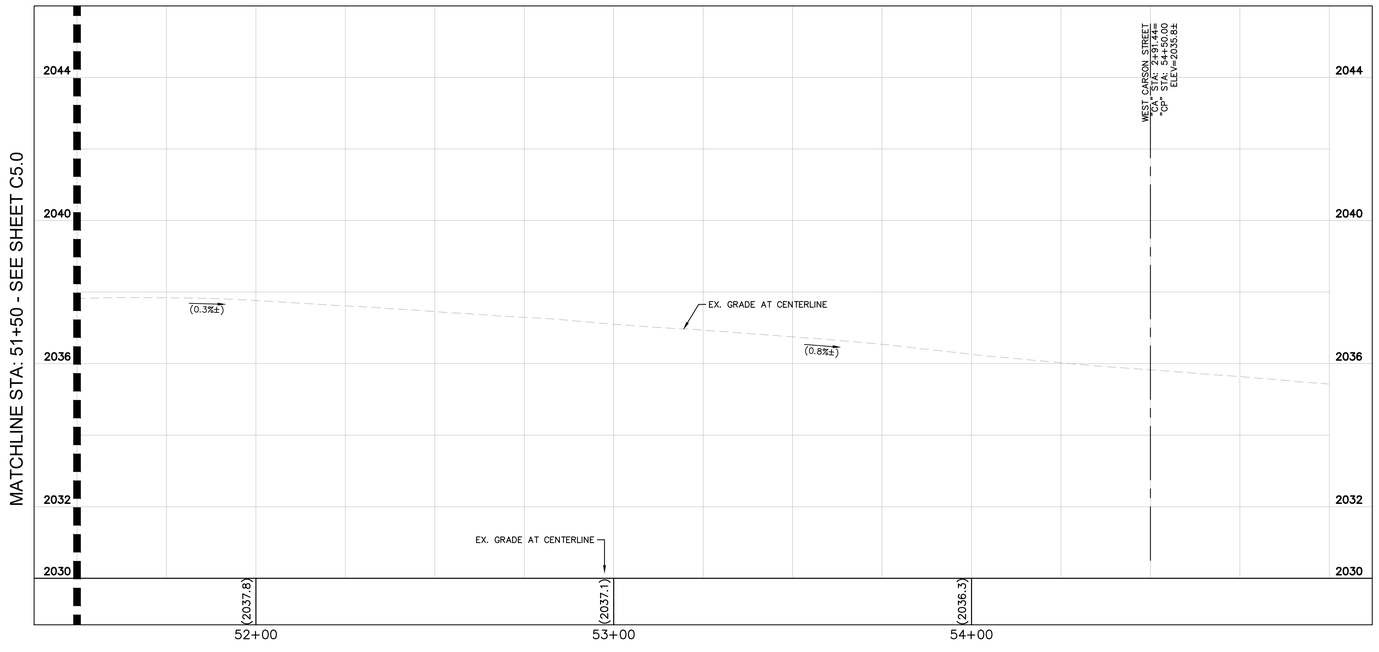
CITY PARKWAY PLAN & PROFILE - STA 47+00 - 51+50

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
CITY OF LAS VEGAS NEVADA

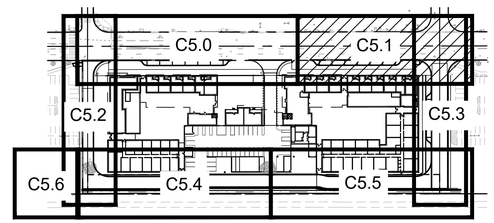
SHEET NUMBER
C5.0

CLV PERMIT # L19-00103





CITY PARKWAY PROFILE



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PHONE: 702-862-3600
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PROFESSIONAL ENGINEER - STATE OF NEVADA
THOMAS ACKERET
Exp. 12/31/20
CIVIL
No. 18592
09/ 20/ 2019

KHA PROJECT	192008000
DATE	09/ 20/ 2019
SCALE	AS SHOWN
DESIGNED BY	TEA
DRAWN BY	JPH
CHECKED BY	TEA

CITY PARKWAY PLAN & PROFILE - STA 51+50 - 55+00

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
NEVADA

CITY OF LAS VEGAS
CLV PERMIT # L19-00103

SHEET NUMBER
C5.1

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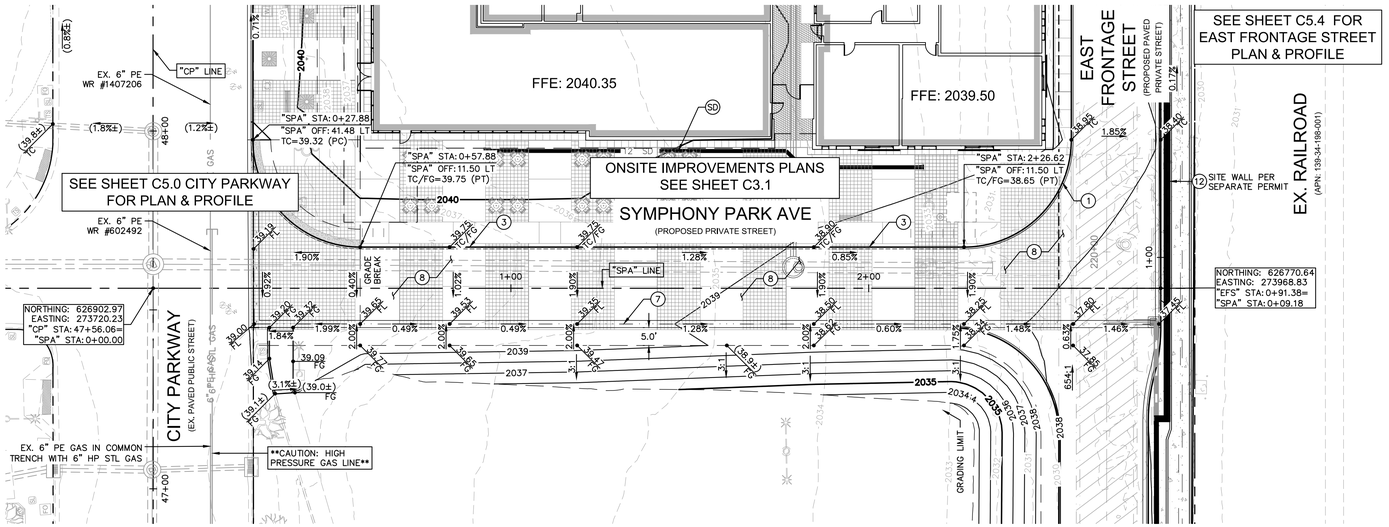
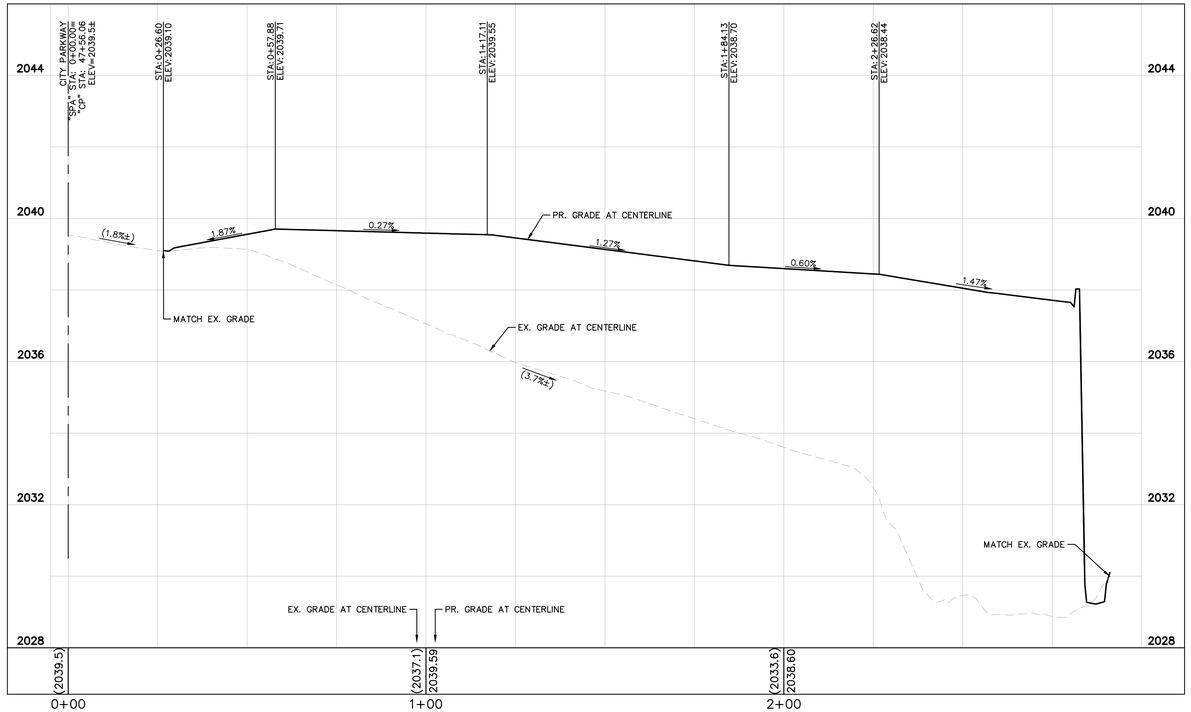
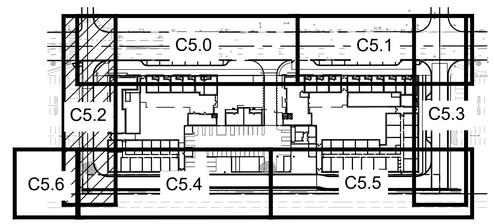




SYMPHONY PARK PROFILE



KEY MAP

NTS

GENERAL NOTES

1. CONTRACTOR TO VERIFY EXISTING IMPROVEMENTS SHOWN ON THE PLAN.
2. CONTRACTOR TO PROTECT IN PLACE, DURING DEMOLITION AND CONSTRUCTION, ALL EXISTING IMPROVEMENTS THAT ARE TO REMAIN AS NOTED ON THE PLAN.
3. ANY EXISTING STRUCTURE, IMPROVEMENT, OR APPURTENANCE TO REMAIN THAT IS DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE IMMEDIATELY REPAIRED OR REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
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5. ALL DIMENSIONS ARE MEASURED FROM BACK OF CURB UNLESS OTHERWISE NOTED ON PLANS.
6. ADD 2000 FEET TO ALL SPOT ELEVATIONS UNLESS OTHERWISE NOTED.

GEOTECHNICAL REPORT

ALL GRADING SHALL CONFORM TO THE GEOTECHNICAL REPORT:

ENGINEER: NOVA GEOTECHNICAL & INSPECTION SERVICES
DATED: MAY 15, 2018
PROJECT No: G-18-038

CONSTRUCTION NOTES

1. INSTALL MODIFIED TYPE 'L' CONCRETE CURB AND GUTTER PER DETAIL 1 ON SHEET C3.8
3. INSTALL 0" FACE CURB PER DETAIL 3 ON SHEET C3.8.
7. INSTALL 2' VALLEY GUTTER PER DETAIL 4 ON SHEET C3.8.
8. INSTALL 3" ASPHALT PAVING OVER 11" TYPE 2 AGGREGATE BASE PER GEOTECHNICAL RECOMMENDATIONS.
12. INSTALL RETAINING WALL (PER SEPARATE PERMIT).
SD. REFER TO STORM DRAIN PLANS FOR DETAIL (C3.10-C3.11)

CAUTION: HIGH PRESSURE GAS!!! CALL SOUTHWEST GAS AT 702-400-1789 FOR STANDBY WHEN EXCAVATING OVER OR NEAR HIGH PRESSURE HAS LINES 48 HOURS PRIOR TO CONSTRUCTION.

ORIGINALLY SIGNED BY CHRIS ANDERSEN 05/20/2019
SOUTHWEST GAS CORPORATION DATE

FLOOD ZONE NOTE

THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) INDICATES THAT THE SITE IS LOCATED IN ZONE "X" OF THE FLOOD INSURANCE RATE MAP (FIRM) No. 32003C2170F AS SHOWN ON THE FIRM INDEX REVISED NOVEMBER 16, 2011. ZONE "X" IS DEFINED BY FEMA AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN."

BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL
BENCHMARK NO. "8LV0133NE6"

MONUMENT DESCRIPTION IN RIVET & PLATE IN TOP OF CURB AT THE SOUTHWEST CORNER OF SYMPHONY PARK AVENUE AND GRAND CENTRAL PARKWAY.

ELEVATION = 619.999 METERS
2034.12 FEET

CITY OF LAS VEGAS VERTICAL CONTROL DATUM BASED UPON NORTH AMERICAN VERTICAL DATUM OF 2008 (NAVD '88)

BASIS OF BEARING

SOUTH 27°55'16" WEST, BEING THE EAST LINE OF LOT 5 OF THAT COMMERCIAL SUBDIVISION KNOWN AS "PARKWAY CENTER" ON FILE IN THE OFFICE OF THE COUNTY RECORDER, CLARK COUNTY, NEVADA IN BOOK 53 OF PLATS, AT PAGE 61.

GRAPHIC SCALE IN FEET
0 10 20 40
HORIZONTAL
0 1 2 4
VERTICAL

NORTH

AVOID HITTING UNDERGROUND ELECTRIC, TELEPHONE AND STREET LIGHT SYSTEM CONDUITS. IT'S COSTLY
CALL BEFORE YOU DO UNDERGROUND
Call 811 before you UnderGround 1-702-432-5300 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION (FAST)

Call before you Dig
Avoid cutting underground TV utility lines. It's costly.
CALL 811 OR 1-800-227-2600

Avoid overhead power line contact. It's costly.
Call Before You Overhead 1-702-227-2929

No.	REVISIONS	DATE	BY
1	SITE PLAN REV & EFS EXTENSION	08/29/19	

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PROFESSIONAL ENGINEER-STATE OF NEVADA
THOMAS ACKERET
Exp. 12/31/20
CIVIL
No. 18592
09/ 20/ 2019

KHA PROJECT	DATE	SCALE	DESIGNED BY	DRAWN BY	CHECKED BY
192008000	09/ 20/ 2019	AS SHOWN	TEA	JPH	TEA

SYMPHONY PARK AVE
PLAN & PROFILE

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
CITY OF LAS VEGAS NEVADA

SHEET NUMBER
C5.2

CLV PERMIT # L19-00103

SHEET 29 OF 33

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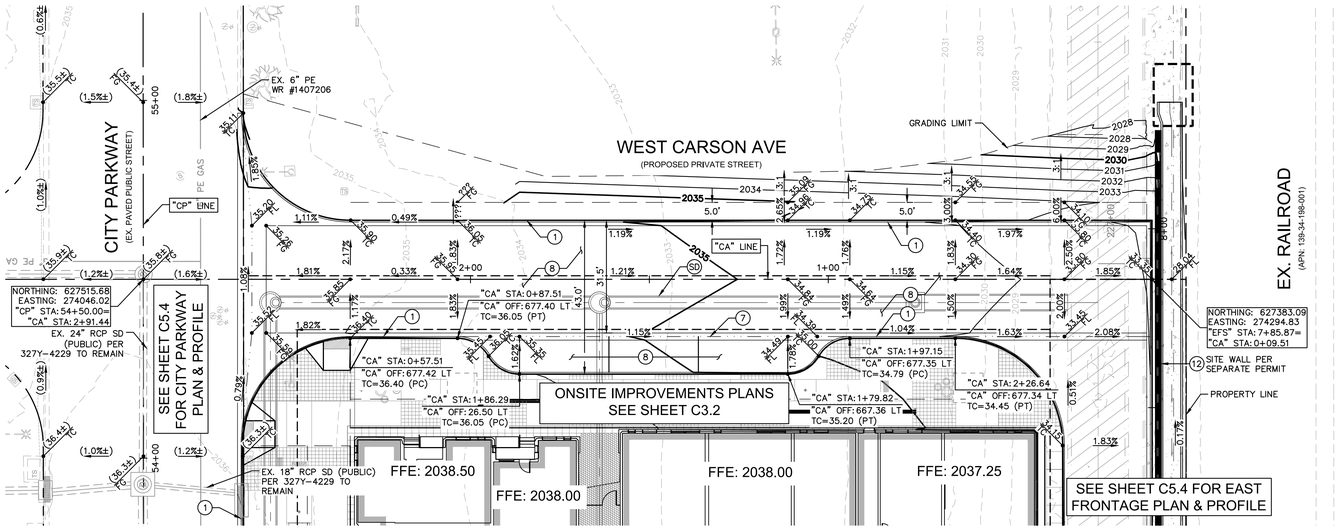
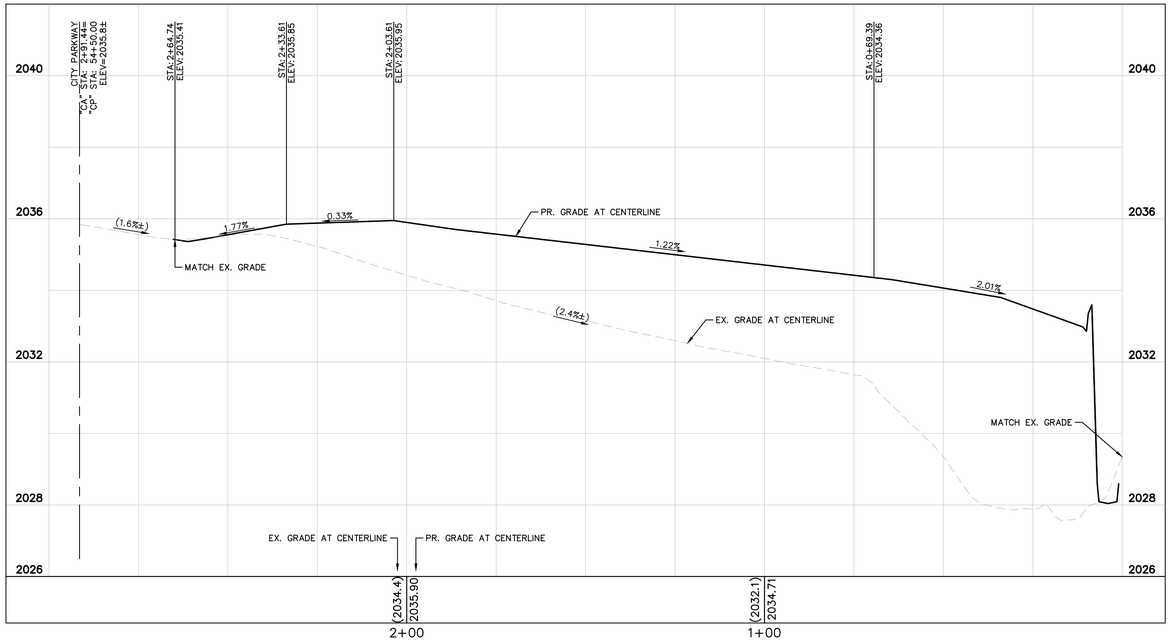
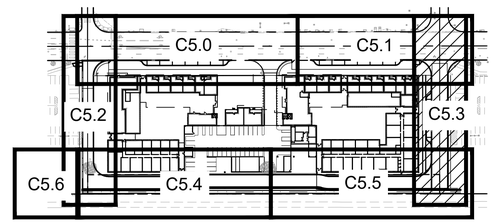




WEST CARSON AVENUE



KEY MAP

NTS

GENERAL NOTES

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GEOTECHNICAL REPORT

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ENGINEER: NOVA GEOTECHNICAL & INSPECTION SERVICES
DATED: MAY 15, 2018
PROJECT No: G-18-038

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SOUTHWEST GAS CORPORATION DATE

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BENCHMARK NO. "8LV0133NE6"

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GRAPHIC SCALE IN FEET
0 10 20 40
HORIZONTAL
0 1 2 4
VERTICAL

NORTH

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS EXACTLY AS THEY EXIST
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Call before you UnderGround 1-702-432-5300 FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION (FAST)

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No.	REVISIONS	DATE	BY
1	SITE PLAN REV & EFS EXTENSION	08/29/19	

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PROFESSIONAL ENGINEER - STATE OF NEVADA
THOMAS ACKERET
Exp. 12/31/20
CIVIL
No. 18592
09/ 20/ 2019

KHA PROJECT 192008900
DATE 09/ 20/ 2019
SCALE AS SHOWN
DESIGNED BY TEA
DRAWN BY JPH
CHECKED BY TEA

WEST CARSON AVE PLAN & PROFILE

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
CITY OF LAS VEGAS NEVADA

CLV PERMIT # L19-00103

SHEET NUMBER
C5.3

SHEET 30 OF 33

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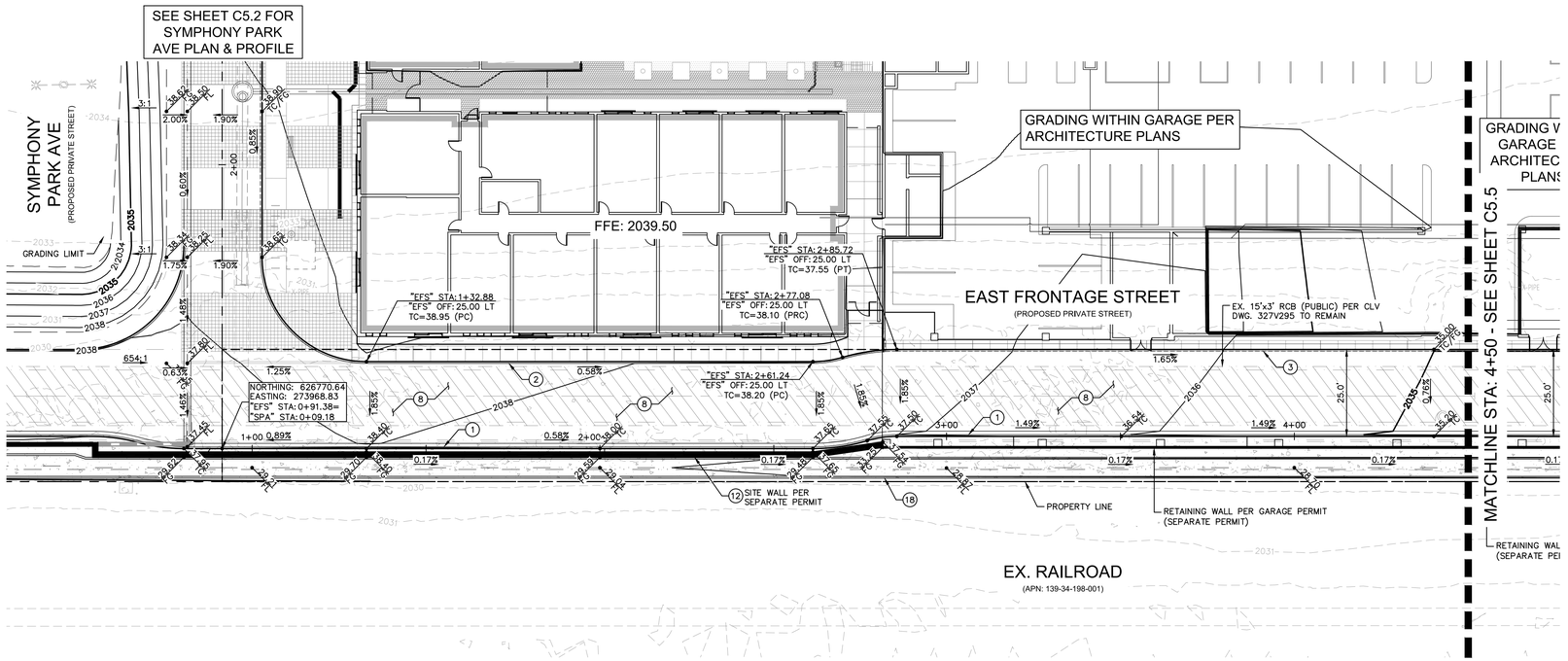
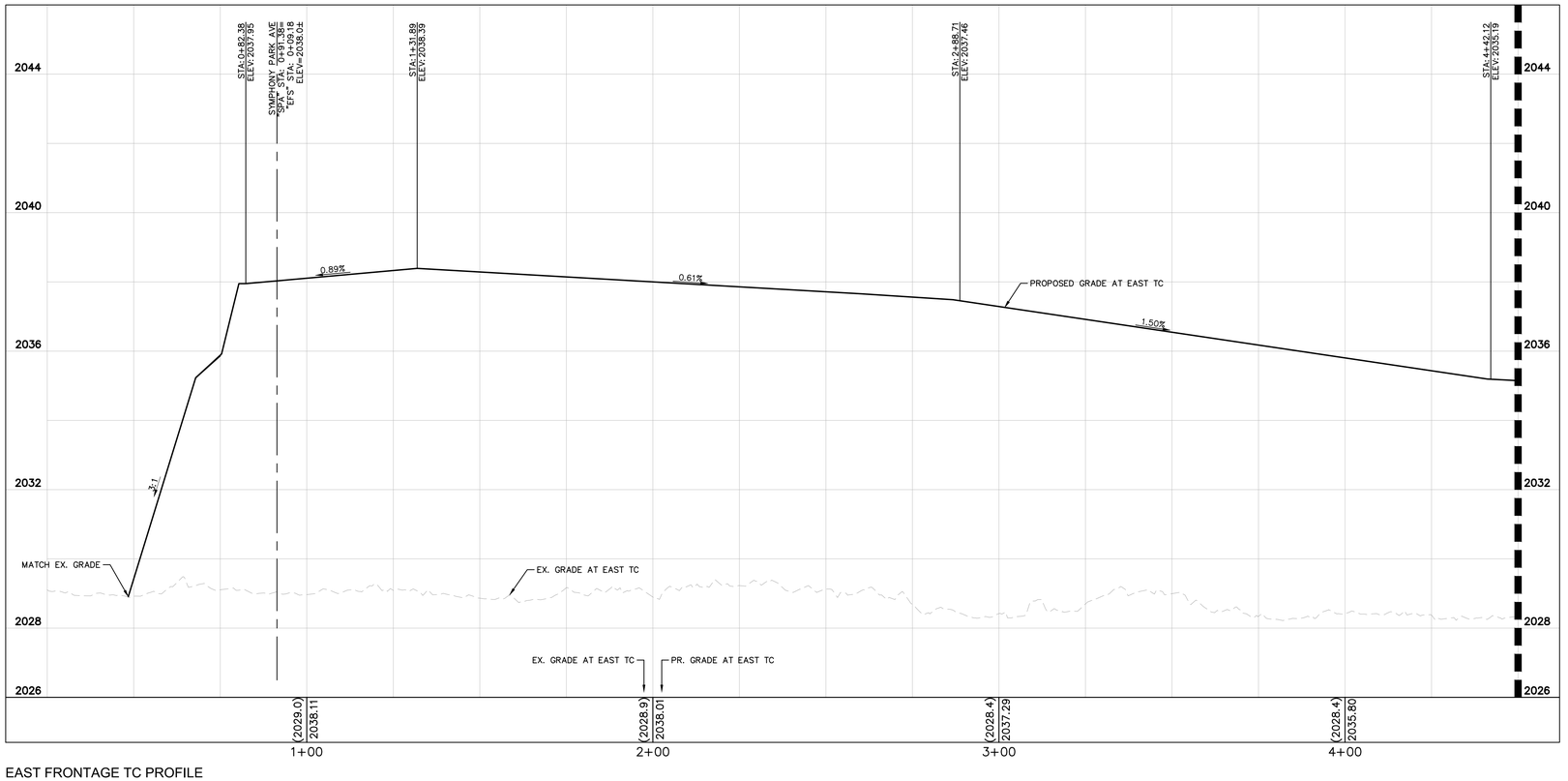
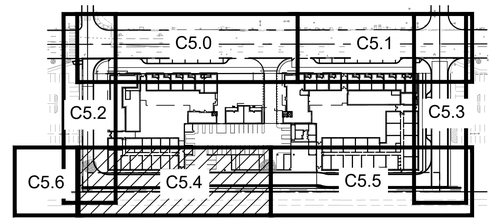




EAST FRONTAGE TC PROFILE

MATCHLINE STA: 4+50 - SEE SHEET C5.5



KEY MAP

NTS

GENERAL NOTES

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GEOTECHNICAL REPORT

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DATED: MAY 15, 2018
PROJECT No: G-18-038

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FLOOD ZONE NOTE

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BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL
BENCHMARK NO. "BLV0133NE6"

MONUMENT DESCRIPTION IN RIVET & PLATE IN TOP OF CURB AT THE SOUTHWEST CORNER OF SYMPHONY PARK AVENUE AND GRAND CENTRAL PARKWAY.

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CITY OF LAS VEGAS VERTICAL CONTROL DATUM BASED UPON NORTH AMERICAN VERTICAL DATUM OF 2008 (NAVD '88)

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HORIZONTAL
0 1 2 4
VERTICAL

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No.	REVISIONS	DATE	BY
1	SITE PLAN REV & EFS EXTENSION	08/29/19	

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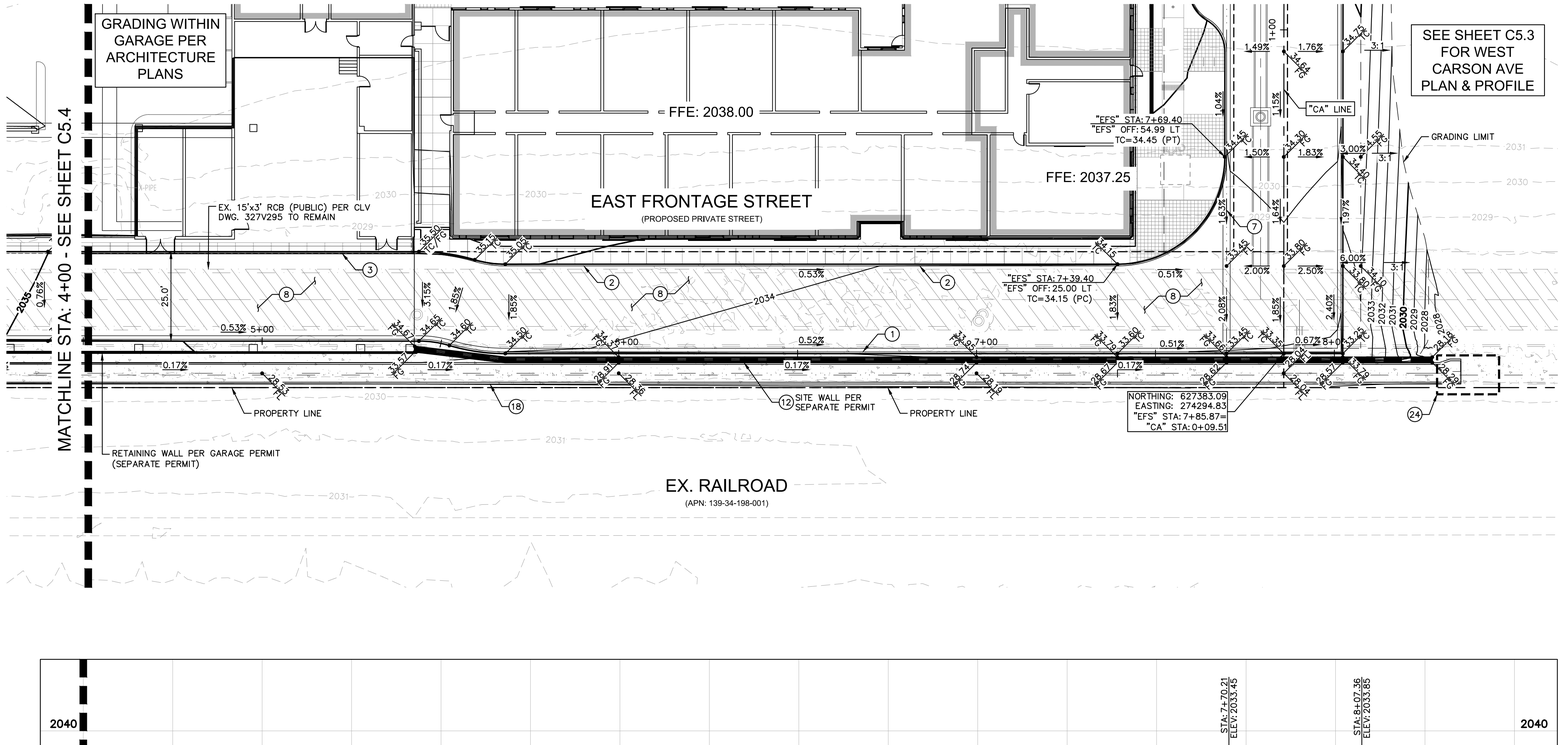
PROFESSIONAL ENGINEER - STATE OF NEVADA
THOMAS ACKERET
No. 18592
Exp. 12/31/20
CIVIL
09/ 20/ 2019

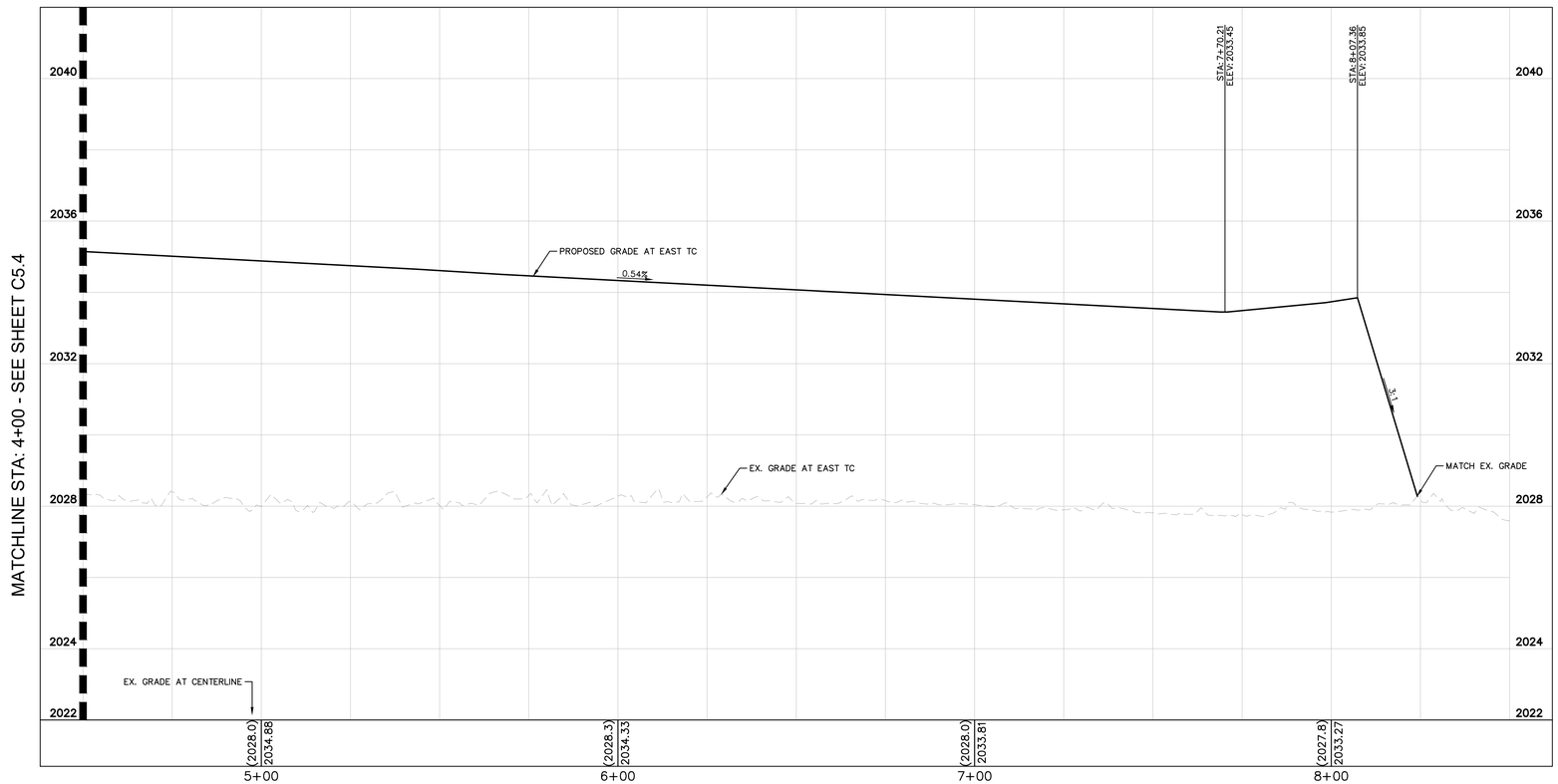
KHA PROJECT	192008000
DATE	09/ 20/ 2019
SCALE	AS SHOWN
DESIGNED BY	TEA
DRAWN BY	JPH
CHECKED BY	TEA

EAST FRONTAGE STREET PLAN & PROFILE - STA 0+00 - 4+50

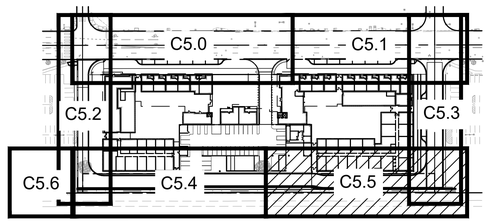
SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
NEVADA
CITY OF LAS VEGAS
CLV PERMIT # L19-00103

SHEET NUMBER
C5.4





EAST FRONTAGE TC PROFILE
FRONTAGE ROAD



KEY MAP

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24. SEE DETAIL B SHEET C5.6 FOR CHANNEL TRANSITION DETAIL.

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DRAWN BY	JPH
CHECKED BY	TEA

EAST FRONTAGE STREET PLAN & PROFILE - STA 4+50 - 8+50

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PREPARED FOR
ASPEN HEIGHTS PARTNERS
CITY OF LAS VEGAS NEVADA

SHEET NUMBER
C5.5

CLV PERMIT # L19-00103

SHEET 32 OF 33

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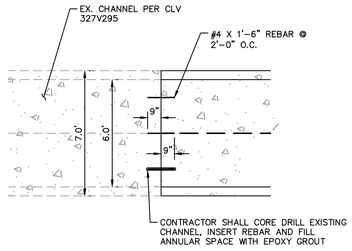
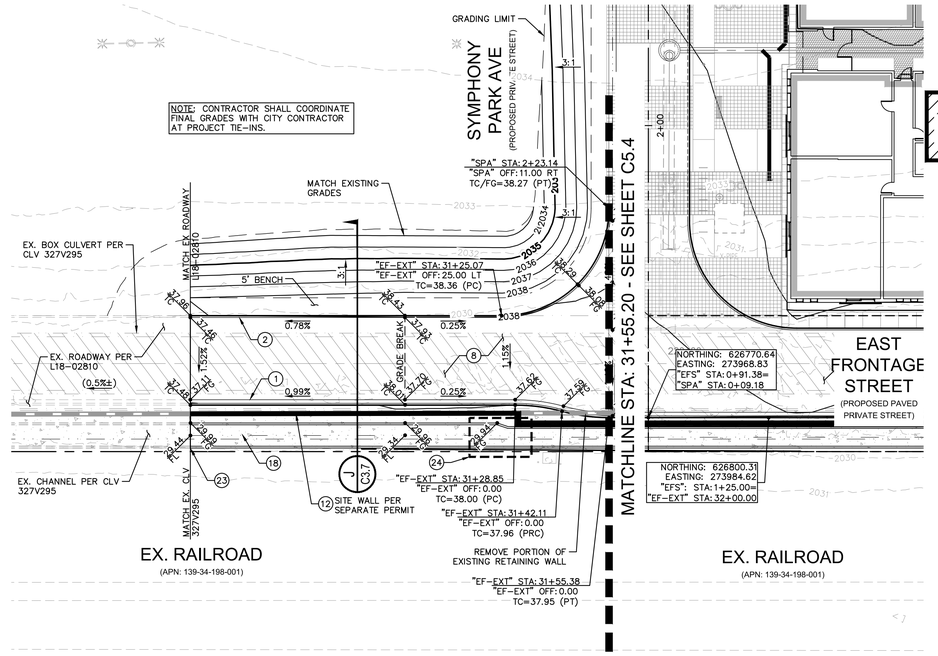
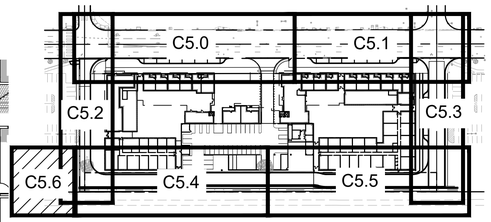


A — DETAIL A
CONNECTION OF PR. CHANNEL TO EXISTING
NTS





KEY MAP
NTS

GENERAL NOTES

1. CONTRACTOR TO VERIFY EXISTING IMPROVEMENTS SHOWN ON THE PLAN.
2. CONTRACTOR TO PROTECT IN PLACE, DURING DEMOLITION AND CONSTRUCTION, ALL EXISTING IMPROVEMENTS THAT ARE TO REMAIN AS NOTED ON THE PLAN.
3. ANY EXISTING STRUCTURE, IMPROVEMENT, OR APPURTENANCE TO REMAIN THAT IS DAMAGED DURING DEMOLITION OR CONSTRUCTION SHALL BE IMMEDIATELY REPAIRED OR REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.
4. CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING UNDERGROUND UTILITIES BEFORE CONSTRUCTION AND PROTECT IN PLACE UNLESS NOTED ON THE PLANS.
5. ALL DIMENSIONS ARE MEASURED FROM BACK OF CURB UNLESS OTHERWISE NOTED ON PLANS.
6. ADD 2000 FEET TO ALL SPOT ELEVATIONS UNLESS OTHERWISE NOTED.

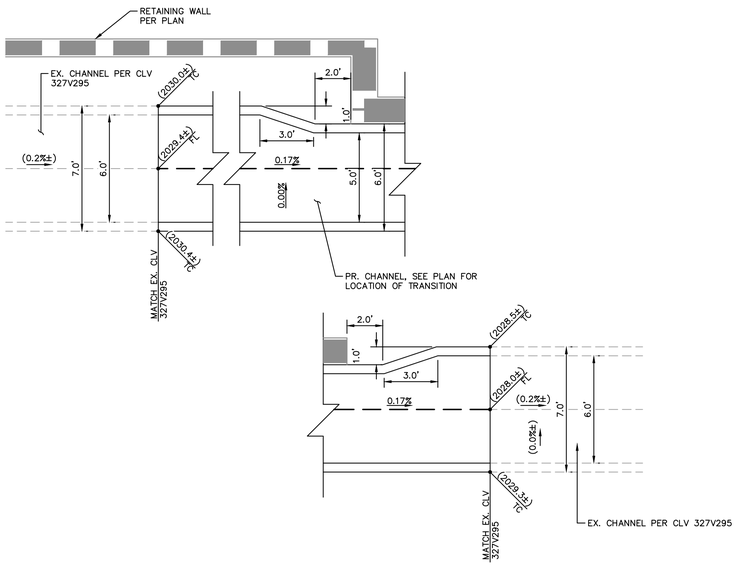
GEOTECHNICAL REPORT

ALL GRADING SHALL CONFORM TO THE GEOTECHNICAL REPORT:

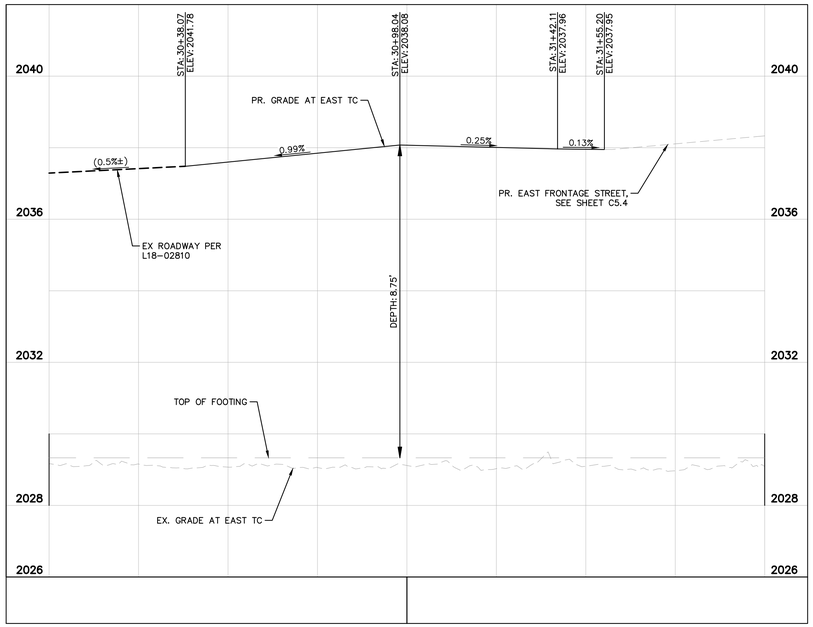
ENGINEER: NOVA GEOTECHNICAL & INSPECTION SERVICES
DATED: MAY 15, 2018
PROJECT No: G-18-038

CONSTRUCTION NOTES

(1) INSTALL MODIFIED TYPE 'L' CONCRETE CURB AND GUTTER PER DETAIL 1 ON SHEET C3.8
(2) INSTALL MODIFIED TYPE 'A' CONCRETE CURB PER DETAIL PER DETAIL 2 ON SHEET C3.8
(8) INSTALL 3" ASPHALT PAVING OVER 11" TYPE 2 AGGREGATE BASE PER GEOTECHNICAL RECOMMENDATIONS.
(12) INSTALL RETAINING WALL (PER SEPARATE PERMIT).
(18) INSTALL 5' X 0.5' CONCRETE U-CHANNEL PER DETAIL 9 ON SHEET C3.9.
(23) SEE DETAIL A THIS SHEET FOR CONNECTION OF PR. CHANNEL TO EXISTING CHANNEL.
(24) SEE DETAIL B THIS SHEET FOR CHANNEL TRANSITION DETAIL.



B — DETAIL B
CHANNEL TRANSITION DETAIL
NTS



EF-EXT

NOTE: CONTRACTOR SHALL ENSURE THAT TOP OF ASPHALT IS PLACED NO HIGHER THAN 8.6' ABOVE THE TOP OF THE RETAINING WALL FOOTING.

FLOOD ZONE NOTE

THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) INDICATES THAT THE SITE IS LOCATED IN ZONE "X" OF THE FLOOD INSURANCE RATE MAP (FIRM) No. 32003C2170F AS SHOWN ON THE FIRM INDEX REVISED NOVEMBER 16, 2011. ZONE "X" IS DEFINED BY FEMA AS "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN."

BENCHMARK

CITY OF LAS VEGAS VERTICAL CONTROL
BENCHMARK NO. "8LV0133NE6"

MONUMENT DESCRIPTION IN RIVET & PLATE IN TOP OF CURB AT THE SOUTHWEST CORNER OF SYMPHONY PARK AVENUE AND GRAND CENTRAL PARKWAY.

ELEVATION = 619.999 METERS
2034.12 FEET

CITY OF LAS VEGAS VERTICAL CONTROL DATUM BASED UPON NORTH AMERICAN VERTICAL DATUM OF 2008 (NAVD '88)

BASIS OF BEARING

SOUTH 27°55'16" WEST, BEING THE EAST LINE OF LOT 5 OF THAT COMMERCIAL SUBDIVISION KNOWN AS "PARKWAY CENTER" ON FILE IN THE OFFICE OF THE COUNTY RECORDER, CLARK COUNTY, NEVADA IN BOOK 53 OF PLATS, AT PAGE 61.

1 SHEET ADDED

GRAPHIC SCALE IN FEET
0 10 20 40
HORIZONTAL
0 1 2 4
VERTICAL
NORTH

AVOID HITTING UNDERGROUND TRAFFIC SIGNAL SYSTEMS AND STREET LIGHT SYSTEM CONDUITS VERY CLOSELY
CALL BEFORE YOU DO UNDERGROUND
Call before you UnderGround 1-702-432-5300 (FREEWAY AND ARTERIAL SYSTEM OF TRANSPORTATION (FAST))
Call before you Dig Avoid cutting underground utility lines. It's costly.
CALL 811 OR 1-800-227-2600
Avoid overhead power line contact. It's costly.
Call Before You Overhead 1-702-227-2929

No.	REVISIONS	DATE	BY
1	SITE PLAN REV & EFS EXTENSION	08/29/19	TEA

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PROFESSIONAL ENGINEER - STATE OF NEVADA
THOMAS ACKERET
Exp. 12/31/20
CIVIL
No. 18592
09/ 20/ 2019

KHA PROJECT 192008900			
DATE	09/ 20/ 2019	DESIGNED BY	TEA
SCALE	AS SHOWN	DRAWN BY	JPH
		CHECKED BY	TEA

EAST FRONTAGE STREET EXTENSION
PLAN & PROFILE

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
NEVADA
CITY OF LAS VEGAS

CLV PERMIT # L19-00103

SHEET NUMBER
C5.6

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GENERAL STRUCTURAL NOTES

DESIGN SPECIFICATIONS

2018 INTERNATIONAL BUILDING CODE WITH SOUTHERN NEVADA AND CLARK COUNTY AMENDMENTS.

CONSTRUCTION SPECIFICATIONS

CONSTRUCTION SPECIFICATION – UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION CLARK COUNTY AREA, NEVADA.

DESIGN LOADS

DEAD LOAD – WEIGHT OF BACKFILL = 130 pcf

EQUIVALENT FLUID PRESSURE FOR ACTIVE SOIL PRESSURE = 35 pcf

EQUIVALENT FLUID PRESSURE FOR PASSIVE SOIL PRESSURE = 250 pcf

COEFFICIENT OF FRICTION = 0.30

ALLOWABLE SOIL BEARING PRESSURE = 2500 psf

EARTHQUAKE DESIGN ACCELERATION FACTOR, Kh = 0.155

CONCRETE AND REINFORCEMENT

CAST-IN-PLACE CONCRETE SHALL BE CLASS MODIFIED AA (TYPE V CEMENT), F'C = 4500 PSI MIN. UNLESS NOTED OTHERWISE.

REINFORCING SHALL CONFORM TO ASTM A615, GRADE 60, Fy = 60,000 PSI.

HOOKS AND BENDS FOR REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF ACI318-14.

ALL BEND DIMENSIONS FOR REINFORCING STEEL SHALL BE OUT-TO-OUT OF BARS. ALL PLACEMENT DIMENSIONS FOR REINFORCING STEEL SHALL BE TO CENTER OF BARS UNLESS NOTED OTHERWISE.

ALL REINFORCING SHALL HAVE 2" CLEAR COVER UNLESS NOTED OTHERWISE.

ALL EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED ¾".

FOUNDATION

1. FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL INVESTIGATION REPORT BY NOVA GEOTECHNICAL & INSPECTION SERVICES, PROJECT NO. G-18-038, DATED MAY 15, 2018.
2. REQUIRED OVEREXCAVATION AND SUBGRADE PREPARATION, DRAINAGE PROVISIONS, AND OTHER RELEVANT SOIL CONSIDERATIONS ARE TO BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT.

COORDINATION

CONTRACTOR SHALL COORDINATE ALL EXISTING CONDITIONS DURING CONSTRUCTION OF PROJECT. UTILITY INFORMATION SHOWN ON THE PLANS MAY NOT BE COMPLETE OR ACCURATELY DEPICT THE LOCATION OF THE FACILITIES SHOWN. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL EXISTING, NEW, RELOCATED, AND ABANDONED UTILITIES WITH THE PROJECT PLANS AND NOTIFY RESPECTIVE OWNERS BEFORE COMMENCING THE WORK OF EXCAVATION, INCLUDING ANY DRILLING OR PILING REQUIRED FOR TEMPORARY SHORING. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER AND RESOLVED PRIOR TO PROCEEDING WITH THE WORK. SEE CIVIL AND UTILITY DRAWINGS FOR ADDITIONAL INFORMATION.

VERIFY ALL DIMENSIONS AND ELEVATIONS PRIOR TO STARTING WORK. NOTIFY THE ENGINEER OF ANY DISCREPANCIES.

SEE CIVIL PLANS FOR WALL LOCATION AND LAYOUT INFORMATION.

SEE ARCHITECTURAL PLANS FOR WALL FINISH REQUIREMENTS.

DIMENSIONS

DIMENSIONS SHALL NOT BE SCALED FROM DRAWINGS.

SPECIAL INSPECTIONS

SPECIAL INSPECTION IS REQUIRED DURING THE FOLLOWING OPERATIONS PER I.B.C. SECTION 1704:

- STRUCTURAL CONCRETE AS REQUIRED BY THE PROJECT SPECIFICATION AND SPECIAL INSPECTION TABLES.
- SOILS AS REQUIRED BY THE PROJECT SPECIFICATION AND SPECIAL INSPECTION TABLE.

DUTIES AND RESPONSIBILITIES OF THE SPECIAL INSPECTOR:

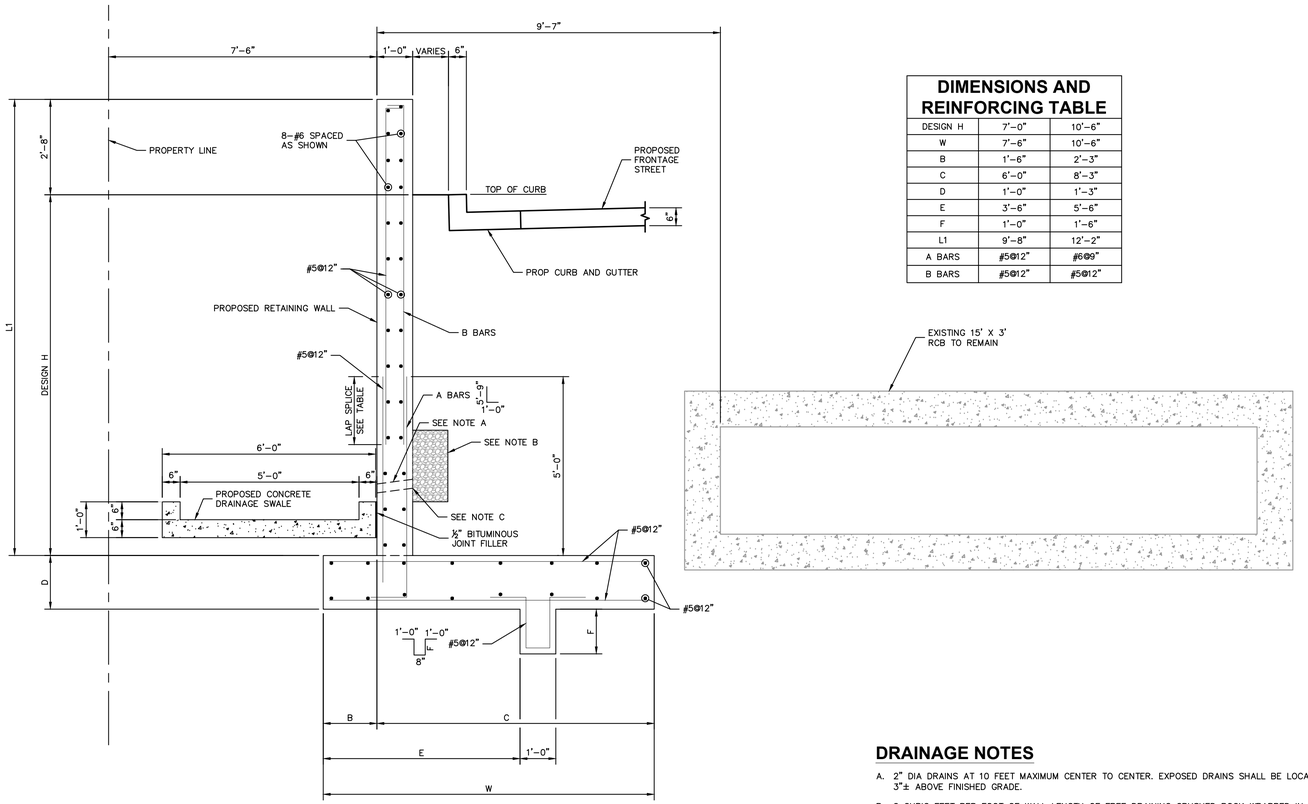
1. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK ASSIGNED TO BE CERTAIN IT CONFORMS WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATIONS.
2. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, THE ENGINEER OF RECORD, AND OWNER. ALL DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION, THEN, IF UNCORRECTED, TO THE DESIGN AUTHORITY AND THE BUILDING OFFICIAL.
3. UPON COMPLETION OF THE ASSIGNED WORK, THE ENGINEER SHALL COMPLETE AND SIGN A FINAL REPORT CERTIFYING THAT TO THE BEST OF HIS KNOWLEDGE, THE WORK IS IN CONFORMANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND THE APPLICABLE WORKMANSHIP PROVISIONS OF THE CODE.
4. INSPECTIONS SHALL BE PERFORMED BY AN ICC CERTIFIED INSPECTOR APPROVED BY THE CLARK COUNTY EMPLOYED BY THE OWNER/DEVELOPER.
5. SPECIAL INSPECTION OF FILL AROUND THE RETAINING WALL SHALL BE PROVIDED AT THE FREQUENCY AS NECESSARY TO ENSURE THAT PROPER FILL AND COMPACTION IS ACHIEVED. COMPACTION TEST FOR EACH LIFT SHALL BE TAKEN PER CONSTRUCTION SPECIFICATION SECTION 203.05.02. THE SPECIAL INSPECTOR SHALL SUBMIT A COMPLIANCE REPORT TO THE OWNER/DEVELOPER AND STRUCTURAL ENGINEER DOCUMENTING FILL TYPE AND PLACEMENT PROCEDURE.

DUTIES AND RESPONSIBILITIES OF THE CONTRACTOR:

1. FOR INSPECTION OF CONCRETE, BOLTS IN CONCRETE, REINFORCING STEEL, EXPANSION BOLTS, AND ADHESIVE ANCHORS, NOTIFY THE SPECIAL INSPECTOR THAT WORK IS READY FOR INSPECTION AT LEAST ONE WORKING DAY (24 HOURS MINIMUM) BEFORE SUCH INSPECTION IS REQUIRED.
2. ALL WORK REQUIRING SPECIAL STRUCTURAL INSPECTION SHALL REMAIN ACCESSIBLE AND EXPOSED UNTIL IT IS OBSERVED BY THE SPECIAL STRUCTURAL INSPECTOR.

TABLE 1705.6 - REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS

VERIFICATION AND INSPECTION	FREQUENCY	
	CONTINUOUS	PERIODIC
VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	–	X
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	–	X
PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	–	X
VERIFY USE OF PROPER MATERIALS, DENSITIES, AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	–
PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	–	X



TYPICAL SECTION

DIMENSIONS AND REINFORCING TABLE		
DESIGN H	7'-0"	10'-6"
W	7'-6"	10'-6"
B	1'-6"	2'-3"
C	6'-0"	8'-3"
D	1'-0"	1'-3"
E	3'-6"	5'-6"
F	1'-0"	1'-6"
L1	9'-8"	12'-2"
A BARS	#5@12"	#6@9"
B BARS	#5@12"	#5@12"

DRAINAGE NOTES

A. 2" DIA DRAINS AT 10 FEET MAXIMUM CENTER TO CENTER. EXPOSED DRAINS SHALL BE LOCATED 3"± ABOVE FINISHED GRADE.

B. 2 CUBIC FEET PER FOOT OF WALL LENGTH OF FREE DRAINING CRUSHED ROCK WRAPPED IN A GEOFABRIC, SECURELY TIED, CONSISTING OF MIRAFI 140N, OR EQUIVALENT.

C. 4" SQUARE ALUMINUM OR GALVANIZED STEEL WIRE MESH HARDWARE CLOTH (4 OPENINGS PER INCH AND MINIMUM WIRE DIAMETER 0.03")

TABLE 1705.3 - REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION

VERIFICATION AND INSPECTION	FREQUENCY		REFERENCE FOR CRITERIA	
	CONTINUOUS	PERIODIC	REFERENCED STANDARD	IBC REFERENCE
INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	–	X	ACI 318: CH. 20, 25.2, 25.3, 26.6.1–26.6.3	1908.4
REINFORCING BAR WELDING: A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706 B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16" C. INSPECT ALL OTHER WELDS	– – X	X X	AWS D1.4 ACI 318: 26.6.4	–
INSPECT ANCHORS CAST IN CONCRETE.	–	X	ACI 318: 17.8.2	–
INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS. A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS. B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A.	X –	– X	ACI 318:17.8.2.4 ACI 318: 17.8.2	–
VERIFY USE OF REQUIRED DESIGN MIX.	–	X	ACI 318: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINED THE TEMPERATURE OF THE CONCRETE.	X	–	ASTM C172, ASTM C31, ACI 318: 26.5, 26.12	1908.10
INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	–	ACI 318: 26.5	1908.6, 1908.7, 1908.8
VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	–	X	ACI 318: 26.5.3–26.5.5	1908.9
INSPECT PRESTRESSED CONCRETE FOR: A. APPLICATION OF PRESTRESSING FORCES B. GROUTING OF BONDED PRESTRESSING TENDONS.	X X	– –	ACI 318: 26.10	–
INSPECT ERECTION OF PRECAST CONCRETE MEMBERS	–	X	ACI 318: 26.9	–
VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	–	X	ACI 318: 26.11.2	–
INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	–	X	ACI 318: 26.11.1.2(b)	–

LAP SPLICE LENGTH TABLE	
BAR SIZE	LAP SPLICE LENGTH
#5	2'-2"
#6	2'-7"

No.	REVISIONS	DATE	BY

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WWW.KIMLEY-HORN.COM

09/ 20/ 2019

KHA PROJECT 192008000
DATE 09/ 20/ 2019
SCALE AS SHOWN
DESIGNED BY NLM
DRAWN BY MSK
CHECKED BY DJL

RETAINING WALL GENERAL NOTES AND TYPICAL SECTION

SYMPHONY PARK RESIDENTIAL
CIVIL IMPROVEMENT PLANS
PREPARED FOR
ASPEN HEIGHTS PARTNERS
CITY OF LAS VEGAS NEVADA

CLV PERMIT # L19-00103

SHEET NUMBER
S1.1

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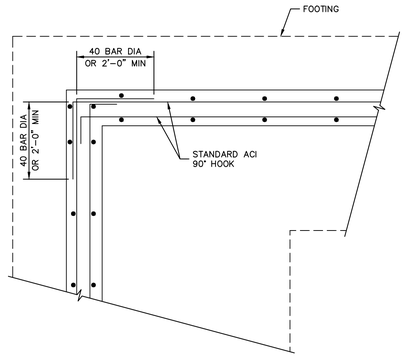
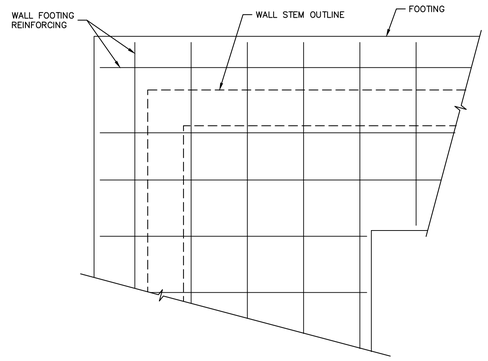
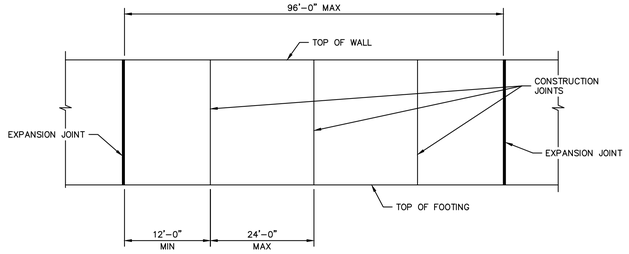
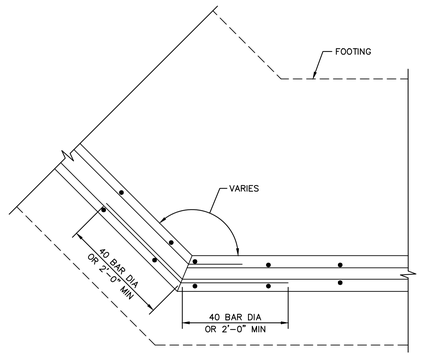


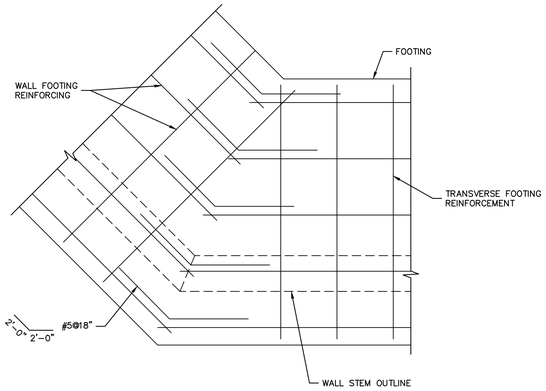


90° WALL CORNER DETAILS

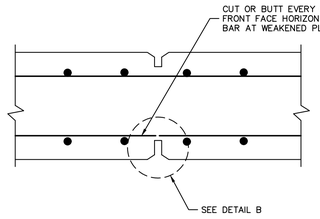


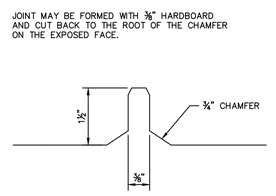
DETAIL A





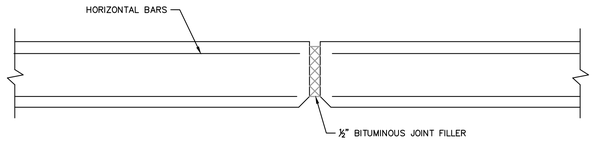
OBTUSE WALL CORNER DETAILS



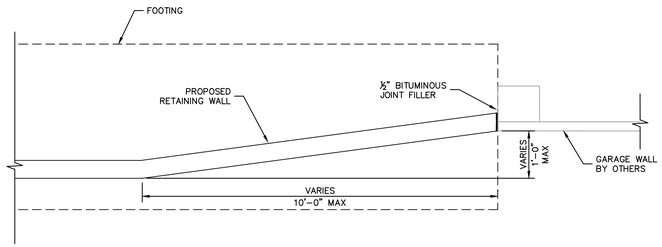


DETAIL B

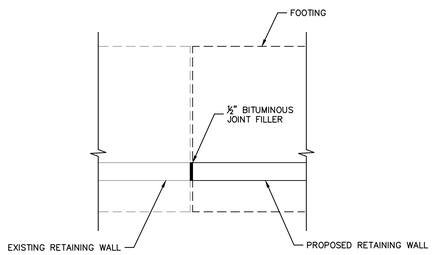
CONSTRUCTION JOINT DETAILS



EXPANSION JOINT DETAILS



GARAGE WALL TIE-IN DETAIL



TYPICAL WALL TIE-IN DETAIL

No.	REVISIONS	DATE	BY

Kimley»Horn
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KHA PROJECT	192008000
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SHEET NUMBER
S1.2