Grant Sawyer State Office Building

Programming and Feasibility Studies

Volume Two | Property Condition Assessment

January 2, 2019

kga

Grant Sawyer State Office Building
Programming and Feasibility Studies
Volume Two

Prepared for the Nevada State Public Works Division
January 2, 2019

Project Team:

KGA
Architecture and Interior Design

NV5 Consulting Engineers + Bombard
Mechanical, Plumbing and Electrical Engineering

Lochsa Engineering
Civil Engineering

John A. Martin & Associates
Structural Engineering

HKA Elevator Consulting
Elevator Consultants

OCMI
Cost Estimating

The project team wishes to extend a special word of thanks to the members of the State Public Works Division and Buildings and Grounds Section, and to each of the twenty-three additional departments and agencies who participated in the property condition and program needs assessment surveys, interviews. and site visits. The access, support and information provided by the individuals involved have been invaluable to our team and have made the contents of this study possible.

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January 2, 2019

We are pleased to submit within these three volumes the Programming and Feasibility Studies prepared by KGA and its consultant team for the Grant Sawyer State Office Building. As home to a range of critical state agencies and departments, and as a touchpoint for the many citizens who visit these agencies each year, the Grant Sawyer State Office Building is an important facility for the operations of the state of Nevada.

In Volume One, the Program Needs Assessment, we provide a comprehensive overview of the current and projected future space needs of the twenty-three subject departments and agencies. Volume Two, the Property Condition Assessment, provides a detailed overview of the current condition and future needs of building systems and components.

In the third volume, Proposed Implementations, the project team proposes a series of potential courses of action for facility improvements. These six concepts are organized by the three 'R's – Repair, Reprogramming and Replacement - which represent a broad range of options which will address the needs of Grant Sawyer occupants looking forward to the year 2040.

As the vital service of the building's occupants to the citizens and economy of the state of Nevada will continue until 2040 and beyond, it is our hope and intent that in the contents of this study, the State will find the best way forward to supporting the physical space needs of the subject departments and agencies through the next two decades.

We thank the State for the opportunity to be involved in this important and exciting project. Please contact us at any time if we can be of further assistance in the process of interpretation and implementation of this study.

Sincerely,

James C. Lord II
Partner, CEO

Brian Henley
Partner, Director of Design

Scott Carter
Associate, Senior Project Manager

Kris Piyaachariya
Senior Designer

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kga.design

Volume Two | Property Condition Assessment

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Volume Two | Property Condition Assessment

Executive Summary

In this volume, the project team, consisting of architects, civil, structural, mechanical, plumbing and electrical engineers, mechanical and electrical contractors, and an elevator consultant, provides findings and analysis which is the result of detailed investigation and consideration of the building's systems, their current condition, and their projected needs for repair, upgrade or replacement in order to keep the facility in operation through the target year of 2040.

The project team, in concert with State representatives from the Public Works Division with the Buildings and Grounds Section, has conducted a series of extensive facility visits and investigations which have covered a wide range of building systems and components.

Visual investigation of each system has been conducted at numerous locations throughout the building, and the resulting observations have been accounted for in the narratives, illustrations and drawings contained in Volume Two. Additionally, the prior knowledge provided in the form of several prior studies and tests, which have been conducted separately by the State Public Works Division, has been taken into account. This abundance of information allows for a deep understanding of the status and needs of the Grant Sawyer Building looking into the future.

The narratives, illustrations and drawings contained within Volume Two provide a thorough basis of understanding for the conceptual design and engineering recommendations and associated cost analysis which will follow in later sections of this study.

Volume Two | Contents Index

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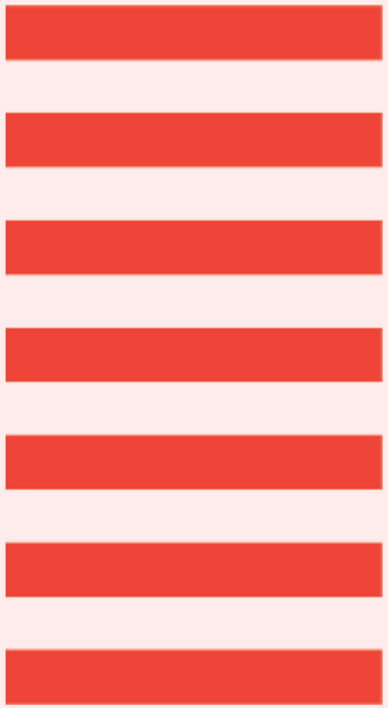
Civil Engineering Assessment



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CIVIL CONDITION ASSESSMENT REPORT

1.0 General Information

On October 17, 2018, Lochsa Engineering reviewed the subject site located at 555 East Washington Avenue, Las Vegas, Nevada. Record drawings were also reviewed and compared to field conditions.

Identified as APN 139-26-201-012, the property is located at the northeast corner of North Las Vegas Boulevard and East Washington Avenue, Las Vegas, Nevada. It covers approximately 22.77 acres.

Approximately 25 years ago, the site previously served as Lions Park. The property sits in the areas of the original Las Vegas Creek and was one of the original settlements within the Las Vegas Valley. Since the original construction of the Grant Sawyer office site, a Veteran's Memorial was constructed south of the building's main entrance, and a solar panel farm was installed on the east side of the site near Fantasy Lane. Other than these site modifications, the remainder of the site appears unchanged.

John Youngberg from the State Facilities Staff escorted Lochsa staff and provided information on problem areas and site maintenance known to him.

2.0 Drainage and Grading

The site appears to drain well during storm events and few obvious ponding areas were observed. Primary roof drains appear to connect to underground storm drain pipes and are directed away from the building. The west plaza area drainage is collected, directed north, then east, through and with the truck dock drainage to a large storm drain pump station just east of the dock. From there the water is pumped up to the east to a surface gutter north of the northeast corner of the building. From there, runoff flows east then southeast toward Washington Avenue. The south and east sides of the site drain south and east as well. All runoff originating from the site drains to Washington Avenue and its underground storm drain facilities. Note that the original design at the southeast side of the building showed a combination of primary roof drains from three locations combining and outletting at one point to a south curb face. It appears that the primary roof drains do not combine but outlet through three separate curb face outlets. These appear to function adequately. Maintenance and clean up appears to be very good with all area drains clean and open and very little silt, debris, leaves or trash was observed.

All storm facilities appear to function adequately except the valley gutter crossing the access gate controlled southeast driveway. The original design was for all site runoff to flow on the surface via a 5-foot wide valley gutter east through the Fantasy Park area then south to an existing drop inlet along the north side of Washington Avenue at the southeast corner of the site. At some point in time, it appears an 8-inch diameter steel pipe was placed on the bottom of the 5-foot valley gutter and was covered with fill material. This appears to create a ponding condition on the valley gutter crossing this driveway. While the site may generate over sixty six (66) cubic feet per second of runoff volume during a 100-year storm event, it is doubtful the 8-inch pipe can convey any more than one (1) cubic foot per second of flow. This creates a ponding situation that slowly drains and appears to create the need for excess maintenance. It is our recommendation to remove the pipe and to clean the valley gutter of all fill and debris along the length of the parking lot to the back of the Washington Avenue drop inlet.

The future Fleet Maintenance Facility should not impact the Sawyer drainage conditions.

Future expansion of the Sawyer building appears to be something that can be accomplished with limited impact to existing conditions. This is dependent on location and size. Locating any expansion on the west side of the site could be challenging due to slopes and grade differences. It should be noted that underlying soils below improvements installed as a part of the Grant Sawyer office site may require modifications and improvements for future structures. Ground water levels should also be measured and elevation fluctuations determined for future design considerations since this area is known to have shallow ground water.

The property is covered by the Federal Emergency Management Agency (FEMA) and Flood Insurance Rate Map (FIRM) for the Clark County, Nevada and incorporated areas, Community Panel Number: 32003C2170F, effective date: November 16, 2011. The majority of the project site is located within a FEMA Shaded Zone X defined as: "Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by leeves from the 1% annual chance flood." The remaining project site area is located within a FEMA Zone X (unshaded), defined as: "Areas determined to be outside the 0.2% annual chance floodplain." The FEMA Flood Insurance Rate Map is included in the attachments.

3.0 Utilities

Water service to the site is provided by two 8-inch by 2-inch combined fire/domestic meters. One is located at the northwest corner of the site and one at the northeast corner of the site. These meters are somewhat outdated and may need to be replaced at some point in time since parts for these sort of antiquated water meters become scarcer. They are no longer allowed or produced. The backflow preventers behind each meter are detector check valves and may need to be replaced with current standard reduced pressure backflow devices at some point in time. If Las Vegas Valley Water District (LVVWD) has not notified the need to replace these items, it may be required as a part of any expansion.

Onsite combined fire and domestic waterlines are 8-inch in size and loop around the building. All located valves and hydrants appear to be built per plans. A designed gate valve near the southeast building corner was not located. The fire hydrant northeast of the dock appears to have been moved west to accommodate a parking expansion area. This hydrant may be more than 100-feet away from the Fire Department connection located on the north side of the fire pump building. A fire hydrant south of the southwest corner of the building and east of the Veteran's Memorial may not be accessible by fire fighting vehicles. All gate valves designed near this hydrant were not located. Static water pressure on site is estimated to be approximately 40 psi.

Site sewer exits the site via an 8-inch on-site main at the southwest corner of the site out to Washington Avenue. We are not aware of any site sewer problems with this main. We are aware that a grease line was recently replaced through the west side of the building. Three previously designed cleanouts on the south side of the building were not located in the field. The 8-inch onsite sewer main should be of adequate size to accept future flow for reasonable expansions.

Dry utilities appear to enter the building on the north side and appear to originate along Las Vegas Boulevard or Fantasy Lane. Capacities are unknown at this time.

4.0 Hardscape

Existing exterior concrete (curbs, gutters, sidewalks) appear to be in good condition with no apparent failures and minimal cracking. Drainage under sidewalks and through curbs appears satisfactory.

The site asphalt appears to be in fair condition for its age. Some cracking and slow draining areas were observed but failure was not. Regular asphalt maintenance should occur every five ± years for a maximum life extension. This maintenance should include heavy crack sealing with a thick asphalt material and slurry seal with a thinner emulsion. Restriping will also be required during this maintenance and as warranted.

5.0 Summary

The site appears to have aged quite well. We assume this can be attributed to adequate initial design and construction as well as persistent and comprehensive maintenance. Minor site issues were observed and expansion opportunities appear to exist.

Attachments:
Assessor's Parcel Map
Assessor's Aerial Photo
Assessor's Aerial Photo with 2' Contours
Flood Insurance Rate Map
City of Las Vegas Improvement Plans
Improvement Plans with Review Walk Comments from 10/17/2018
Photographs

ASSESSOR'S PARCEL MAP

NOTES

This map is for assessment use only and does NOT represent a survey.

No liability is assumed for the accuracy of the data deliniated herein. Information on roads and other non-assessed parcels may be obtained from the Road Document Listing in the Assessor's Office.

This map is compiled from official records, including surveys and deeds, but only contains the information required for assessment. See the recorded documents for more detailed legal information.

USE THIS SCALE(FEET) WHEN MAP REDUCED FROM 11X17 ORIGINAL

0 100 200 400 600 800

MAP LEGEND

ASSESSOR'S PARCELS - CLARK CO., NV.
Michele W. Shafe - Assessor

PARCEL BOUNDARY
SUB BOUNDARY
PM/LD BOUNDARY
ROAD EASEMENT
MATCH / LEADER LINE
HISTORIC LOT LINE
HISTORIC SUB BOUNDARY
HISTORIC PM/LD BOUNDARY
SECTION LINE

CONDOMINIUM UNIT
AIR SPACE PCL
RIGHT OF WAY PCL
SUB-SURFACE PCL

001 ROAD PARCEL NUMBER
001 PARCEL NUMER
1.00 ACREAGE
202 PARCEL SUB/SEQ NUMBER
PB 24-45 PLAT RECORDING NUMBER
5 BLOCK NUMBER
5 LOT NUMBER
GL5 GOV. LOT NUMBER

BOOK T20S R61E

125	124	12312
138	139	14014
163	162	16116

SEC. 26

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

MAP S 2 NW 4

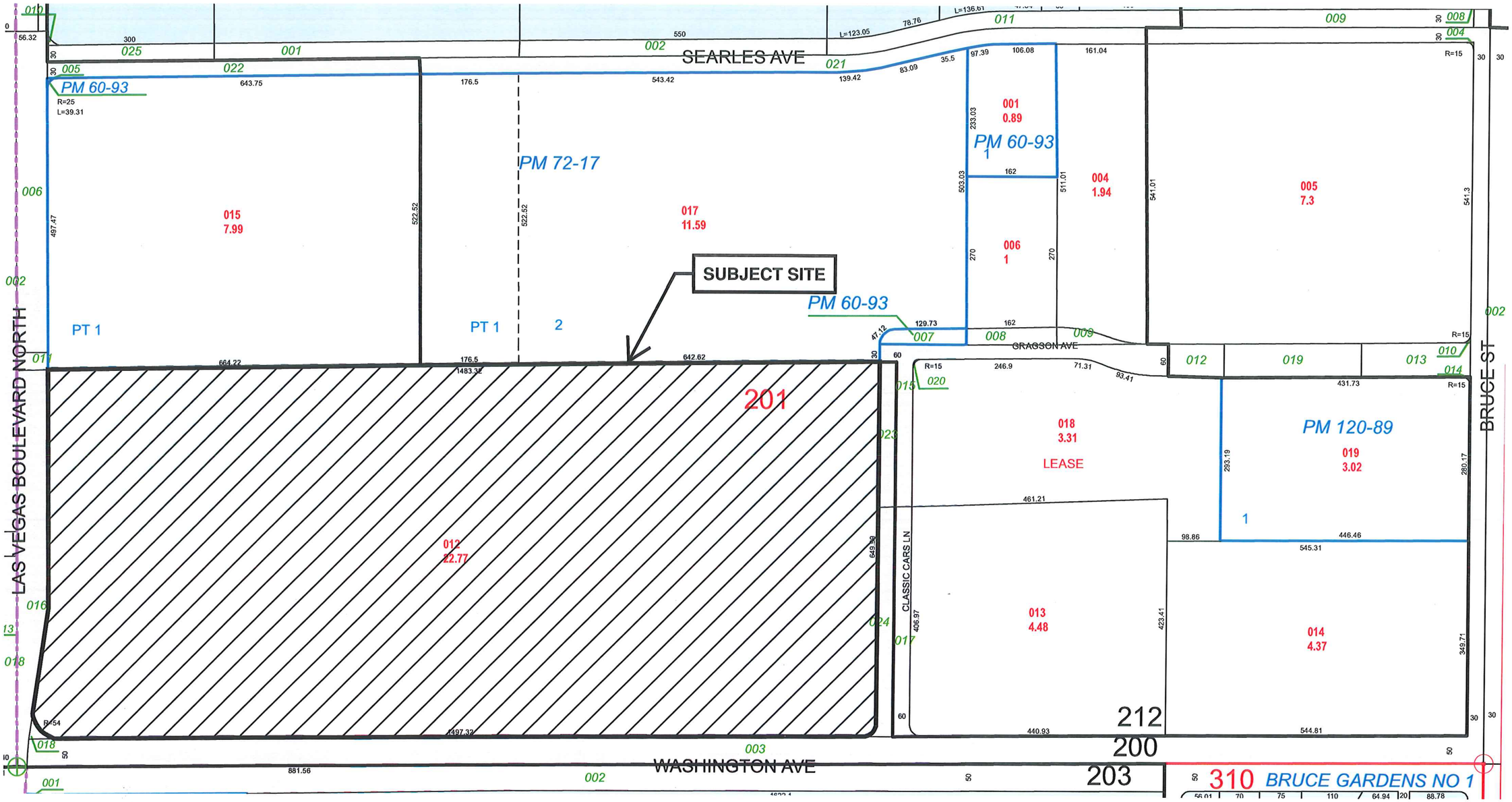
8	4	8	4
5	1	5	1
6	2	6	2
7	3	7	3
8	4	8	4
5	1	5	1

139-26-2

CLARK COUNTY ASSESSOR MAPPING DIVISION NEVADA

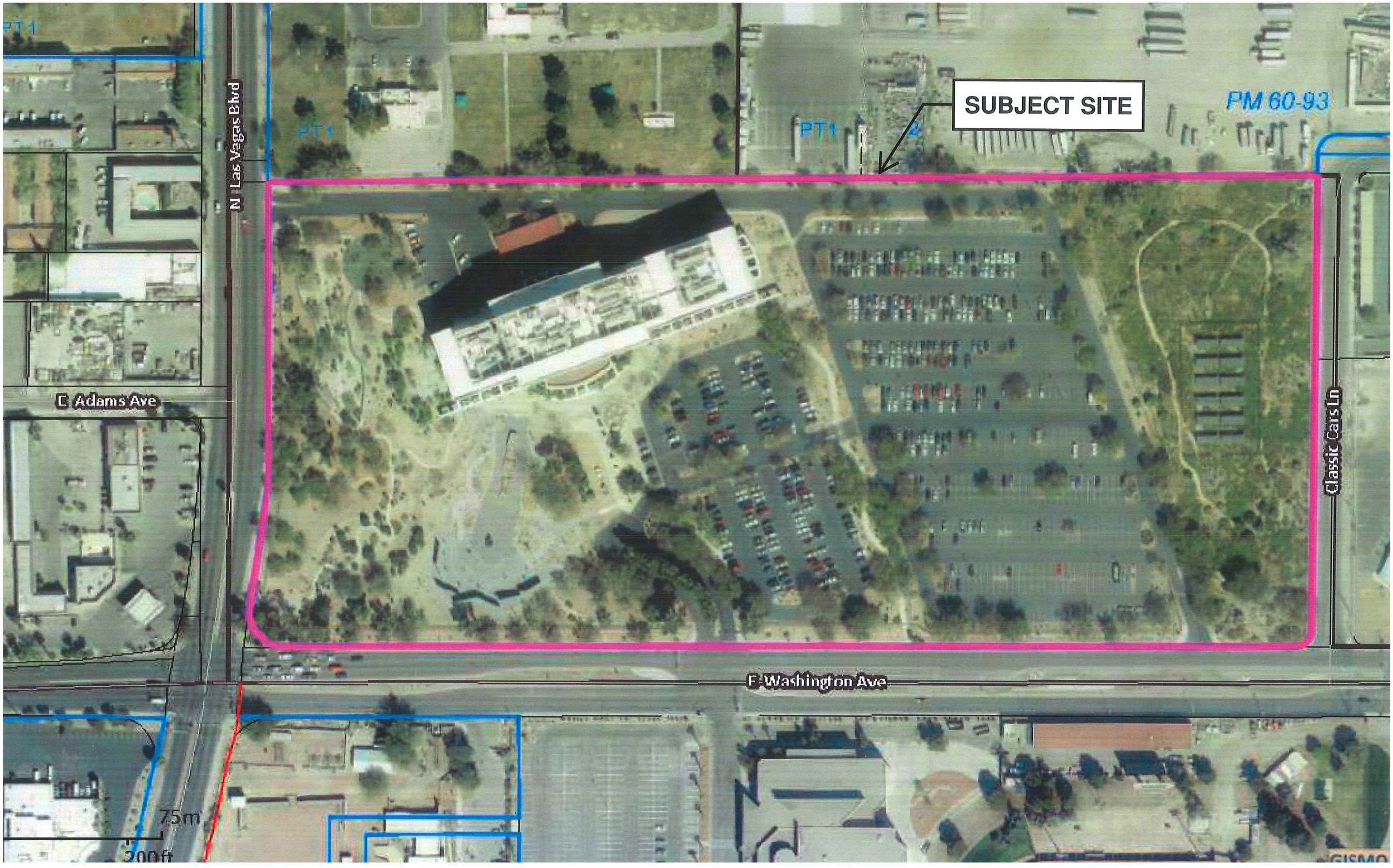
Scale: 1" = 200'

Rev: 12/23/2015

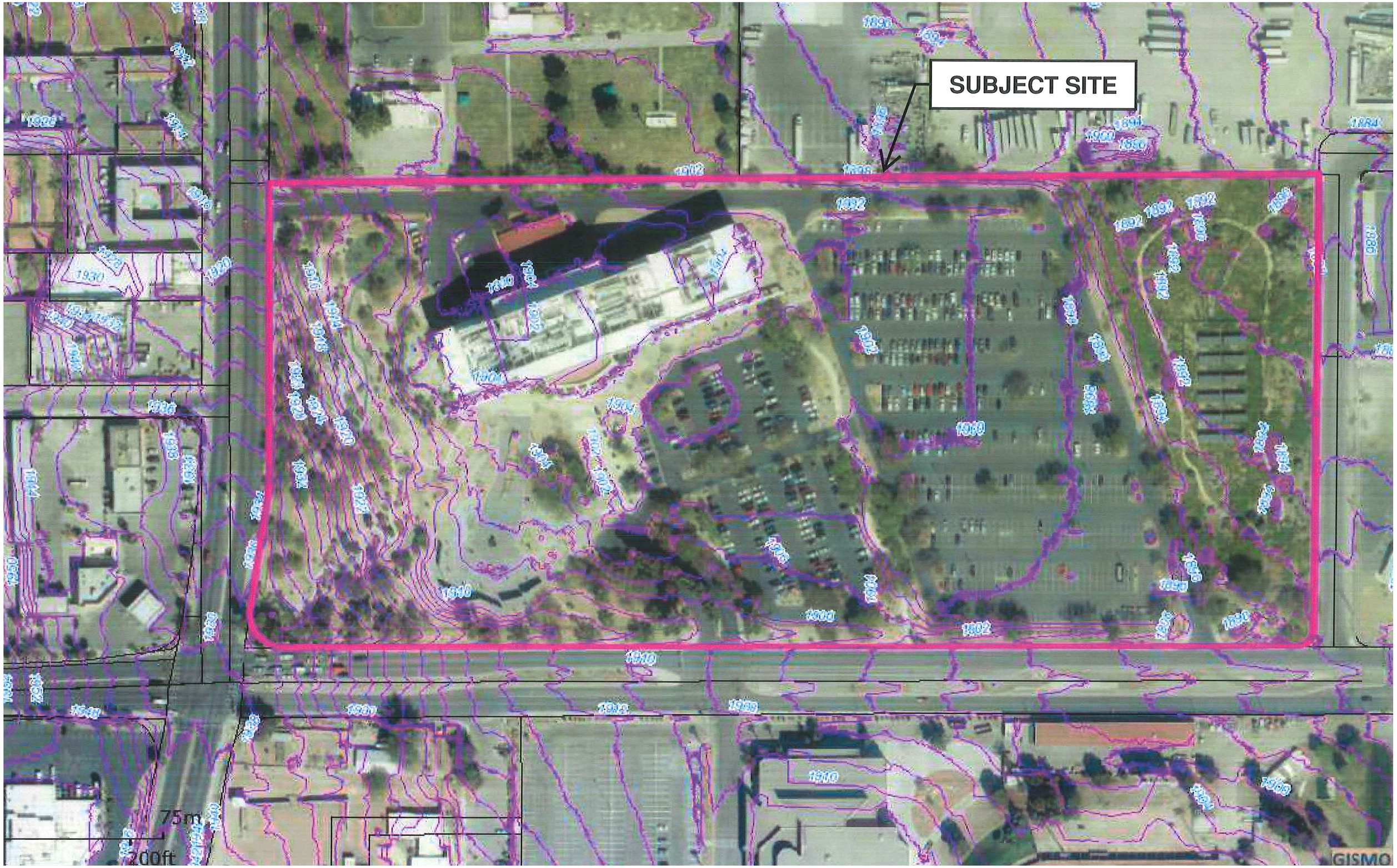


TAX DIST 212,200

ASSESSOR'S AERIAL PHOTO

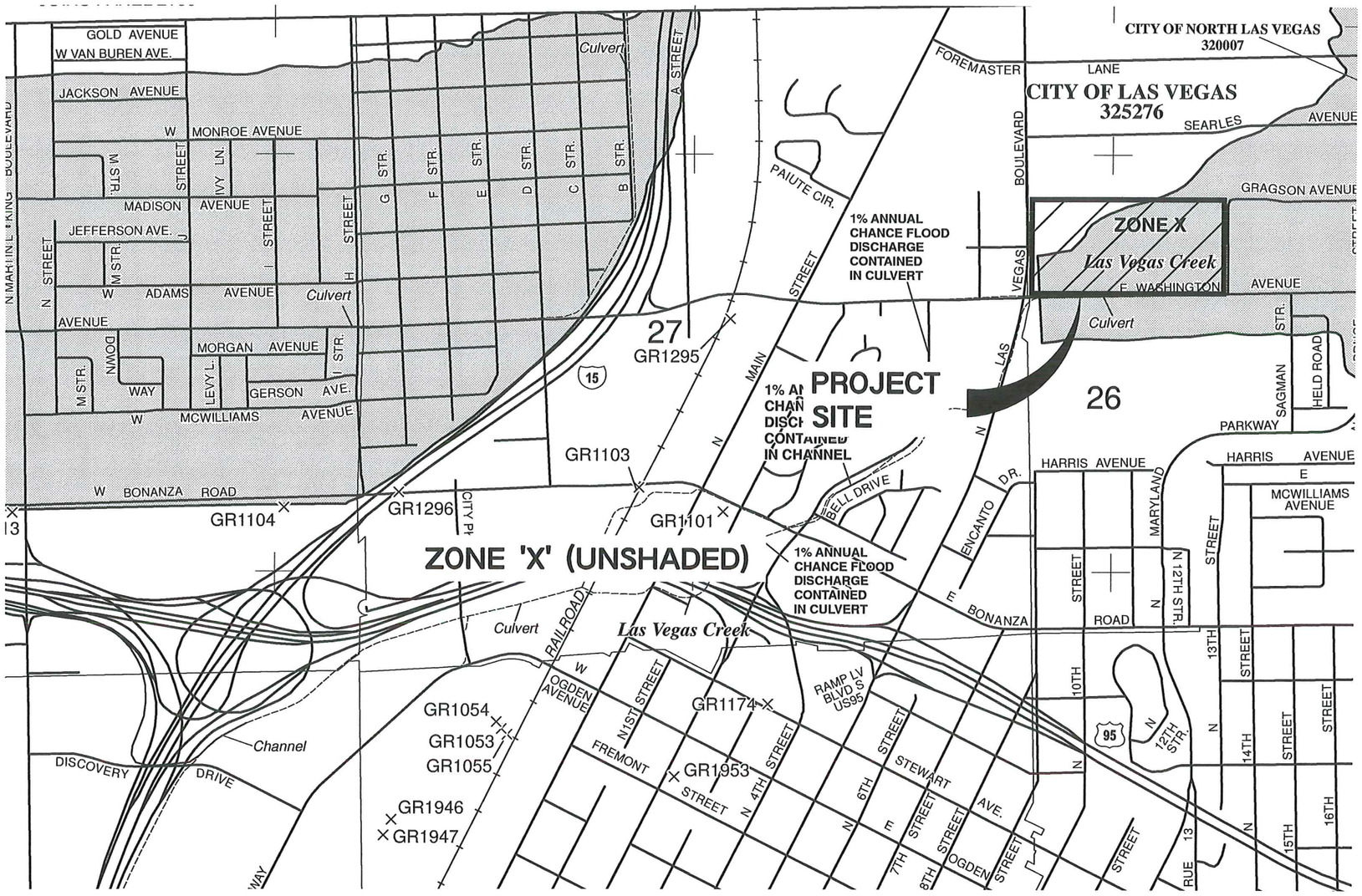

SUBJECT SITE
PM 60-93
N Las Vegas Blvd
E Adams Ave
E Washington Ave
Classic Cars Ln
75m
200ft

ASSESSOR'S AERIAL PHOTO WITH 2' CONTOURS


SUBJECT SITE
75m
200ft
GISMO

FLOOD INSURANCE RATE MAP

APN: 139-26-201-012



MAP SCALE 1" = 1000'

500 0 1000 2000 FEET

300 0 300 600 METERS

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A — No Base Flood Elevations determined.
- ZONE AE — Base Flood Elevations determined.
- ZONE AH — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR — Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99 — Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.
- FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

- OTHER FLOOD AREAS
- ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.
- OTHER AREAS
- ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D — Areas in which flood hazards are undetermined, but possible.
- COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS
- OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- Floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

- A — A — Cross section line
- 23 — 23 — Transect line
- 97°07'30", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 4275000mN — 1000-meter Universal Transverse Mercator grid ticks, zone 11
- 6000000 FT — 5000-foot grid ticks: Nevada State Plane coordinate system, east zone (FIPSZONE 2701), Transverse Mercator
- DX5510 × — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 2170F

FIRM

FLOOD INSURANCE RATE MAP

CLARK COUNTY, NEVADA AND INCORPORATED AREAS

PANEL 2170 OF 4090

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CLARK COUNTY	320003	2170	F
LAS VEGAS, CITY OF	325276	2170	F
NORTH LAS VEGAS, CITY OF	320007	2170	F

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER 32003C2170F

MAP REVISED NOVEMBER 16, 2011

Federal Emergency Management Agency

DRAWN BY: JMD	SCALE: 1"=1000'
CHECKED BY: MLH	DATE: 10/31/18

FILE NAME: C-181155-FIRM.dwg

LOCHSA ENGINEERING
6345 SOUTH JONES BLVD., SUITE 100
LAS VEGAS, NV 89118
P: 702 365-9312, F: 702 365-9317

FLOOD INSURANCE RATE MAP

THE GRANT SAWYER OFFICE SITE
555 E. WASHINGTON AVENUE

PROJECT No.: 181155

SHEET No. **FIRM**

SHEET 1 OF 1

ABBREVIATIONS

A.C.	ASPHALTIC CONCRETE
A.C.P.	ABESTOS CEMENT PIPE
ADJ	ADJUST, ADJUSTABLE
A.L.	ARC LENGTH
B.C.	BEGINNING OF CURB OR BACK OF CURB
B.C.R.	BEGINNING OF CURB RETURN OR BACK OF CURB RADIUS
BDRY.	BOUNDARY
BEG.	BEGIN
B.M.	BENCHMARK
B.S.W.	BACK OF SIDEWALK
B.V.C.	BEGINNING OF VERTICAL CURVE
C&G	CURB AND GUTTER
C.F.	CURB FACE
C.I.P.	CAST IRON PIPE
CL	CENTERLINE
C.M.P.	CORRUGATED METAL PIPE
CONC.	CONCRETE
CONSTR.	CONSTRUCT, CONSTRUCTION
D.C.	DEPRESSED CURB
D.I.	DROP INLET
DIA.	DIAMETER
D.I.P.	DUCTILE IRON PIPE
D.M.H.	DROP MANHOLE
E.C.	END OF CURVE
E.C.R.	END OF CURB RETURN
EL	ELEVATION
E.P.	EDGE OF PAVING
E.V.C.	EDGE OF VERTICAL CURVE
EXIST.	EXISTING
FIN. FLR.	FINISHED FLOOR
FIN. GR.	FINISHED GRADE
F.H.	FIRE HYDRANT
FL	FLOWLINE
G	GAS
GR. BRK.	GRADE BREAK
HGT	HEIGHT
HORIZ.	HORIZONTAL
H.P.	HIGH POINT
I.D.	INSIDE DIAMETER
INV.	INVERT
LAT.	LATERAL
LF	LINEAL FEET
LT	LEFT
MAX.	MAXIMUM
M.H.	MANHOLE
MIN.	MINIMUM
N.I.C.	NOT IN CONTRACT
NO.	NUMBER
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER
P	POWER LINE
P.C.	POINT OF CURVATURE
P.C.C.	POINT OF COMPOUND CURVE
P.G.	PAD GRADE
P.H.P.	PLASTIC HIGH PRESSURE
P.I.	POINT OF INTERSECTION
PL	PROPERTY LINE
P.P.	POWER POLE
P.R.C.	POINT OF REVERSE CURVE
PROP.	PROPOSED
P.T.	POINT OF TANGENT
P.V.C.	POLYVINYL CHLORIDE PIPE
P.V.I.	POINT OF VERTICAL INTERSECTION
PVMT.	PAVEMENT
Q	RATE OF FLOW
RAD.	RADIUS
R.C.P.	REINFORCED CONCRETE PIPE
RT	RIGHT
R/W	RIGHT OF WAY
S	SOUTH, SANITARY SEWER
S.D.	STORM DRAIN
S.H.P.	STEEL HIGH PRESSURE
SHT	SHEET
SP. MH	SPECIAL MANHOLE
STA.	STATION
STD.	STANDARD
STL.	STEEL
SW	SIDEWALK
T	TANGENT DISTANCE
TEL.	TELEPHONE
T.C.	TOP OF CURB
T.O.C.	TOP OF CONCRETE
T.M.H.	TOP OF MANHOLE
T.O.W.	TOP OF WALL
TRANS.	TRANSITION
T.S.C.	TRAFFIC SIGNAL CONDUIT
T.S.W.	TOP OF SIDEWALK
V.C.	VERTICAL CURVE
V.C.P.	VITRIFIED CLAY PIPE
VERT.	VERTICAL
V.G.	VALLEY GUTTER
W	WEST, WATER

SYMBOLS LEGEND

EXISTING	PROPOSED	
		RIGHT-OF-WAY
		CENTERLINE
—W—	—W—	WATER LINE
—S—	—S—	SANITARY SEWER LINE
—G—	—G—	GAS LINE
—SD—	—SD—	STORM DRAIN
—E—	—E—	POWER LINE / POWER POLE
—T—	—T—	TELEPHONE LINE
		FIRE HYDRANT
		WATER VALVE
		METERS / PULL BOXES
		REDUCER
		MANHOLE
		CLEANOUT
		STREET LIGHT

EXISTING	PROPOSED	
		SCREEN / RETAINING WALL
		WIRE OR CHAIN LINK FENCE
		TRASH ENCLOSURE
	GR	GRADE BREAK
—(00)—	—00—	CONTOUR LINE
	FF=0.00	FINISH FLOOR
(0.00) C.O. INV.	0.00 C.O. INV.	CLEANOUT INVERT ELEVATION
(0.00)	0.00	FLOW LINE
1863.99 OR (0.00) F.G.	0.00 F.G.	FINISH GRADE
(0.00) B.S.W.	0.00 B.S.W.	BACK OF SIDEWALK
(0.00) T.C.	0.00 T.C.	TOP OF CURB
(0.00) T.O.W.	0.00 T.O.W.	TOP OF WALL
		A.C. PAVING
		TYPE "L" CURB & GUTTER
		TYPE "A" CURB
	R.D.	ROOF DRAIN
	0.00 E.R.W.	END RETAINING WALL
		FIRELANE DESIGNATION

DEVIATIONS FROM STANDARD DRAWINGS:

1.) C.L.V. STD. DWG. NO. 235 – SEE SHEET C5 AND C6 OF 11 AND DETAIL 4/C11

2.) SEE SHEET C10 OF 11 FOR C.L.V. TRAFFIC NOTES.

SHEET INDEX

GENERAL NOTES

CITY OF LAS VEGAS GENERAL NOTES

*REQUIRED NOTES – OTHERS ONLY IF APPLICABLE

*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 ISSUE; 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 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 OR UNDERGROUND POWER, GAS AND/OR OTHER UTILITIES SO AS TO SAFELY PROTECT ALL PERSONNEL AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COSTS 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 OR 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 AT 28 DAYS. MIX DESIGN TO BE APPROVED BY THE QUALITY CONTROL DIVISION PRIOR TO USE ON THE PROJECT.

6 PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACT 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 1/2" ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS.

9 APPLY FOG SEAL ONLY AFTER ALL CORRECTIONS AND ADJUSTMENTS HAVE BEEN MADE.

10 CURB & GUTTER WITH A GRADE OF LESS THAN FOUR TENTHS OF ONE PERCENT SHALL BE WATER TESTED AS SOON AS POSSIBLE AFTER CONSTRUCTION. ANY CURB AND GUTTER FOUND TO BE UNACCEPTABLE TO THE CITY SHALL BE REMOVED AND REPLACED.

*11 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.

*12 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 TRANSITIONS TO BE AS SHOWN ON PLANS, OR AS DESIGNATED IN THE FIELD BY A CITY INSPECTOR.

13 ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY THE SOILS ENGINEER AND APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.

14 EXACT LOCATION OF ALL SAWCUT LINES MAY BE DETERMINED IN THE FIELD BY A CITY OF LAS VEGAS INSPECTOR IF LOCATION ON PLANS IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATION.

*15 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. 625.550.

*16. 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.

17 WALL NOTES.

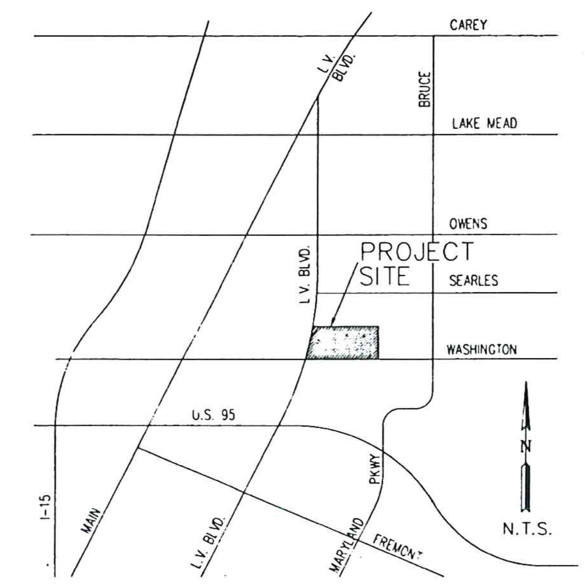
A. ALL WALLS, NEW OR EXISTING, ARE ONLY SHOWN FOR THE PURPOSE OF GRADING RELATIONSHIPS.

B. THE STRUCTURAL AND ARCHITECTURAL DESIGN OF ALL WALLS (RETAINING OR NON-RETAINING) MUST BE APPROVED BY THE CLV BUILDING DEPARTMENT.

18. ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT ON CITY STREETS.

REVISED 12/92 CLSM

VICINITY MAP



APPROVALS

[signature] 2/5/93
CENTRAL TELEPHONE COMPANY — DATE

[signature] 2-5-93
SOUTHWEST GAS CORPORATION — DATE

NEVADA POWER COMPANY approves the point of service to the street light system. This shall not be deemed to consent other placement of the light poles which may be in conflict with Nevada Power Company's prior rights or facilities. This approval is only for the placement and clearance of street light and signal light installations.

by [signature] 2-5-93
NEVADA POWER COMPANY — DATE

APPROVED FOR CONSTRUCTION

SEE SHEET C6.01
LAS VEGAS VALLEY WATER DISTRICT — DATE

[signature] 3/12/93
CLV FIRE MARSHALL — DATE

[signature] 4-2-93
DENNIS ANDERSON, P.E. NO. 9160 — DATE
C.L.V. CITY ENGINEER

LUCCHESI • GALATI •
2770 SOUTH MARYLAND PARKWAY
SUITE 510
LAS VEGAS, NEVADA
89109
(702) 733-7107

STATE OFFICE BUILDING

DEPARTMENT OF GENERAL SERVICES

SPWB JOB # 91-C9

MARTIN & MARTIN
MARTIN & MARTIN
CIVIL ENGINEERS
[illegible] CHARLESTON BLVD.
SUITE 420
LAS VEGAS, NEVADA [illegible]
PHONE (702) [illegible]

[seal and signature] 4-1-93

Date: FEBRUARY 23, 1993
Project No.: 91-C9
Scale:
Drawn By: R. YOUNG
Revisions:

Sheet Title:

COVER AND APPROVAL SHEET

Sheet Number: 1 of 11

C1.01

EXISTING	PROPOSED	
		RIGHT-OF-WAY
		CENTERLINE
W	W	WATER LINE
S	S	SANITARY SEWER LINE
G	G	GAS LINE
SD	SD	STORM DRAIN
P	P	POWER LINE / POWER POLE
T	T	TELEPHONE LINE
		FIRE HYDRANT
		WATER VALVE
		METERS / PULL BOXES
		REDUCER
		MANHOLE
		CLEANOUT
		STREET LIGHT
		EXIST. ON-SITE AREA LIGHT
		HANDRAIL

EXISTING	PROPOSED	
		SCREEN / RETAINING WALL
		WIRE OR CHAIN LINK FENCE
		TRASH ENCLOSURE
		GRADE BREAK
(00)	00	CONTOUR LINE
	FF=0.00	FINISH FLOOR
(0.00) CO. INV.	0.00 CO. INV.	CLEANOUT INVERT ELEVATION
(0.00)	0.00	FLOW LINE
1883.99 (0.00) F.G.	0.00 F.G.	FINISH GRADE
(0.00) B.S.W.	0.00 B.S.W.	BACK OF SIDEWALK
(0.00) T.C.	0.00 T.C.	TOP OF CURB
(0.00) T.O.W.	0.00 T.O.W.	TOP OF WALL
		A.C. PAVING
		TYPE "L" CURB & GUTTER
		TYPE "A" CURB
	R.D.	ROOF DRAIN
	0.00 E.B.W.	END RETAINING WALL
		FIRELANE DESIGNATION

BENCHMARK

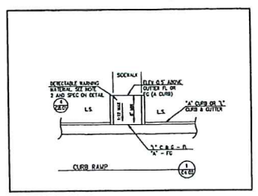
THE BENCHMARK FOR THIS PROJECT IS C.C.E.D. BENCHMARK NO. 7C0123SSW5; BEING AN ALUMINUM PLATE AND RIVET ON THE TOP OF THE CURB, NORTHEAST QUADRANT OWENS AND LAS VEGAS BLVD. NORTH.
ELEVATION = 1897.81

MARTIN AND MARTIN ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATLY.

DISTURBED (SANDY AND SILTY MATERIALS), SHOULD BE PROTECTED WITH BURLAP OR OTHER EROSION CONTROL FABRIC/MATERIAL, UNLESS OTHERWISE SPECIFIED BY LANDSCAPE DRAWINGS AND SPECIFICAITONS, OR THE SOILS REPORT.

CONTRACTOR SHALL DETERMINE HIS OWN FOOTING OR BASEMENT EXECAVATION QANTITIES, EVEN THOUGH SHOWN ON ROUGH GRADING PLANS. ADDITIONALLY, STRUCTURE BACKFILL COSTS SHOLD BE INCLUDED IN THE COST OF THE STRUCTURE, UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.

CONTRACTOR SHALL NOTIFY MARTIN & MARTIN WITHIN 24 HOURS OF OMISSIONS AND ERRORS DISCOVERED ON PLANS. MARTIN & MARTIN WILL REVISE AND RE-ISSUE DRAWINGS AS SOON AS POSSIBLE. MARTIN & MARTIN WILL NOT BE RESPONSIBLE FOR ANY "CORRECTIVE" WORK DONE BY OTHERS.



① REMOVE EXIST. DWY. & REPLACE W/ 'L' C&G

② REMOVE AND REPLACE DAMAGED 'L' CURB

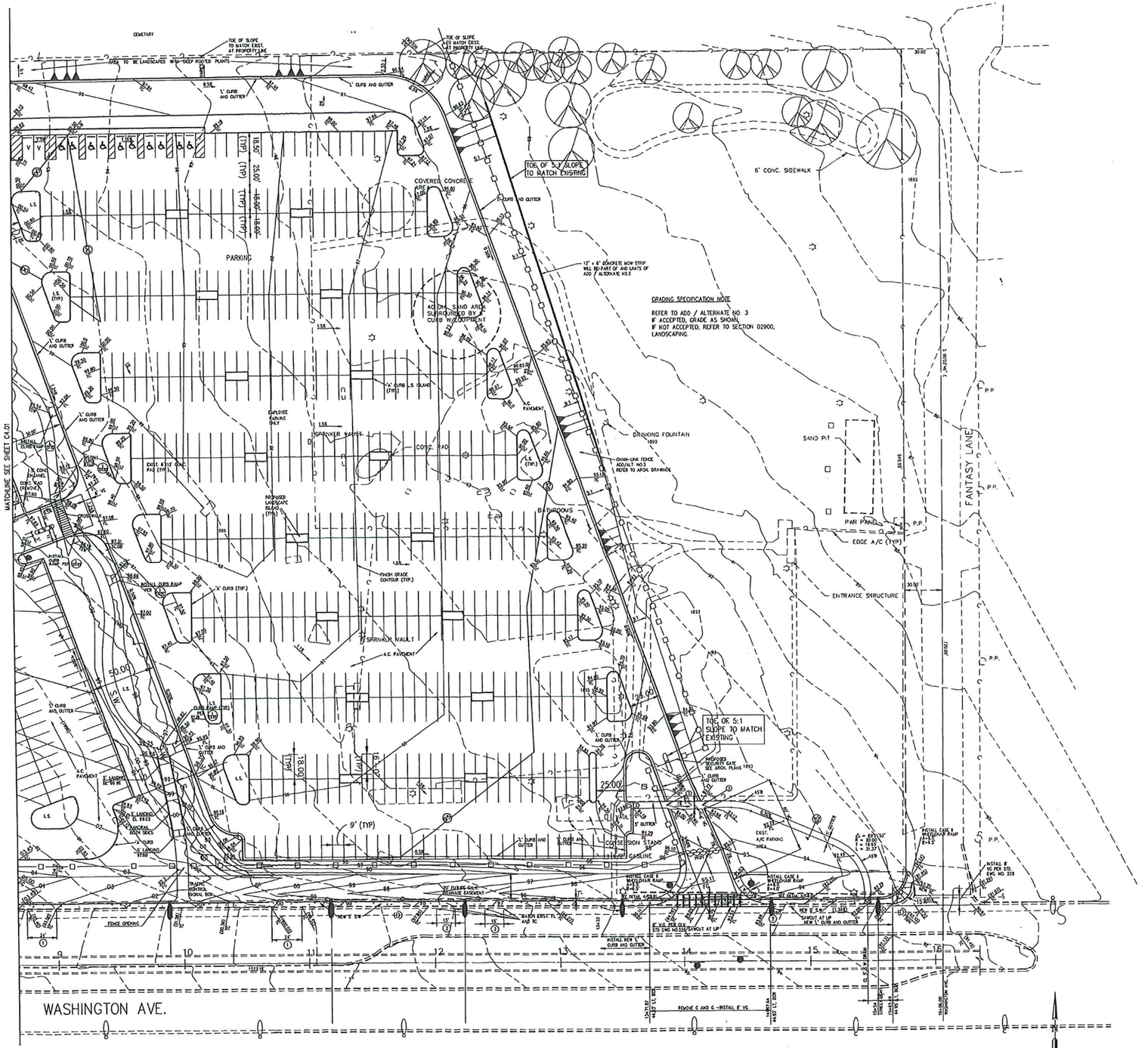
③ 5' DEPRESSED CURB SECTION. DEPRESSED TO ALLOW POSITIVE DRAINAGE WITH NO PONDING ALLOWED

NOTE:
1. ALL REMOVED AND REPLLACED C&G LENGTHS ARE APPROXIMATE.

2. N.D.O.T. OWNERSHIP IS TO BACK OF SIDEWALK ALONG L.V. BLVD.

3. ADJUST ALL PULLBOXES, SIGNAL BOXES, ECT. TO TOP OF S.W. ELEV.

4. REFER TO DESIGN LEVEL GEOTECHNICAL INVESTIGATION BY CONVERSE CONSULTANTS INC. PROJECT NO. 91-33402-02 DATED MAY 26, 1992 FOR ALL GRADING AND COMPACTION RECOMMENDATIONS.



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ARCHITECTS
2770 SOUTH MARYLAND PARKWAY
SUITE 510
LAS VEGAS, NEVADA
89109
(702) 733-7107

STATE OFFICE BUILDING

DEPARTMENT OF GENERAL SERVICES

SPWB JOB # 91-C9

MARTIN & MARTIN
MARTIN & MARTIN CIVIL ENGINEERS 1705 W. CHARLESTON BLVD SUITE 430 LAS VEGAS, NEVADA 89102 PHONE (702) 384-8005

MARK L. HEDGE CIVIL
Mark L. Hedge
4-1-93

Date: FEBRUARY 23, 1993
Project No.: 1096
Scale: 1"=30'
Drawn By: R. YOUNG / C.H.
Revisions:

Sheet Title:

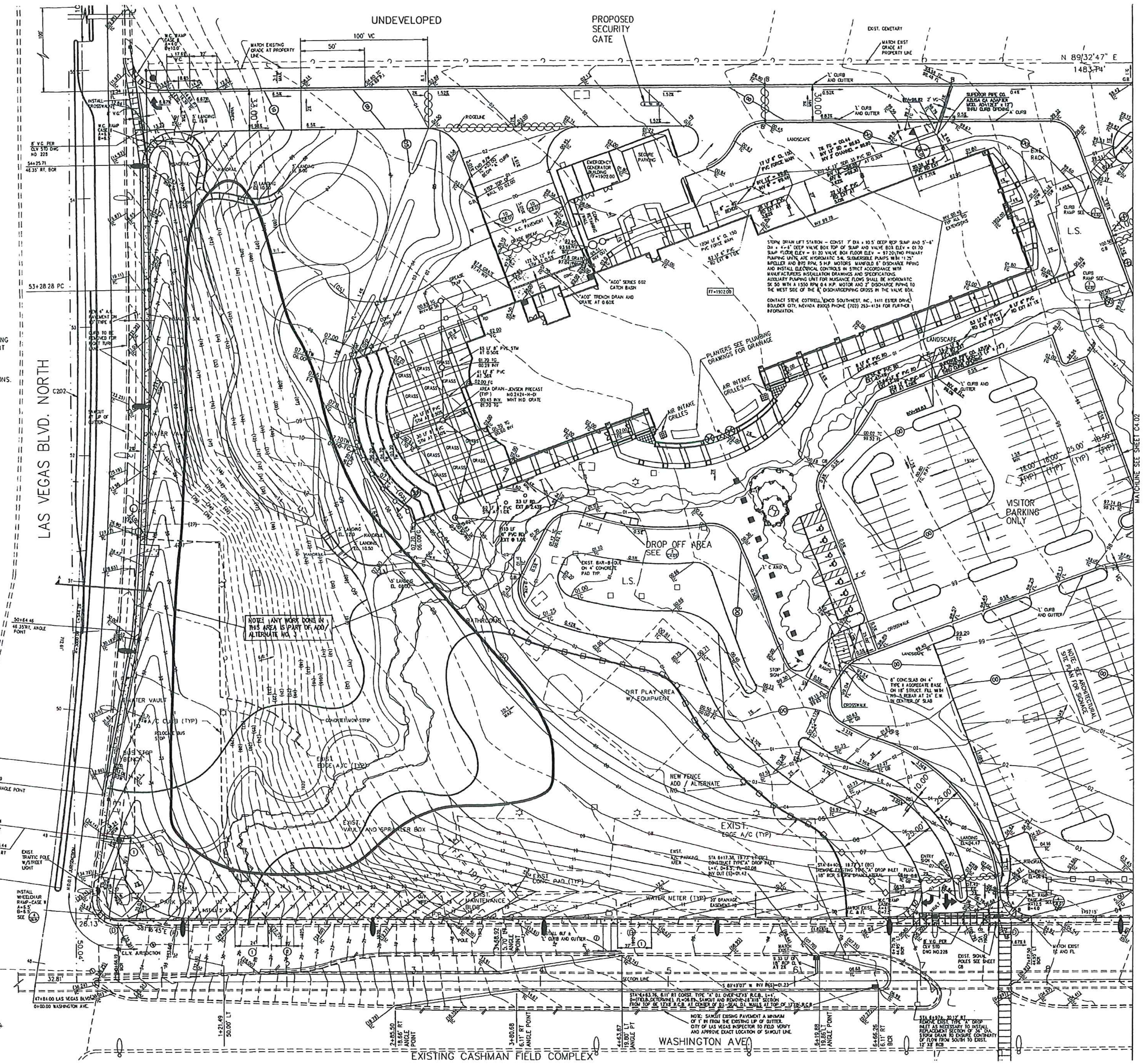
GRADING PLAN
NO. 2, EAST

Sheet Number: 6 of 11

C4.02

107-V2105

12-3-97



BENCHMARK

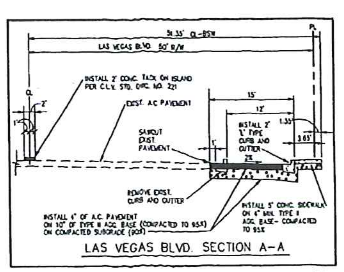
THE BENCHMARK FOR THIS PROJECT IS C C.E.D. BENCHMARK NO. 7C0123SSW6; BEING AN ALUMINUM PLATE AND RIVET ON THE TOP OF THE CURB, NORTHEAST QUADRANT OWENS AND LAS VEGAS BLVD. NORTH.
ELEVATION = 1897.81

MARTIN AND MARTIN ASSUMES NO RESPONSIBILITY FOR EXISTTING UTTILITY LOCATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATLY.

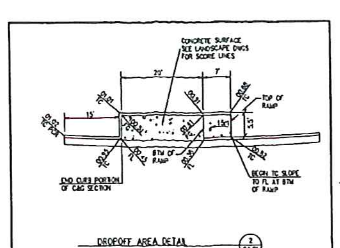
DISTURBED (SANDY AND SILTY MATERIALS), SHOULD BE PROTECTED WITH BURLAP OR OTHER EROSION CONTROL FABRIC/MATERIAL, UNLESS OTHERWISE SPECIFIED BY LANDSCAPE DRAWINGS AND SPECIFICAITONS, OR THE SOILS REPORT.

CONTRACTOR SHALL DETERMINE HIS OWN FOOTING OR BASEMENT EXECAVATION QANTITIES, EVEN THOUGH SHOWN ON ROUGH GRADING PLANS. ADDITIONALLY, STRUCTURE BACKFILL COSTS SHOLD BE INCLUDED IN THE COST OF THE STRUCTURE, UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.

CONTRACTOR SHALL NOTIFY MARTIN & MARTIN WITHIN 24 HOURS OF OMISSIONS AND ERRORS DISCOVERED ON PLANS. MARTIN & MARTIN WILL REVISE AND RE-ISSUE DRAWINGS AS SOON AS POSSIBLE. MARTIN & MARTIN WILL NOT BE RESPONSIBLE FOR ANY "CORRECTIVE" WORK DONE BY OTHERS.



LAS VEGAS BLVD. SECTION A-A



DROPOFF AREA DETAIL

(1) REMOVE EXIST. DWY. & REPLACE W/ 'L' C&G

(2) REMOVE AND REPLACE DAMAGED 'L' CURB

(3) 5' DEPRESSED CURB SECTION. DEPRESSED TO ALLOW POSITIVE DRAINAGE WITH NO PONDING ALLOWED

NOTE:
1. ALL REMOVED AND REPLLACED C&G LENGTHS ARE APPROXIMATE.
2. N.D.O.T. OWNERSHIP IS TO BACK OF SIDEWALK ALONG L.V. BLVD.
3. ADJUST ALL PULLBOXES, SIGNAL BOXES, ECT. TO TOP OF S.W. ELEV.
4. REFER TO DESIGN LEVEL GEOTECHNICAL INVESTIGATION BY CONVERSE CONSULTANTS INC. PROJECT NO. 91-33402-02 DATED MAY 26, 1992 FOR ALL GRADING AND COMPACTION RECOMMENDATIONS.

GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.

LUCCHESI
•GALATI•
ARCHITECTS
2770 SOUTH
MARYLAND PARKWAY
SUITE 510
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89109
(702) 733-7107

STATE OFFICE BUILDING

DEPARTMENT OF GENERAL SERVICES

SPWB JOB # 91-C9

MARTIN & MARTIN
CIVIL ENGINEERS

MARK L. HEDGE CIVIL No. 8445
Mark L. Hedge
4-1-93

Date: FEBRUARY 23, 1993
Project No.: 1096
Scale: 1"=30'
Drawn By: R. YOUNG / C.H.
Revisions:

Sheet Title:

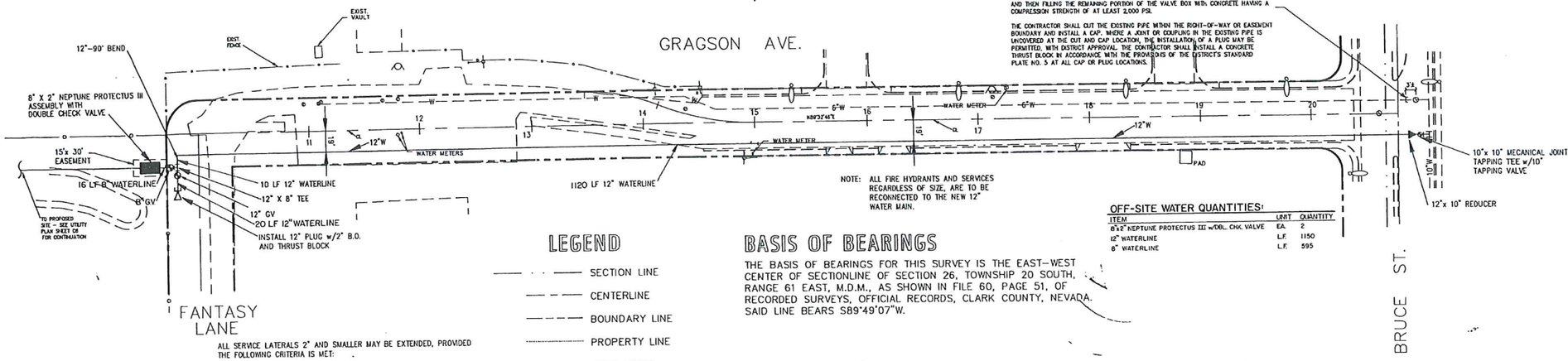
GRADING PLAN
NO. 1, WEST

Sheet Number: 5 of 11

C4.01

107-V2105

10-2-86



ALL VALVES TO BE ABANDON SHALL BE ABANDON IN THE CLOSED POSITION, UNLESS SHOWN OTHERWISE, BY REMOVING A MINIMUM OF THE TOP 12" OF THE VALVE BOX AND THEN FILLING THE REMAINING PORTION OF THE VALVE BOX WITH CONCRETE HAVING A COMPRESSION STRENGTH OF AT LEAST 2,000 PSI.

THE CONTRACTOR SHALL CUT THE EXISTING PIPE WITHIN THE RIGHT-OF-WAY OR EASEMENT BOUNDARY AND INSTALL A CAP. WHERE A JOINT OR COUPLING IN THE EXISTING PIPE IS UNCOVERED AT THE CUT AND CAP LOCATION, THE INSTALLATION OF A PLUG MAY BE PERMITTED, WITH DISTRICT APPROVAL. THE CONTRACTOR SHALL INSTALL A CONCRETE THRUST BLOCK IN ACCORDANCE WITH THE PROVISIONS OF THE DISTRICT'S STANDARD PLATE NO. 5 AT ALL CAP OR PLUG LOCATIONS.

OFF-SITE WATER QUANTITIES:

ITEM	UNIT	QUANTITY
8"x2" NEPTUNE PROTECTUS III w/DBL. CHK. VALVE	EA.	2
12" WATERLINE	L.F.	1150
8" WATERLINE	L.F.	595

ALL SERVICE LATERALS 2" AND SMALLER MAY BE EXTENDED, PROVIDED THE FOLLOWNG CRITERIA IS MET:

1. LATERAL CAN ONLY BE EXTENDED IF CONNECTING TO COPPER.
2. LATERAL MUST BE INSTALLED AT 90 DEGREES TO MAIN.
3. EXISTING SERVICE LATERAL THAT IS NOT COPPER AND IS TO BE ABANDONED FROM THE EXISTING WATER MAIN, SHALL HAVE THE CORPORATION STOP TURNED OFF AT THE MAIN, THE LATERAL CUT 6" DOWNSTREAM FROM THE CORPORATION STOP AND AGAIN CUT 6" DOWNSTREAM FROM THE FIRST CUT SO THAT A 6" PIECE OF THE EXISTING SERVICE LATERAL IS REMOVED. IF THE CORPORATION STOP IS DAMAGED BEYOND REPAIR OR PULLED FROM THE EXISTING WATER MAIN, THE MAIN SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, IN A MANNER APPROVED BY THE LVVWD. IF THE CORPORATION STOP IS NOT WATER TIGHT, THE CONTRACTOR SHALL NOTIFY LVVWD CUSTOMER SERVICE (PHONE 870-4194) FOR FURTHER DIRECTION.

LEGEND

- SECTION LINE
- CENTERLINE
- BOUNDARY LINE
- PROPERTY LINE
- AREA LIGHT
- STREET LIGHT (EXIST.)
- FIRE HYDRANT (EXIST.)
- EXIST. FENCE

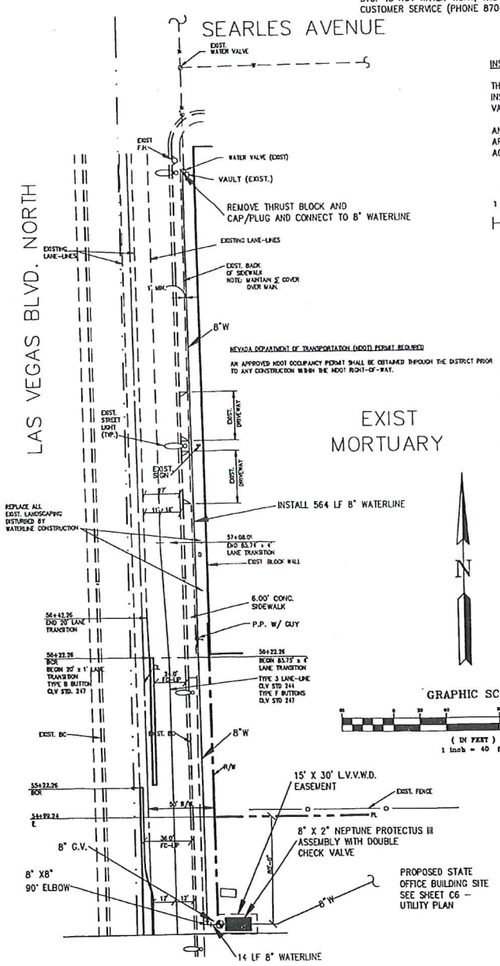
BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE EAST-WEST CENTER OF SECTIONLINE OF SECTION 26, TOWNSHIP 20 SOUTH, RANGE 61 EAST, M.D.M., AS SHOWN IN FILE 60, PAGE 51, OF RECORDED SURVEYS, OFFICIAL RECORDS, CLARK COUNTY, NEVADA. SAID LINE BEARS S89°49'07"W.

BENCHMARK

THE BENCHMARK FOR THIS SURVEY IS C.C.E.D. BENCHMARK # 7C0123SSW6, BEING AN ALUM. PLATE AND RIVET ON THE TOP OF CURB, NORTHEAST QUADRANT OWENS AND LAS VEGAS BLVD NORTH.

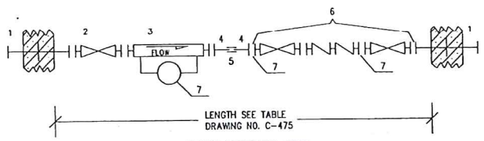
ELEVATION: 1897.81'



INSTALLATION OF METER AND VAULT

THE METER(S) AND VAULT(S) WITH NON-TRAFFIC BEARING COVER(S) SHALL BE INSTALLED IN ACCORDANCE WITH THE ATTATCHED DETAIL AND WITH STANDARD VAULT DRAWING C-475, LATEST REVISION.

ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S), SO AS TO ALLOW THE DISTRICT DIRECT ACCESS TO THE VAULT(S) FROM THE ADJACENT RIGHT-OF-WAY.



ITEM NO.	DESCRIPTION	QTY.
1	FLANGED SCHED 40 FABRICATED STEEL EPOXY COATED AND LINED WALL SPOOL WITH THRUST RING.	2
2	FLANGED GATE VALVE.	1
3	8" x 2" NEPTUNE PROTECTUS III OR APPROVED EQUAL.	1
4	FLANGED X PLAIN END SCHED 40 FABRICATED STEEL EPOXY COATED AND LINED SPOOL.	2
5	SLEEVE TYPE COUPLING.	1
6	USC APPROVED DOUBLE CHECK VALVE ASSEMBLY COMPLETE WITH GATE VALVES.	1
7	INSTALL ADJUSTABLE PIPE SUPPORTS, GRINNEL NO. 264 OR APPROVED EQUAL.	3

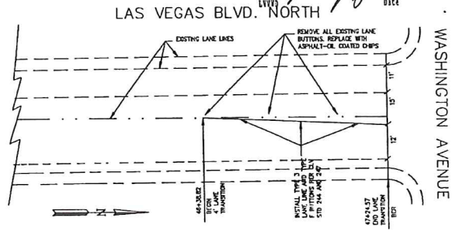
NOTES: ALL PIPING, FITTINGS, AND APPURTENANCES SHALL CONFORM TO APPLICABLE DISTRICT SPECIFICATIONS.

THIS INSTALLATION IS FOR USE ONLY IN SYSTEMS HAVING ANOTHER SOURCE OF SUPLLY.

PROJECT NAME: STATE OFFICE BUILDING

This project water plan complies with the Las Vegas Valley Water District's technical requirements. However, this water plan is NOT APPROVED FOR CONSTRUCTION at this time and this signature does not provide or imply a water commitment.

LVVWD 3/30/93 Date



LAS VEGAS VALLEY WATER DISTRICT NOTES

1. NO WORK SHALL BEGIN ON THE WATER PLANS UNTIL THEY HAVE BEEN RELEASED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING APPROVAL OF THE PLANS, NOTICE SHALL BE GIVEN TO THE LVVWD CUSTOMER SERVICE DEPARTMENT (870 4194) 48 HOURS PRIOR TO ACTUAL CONSTRUCTION, AND 24 HOURS PRIOR TO AN INSPECTION.

2. CALL BEFORE YOU DIG 1-800-227-2600.

3. ALL WORK SHALL CONFORM TO LVVWD LATEST STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS.

4. ALL WORK, EXCEPT AS MODIFIED HEREON OR BY NOTE 3, SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT DRAFT OR ADDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OF OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA.

5. DISTRICT APPROVED SERVICE SADDLES OR TAPPED COLLARS SHALL BE REQUIRED ON ALL 3/4" AND 1" SERVICE LATERALS. SERVICE SADDLES ONLY SHALL BE PERMITTED ON 1-1/2" AND 2" SERVICE LATERALS. DOUBLE TAPPED COLLARS ARE NOT PERMITTED.

6. COPPER SERVICE LATERALS: ALL 3/4" TO 2" SERVICE LATERALS SHALL BE OF COPPER TUBING IN ACCORDANCE WITH THE DISTRICT'S SPECIFICATIONS AND STANDARD PLATES.

7. THE MAXIMUM ALLOWABLE JOINT DEFLECTION FOR ACP AND DUCTILE IRON PIPE SHALL BE AS FOLLOWS:

PIPE SIZES	ACP	DUCTILE IRON SLIP JOINT	DUCTILE IRON MECHANICAL JOINT
6 INCH	2.5 DEGREES	2.5 DEGREES	3.5 DEGREES
8 - 12 INCH	2.5 DEGREES	2.5 DEGREES	2.5 DEGREES
14 - 16 INCH	2 DEGREES	1.5 DEGREES	1.5 DEGREES
18 - 24 INCH	N/A	1.5 DEGREES	1.5 DEGREES

ON PVC PIPE, THE MAXIMUM OFFSET FOR A 20' LENGTH OF FACTORY BELLED PIPE SHALL BE 16 INCHES FOR 6" PIPE, 12 INCHES FOR 8" PIPE, AND 9 INCHES FOR 10" AND 12" PIPE.

IF THESE OFFSETS CONFLICT WITH THE PIPE MANUFACTURERS RECOMMENDATION, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

8. ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.

9. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS AND VALLEY GUTTERS.

10. DETECTOR TAPE SHALL BE REQUIRED IN ACCORDANCE WITH STANDARD PLATE NO. 27 WHERE INDICATED,AND AS FOLLOWS:

A) OVER ALL MAINS NOT INSTALLED 6 FEET FROM BACK OF CURB
B) OVER ALL SERVICE LATERALS NOT INSTALLED AT RIGHT ANGLES TO MAIN.

11. ALL WATER MAINS SHALL BE PRESSURE TESTED AT 200 PSI FOR A CONTINUOUS TWO HOUR PERIOD, IN ACCORDANCE WITH DISTRICT STANDARDS.

12. ALL WATER MAINS SHALL BE DISINFECTED, FLUSHED, AND AN ACCEPTABLE HEALTH SAMPLE OBTAINED, PRIOR TO THE CONNECTION OF THE WATER MAIN(S) AND/OR LATERAL(S) TO THE DISTRICT'S SYSTEM.

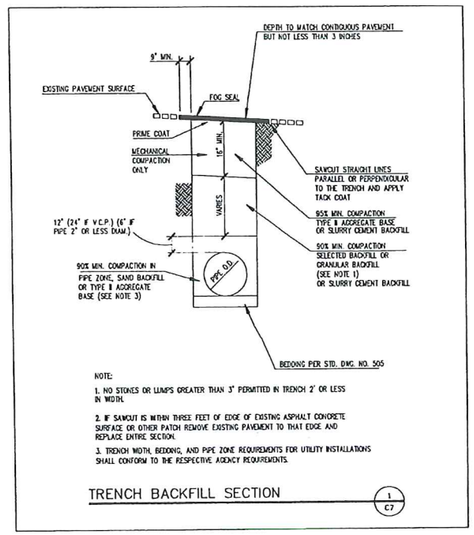
13. CONTRACTOR TO OBTAIN ALL METERS 2" AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 FORTY-EIGHT (48) HOURS PRIOR TO PICKUP.

APPROVALS

FIRE FLOW = 2,500

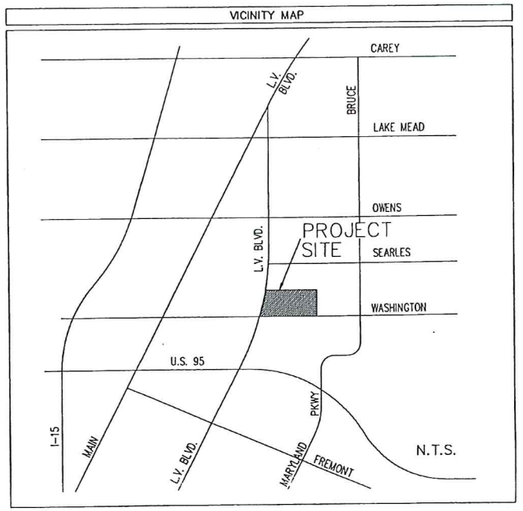
C.C. FIRE DEPARTMENT (C.L.V.) — DATE 3/12/93

LAS VEGAS VALLEY WATER DISTRICT — DATE 4/15/93



TRENCH BACKFILL SECTION — 1 / C7

VICINITY MAP



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(702) 733-7107

STATE OFFICE BUILDING

DEPARTMENT OF GENERAL SERVICES

SPWB JOB # 91-C9

MARTIN & MARTIN
CIVIL ENGINEERS
3701 W. CHARLESTON BLVD. SUITE 120
LAS VEGAS, NEVADA 89102
PHONE (702) 366-8005

Mark Martin 3-30-93

4-1-93

Date: FEBUARY 23, 1993
Project No: 91-C9
Scale: AS SHOWN
Drawn By: R. YOUNG
Revisions:

Sheet Title:

OFF-SITE WATER PLAN

Sheet Number: 9 of 11

C6.01

5-7-93

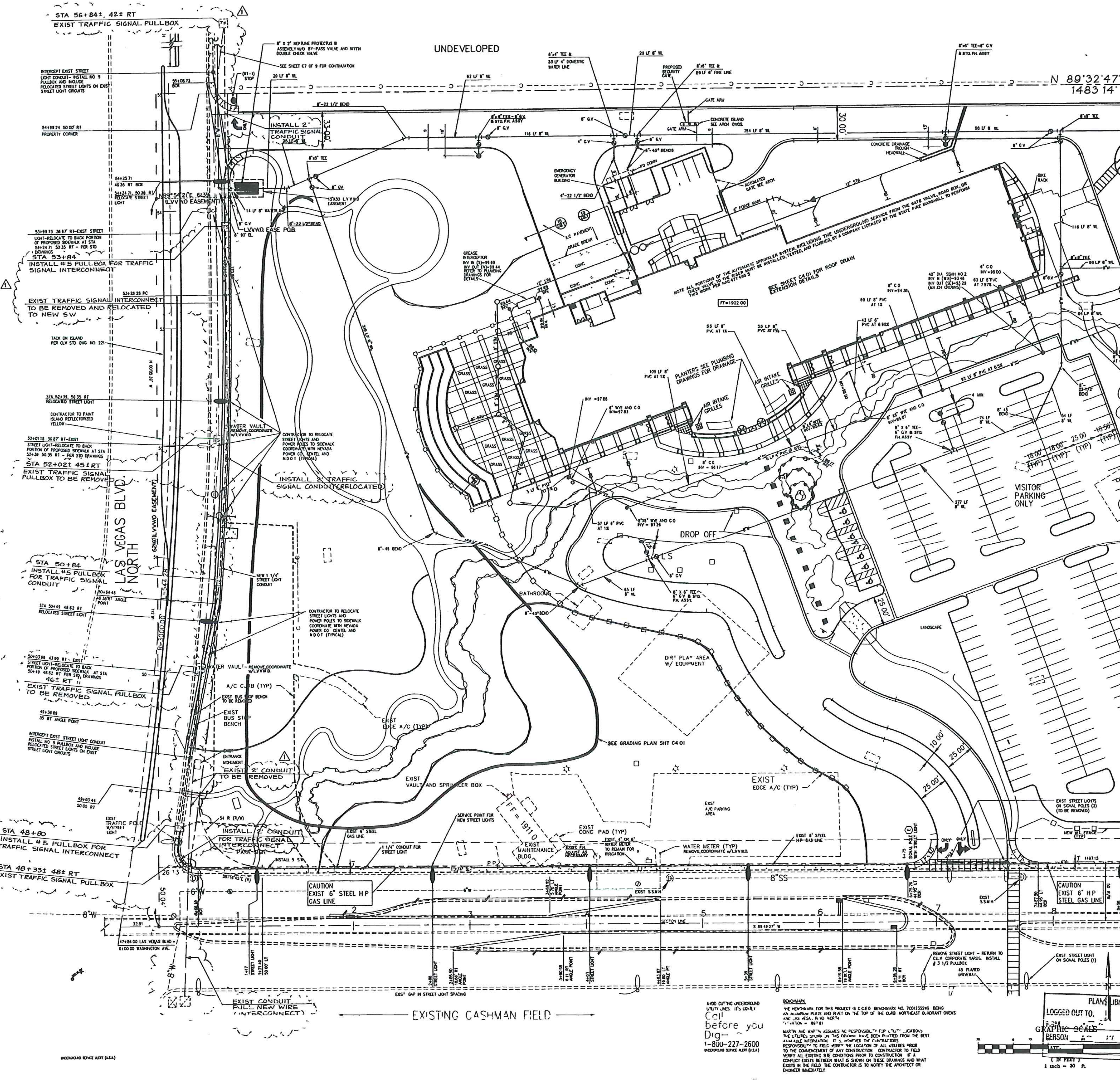
107-V2105

CONSTRUCTION NOTES

1. INSTALL NEW 2" TRAFFIC SIGNAL CONDUIT IN SAME TRENCH (COMMON) ADJACENT TO PROJECT SITE AS THE STREET LIGHT CONDUIT
2. ANY DAMAGE TO EXISTING LANDSCAPING AND IRRIGATION FACILITIES, CONTRACTOR TO REPAIR AND REPLACE TO ORIGINAL CONDITION.
3. FOR DISCONNECTION AND CONNECTION OF INTERCONNECT CABLE, AT SPLICE BOX, CONTACT LAS VEGAS AREA COMPUTER TRAFFIC SYSTEM (LVACTS) AT (702)-229-6613.

CITY OF LAS VEGAS TRAFFIC NOTES

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL SUBSTRUCTURES, WHETHER SHOWN OR NOT AND NOTIFY ALL UTILITY COMPANIES TO VERIFY IN THE FIELD THE LOCATIONS OF THEIR INSTALLATIONS 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL SUBSTRUCTURES FROM DAMAGE. THE EXPENSE OF REPAIR OR REPLACEMENT OF SAID STRUCTURES SHALL BE BORNE BY THE CONTRACTOR
2. ALL PULLBOXES, FOUNDATIONS, CABINETS, POLES AND POSTS, DRILLING DETAILS AND DETECTORS, SIGNAL UNITS AND HARDWARE, EQUIPMENT ORIENTATIONS, AND OTHER MISCELLANEOUS EQUIPMENT AND ITEMS OF WORK SHALL CONFORM TO THE R.T.C. TRAFFIC SIGNAL STANDARD DRAWINGS, LATEST REVISION.
3. ALL SIGNAL AND LUMINAIRE POLES SHALL BE TYPE XX
4. SERVICE SHALL HAVE 1-50 AMP SINGLE POLE BREAKER FOR SIGNAL AND 2-40 AMP SINGLE POLE BREAKERS FOR STREET LIGHTS. SERVICE SHALL BE A 125 AMP PADMOUNT
5. ALL LUMINAIRES SHALL BE 400 WATT HIGH PRESSURE SODIUM CUTOFF G.E. M400A1 WITH MC-111 DISTRIBUTION. EACH LUMINAIRE SHALL HAVE AN INDIVIDUAL 000 WATT P.E. CONTROL AND BUILT IN BALLAST (120 V.A.C. EACH STREET LIGHT LUMINAIRE SHALL BE FUSED IN THE CABINET USING INLINE FUSE HOLDERS. THE NORTHEAST AND SOUTHWEST LUMINAIRES SHALL BE WIRED TO ONE 40 AMP SINGLE POLE BREAKER AND THE SOUTHEAST AND NORTHWEST LUMINAIRES SHALL BE WIRED TO THE SECOND 40 AMP SINGLE POLE BREAKER
6. CONTROLLER AND CABINET SHALL BE AS SPECIFIED ON THE TRAFFIC SIGNAL PLAN. CABINET SHALL BE PAINTED WHITE INSIDE AND OUT
7. THOSE POLES AS SPECIFIED ON THE TRAFFIC SIGNAL PLANS SHALL HAVE INTERNALLY ILLUMINATED STREET NAME SIGNS INSTALLED. THE SIGNS SHALL BE WIRED TO THE LUMINAIRE PHOTO CELL FOR CONTROL
8. ALL SIGNAL LENSES SHALL BE 12" GLASS
9. EACH LOOP DETECTOR LEAD-IN REPRESENTS A SEPARATE AMPLIFIER UNIT REQUIRED. SEE INDIVIDUAL SIGNAL PLANS FOR NUMBER REQUIRED. EACH LOOP SHALL BE 6x6. DETECTOR LOOPS SHALL BE PLACED IN THE CENTER OF THEIR APPROPRIATE LANE(S)
10. THE ROUTING AND TERMINATION OF CONDUITS, DETECTOR LOOPS AND PLACING OF POLES AND CABINETS SHALL BE AS INDICATED ON THE PLANS. ALL CHANGES SHALL BE APPROVED BY THE TRAFFIC ENGINEER
11. ALL NECESSARY AMPLIFIER UNITS, MODULES, LIGHT CONTROL UNITS, SWITCHES, FLASHERS, SIGNAL EQUIPMENT ETC. SHALL BE WIRED IN THE CABINET TO ACTUATE THE PHASING OPERATION AS SHOWN ON THE INDIVIDUAL SIGNAL PLANS
12. ALL CONDUCTORS AND THEIR TERMINATIONS SHALL BE CLEARLY MARKED
13. UNLESS SHOWN OTHERWISE NO. 5 PULLBOXES SHALL BE USED AT LOCATIONS WHERE CONDUIT RUNS CONTAIN TRAFFIC SIGNAL CONDUCTORS. NO. 3-1/2 PULLBOXES MAY BE USED AT OTHER LOCATIONS
14. ALL EXISTING LIGHT POLES AS SHOWN ON PLANS, SHALL BE REMOVED AND ALONG WITH ANY MATERIALS SALVAGED FROM EXISTING LIGHTING SYSTEMS SHALL BE PROTECTED AND DELIVERED TO ELECTRICAL SERVICES AT MOJAVE AND BONANZA DURING RECEIVING HOURS (7AM-2PM). EXISTING LIGHTING CIRCUIT SHALL REMAIN INTACT (CALL AHEAD (702) 229-6448.)
15. CHECK CONDUIT AND CABLE SCHEDULE FOR CONDUIT CABLE AND WIRE SIZE
16. LINE SIDE OF METER TO BE WIRED WITH THREE #2 A.W.G. LOAD SIDE SHALL BE WIRED WITH FOUR #4 A.W.G. (3 BLACK, 1 WHITE) AND ONE #8 A.W.G. (GREEN)
17. SIGNAL CABLE SHALL BE A 15 AND 25 CONDUCTOR #14 A.W.G. CABLE M.S.A. SPEC. 20-1
18. LOOP CABLE SHALL BE ONE TWISTED PAIR OF #12 A.W.G. CABLE M.S.A. SPEC 19-2
19. LOOP DETECTORS TO BE LOCATED BY C.L.V. IN THE FIELD
20. LOOP LEAD-IN SHALL ONLY BE SPLICED IN PULL BOX ADJACENT TO ROADWAY LOOP
21. ALL PEDESTRIAN PUSH BUTTON SIGNS SHALL BE 9"X12" WITH FULL MOUNTING BRACKET
22. NEW INTERCONNECT SHALL BE 2" CONDUIT WITH NUMBER 5 PULL BOXES SPACED APPROXIMATELY 500' APART. CABLE SHALL BE 12 PAIR OF #22 A.W.G. SHIELD REA SPECIFICATION P.E. 38.
23. POWER FOR SIGNAL CONTROLLER AND SIGNAL LAMP OPERATION IS PRESENTLY AVAILABLE AT THE SIGNAL LOCATION. THE CONTRACTOR SHALL CONTACT THE NEVADA POWER COMPANY FOR THE EXACT LOCATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE POWER IN COOPERATION WITH THE NEVADA POWER COMPANY
24. TRAFFIC SIGNAL AND CABLE WIRING SHALL BE INSTALLED TERMINAL TO TERMINAL. NO SPLICING ALLOWED. INTERCONNECT CABLE SHALL BE INSTALLED CABINET TO CABINET. ABOVE GROUND SPLICING WILL BE ALLOWED IN SPLICE CABINETS. (TESCO #2200HR TYPE 66 TERMINAL BLOCK FOR 22 AVERAGE GAUGE WIRE - 25 PAIR, OR EQUIVALENT)
25. ALL POLES AND CONTROLLERS MUST BE PLACED TO ALLOW A CLEAR PASSAGE OF AT LEAST 36" ON THE SIDEWALK



no	description of revisions	date
1	FIELD REVISIONS	10-12-93

LUCCHESI •GALATI• ARCHITECTS

2770 SOUTH MARYLAND PARKWAY
SUITE 510
LAS VEGAS, NEVADA 89109
(702) 733-7107

STATE OFFICE BUILDING

DEPARTMENT OF GENERAL SERVICES

SPWB JOB # 91-C9

MARTIN & MARTIN

Date: FEBRUARY 23, 1993
Project No.: 1096
Scale: 1"=30'
Drawn By: R. YOUNG
Revisions:

Sheet Title:

ON-SITE UTILITY PLAN (WEST)

Sheet Number: 7 of 11

C5.01

107-V2105

12-2-98

LAS VEGAS VALLEY WATER DISTRICT STANDARD NOTES

1. NO WORK SHALL BEGIN ON THE WATER PLANS UNTIL THEY HAVE BEEN RELEASED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING APPROVAL OF THE PLANS, NOTICE SHALL BE GIVEN TO THE LVVWD CUSTOMER SERVICE DEPARTMENT (870 4184) 48 HOURS PRIOR TO ACTUAL CONSTRUCTION, AND 24 HOURS PRIOR TO AN INSPECTION.

2. CALL BEFORE YOU DIG 1-800-227-2600

3. ALL WORK SHALL CONFORM TO LVVWD LATEST STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS.

4. ALL WORK, EXCEPT AS MODIFIED HEREON OR BY NOTE 3, SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT DRAFT OR ADDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA.

5. DISTRICT APPROVED SERVICE SADDLES OR TAPPED COLLARS SHALL BE REQUIRED ON ALL 3/4" AND 1" SERVICE LATERALS. SERVICE SADDLES ONLY SHALL BE PERMITTED ON 1-1/2" AND 2" SERVICE LATERALS. DOUBLE TAPPED COLLARS ARE NOT PERMITTED.

6. COPPER SERVICE LATERALS: ALL 3/4" TO 2" SERVICE LATERALS SHALL BE OF COPPER TUBING IN ACCORDANCE WITH THE DISTRICT'S SPECIFICATIONS AND STANDARD PLATES.

7. THE MAXIMUM ALLOWABLE JOINT DEFLECTION FOR ACP AND DUCTILE IRON PIPE SHALL BE AS FOLLOWS:

PIPE SIZES	ACP	DUCTILE IRON SLIP JOINT	DUCTILE IRON MECHANICAL JOINT
6 INCH	2.5 DEGREES	2.5 DEGREES	3.5 DEGREES
8 - 12 INCH	2.5 DEGREES	2.5 DEGREES	2.5 DEGREES
14 - 16 INCH	2 DEGREES	1.5 DEGREES	1.5 DEGREES
18 - 24 INCH	N/A	1.5 DEGREES	1.5 DEGREES

ON PVC PIPE, THE MAXIMUM OFFSET FOR A 20' LENGTH OF FACTORY BELLED PIPE SHALL BE 18 INCHES FOR 6" PIPE, 12 INCHES FOR 8" PIPE, AND 9 INCHES FOR 10" AND 12" PIPE.

IF THESE OFFSETS CONFLICT WITH THE PIPE MANUFACTURER'S RECOMMENDATION, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

8. ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.

9. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS AND VALLEY GUTTERS.

10. DETECTOR TAPE SHALL BE REQUIRED IN ACCORDANCE WITH STANDARD PLATE NO. 27 WHERE INDICATED AND AS FOLLOWS:

A) OVER ALL MAINS NOT INSTALLED 6 FEET FROM BACK OF CURB
B) OVER ALL SERVICE LATERALS NOT INSTALLED AT RIGHT ANGLES TO MAIN.

11. ALL WATER MAINS SHALL BE PRESSURE TESTED AT 200 PSI FOR A CONTINUOUS TWO HOUR PERIOD, IN ACCORDANCE WITH DISTRICT STANDARDS.

12. ALL WATER MAINS SHALL BE DISINFECTED, FLUSHED, AND AN ACCEPTABLE HEALTH SAMPLE OBTAINED, PRIOR TO THE CONNECTION OF THE WATER MAIN(S) AND/OR LATERAL(S) TO THE DISTRICT'S SYSTEM.

13. CONTRACTOR TO OBTAIN ALL METERS 2" AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 FORTY-EIGHT (48) HOURS PRIOR TO PICKUP.

C.L.V. FIRE DEPT. NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT "HYDRANT SPECIFICATIONS" AND HYDRANT INSTALLATION SPECIFICATIONS" AND ORDINANCE #3677

2. AUTHORIZED HYDRANTS FOR THIS PROJECT ARE:

A - KENNEDY GUARDIAN
B - MUELLER A-423 CENTURIAN
C - CLOW MODEL 2548 MEDALLION

3. ON ANY NEW HOME OR BUILDING CONSTRUCTION, ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE COMBUSTIBLE CONSTRUCTION COMMENCES AND SAID FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER WITH AN ADEQUATE WATER SUPPLY.

4. CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT CENTERLINE OF STREET ADJACENT TO FIRE HYDRANTS AS REQUIRED IN ORDINANCE #3677 TO IDENTIFY FIRE HYDRANT LOCATIONS.

5. CALL THE LAS VEGAS BUILDING DEPARTMENT AT 229-2071 FOR UNDERGROUND INSPECTION, PRESSURE AND FLUSH VERIFICATION OF ALL FIRE HYDRANTS AND FIRE LINES BEFORE COVERING.

6. PAINTING OF THE CURBS AND HYDRANT AND ANY WORK NECESSARY FOR PROTECTION OF HYDRANTS FROM PHYSICAL DAMAGE PER ORDINANCE #3677 SHALL BE COMPLETED BEFORE APPROVAL BY THE CITY OF LAS VEGAS FIRE DEPARTMENT.

7. A PERMIT IS REQUIRED FROM THE FIRE DEPARTMENT FOR ON-SITE WATER LINE AND FIRE HYDRANT. THE PERMIT AND CONTRACTORS MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER PRIOR TO ANY WORK BEGINNING.

8. A FLOW TEST MUST BE WITNESSED BY THE FIRE DEPARTMENT PRIOR TO OCCUPANCY FOR VERIFICATION OF REQUIRED ON-SITE WATER SUPPLY.

9. ALL ON-SITE FIRE MAIN MATERIALS MUST BE U.L. LISTED AND A.W.W.A. APPROVED.

10. FIRE HYDRANT SPACING
RESIDENTIAL - 500 FEET UNSPRINKLERED 600 FEET SPRINKLERED
COMMERCIAL, INCLUDING MULTI-FAMILY - 300 FEET UNSPRINKLERED, 400 FEET SPRINKLERED.

11. NO FIRE HYDRANT 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.

12. NO FIRE HYDRANT SHALL BE LOCATED WITHIN 6 FEET OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREET LIGHT OR ANY OTHER OBSTRUCTION.

13. NOT MORE THAN 2 HYDRANTS CAN BE OUT OF SERVICE DUE TO A SINGLE MAIN BREAK.

14. THE TURNING RADIUS OF ANY FIRE APPARATUS ACCESS ROAD AND/OR FIRE LANE, PUBLIC OR PRIVATE SHALL BE NOT LESS THAN 45 FEET OUTSIDE RADIUS AND 22 FEET INSIDE RADIUS.

15. A FIRE APPARATUS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FEET FROM A FIRE DEPARTMENT VEHICLE ACCESS. (SEE EXCEPTIONS IN UFC 88, SECTION 10.207).

16. 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 TURNAROUND AREA. SEE ORDINANCE #3672

CITY OF LAS VEGAS SEWER NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS' CONSTRUCTION OFFSITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA AS AMENDED. IN ALL CASES, THESE STANDARDS SHALL SUPERSEDE THE UNIFORM STANDARD SPECIFICATIONS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATION BOOKS.

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 CONTROLLING AGENCY.

3. CHISEL "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.

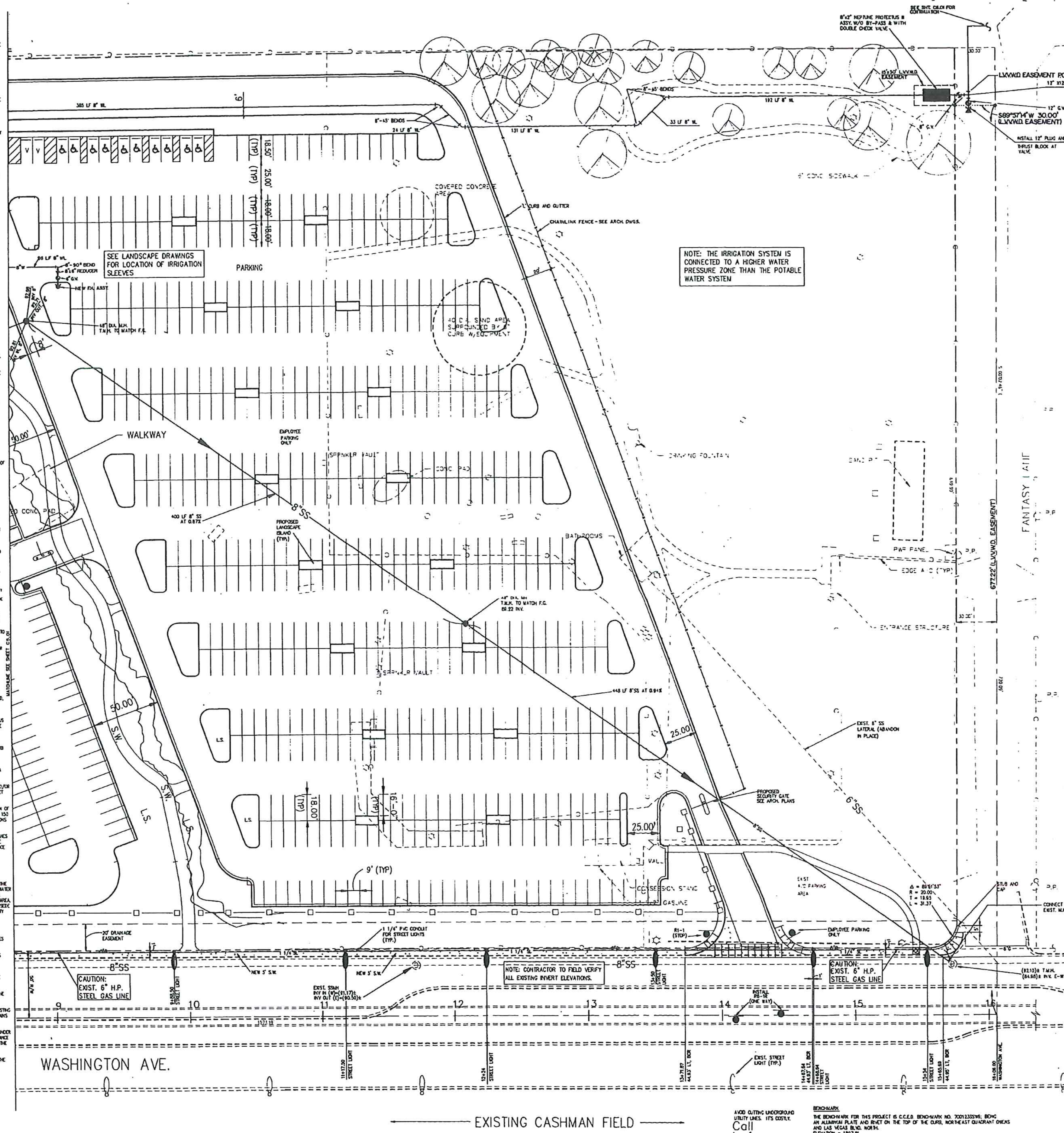
4. POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM-D3034 SDR 35 SPECIFICATIONS, INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II GRAVEL.

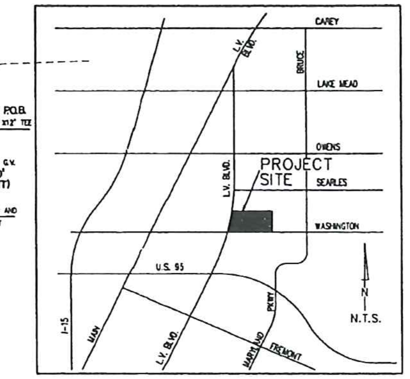
5. ALL MANHOLES IN PAVED STREETS 80' R/W AND LARGER, SHALL HAVE CONCRETE COLLARS.

6. TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO 12" DIA. SIZE. CONNECTIONS TO 15" OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES.

7. A SEWER MAIN CROSSING OVER A WATER MAIN OR LESS THAN 18" UNDER A WATER MAIN, MUST BE REINFORCED CONCRETE ENCASED FOR A DISTANCE NOT LESS THAN TEN FEET (10) TO EACH SIDE OF THE CENTERLINE OF THE WATER MAIN.

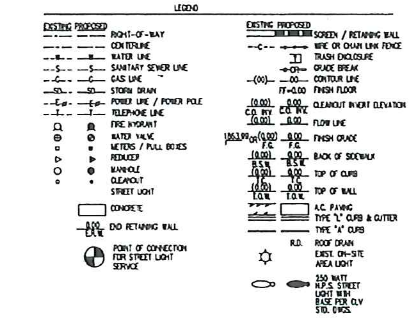
8. ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CONTROLLING AGENCY MUST BE CLASS "A" CONTRACTORS.





VICINITY MAP

LEGEND



APPROVALS

David Bowman (signature) 3/12/93
CITY OF LAS VEGAS FIRE DEPARTMENT — DATE

SEE SHEET C6.01
LAS VEGAS VALLEY WATER DISTRICT — DATE

CITY OF LAS VEGAS FIRE DEPARTMENT

FIRE FLOW REQUIREMENT IS 2,500 GALLONS PER MINUTE AT 20 P.S.I. PRESSURE RESIDUAL

BASED ON

- SQUARE FOOTAGE: 225,000 S.F.
- LARGEST AREA BETWEEN SEPARATION WALL: N/A
- BUILDING HEIGHT: 6 STORIES
- TYPE OF CONSTRUCTION: II - FR
- EXPOSURES: N/A
- SPRINKLER SYSTEM: YES
- OCCUPANCY: N/A
- ROOF CONSTRUCTION: TYPE I
- REVIEWED BY: DB
- DATE: 3/12/93

ON-SITE WATER QUANTITIES:

ITEM	UNIT	QUANTITY
STANDARD FIRE HYD. ASSY.	EA.	2685
8" WATERLINE	L.F.	128
6" WATERLINE	L.F.	33
4" WATERLINE	L.F.	5

ON-SITE SEWER QUANTITIES:

ITEM	UNIT	QUANTITY
48" DIA. STD. MANHOLE	EA.	3
8" PVC SAN. SEWER	L.F.	1323
6" PVC SAN. SEWER	L.F.	207

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call before you Dig—
1-800-227-2600
UNDERGROUND SERVICE ALERT (U.S.A.)

BENCHMARK

THE BENCHMARK FOR THIS PROJECT IS C.C.E.D. BENCHMARK NO. 7001235SW6; BEING AN ALUMINUM PLATE AND RIVET ON THE TOP OF THE CURB, NORTHEAST QUADRANT OWENS AND LAS VEGAS BLVD. NORTH.
ELEVATION = 1897.81

MARTIN AND MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.

LUCCHESI •GALATI•
2770 SOUTH
MARYLAND PARKWAY
SUITE 510
LAS VEGAS, NEVADA
89109
(702) 733-7107

STATE OFFICE BUILDING

DEPARTMENT OF GENERAL SERVICES

SPWB JOB # 91-C9

MARTIN & MARTIN

Mark L. Hedge (seal and signature) 4-1-93

Date: FEBRUARY 23, 1993
Project No.: 1098
Scale: 1"=30'
Drawn By: R. YOUNG
Revisions:

Sheet Title:

ON-SITE UTILITY PLAN (EAST)

Sheet Number: 8 of 11

C5.02

107-V2105

10-2-69

IMPROVEMENT PLANS FOR THE GRANT SAWYER OFFICE SITE WITH REVIEW WALK COMMENTS FROM 10/17/2018

ABBREVIATIONS

A.C.	ASPHALTIC CONCRETE	O.C.	ON CENTER
A.C.P.	ABESTOS CEMENT PIPE	O.D.	OUTSIDE DIAMETER
ADJ	ADJUST, ADJUSTABLE	P	POWER LINE
A.L.	ARC LENGTH	P.C.	POINT OF CURVATURE
B.C.	BEGINNING OF CURB OR BACK OF CURB	P.C.C.	POINT OF COMPOUND CURVE
B.C.R.	BEGINNING OF CURB RETURN OR BACK OF CURB RADIUS	P.G.	PAD GRADE
BDRY.	BOUNDARY	P.H.P	PLASTIC HIGH PRESSURE
BEG.	BEGIN	P.I.	POINT OF INTERSECTION
B.M.	BENCHMARK	PL	PROPERTY LINE
B.S.W.	BACK OF SIDEWALK	P.P.	POWER POLE
B.V.C.	BEGINNING OF VERTICAL CURVE	P.R.C.	POINT OF REVERSE CURVE
C&G	CURB AND GUTTER	PROP.	PROPOSED
C.F.	CURB FACE	P.T.	POINT OF TANGENT
C.I.P	CAST IRON PIPE	P.V.C	POLYVINYL CHLORIDE PIPE
CL	CENTERLINE	P.V.I	POINT OF VERTICAL INTERSECTION
C.M.P.	CORRUGATED METAL PIPE	PVMT.	PAVEMENT
CONC.	CONCRETE	Q	RATE OF FLOW
CONSTR.	CONSTRUCT, CONSTRUCTION	RAD.	RADIUS
D.C.	DEPRESSED CURB	R.C.P.	REINFORCED CONCRETE PIPE
D.I.	DROP INLET	RT	RIGHT
DIA.	DIAMETER	R/W	RIGHT OF WAY
D.I.P.	DUCTILE IRON PIPE	S	SOUTH, SANITARY SEWER
D.M.H.	DROP MANHOLE	S.D.	STORM DRAIN
E.C.	END OF CURVE	S.H.P	STEEL HIGH PRESSURE
E.C.R.	END OF CURB RETURN	SHT.	SHEET
EL	ELEVATION	SP. MH	SPECIAL MANHOLE
E.P.	EDGE OF PAVING	STA.	STATION
E.V.C.	EDGE OF VERTICAL CURVE	STD.	STANDARD
EXIST.	EXISTING	STL.	STEEL
FIN. FLR.	FINISHED FLOOR	SW	SIDEWALK
FIN. GR.	FINISHED GRADE	T	TANGENT DISTANCE
F.H.	FIRE HYDRANT	TEL.	TELEPHONE
FL	FLOWLINE	T.C.	TOP OF CURB
G	GAS	T.O.C.	TOP OF CONCRETE
GR. BRK.	GRADE BREAK	T.M.H.	TOP OF MANHOLE
HGT	HEIGHT	T.O.W.	TOP OF WALL
HORIZ.	HORIZONTAL	TRANS.	TRANSITION
H.P.	HIGH POINT	T.S.C.	TRAFFIC SIGNAL CONDUIT
I.D.	INSIDE DIAMETER	T.S.W.	TOP OF SIDEWALK
INV.	INVERT	V.C.	VERTICAL CURVE
LS	LANDSCAPE	V.C.P.	VITRIFIED CLAY PIPE
LAT.	LATERAL	VERT.	VERTICAL
L.F.	LINEAL FEET	V.G.	VALLEY GUTTER
LT	LEFT	W.	WEST, WATER
MAX.	MAXIMUM		
M.H.	MANHOLE		
MIN.	MINIMUM		
N.I.C.	NOT IN CONTRACT		
NO.	NUMBER		

SYMBOLS LEGEND

EXISTING	PROPOSED	
		RIGHT-OF-WAY
		CENTERLINE
—W—	—W—	WATER LINE
—S—	—S—	SANITARY SEWER LINE
—G—	—G—	GAS LINE
—SD—	—SD—	STORM DRAIN
—E—	—E—	POWER LINE / POWER POLE
—T—	—T—	TELEPHONE LINE
		FIRE HYDRANT
		WATER VALVE
		METERS / PULL BOXES
		REDUCER
		MANHOLE
		CLEANOUT
		STREET LIGHT

EXISTING	PROPOSED	
		SCREEN / RETAINING WALL
		WIRE OR CHAIN LINK FENCE
	T	TRASH ENCLOSURE
	OR	GRADE BREAK
(00)	00	CONTOUR LINE
	FF=0.00	FINISH FLOOR
(0.00) C.O. INV.	0.00 C.O. INV.	CLEANOUT INVERT ELEVATION
(0.00)	0.00	FLOW LINE
1863.99 OR (0.00) F.G.	0.00 F.G.	FINISH GRADE
(0.00) B.S.W.	0.00 B.S.W.	BACK OF SIDEWALK
(0.00) T.C.	0.00 T.C.	TOP OF CURB
(0.00) T.O.W.	0.00 T.O.W.	TOP OF WALL
		A.C. PAVING
		TYPE "L" CURB & GUTTER
		TYPE "A" CURB
	R.D.	ROOF DRAIN
	0.00 E.R.W.	END RETAINING WALL
		FIRELANE DESIGNATION

DEVIATIONS FROM STANDARD DRAWINGS:

1.) C.L.V. STD. DWG. NO. 235 – SEE DETAIL 4/C8.01

2.) SEE SHEET C7.01 FOR C.L.V. TRAFFIC NOTES.

SHEET INDEX

GENERAL NOTES

CITY OF LAS VEGAS GENERAL NOTES

*REQUIRED NOTES – OTHERS ONLY IF APPLICABLE

*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 ISSUE; 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 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 OR UNDERGROUND POWER, GAS AND/OR OTHER UTILITIES SO AS TO SAFELY PROTECT ALL PERSONNEL AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COSTS 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 OR 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 AT 28 DAYS. MIX DESIGN TO BE APPROVED BY THE QUALITY CONTROL DIVISION PRIOR TO USE ON THE PROJECT.

6. PERMITS ARE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY. THE CONTRACT 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 1/2" ABOVE LIP OF ALL GUTTERS AFTER COMPACTION, EXCEPT AT SIDEWALK RAMPS.

9. APPLY FOG SEAL ONLY AFTER ALL CORRECTIONS AND ADJUSTMENTS HAVE BEEN MADE.

10. CURB & GUTTER WITH A GRADE OF LESS THAN FOUR TENTHS OF ONE PERCENT SHALL BE WATER TESTED AS SOON AS POSSIBLE AFTER CONSTRUCTION. ANY CURB AND GUTTER FOUND TO BE UNACCEPTABLE TO THE CITY SHALL BE REMOVED AND REPLACED.

*11. 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.

*12. 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 TRANSITIONS TO BE AS SHOWN ON PLANS, OR AS DESIGNATED IN THE FIELD BY A CITY INSPECTOR.

13. ALL GRADING WORK SHALL CONFORM TO THE SOILS REPORT AS PREPARED BY THE SOILS ENGINEER AND APPROVED BY THE CITY ENGINEER, AND AS SHOWN ON THESE PLANS.

14. EXACT LOCATION OF ALL SAWCUT LINES MAY BE DETERMINED IN THE FIELD BY A CITY OF LAS VEGAS INSPECTOR IF LOCATION ON PLANS IS NOT CLEARLY SHOWN, OR EXISTING PAVEMENT CONDITION REQUIRES RELOCATION.

*15. 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. 625.550.

*16. 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.

17. WALL NOTES:

A. ALL WALLS, NEW OR EXISTING, ARE ONLY SHOWN FOR THE PURPOSE OF GRADING RELATIONSHIPS.

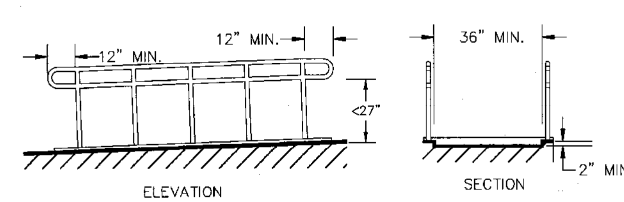
B. THE STRUCTURAL AND ARCHITECTURAL DESIGN OF ALL WALLS (RETAINING OR NON-RETAINING) MUST BE APPROVED BY THE CLV BUILDING DEPARTMENT.

18. ASPHALT MIX DESIGN MUST BE SUBMITTED AND APPROVED BY THE CITY ENGINEER PRIOR TO THE PLACEMENT OF ASPHALT ON CITY STREETS.

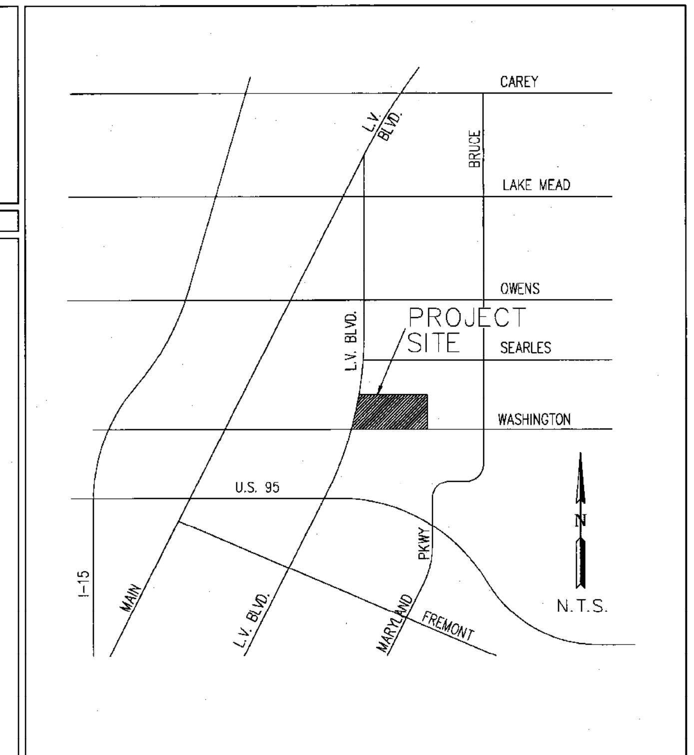
REVISED 12/92 DJM

19. ALL SITE SIDEWALKS WITH A SLOPE STEEPER THAN 1:20 ARE RAMPS AND WILL BE TREATED IN ACCORDANCE WITH ADA STANDARDS. REFER TO EXHIBIT A OF THE ADDENDUM FOR HANDRAIL AND RAMP-EDGE DETAILS. CROSS SLOPES OF RAMPS SHALL NOT EXCEED 2% (1:50).

EXHIBIT A



VICINITY MAP



APPROVALS

CENTRAL TELEPHONE COMPANY ________ DATE

SOUTHWEST GAS CORPORATION ________ DATE

NEVADA POWER COMPANY approves the point of service to the street light system. This shall not be deemed to consent other placement of the light poles which may be in conflict with Nevada Power Company's prior rights or facilities. This approval is only for the placement and clearance of street light and signal light installations.

by ________
NEVADA POWER COMPANY DATE

APPROVED FOR CONSTRUCTION:

LAS VEGAS VALLEY WATER DISTRICT ________ DATE

CLV FIRE MARSHALL ________ DATE

DENNIS ANDERSON, P.E. NO. 9160 ________ DATE
C.L.V. CITY ENGINEER

LUCCHESI •GALATI•
ARCHITECTS
2770 SOUTH
MARYLAND PARKWAY
SUITE 510
LAS VEGAS, NEVADA
89109
(702) 733-7107

STATE OFFICE BUILDING

DEPARTMENT OF GENERAL SERVICES

SPWB JOB # 91-C9

MARTIN & MARTIN
CIVIL ENGINEERS
1701 W. CHARLESTON BLVD.
SUITE 420
LAS VEGAS, NEVADA 89102
PHONE (702) 385-5005

Date: FEBUARY 23, 1993
Project No.: 1096
Scale:
Drawn By: R. YOUNG
Revisions:

2-23-95
RECORD DRAWINGS

Sheet Title:

COVER AND APPROVAL SHEET

MLH REVIEW WALK COMMENTS 10-17-2018

Sheet Number:

C1.01

G3-3 T-531

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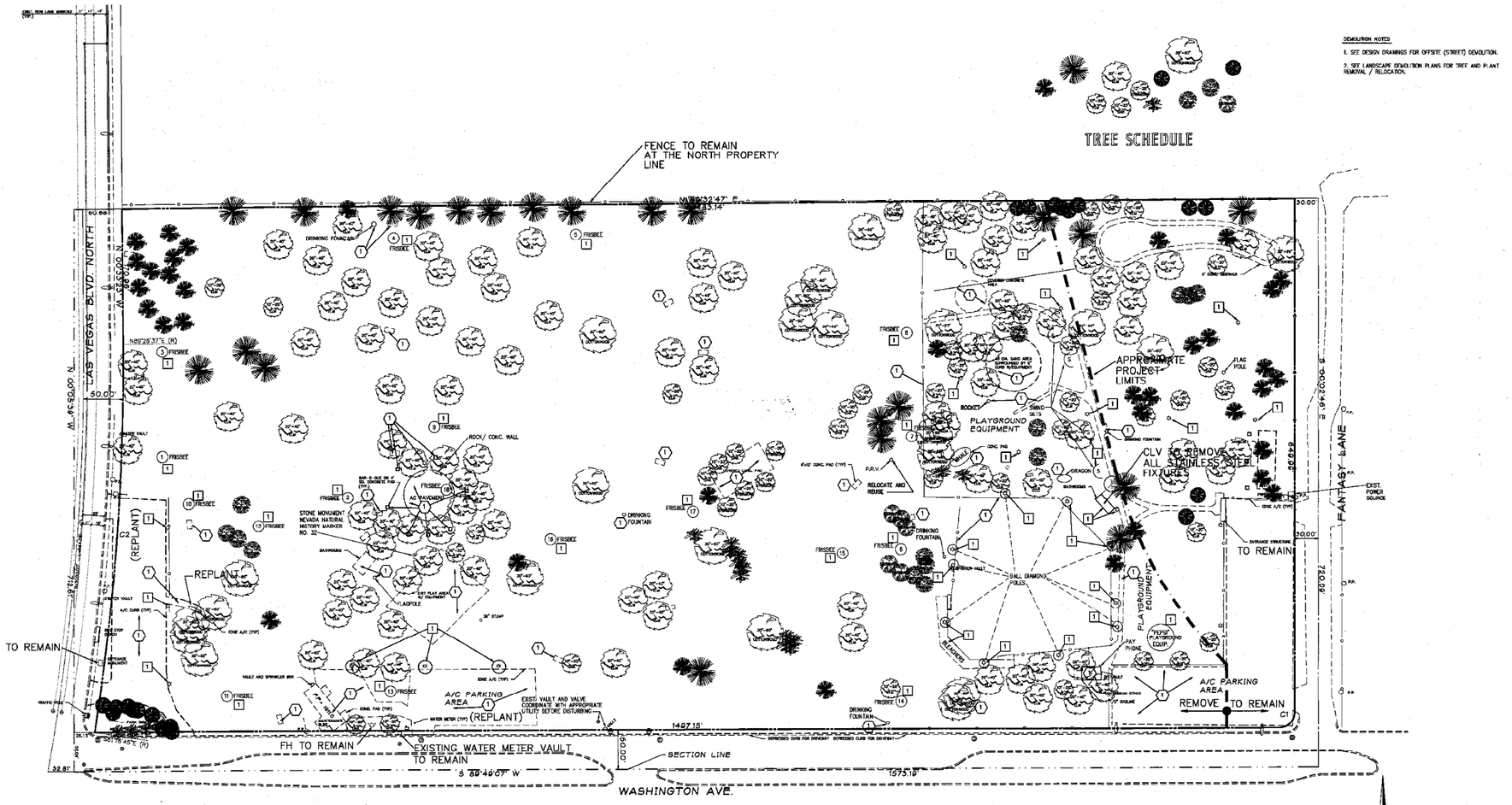

LEGEND

- FD. RLS TAG AND NAIL
- SET PLS 7008 PLASTIC CAP
- SECTION LINE
- CENTERLINE
- BOUNDARY LINE / LIMITS OF CONSTRUCTION
- PROPERTY LINE EXTENSION
- AREA LIGHT
- STREET LIGHT
- FIRE HYDRANT
- TRAFFIC SIGNAL POLE
- CONCRETE SLAB

NOTE: BOUNDARY LINE INDICATES LIMITS OF CONSTRUCTION WHERE CONTRACTORS CONSTRUCTION FENCE IS TO BE LOCATED

DEMOLITION LEGEND

(11) FRISBEE STAND

[1] ITEM TO BE REMOVED BY CLV PARK AND LEISURE

<1> ITEM TO BE DEMOLISHED / REMOVED AS A PART OF STATE OFFICE PROJECT

AREA

NET AREA
992,660 sq. ft.
22.79 acres

CURVE TABLE

CURVE	RADIUS	LENGTH	TANGENT	CHORD
C1	20.00'	31.37'	19.95	28.25'
C2	3050.00'	493.85'	247.46	493.31'

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE EAST-WEST CENTER OF SECTIONLINE OF SECTION 26, TOWNSHIP 20 SOUTH, RANGE 61 EAST, M.D.M., AS SHOWN IN FILE 60, PAGE 51, OF RECORDED SURVEYS, OFFICIAL RECORDS, CLARK COUNTY, NEVADA. SAID LINE BEARS S89°49'07"W.

BENCHMARK

THE BENCHMARK FOR THIS SURVEY IS C.C.E.D. BENCHMARK # 7C0123SSW6, BEING AN ALUM. PLATE AND RIVET ON THE TOP OF CURB, NORTHEAST QUADRANT OWENS AND LAS VEGAS BLVD NORTH.

ELEVATION: 1897.81'

GRAPHIC SCALE

(IN FEET)
1 inch = 60 ft.

LUCCHESI •GALATI• ARCHITECTS
2770 SOUTH MARYLAND PARKWAY
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MARTIN & MARTIN
MARTIN & MARTIN CIVIL ENGINEERS
1701 W. CHARLESTON BLVD. SUITE 400
LAS VEGAS, NEVADA 89102
PHONE (702) 366-8000

STATE OFFICE BUILDING

DEPARTMENT OF GENERAL SERVICES

SPWB JOB # 91-C9

Date: FEBRUARY 23, 1993
Project No.: 91-C9
Scale: 1"=60'
Drawn By: R. YOUNG
Revisions:

2-23-95
RECORD DRAWINGS

Sheet Title:

DEMOLITION PLAN

Sheet Number:

C2.01

G3-5 T-531

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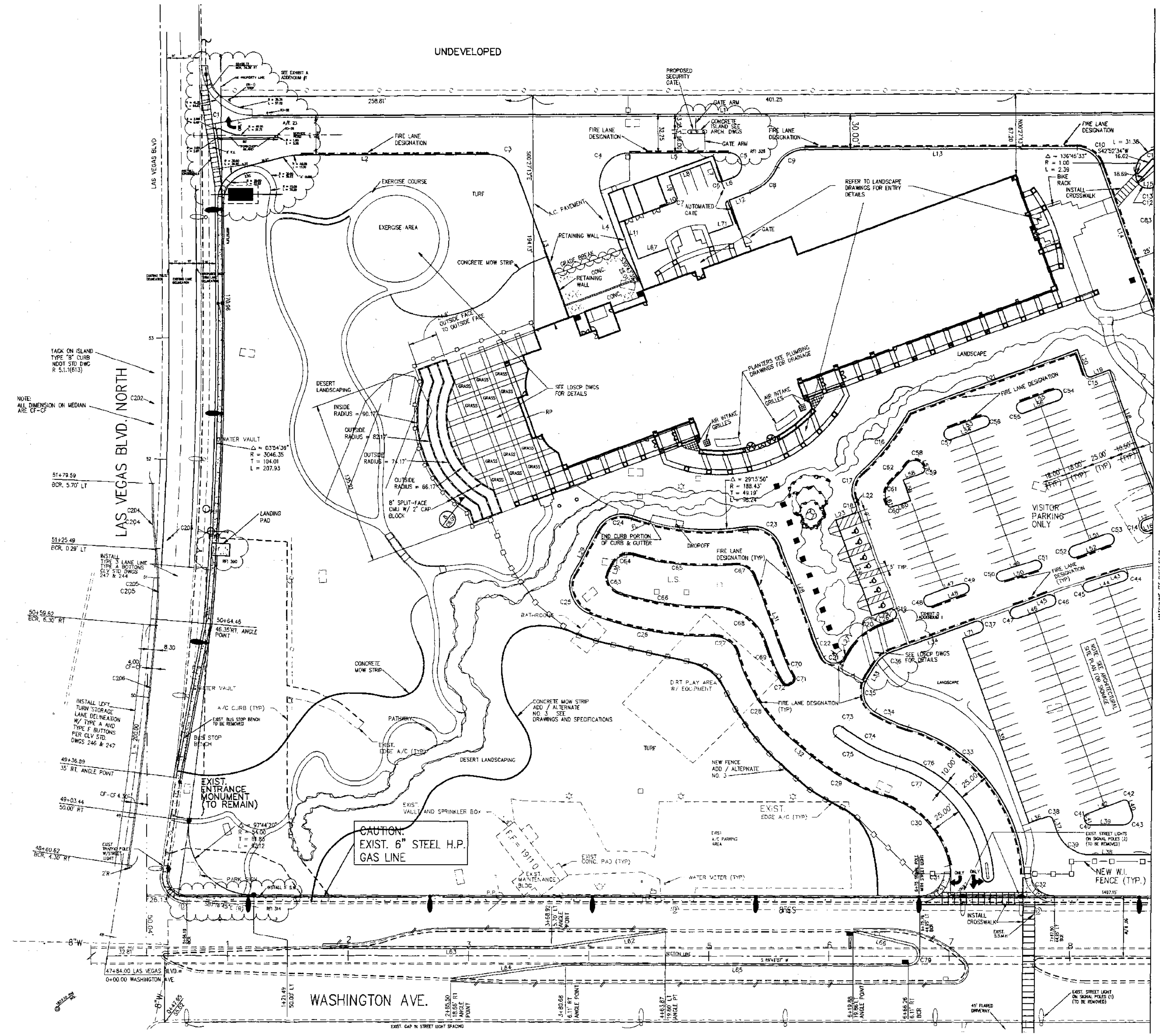
CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C1	25.00'	39.22'	24.95'	35.32'	S45°30'48"E	89°52'50"
C2	25.00'	39.31'	25.04'	35.39'	S44°29'42"W	90°06'10"
C3	25.00'	30.66'	17.59'	28.78'	N55°19'03"W	70°16'20"
C4	25.00'	47.88'	35.52'	40.89'	S34°40'57"W	109°43'40"
C5	10.50'	29.37'	60.39'	20.69'	N10°19'03"W	160°16'20"
C6	3.00'	4.71'	3.00'	4.24'	S65°10'53"E	90°00'00"
C7	3.00'	4.71'	3.00'	4.24'	N24°49'07"E	90°00'00"
C8	40.00'	31.90'	16.85'	31.93'	N40°00'07"E	45°41'42"
C9	25.00'	28.55'	16.06'	39.78'	S49°51'57"W	65°25'22"
C10	20.00'	24.53'	14.08'	23.02'	N55°19'03"W	70°16'20"
C11	20.00'	33.41'	22.11'	29.66'	N27°40'52"E	95°43'29"
C12	8.76'	10.70'	6.13'	10.05'	S55°10'53"E	70°00'00"
C13	3.00'	4.71'	3.00'	4.24'	N44°49'07"E	90°00'00"
C14	4.50'	14.14'		9.00'	S20°10'53"E	180°00'00"
C15	3.00'	4.71'	3.00'	4.24'	S65°10'53"E	90°00'00"
C16	188.34'	65.17'	32.91'	64.84'	N38°26'25"E	19°49'28"
C17	20.50'	24.52'	13.97'	23.09'	S14°05'08"W	68°32'02"
C18	4.42'	6.94'	4.42'	6.25'	N24°49'07"E	90°00'00"
C19	4.25'	13.35'		8.50'	N20°10'53"W	180°00'00"
C20	50.50'	33.91'	17.62'	33.28'	S50°34'51"W	38°28'31"
C21	9.50'	19.99'	16.64'	16.50'	S88°22'59"E	120°32'50"
C22	117.50'	16.26'	8.14'	16.25'	S24°08'44"E	07°55'41"
C23	25.50'	35.38'	21.21'	32.61'	N59°35'50"W	79°29'55"
C24	25.50'	36.61'	22.27'	33.55'	S68°27'00"W	82°16'06"
C25	25.50'	42.94'	28.56'	38.04'	S20°55'31"E	96°28'57"
C26	280.43'	106.46'	53.88'	105.82'	S80°02'34"E	21°45'08"
C27	20.00'	26.00'	15.21'	24.21'	N53°40'24"W	74°29'28"
C28	150.00'	89.30'	46.02'	87.98'	S33°28'56"E	34°06'33"
C29	178.50'	72.07'	36.53'	71.59'	S62°06'15"E	23°08'04"
C30	74.50'	80.07'	44.39'	76.27'	N42°52'59"W	61°34'37"
C31	25.00'	44.47'	30.82'	38.83'	N38°51'43"E	101°54'48"
C32	25.00'	37.68'	23.46'	34.21'	S47°00'21"E	86°21'04"
C33	135.50'	165.17'	94.60'	155.13'	N38°45'03"W	69°50'29"
C34	117.50'	30.66'	15.42'	30.57'	S66°11'46"E	14°57'03"
C35	19.50'	30.65'	19.52'	27.59'	S13°41'19"E	90°03'50"
C36	24.50'	16.45'	8.55'	16.14'	S50°34'51"W	38°28'31"
C37	4.50'	14.14'		9.00'	N20°10'53"W	180°00'00"
C38	3.00'	4.71'	3.00'	4.24'	N65°10'53"W	90°00'00"
C39	30.00'	36.65'	21.01'	34.41'	S55°10'53"E	70°00'00"
C40	5.00'	6.11'	3.50'	5.74'	S55°10'53"E	70°00'00"
C41	3.00'	4.71'	3.00'	4.24'	S24°49'07"W	90°00'00"
C42	3.00'	4.71'	3.00'	4.24'	N65°10'53"W	90°00'00"
C43	7.50'	14.40'	10.71'	12.29'	N34°49'07"E	110°00'00"
C44	4.50'	14.14'		9.00'	N20°10'53"W	180°00'00"
C45	4.50'	14.14'		9.00'	S20°10'53"E	180°00'00"
C46	4.50'	14.14'		9.00'	N20°10'53"W	180°00'00"
C47	4.50'	14.14'		9.00'	S20°10'53"E	180°00'00"
C48	4.50'	14.14'		9.00'	S20°10'53"E	180°00'00"
C49	4.50'	14.14'		9.00'	N20°10'53"W	180°00'00"
C50	4.50'	14.14'		9.00'	S20°10'53"E	180°00'00"
C51	4.50'	14.14'		9.00'	N20°10'53"W	180°00'00"
C52	4.50'	14.14'		9.00'	S20°10'53"E	180°00'00"
C53	4.50'	14.14'		9.00'	N20°10'53"W	180°00'00"
C54	4.50'	14.14'		9.00'	N20°10'53"W	180°00'00"
C55	4.50'	14.14'		9.00'	S20°10'53"E	180°00'00"
C56	4.50'	14.14'		9.00'	N20°10'53"W	180°00'00"
C57	4.50'	14.14'		9.00'	S20°10'53"E	180°00'00"
C58	8.00'	16.85'	14.06'	13.91'	N80°32'01"W	120°42'17"
C59	3.00'	4.71'	3.00'	4.24'	N24°49'07"E	90°00'00"
C60	3.00'	4.71'	3.00'	4.24'	S65°10'53"E	90°00'00"
C61	14.50'	16.43'	9.22'	15.57'	S12°16'57"W	64°55'41"
C62	212.34'	20.87'	10.45'	20.87'	N41°55'49"E	05°37'57"
C63	14.50'	24.75'	16.62'	21.85'	S24°20'23"E	97°48'04"
C64	14.50'	20.74'	12.60'	19.02'	S65°32'34"W	81°57'50"
C65	219.43'	85.12'	43.10'	84.59'	S84°35'18"E	22°13'35"
C66	255.43'	80.02'	40.34'	79.69'	S82°12'54"E	17°56'57"
C67	14.50'	19.11'	11.23'	17.76'	N57°56'29"W	75°31'13"
C68	44.50'	57.44'	33.64'	53.45'	N53°47'26"W	74°47'52"
C69	124.00'	33.46'	16.83'	33.36'	S24°07'17"E	15°27'35"
C70	148.00'	22.83'	11.44'	22.80'	S24°35'59"E	08°50'12"
C71	3.50'	5.42'	3.42'	4.89'	N15°19'12"E	88°40'34"
C72	3.50'	5.41'	3.41'	4.88'	S76°05'48"E	88°29'27"
C73	4.50'	14.14'		9.00'	S37°47'01"W	180°00'00"
C74	143.50'	53.74'	27.19'	53.42'	S62°56'38"E	21°27'18"
C75	152.50'	57.11'	28.89'	56.77'	S62°56'38"E	21°27'18"
C76	109.50'	134.31'	77.07'	126.05'	N38°31'59"W	70°16'36"
C77	100.50'	122.67'	70.29'	115.20'	N38°42'11"W	69°56'12"
C78	4.53'	13.36'	46.24'	9.02'	N90°00'00"E	168°48'06"
C79	7.50'	21.85'	65.47'	14.90'	N06°21'13"E	166°55'48"
C82	20.00'	4.89'	2.46'	4.88'	N82°32'42"E	14°00'11"
C200	47.00	27.53	14.17	27.14	S17°20'06"E	33°33'26"
C201	25.00	14.64	7.54	14.43	N17°20'06"W	33°33'26"
C202	2994.30	148.41	74.22	148.39	N00°51'49"E	02°50'23"
C203	3008.30	469.96	235.46	469.49	N03°55'08"E	08°57'03"
C204	301.00	54.40	27.27	54.32	S02°54'40"E	10°21'15"
C205	299.00	66.20	33.24	66.07	N00°02'49"W	12°41'10"
C206	3006.30	200.42	100.25	200.38	N06°29'04"E	03°49'11"

LINE	DIRECTION	DISTANCE
L1	N89°32'47"E	765.76'
L2	N89°32'47"E	200.38'
L3	N20°10'53"W	126.23'
L4	S20°10'53"E	50.06'
L5	N89°32'47"E	82.27'
L6	N69°49'07"E	9.13'
L7	N20°10'53"W	16.00'
L8	N69°49'07"E	37.00'
L9	N20°10'53"W	18.67'
L10	S69°49'07"W	6.03'
L11	S20°10'53"E	33.33'
L12	S69°49'07"W	18.73'
L13	N89°32'47"E	225.78'
L14	S20°10'53"E	131.27'
L15	N89°49'07"E	2.59'
L16	S69°49'07"W	3.67'
L17	N69°49'07"E	6.98'
L18	S20°10'53"E	105.17'
L19	N69°49'07"E	16.50'
L20	S20°10'53"E	22.00'
L21	S69°49'07"W	149.23'
L22	S20°10'53"E	5.74'
L23	N69°49'07"E	15.08'
L24	N20°10'53"W	88.00'
L25	N69°49'07"E	15.83'
L26	S69°49'07"W	11.76'
L27	S31°20'36"W	7.83'
L28	S20°10'53"E	85.17'
L29	N27°18'57"E	41.31'
L30	S24°33'39"W	7.07'
L31	N20°10'53"W	69.02'
L32	S50°32'13"E	17.59'
L33	N31°20'36"E	13.62'
L34	N69°49'07"E	74.88'
L35	N20°10'53"W	163.00'
L36	N69°49'07"E	16.50'
L37	S20°10'53"E	10.62'
L38	N89°49'07"E	50.36'
L39	N89°49'07"E	27.29'
L40	N20°10'53"W	8.61'
L41	N20°10'53"W	7.62'
L42	N69°49'07"E	33.00'
L43	S69°49'07"W	30.00'
L44	S69°49'07"W	30.00'
L45	N69°49'07"E	30.00'
L46	S69°49'07"W	30.00'
L47	S69°49'07"W	30.00'
L48	S69°49'07"W	30.00'
L49	S69°49'07"W	30.00'
L50	N69°49'07"E	30.00'
L51	S69°49'07"W	30.00'
L52	S69°49'07"W	30.00'
L53	S69°49'07"W	30.00'
L54	S69°49'07"W	30.00'
L55	S69°49'07"W	30.00'
L56	S69°49'07"W	30.00'
L57	S20°10'53"E	1.06'
L58	S69°49'07"W	17.00'
L59	S20°10'53"E	18.00'
L60	S69°49'07"W	15.88'
L61	S20°10'53"E	3.05'
L63	N89°49'07"E	189.47'
L62	N81°22'20"E	96.00'
L64	N82°18'15"E	96.00'
L65	N89°49'07"E	285.58'
L66	N77°06'41"W	49.36'
L67	N69°49'07"E	26.39'
L68	N00°33'23"W	97.42'
L69	S00°33'23"E	193.97'
L70	N00°33'23"W	129.92'
L71	N69°49'07"E	22.03'



BENCHMARK

THE BENCHMARK FOR THIS PROJECT IS C.C.E.D. BENCHMARK NO. 7C01235SW6; BEING AN ALUMINUM PLATE AND RIVET ON THE TOP OF THE CURB, NORTHEAST QUADRANT OWENS AND LAS VEGAS BLVD. NORTH.
ELEVATION = 1897.81

MARTIN AND MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

NOTE:
ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.
DIMENSION ON MEDIAN ISLAND ON LAS VEGAS BLVD. ARE CURB FACE TO CURB FACE.

GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft.

LUCCHESI •GALATI• ARCHITECTS
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(702) 733-7107

STATE OFFICE BUILDING

DEPARTMENT OF GENERAL SERVICES

SPWB JOB # 91-C9

MARTIN & MARTIN
MARTIN & MARTIN CIVIL ENGINEERS
1701 W. CHARLESTON BLVD. SUITE 420
LAS VEGAS, NEVADA 89102
PHONE (702) 386-8005

Date: FEBRUARY 23, 1993
Project No.: 1096
Scale: 1"=40'
Drawn By: R. YOUNG
Revisions:

2-23-95
RECORD DRAWINGS

Sheet Title:

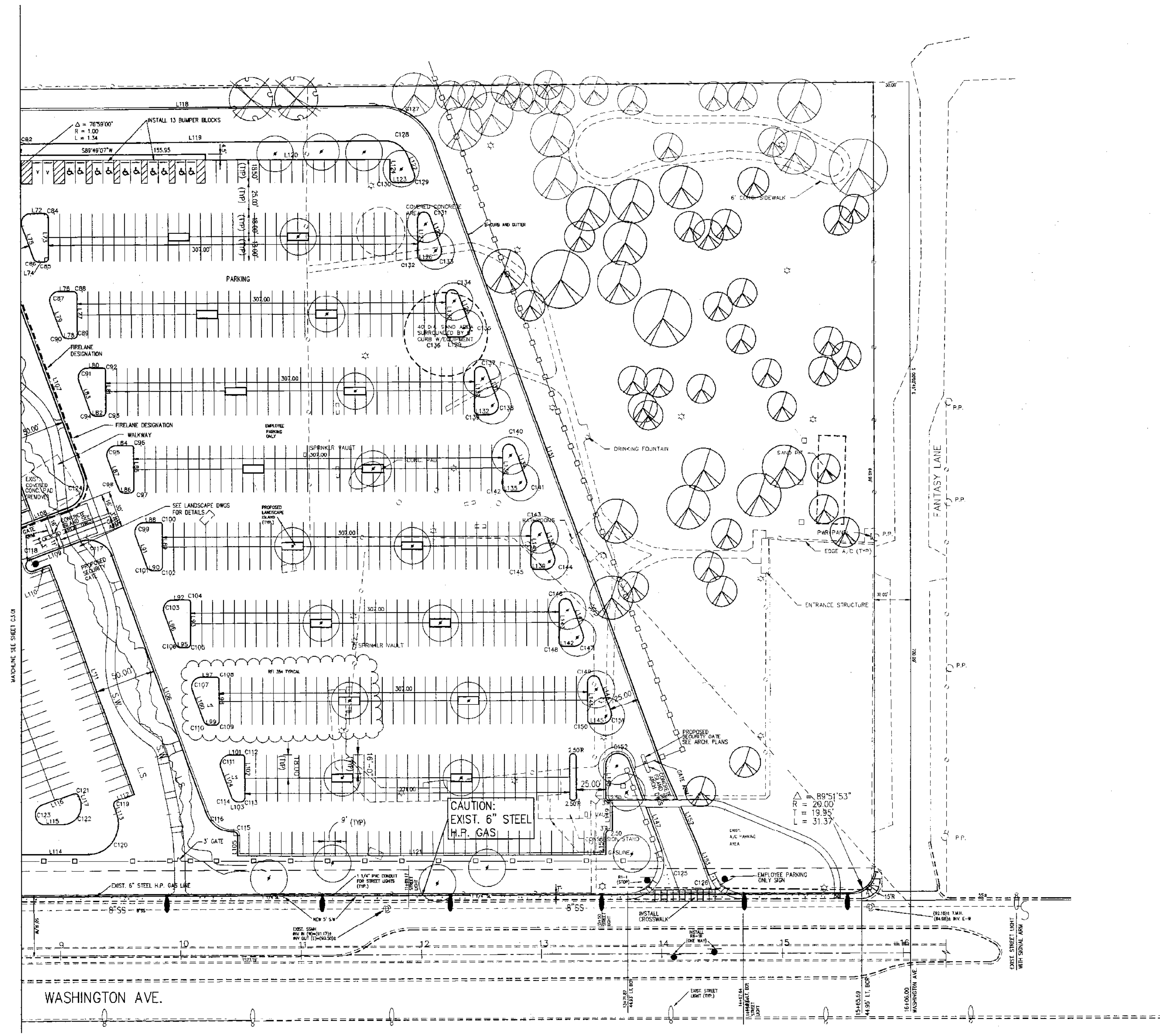
HORIZONTAL CONTROL PLAN NO. 1, (WEST)

Sheet Number:

C3.01

C3-3 , T-531

CURVE	RADIUS	LENGTH	TANGENT	CHORD	BEARING	DELTA
C83	7.50'	14.40'	10.71'	12.29'	S34°49'07"W	110°00'00"
C84	3.00'	4.71'	3.00'	4.24'	N45°10'53"W	90°00'00"
C85	3.00'	4.71'	3.00'	4.24'	N44°49'07"E	90°00'00"
C86	5.00'	6.11'	3.50'	5.74'	S55°10'53"E	70°00'00"
C87	7.50'	14.40'	10.71'	12.29'	S34°49'07"W	110°00'00"
C88	3.00'	4.71'	3.00'	4.24'	N45°10'53"W	90°00'00"
C89	3.00'	4.71'	3.00'	4.24'	N44°49'07"E	90°00'00"
C90	5.00'	6.11'	3.50'	5.74'	S55°10'53"E	70°00'00"
C91	7.50'	14.40'	10.71'	12.29'	S34°49'07"W	110°00'00"
C92	1.50'	2.36'	1.50'	2.12'	N45°10'53"W	90°00'00"
C93	3.00'	4.71'	3.00'	4.24'	N44°49'07"E	90°00'00"
C94	5.00'	6.11'	3.50'	5.74'	S55°10'53"E	70°00'00"
C95	7.50'	14.40'	10.71'	12.29'	S34°49'07"W	110°00'00"
C96	1.50'	2.36'	1.50'	2.12'	N45°10'53"W	90°00'00"
C97	3.00'	4.71'	3.00'	4.24'	N44°49'07"E	90°00'00"
C98	5.00'	6.11'	3.50'	5.74'	S55°10'53"E	70°00'00"
C99	7.50'	14.40'	10.71'	12.29'	S34°49'07"W	110°00'00"
C100	1.50'	2.36'	1.50'	2.12'	N45°10'53"W	90°00'00"
C101	5.00'	6.11'	3.50'	5.74'	S55°10'53"E	70°00'00"
C102	3.00'	4.71'	3.00'	4.24'	N44°49'07"E	90°00'00"
C103	7.50'	14.40'	10.71'	12.29'	S34°49'07"W	110°00'00"
C104	1.50'	2.36'	1.50'	2.12'	N45°10'53"W	90°00'00"
C105	3.00'	4.71'	3.00'	4.24'	N44°49'07"E	90°00'00"
C106	5.00'	6.11'	3.50'	5.74'	S55°10'53"E	70°00'00"
C107	7.50'	14.40'	10.71'	12.29'	S34°49'07"W	110°00'00"
C108	1.50'	2.36'	1.50'	2.12'	N45°10'53"W	90°00'00"
C109	3.00'	4.71'	3.00'	4.24'	N44°49'07"E	90°00'00"
C110	5.00'	6.11'	3.50'	5.74'	S55°10'53"E	70°00'00"
C111	8.00'	15.36'	11.43'	13.11'	S34°49'07"W	110°00'00"
C112	2.00'	3.14'	2.00'	2.83'	N45°10'53"W	90°00'00"
C113	3.00'	4.71'	3.00'	4.24'	N44°49'07"E	90°00'00"
C114	5.00'	6.11'	3.50'	5.74'	S55°10'53"E	70°00'00"
C115	3.00'	4.71'	3.00'	4.24'	N45°10'53"W	90°00'00"
C116	24.81'	30.31'	17.37'	28.46'	S55°10'53"E	70°00'00"
C117	20.00'	31.42'	20.00'	28.28'	N65°10'53"W	90°00'00"
C118	4.50'	14.14'		9.00'	S20°10'53"E	180°00'00"
C119	3.00'	4.71'	3.00'	4.24'	S24°49'07"W	90°00'00"
C120	25.00'	48.00'	35.70'	40.96'	N34°49'07"E	110°00'00"
C121	3.00'	4.71'	3.00'	4.24'	N65°10'53"W	90°00'00"
C122	15.00'	28.80'	21.42'	24.57'	N34°49'07"E	110°00'00"
C123	7.89'	22.04'	44.76'	15.55'	S10°10'53"E	160°00'00"
C124	20.00'	31.42'	20.00'	28.28'	N24°49'07"E	90°00'00"
C125	30.00	57.60	42.85	49.15	N34°49'11"E	110°00'07"
C126	30.00	36.65	21.01	34.41	S55°10'49"E	69°59'53"
C127	50.00	61.32	35.19	57.55	N55°19'03"W	70°16'20"
C128	20.00	24.53	14.08	23.02	N55°19'03"W	70°16'20"
C129	5.00	9.60	7.14	8.19	N34°49'07"E	110°00'00"
C130	3.00	4.71	3.00	4.24	S45°10'53"E	90°00'00"
C131	5.00	13.96	28.36	9.85	S79°49'07"W	160°00'00"
C132	3.00	4.71	3.00	4.24	S45°10'53"E	90°00'00"
C133	7.50	14.40	10.71	12.29	N34°49'07"E	110°00'00"
C134	5.00	13.96	28.36	9.85	S79°49'07"W	160°00'00"
C135	7.50	14.40	10.71	12.29	N34°49'07"E	110°00'00"
C136	3.00	4.71	3.00	4.24	S45°10'53"E	90°00'00"
C137	5.00	13.96	28.36	9.85	S79°49'07"W	160°00'00"
C138	7.50	14.40	10.71	12.29	N34°49'07"E	110°00'00"
C139	3.00	4.71	3.00	4.24	S45°10'53"E	90°00'00"
C140	5.00	13.96	28.36	9.85	S79°49'07"W	160°00'00"
C141	7.50	14.40	10.71	12.29	N34°49'07"E	110°00'00"
C142	3.00	4.71	3.00	4.24	S45°10'53"E	90°00'00"
C143	5.00	13.96	28.36	9.85	S79°49'07"W	160°00'00"
C144	7.50	14.40	10.71	12.29	N34°49'07"E	110°00'00"
C145	3.00	4.71	3.00	4.24	S45°10'53"E	90°00'00"
C146	5.00	13.96	28.36	9.85	S79°49'07"W	160°00'00"
C147	7.50	14.40	10.71	12.29	N34°49'07"E	110°00'00"
C148	3.00	4.71	3.00	4.24	S45°10'53"E	90°00'00"
C149	5.00	13.96	28.36	9.85	S79°49'07"W	160°00'00"
C150	3.00	4.71	3.00	4.24	S45°10'53"E	90°00'00"
C151	7.50	14.40	10.71	12.29	N34°49'07"E	110°00'00"
C152	9.88	27.60	56.06	19.47	S79°49'07"W	160°00'00"



LINE	DIRECTION	DISTANCE
L71	N69°49'07"E	15.00'
L72	S89°49'07"W	11.65'
L73	S00°10'53"E	33.00'
L74	S89°49'07"W	4.67'
L75	S20°10'53"E	27.29'
L76	S89°49'07"W	11.65'
L77	S00°10'53"E	33.00'
L78	N89°49'07"E	4.67'
L79	S20°10'53"E	27.29'
L80	S89°49'07"W	13.15'
L81	S00°10'53"E	34.50'
L82	N89°49'07"E	4.67'
L83	S20°10'53"E	27.29'
L84	N89°49'07"E	13.15'
L85	S00°10'53"E	34.50'
L86	N89°49'07"E	4.67'
L87	S20°10'53"E	27.29'
L88	S89°49'07"W	13.15'
L89	S00°10'53"E	34.50'
L90	N89°49'07"E	4.67'
L91	S20°10'53"E	27.29'
L92	N89°49'07"E	13.15'
L93	S00°10'53"E	34.50'
L95	S89°49'07"W	4.67'
L96	S20°10'53"E	27.29'
L97	N89°49'07"E	13.15'
L98	S00°10'53"E	34.50'
L99	N89°49'07"E	4.67'
L100	S20°10'53"E	27.29'
L101	N89°49'07"E	9.63'
L102	S00°10'53"E	34.00'
L103	N89°49'07"E	2.36'
L104	S20°10'53"E	26.58'
L105	N00°10'53"W	16.50'
L106	N20°10'53"W	226.31'
L107	S20°10'53"E	146.86'
L108	S69°49'07"W	45.00'
L109	S69°49'07"W	45.00'
L110	S69°49'07"W	15.00'
L111	N20°10'53"W	203.00'
L112	N69°49'07"E	16.50'
L113	N20°10'53"W	6.61'
L114	N89°49'07"E	55.75'
L115	S89°49'07"W	14.55'
L116	S69°49'07"W	28.11'
L117	N20°10'53"W	3.19'
L118	N89°32'46"E	297.07
L119	N89°32'46"E	297.79
L120	N89°49'06"E	153.00'
L121	N89°49'06"E	307.00
L122	S20°10'53"E	15.06
L123	N89°49'07"E	12.00
L124	S00°10'53"E	16.50
L125	N20°10'53"W	27.29
L126	N89°49'07"E	8.98
L127	N00°10'53"W	31.00
L128	N20°10'53"W	27.29
L129	S89°49'07"W	8.98
L130	N00°10'53"W	31.00
L131	S20°10'53"E	27.29
L132	N89°49'07"E	8.98
L133	N00°10'53"W	31.00
L134	S20°10'53"E	27.29
L135	S89°49'07"W	8.98
L136	N00°10'53"W	31.00
L138	N20°10'53"W	27.29
L139	S89°49'07"W	8.98
L140	N00°10'53"W	31.00
L141	S20°10'53"E	27.29
L142	S89°49'07"W	8.98
L143	S00°10'53"E	31.00
L144	S20°10'53"E	27.29
L145	N89°49'07"E	8.98
L146	N00°10'53"W	31.00
L147	S20°10'53"E	78.54
L148	S00°10'53"E	26.12
L149	S00°10'53"E	25.00
L150	N00°10'53"W	16.50
L151	N20°10'53"W	545.57
L152	S23°59'44"E	75.17
L153	S20°10'53"E	25.00

BENCHMARK

THE BENCHMARK FOR THIS PROJECT IS C.C.E.D. BENCHMARK NO. 7C01235SW6; BEING AN ALUMINUM PLATE AND RIVET ON THE TOP OF THE CURB, NORTHEAST QUADRANT OWENS AND LAS VEGAS BLVD. NORTH.
ELEVATION = 1897.81

MARTIN AND MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

NOTE:
ALL DIMENSIONS ARE TO BACK OF CURB UNLESS OTHERWISE NOTED.

GRAPHIC SCALE
(IN FEET)
1 inch = 40 ft.

LUCCHESI •GALATI• ARCHITECTS
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STATE OFFICE BUILDING

DEPARTMENT OF GENERAL SERVICES

SPWB JOB # 91-C9

MARTIN & MARTIN
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CIVIL ENGINEERS
1701 W. CHARLESTON BLVD.
SUITE 420
LAS VEGAS, NEVADA 89102
PHONE (702) 386-8005

Date: FEBRUARY 23, 1993
Project No.: 1096
Scale: 1"=40'
Drawn By: R. YOUNG
Revisions:

2-23-95
RECORD DRAWINGS

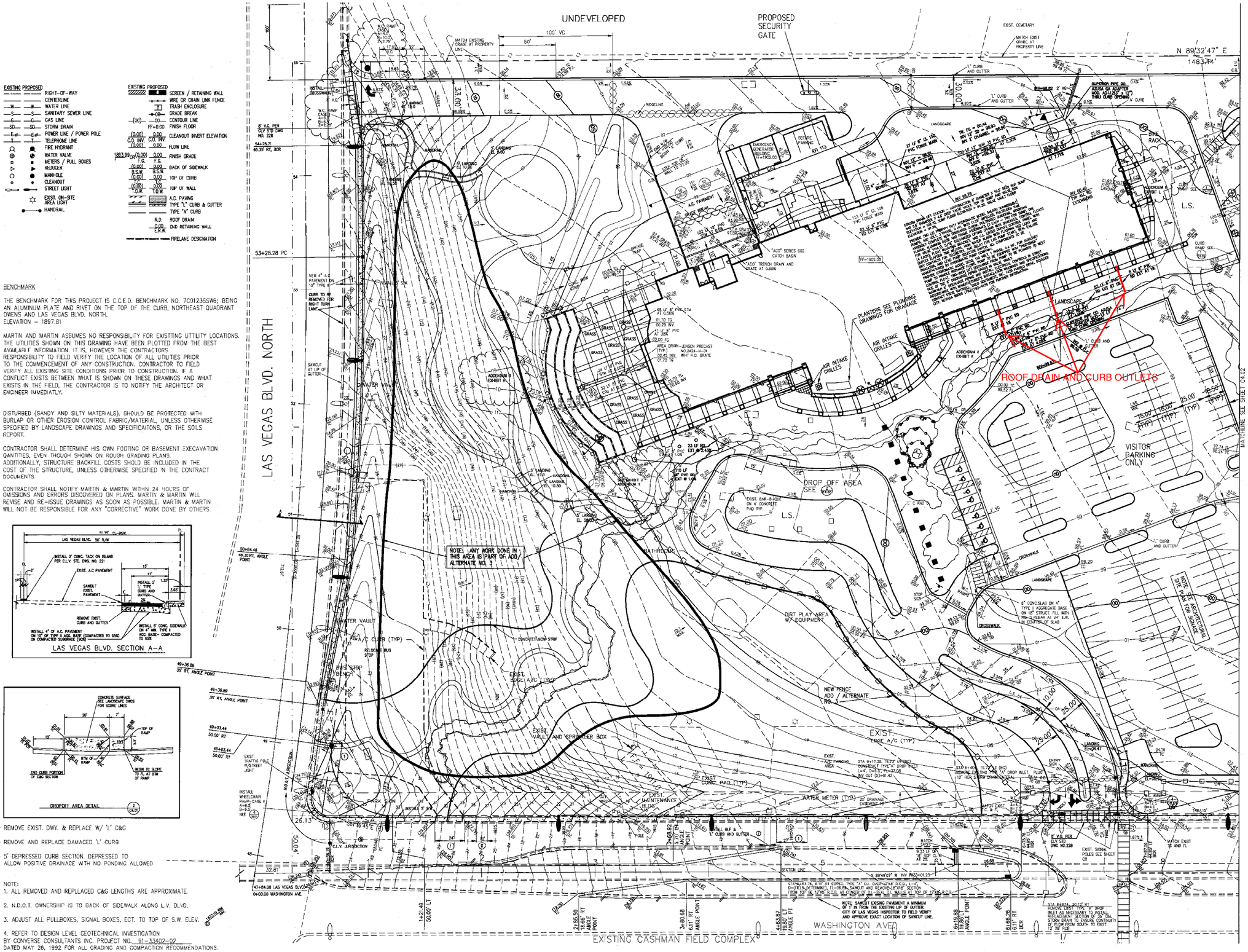
Sheet Title:

HORIZONTAL CONTROL PLAN NO. 2, (EAST)

Sheet Number:

C3.02

G3-3-T-531



EXISTING / PROPOSED

- RIGHT-OF-WAY
- CENTERLINE
- W — W WATER LINE
- S — S SANITARY SEWER LINE
- G — G GAS LINE
- SD — SD STORM DRAIN
- E — E POWER LINE / POWER POLE
- T — T TELEPHONE LINE
- FIRE HYDRANT
- WATER VALVE
- METERS / PULL BOXES
- HUB/ACH
- MANHOLE
- CLEANOUT
- STREET LIGHT
- EXIST. ON-SITE AREA LIGHT
- HANDRAIL

EXISTING / PROPOSED

- SCREEN / RETAINING WALL
- WIRE OR CHAIN LINK FENCE
- TRASH ENCLOSURE
- GRADE BREAK
- CONTOUR LINE
- FF=0.00 FINISH FLOOR
- (0.00) 0.00 C.O. INV. CLEANOUT INVERT ELEVATION
- (0.00) 0.00 FLOW LINE
- 863.99 (0.00) 0.00 F.G. FINISH GRADE
- (0.00) 0.00 B.S.W. BACK OF SIDEWALK
- (0.00) 0.00 T.O.W. TOP OF CURB
- (0.00) 0.00 T.O.W. TOP OF WALL
- A.C. PAVING
- TYPE "L" CURB & GUTTER
- TYPE "A" CURB
- R.D. 0.00 E.R.W. ROOF DRAIN / END RETAINING WALL
- FIRELANE DESIGNATION

BENCHMARK

THE BENCHMARK FOR THIS PROJECT IS C.C.E.D. BENCHMARK NO. 7C012.3SSW6; BEING AN ALUMINUM PLATE AND RIVET ON THE TOP OF THE CURB, NORTHEAST QUADRANT OWENS AND LAS VEGAS BLVD. NORTH.
ELEVATION = 1897.81

MARTIN AND MARTIN ASSUMES NO RESPONSIBILITY FOR EXISTTING UTTILITY LOCATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATLY.

DISTURBED (SANDY AND SILTY MATERIALS), SHOULD BE PROTECTED WITH BURLAP OR OTHER EROSION CONTROL FABRIC/MATERIAL, UNLESS OTHERWISE SPECIFIED BY LANDSCAPE DRAWINGS AND SPECIFICAITONS, OR THE SOILS REPORT.

CONTRACTOR SHALL DETERMINE HIS OWN FOOTING OR BASEMENT EXECAVATION QANTITIES, EVEN THOUGH SHOWN ON ROUGH GRADING PLANS. ADDITIONALLY, STRUCTURE BACKFILL COSTS SHOLD BE INCLUDED IN THE COST OF THE STRUCTURE, UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS.

CONTRACTOR SHALL NOTIFY MARTIN & MARTIN WITHIN 24 HOURS OF OMISSIONS AND ERRORS DISCOVERED ON PLANS. MARTIN & MARTIN WILL REVISE AND RE-ISSUE DRAWINGS AS SOON AS POSSIBLE. MARTIN & MARTIN WILL NOT BE RESPONSIBLE FOR ANY "CORRECTIVE" WORK DONE BY OTHERS.

LAS VEGAS BLVD. SECTION A-A

DROPOFF AREA DETAIL (2 / C4.01)

① REMOVE EXIST. DWY. & REPLACE W/ 'L' C&G

② REMOVE AND REPLACE DAMAGED 'L' CURB

③ 5' DEPRESSED CURB SECTION. DEPRESSED TO ALLOW POSITIVE DRAINAGE WITH NO PONDING ALLOWED

NOTE:
1. ALL REMOVED AND REPLLACED C&G LENGTHS ARE APPROXIMATE.

2. N.D.O.T. OWNERSHIP IS TO BACK OF SIDEWALK ALONG L.V. BLVD.

3. ADJUST ALL PULLBOXES, SIGNAL BOXES, ECT. TO TOP OF S.W. ELEV.

4. REFER TO DESIGN LEVEL GEOTECHNICAL INVESTIGATION BY CONVERSE CONSULTANTS INC. PROJECT NO. 91-33402-02 DATED MAY 26, 1992 FOR ALL GRADING AND COMPACTION RECOMMENDATIONS.

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STATE OF NEVADA

STATE OFFICE BUILDING

DEPARTMENT OF GENERAL SERVICES

SPWB JOB # 91-C9

MARTIN & MARTIN
MARTIN & MARTIN CIVIL ENGINEERS
1701 W. CHARLESTON BLVD. SUITE 430
LAS VEGAS, NEVADA 89102
PHONE (702) 386-8005

Date: FEBRUARY 23, 1993
Project No.: 1096
Scale: 1"=30'
Drawn By: R. YOUNG / C.H.
Revisions:

2-23-95
RECORD DRAWINGS

Sheet Title:

GRADING PLAN
NO. 1, WEST

Sheet Number:

C4.01

G3-B T-531

EXISTING / PROPOSED

- RIGHT-OF-WAY
- CENTERLINE
- WATER LINE
- SANITARY SEWER LINE
- GAS LINE
- STORM DRAIN
- POWER LINE / POWER POLE
- TELEPHONE LINE
- FIRE HYDRANT
- WATER VALVE
- METERS / PULL BOXES
- REDUCER
- MANHOLE
- CLEANOUT
- STREET LIGHT
- EXIST. ON-SITE AREA LIGHT
- HANDRAIL

EXISTING / PROPOSED

- SCREEN / RETAINING WALL
- WIRE OR CHAIN LINK FENCE
- TRASH ENCLOSURE
- GRADE BREAK
- CONTOUR LINE
- FF=0.00 FINISH FLOOR
- (0.00) / 0.00 CLEANOUT INVERT ELEVATION
- C.O. INV. / 0.00 FLOW LINE
- 1863.99 OR (0.00) / 0.00 FINISH GRADE
- F.G. / (0.00) / 0.00 BACK OF SIDEWALK
- B.S.W. / (0.00) / 0.00 TOP OF CURB
- T.C. / (0.00) / 0.00 TOP OF WALL
- T.O.W.
- A.C. PAVING
- TYPE "L" CURB & GUTTER
- TYPE "A" CURB
- R.D. / 0.00 ROOF DRAIN
- E.R.W. END RETAINING WALL
- FIRELANE DESIGNATION

BENCHMARK

THE BENCHMARK FOR THIS PROJECT IS C.C.E.D. BENCHMARK NO. 7C0123SSW6; BEING AN ALUMINUM PLATE AND RIVET ON THE TOP OF THE CURB, NORTHEAST QUADRANT OWENS AND LAS VEGAS BLVD. NORTH.
ELEVATION = 1897.81

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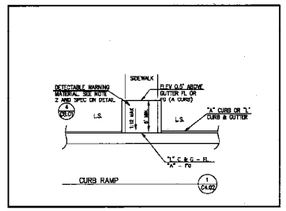
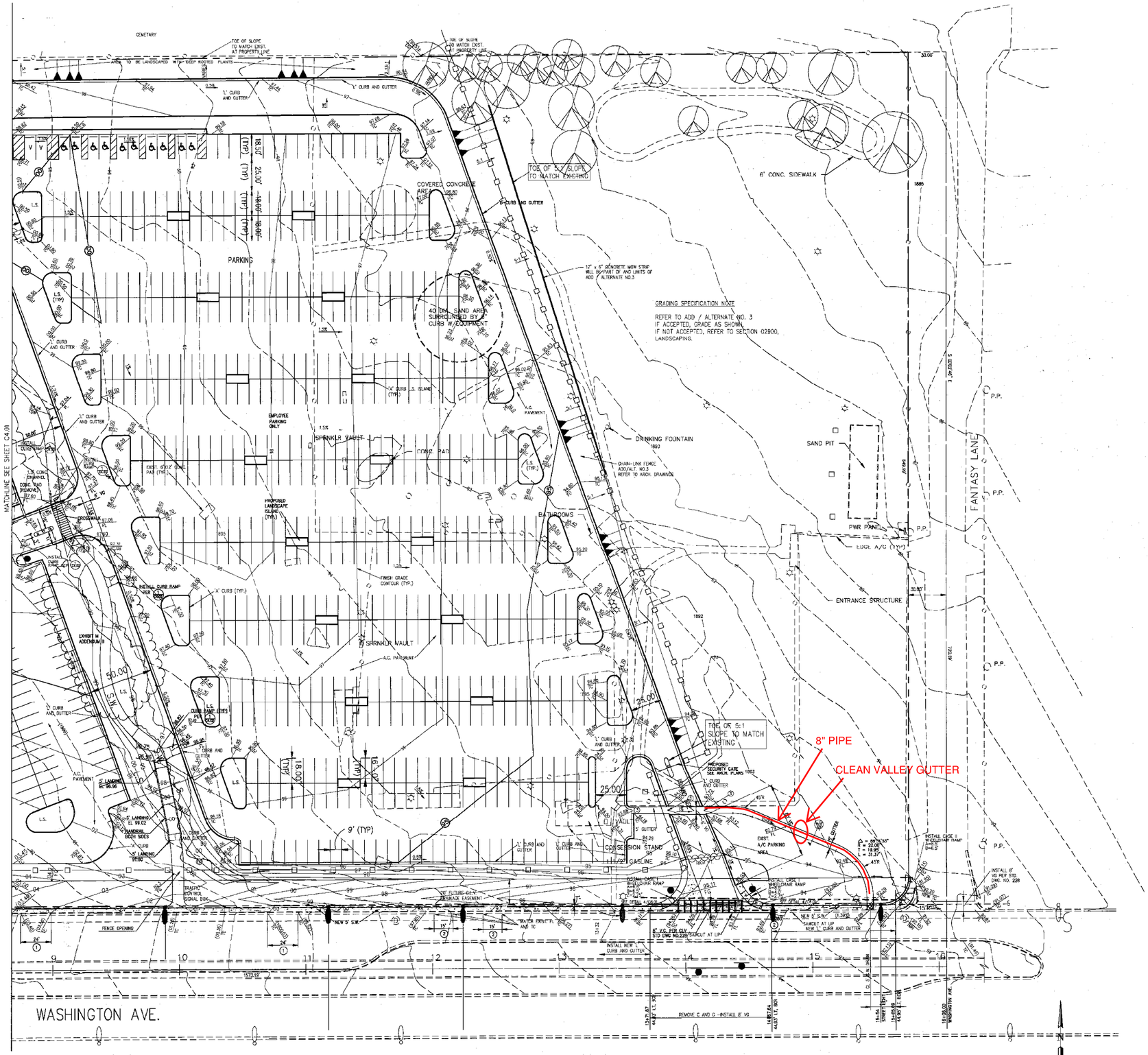


(1) REMOVE EXIST. DWY. & REPLACE W/ 'L' C&G

(2) REMOVE AND REPLACE DAMAGED 'L' CURB

(3) 5' DEPRESSED CURB SECTION. DEPRESSED TO ALLOW POSITIVE DRAINAGE WITH NO PONDING ALLOWED

NOTE:
1. ALL REMOVED AND REPLLACED C&G LENGTHS ARE APPROXIMATE.
2. N.D.O.T. OWNERSHIP IS TO BACK OF SIDEWALK ALONG L.V. BLVD.
3. ADJUST ALL PULLBOXES, SIGNAL BOXES, ECT. TO TOP OF S.W. ELEV.
4. REFER TO DESIGN LEVEL GEOTECHNICAL INVESTIGATION BY CONVERSE CONSULTANTS INC. PROJECT NO. 91-33402-02 DATED MAY 26, 1992 FOR ALL GRADING AND COMPACTION RECOMMENDATIONS.



GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.

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STATE OF NEVADA

STATE OFFICE BUILDING

DEPARTMENT OF GENERAL SERVICES

SPWB JOB # 91-C9

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Date: FEBRUARY 23, 1993
Project No.: 1096
Scale: 1"=30'
Drawn By: R. YOUNG / C.H.
Revisions:

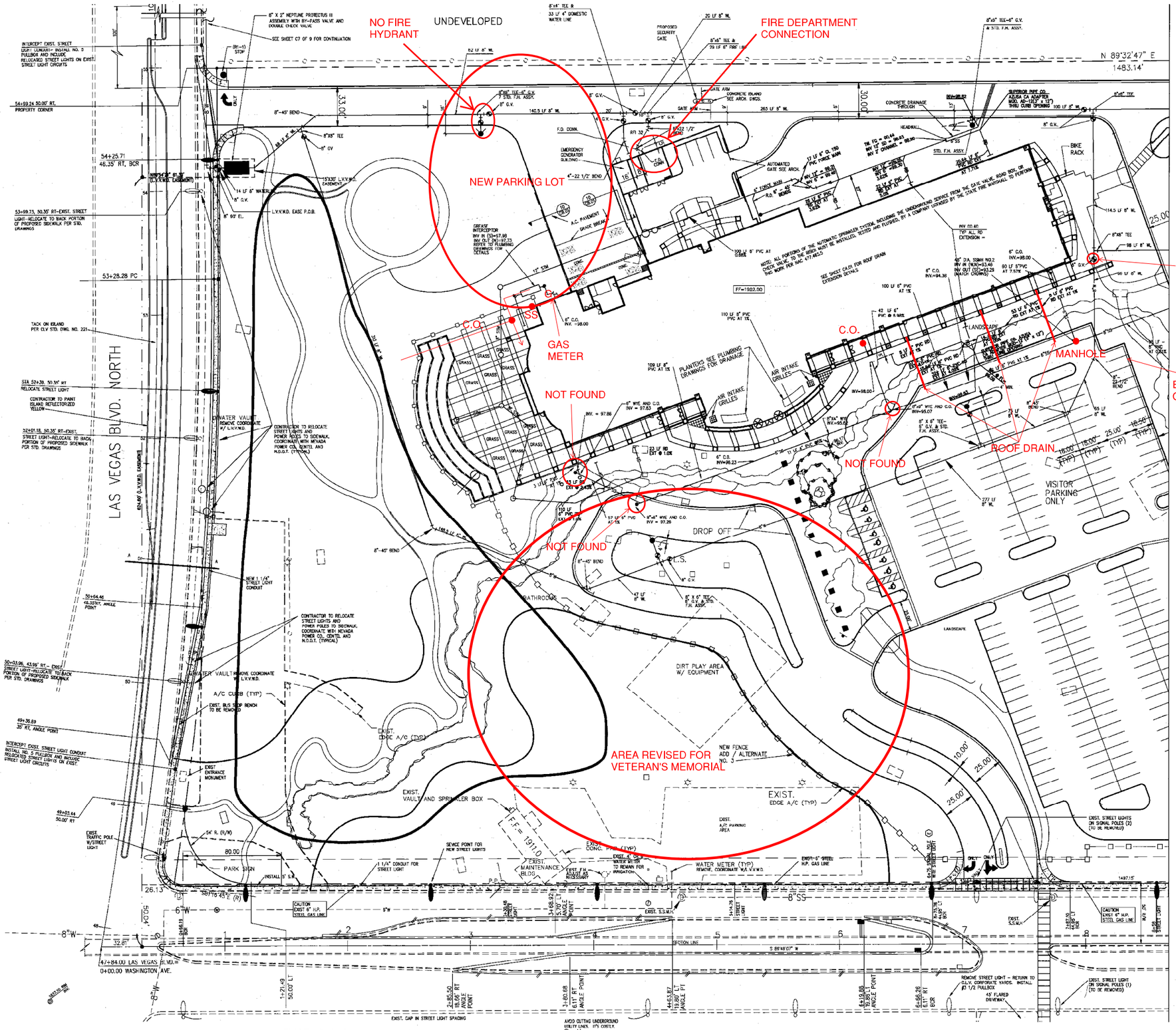
2-23-95
RECORD DRAWINGS

Sheet Title:

GRADING PLAN
NO. 2, EAST

Sheet Number:

C4.02



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STATE OF NEVADA

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DEPARTMENT OF GENERAL SERVICES

SPWB JOB # 91-C9

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Date: FEBRUARY 23, 1993
Project No.: 1096
Scale: 1"=30'
Drawn By: R. YOUNG / C.H.
Revisions:

2-23-95
RECORD DRAWINGS

Sheet Title:

ON-SITE UTILITY PLAN (WEST)

Sheet Number:

C5.01

LAS VEGAS VALLEY WATER DISTRICT STANDARD NOTES

1. NO WORK SHALL BEGIN ON THE WATER PLANS UNTIL THEY HAVE BEEN RELEASED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING APPROVAL OF THE PLANS, NOTICE SHALL BE GIVEN TO THE LVVWD CUSTOMER SERVICE DEPARTMENT (870 4194) 48 HOURS PRIOR TO ACTUAL CONSTRUCTION, AND 24 HOURS PRIOR TO AN INSPECTION.

2. CALL BEFORE YOU DIG 1-800-227-2600.

3. ALL WORK SHALL CONFORM TO LVVWD LATEST STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS.

4. ALL WORK, EXCEPT AS MODIFIED HEREON OR BY NOTE 3, SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT DRAFT OR ADDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA.

5. DISTRICT APPROVED SERVICE SADDLES OR TAPPED COLLARS SHALL BE REQUIRED ON ALL 3/4" AND 1" SERVICE LATERALS. SERVICE SADDLES ONLY SHALL BE PERMITTED ON 1-1/2" AND 2" SERVICE LATERALS. DOUBLE TAPPED COLLARS ARE NOT PERMITTED.

6. COPPER SERVICE LATERALS: ALL 3/4" TO 2" SERVICE LATERALS SHALL BE OF COPPER TUBING IN ACCORDANCE WITH THE DISTRICT'S SPECIFICATIONS AND STANDARD PLATES.

7. THE MAXIMUM ALLOWABLE JOINT DEFLECTION FOR ACP AND DUCTILE IRON PIPE SHALL BE AS FOLLOWS:

PIPE SIZES	ACP	DUCTILE IRON SLIP JOINT	DUCTILE IRON MECHANICAL JOINT
6 INCH	2.5 DEGREES	2.5 DEGREES	3.5 DEGREES
8 - 12 INCH	2.5 DEGREES	2.5 DEGREES	2.5 DEGREES
14 - 16 INCH	2 DEGREES	1.5 DEGREES	1.5 DEGREES
18 - 24 INCH	N/A	1.5 DEGREES	1.5 DEGREES

ON PVC PIPE, THE MAXIMUM OFFSET FOR A 20' LENGTH OF FACTORY WELLED PIPE SHALL BE 16 INCHES FOR 8" PIPE, 12 INCHES FOR 6" PIPE, AND 9 INCHES FOR 4" AND 12" PIPE.

IF THESE OFFSETS CONFLICT WITH THE PIPE MANUFACTURERS RECOMMENDATION, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

8. ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.

9. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS AND VALLEY GUTTERS.

10. DETECTION TAPE SHALL BE REQUIRED IN ACCORDANCE WITH STANDARD PLATE NO. 27 WHERE INDICATED, AND AS FOLLOWS:

A) OVER ALL MAINS NOT INSTALLED 6 FEET FROM BACK OF CURB
B) OVER ALL SERVICE LATERALS NOT INSTALLED AT RIGHT ANGLES TO MAIN.

11. ALL WATER MAINS SHALL BE PRESSURE TESTED AT 200 PSI FOR A CONTINUOUS TWO HOUR PERIOD, IN ACCORDANCE WITH DISTRICT STANDARDS.

12. ALL WATER MAINS SHALL BE DISINFECTED, FLUSHED, AND AN ACCEPTABLE HEALTH SAMPLE OBTAINED, PRIOR TO THE CONNECTION OF THE WATER MAIN(S) AND/OR LATERAL(S) TO THE DISTRICT'S SYSTEM.

13. CONTRACTOR TO OBTAIN ALL METERS 2" AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3182 FORTY-EIGHT (48) HOURS PRIOR TO PICKUP.

C.L.V. FIRE DEPT. NOTES

1. ALL WORK SHALL BE DONE IN STRICT ACCORDANCE WITH THE CITY OF LAS VEGAS FIRE DEPARTMENT "HYDRANT SPECIFICATIONS" AND HYDRANT INSTALLATION SPECIFICATIONS" AND ORDINANCE #3545.

2. AUTHORIZED HYDRANTS FOR THIS PROJECT ARE:

A - KENNEDY GUARDIAN
B - MUELLER A-423 CENTURIAN
C - CLOW MODEL 2546 MEDALION

3. ON ANY NEW HOME OR BUILDING CONSTRUCTION, ACCESSIBLE FIRE HYDRANTS SHALL BE INSTALLED BEFORE COMBUSTIBLE CONSTRUCTION COMMENCES AND SAID FIRE HYDRANTS SHALL BE IN GOOD WORKING ORDER WITH AN ADEQUATE WATER SUPPLY.

4. CONTRACTOR SHALL PLACE A BLUE REFLECTIVE MARKER AT CENTERLINE OF STREET ADJACENT TO FIRE HYDRANTS AS REQUIRED IN ORDINANCE #3545 TO IDENTIFY FIRE HYDRANT LOCATIONS.

5. CALL THE LAS VEGAS BUILDING DEPARTMENT AT 799-3071 FOR UNDERGROUND INSPECTION, PRESSURE AND FLUSH VERIFICATION OF ALL FIRE HYDRANTS AND FIRE LINES BEFORE COVERING.

6. PAINTING OF THE CURBS AND HYDRANT AND ANY WORK NECESSARY FOR PROTECTION OF HYDRANTS FROM PHYSICAL DAMAGE PER ORDINANCE #3545 SHALL BE COMPLETED BEFORE APPROVAL BY THE CITY OF LAS VEGAS FIRE DEPARTMENT.

7. A PERMIT IS REQUIRED FROM THE FIRE DEPARTMENT FOR ON-SITE WATER LINE AND FIRE HYDRANT. THE PERMIT AND CONTRACTORS MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING FORM SHALL BE OBTAINED FROM THE FIRE PROTECTION ENGINEER PRIOR TO ANY WORK BEGINNING.

8. A FLOW TEST MUST BE WITNESSED BY THE FIRE DEPARTMENT PRIOR TO OCCUPANCY FOR VERIFICATION OF REQUIRED ON-SITE WATER SUPPLY.

9. ALL ON-SITE FIRE MAIN MATERIALS MUST BE U.L. LISTED AND F.M. APPROVED.

10. FIRE HYDRANT SPACING
RESIDENTIAL - 500 FEET UNSPRINKLERED 600 FEET SPRINKLERED
COMMERCIAL, INCLUDING MULTI-FAMILY - 300 FEET UNSPRINKLERED, 400 FEET SPRINKLERED.

11. NO FIRE HYDRANT 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.

12. NO FIRE HYDRANT SHALL BE LOCATED WITHIN 5 FEET OF ANY CURB RETURN, DRIVEWAY, POWER POLE, STREET LIGHT OR ANY OTHER OBSTRUCTION.

13. NOT MORE THAN 2 HYDRANTS CAN BE OUT OF SERVICE DUE TO A SINGLE MAIN BREAK.

14. THE TURNING RADIUS OF ANY FIRE APPARATUS ACCESS ROAD AND/OR FIRE LANE, PUBLIC OR PRIVATE SHALL BE NOT LESS THAN 45 FEET OUTSIDE RADIUS AND 22 FEET INSIDE RADIUS.

15. A FIRE APPARATUS ROAD SHALL BE REQUIRED WHEN ANY PORTION OF AN EXTERIOR WALL OF THE FIRST STORY IS LOCATED MORE THAN 150 FEET FROM A FIRE DEPARTMENT VEHICLE ACCESS. (SEE EXCEPTIONS IN UFC 88, SECTION 10.207).

16. 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 TURNAROUND AREA. SEE ORDINANCE #3545.

CITY OF LAS VEGAS SEWER NOTES

1. ALL CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF DESIGN AND CONSTRUCTION STANDARDS FOR WASTEWATER COLLECTION SYSTEMS AND THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFFSITE IMPROVEMENTS, CLARK COUNTY AREA, NEVADA AS AMENDED. IN ALL CASES, THESE STANDARDS SHALL SUPERSEDE THE UNIFORM STANDARD SPECIFICATIONS. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO BE AWARE OF THE CONTENTS OF THE ABOVE SPECIFICATION BOOKS.

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 CONTROLLING AGENCY.

3. CHORD "S" OR "G" IN CURBS WHERE SEWER OR GAS LATERALS PASS UNDER THE CURB.

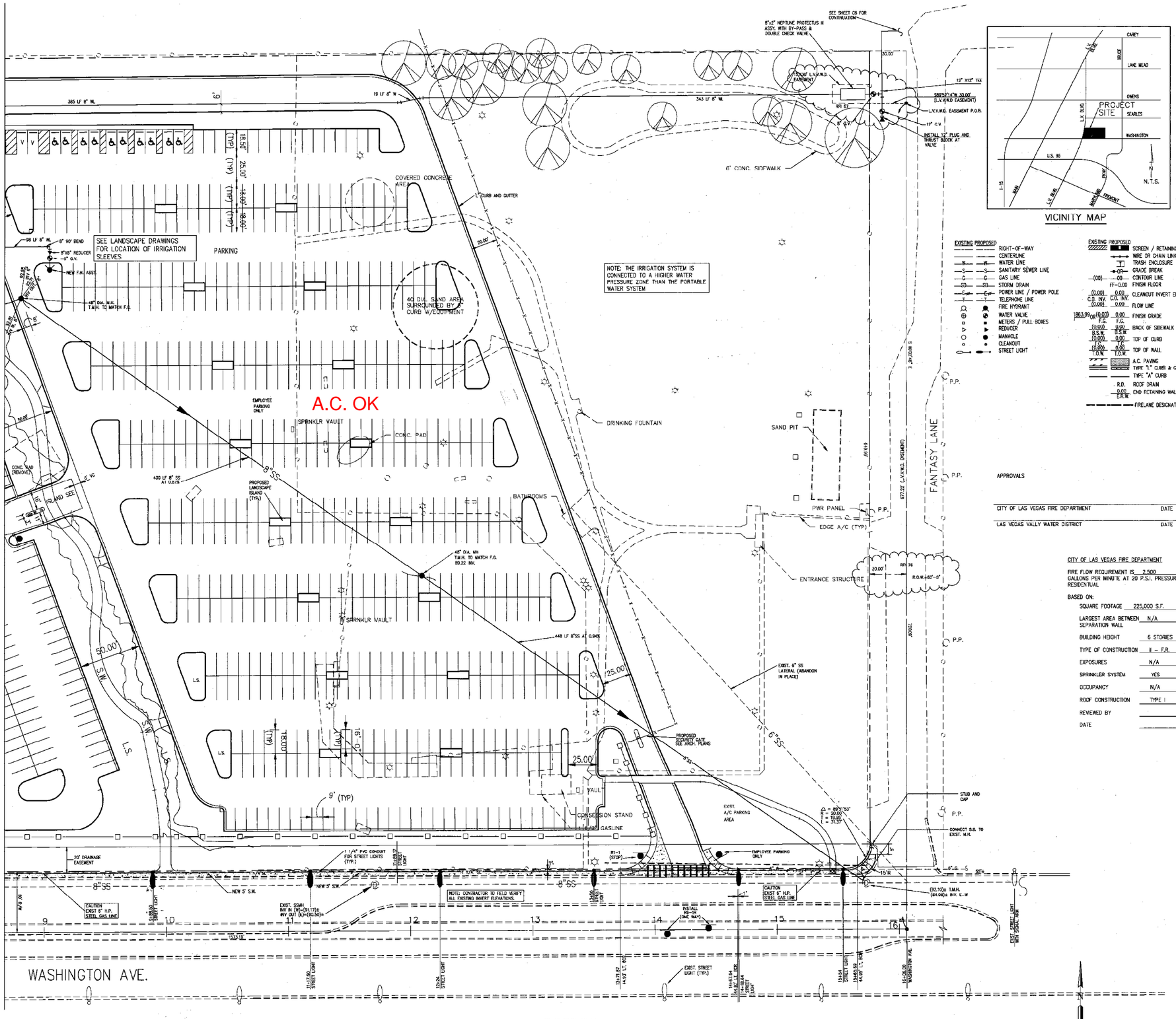
4. POLYVINYL (PVC) SEWER PIPE SHALL MEET ASTM-D3034 SDR 35 SPECIFICATIONS. INSTALLED WITH SAND BEDDING AND BACKFILL OF TYPE II GRAVEL.

5. ALL MANHOLES IN PAVED STREETS 80' R/W AND LARGER, SHALL HAVE CONCRETE COLLARS.

6. TEE SADDLES SHALL BE USED TO CONNECT SEWER LATERALS TO EXISTING MAIN LINES UP TO 12" DIA. SIZE. CONNECTIONS TO 15" OR LARGER MAINS SHALL REQUIRE SPECIAL PROCEDURES.

7. A SEWER MAIN CROSSING OVER A WATER MAIN OR LESS THAN 18" UNDER A WATER MAIN, MUST BE REINFORCED CONCRETE ENCASED FOR A DISTANCE NOT LESS THAN TEN FEET (10) TO EACH SIDE OF THE CENTERLINE OF THE WATER MAIN.

8. ALL CONTRACTORS INSTALLING SEWER MAINS THAT WILL BE UNDER THE JURISDICTION OF THE CONTROLLING AGENCY MUST BE CLASS "A" CONTRACTORS.



EXISTING	PROPOSED	
		RIGHT-OF-WAY
		CENTERLINE
W	W	WATER LINE
S	S	SANITARY SEWER LINE
G	G	GAS LINE
SD	SD	STORM DRAIN
E-P	E-P	POWER LINE / POWER POLE
T	T	TELEPHONE LINE
		FIRE HYDRANT
		WATER VALVE
		METERS / PULL BOXES
		REDUCER
		MANHOLE
		CLEANOUT
		STREET LIGHT

EXISTING	PROPOSED	
		SCREEN / RETAINING WALL
		WIRE OR CHAIN LINK FENCE
		TRASH ENCLOSURE
		GRADE BREAK
(100)	100	CONTOUR LINE
	FF=0.00	FINISH FLOOR
(0.00)	0.00	CLEANOUT INVERT ELEVATION
C.O. INV.	C.O. INV.	
(0.00)	0.00	FLOW LINE
1863.99 (N) (E)	(0.00) 0.00 F.G. F.G.	FINISH GRADE
(0.00)	0.00 B.S.W.	BACK OF SIDEWALK
B.S.W. (0.00)	B.S.W. 0.00	TOP OF CURB
T.C. (0.00)	T.C. 0.00	TOP OF WALL
T.O.W.	T.O.W.	
		A.C. PAVING
		TYPE "L" CURB & GUTTER
		TYPE "A" CURB
	R.D.	ROOF DRAIN
	0.00 E.P.E.	END RETAINING WALL
		FIRELANE DESIGNATION

APPROVALS

CITY OF LAS VEGAS FIRE DEPARTMENT — DATE

LAS VEGAS VALLY WATER DISTRICT — DATE

CITY OF LAS VEGAS FIRE DEPARTMENT

FIRE FLOW REQUIREMENT IS 2,500 GALLONS PER MINUTE AT 20 P.S.I. PRESSURE RESIDENTIAL

BASED ON:

SQUARE FOOTAGE	225,000 S.F.
LARGEST AREA BETWEEN SEPARATION WALL	N/A
BUILDING HEIGHT	6 STORIES
TYPE OF CONSTRUCTION	II - F.R.
EXPOSURES	N/A
SPRINKLER SYSTEM	YES
OCCUPANCY	N/A
ROOF CONSTRUCTION	TYPE I
REVIEWED BY	
DATE	

EXISTING CASHMANS FIELD

BENCHMARK

THE BENCHMARK FOR THIS PROJECT IS C.C.E.D. BENCHMARK NO. 7C01235SW6; BEING AN ALUMINUM PLATE AND RIVET ON THE CURB, NORTHEAST QUADRANT OWENS AND LAS VEGAS BLVD. NORTH. ELEVATION = 1897.81
ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call before you Dig— 1-800-227-2600
UNDERGROUND SERVICE ALERT (U.S.A.)

MARTIN & MARTIN ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, CONTRACTOR IS TO NOTIFY THE ARCHITECT OR ENGINEER IMMEDIATELY.

GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

63-11 T-531

LUCCHESI •GALATI• ARCHITECTS
2770 SOUTH MARYLAND PARKWAY
SUITE 510
LAS VEGAS, NEVADA
89109
(702) 733-7107

STATE OF NEVADA

STATE OFFICE BUILDING

DEPARTMENT OF GENERAL SERVICES

SPWB JOB # 91-C9

MARTIN & MARTIN
CIVIL ENGINEERS
1701 W. CHARLESTON BLVD.
SUITE 420
LAS VEGAS, NEVADA 89102
PHONE (702) 386-8000

Date: FEBRUARY 23, 1993
Project No.: 1096
Scale: 1"=30'
Drawn By: R. YOUNG / C.H.
Revisions:

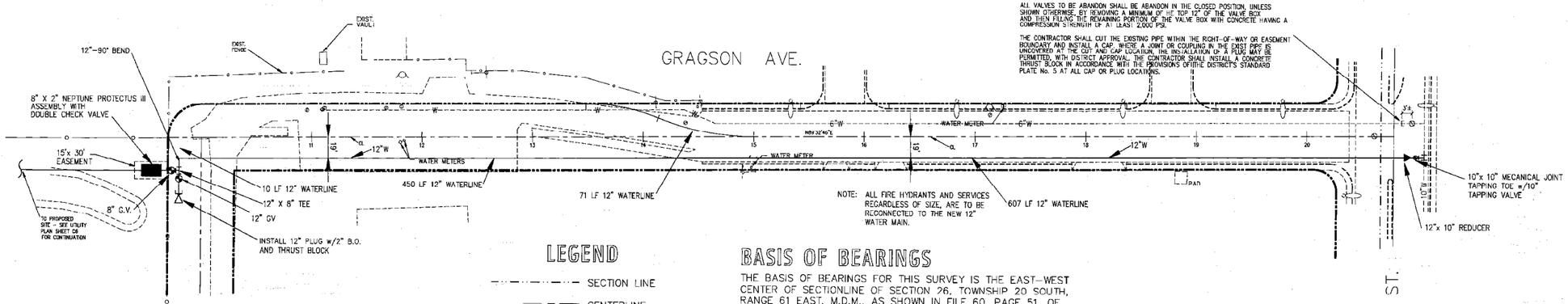
2-23-95
RECORD DRAWINGS

Sheet Title:

ON-SITE UTILITY PLAN (EAST)

Sheet Number:

C5.02



LEGEND

- SECTION LINE
- CENTERLINE
- BOUNDARY LINE
- PROPERTY LINE
- AREA LIGHT
- STREET LIGHT (EXIST.)
- FIRE HYDRANT (EXIST.)
- EXIST. FENCE

ALL SERVICE LATERALS 2" AND SMALLER MAY BE EXTENDED, PROVIDED THE FOLLOWING CRITERIA IS MET:

1. LATERAL CAN ONLY BE EXTENDED IF CONNECTING TO COPPER.
2. LATERAL MUST BE INSTALLED AT 90 DEGREES TO MAIN.
3. EXISTING SERVICE LATERAL THAT IS NOT COPPER AND IS TO BE ABANDONED FROM THE EXISTING WATER MAIN, SHALL HAVE THE CORPORATION STOP TURNED OFF AT THE MAIN, THE LATERAL CUT 6" DOWNSTREAM FROM THE CORPORATION STOP AND AGAIN CUT 6" DOWNSTREAM FROM THE FIRST CUT SO THAT A 6" PIECE OF THE EXISTING SERVICE LATERAL IS REMOVED. IF THE CORPORATION STOP IS DAMAGED BEYOND REPAIR OR PULLED FROM THE EXISTING WATER MAIN, THE MAIN SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE, IN A MANNER APPROVED BY THE LVVWD. IF THE CORPORATION STOP IS NOT WATER TIGHT, THE CONTRACTOR SHALL NOTIFY LVVWD CUSTOMER SERVICE (PHONE 870-4194) FOR FURTHER DIRECTION.

BASIS OF BEARINGS

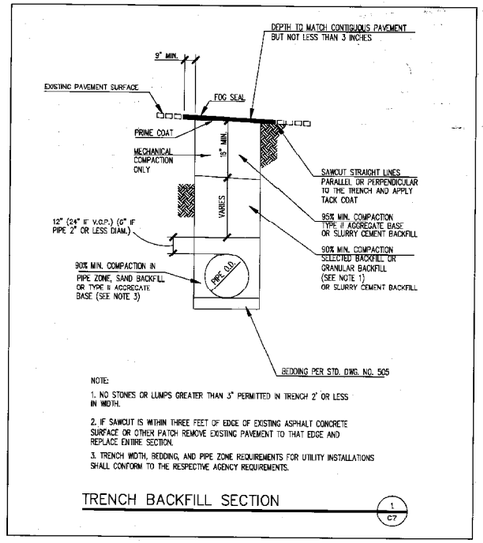
THE BASIS OF BEARINGS FOR THIS SURVEY IS THE EAST-WEST CENTER OF SECTIONLINE OF SECTION 26, TOWNSHIP 20 SOUTH, RANGE 61 EAST, M.D.M., AS SHOWN IN FILE 60, PAGE 51, OF RECORDED SURVEYS, OFFICIAL RECORDS, CLARK COUNTY, NEVADA. SAID LINE BEARS S89°49'07"W.

BENCHMARK

THE BENCHMARK FOR THIS SURVEY IS C.C.E.D. BENCHMARK # 7C0123SSW6, BEING AN ALUM. PLATE AND RIVET ON THE TOP OF CURB, NORTHEAST QUADRANT OWENS AND LAS VEGAS BLVD NORTH.

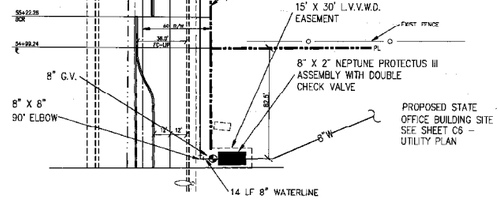
ELEVATION: 1897.81'

ROAD WAY PATCHBACK-RFI 03



NOTE:
1. NO STONES OR LUMPS GREATER THAN 3" PERMITTED IN TRENCH 2' OR LESS IN WIDTH.
2. IF SAWCUT IS WITHIN THREE FEET OF EDGE OF EXISTING ASPHALT CONCRETE SURFACE OR OTHER PATCH REMOVE EXISTING PAVEMENT TO THAT EDGE AND REPLACE ENTIRE SECTION.
3. TRENCH WIDTH, BEDDING, AND PIPE ZONE REQUIREMENTS FOR UTILITY INSTALLATIONS SHALL CONFORM TO THE RESPECTIVE AGENCY REQUIREMENTS.

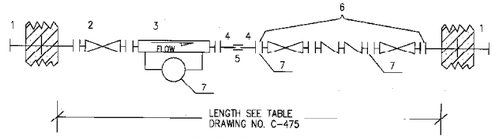
TRENCH BACKFILL SECTION (1 / C7)



INSTALLATION OF METER AND VAULT

THE METER(S) AND VAULT(S) WITH NON-TRAFFIC BEARING COVER(S) SHALL BE INSTALLED IN ACCORDANCE WITH THE ATTACTHED DETAIL AND WITH STANDARD VAULT DRAWING C-475, LATEST REVISION.

ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S), SO AS TO ALLOW THE DISTRICT DIRECT ACCESS TO THE VAULT(S) FROM THE ADJACENT RIGHT-OF-WAY.



DO NOT OFFSET WALL SPOOL

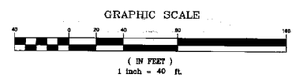
NEVADA DEPARTMENT OF TRANSPORTATION (NDOT) PERMIT REQUIRED

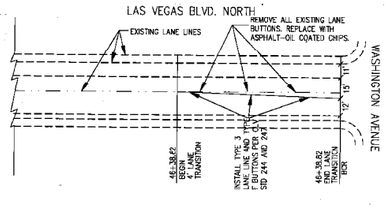
AN APPROVED NDOT OCCUPANCY PERMIT SHALL BE OBTAINED THROUGH THE DISTRICT PRIOR TO ANY CONSTRUCTION WITHIN THE NDOT RIGHT-OF-WAY.

ITEM NO.	DESCRIPTION	QTY.
1	FLANGED SCHED 40 FABRICATED STEEL EPOXY COATED AND LINED WALL SPOOL WITH THRUST RING.	2
2	FLANGED GATE VALVE.	1
3	8" x 2" NEPTUNE PROTECTUS III OR APPROVED EQUAL.	1
4	FLANGED X PLAIN END SCHED 40 FABRICATED STEEL EPOXY COATED AND LINED SPOOL.	2
5	SLEEVE TYPE COUPLING.	1
6	USC APPROVED DOUBLE CHECK VALVE ASSEMBLY COMPLETE WITH GATE VALVES.	1
7	INSTALL ADJUSTABLE PIPE SUPPORTS. GRINNEL NO. 264 OR APPROVED EQUAL.	3

NOTES: ALL PIPING, FITTINGS, AND APPURTENANCES SHALL CONFORM TO APPLICABLE DISTRICT SPECIFICATIONS.

THIS INSTALLATION IS FOR USE ONLY IN SYSTEMS HAVING ANOTHER SOURCE OF SUPPLY.





GENERAL NOTES

LAS VEGAS VALLEY WATER DISTRICT NOTES

1. NO WORK SHALL BEGIN ON THE WATER PLANS UNTIL THEY HAVE BEEN RELEASED FOR CONSTRUCTION BY THE LVVWD. FOLLOWING APPROVAL OF THE PLANS, NOTICE SHALL BE GIVEN TO THE LVVWD CUSTOMER SERVICE DEPARTMENT (870 4194) 48 HOURS PRIOR TO ACTUAL CONSTRUCTION, AND 24 HOURS PRIOR TO AN INSPECTION.

2. CALL BEFORE YOU DIG 1-800-227-2600.

3. ALL WORK SHALL CONFORM TO LVVWD LATEST STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS.

4. ALL WORK, EXCEPT AS MODIFIED HEREON OR BY NOTE 3, SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT DRAFT OR ADDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENTS, CLARK COUNTY AREA.

5. DISTRICT APPROVED SERVICE SADDLES OR TAPPED COLLARS SHALL BE REQUIRED ON ALL 3/4" AND 1" SERVICE LATERALS. SERVICE SADDLES ONLY SHALL BE PERMITTED ON 1-1/2" AND 2" SERVICE LATERALS. DOUBLE TAPPED COLLARS ARE NOT PERMITTED.

6. COPPER SERVICE LATERALS: ALL 3/4" TO 2" SERVICE LATERALS SHALL BE OF COPPER TUBING IN ACCORDANCE WITH THE DISTRICT'S SPECIFICATIONS AND STANDARD PLATES.

7. THE MAXIMUM ALLOWABLE JOINT DEFLECTION FOR ACP AND DUCTILE IRON PIPE SHALL BE AS FOLLOWS:

PIPE SIZES	ACP	DUCTILE IRON SLIP JOINT	DUCTILE IRON MECHANICAL JOINT
6 INCH	2.5 DEGREES	2.5 DEGREES	3.5 DEGREES
8 - 12 INCH	2.5 DEGREES	2.5 DEGREES	2.5 DEGREES
14 - 16 INCH	2 DEGREES	1.5 DEGREES	1.5 DEGREES
18 - 24 INCH	N/A	1.5 DEGREES	1.5 DEGREES

ON PVC PIPE, THE MAXIMUM OFFSET FOR A 20' LENGTH OF FACTORY BELLED PIPE SHALL BE 16 INCHES FOR 6" PIPE, 12 INCHES FOR 8" PIPE, AND 9 INCHES FOR 10" AND 12" PIPE.

IF THESE OFFSETS CONFLICT WITH THE PIPE MANUFACTURERS RECOMMENDATION, THE MORE STRINGENT REQUIREMENT SHALL APPLY.

8. ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.

9. ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS AND VALLEY GUTTERS.

10. DETECTOR TAPE SHALL BE REQUIRED IN ACCORDANCE WITH STANDARD PLATE NO. 27 WHERE INDICATED, AND AS FOLLOWS:

A) OVER ALL MAINS NOT INSTALLED 6 FEET FROM BACK OF CURB
B) OVER ALL SERVICE LATERALS NOT INSTALLED AT RIGHT ANGLES TO MAIN.

11. ALL WATER MAINS SHALL BE PRESSURE TESTED AT 200 PSI FOR A CONTINUOUS TWO HOUR PERIOD, IN ACCORDANCE WITH DISTRICT STANDARDS.

12. ALL WATER MAINS SHALL BE DISINFECTED, FLUSHED, AND AN ACCEPTABLE HEALTH SAMPLE OBTAINED, PRIOR TO THE CONNECTION OF THE WATER MAIN(S) AND/OR LATERAL(S) TO THE DISTRICT'S SYSTEM.

13. CONTRACTOR TO OBTAIN ALL METERS 2" AND SMALLER FROM LVVWD CENTRAL STORES. TELEPHONE 258-3152 FORTY-EIGHT (48) HOURS PRIOR TO PICKUP.

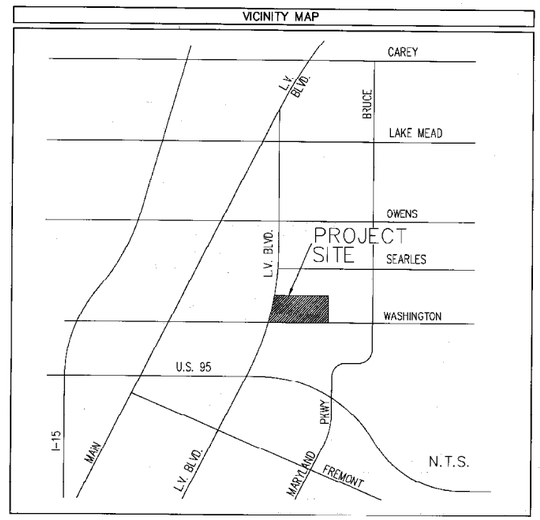
APPROVALS

FIRE FLOW = 2,500 GPM

C.C. FIRE DEPARTMENT — DATE

LAS VEGAS VALLY WATER DISTRICT — DATE

VICINITY MAP



63-9 / T-531

LUCCHESI •GALATI• ARCHITECTS
2770 SOUTH MARYLAND PARKWAY SUITE 510
LAS VEGAS, NEVADA 89109
(702) 733-7107

STATE OF NEVADA

STATE OFFICE BUILDING

DEPARTMENT OF GENERAL SERVICES

SPWB JOB # 91-C9

MARTIN & MARTIN
MARTIN & MARTIN CIVIL ENGINEERS
1701 W. CHARLESTON BLVD. SUITE 420
LAS VEGAS, NEVADA 89102
PHONE (702) 386-8005

Date: FEBRUARY 23, 1993
Project No.: 1096
Scale: AS SHOWN
Drawn By: R. YOUNG / C.H.
Revisions:

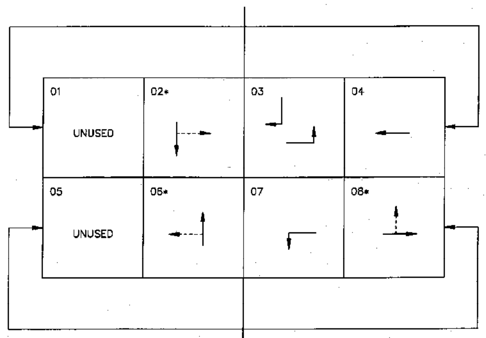
2-23-95
RECORD DRAWINGS

Sheet Title:

OFF-SITE WATER PLAN

Sheet Number:

C6.01



PROPOSED PHASE DIAGRAM

PROPOSED POLE SCHEDULE												
POLE							SIGNALS (VEH)		SIGNALS (PED)		PED. PUSH BUTTON	
NO.	STATION	TYPE	SIGNAL ARM QUAD.	SIGNAL ARM LENGTH	LUM. ARM QUAD.	LUM. ARM LENGTH	QUADRANT	TYPE	QUADRANT	MOUNTING	QUADRANT	ARROW
E	6+75.76	XX	3	45'	3	15'	MA / 2	M-2(3) / B-1T	1	W-0T	3	RT
F	7+72.31	XX	4	40'	4	15'	MA / 3	M-2(2) / B1-T	2	W-3T	4 / 3	RT / LT
C	7+65.63	XX	1	34'	1	15'	MA / 4	M-2(2),M-5 / B-1T	3	W-3T	1 / 4	RT / LT
D	7+03.63	XX	2	20'	2	15'	MA / 1	(2) M-2 / B-1T	4	W-0T	1	LT

EXISTING POLE SCHEDULE												
POLE							SIGNALS (VEH)		SIGNALS (PED)		PED. PUSH BUTTON	
NO.	STATION	TYPE	SIGNAL ARM QUAD.	SIGNAL ARM LENGTH	LUM. ARM QUAD.	LUM. ARM LENGTH	QUADRANT	TYPE	QUADRANT	MOUNTING	QUADRANT	ARROW
A		XX	3	45'	3	15'	MA / 1	M-2(2),M-3(2) / B-3T				
B		XX	4	20'	4	15'	MA / 4	M-2(2) / B-2T	1	W-0T	4	RT
C		XX	1	25'	1	15'	MA / 2	M-2(2) / B-1T	3	W-3T	1 / 4	RT / LT
D		1-A					TOP	A-2T	2	W-0T	1	LT

CONSTRUCTION NOTES

1. EXISTING SYSTEM IS TO REMAIN OPERABLE DURING INSTALLATION OF SIGNAL MODIFICATION.

2. ALL PROPOSED PULL BOXES TO BE #5 PULL BOX (STD. DWG. #404.120).

3. ABANDON EXISTING CONDUIT RUNS #10, #12, #14, AFTER INSTALLATION OF MODIFIED SIGNAL IS COMPLETE, REPLACE EXISTING RUN #3 WITH PROPOSED RUN #22.

4. REMOVE POLES B AND A AND PULL BOXES 6,7,11 AFTER INSTALLATION OF PROPOSED SYSTEM IS COMPLETE.

6. ALL SIGNAL FOUNDATION TO BE "H" TYPE (STD. DWG. #404.209).

7. REPLACE POLE D FROM TYPE 1-A TO TYPE XX.

8. OPTICOM DETECTORS TO BE PLACED ON PHASE 8 AND PHASE 4.

9. REMOVE AND REPLACE MAST ARM AND RELOCATE SIGNAL HEADS FOR POLE C AS INDICATED.

10. ALL SIGNAL CONTROL SOFTWARE SHALL BE PER CITY OF LAS VEGAS SPECIFICATIONS.

11. REPLACE EXISTING CONDUIT RUNS #12 AND #13 WITH PROPOSED RUN #21

12. REPLACE EXISTING CONDUIT RUN #10 WITH PROPOSED RUN #20.

13. REMOVE AND REPLACE EAST LEG LEFT TURN LANE DETECTOR LOOPS (STD. DWG. NO. 404.825)

14. REPLACE EXISTING CONTROL CABINET WITH TYPE "R" CONTROL CABINET (STD. DWG. NO. 404.304)

15. EACH EXTENSION LOOP SHALL HAVE A HOMERUN TO THE CONTROLLER.

LEGEND

(1) MULTIPLE LOOP CONNECTOR (STD. DWG. NO. 404.826)
(2) INDUCTION LOOP (STD. DWG. NO. 404.820)
(3) TYPE "R" CONTROL CABINET (STD. DWG. NO. 404.304)
(4) PADMOUNT
(5) INSTALL R10-12
(6-13) #5 PULLBOX (STD. DWG. NO. 404.120)
(14) INSTALL R3-5L
(15) INSTALL R3-7
(A-F) SIGNAL POLE

EXISTING SIGN SCHEDULE	
POLE	INTERNALLY ILLUMINATED STREET NAME SIGN (DOUBLE FACED)
A	CASHMAN FIELD
B	WASHINGTON AVENUE
C	CASHMAN FIELD
D	N.A.

PROPOSED SIGN AND BLOCK NUMBER SCHEDULE		
POLE	INTERNALLY ILLUMINATED STREET NAME SIGN (DOUBLE FACED)	BLOCK #
E	STATE OFFICE BUILDING	NA
F	WASHINGTON	E 1200
C	CASHMAN FIELD	NA
D	WASHINGTON	E 1200

NOTE: PER DRAWING 404.420 & 404.417, LETTERS SHALL BE UPPER CASE, SERIES E. SIGN SHALL BE DIAMOND GRADE TRANSLUCENT REFLECTIVE SHEETING. SHALL BE DOUBLE FACED.

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL SUBSTRUCTURES, WHETHER SHOWN OR NOT, AND NOTIFY ALL UTILITY COMPANIES TO VERIFY IN THE FIELD THE LOCATIONS OF THEIR INSTALLATIONS 48 HOURS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL PROTECT ALL SUBSTRUCTURES FROM DAMAGE. THE EXPENSE OF REPAIR OR REPLACEMENT OF SAID STRUCTURES SHALL BE BORNE BY THE CONTRACTOR.

2. ALL PULLBOXES, FOUNDATIONS, CABINETS, POLES AND POSTS, DRILLING DETAILS AND DETECTORS, SIGNAL UNITS AND HARDWARE, EQUIPMENT ORIENTATIONS, AND OTHER MISCELLANEOUS EQUIPMENT AND ITEMS OF WORK SHALL CONFORM TO THE R.T.C. TRAFFIC SIGNAL STANDARD DRAWINGS, LATEST REVISION.

3. ALL SIGNAL AND LUMININAIRE POLES SHALL BE TYPE XX

4. SERVICE SHALL HAVE 1-60 AMP SINGLE POLE BREAKER FOR SIGNAL, AND 2-40 AMP SINGLE POLE BREAKERS FOR STREET LIGHTS. SERVICE SHALL BE A 125 AMP PADMOUNT.

5. ALL LUMINAIRES SHALL BE 400 WATT HIGH PRESSURE SODIUM CUTOFF (G.E.M400A) WITH MC-111 DISTRIBUTION. EACH LUMINAIRE SHALL HAVE AN INDIVIDUAL 1000 WATT P.E. CONTROL AND BUILT IN BALLAST (120 V.A.C.) EACH STREET LIGHT LUMINAIRE SHALL BE FUSED IN THE CABINET USING INLINE FUSE HOLDERS. THE NORTHEAST AND SOUTHWEST LUMINAIRES SHALL BE WIRED TO ONE 40 AMP SINGLE POLE BREAKER, AND THE SOUTHEAST AND NORTHWEST LUMINAIRES SHALL BE WIRED TO THE SECOND 40 AMP SINGLE POLE BREAKER.

6. CONTROLLER AND CABINET SHALL BE AS SPECIFIED ON THE TRAFFIC SIGNAL PLAN. CABINET SHALL BE PAINTED WHITE INSIDE AND OUT.

7. THOSE POLES, AS SPECIFIED ON THE TRAFFIC SIGNAL PLANS, SHALL HAVE INTERNALLY ILLUMINATED STREET NAME SIGNS INSTALLED. THE SIGNS SHALL BE WIRED TO THE LUMINAIRE PHOTO CELL FOR CONTROL.

8. ALL SIGNAL LENSES SHALL BE 12" GLASS.

9. EACH LOOP DETECTOR LEAD-IN REPRESENTS A SEPARATE AMPLIFIER UNIT REQUIRED. SEE INDIVIDUAL SIGNAL PLANS FOR NUMBER REQUIRED. EACH LOOP SHALL BE 6'X6'. DETECTOR LOOPS SHALL BE PLACED IN THE CENTER OF THEIR APPROPIATE LANE(S).

10. THE ROUTING AND TERMINATION OF CONDUITS, DETECTOR LOOPS AND PLACING OF POLES AND CABINETS SHALL BE AS INDICATED ON THE PLANS. ALL CHANGES SHALL BE APPROVED BY THE TRAFFIC ENGINEER.

11. ALL NECESSARY AMPLIFIER UNITS, MODULES, LIGHT CONTROL UNITS, SWITCHES, FLASHERS, SIGNAL EQUIPMENT, ETC. SHALL BE WIRED IN THE CABINET TO ACTUATE THE PHASING OPERATION AS SHOWN ON THE INDIVIDUAL SIGNAL PLANS.

12. ALL CONDUCTORS AND THEIR TERMINATIONS SHALL BE CLEARLY MARKED.

13. UNLESS SHOWN OTHERWISE, NO. 5 PULLBOXES SHALL BE USED AT LOCATIONS WHERE CONDUIT RUNS CONTAIN TRAFFIC SIGNAL CONDUCTORS. NO. 3-1/2 PULLBOXES MAY BE USED AT OTHER LOCATIONS.

14. ALL EXISTING LIGHT POLES AS SHOWN ON PLANS, SHALL BE REMOVED AND ALONG WITH ANY MATERIALS SALVAGED FROM EXISTING LIGHTING SYSTEMS SHALL BE PROTECTED AND DELIVERED TO ELECTRICAL SERVICES AT MOJAVE AND BONANZA DURING RECEIVING HOURS (7AM-2PM). EXISTING LIGHTING CIRCUIT SHALL REMAIN INTACT. (CALL AHEAD (702) 229-6448.)

15. CHECK CONDUIT AND CABLE SCHEDULE FOR CONDUIT, CABLE AND WIRE SIZE.

16. LINE SIDE OF METER TO BE WIRED WITH THREE #2A.W.G. LOAD SIDE SHALL BE WIRED WITH FOUR #4 A.W.G. (3 BLACK, 1 WHITE) AND ONE #8A.W.G. (GREEN).

17. SIGNAL CABLE SHALL BE A 15 AND 25 CONDUCTOR #14 A.W.G. CABLE I.M.S.A. SPEC. 20-1.

18. LOOP CABLE SHALL BE ONE TWISTED PAIR OF #12 A.W.G. CABLE I.M.S.A. SPEC 19-2.

19. LOOP DETECTORS TO BE LOCATED BY C.L.V. IN THE FIELD.

20. LOOP LEAD-IN SHALL ONLY BE SPLICED IN PULL BOX ADJACENT TO ROADWAY LOOP.

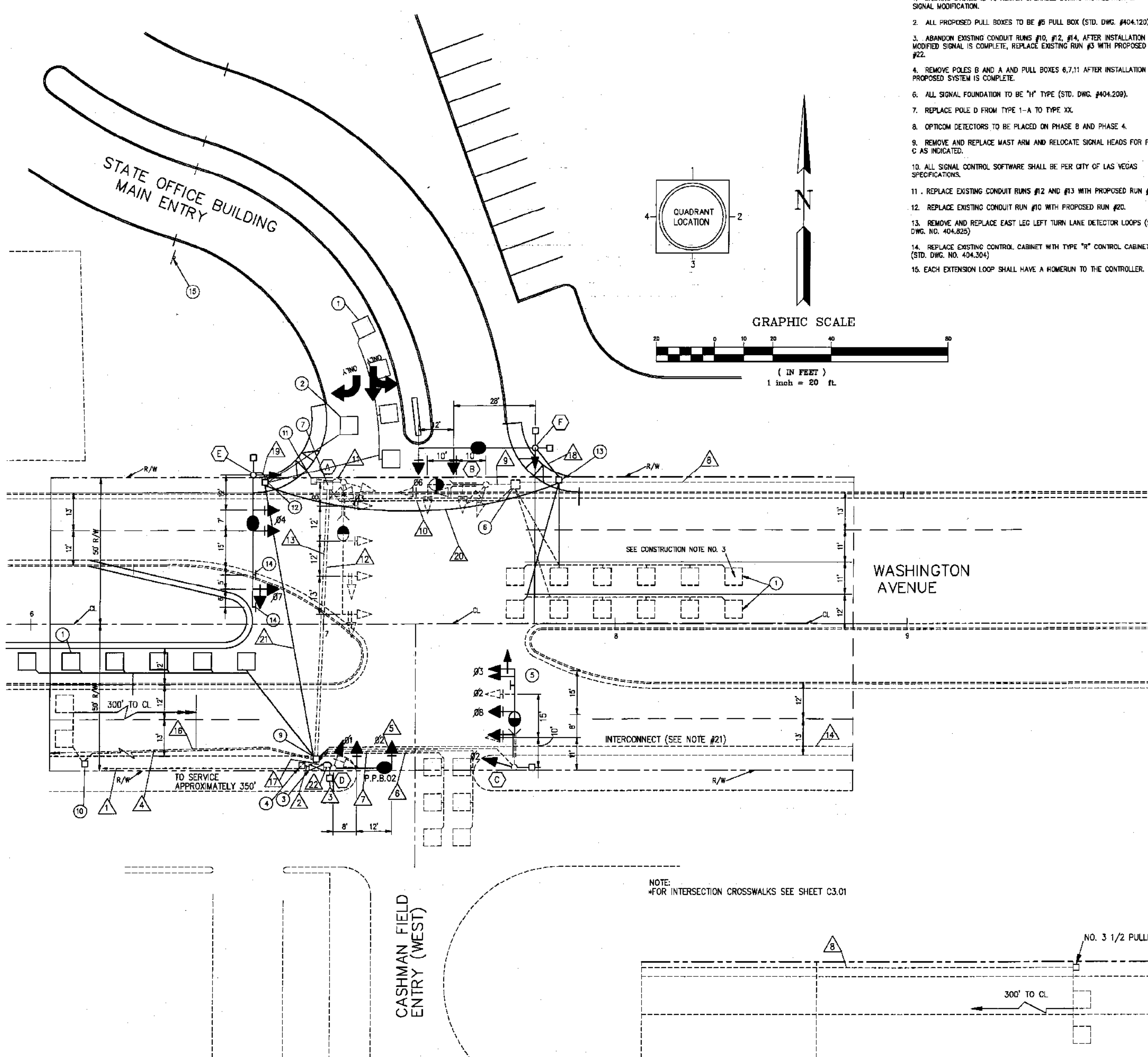
21. ALL PEDESTRIAN PUSH BUTTON SIGNS SHALL BE 9"X12" WITH FULL MOUNTING BRACKET.

22. NEW INTERCONNECT SHALL BE 2" CONDUIT WITH NUMBER 5 PULL BOXES SPACED APPROXIMATELY 500' APART. CABLE SHALL BE 12 PAIR OF #22 A.W.G. SHIELD REA SPECIFICATION P.E. 39.

23. POWER FOR SIGNAL CONTROLLER AND SIGNAL LAMP OPERATION IS PRESENTLY AVAILABLE AT THE SIGNAL LOCATION. THE CONTRACTOR SHALL CONTACT THE NEVADA POWER COMPANY FOR THE EXACT LOCATION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE POWER IN COOPERATION WITH THE NEVADA POWER COMPANY.

24. TRAFFIC SIGNAL AND CABLE WIRING SHALL BE INSTALLED TERMINAL TO TERMINAL. NO SPLICING ALLOWED. INTERCONNECT CABLE SHALL BE INSTALLED CABINET TO CABINET. ABOVE GROUND SPLICING WILL BE ALLOWED IN SPLICE CABINETS. (TESCO #2200NR TYPE 66, TERMINAL BLOCK FOR 22 AVERAGE GAUGE WIRE - 25 PAIR, OR EQUIVALENT).

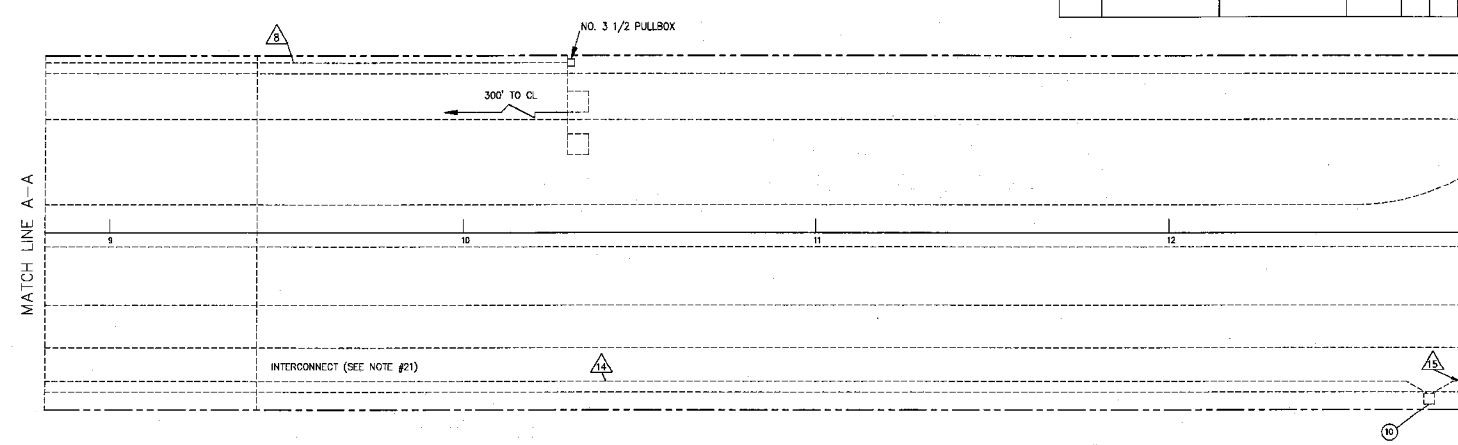
25. ALL POLES AND CONTROLLERS MUST BE PLACED TO ALLOW A CLEAR PASSAGE OF AT LEAST 36" ON THE SIDEWALK.



NOTE:
•FOR INTERSECTION CROSSWALKS SEE SHEET C3.01

PROPOSED CONDUIT AND CABLE SCHEDULE											
RUN NO.	FROM	TO	CONDUIT SIZE	SIGNAL CABLE 15 CON 14 AWG	SIGNAL CABLE 25 CON 14 AWG	DET LEADS	DET LEADS LOOPS 2 CON 14 AWG	LIGHTING CIR. LUM 10 AWG	LIGHTING CIR. FLASH 12 AWG	INTERCONNECT	SERVICE
18	POLE "F"	PULLBOX	1-3"		X			X			
19	POLE "E"	PULLBOX	1-3"		X			X			
20	PULLBOX	PULLBOX	1-3"		X		XXXX	X			
21	PULLBOX	PULLBOX	2-3"		XX		XXXX	XX			
22	POLE G	CONTROLLER	1-3"		X			X			
17	PULLBOX	CONTROLLER	1-3",3-2" 3-1"		XXX		XXXX XXXX XX	XXX		X	

EXISTING CONDUIT AND CABLE SCHEDULE											
RUN NO.	FROM	TO	CONDUIT SIZE	SIGNAL CABLE 10 CON 14 AWG	SIGNAL CABLE 20 CON 14 AWG	DET LEADS	DET LEADS LOOPS 2 CON 14 AWG	LIGHTING CIR. LUM 10 AWG	LIGHTING CIR. FLASH 12 AWG	INTERCONNECT 6 PAIR #14 AWG SHIELDED CABLE	SERVICE
1	SERVICE	PADMOUNT	2"								X
2	PADMOUNT	CONTROLLER	2"								X
3	CONTROLLER	POLE "D"	2"	X							
4	PULLBOX	PULLBOX	1"				X				
5	PULLBOX	POLE "C"	2"		X			X			
6	DETECTOR LOOPS	PULLBOX	1"				X				
7	DETECTOR LOOPS	PULLBOX	1"				X				
8	PULLBOX	PULLBOX	1"				X				
9	POLE "B"	PULLBOX	2"		X			X			
10	PULLBOX	PULLBOX	2"		X		XXX	X			
11	POLE "A"	PULLBOX	2"		X			X			
12	PULLBOX	PULLBOX	2"		X			X			
13	PULLBOX	PULLBOX	2"		X		XXX	X			
14	PULLBOX	PULLBOX	3"							X	
15	PULLBOX	PULLBOX	3"	SAME AS RUN #17 DRW 208-356 SHT.1							
16	PULLBOX	PULLBOX	3"							X	
17	PULLBOX	CONTROLLER	1-3", 3-2" 1-1"		XXX		XXXX	XXX		X X	



NOTE: THIS SHEET IS INCLUDED FOR INFORMATION ONLY

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DEPARTMENT OF GENERAL SERVICES

SPWB JOB # 91-C9

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Date: FEBRUARY 23, 1993
Project No.: 1096
Scale: 1"=20'
Drawn By: R. YOUNG
Revisions:

2-23-95
RECORD DRAWINGS

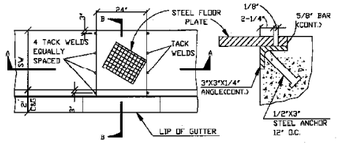
Sheet Title:

SIGNAL MODIFICATION PLAN (BY OTHERS) N.I.C.

Sheet Number:

C7.01

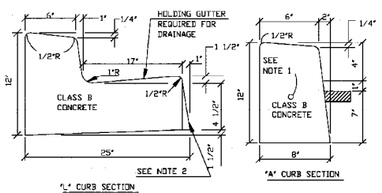
63-3 T-531



NOTES:

1. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED AND ALL GALVANIZING DAMAGED BY FABRICATION OR INSTALLATION SHALL RECEIVE TWO COATS OF ALUMINUM PAINT (GALVONOX OR EQUAL)

SIDEWALK DRAIN DETAIL (1 / C8.01)
STD. DWG. NO. 236

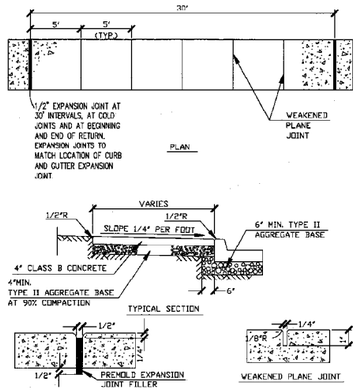


NOTES:

1. CONTINUOUS NO. 4 BAR REQUIRED IN NOSE OF MEDIAN ONLY.
2. 1" BATTER ON GUTTER FACE.

1/2" EXPANSION JOINT AT ALL COLD JOINTS, AT BEGINNING AND END OF, RETURN AND AT 300' MAX. INTERVALS FOR FORMED CURB. FOR JOINT DETAIL SEE DRAWING NO. 234

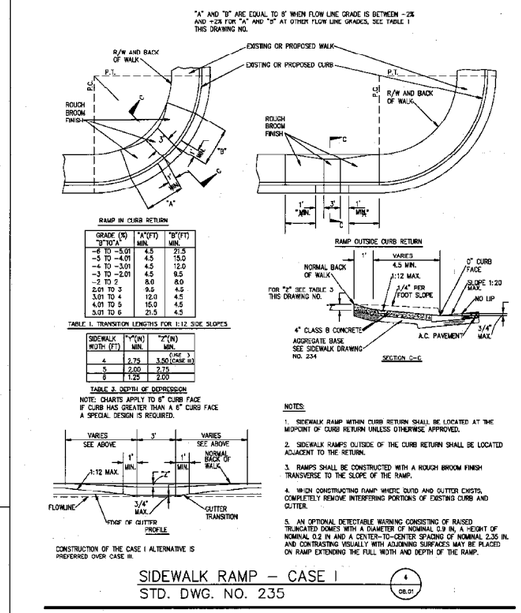
'L' & 'A' CURB DETAILS (2 / C8.01)
STD. DWG. 216



NOTE:

1. ON ALL CURB RETURNS A 1/2" EXPANSION JOINT SHALL BE CONSTRUCTED BETWEEN THE BACK OF CURB AND THE SIDEWALK FOR THE ENTIRE LENGTH OF THE RETURN.

SIDEWALK (3 / C8.01)
STD. DWG. NO. 234



GRADE (%) "B"TO"A"	"A"(FT) MIN.	"B"(FT) MIN.
-5 TO -3.01	4.5	21.5
-4 TO -4.01	4.5	15.0
-4 TO -3.01	4.5	12.0
-3 TO -2.01	4.5	9.5
-2 TO 2	5.0	8.0
2.01 TO 3	9.0	4.5
3.01 TO 4	12.0	4.5
4.01 TO 5	16.0	4.5
5.01 TO 6	21.5	4.5

TABLE 1. TRANSITION LENGTHS FOR 1:12 SIDE SLOPES

SIDEWALK WIDTH (FT)	"X"(IN) MIN.	"Y"(IN) MIN.
4	2.75	3.50 (USE 3)
5	2.00	2.75
8	1.25	2.00

TABLE 2. DEPTH OF DEPRESSION

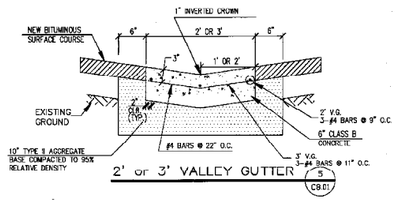
NOTE: CHARTS APPLY TO 6" CURB FACE IF CURB HAS GREATER THAN A 6" CURB FACE A SPECIAL DESIGN IS REQUIRED.

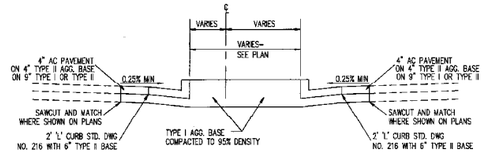
CONSTRUCTION OF THE CASE I ALTERNATIVE IS PREFERRED OVER CASE III.

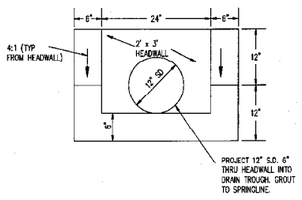
NOTES:

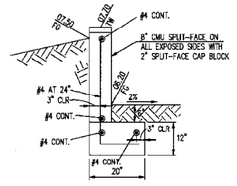
1. SIDEWALK RAMP WITHIN CURB RETURN SHALL BE LOCATED AT THE MIDPOINT OF CURB RETURN UNLESS OTHERWISE APPROVED.
2. SIDEWALK RAMPS OUTSIDE OF THE CURB RETURN SHALL BE LOCATED ADJACENT TO THE RETURN.
3. RAMPS SHALL BE CONSTRUCTED WITH A ROUGH BROOM FINISH TRANSVERSE TO THE SLOPE OF THE RAMP.
4. WHEN CONSTRUCTING RAMP WHERE CURB AND GUTTER EXISTS, COMPLETELY REMOVE INTERFERING PORTIONS OF EXISTING CURB AND GUTTER.
5. AN OPTIONAL DETECTABLE WARNING CONSISTING OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 IN, A HEIGHT OF NOMINAL 0.2 IN AND A CENTER-TO-CENTER SPACING OF NOMINAL 2.35 IN. AND CONTRASTING VISUALLY WITH ADJOINING SURFACES MAY BE PLACED ON RAMP EXTENDING THE FULL WIDTH AND DEPTH OF THE RAMP.

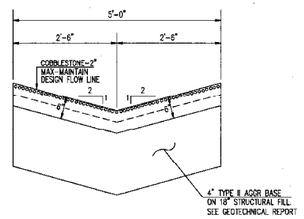
SIDEWALK RAMP – CASE I (4 / C8.01)
STD. DWG. NO. 235

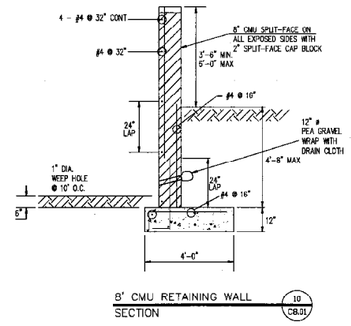


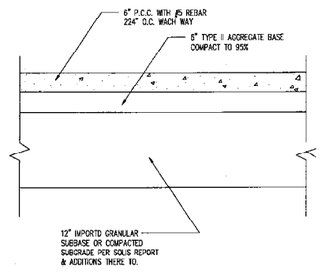












1. MATERIALS AND INSTALLATION OF ITEMS DETAILED ON THIS SHEET SHALL COMPLY WITH "UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS' CONSTRUCTION OFF-SITE IMPROVEMENTS CLARK COUNTY, NEVADA" AND THE DESIGN LEVEL GEOTECHNICAL REPORT BY CONVERSE CONSULTANTS SOUTHWEST, INC., DATED MAY 26, 1992 AND ALL ADDENDA AND CORRESPONDENCE RELATED THERETO.

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Date: FEBRUARY 2-23-93
Project No.: 1096
Scale:
Drawn By: R. YOUNG
Revisions:

2-23-95
RECORD DRAWINGS

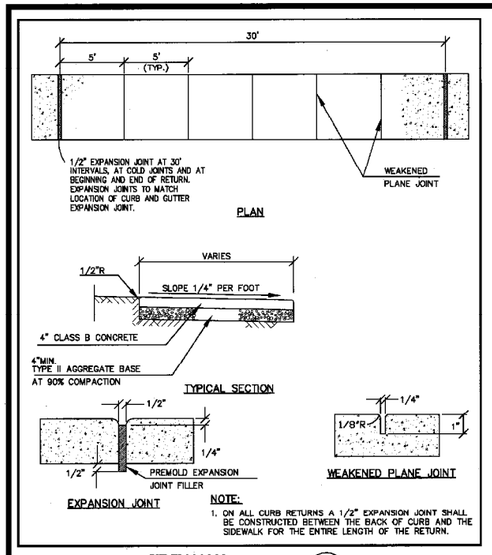
Sheet Title:

SECTION AND DETAILS

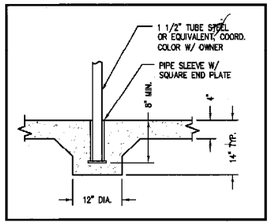
Sheet Number:

C8.01

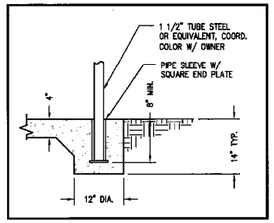
63-B T-531



SIDEWALK
UNIFORM STD. DWG. NO. 234 – NTS (9)



LONGITUDINAL FOOTING DETAIL (7A)
NTS

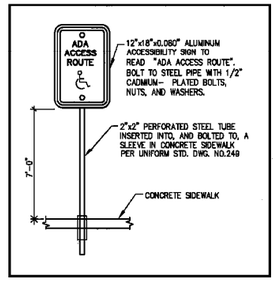


FOOTING DETAIL (7B)
NTS

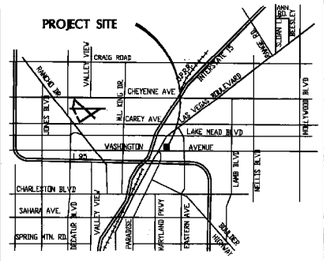
LEGEND

EXISTING	PROPOSED	
		RIGHT-OF-WAY
		CENTERLINE
		PROPERTY LINE
W	W	WATER LINE
SS	SS	SANITARY SEWER LINE
G	G	GAS LINE
SD	SD	STORM DRAIN
P	P	POWER LINE / POWER POLE
T	T	TELEPHONE LINE
		FIRE HYDRANT
		WATER VALVE
		METERS / PULL BOXES
		REDUCER
		MANHOLE
CO	CO	CLEANOUT
(100)	100	CONTOUR
		A.C. PAVING
		TYPE "L" CURB & GUTTER
		TYPE "A" CURB
		CONCRETE
		RETAINING WALL
		SAWCUT LINE
		FENCE
		SCARP
		GRADE BREAK
	FF=5.00	FINISH FLOOR
	0.00 C.O. INV.	CLEANOUT INVERT ELEVATION
	0.00%	FLOW DIRECTION
	0.00 FG	FINISH GRADE
	0.00 TC	TOP OF CURB
	0.00 TOW	TOP OF WALL
		SIGN

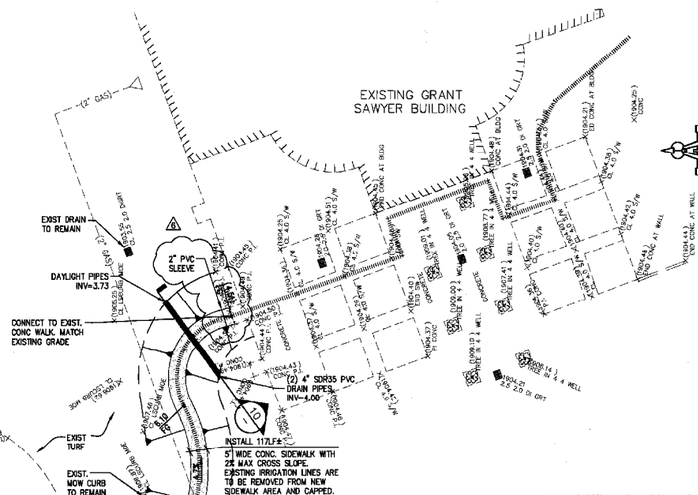
STREET LIGHTS
100 W H.P.S.
150 W H.P.S.
200 W H.P.S.
250 W H.P.S.

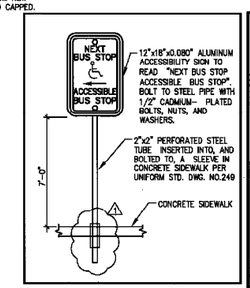


ACCESS ROUTE SIGN (4)
SCALE: 1"=10'

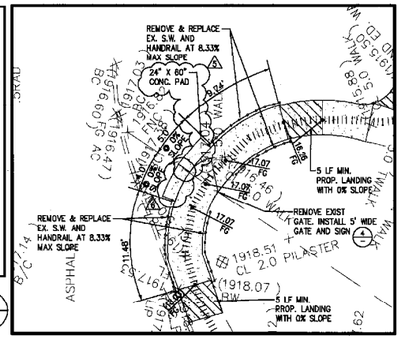


GRAPHIC SCALE
20 0 10 20 40 80
(IN FEET)
1 inch = 20 ft.

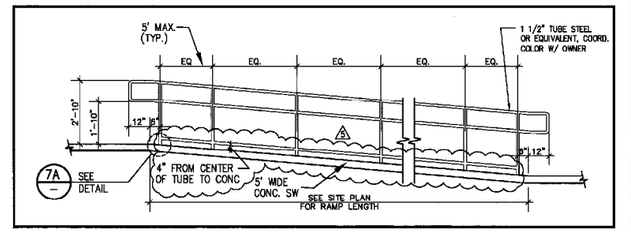




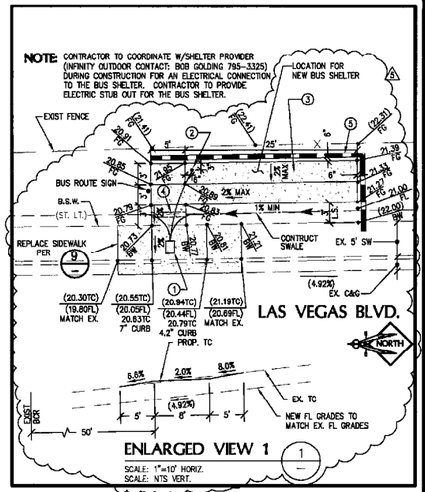
BUS STOP SIGN (3)
SCALE: 1"=10'



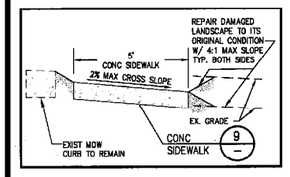
ENLARGED VIEW 2 (5)
SCALE: 1"=10'



HANDRAIL DETAIL (6)
NTS



CONSTRUCTION NOTES:
1. INSTALL NO. 3 1/2 PB & INTERCEPT ST. LT. CONDUIT WITH GROUND ROD. INSTALL 1" CONDUIT FOR BUS SHELTER.
2. LOCATION FOR ELEC STUB OUT 1" ABOVE SLAB.
3. INSTALL BUS STOP LOADING PAD AND SHELTER PAD PER UNIFORM STD. DWG. 234.1 & 234.3.
4. INSTALL (2) 7 LF± 3" PVC FOR DRAINAGE INV(IN)=20.22 INV(OUT)=20.17 REF. SIMILAR DETAIL (10)
5. INSTALL KEYSTONE WALL @ 6" MIN CLEARANCE FROM BUS PAD.



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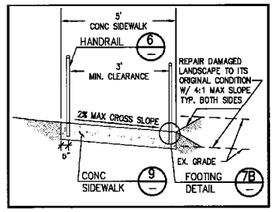
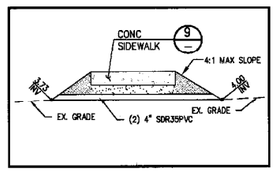
NTS



SECTION (8)
NTS



SECTION (10)
NTS

RECORD DRAWING

This record drawing, dated June 25, 2002, has been prepared, in part, based upon information furnished by others. While this information is believed to be reliable, Lochsa Engineering assumes no responsibility for the accuracy of this record drawing or for any errors or omissions which may have been incorporated into it as a result. Those relying on this record document are advised to obtain independent verification of its accuracy before applying it for any purpose.

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY. Call before you Dig– 1-800-227-2600 (NEVADA811 SERVICE ALERT (USA))

AVOID OVERHEAD POWER LINE CONTACT Call before you OVERHEAD 1-702-593-6111 (NEVADA POWER ENVIRONMENT AND SAFETY BUSINESS DEPARTMENT)

LOCHSA ENGINEERING ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXIST IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT, OWNER'S REPRESENTATIVE OR ENGINEER IMMEDIATELY.

NOTE:
1. ALL DIMENSIONS ARE MEASURED ALONG CENTERLINE OF SIDEWALK UNLESS OTHERWISE SPECIFIED.
2. CONTRACTOR TO SUBMIT BARRICADE PLAN TO NDOT PRIOR TO CONSTRUCTION. REFERENCE NDOT PERMIT # 391-7-21-95

REV	DATE	BY	REVISION
0	10/12/01	M.E.	ADDENDUM #2
1	10/17/01	M.E.	ADDENDUM #3
2	11/2/01	M.E.	REVISION PER OWNER
3	12/20/01	M.E.	RFI #003
4	1/10/02	M.E.	RFI #004
5	9/14/02	M.E.	AS-BUILT

DEVELOPER
STATE OF NEVADA PUBLIC WORKS BOARD
LAS VEGAS, NEVADA

LOCHSA ENGINEERING
5828 SPRING MTN. RD. SUITE 308
LAS VEGAS, NV. 89146
(702) 365-3312 FAX (702) 365-9317

SHEET: SITE PLAN

TITLE: GRANT SAWYER ACCESSIBLE ROUTE UPGRADE SPWB PROJECT No. 91-C9

DRAWN BY:	DESIGNED BY:	CHECKED BY:	PROJECT NO:
C.M.H.	M.M.E.	M.L.H.	6606

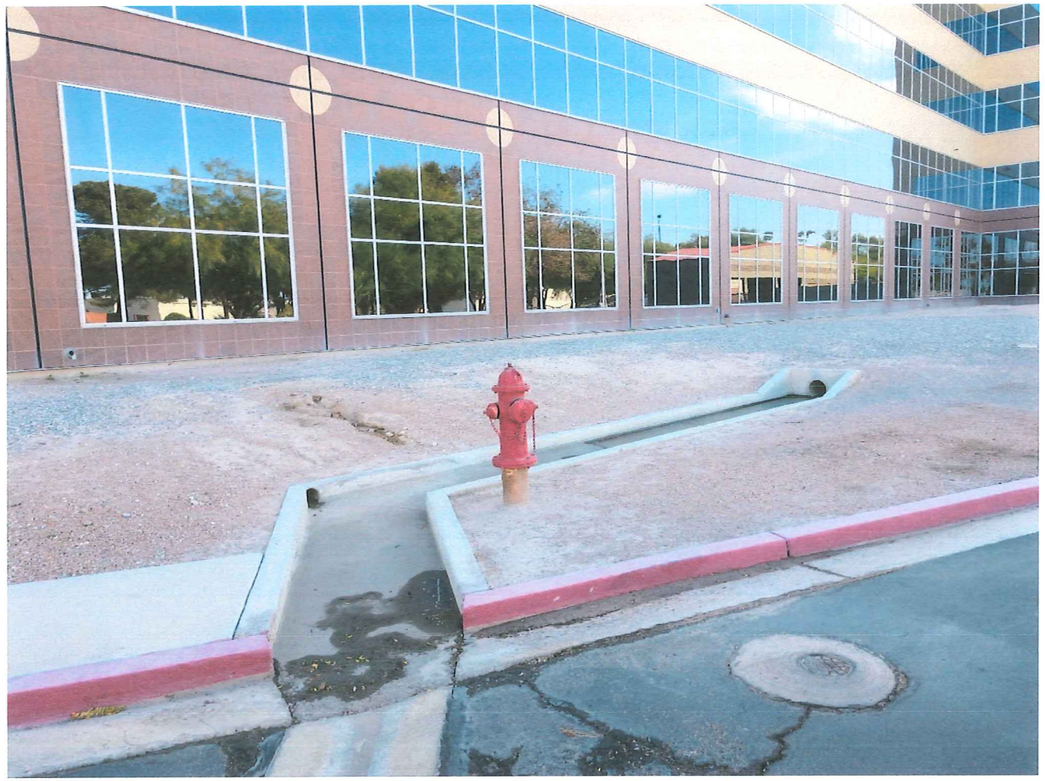
09-20-01 | 09-20-01 | 09-20-01 | SCALE: 1"=20'

SEAL
PROFESSIONAL ENGINEER STATE OF NEVADA MARK L HEDGE No 8445
6-25-02

SHEET C1
1 OF 1 SHEETS

64-1/T-755

PHOTOGRAPHS



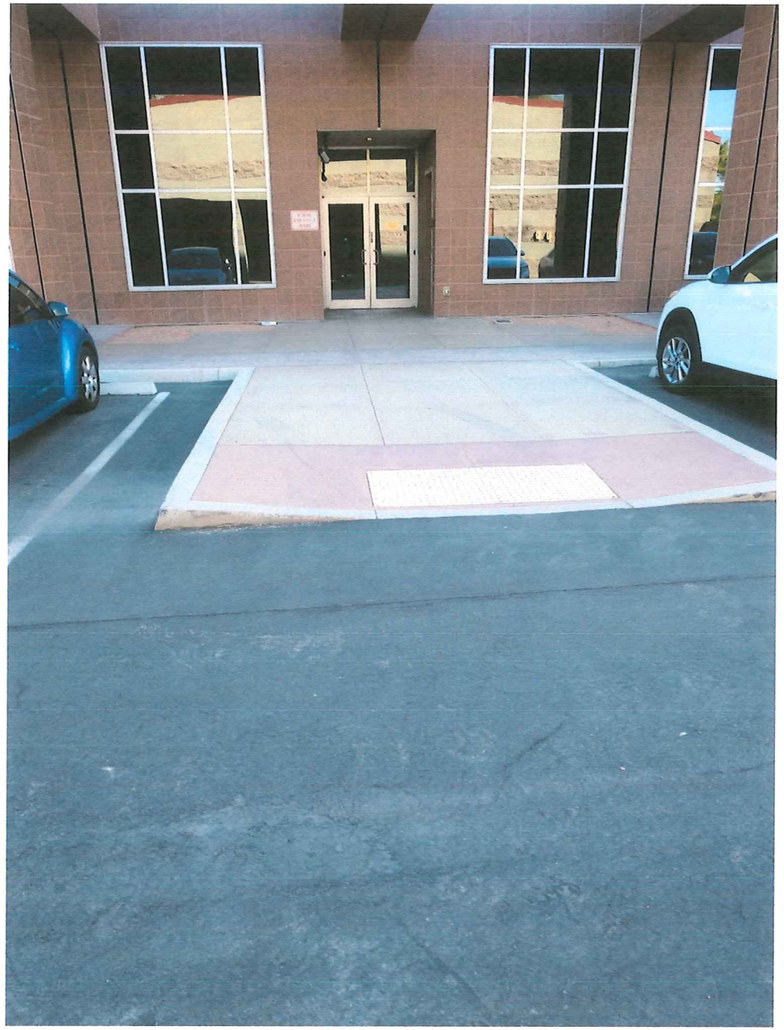
FIRE HYDRANT AND A CONCRETE THROUGH DRAINAGE LOCATED AT THE NORTHEAST PORTION OF THE SITE

SIDEWALK AND PARKING AREA AT THE NORTHEAST PORTION OF THE SITE

LOOKING WEST FROM THE NORTHEAST PORTION OF THE SITE

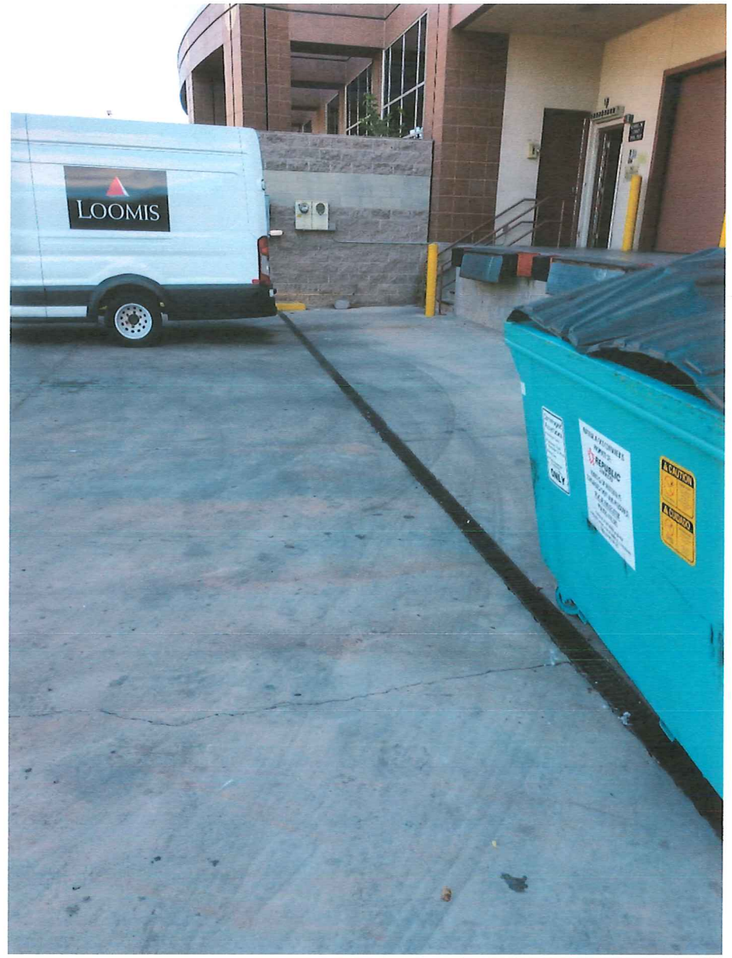
STORM SEWER PUMP STATION EAST OF THE TRUCK DOCK

SECURED PARKING AREA TO THE NORTH

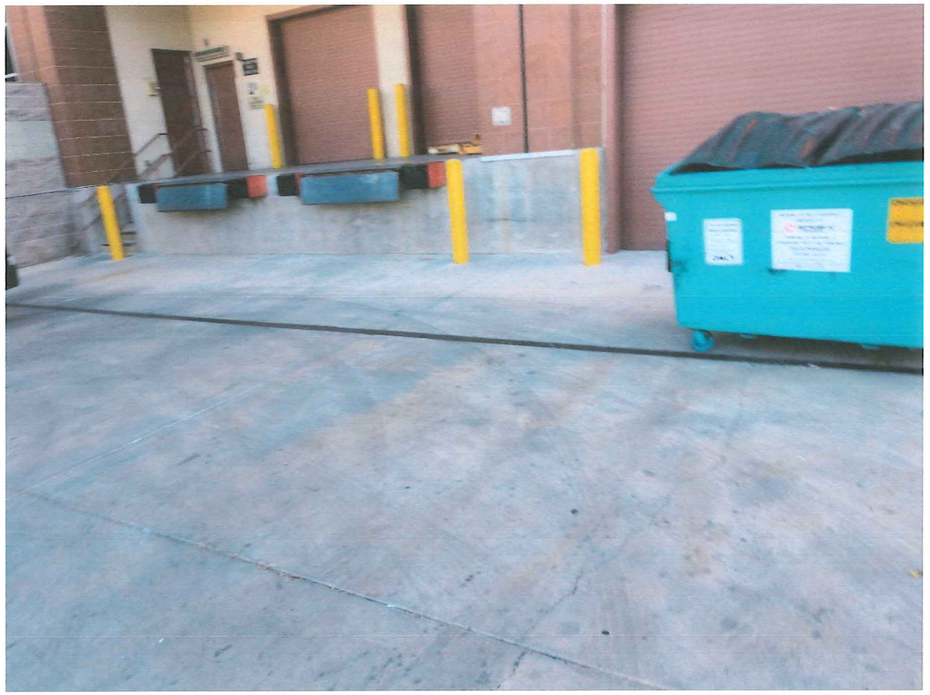


SIDEWALK LEADING TO DOOR LOCATED AT NORTH OF THE BUILDING

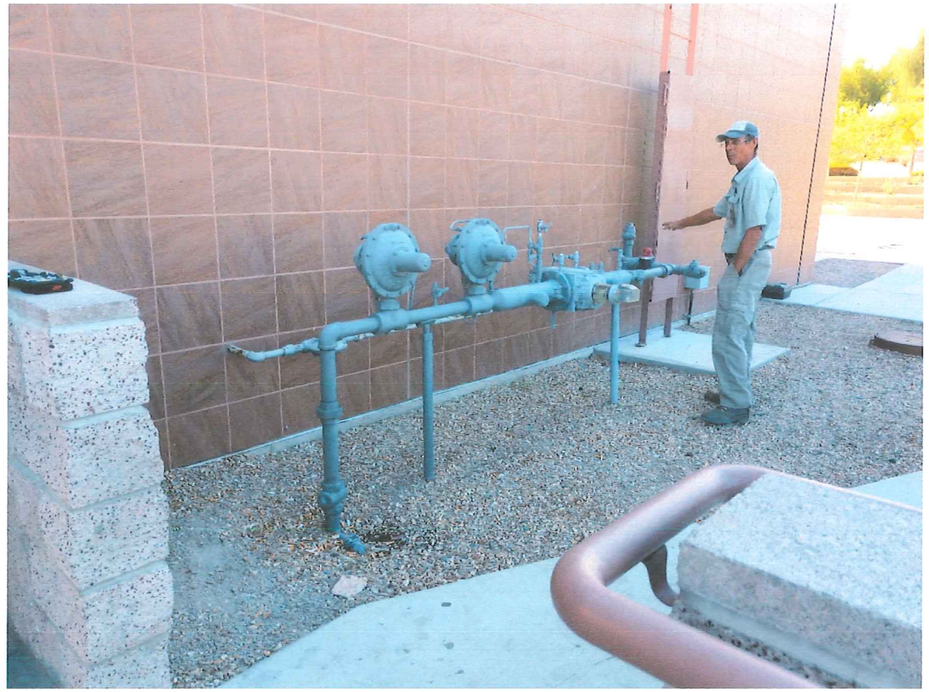
ROOF DRAIN EAST OF THE NORTH ENTRANCE



TRUCK DOCK AND TRASH AREA LOCATED NORTH OF THE SITE

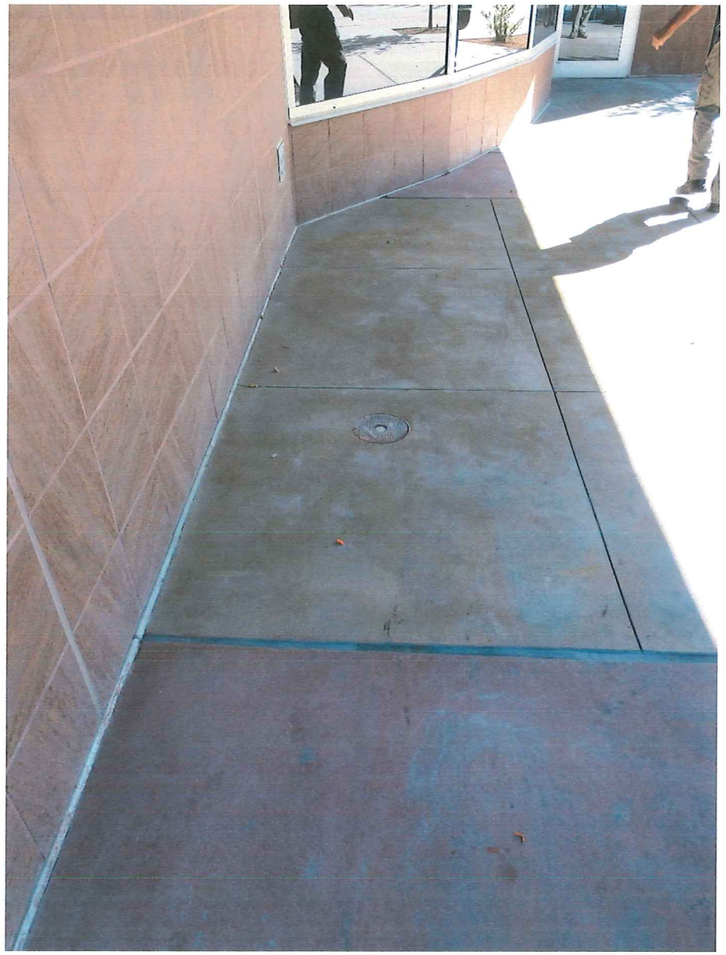


A RAISED DOCK AND A DOCK TRENCH DRAIN LOCATED NORTH OF THE SITE



GAS METER AT THE NORTHWEST BUILDING CORNER, NOT THE ACCESS LADDER.

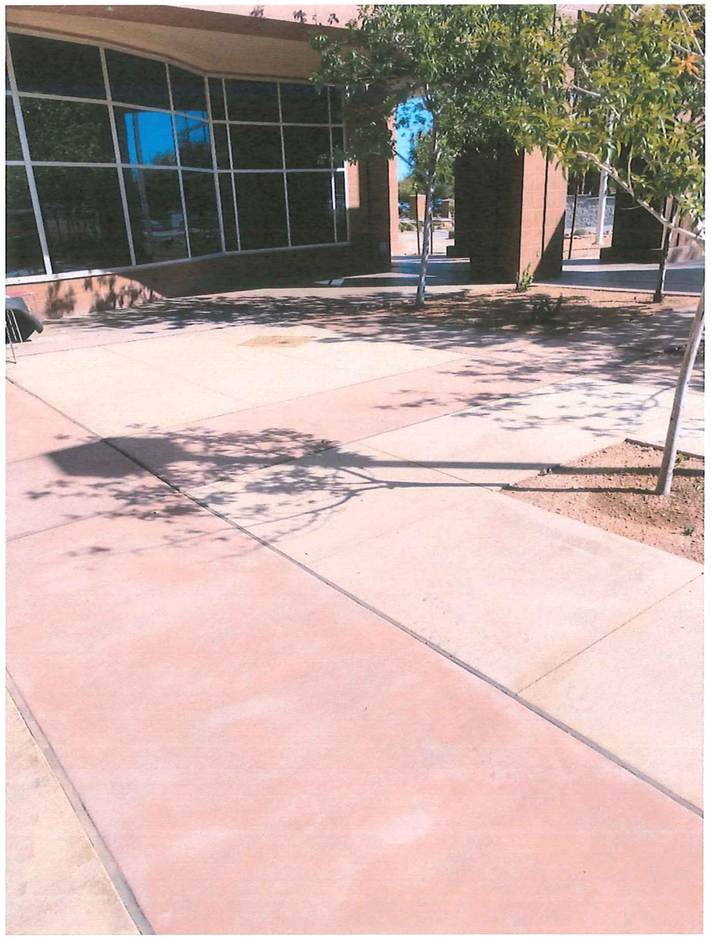
GREASE INTERCEPTOR NEAR THE NORTHWEST BUILDING CORNER



SEWER CLEANOUT SOUTH OF THE NORTHWEST BUILDING CORNER

WEST PLAZA AREA DRAINS NORTH

WEST PLAZA AREA DRAINS TO THE MIDDLE



WEST PLAZA LOOKING SOUTHEAST

WEST PLAZA AREA DRAINS SOUTH

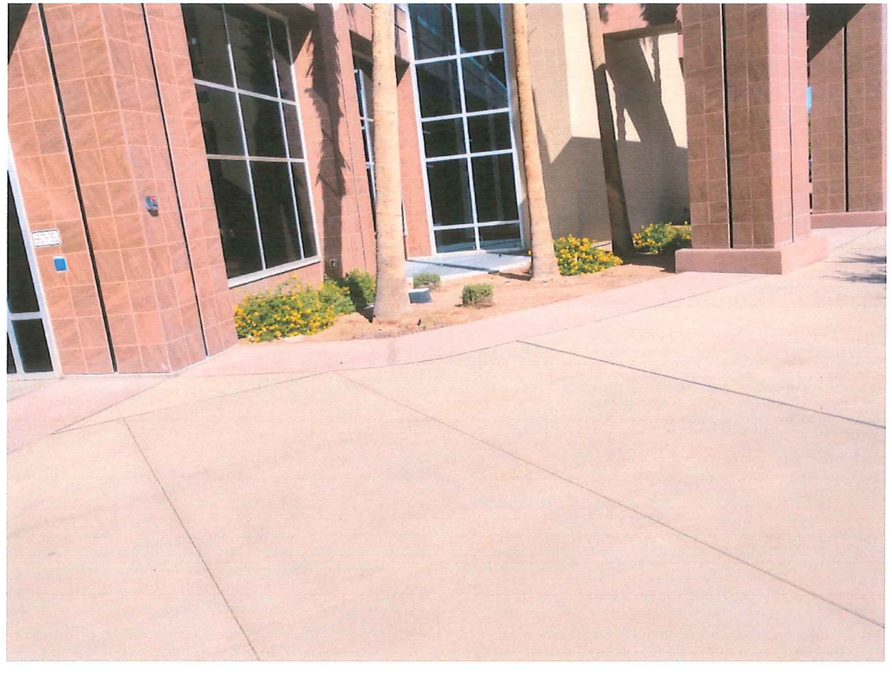
WEST PLAZA LOOKING NORTH

SOUTHWEST COVERED WALK

WEST SIDE VETERAN'S MEMORIAL LOOKING SOUTH

MIDDLE OF VETERAN'S MEMORIAL LOOKING SOUTH

EASTERLY VIEW OF SOUTH PLAZA



SIDEWALK CRACK NEAR THE SOUTHWEST CORNER OF THE BUILDING

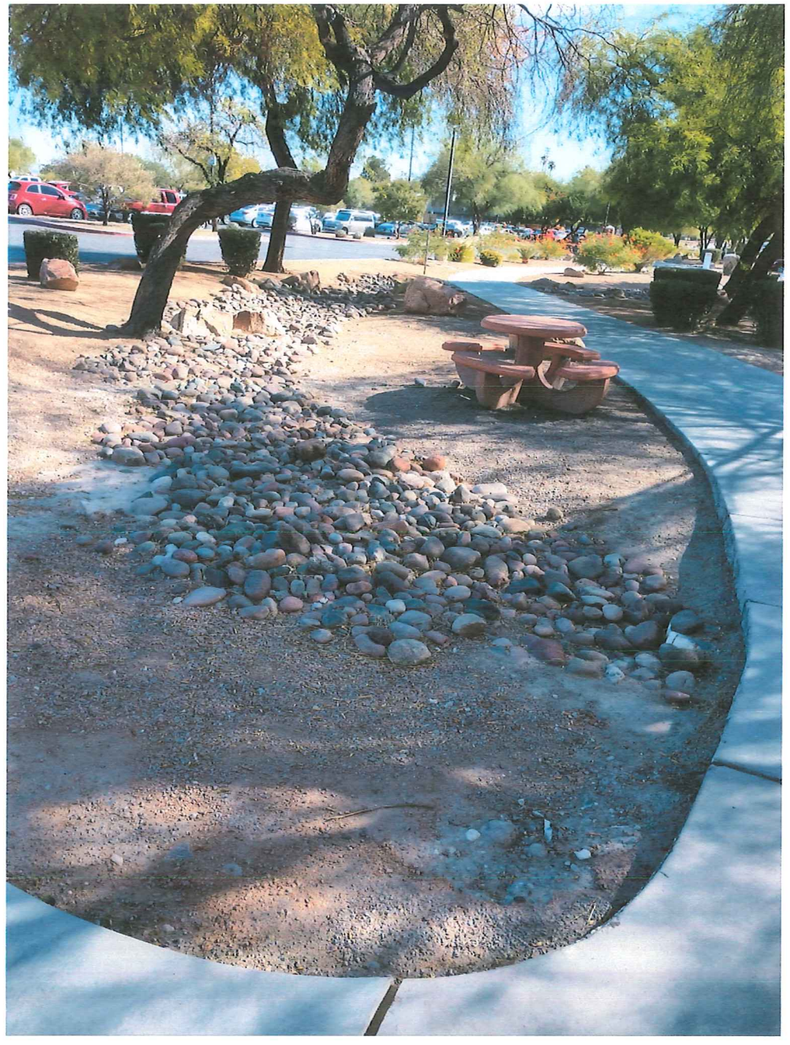
FIRE HYDRANT MAY BE INACCESSIBLE – LOCATED AT THE EAST PORTION OF THE SITE, AT THE VETERAN'S MEMORIAL AREA

NEAR THE SOUTHWEST BUILDING CORNER LOOKING WEST

WEST VIEW OF THE COVERED WALK LOCATED AT THE SOUTHEAST

EAST VIEW OF THE COVERED WALK LOCATED AT THE SOUTHEAST. NOTE THE SEWER CLEANOUT

WEST VIEW OF THE DRY WASH AREA LOCATED AT THE SOUTHEAST BUILDING CORNER.



SOUTHEAST VIEW OF THE DRY WASH AREA LOCATED AT THE SOUTHEAST BUILDING CORNER.

PONDING ON THE VALLEY GUTTER AT THE SOUTHEAST.
NOTE THE FILL OVER PIPE

VALLEY GUTTER AT THE SOUTHEAST, EXITING THE
PARKING LOT

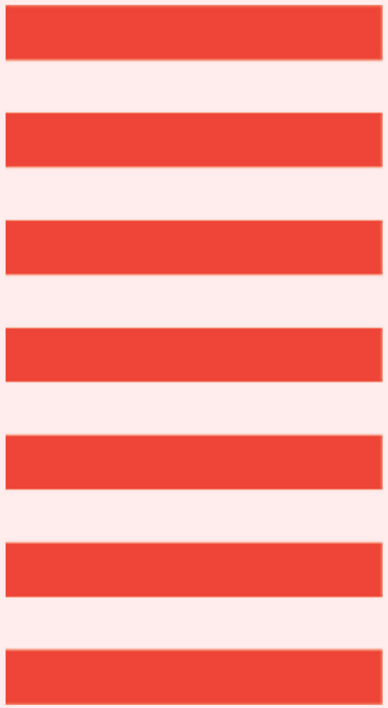
SOUTHEAST CONTROLLED ENTRANCE DRIVEWAY LOOKING SOUTH

EAST PARKING LOT. SOME CRACKING BUT NOT APPARENT FAILURE

EAST PARKING LOT. SOME CRACKS AND SLOW DRAINING AREAS

8-INCH S.E. PIPE EXITING TO INLET AT BACK OF WASHINGTON AVENUE DROP INLET

Structural Engineering Assessment



kga

Revised January 2, 2018
November 1, 2018

John A. Martin & Associates of Nevada
STRUCTURAL ENGINEERS

John A. Martin, Jr., S.E.

Steve Schiller, S.E.
Gregory L. Clapp, S.E.

Tammy Carter, P.E.
Gordon Kuang, P.E.
Pete Padilla, P.E.

Scott A. Carter, Architect
KGA Architecture
9075 West Diablo Drive, Suite 300
Las Vegas, NV 89148

Subject: Grant Sawyer State Office Building
Feasibility Studies and Programming
Structural Narrative
JAMA NV Job No. 7814

Dear Scott:

The following includes an assessment of the existing facility based on review of the existing structural drawings, calculations and site visit on October 15, 2018:

- The building appears to be in good condition structurally.
  - No settlement was observed; and
  - No cracks in exterior walls.
- The building was constructed per the 1991 UBC. Based upon the 2018 IBC, the current seismic factor would be 1.9 x higher than the original design code.
  - Future expansions would require separation joints between old and new expansions;
  - Elevator addition and/or modification.
    - Changing the lateral system in any form may require upgrading all braces, columns, footings and drag/chord systems. Therefore, removing or changing the lateral system is not recommended
    - The current elevator pit is 5' deep. If new elevators can fit into the existing opening and with the current clearances, replacement should not be complicated;
    - The framing around the existing openings cannot be easily modified. There are adjacent mechanical openings next to the elevator openings.
    - If a portion of the atrium is filled in for a new elevator, the existing floor beams, columns and foundations may need to be reinforced.
- The existing roof was designed for a live load of 20 psf (reducible), not adequate for occupant loading.

Should you have any questions do not hesitate to contact this office.

Sincerely,

John A. Martin & Associates of Nevada

Greg Clapp, S.E.
Principal

Mechanical, Plumbing and Electrical Engineering Assessment

GRANT SAWYER OFFICE BUILDING
555 E. WASHINGTON AVE., LAS VEGAS
INITIAL FINDINGS REPORT

NV5 PROJECT NO. 018.0745.00

Prepared for:

KGA Architecture
9075 Diablo Dr.
Las Vegas, NV 89148

Prepared by:

NV5
5155 W. Patrick Lane
Las Vegas, NV 89118

Issue Date:

January 2, 2019

Revision No.	Issue Date	Prepared By	Reviewed By	Remarks
0	11/05/2018	Alex Jankovic Rob Jones Gary McClure Bill Sittman	KGA	Draft
1	1/02/2019	Alex Jankovic JJ Wisdom	KGA	Final

TABLE OF CONTENTS

EXECUTIVE SUMMARY

NV5 Consulting Engineers and Bombard Mechanical Contractors have performed the field investigation at the Grant Sawyer Office Building to verify the existing conditions of mechanical HVAC systems, Plumbing systems and Electrical systems.

This report is a summary of initial investigations during our filed visits on the following dates:

- October 11, 2018
- October 12, 2018
- October 13, 2018
- October 15, 2018
- October 17, 2018
- October 23, 2018
- December 6, 2018

When pursing this investigation, we had in mind the three RRR =Repair, Remodel, Replace and the 20 years fix of the MEP systems as our final goal.

Based on our initial findings we are making the assessments towards the following conclusions:

1. Mechanical Systems and Ductwork * All exposed & lined ductwork to be removed & replaced.
2. Server, Data Rooms Cooling * Complete replacement
3. Hydronic Piping Exteriors * All hydronic piping to be removed & replaced
4. Hydronic Piping Interiors * All hydronic piping to be removed & replaced
5. Hydronic Piping - Wall Penetrations * To be verified and replaced
6. CHS/CHR Piping Wall Thickness * All hydronic piping to be removed & replaced.
7. Plumbing Systems -Waste & Vent Exteriors * To be replaced or epoxy lined (CIPP)
8. Plumbing Systems–Waste & Vent Interiors * 100% replacement of underground with PVC
9. Plumbing Systems–Roof, Storm Drainage * Not compromised, all clogged sections to be cleaned.
10. Plumbing Systems–Domestic Booster Pumps * To be replaced
11. Plumbing Systems–CW, HW Distribution * No action required
12. Fire Protection -Fire Pump Room * To be replaced with electric-drive fire pumps
13. Life Safety – Smoke Removal Systems * To be replaced in compliance with 2018 IBC
14. Electrical Systems * Good conditions

As a look ahead in our next phase of this task we will make the final assessments and recommendations for the repair, remodel or replacements of MEP systems, based on the ASHRAE Life Expectancy Chart for HVAC equipment and components.

1. MECHANICAL SYSTEMS & DUCTWORK

- Verify the integrity of medium pressure ductwork for all systems.
- Verify the status of exterior ductwork on roof. Suggest the mitigation.
- There are 8 Air Handling Systems.
  Based on the TAB results, dated July 2011 the capacities are as follows:
  AH-1 23,700 CFM @ 3.0" ESP (7.0" TSP)
  AH-2 26,400 CFM @ 3.0" ESP (7.0" TSP)
  AH-3 30,000 CFM @ 3.0" ESP (7.0" TSP)
  AH-4 23,300 CFM @ 3.0" ESP (7.0" TSP)
  AH-5 33,800 CFM @ 3.0" ESP (7.0" TSP)
  AH-6 29,400 CFM @ 3.0" ESP (7.0" TSP)
  AH-7 32,200 CFM @ 3.0" ESP (7.0" TSP)
  AH-8 27,200 CFM @ 3.0" ESP (7.0" TSP)
- Verify all vertical shafts for SA, RA ductwork leaks etc.
- Verify main horizontal SA, RA duct routing on each floor and status.
- Verify the return air path and transfer openings on all floors.
- Possible Re-Zoning of HVAC systems
- AHU Replacement – scheduled improvements.
- Central Plant and DDC control system – recently renovated.
- Mechanical Updates: VAV terminal units – New Alerton Controls + hose kits & isolation valves.

Conclusion: All exposed and lined medium pressure ductwork to be replaced. Exterior ductwork on roof shows the signs of corrosion and may have been compromised during the initial operation with evaporative cooling sections. Per field investigation on Level 5, multiple segments of ductwork have friable fiberglass material in the airstream as part of the original acoustical treatment of ductwork. Level 5 ductwork shall be completely removed and replaced with new ductwork.
Interior medium pressure ductwork compromised with openings & flex duct connections for additional cooling of server rooms shall be repaired by disconnecting of flex ductwork and properly sealing the system.

2. SERVER/ DATA ROOMS COOLING

- Identify the compromised medium pressure ductwork with holes intended to cool the server, data, TR rooms.
- Identify all server/ TR rooms and current cooling problems.
- Verify the possible routing of the new CHS/CHR risers to serve the Data/TR rooms throughout the facility
- Future Cooling system with CHW fan-coil units + DX back-up split systems where mandated.
- DX units dumping the heat into plenum.

Conclusion: Server/Data rooms cooling system shall be completely disconnected from the medium pressure ductwork. A dedicated chilled water - cooling system will be provided for server/data rooms utilizing the cooling only fan-coil units with emergency DX cooling units as a back-up where required. The new chilled water risers will be installed from chiller room down to the first floor to serve these cooling only fan-coil units. The existing plate/frame heat exchanger will be upsized to be capable of providing the cooling for all fan-coil units during the water economizer mode of operation.

- Server, Data Rooms Cooling

1st Floor

Gaming Server Room (300 SF)	3 tons
EITS South Wing (100 SF)	1.5 tons
South-East (150F)	1.5 tons

2nd Floor

Gaming West Server (92 SF)	3.5 tons
Gamin Salon Viewing Room (122 SF)	2 tons

3rd Floor

AG Server Room (150 SF)	3.5 tons

4th Floor

LCB Server Room (150SF)	2.5 tons
LCB AV/TR room	3.5 tons

5th Floor

Secretary of State Server Room (15 SF)	1 ton
Criminal Investigation Server (60 SF)	1 ton

6th Floor

EITS Servers (150 SF)	3 tons

Total Cooling Capacity = 26 tons (312 MBH)
Proposed solution: Add a dedicate 3" CHS/CHR riser to serve the server/data rooms on all floors.
New cooling only fan-coil units will be selected with DX back-up cooling where required.

3. HYDRONIC PIPING – EXTERIORS

- Chilled Water piping – external corrosion due to gap w/insulation. Verify all mains on all floors and identify the sections of corroded piping.
- Verify the status of insulation throughout

- Heating hot water piping – failing gasketed joints. Identify the issues and original piping material and joints used.
- It was discovered that all 2" and smaller hot water piping was installed utilizing the galvanized piping. This has to be corrected throughout.

Conclusions: Chilled water hydronic piping shows considerable exterior corrosion at the multiple fittings, take-offs and elbows, due to incorrect insulation type and compromised vapor barrier or damaged service jacket.
To mitigate this issue, complete chilled water piping system shall be replaced and 100% of the insulation shall be replaced with rigid polyisocyanurate insulation with correct vapor barrier and provision of dams at each pipe fitting to prevent any condensation.
The heating hot water hydronic piping shall be completely removed and replaced with new piping per current standards.

4. HYDRONIC PIPING – INTERIORS

- Chilled water interior investigation to determine the status of the hydronic piping interior. It was determined that the interior of chilled water piping was not compromised.
- Insert the camera in the chilled water line through strainer at section near AH-8.

Conclusions:
Based on the findings of the condition of the piping exterior above Item 3, the whole hydronic piping system shall be replaced.

5. HYDRONIC PIPING – THROUGH THE WALL PENETRATIONS

- Investigation of the hydronic piping through-the-wall penetrations and applied insulation.

Conclusions: Based on our initial findings through-the-wall penetrations are compromised, indicating the missing insulation and presence of exterior corrosion.

6. HYDRONIC PIPING – WALL THICKNESS MEASUREMENTS

- Thorough investigation of hydronic piping wall thickness in various locations throughout the facility.

Conclusions: The ultrasonic wall thickness measurements of chilled water piping
Indicate that the wall thickness is not compromised.

7. PLUMBING SYSTEMS – WASTE & VENT EXTERIORS

- Cast Iron waste piping above ground - verify the status of risers.
- Grease Interceptor problems. Replace the Grease Interceptor.
- First floor waste line slopes and need to replace the whole underground waste lines.
- Site waste lines routing to future lift station? Sketch from SPWD.
- Civil engineer proposed to run the waste deeper at the building? Approx. 4 ft can be gained.
- Verify the invert elevations for exiting waste lines.

Conclusions: Complete above ground waste & vent piping to be replaced or epoxy lined utilizing the "NU Flow" non-pressurized epoxy linin (CIPP) – the cured in-place pipe restoration process.

8. PLUMBING SYSTEMS – WASTE & VENT INTERIORS

- Investigate the status of waste & vent interior, throughout the facility.
- Cast iron waste piping underground routing – camera scoping.
- Cast iron vent piping status. Identify the compromised vent lines.
- Kitchen area grease waste piping issues.

Conclusions: Complete underground cast iron piping to be removed and replaced with PVC properly sloped system with 2% slope.

9. PLUMBING SYSTEMS – ROOF, STORM DRAINS

- Investigate the status of existing roof /overflow drains. Investigate the status of storm water piping risers.
- Verify the status of storm water lift station at back of house in dock area.

Conclusions: Not compromised but needs to be further investigated for possible clogged sections of roof drains and overflow drains.

10. PLUMBING SYSTEMS – DOMESTIC BOOSTER PUMPS

- Investigate the status of domestic booster pumps.

Conclusion: The booster pump set shall be replaced, since at the end of its useful life per ASHRAE life expectancy table.

11. PLUMBING SYSTEMS – COLD & HOT WATER DISTRIBUTION

- These is no RPBP – reduced pressure backflow preventer at the property. There will be a need to install a new RPBP.
- Domestic cold water – street pressure.
- Kitchen area domestic hot water piping issues.

Conclusion: Not compromised - in good working condition.

12. FIRE PROTECTION – FIRE PUMP ROOM

- Investigate the status of fire pumps. This is a part of the separate study by NV5 Fire Protection department.

Conclusion: The fire pumps shall be replaced with electrically driven fire pumps per 2018 IBC.

13. LIFE SAFETY – SMOKE REMOVAL SYSTEMS

- Life Safety Systems modified from 1991 UBC to 2012 IBC.

Conclusion: Life Safety System shall be upgraded per 2018 IBC, UMC codes.

EQUIPMENT/MATERIALS LIFE EXPECTANCY

Critical Item	Description	HVAC Equipment			Age	ASHRAE Life Expectancy	Life Remaining
		Type	Recommendation	Location			
Air Handling Units	AH-1 to AH-8 236,000 cfm	VAV	**To be replaced**	Roof	23	30	+7
Hydronic Chilled Water Piping	Sch 40	Black steel	**To be replaced.**	Roof	23	30-50	7-27
Hydronic Heating Hot Water Piping	Sch 40	Black steel	**To be replaced**	Roof	23	30-50	7-27
1-1/2" and smaller HS/HR		Galvanized steel		Indoor	23	30-50	7-27
MP Ductwork Interior ductwork	Exposed on roof Level 5	Sheetmetal with internal lining	**Complete replacement**	Roof	23	40+	17+
Waste & Vent Piping	Risers above ground	Cast Iron	**Clogged vents**	Indoor	23	50	27
Waste & Vent Piping	Horizontal below grade	Cast Iron	**Complete replacement with PVC**	Underground	23	--	--
Domestic CW, HW Piping		Copper	**Good**	Interior	23	40-50	17-27
Domestic Booster Pumps	Base mounted Duplex		**To be replaced**	Pump room	23	20	-3
Fire Pumps	Diesel pumps		**To be replaced with electric-drive fire pumps**	Fire pump room	23	25	2
Smoke Removal System		**To be updated to 2018 IBC**			23	25	+2

14. ELECTRICAL

Electrical distribution

Electrical distribution was reviewed against the as-built drawings furnished. Generally, the installation matches the as-built drawings with a few exceptions.

1. Minor branch circuiting updates noted in panelboard directories as circuits were added for receptacles, copiers, small rack mounted UPS units, etc.
2. The equipment name labels for unit-substations ‘USW’ and ‘USR’ are swapped. These labels should be corrected to match the as-built drawings.
3. The equipment rating and main device on unit-substation ‘USE’ was specified to be 1000A, but actual equipment installed is rated 1200A. We do not see any issue with this discrepancy.
4. We observed the nameplate ratings on four distribution boards that do not match the plans. We suspect during the original installation; theses four boards were inadvertently mixed-up as they are all single section distribution board sections and look identical. The under-rated equipment should be addressed as soon as possible as they are not protected with the appropriate over-current device per NEC.
    a. Distribution board ‘EDP2’ is connected to a 600A feeder and specified to be rated 600A. The actual equipment installed is rated 250A.
    b. Distribution board ‘EDP3’ is connected to a 600A feeder and specified to be rated 600A. The actual equipment installed is rated 250A.
    c. Distribution board ‘EH3’ is connected to a 100A feeder and specified to be rated 100A. The actual equipment installed is rated 600A.
    d. Distribution board ‘DPH1’ is connected to a 200A feeder and specified to be rated 225A. The actual equipment installed is rated 600A.
5. When the central plant on Level 6 was upgraded, the third chiller was eliminated. This circuit breaker is currently locked out. We suggest confirming the conductors have been properly pulled back to a junction box and capped.
6. Review of the panelboard directories for emergency branch panels indicate loads have been added that are not compliant with code. Only those loads as identified in NEC 700 are permitted.

Electrical Capacity

There are (3) three unit-substations providing step-down of the medium voltage utility service to 277/480V, 3-phase, 4-wire for building distribution. The ratings of this equipment are as follows:

Unit-substation ‘USW’ (mislabeled USR) = 1,500 kVA 12.47kV-277/480V, 3-phase, 4-wire
Unit-substation ‘USE’ = 750 kVA 12.47kV-277/480V, 3-phase, 4-wire
Unit-substation ‘USR’ (mislabeled USW) = 2,500 kVA 12.47kV-277/480V, 3-phase, 4-wire

We observed the following instantaneous loads on each unit-substation at the time of our site visit. We walked the building between 4pm to 8pm on October 15, 2018. These loads appear to be much less than the building NVE service capacity from a medium voltage service. We would like to request utility bills for a 12-month period.

Unit-substation ‘USW’ (mislabeled USR) = 168 kVA
Unit-substation ‘USE’ = 91 kVA

Unit-substation ‘USR’ (mislabeled USW) = 158 kVA

Due to the extremely low utilization of the unit-substation capacity, we observed the voltage readings to be slightly high, but less than 5% over-voltage.

Unit-substation ‘USW’ (mislabeled USR) = 287/500 V
Unit-substation ‘USE’ = 291/506 V
Unit-substation ‘USR’ (mislabeled USW) = 286/497 V

Condition

Distribution Equipment

Generally, the electrical distribution equipment is in good condition and appears original to the building. Switchboards, panelboards, transformers and other electrical distribution equipment do not have an expected lifespan. If the equipment is kept clean and regular testing/maintenance performed the equipment can generally last through the life of the building.

The bolted pressure switches (or Pringle Switches) utilized for the main device at the unit-substations can be problematic. They are basically a spring assisted knife switch. If these devices do not receive regular maintenance, they may fail to open or close. NETA recommends annual visual/mechanical inspections and testing performed every (3) three years.

Generator was completely rebuilt and reinstalled in 2015. It appears to be well maintained based on dates observed on the batteries and oil filters. A well-maintained standby generator can be expected to last 10,000 to 30,000 hours of use. We would request the generator and ATS testing reports in order to determine the approximate generator runtime to date.

Lighting

Lighting appears to be original to the building. General overhead lighting sources are fluorescent. We recommend consideration of LED replacement fixtures to update the lighting in the building for both energy savings and visual quality.

15. FIRE ALARM SYSTEM

- Fire alarm system review was not part of NV5 scope for this effort.

Conclusion: Based on required code upgrades and the estimated age of the existing fire alarm system, the fire alarm system shall be replaced in its entirety.

APPENDIX

A. Mechanical Systems and Ductwork

1 - HVAC Ductwork on Roof

2 - HVAC Ductwork & Mechanical Equipment

3 - HVAC Mechanical Equipment

4 - HVAC Ductwork on Roof

5 - HVAC Ductwork on Roof

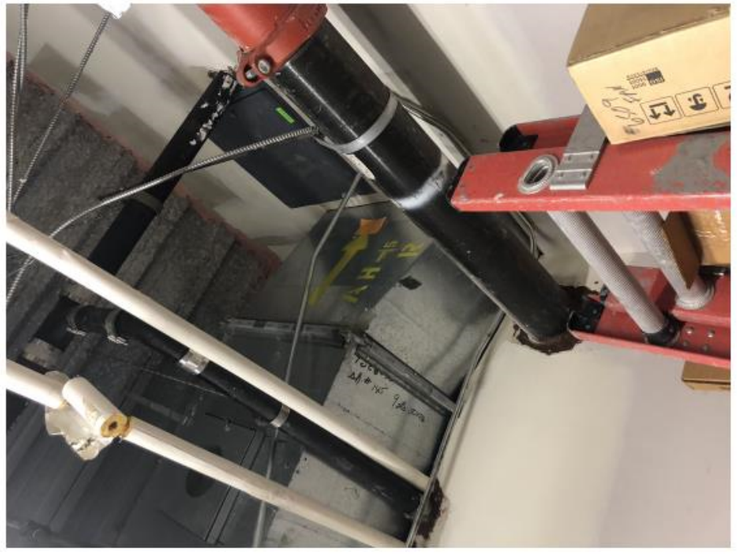
6 - HVAC Ductwork on Roof

1 - HVAC Ductwork on Roof

2 - HVAC Ductwork

3 - Loose Tape

4 - HVAC Flexible Ductwork



5 - HVAC Ductwork

6 - HVAC Ductwork

		
1 - HVAC Ductwork	2 - HVAC Ductwork	

LEVEL 5 - HVAC DUCTWORK

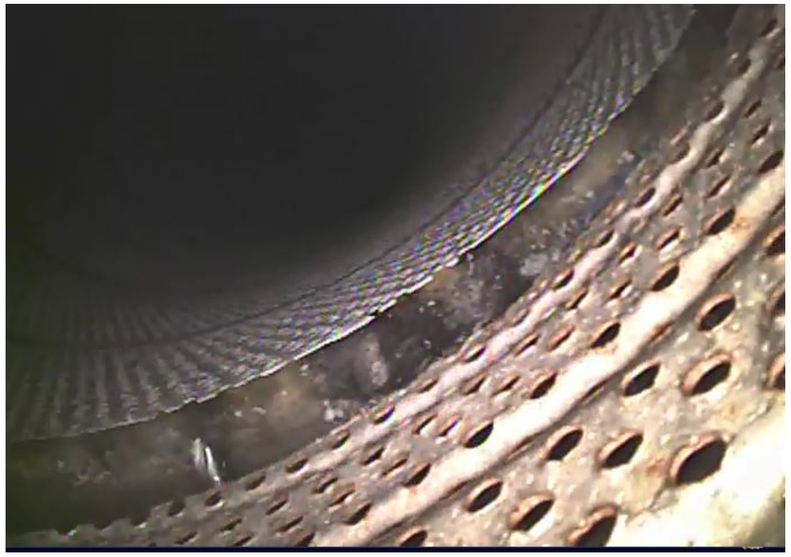
1 - Duct Reducing Fitting with Mastic Sealant

2 - Duct Reducing Fitting with Mastic Sealant

3 - Duct Reducing - Exposed Fiberglass and Poor Insulation

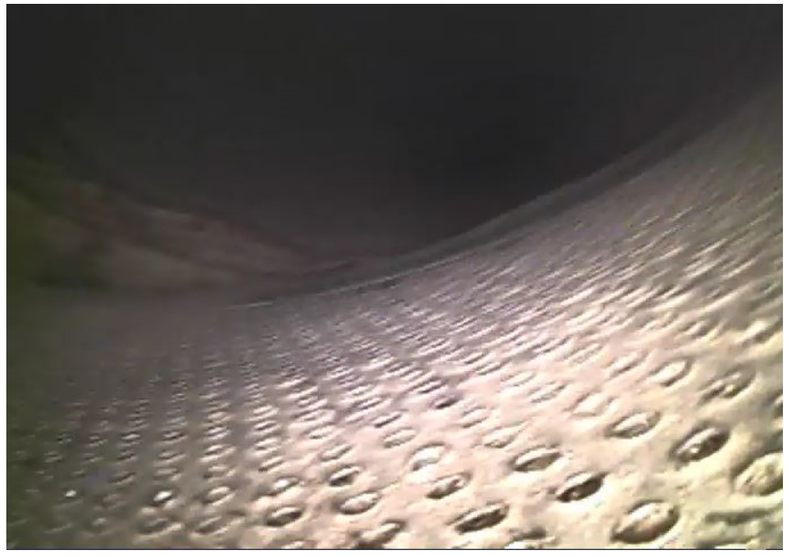
4 - Exposed Fiberglass

5 - Duct Section



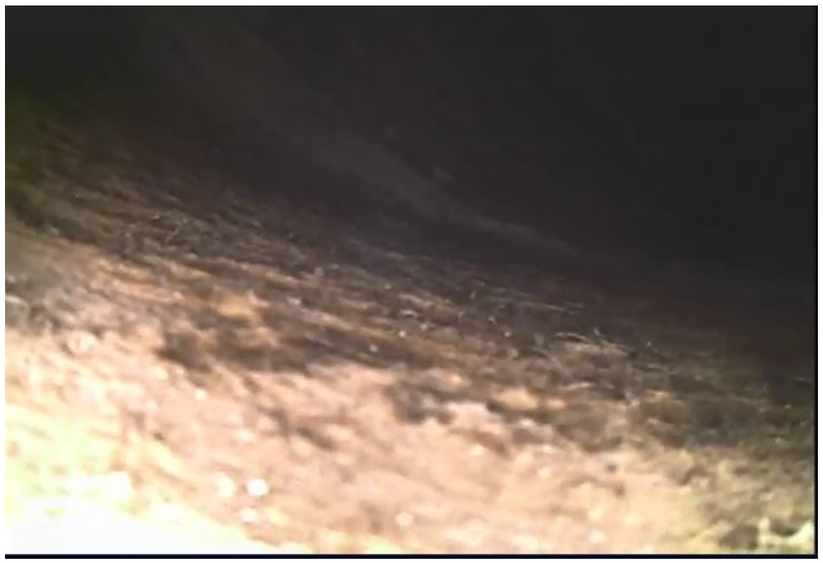
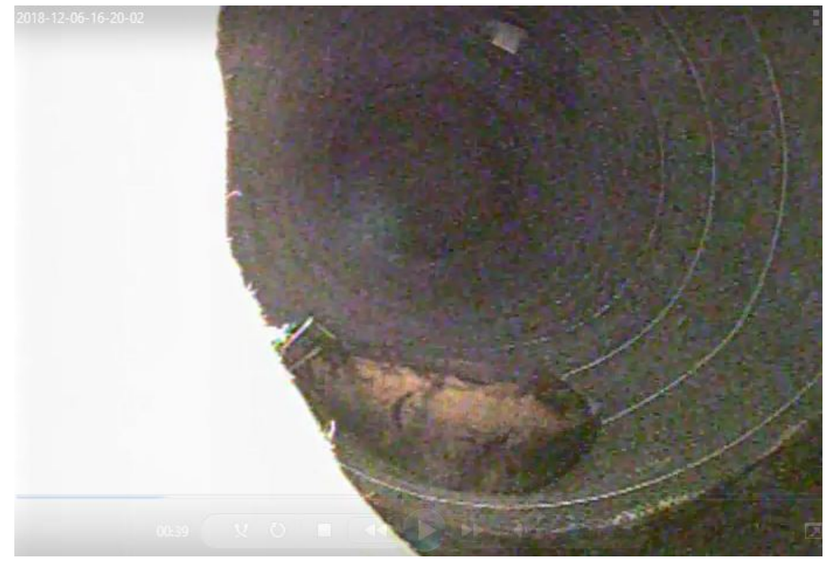
1 - Duct section - Segments not aligned

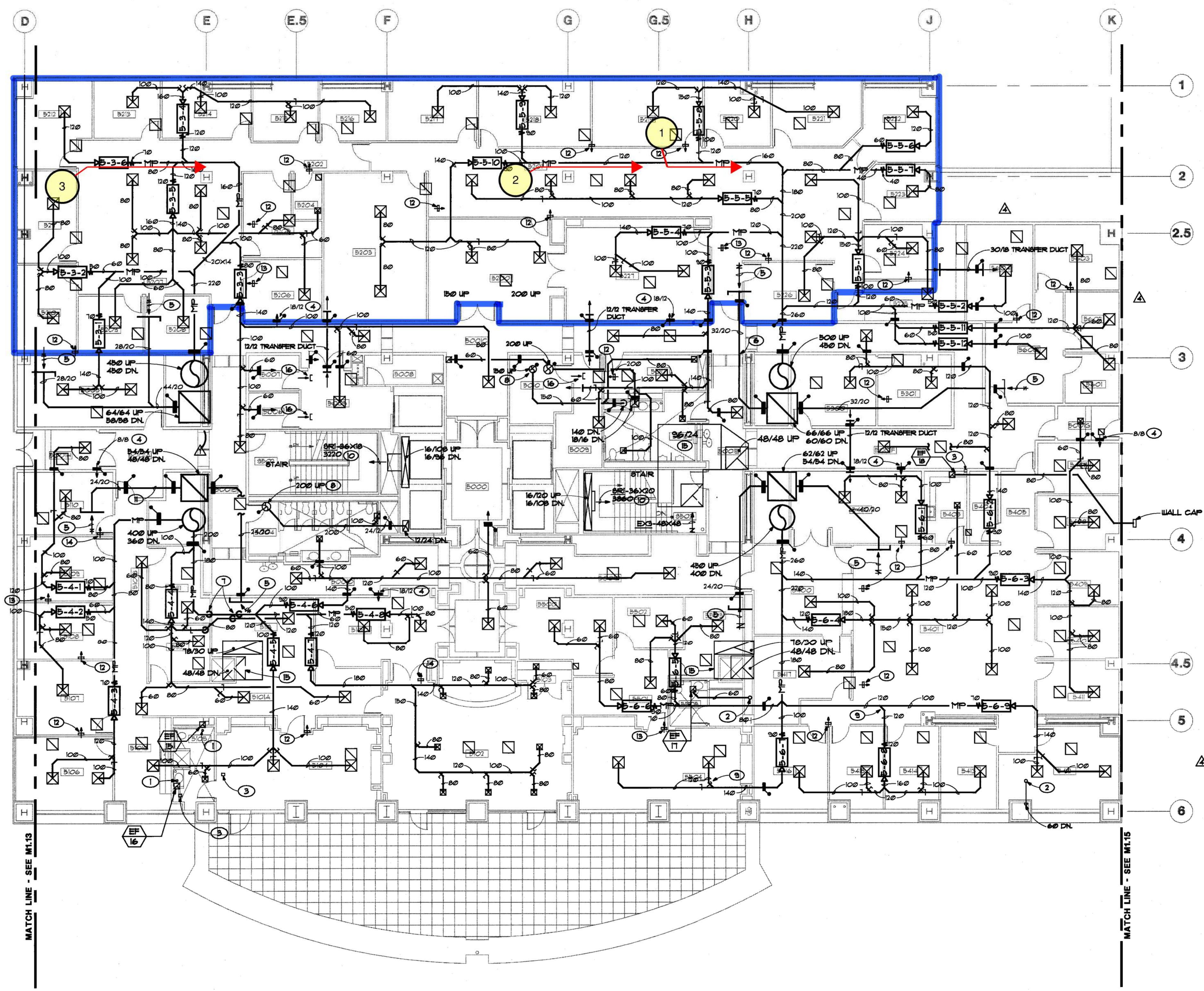
2 - Branch Fitting Penetration - Rust and Exposed Insulation



3 - Straight Duct Section

4 - Duct section

		
1 - Exposed Fiberglass - Missing Inner core	2 - Duct Sections - Branch Penetration - Exposed Insulation	3 - Duct Section - Fitting Penetration - Exposed Fiberglass



FIFTH FLOOR DUCTWORK PLAN - CENTER

SCALE: 1/8" = 1' - 0"

GENERAL NOTES

A. PRIOR TO PURCHASE / FABRICATION, VERIFY "FIT" OF PROPOSED WORK.

B. ROUND & RECTANGULAR DUCTWORK MAY BE USED INTERCHANGABLY. USE "DUCTULATOR" FOR EQUIVALENT SIZES.

C. DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS. SEE SPECIFICATIONS FOR INTERNAL DUCT LINER REQUIREMENTS & INCREASE SHEET METAL SIZES ACCORDINGLY.

D. DUCTWORK CONSTRUCTION REQUIREMENTS:
 a) LOW PRESSURE: 1" WG POSITIVE OR NEGATIVE STATIC PRESSURE.
 b) MEDIUM PRESSURE (MP): 4" WG POSITIVE STATIC PRESSURE.

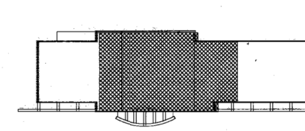
SHEET NOTES

1. 8"Ø UP TO ROOF CAP.
2. 6"Ø UP TO ROOF CAP.
3. WALL MOUNTED SPEED CONTROL SWITCH.
4. COMBINATION FIRE / SMOKE DAMPER, IN WALL, ABOVE CEILING: SIZE AS NOTED (TO MAINTAIN RA PATH).
5. MANUAL BALANCING DAMPER.
6. FLATTEN TO 60/12 BELOW BEAM.
7. DROP & RISE AT BEAM.
8. G.C. WILL PROVIDE RATED DUCT ENCLOSURE AT BASE (ABOVE 5TH FLOOR CEILING) OF DUCT RISERS. HVAC C. SHALL PROVIDE COMBINATION SMOKE / FIRE DAMPERS AT ENCLOSURE PENETRATIONS.
9. TYPICAL: 45° WYE FITTING.
10. MOUNT W/ BOTTOM AT 12" ABOVE LIGHT FIXTURE.
11. SEE ARCHITECTURAL DRAWINGS FOR RATED WALL OFFSET AROUND DUCT.
12. 12X12 OPENING, IN WALL, ABOVE CEILING: (TO MAINTAIN RA PATH).
13. 18X12 OPENING, IN WALL, ABOVE CEILING: (TO MAINTAIN RA PATH).
14. 24X12 OPENING, IN WALL, ABOVE CEILING: (TO MAINTAIN RA PATH).
15. SEE ARCHITECTURAL DRAWINGS FOR RATED ENCLOSURE FOR THIS DUCT.
16. R3 - 12X12, ABOVE ADJACENT ROOM CEILING: (TO MAINTAIN RA PATH).

AIR DISTRIBUTION SCHEDULE

ROOM NO.	TERMINAL NUMBER	AIR DEVICE TAG			QUANTITY			NECK SIZE			CFM (EACH)		
		S	R	E	S	R	E	S	R	E	S	R	E
5003	5-3-1	D1	R1	—	2	1	—	120	22X22	—	295	590	—
5210	5-3-2	D1	R1	—	1	1	—	80	22X22	—	150	150	—
5211	5-3-2	D1	R1	—	1	1	—	80	22X22	—	150	150	—
5001B	5-3-3	D1	R1	—	1	1	—	100	22X22	—	205	205	—
5001C	5-3-3	D1	R1	—	2	1	—	80	22X22	—	115	230	—
5005	5-3-3	D1	R1	—	1	1	—	60	22X22	—	90	90	—
5006	5-3-3	SR1	(2)	—	1	(2)	—	6X4	(2)	—	50	50	—
5007	5-3-3	SR1	(2)	—	1	(2)	—	6X4	(2)	—	50	50	—
5213	5-3-4	D1	R1	—	1	1	—	100	22X22	—	255	255	—
5214	5-3-4	D1	R1	—	1	1	—	120	22X22	—	335	335	—
5215	5-3-4	D1	R1	—	1	1	—	100	22X22	—	255	255	—
5216	5-3-4	D1	R1	—	1	1	—	100	22X22	—	255	255	—
5204	5-3-5	D3	R3	—	1	1	—	6X6	6X6	—	50	50	—
5205	5-3-5	D1	R1	—	1	1	—	80	22X22	—	140	140	—
5206	5-3-5	D1	R1	—	1	1	—	60	22X22	—	80	80	—
5207	5-3-5	D1	R1	—	4	1	—	80	22X22	—	165	660	—
5208	5-3-5	D1	R1	—	1	1	—	60	22X22	—	100	100	—
5209	5-3-5	D1	R1	—	1	1	—	60	22X22	—	100	100	—
5212	5-3-6	D1	R1	—	1	1	—	140	22X22	—	505	505	—
5001H	5-4-1	D1	R1	—	1	1	—	80	22X22	—	135	135	—
5109	5-4-1	D1	R1	—	1	1	—	80	22X22	—	140	140	—
5110	5-4-1	D1	R1	—	1	1	—	80	22X22	—	145	145	—
5107	5-4-2	D1	R1	—	1	1	—	80	22X22	—	165	165	—
5108	5-4-2	D1	R1	—	1	1	—	80	22X22	—	130	130	—
5106	5-4-3	D1	R1	—	2	1	—	100	22X22	—	260	520	—
5101A	5-4-4	D1	R1	—	2	1	—	60	22X22	—	95	555	—
5101B	5-4-4	D1	—	—	2	—	—	60	—	—	70	—	—
5111	5-4-4	D1	R1	—	1	1	—	60	22X22	—	60	60	—
5112	5-4-4	D1	R1	—	1	1	—	80	22X22	—	120	120	—
5113	5-4-4	D1	R1	—	1	1	—	80	22X22	—	115	115	—
5101C	5-4-5	D1	—	EF16	1	—	1	100	—	—	225	—	170
5104	5-4-5	D1	R1	—	2	1	—	100	22X22	—	280	560	—
5105	5-4-5	D3	—	EF15	1	—	1	6X6	—	—	70	—	170
5000	5-4-6	SR1	—	—	1	—	—	6X6	—	—	80	—	—
5001D	5-4-6	D1	R1	—	5	1	—	60	22X22	—	70	350	—
5004	5-4-6	D3	—	EX1	1	—	1	9X9	—	12X12	250	—	350
5102	5-4-7	D3	R2	—	8	2	—	9X9	22X22	—	165	660	—
5103	5-4-7	D3	R3	—	1	1	—	6X6	8X8	—	80	80	—
5100	5-4-8	D1	R1	—	2	1	—	80	22X22	—	120	240	—
5201	5-5-1	D1	R1	—	2	1	—	120	22X22	—	290	580	—
5224	5-5-1	D1	R1	—	1	1	—	60	22X22	—	100	100	—
5225	5-5-1	D1	R1	—	1	1	—	80	22X22	—	120	120	—
5226	5-5-1	D1	R1	—	1	1	—	80	22X22	—	135	135	—
5604	5-5-2	D1	R1	—	1	1	—	100	22X22	—	200	200	—
5001C	5-5-3	D1	R1	—	1	1	—	80	22X22	—	115	230	—
5001E	5-5-3	D1	—	—	1	—	—	80	—	—	115	—	—
5009	5-5-3	D1	R1	—	1	1	—	60	22X22	—	75	75	—
5010	5-5-3	SR1	(2)	—	1	(2)	—	6X4	(2)	—	70	70	—
5012	5-5-3	D1	—	EX1	1	—	1	80	—	8X8	120	—	150
5013	5-5-3	D3	—	EX1	1	—	1	9X9	—	10X10	200	—	300
5227	5-5-4	D1	R1	—	2	1	—	120	22X22	—	300	600	—
5201	5-5-5	D1	R1	—	4	1	—	80	22X22	—	130	520	—
5222	5-5-6	D1	R1	—	1	1	—	120	22X22	—	390	390	—
5223	5-5-7	D1	R1	—	1	1	—	80	22X22	—	120	120	—
5219	5-5-8	D1	R1	—	1	1	—	140	22X22	—	430	430	—
5220	5-5-8	D1	R1	—	1	1	—	100	22X22	—	265	265	—
5221	5-5-8	D1	R1	—	1	1	—	120	22X22	—	340	340	—
5217	5-5-9	D1	R1	—	1	1	—	120	22X22	—	335	335	—
5218	5-5-9	D1	R1	—	1	1	—	140	22X22	—	430	430	—
5200	5-5-10	D1	R1	—	2	1	—	100	22X22	—	195	390	—
5203	5-5-10	D1	R1	—	2	1	—	80	22X22	—	180	360	—
5601	5-5-11	D1	R1	—	1	1	—	80	22X22	—	120	120	—
5602	5-5-11	D1	R1	—	1	1	—	60	22X22	—	95	95	—
5603	5-5-11	D1	R1	—	1	1	—	80	22X22	—	165	165	—
5600	5-5-12	D1	R1	—	1	1	—	100	22X22	—	190	190	—
5402	5-6-1	D1	R1	—	2	1	—	80	22X22	—	170	340	—
5001C	5-6-2	D1	—	—	1	—	—	80	—	—	125	—	—
5001F	5-6-2	D1	R1	—	1	1	—	80	22X22	—	125	375	—
5300	5-6-2	D1	R1	—	1	1	—	80	22X22	—	155	155	—
5301	5-6-2	D1	R1	—	1	1	—	80	22X22	—	140	140	—
5302	5-6-2	D1	—	—	1	—	—	80	—	—	125	—	—
5001G	5-6-3	D3	R3	—	1	1	—	6X6	8X8	—	75	75	—
5407	5-6-3	D1	R1	—	1	1	—	80	22X22	—	135	135	—
5408	5-6-3	D1	R1	—	1	1	—	80	22X22	—	135	135	—
5409	5-6-3	D1	R1	—	1	1	—	80	22X22	—	135	135	—
5410	5-6-3	D1	R1	—	1	1	—	80	22X22	—	135	135	—
5411	5-6-3	D1	R1	—	1	1	—	80	22X22	—	135	135	—
5400	5-6-4	D1	R1	—	1	1	—	100	22X22	—	275	275	—
5401	5-6-4	D1	R1	—	4	2	—	100	22X22	—	230	460	—
5403	5-6-4	D3	R3	EF 18	1	1	1	6X6	8X8	—	90	90	170
5417	5-6-4	D1	R1	—	1	1	—	100	22X22	—	185	185	—
5501	5-6-5	D1	R1	—	1	1	—	80	22X22	—	140	140	—
5502	5-6-5	D1	R1	—	1	1	—	60	22X22	—	100	100	—
5503	5-6-5	D1	R1	—	1	1	—	80	22X22	—	160	160	—
5500	5-6-6	D1	R1	—	2	1	—	60	22X22	—	100	200	—
5504	5-6-7	D1	R1	—	2	1	—	120	22X22	—	385	770	—
5413	5-6-8	D1	R1	—	1	1	—	120	22X22	—	285	285	—
5414	5-6-8	D1	R1	—	1	1	—	100	22X22	—	220	220	—
5415	5-6-8	D1	R1	—	1	1	—	100	22X22	—	220	220	—
5416	5-6-8	D1	R1	—	1	1	—	120	22X22	—	350	350	—
5412	5-6-9	D1	R1	—	2	1	—	120	22X22	—	285	570	—
5008	—	—	—	EX1	—	—	1	—	—	6X6	—	—	75
5505	—	—	—	EF17	—	—	1	—	—	—	—	—	70

NOTES:
(1) HVAC CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT CEILING TYPE PROPOSED TO BE INSTALLED PRIOR TO PURCHASE OF AIR DEVICES.
(2) AIR RELIEF/RETURN WITH OR WITHOUT FIRE OR FIRE/SMOKE DAMPER SHALL BE AS NOTED ON PLAN.
(3) UNLESS NOTED OTHERWISE IN THE MARGIN, DIFFUSERS SHALL BE 4 WAY THROW.
(4) SEE ARCHITECTURAL REFLECTED CEILING PLANS FOR AIR DEVICE LOCATIONS.



KEY PLAN
NO SCALE

LUCCHESI • GALATI • ARCHITECTS
2770 SOUTH MARYLAND PARKWAY
SUITE 510
LAS VEGAS, NEVADA
89109
(702) 733-7107

STATE OFFICE BUILDING

DEPARTMENT OF GENERAL SERVICES

SPWB JOB # 91-C9

HARRIS ENGINEERS, INC.
MECHANICAL/ELECTRICAL CONSULTANTS
2785 East Desert Inn Road, Suite 260
Las Vegas, Nevada 89121
702/796-0226

Date: FEBRUARY 23, 1993.
Project No.: 91-010
Scale: 1/8" = 1' - 0"
Drawn By: RJ.
Revisions:
2-23-95 RECORD DRAWINGS

Sheet Title:
FIFTH FLOOR DUCTWORK PLAN - CENTER

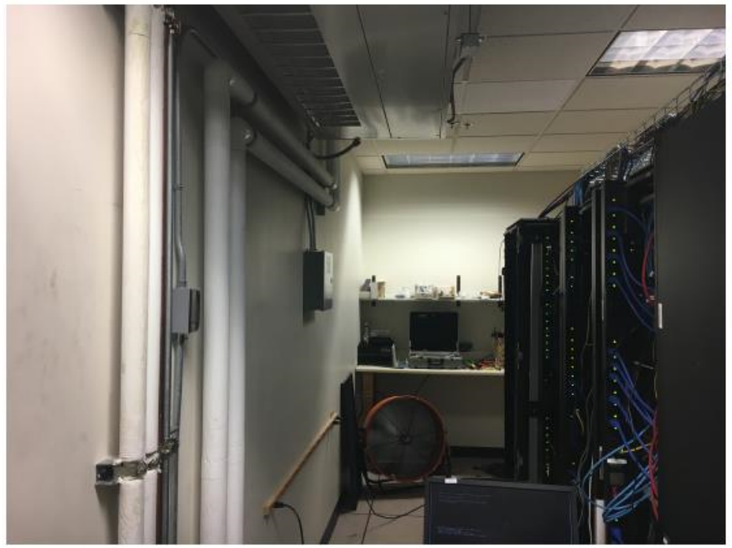
Sheet Number:
M1.14

91071.00

B. Servers/Data Rooms Cooling

1 - Server Room Equipment

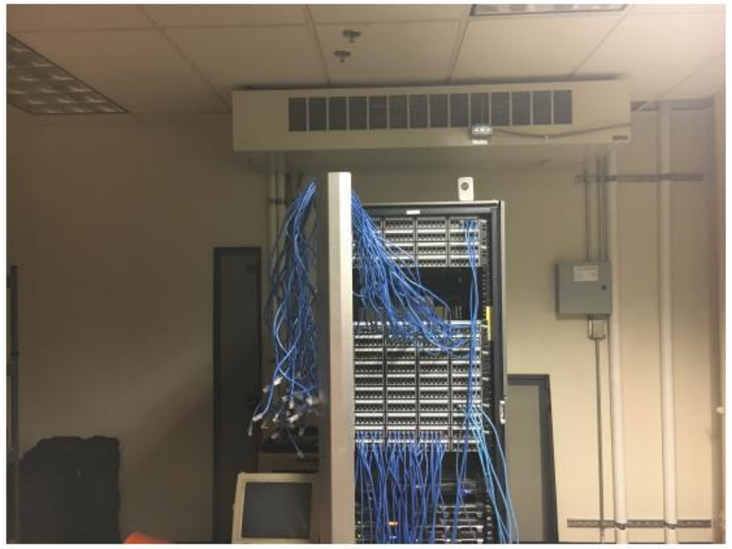
2 - Server Room HVAC Equipment



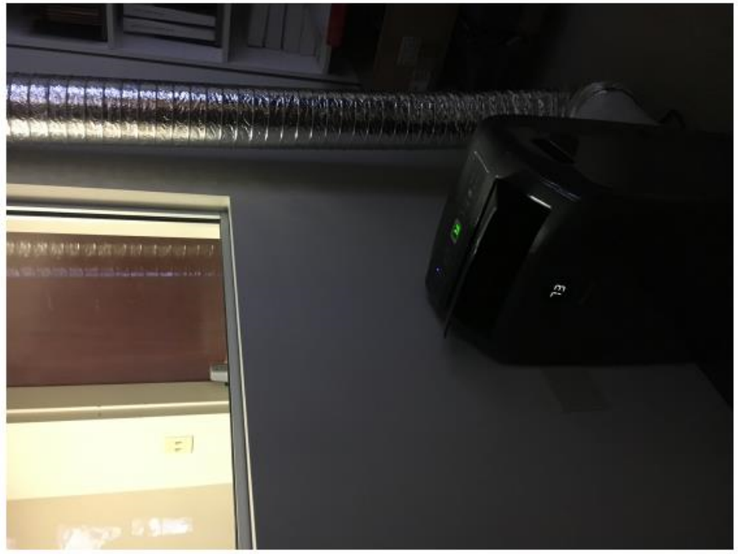
3 - Server Room Equipment

4 - Server Room Equipment

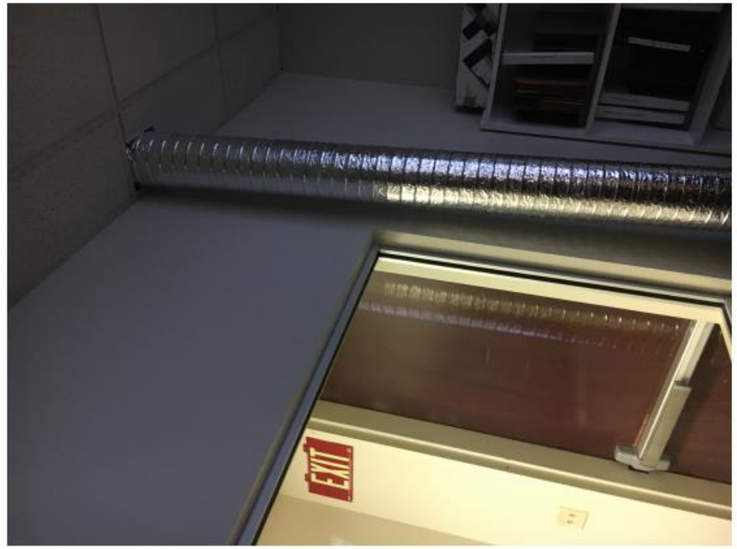
5 - Server Room Equipment



6 - Server Room Equipment



1 - Server Room - HVAC Equipment & Ductwork



2 - Server Room - HVAC Equipment & Ductwork

3 - Server Room - HVAC Equipment & Ductwork

4 - Server Room - HVAC Equipment & Ductwork

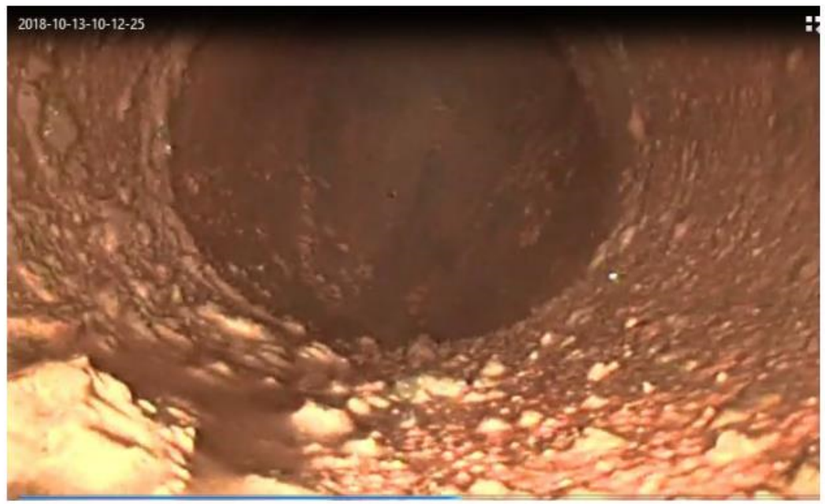
5 - Server Room - HVAC Equipment & Ductwork

6 - Server Room - HVAC Equipment & Ductwork

		
1 - Server Room Equipment	2 - Server Room - HVAC Equipment & Ductwork	

C. Hydronic Piping - Interiors

1 - Hydronic Piping - Interior Condition



2 - Hydronic Piping - Interior Condition

3 - Hydronic Piping - Interior Condition

4 - Hydronic Piping - Interior Condition

5 - Hydronic Piping - Camera Insertion Point

6 - Hydronic Piping - Camera Insertion Point

D. Hydronic Piping - Exteriors

1 - Hydronic Piping - Exterior Corrosion & Insulation

2 - Hydronic Piping - Exterior Corrosion & Insulation

3 - Hydronic Piping - Heating Hot Water

4 - Hydronic Piping - Exterior Corrosion & Insulation

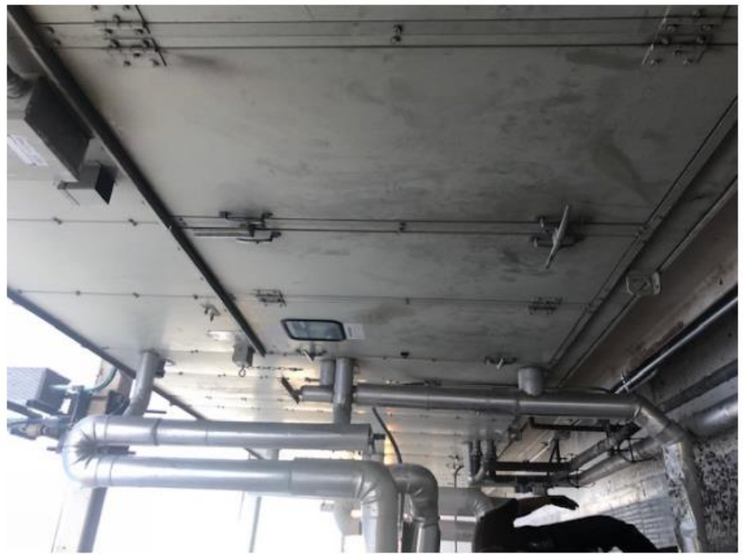
5 - Hydronic Piping - Exterior Corrosion & Insulation

6 - Hydronic Piping - Exterior Condition & Insulation

1 - Hydronic Piping - Exterior Corrosion & Insulation

2 - Hydronic Piping - Exterior Insulation

3 - Hydronic Piping - Exterior Corrosion & Insulation



4 - Hydronic Piping - AHU Connection

5 - Hydronic Piping - AHU Connection

6 - Hydronic Piping - Exterior Condition & Insulation

1 - Hydronic Piping - Exterior Corrosion & Insulation

2 - Hydronic Piping - Heating Hot Water

3 - Hydronic Piping - Exterior Corrosion & Insulation

4 - Hydronic Piping - Exterior Condition & Insulation

5 - Hydronic Piping - Exterior Condition & Insulation

6 - Hydronic Piping - Exterior Corrosion & Insulation

1 - Hydronic Piping - Exterior Condition & Insulation

2 - Hydronic Piping - Exterior Condition & Insulation

3 - Hydronic Piping - Exterior Corrosion & Insulation

4 - Hydronic Piping - Exterior Corrosion & Insulation

5 - Hydronic Piping - Exterior Corrosion & Insulation

E. Hydronic Piping - Wall Penetrations

1 - Hydronic Piping - Floor Penetration

2 - Hydronic Piping - Floor Penetration

3 - Hydronic Piping - Floor Penetration

4 - Hydronic Piping - Floor Penetration

5 - Hydronic Piping - Wall Penetration

6 - Hydronic Piping - Wall Penetration

1 - Hydronic Piping - Wall Penetration

2 - Hydronic Piping - Wall Penetration

3 - Hydronic Piping - Wall Penetration

4 - Hydronic Piping - Wall Penetration

5 - Hydronic Piping - Wall Penetration

6 - Hydronic Piping - Wall Penetration

F. Plumbing Systems - Waste and Vent - Exteriors

1 - Plumbing Systems - Waste and Vent

2 - Plumbing Systems - Waste and Vent

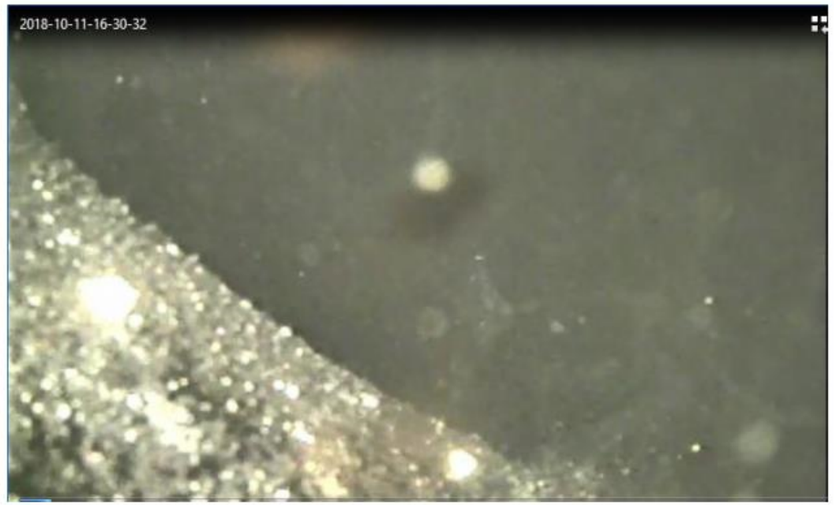
3 - Plumbing Systems - Waste and Vent

4 - Plumbing Systems - Waste and Vent

G. Plumbing Systems - Waste and Vent - Interiors

1 - Plumbing Systems - Waste and Vent - Interiors

2 - Plumbing Systems - Waste and Vent - Interiors



3 - Plumbing Systems - Waste and Vent - Interiors

4 - Plumbing Systems - Water Pressure Flushed Debris

5 - Plumbing Systems - Collapsed Cast Iron

6 - Plumbing Systems - Waste and Vent - Interiors

1 - Plumbing Systems - Underground - Collapsed Cast Iron

2 - Plumbing Systems - Underground - Collapsed Cast Iron

3 - Plumbing Systems - Underground - Collapsed Cast Iron

H. Plumbing Systems - Hot Water Distribution

1 - Plumbing Systems - Water Heaters

2 - Plumbing Systems - Tempering Station

3 - Plumbing Systems - Tempering Station

4 - Plumbing Systems - Tempering Station

5 - Plumbing Systems - Tempering Station

6 - Plumbing Systems - Gas Meter

I. Plumbing Systems - Domestic Booster Pumps

1 - Plumbing Systems - Domestic Booster Pump

2 - Plumbing Systems - Domestic Booster Pump

3 - Plumbing Systems - Domestic Booster Pump

4 - Plumbing Systems - Domestic Booster Pump

5 - Plumbing Systems - Storm Water Sump Pumps

J. Plumbing Systems - Fire Pump Room

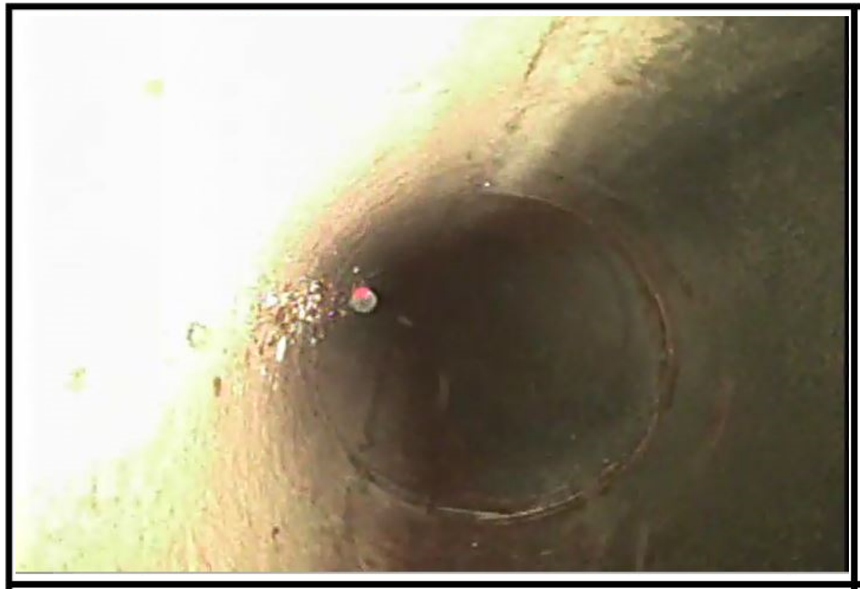
1 - Fire Pump Room

2 - Fire Pump Room

3 - Fire Pump Room

4 - Fire Pump Room

K. Plumbing Systems - Roof Drains



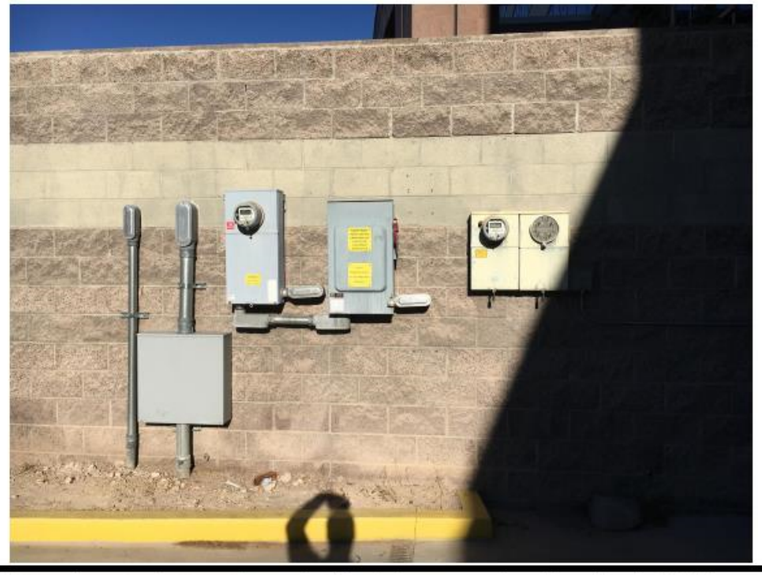
1 - Primary Roof Drain NE

2 - Primary Roof Drain NE

3 - Overflow Roof Drain NE

4 - Overflow Roof Drain NE

L. Electrical Systems



1 - Meters located at north end of building near loading dock. NVE meter is on the right. The PV system REC meter is on the left.

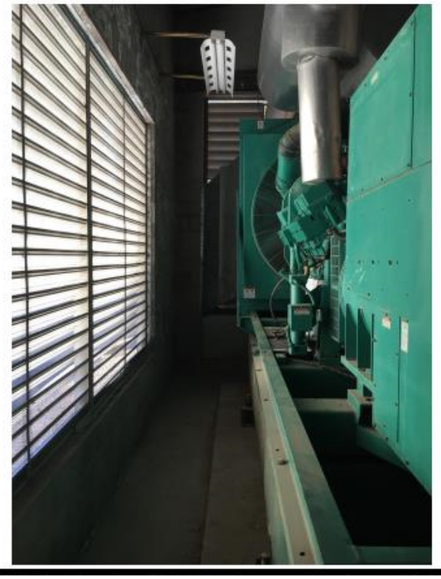
2 - Main service switchgear 'MVS1' 600A, 12.47KV, 3-phase, 3-wire.

3 - PV system inverter located in same room as main service switchgear. Inverter is tied into service at 480V Unit-substation 'USW'.

4 - Unit-substation 'USW' located on west half of Level 1. (1500kVA) Equipment is mis-labeled as 'USR'.

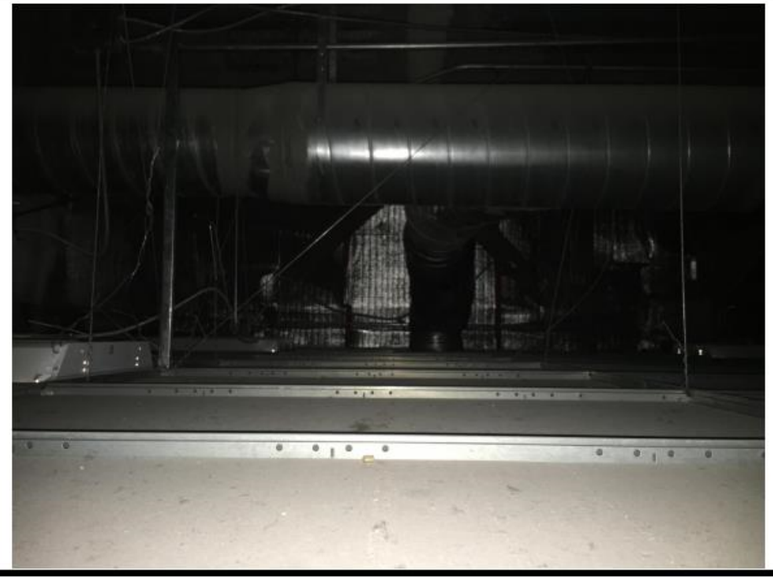
5 - Electrical room on west half of Level 1 adjacent to Cafe. Electrical rooms should not be used for storage.

6 - Unit-substation 'USE' located on east half of Level 1. (750kVA)



1 - Generator. 800kW, 277/480V, 3-phase, 4-wire with 500 gallon sub-base fuel tank.

2 - Generator distribution panel not indicated on single line diagrams. 1200A, 277/480V, 3-phase, 4-wire.



3 - Ceiling space above a typical office. Conduit and cable installation is mostly in neat condition.

4 - Hole observed in rated wall of emergency electrical room on level 2.

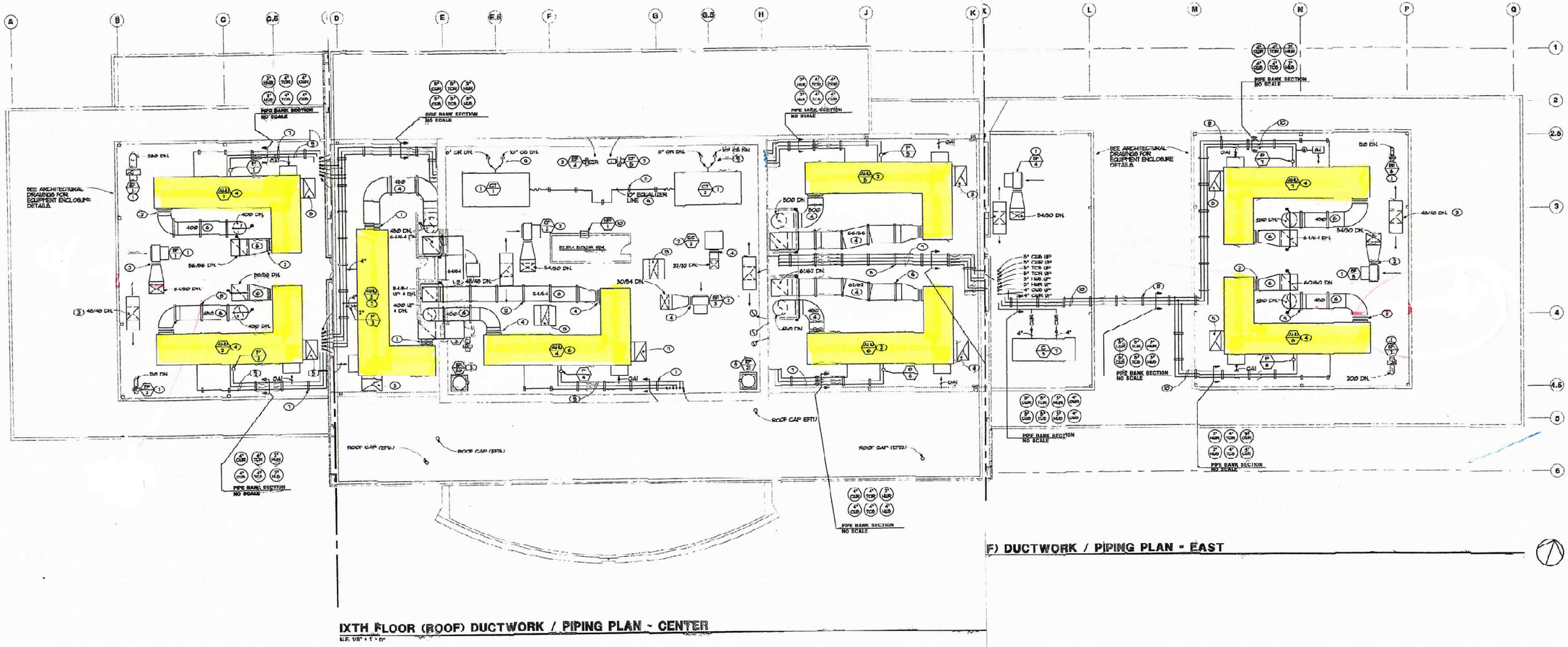
5 - Receptacles in wet locations exposed to sky are left open. Suggest replacing with "while-in-use" covers.

6 - Unit-substation 'USR' located on Level 6. (2500kVA) Equipment is mis-labeled as 'USW'.

		
1 - String of VRLA batteries located in the Level 6 electrical room.	2 - Emergency dist. boards 'EDP2' (left) and 'EDP3' (center) are installed with incorrect rating. 250A equipment connected to 600A feeders.	

M. Chilled Water Piping - Wall Thickness Measurements

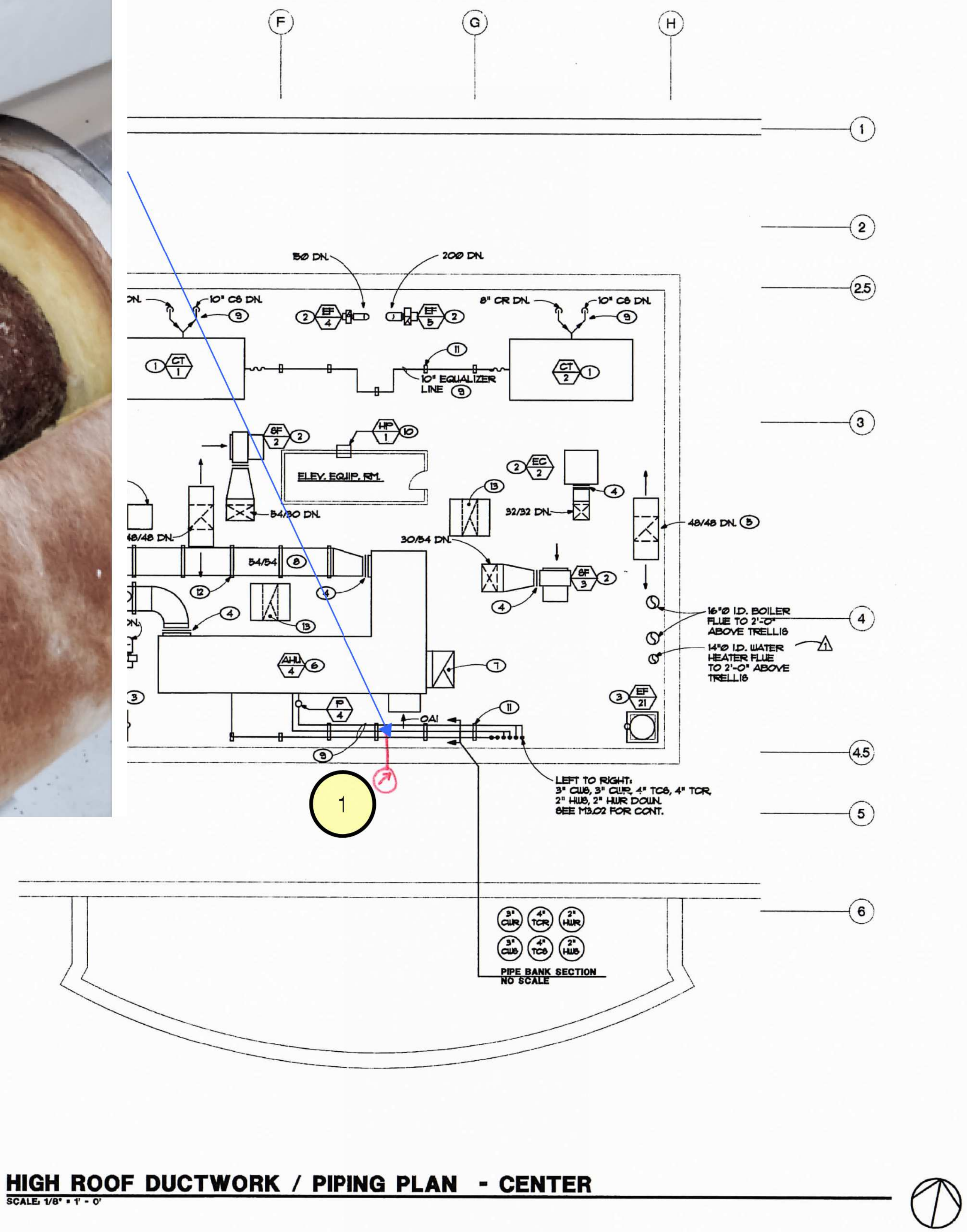
Test Point	Field Meassurement		Pipe Size	Schedule 40 Wall Thickness
	CHS	CHR		
1	**5.5**	**5.4**	3"	**5.5**
2	**6.4**	**6.5**	5"	**6.5**
3	**5.6**	**5.6**	4"	**6.0**
4	**6.4**	**6.4**	5"	**6.5**
5	**5.6**	**5.7**	4"	**6.0**
6	**6.0**	**5.5**	4"	**6.0**
7	**6.6**		5"	**6.5**
8		**6.1**	5"	**6.5**
9	**5.5**	**5.6**	4"	**6.0**
10	**5.0**	**5.0**	3"	**5.5**
11	**6.4**	**6.5**	5"	**6.5**
12	**5.4**	**5.6**	4"	**6.0**
13	**5.7**		4"	**6.0**
14	**5.6**	**6.4**	4"	**6.0**
15	**5.0**	**5.1**	3"	**5.5**



FIFTH FLOOR (ROOF) DUCTWORK / PIPING PLAN - WEST
SCALE: 1/8" = 1'-0"

SIXTH FLOOR (ROOF) DUCTWORK / PIPING PLAN - CENTER
SCALE: 1/8" = 1'-0"

F) DUCTWORK / PIPING PLAN - EAST



HIGH ROOF DUCTWORK / PIPING PLAN - CENTER
SCALE: 1/8" = 1' - 0"

GENERAL NOTES

A. SEE ARCHITECTURAL AND / OR STRUCTURAL DRAWINGS FOR APPLICABLE ROOF PENETRATION DETAILS & MOUNTING DETAILS.

B. DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR DIMENSIONS. SEE SPECIFICATIONS FOR INTERNAL DUCT LINER REQUIREMENTS & INCREASE SHEET METAL SIZES ACCORDINGLY.

C. GENERAL CONTRACTOR SHALL ARRANGE FOR THE ROOF MEMBRANE APPLICATOR TO BE PRESENT DURING THE INSTALLATION OF ANY MECHANICAL EQUIPMENT / PIPING OCCURING AFTER INSTALLATION OF ROOF MEMBRANE. REFER TO SECTION 07530 FOR ADDITIONAL INFORMATION. INSTALLATION OF MECHANICAL EQUIPMENT / PIPING AFTER ROOF MEMBRANE IS INSTALLED IS NOT TO PROCEED OTHERWISE.

D. DUCTWORK CONSTRUCTION REQUIREMENTS:
   a) LOW PRESSURE: 1" WG POSITIVE OR NEGATIVE STATIC PRESSURE.
   b) MEDIUM PRESSURE (MP) : 4" WG POSITIVE STATIC PRESSURE.

E. SEE SPEC. SECTION 15516 FOR HEAT TAPE TRACING OF PIPELINES.

SHEET NOTES

1. MOUNT ON STRUCTURAL STEEL FRAME ON SPECIFICATION "SB" MOUNTS. SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
2. MOUNT ON SPECIFICATION "SB" MOUNTS ON CURBED PLATFORM. EXTEND DISCHARGE UP & TERMINATE W/ SCREENED "TEE" TOP JUST BELOW TRELLIS.
3. EXTEND DISCHARGE DUCT UP TO TOP OF TRELLIS.
4. TYPICAL: NEOPRENE FLEX CONNECTION.
5. EXTEND UP & TERMINATE W/ SCREENED "TEE" TOP JUST BELOW TRELLIS.
6. MOUNT ON STRUCTURAL STEEL FRAME, SEE ARCHITECTURAL AND STRUCTURAL DRAWINGS.
7. 42/12 EXHAUST DUCT UP TO JUST BELOW TRELLIS W/ BIRDSCREEN AT TOP & DRAIN AT BOTTOM.
8. SEE DUCT SUPPORT DETAILS ON ARCHITECTURAL DRAWINGS.
9. SEE PIPE SUPPORT DETAILS ON ARCHITECTURAL DRAWINGS.
10. COORDINATE EXACT MOUNTING LOCATION VS. ELEVATOR EQUIPMENT INSTALLATION. PROVIDE ADDITIONAL ANGLE IRON SUPPORT AS MAY BE REQUIRED.
11. TYPICAL PIPING SUPPORT: LOCATE AT BEAM LINES: SEE ARCHITECTURAL & STRUCTURAL DRAWINGS FOR DETAILS. ADDITIONAL SUPPORTS (NOT SHOWN) MAY, IN FACT, BE REQUIRED FOR PROPER INSTALLATION & SHALL BE PROVIDED.
12. TYPICAL DUCTWORK SUPPORT: LOCATE AT BEAM LINES: SEE ARCHITECTURAL & STRUCTURAL DRAWINGS FOR DETAILS. ADDITIONAL SUPPORTS (NOT SHOWN) MAY, IN FACT, BE REQUIRED FOR PROPER INSTALLATION & SHALL BE PROVIDED.
13. ELEVATOR HOISTWAY VENT DUCT. EXTEND UP & TERMINATE W/ SCREENED "TEE" TOP JUST BELOW TRELLIS. VERIFY ALL CONDITIONS W/ ELEVATOR VENDOR SIZE PER UBC 5104.

LUCCHESI •GALATI• ARCHITECTS
2770 SOUTH MARYLAND PARKWAY SUITE 510
LAS VEGAS, NEVADA 89109
(702) 733-7107

STATE OFFICE BUILDING

DEPARTMENT OF GENERAL SERVICES

SPWB JOB # 91-C9

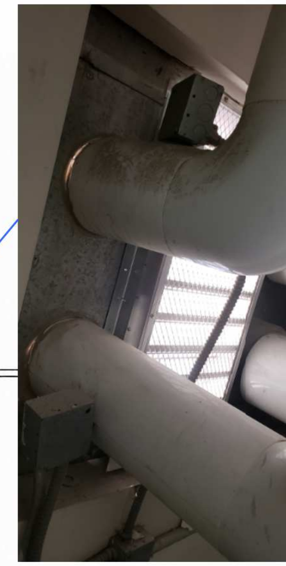
HARRIS ENGINEERS, INC.
MECHANICAL/ELECTRICAL CONSULTANTS

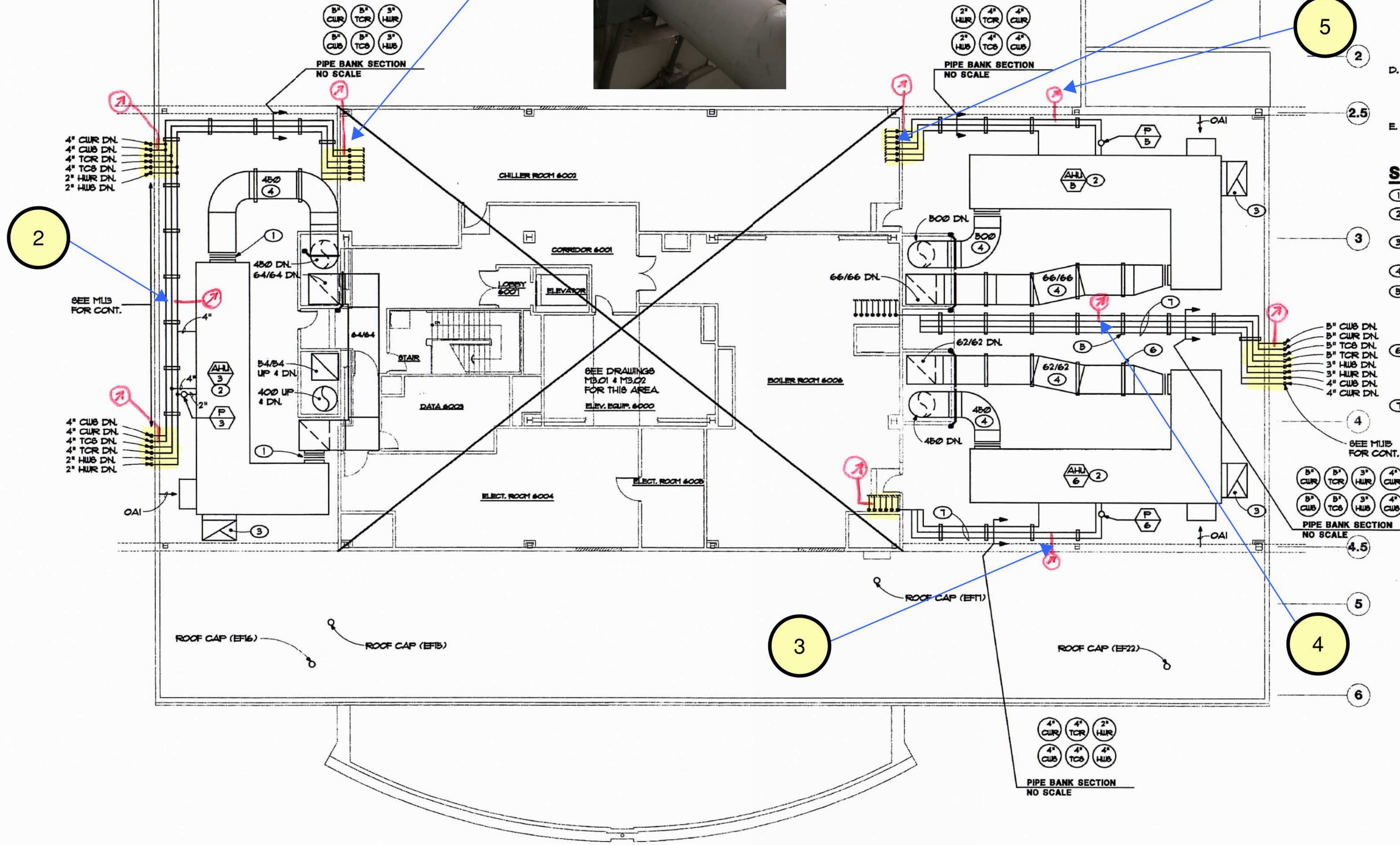
Date: FEBRUARY 23, 1993.
Project No.: 91-010
Scale: AS NOTED
Drawn By: RJ.
Revisions:
2-23-95 RECORD DRAWINGS

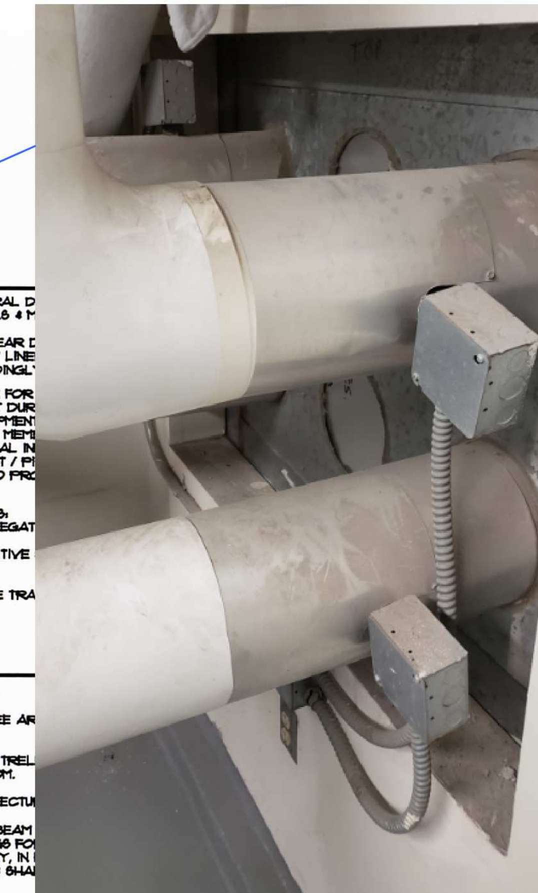
Sheet Title:
HIGH ROOF DUCTWORK / PIPING PLAN CENTER

KEY PLAN

Sheet Number:
M1.17







GENERAL NOTES

A. SEE ARCHITECTURAL AND / OR STRUCTURAL D APPLICABLE ROOF PENETRATION DETAILS & M

B. DUCT DIMENSIONS SHOWN ARE INSIDE CLEAR D SEE SPECIFICATIONS FOR INTERNAL DUCT LINE & INCREASE SHEET METAL SIZES ACCORDINGL

C. GENERAL CONTRACTOR SHALL ARRANGE FOR MEMBRANE APPLICATOR TO BE PRESENT DUR INSTALLATION OF ANY MECHANICAL EQUIPMEN OCCURING AFTER INSTALLATION OF ROOF MEM REFER TO SECTION 07530 FOR ADDITIONAL IN INSTALLATION OF MECHANICAL EQUIPMENT / P ROOF MEMBRANE IS INSTALLED IS NOT TO PR OTHERWISE.

D. DUCTWORK CONSTRUCTION REQUIREMENTS:
  a) LOW PRESSURE: 1" WG POSITIVE OR NEGAT PRESSURE.
  b) MEDIUM PRESSURE (MP) : 4" WG POSITIVE PRESSURE.

E. SEE SPEC. SECTION 15516 FOR HEAT TAPE TRA PIPELINES.

SHEET NOTES

1. TYPICAL: NEOPRENE FLEX CONNECTION.
2. MOUNT ON STRUCTURAL STEEL FRAME, SEE AR AND STRUCTURAL DRAWINGS.
3. 42/12 EXHAUST DUCT UP TO JUST BELOW TREL BIRDSCREEN AT TOP & DRAIN AT BOTTOM.
4. SEE DUCT SUPPORT DETAILS ON ARCHITECTU
5. TYPICAL PIPING SUPPORT: LOCATE AT BEAM ARCHITECTURAL & STRUCTURAL DRAWINGS FO ADDITIONAL SUPPORTS (NOT SHOWN) MAY, IN REQUIRED FOR PROPER INSTALLATION & SHA PROVIDED.
6. TYPICAL DUCTWORK SUPPORT: LOCATE AT BEAM LINES: SEE ARCHITECTURAL & STRUCTURAL DRAWINGS FOR DETAILS. ADDITIONAL SUPPORTS (NOT SHOWN) MAY, IN FACT, BE REQUIRED FOR PROPER INSTALLATION & SHALL BE PROVIDED.
7. SEE PIPE SUPPORT DETAILS ON ARCHITECTURAL DRAWINGS.

SIXTH FLOOR (ROOF) DUCTWORK / PIPING PLAN - CENTER

SCALE: 1/8" = 1' - 0"

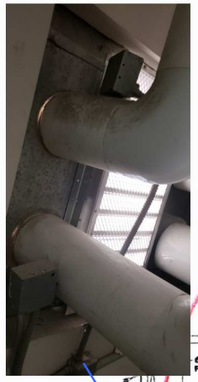
KEY PLAN

HARRIS ENGINEERS, INC.
MECHANICAL/ELECTRICAL CONSULTANTS
2785 East Desert Inn Road, Suite 260
Las Vegas, Nevada 89121
702/796-0226

Date: FEBRUARY 23, 1993.
Project No.: 91-010
Scale: AS NOTED
Drawn By: RJ.
Revisions:
2-23-95 RECORD DRAWINGS

Sheet Title:
SIXTH FLOOR (ROOF) DUCTWORK/PIPING PLAN - CENTER

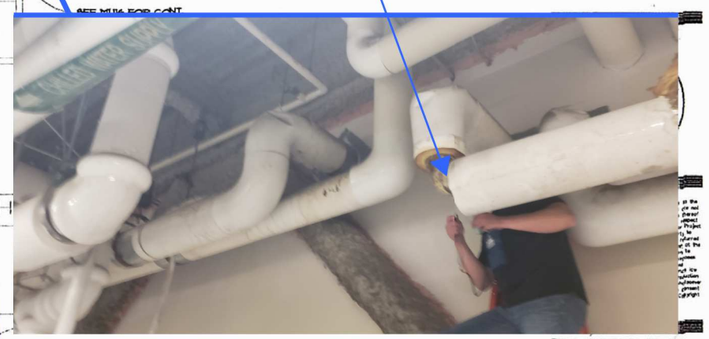
Sheet Number:
M1.16

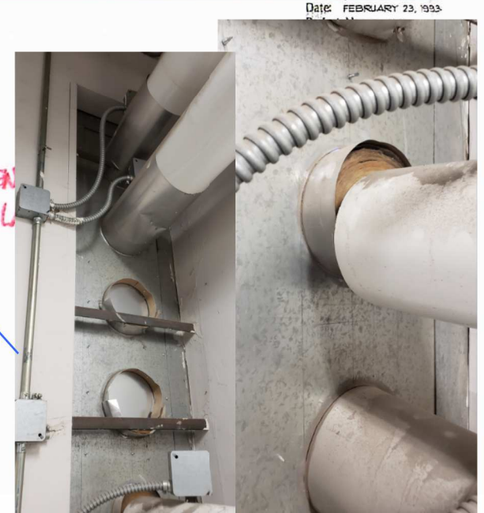


WALL PENETRATION CHECK INSULATION

FLOOR PENETRATION CHECK INSULATION

WALL PENETRATION CHECK INSULATION





WALL/FLOOR PENETRATION CHECK INSULATION

No insulation on penetration

CHS Elbow

6.9

6.5

GENERAL NOTES

A. SEE DRAWING M3.01 FOR EQUIPMENT I.D.

B. PIPING SHALL NOT RUN DIRECTLY OVER ELEC... IF ABSOLUTELY UNAVOIDABLE, PROVIDE DRA... PIPING.

SHEET NOTES

1. 8'-0" X 8'-0" KNOCKOUT PANEL BY G.C. FOR ... EQUIPMENT INGRESS / EGRESS, KEEP CLEAR.
2. LEFT TO RIGHT: 5" CWS, 5" CWR, 5" HWS & 5" HW...
3. 1/2" AIR LINE FROM TC SYSTEM; TERMINATE 48" ... SHUT-OFF VALVE & QUICK CONNECT; FOR CHILLER ... SPRINGS.
4. TYPICAL RISER ISOLATION VALVE.

DEPARTMENT OF GENERAL SERVICES

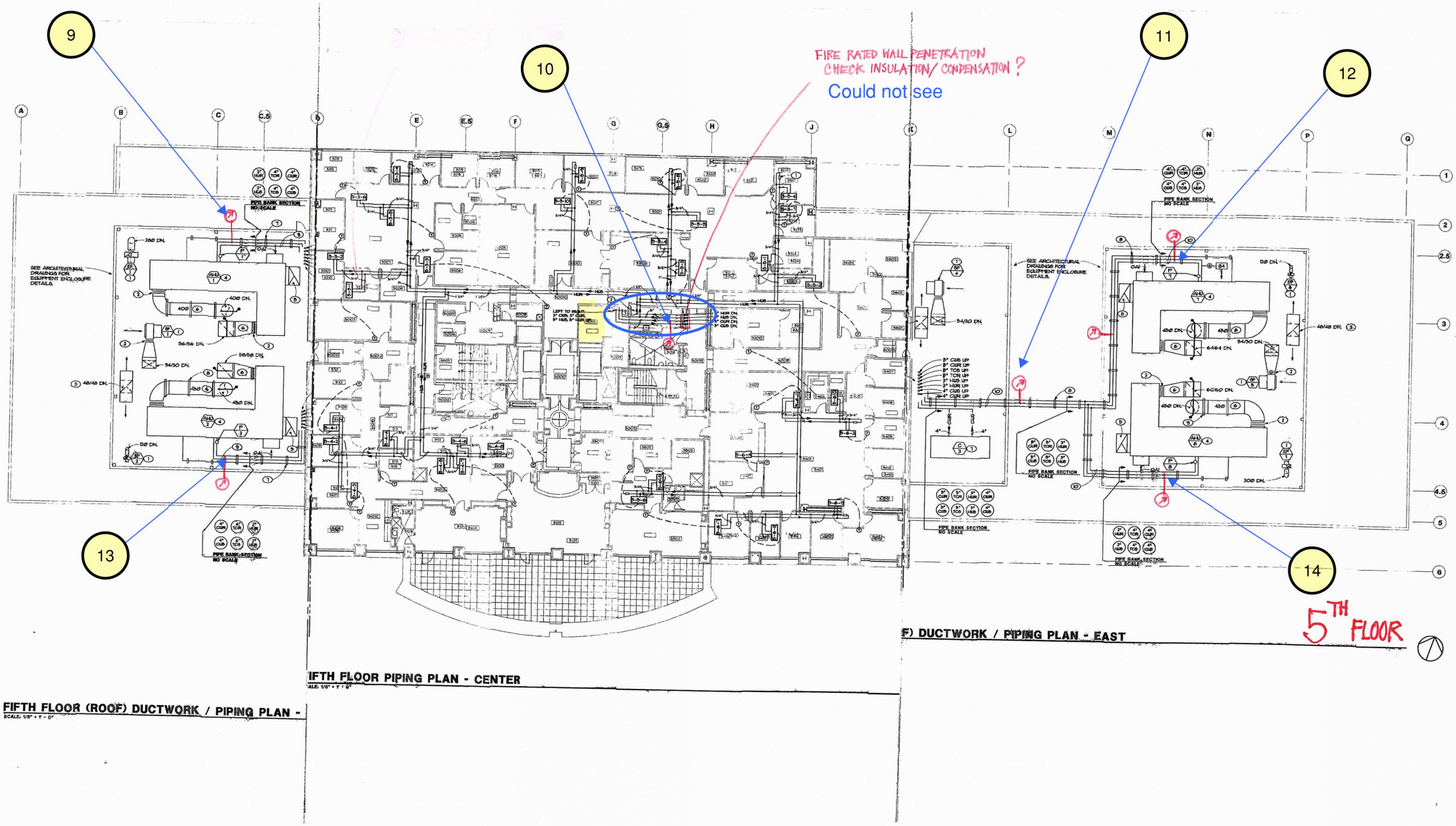
SFWB JOB # 91-C9

HARRIS ENGINEERS, INC.
MECHANICAL/ELECTRICAL CONSULTANTS

Date: FEBRUARY 23, 1993

BOILER / CHILLER ROOMS HVAC PIPING PLAN

SCALE: 1/4" = 1'-0"


9
10
11
12
13
14
FIRE RATED WALL PENETRATION
CHECK INSULATION/ CONDENSATION ?
Could not see
5TH FLOOR
FIFTH FLOOR (ROOF) DUCTWORK / PIPING PLAN -
IFTH FLOOR PIPING PLAN - CENTER
F) DUCTWORK / PIPING PLAN - EAST

Abandoned Pipes,
& New copper

15

FIRE RATED WALL PENETRATION
CHECK INSULATION

Abandoned Pipes,
& New copper

GENERAL NO

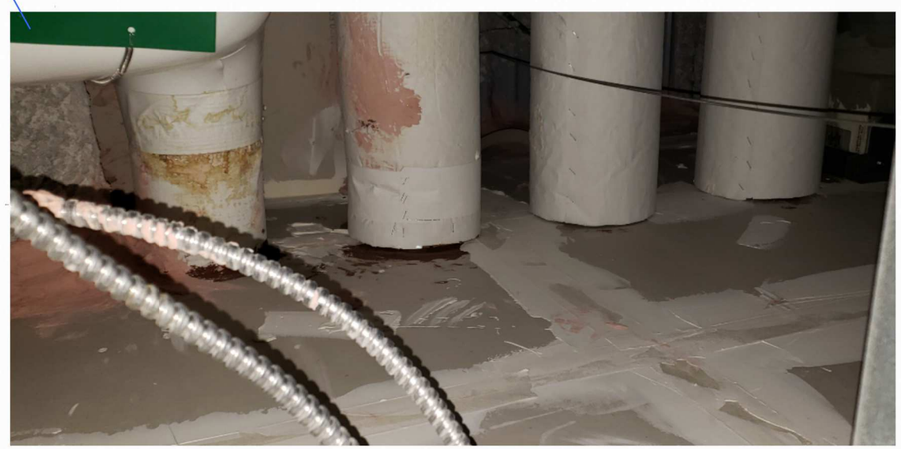
SHEET NOTE

OR PIPING PLAN - WEST

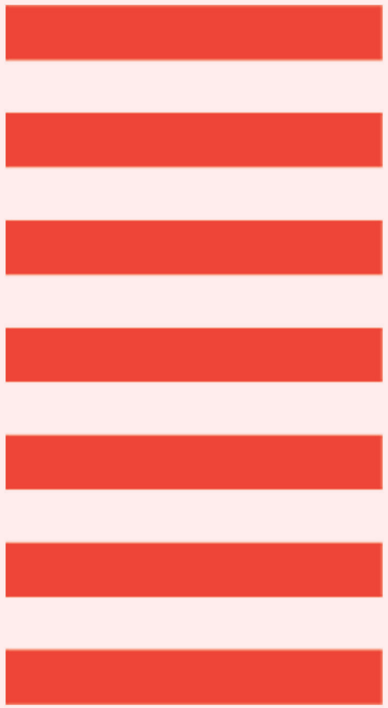
G PLAN - CENTER

T FLOOR PIPING PLAN - EAST

1ST FLOOR



Elevator Assessment



kga

HKA
Elevator Consulting, Inc.

January 02, 2019

Brian Henley
Partner, Architect
KGA ARCHITECTURE
9075 West Diablo Drive, Suite 300
Las Vegas, Nevada 89148

Reference: GRANT SAWYER STATE OFFICE BUILDING - Property Condition Assessment

Dear Brian:

On October 15, 2018 HKA Elevator Consulting, Inc. made a site visit to the Grant Sawyer State Office Building at 555 E Washington Ave located in Las Vegas, NV. The building is 224,000 gross square feet in size and located just north of downtown Las Vegas. The purpose of our visit was to survey four (4) passenger elevators and one (1) service elevator for modernization, repair or replacement. The survey was to determine the existing elevator equipment condition, building and hoistway construction and determine the work by others criteria for the elevator modernization specifications. The following is the result of our survey. The vertical transportation equipment was manufactured and installed by Montgomery Elevator Company in 1995.

ELEVATOR OPTIONS:

A. Repair major components.

GRANT SAWYER ELEVATOR INVENTORY:

Elevator	Use	Capacity	Speed FPM	Machine Type	Floors Served	Openings	Door Type	Door Opg
1	Passenger	3500	350	OH DC Geared	1,2,3,4,5	Front	C/O	3'–6"
2	Passenger	3500	350	OH DC Geared	1,2,3,4,5	Front	C/O	3'–6"
3	Passenger	3500	350	OH DC Geared	1,2,3,4,5	Front	C/O	3'–6"
4	Passenger	3500	350	OH DC Geared	1,1R,2,3,4,5, 5R	Front & Rear	C/O	3'–6"
Serv. 5	Service	4000	350	OH DC Geared	1,2,3,4,5,6	Front	S/O	4'–0"

EXECUTIVE SUMMARY OF CONDITIONS:

The existing elevator equipment was manufactured and installed by Montgomery Elevator Company in 1995. The elevator equipment is original to the building and has not been modernized. The current service provider is Otis Elevator Company.

We found the annual and five year code required tests are all overdue. The date of the last inspection was in 2015 for the passenger elevators and 2012 for the service elevator. In our opinion, all elevators should be written up and red-tagged if corrections are not implemented. The last five year full load test was performed in 2012. These tests and inspections should be completed immediately.

The machines are Montgomery geared DC traction model 208E, roped 1:1. The passenger cars have a

30HP DC motor and the service car has a 40HP DC motor. The machines are in fair to poor condition and are now obsolete. Replacement parts are becoming very hard to procure. We noted the hoist ropes are severely rouging / undersized and are in need of replacement as they do not meet current codes. The elevators were all running approximately 10% less than contract speed.

The controllers are Montgomery solid state Ultron model controllers. The controllers and drives are in poor condition and are now obsolete. Replacement parts cannot be obtained. Elevator #2 has been shut down for 2 years due to the need for a new drive unit.

MAJOR REPAIRS*: within 30-120 days

- Replace hoist ropes, equalize, tension, rope lubricators, replace missing clips – 5 elevators
- Replace or repair drive unit - #2
- Perform annual inspections, annual and full 5 year safety tests – 5 elevators
- Test buffers and safety circuits – all 5 elevators
- Adjust door closing pressure to be within code (30 ft. lbs.) – 5 elevators
- Perform complete tear down of brakes including cores and linings – 5 elevators
- Replace machine seal - #3
- Drain, flush and refill machine gear oil, seal leaks – 5 elevators
- Replace controller fan – service elevator
- Perform hoistway clean down including car tops and pits – 5 elevators
- Remove trash, debris, building materials from machine rooms
- Install fire extinguisher – passenger machine room
- Replace car fans - #1 and 3

**Check your service contract as some or all of these repairs may be covered under your existing maintenance agreement.*

We estimate these repairs would cost approximately $200K.

These estimates do not include any work that will be required to be performed by other contractors to upgrade existing hoistways, machine rooms and electrical work for compliance with code. For the new elevator scenario, this does include the cost to build the new core and only includes four (4) passenger elevators. The service elevator would remain in place and be fully modernized. The old core will need to be removed as well.

AREAS OF CONCERNS:

1. Inspections and code required tests are all overdue.
2. The major equipment components are obsolete.
3. Extensive repairs are immediately necessary.

Please review this information and give me a call to discuss these items prior to developing the rough draft of the modernization specification. Should you have any questions regarding the above, please do not hesitate to call.

Sincerely,
HKA Elevator Consulting, Inc.

Jeff Crusham

Jeff Crusham
Director, National Business Development

PHOTOS NEXT PAGES

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5	
ELEVATOR NUMBER	**Machine Room**

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5

#1-4	  Passenger machines and controllers.
#5	

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5

	Service machine and controller.
#1-4	
	Passenger controllers.
#1-4	
	Materials being stored in room.

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5

#5	
	Ladder not secured, stored energy.
	Machine
#4	
	Typical passenger worm and gear DC machine with DC motor.

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5

#5	 Service car worm and gear DC machine with DC motor.
#1	 Typical passenger worm and gear DC machine with DC motor.

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5

#1	 Ropes showing wear. Rope debris.

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Las Vegas, NV

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January 2, 2019

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5

#1

Typical gear box.

Controller & Motor Drives

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5

#1

Typical Ultron controller.

Typical Ultron controller.

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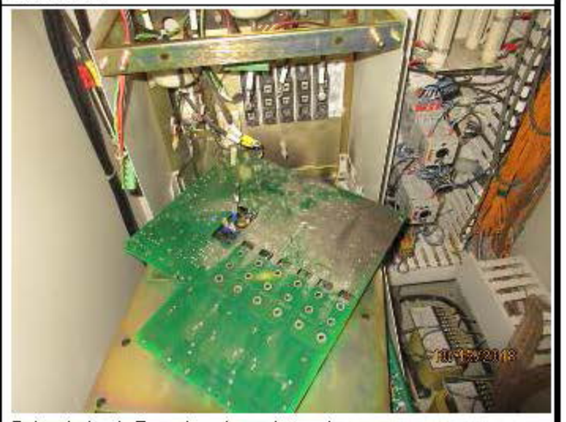
GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5

#2	 Drive unit.
#2	 Drive is bad. Requires board repair.

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5

Pass	 Controller card racks.
	Selector / Governor
Pass	 Typical governor.
	Car Top / Hoistway / Ropes

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5

ALL	 Typical MAC door operator.
ALL	 Top of car inspection station.

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5

ALL	 Hoist ropes are rouging and undersized, require replacement.
ALL	 Hoist ropes are rouging and undersized, require replacement.

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January 2, 2019

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5	
ALL	 Typical door pick up roller assembly.
ALL	 Typical counterweights. These would be retained and reused.

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5	
ALL	 Counterweight roller guides.
ALL	 Car roller guides.
Pit Area	

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January 2, 2019

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5

ALL	 Typical pit showing buffer.
Door & Frames	
ALL	

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5

	 Lobbies.
ALL	

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Las Vegas, NV

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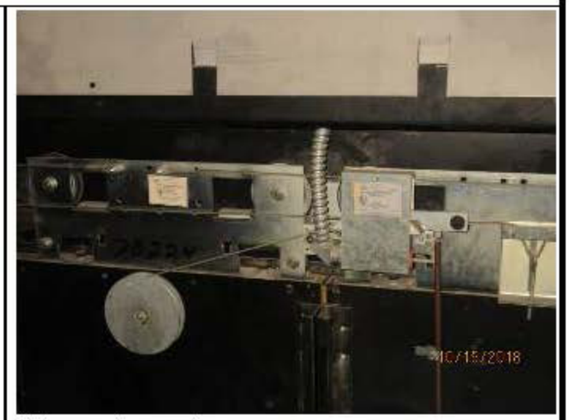
January 2, 2019

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5

	 Hall doors may be reused.
ALL	 Hall door gibs.

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5

ALL	 Hoistway door equipment.
	Cabs & Fixtures
ALL	 Typical car operating panel

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5

#4	 Car panel in good condition.

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5

#5	 Car panel is ADA compliant and in good condition.
ALL	 Cab interiors in good condition.

Grant Sawyer Office Building
Las Vegas, NV

KGA Architecture
January 2, 2019

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5	
ALL	 Cab interiors in good condition.
#5	 Existing service cab interior.

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5	
ALL	 New vandal resistant fixtures meeting ADA will be installed.
ALL	 Hall lanterns can be retained. LED lighting clusters can be added.

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5	
ALL	 In car lanterns.
	Lobby Stations
ALL	 Elevator lobby station in Fire Control Room.

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5	
ALL	
	Smoke & Heat Detectors
ALL	There are smoke detectors but there are no heat detectors.
	Machine Room Electrical
ALL	 Existing main line disconnect switches.

GRANT SAWYER STATE OFFICE BUILDING: ELEVATORS #1-5

ALL	 Car light 100V disconnect switches will be required in machine rooms.
ALL	 Machine room outlets will need to be converted to GFI outlets, one per wall.

Shunt Trip Devices & Sprinklers

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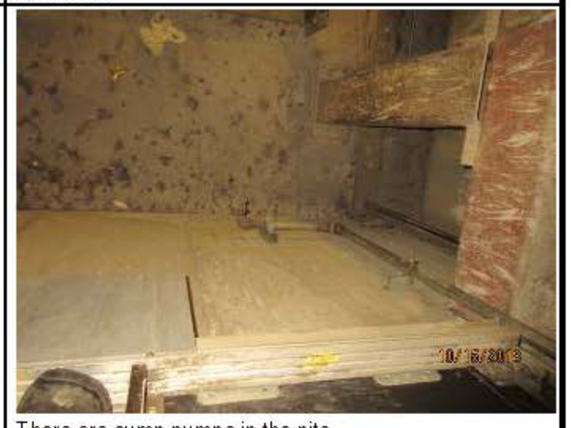
ALL	 Shunt trips in the machine rooms will be required due to sprinklers.
ALL	 There are sump pumps in the pits.

Machine Room Doors / Stairs

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#5	 This ladder will require a variance to be reused for a modernization.
ALL	 All machine room doors meet code.

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ALL	 All machine room doors meet code.
Machine Room Ventilation	
ALL	

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	 AC is in rooms.
Machine Room Fire Extinguishers	
#5	 ABC fire extinguisher is present in the machine room.
#1-4	There is no fire extinguisher in this room.
Lobby Smoke Protection	

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ALL	 The lobbies have smoke control doors.
Pit Access / Platforms	
ALL	 Pits are accessible via pit ladder, will need to be modified to meet new codes.

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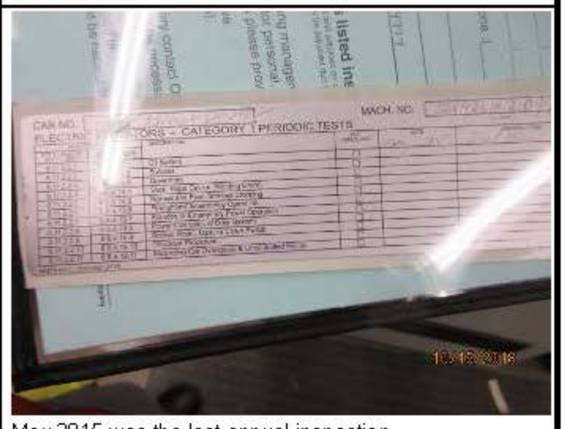
Miscellaneous Items	
ALL	 Five year CAT 5 full load tests were last performed March 2011.
#1-4	 May 2015 was the last annual inspection.

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#1-4	 Last CAT5 full load 5 year test performed in March 2011.

END OF REPORT

Grant Sawyer Office Building
Las Vegas, NV
KGA Architecture
January 2, 2019

End of Volume Two

kga