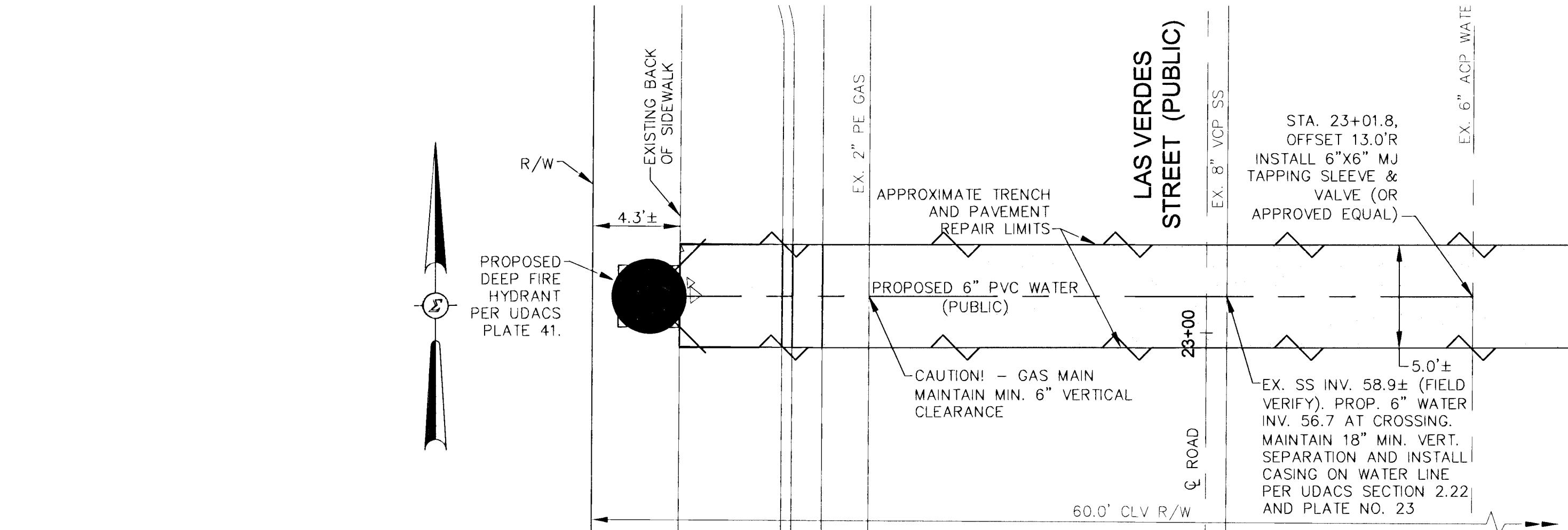
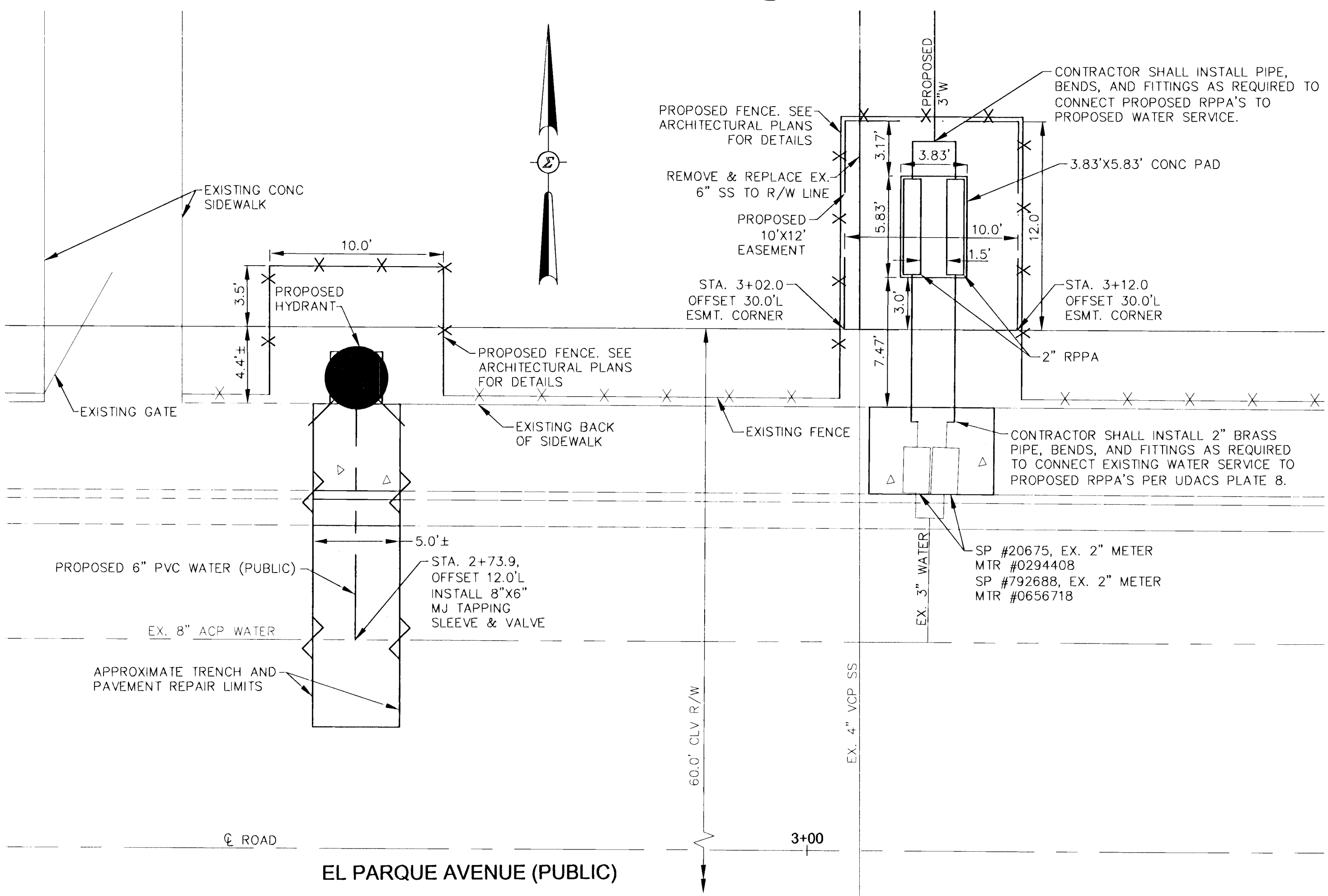


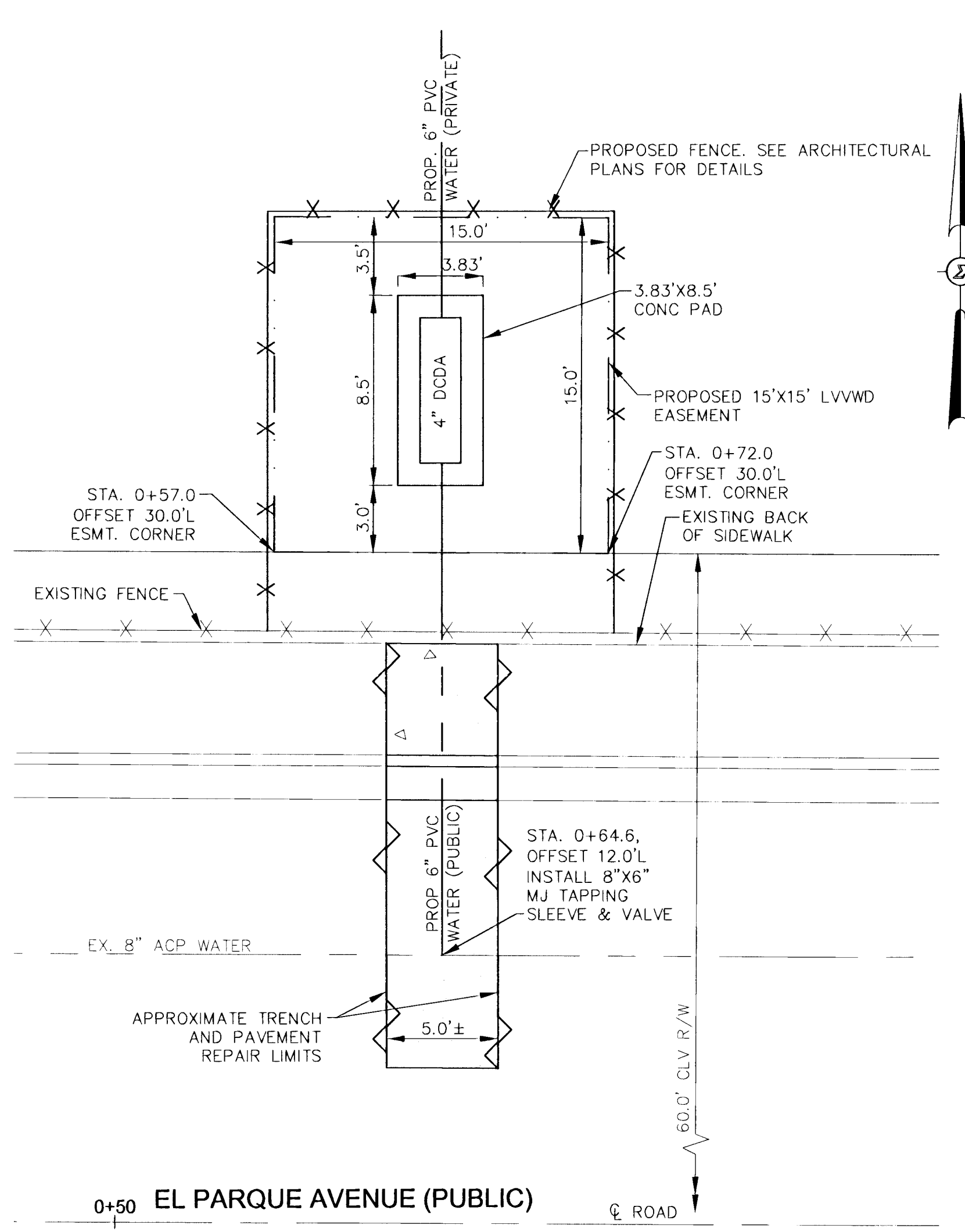
**A**  
**C41** 4' RPPA DETAIL  
SCALE: 1"=5'



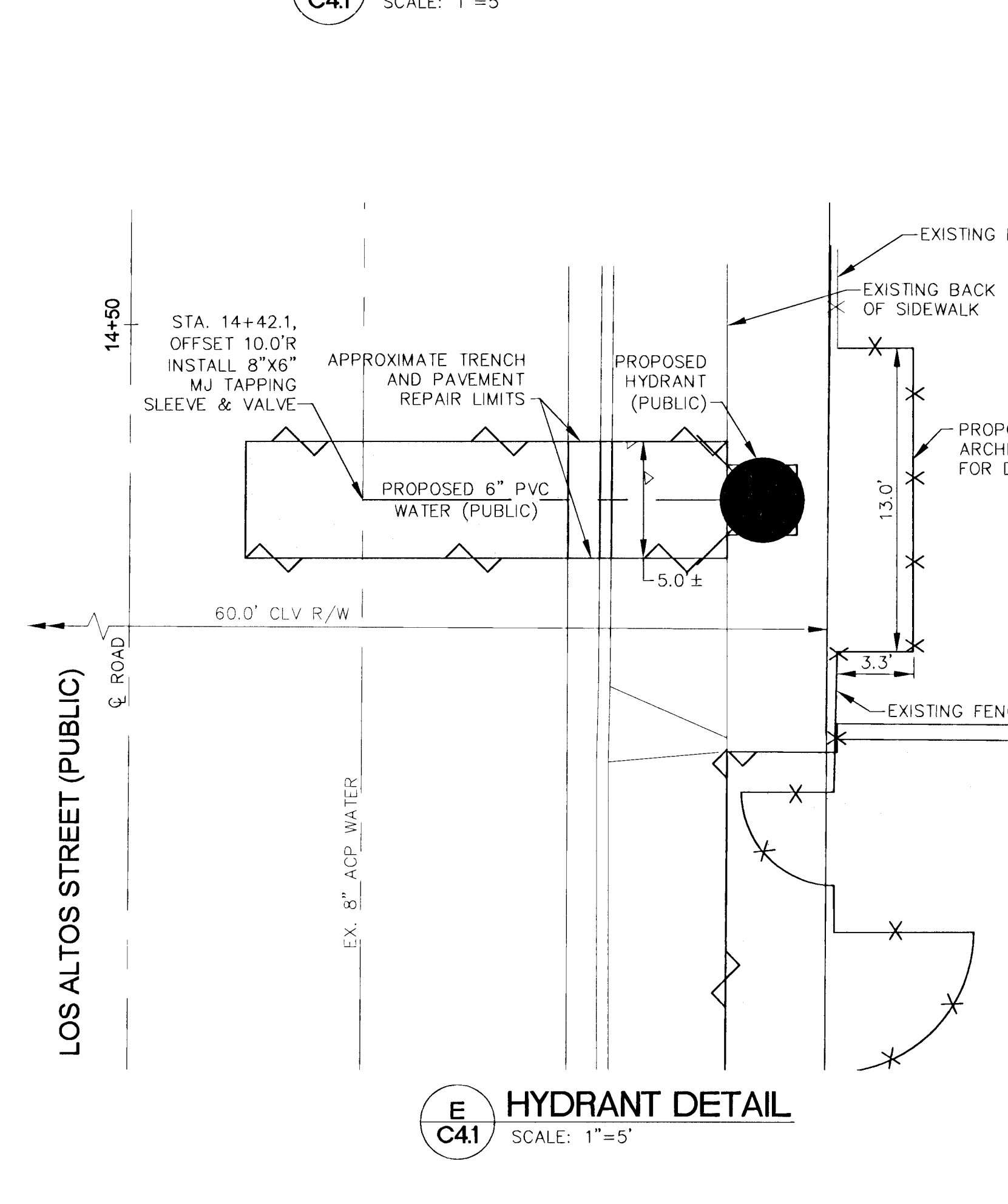
**B**  
**C41** HYDRANT DETAIL  
SCALE: 1"=5'



**C**  
**C41** HYDRANT AND DUAL 2' RPPA DETAIL  
SCALE: 1"=5'



**D**  
**C41** 4' DCDA DETAIL  
SCALE: 1"=5'



**E**  
**C41** HYDRANT DETAIL  
SCALE: 1"=5'

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| <b>BASIS OF BEARING</b>  |
| SOUTH 89°45'22" WEST, BEING THE BEARING OF THE STREET CENTERLINE OF EL PARQUE AVENUE BETWEEN LAS VERDES STREET AND LOS ALTOS STREET AS SHOWN IN BOOK 7, PAGE 12 OF PLATS ON FILE AT THE CLARK COUNTY, NEVADA RECORDER'S OFFICE.          |
| <b>BENCHMARK</b>   |
| CITY OF LAS VEGAS BENCHMARK "BLV11 666", BEING A RIVET AND PLATE IN THE TOP OF CURB ON THE SOUTH SIDE OF OAKLEY BOULEVARD @ HINSON STREET.<br>ELEVATION: 2165.45 FEET (660.032 METERS)<br>NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) |
| <b>FIRE FLOW INFORMATION</b>   |
| TOTAL FIRE FLOW REQUIREMENTS: 2,250 GPM  |
| ONSITE FIRE FLOW REQUIREMENTS:   |
| A. ONSITE FIRE HYDRANT REQUIREMENTS: 0 GPM   |
| B. BUILDING FIRE SPRINKLER REQUIREMENT: 300 GPM  |
| C. ONSITE FIRE PUMP FOR SPRINKLERS REQUIRED: <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO   |
| D. ONSITE FIRE FLOW: 300 GPM<br>(HIGHER OF THE VALUES SHOWN IN A, B, OR C)   |

|   |
|---|
| <b>REDUCED PRESSURE PRINCIPLE ASSEMBLY</b>  |
| APPROVED REDUCED PRESSURE PRINCIPLE ASSEMBLY(S) SHALL BE INSTALLED PER THE UDACS PLATE NO. 8 FOR THE 2" RPPA AND PLATE 56 FOR THE 4" RPPA. NO WATER SHALL BE TAKEN FROM A SERVICE REQUIRING BACKFLOW PREVENTION UNTIL THE REDUCED PRESSURE PRINCIPLE ASSEMBLY HAS BEEN SUCCESSFULLY TESTED BY THE LVWD. |
| ANY BLOCK WALL OR OTHER FENCE MATERIAL SHALL BE DESIGNED AND CONSTRUCTED AROUND THE OUTSIDE OF THE EASEMENT(S) TO ALLOW THE DISTRICT DIRECT ACCESS FROM THE ADJACENT RIGHT-OF-WAY.  |
| EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.<br>REVISED 09/10/09   |

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|--|
| <b>DOUBLE CHECK DETECTOR ASSEMBLY (DCDA)</b>   |
| THE DOUBLE CHECK DETECTOR ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH THE UDACS PLATE NO. 56.   |
| 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 FROM THE ADJACENT RIGHT-OF-WAY. |
| EASEMENTS SHALL BE CLEARLY MARKED OR STAKED PRIOR TO THE START OF CONSTRUCTION.<br>REVISED 09/10/09  |

|   |
|---|
| <b>FIRE HYDRANT INSTALLATION</b>  |
| FIRE HYDRANT(S) TO BE INSTALLED IN ACCORDANCE WITH THE UDACS STANDARD PLATE NO. 40 OR 41 (WHERE NOTED).<br>REVISED 09/10/09 |

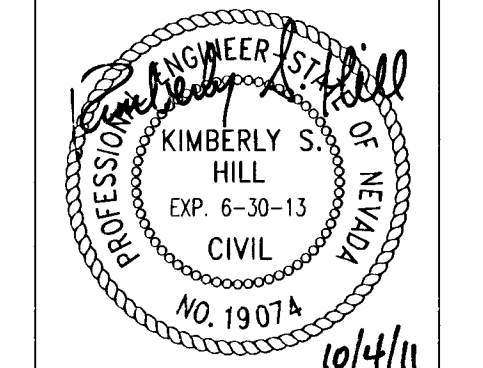
|   |
|---|
| <b>GENERAL LVWD NOTES:</b>  |
| 1. DISPOSAL OF ASBESTOS CEMENT PIPE SHALL BE IN ACCORDANCE WITH AWWA, LOCAL, STATE, AND FEDERAL REGULATIONS.  |
| 2. ALL SEWER/STORM DRAINS CROSSING WATER LINES MUST CONFORM TO SECTION 2.22 OF THE UNIFORM DESIGN AND CONSTRUCTION STANDARDS FOR POTABLE WATER SYSTEMS (UDACS) FOR WATER AND STORM MAIN CROSSINGS AND CLEARANCES. |

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| <b>GENERAL CLV NOTE</b>  |
| ALL ABOVE GROUND UTILITY APPURTENANCES SHALL CONFORM TO THE REQUIREMENTS OF TITLE 19.08. |

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|---|---|--|
| <p>CALL BEFORE YOU DIG<br/>CALL 702-227-7511<br/>OR CALL 702-452-5500</p> | <p>CALL BEFORE YOU DO OVERHEAD WORK<br/>CALL 702-227-2929</p> | <p>AVOID CUTTING UNDERGROUND UTILITY LINES. IT'S COSTLY.<br/>CALL 1-800-227-2800</p> |
|---|---|--|

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL EXISTING CONDITIONS SHOWN ON THESE PLANS. THESE PLANS WERE CREATED USING THE BEST AVAILABLE INFORMATION AND THE ENGINEER TAKES NO RESPONSIBILITY FOR THE ACCURACY OF THE UTILITY INFORMATION SHOWN. IF THE CONTRACTOR FINDS A DISCREPANCY IN INFORMATION SHOWN ON THESE PLANS, THEN THEY ARE REQUIRED TO CONTACT THE ENGINEER IMMEDIATELY.

|     |          |      |       |
|-----|----------|------|-------|
| NO. | REVISION | DATE | APPR. |
|     |          |      |       |



**SIGMA ENGINEERING SOLUTIONS, INC.**  
313 PILOT ROAD, SUITE B  
LAS VEGAS, NV 89119  
PH. 702.247.4462  
FAX 702.632.2838

**VEGAS VERDES ELEMENTARY SCHOOL HVAC AND SCHOOL MODERNIZATION**  
APN: 162-06-701-001  
CIVIL UTILITY PLAN

|                           |                     |                  |                 |
|---------------------------|---------------------|------------------|-----------------|
| DRAWN BY<br>K. HILL, P.E. | CHECKED BY<br>SIGMA | DATE<br>10/04/11 | SCALE<br>VARIES |
| JOB NO. 10_0140           |                     |                  |                 |

**C41**  
10 OF 10  
715-87-2

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128335

*R. Hill (OFF-SITE ONLY)* 10/19/11  
CITY OF LAS VEGAS FIRE DEPARTMENT DATE

*Dona Gregory* 10/24/11  
LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER DATE  
PROJECT #116815.