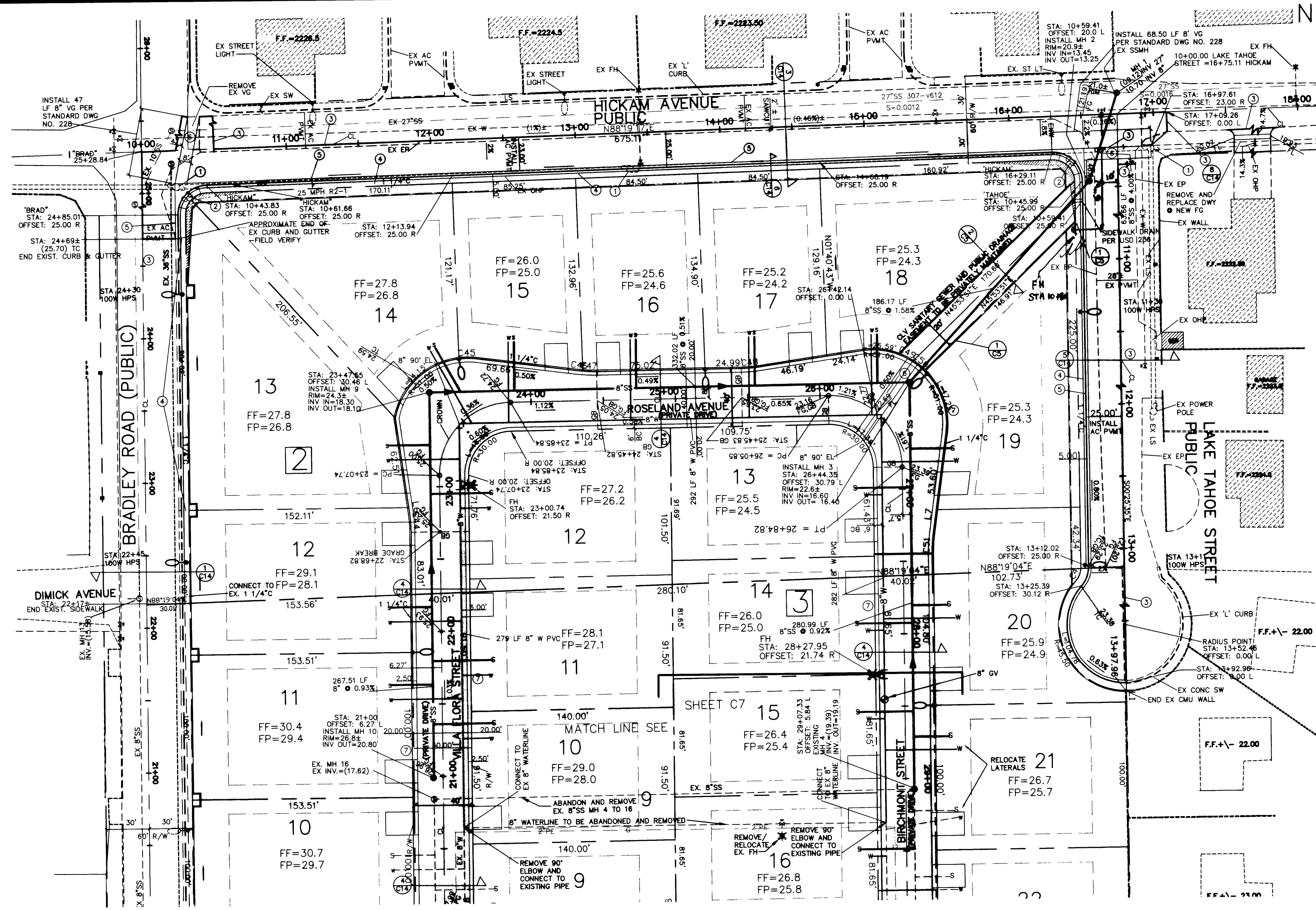




ESTIMATE OF PUBLIC QUANTITIES

8" W	853 LF
FH NEW COMPLETE UDACS 7	2 EA
FH RELOCATE COMPLETE UDACS 7	1 EA
NEW 3/4" WATER METER PER UDACS 1B	11 EA
RELOCATE 3/4" WATER METER UDACS 1B	12 EA
REMOVE/ABANDON 3/4" SERVICE LATERAL	17 EA
8" SS	1130 LF
MH>6"	2 EA
MH<6"	4 EA
NEW 4" SS LATERAL	18 EA
RELOCATE 4" SEWER LATERAL	4 EA
REMOVE/ABANDON 4" SEWER LATERAL	5 EA

LAS VEGAS VALLEY WATER DISTRICT NOTES LVWD PROJECT # 25229

- NO WORK SHALL BEGIN UNTIL THE WATER PLANS HAVE BEEN RELEASED FOR CONSTRUCTION BY THE LVWD. FOLLOWING WATER PLAN APPROVAL, 48 HOURS NOTICE SHALL BE GIVEN TO THE LVWD COMMUNICATIONS SUPPORT CENTER (258-7171) PRIOR TO THE START OF CONSTRUCTION. NOTICE MUST BE GIVEN BY 2:00 P.M. THE BUSINESS DAY PRIOR TO A LVWD INSPECTION. WHEN REQUESTING INSPECTIONS, PLEASE REFER TO THE PROJECT # IDENTIFIED ABOVE.
- ALL WORK SHALL CONFORM TO LVWD STANDARD PLATES, DRAWINGS, AND SPECIFICATIONS AND THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR WATER DISTRIBUTION SYSTEMS (UDACS), LATEST EDITION.
- ALL WORK, EXCEPT AS MODIFIED BY THESE PLANS OR BY NOTE 2, SHALL BE DONE IN ACCORDANCE WITH THE MOST CURRENT DRAFT OR EDITION OF THE UNIFORM STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION OFF-SITE IMPROVEMENT, CLARK COUNTY AREA.
- A SINGLE PIPE MATERIAL SHALL BE USED THROUGHOUT THE PROJECT UNLESS OTHERWISE APPROVED BY THE LVWD.
- ALL SERVICE LATERALS TWO (2) INCHES IN DIAMETER AND SMALLER SHALL BE COPPER TUBING WITH LVWD APPROVED SERVICE SADDLES.
- ALL WATER METER BOXES SHALL BE LOCATED OUTSIDE OF DRIVEWAY AREAS.
- ALL VALVES SHALL BE LOCATED OUTSIDE OF DRIVEWAYS, VALLEY AND CURB GUTTERS.
- THE FOLLOWING REQUIREMENTS MUST BE MET IN THE EVENT A WATER LINE AND SANITARY OR STORM SEWER LINE CROSS:
 - A MINIMUM EIGHTEEN (18) INCH VERTICAL SEPARATION (OUTSIDE TO OUTSIDE) MUST BE MAINTAINED WHEN THE WATER LINE IS INSTALLED OVER THE SANITARY OR STORM SEWER LINE. IF THE VERTICAL SEPARATION CANNOT BE MAINTAINED OR THE WATER LINE MUST BE PLACED UNDER THE SANITARY OR STORM SEWER LINE, THE SANITARY OR STORM SEWER LINE MUST BE CONSTRUCTED WITH ONE OF THE FOLLOWING OR, AS SHOWN ON THESE PLANS:
 - POTABLE WATER SUPPLY QUALITY MATERIAL.
 - ENCASEMENT, WITH FOUR(4) INCH CONCRETE (MINIMUM).
 - SLEEVING WITH POTABLE WATER SUPPLY QUALITY PIPE.
 EACH PROVISION MUST EXTEND ALONG THE SANITARY OR STORM SEWER, ON EITHER SIDE OF THE MAIN, A MINIMUM 10 FOOT DISTANCE PERPENDICULAR TO THE WATER MAIN EXTERIOR.
- WARNING TAPE SHALL BE REQUIRED OVER ALL MAINS, ALL SIX(6) INCH DIAMETER AND LARGER SERVICE LATERALS, AND ANY SERVICE LATERAL NOT INSTALLED PERPENDICULAR TO THE MAIN IN ACCORDANCE WITH STANDARD PLATE NO. 27.
- ALL WATER FACILITIES SHALL BE FILLED, DISINFECTED, PRESSURE TESTED, FLUSHED, FILLED AND AN ACCEPTABLE WATER SAMPLE OBTAINED, PRIOR TO CONNECTION TO THE LVWD'S DISTRIBUTION SYSTEM.
- THE CONTRACTOR MUST OBTAIN ALL METERS TWO(2) INCHES AND SMALLER FROM LVWD CENTRAL STORES. TELEPHONE 258-3152 FORTY-FOUR(48) HOURS PRIOR TO PICKUP.
- CONSTRUCTION MAY INTERRUPT SERVICE, WITH LVWD APPROVAL AND PROPER NOTIFICATION, BETWEEN THE HOURS OF 10 PM AND 5 AM, SUNDAY THROUGH THURSDAY. CIRCUMSTANCES MAY REQUIRE TEMPORARY SERVICES FEEDS BE INSTALLED, WITHOUT LVWD REIMBURSEMENT. ANY TEMPORARY SERVICE FEED MUST HAVE PRIOR LVWD APPROVAL.
- ALL WATER FACILITY CONSTRUCTION MATERIALS USED MUST BE AS LISTED ON THE LVWD'S PRE-APPROVED MATERIALS AND MANUFACTURERS LISTING FOR NEW FACILITIES, LATEST REVISION, OR SPECIFICALLY APPROVED ON THESE PLANS.

APPROVED FOR CONSTRUCTION

LAS VEGAS VALLEY WATER DISTRICT DATE

LAS VEGAS FIRE DEPARTMENT

FIRE FLOW IS: 1500 GPM AT 20 PSI RESIDUAL PRESSURE

BASED ON: 3500 SF
SQUARE FOOTAGE: 3500 SF
LARGE AREA BETWEEN 4-HR AREA SEPARATION WALLS: 3500 SF
BUILDING HEIGHT: 1-STORY
NUMBER OF STORIES: 1 FLOORS
OCCUPANCY: B-1
FULL AUTOMATIC FIRE SYSTEM: NO
CONSTRUCTION TYPE: V-N

CITY OF LAS VEGAS FIRE DEPT. DATE 3.26.01

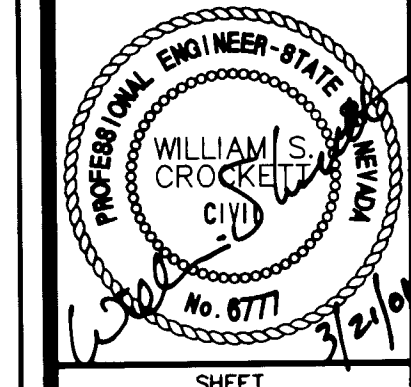
BENCHMARK

CITY OF LAS VEGAS # 46, 1LV00 12N4, BEING A RIVET AND PLATE IN WATER METER PAD, 5401 W. ALEXANDER ROAD AT BRADLEY ROAD, N.A.V.D. 88 DATUM ELEVATION 681.6670 METERS (2236.4358 FEET).

BASIS OF BEARINGS

NORTH 00°10'18" WEST BEING THE BEARING OF THE WEST LINE OF THE NORTHWEST QUARTER OF SECTION 1, TOWNSHIP 20S, RANGE 60E, M.D.M. WEST LINE ALSO BEING THE CENTERLINE OF BRADLEY ROAD AS SHOWN ON BOOK 79 PAGE 9 OF PLATS OFFICIAL RECORDS, CLARK COUNTY, NEVADA.

LEGEND			
EXISTING	PROPOSED	EXISTING	PROPOSED
RIGHT-OF-WAY	PROPERTY LINE	RETAINING WALL	CHAIN LINK FENCE
CENTERLINE	WATER LINE	GRADE BREAK	WIRE FENCE
SANITARY SEWER LINE	GAS LINE	FRESH FLOOR	CLEANOUT INVERT ELEV.
STORM DRAIN	POWER LINE/POWER POLE	FLOW LINE	FRESH GRADE
TELEPHONE LINE	FIRE HYDRANT	TOP OF CURB	TOP OF WALL
WATER VALVE	METERS/PULL BOXES	GATE	SEMI
REDUCER	MANHOLE	100 W.H.P.S.	150 W.H.P.S.
CONTOUR	A.C. PAVING	200 W.H.P.S.	250 W.H.P.S.
TYPE "T" CURB & GUTTER	TYPE "X" CURB		
CONCRETE			



SHEET C8
8 OF 14 SHEETS
DRAWING NO. 307Y-4670

EMERALD DEVELOPMENT

1304 ALPINE DRIVE
BOULDER CITY, NEVADA 89005
(702) 293-1819

UTILITY PLAN SHEET

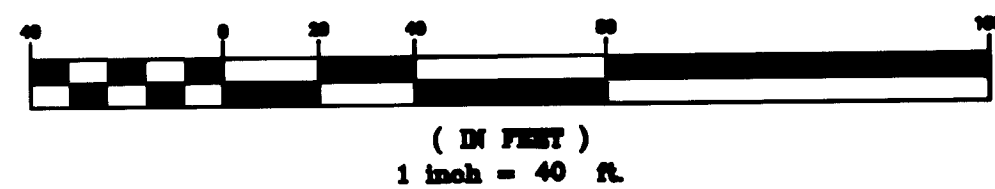
SHEET

DRAWN BY: ACAD
DESIGNED BY: MSE
CHECKED BY: PJB
PROJECT NO: 98652

DATE: 12/26/99
SCALE: 1"=40'

WILLOWDALE PARK UNIT 1 AND 2

GRAPHIC SCALE



NOTES

- EXISTING WILLOWDALE PARK IMPROVEMENTS PER DWG#107Y-44785
- SEE SHEET C4 FOR LINE AND CURVE TABLES.
- ALL PRIVATE DRIVES ARE P.U.E.'S, PUBLIC SEWER EASEMENTS, AND PUBLIC DRAINAGE EASEMENTS TO BE PRIVATELY MAINTAINED.

CONSTRUCTION NOTES

- CONTRACTOR TO REPAIR OR REPLACE ALL EXISTING SITE ITEMS DAMAGED DURING CONSTRUCTION TO ORIGINAL CONDITION.
- CONTRACTOR TO ADJUST ALL EXISTING METERS, VAULTS, MANHOLES AND SITE ITEMS TO FINISHED GRADE.
- CONTRACTOR TO FIELD VERIFY LOCATION AND ELEVATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
- DELTA ENGINEERING ASSUMES NO RESPONSIBILITY FOR EXISTING UTILITY LOCATIONS AND ELEVATIONS. THE UTILITIES SHOWN ON THIS DRAWING ARE PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD THE LOCATION AND ELEVATION OF ALL UTILITIES, INCLUDING BUT NOT LIMITED TO THE WATER, FIRE, SANITARY SEWER, TELEPHONE, POWER, GAS AND IRRIGATION LINES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. IF A CONFLICT EXISTS BETWEEN WHAT IS SHOWN ON THESE DRAWINGS AND WHAT EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE PROJECT ARCHITECT, OWNER'S REPRESENTATIVE AND THE PROJECT ENGINEER IMMEDIATELY.

AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.
Call before you Dig- 1-800-227-2600
NEVADA POWER ENVIRONMENT AND SAFETY SERVICES DEPARTMENT

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

DELTA 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 EXISTS IN THE FIELD, THE CONTRACTOR IS TO NOTIFY THE ARCHITECT, OWNER'S REPRESENTATIVE OR ENGINEER IMMEDIATELY.