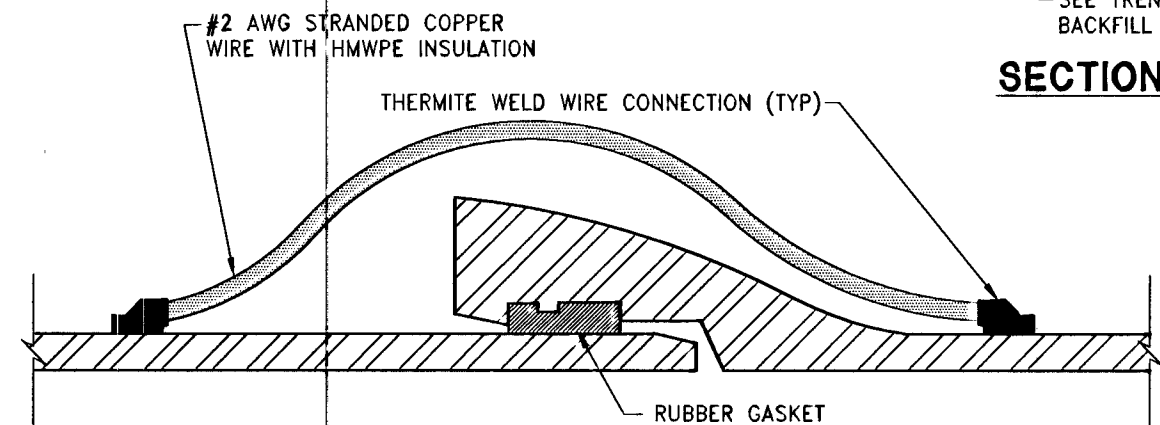
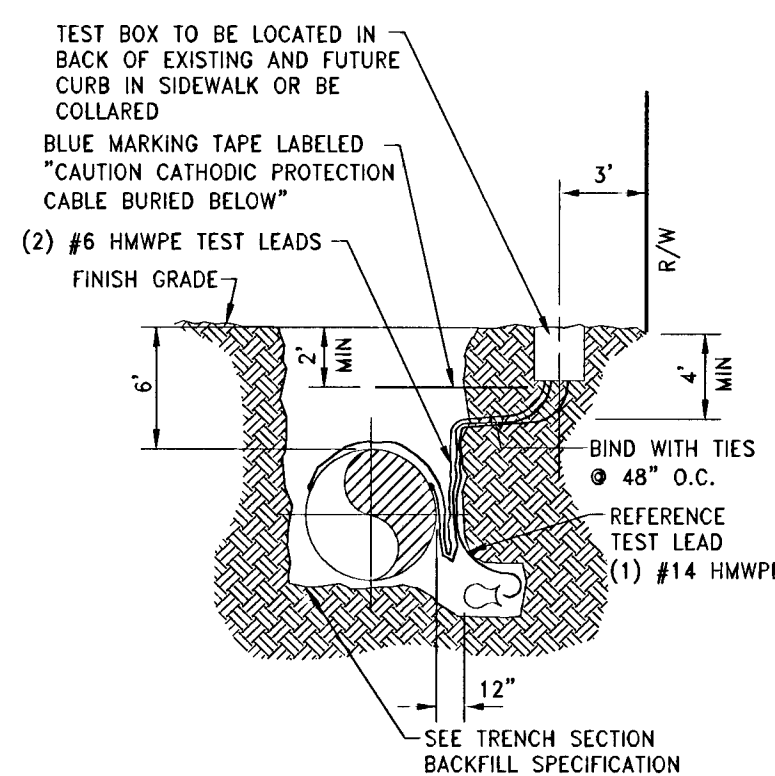
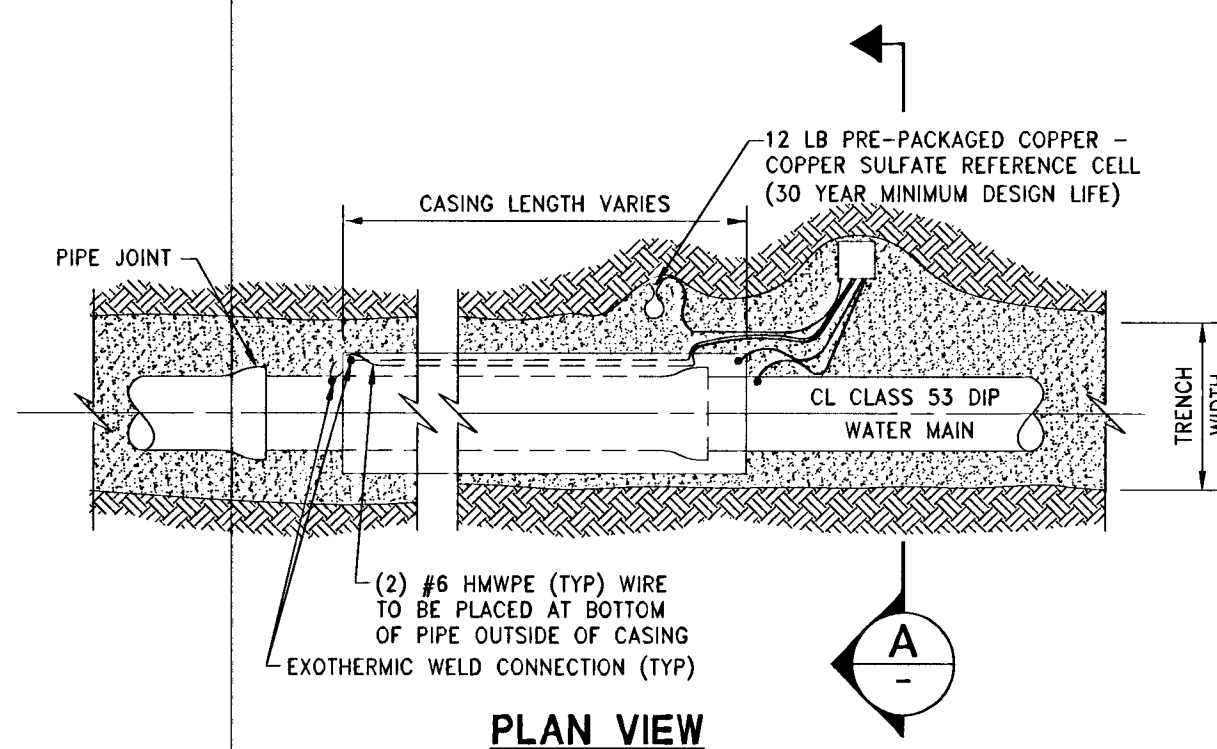


- NOTES:**
- USE ONLY NATIVE SOIL FREE OF ROCKS AND CLODS FOR BACKFILL AROUND CELLS WITH A MINIMUM OF 5 GALS OF WATER SATURATION DURING INSTALLATION. DO NOT USE SAND AS BACKFILL.
 - SUPPLY ENOUGH WIRE FROM EACH LEAD TO REACH FULL EASEMENT WIDTH PLUS FIVE (5) ADDITIONAL FEET. COIL WIRE IN BOTTOM OF BOX. (200' MAX.) BLACK WIRE - CASING
WHITE WIRE - DIP PIPELINE
 - TEST STATION PLACEMENT TO BE PERPENDICULAR TO PIPE. AT INTERSECTIONS, TEST STATION WIRES TO BE PLACED PARALLEL TO PIPE FOR PLACEMENT PERPENDICULAR TO PIPE AFTER ROAD EASEMENT RADIUS. PLACE IN SIDEWALK OR TO BE COLLARED.
 - STANDARD CASING PER UDAPS PLATE 23 W/ ANNUAL SPACE FILLED WITH CLASS 1 CLSM PIPE TO BE TYPE 53 DIP RESTRAINED FULL LENGTH, AND DOUBLE WRAPPED.
 - DIP PIPE JOINT BONDING PER DETAIL PL12-9 AND BELOW



DIP JOINT BOND



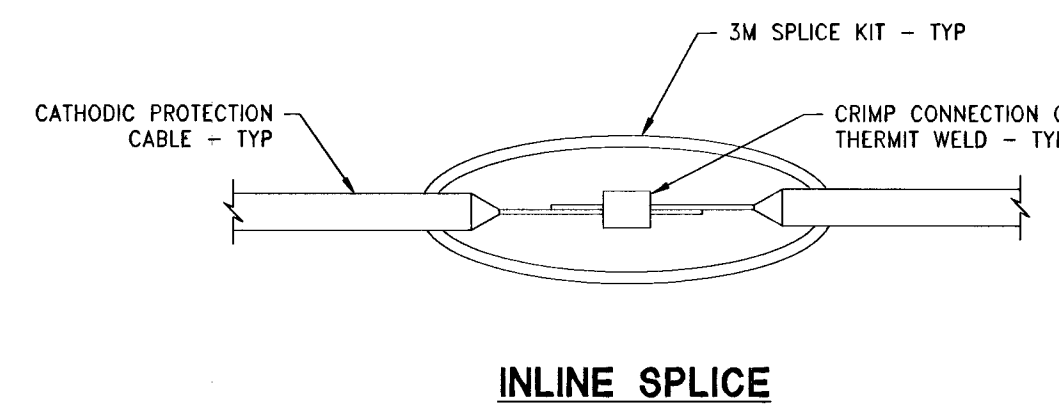
PLAN VIEW

EASEMENT/COMMON ELEMENT DETAIL TYPE 'T' TEST STATION WITHOUT ANODES 51 D-4 NOT TO SCALE

COMMON ELEMENT/ EASEMENT REQUIREMENTS

- ISOLATION VALVES ARE REQUIRED AT THE POINT OF CONNECTION (EXTERIOR) AND WITHIN 10' OF THE BACK OF CURB (INTERIOR), WITH NO SERVICE CONNECTION BETWEEN THE VALVES.
- THE PIPELINE MATERIAL BETWEEN THE VALVES MUST BE CLASS 53 DIP, DOUBLE WRAPPED, WITH RESTRAINED JOINTS.
- THE PIPELINE MUST BE PLACED AT A MINIMUM OF 6 FOOT DEPTH OF COVER.
- THE PIPELINE MUST BE PLACED IN A STEEL CASING FOR THE ENTIRE LENGTH OF THE EASEMENT / COMMON ELEMENT PER UDAPS PLATE #23.
- AT A MINIMUM, THE JOINTS MUST BE BONDED AND A TEST STATION INSTALLED AT ONE END OF THE EASEMENT.
- FOR ALL PIPELINES 16-INCH AND GREATER, A TEST PORT WILL BE REQUIRED TO FACILITATE PIPELINE CONDITION ASSESSMENT.
- THE ENTIRE TRENCH BACKFILL MUST BE CLASS 1 CLSM.
- THE EASEMENT MUST BE A MINIMUM OF 30 FEET WIDE.
- THE PIPELINE MUST BE LOCATED A MINIMUM OF 10 FEET FROM THE EDGE OF THE EASEMENT.
- A CROSS SECTION OF THE EASEMENT MUST BE SHOWN ON THE PLANS WITH CURB/GUTTER OR BLOCK WALL USED TO DELINEATE THE BOUNDARY OF THE EASEMENT.
- THE PIPELINE MUST BE SHOWN IN A PROFILE VIEW THE ENTIRE LENGTH OF THE COMMON ELEMENT/EASEMENT.
- NO BUILDINGS, STRUCTURES, WALLS, FENCES OF TREES SHALL BE PLACED UPON, OVER OR UNDER SAID EASEMENT FOR THE DURATION OF THIS EASEMENT EXCEPT THAT SAID EASEMENT MAY BE IMPROVED AND USED FOR STREET, ROAD OR DRIVEWAY PURPOSES, TRAIL, PATH, PARKING LOT, PLAYGROUND, NON-VEHICULAR PUBLIC ACCESS, OR SHALLOW ROOT LANDSCAPING PURPOSES AND FOR OTHER UTILITIES, IN SO FAR AS SUCH USE DOES NOT INTERFERE WITH ITS USE BY THE DISTRICT FOR THE PURPOSES FOR WHICH IT IS GRANTED.
- CARBONITE OR BRASS MARKERS MUST BE USED TO DELINEATE THE LOCATION/ALIGNMENT OF THE PIPELINE WITHIN THE EASEMENT.
- THE FINAL MAP MUST DEDICATE THE SUBJECT EASEMENT AREA AS A COMMON ELEMENT AND A SEPARATE EASEMENT DOCUMENT IS REQUIRED.
- A SURFACE MAINTENANCE/REPAIR AGREEMENT WILL BE REQUIRED STATING THE DEVELOPER AGREES TO SURFACE RESTORATION/REPAIR AT SOLE COST, IN PERPETUITY.

COMMON ELEMENT/EASEMENT REQUIREMENTS 52 D-4 NOT TO SCALE



SPLICE DETAIL 53 D-4 NOT TO SCALE

DATE	APPD	REV	DESCRIPTION
September 10, 2014 <td>N/A <td></td> <td></td> </td>	N/A <td></td> <td></td>		
HORIZ. SCALE:	N/A		
VERT. SCALE:	N/A		
DRAWN BY:	CR		
DESIGNED BY:	SC		
CHECKED BY:	JUL		
APPROVED BY:	JUL		
PROJECT #:	3110.0007		

TOLL NORTH LV, LLC
 1140 TOWN CENTER DRIVE SUITE 250
 LAS VEGAS, NV 89144
 PHONE: 702-243-9800 FAX: 702-243-9810

RCI Engineering
 4325 Dean Martin Drive Suite 300 Las Vegas, Nevada 89103
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IMPROVEMENT PLANS FOR
SAYONA UNIT 3
 A SINGLE FAMILY RESIDENTIAL SUBDIVISION
 GRADING DETAILS (SHEET 4 OF 4)

APPROVED FOR CONSTRUCTION
Dis Haribor Dsm
 LAS VEGAS VALLEY WATER DISTRICT ENGINEERING SERVICES MANAGER
 DATE: 9/16/14 PROJECT# 121614

GEOTECHNICAL NOTE:
 A GEOLOGIST OR GEOTECHNICAL ENGINEER SHALL BE ON SITE DURING EXCAVATION AND MASS GRADING OPERATIONS TO EXAMINE THE SOIL CHARACTERISTICS AND GEOLOGICAL CONDITIONS ENCOUNTERED, AND TO PROVIDE PROFESSIONAL ADVICE TO THE OWNER IN THE EVENT THAT UNANTICIPATED SOIL PROBLEMS ARISE AND/OR SUBSURFACE SITE CONDITIONS ARE FOUND TO BE SIGNIFICANTLY DIFFERENT THAN DEFINED BY PRE EXPLORATION AND TESTING.

WALL & SCARP NOTE:
 1. CONTRACTOR TO CONSTRUCT ALL SCARP AND MAINTAIN PROPER COVER OVER AND FROM ALL WALL FOOTINGS PER THE SOILS REPORT REFERRED TO ON THE GRADING PLANS, REPORT ANY PROBLEMS IN DOING SO TO THE DEVELOPER AND THE ENGINEER IMMEDIATELY.
 2. SCARP LESS THAN 1' VERTICAL NOT SHOWN ON PLANS.
 3. ALL WALL ALIGNMENTS SHALL FOLLOW SIGHT VISIBILITY ZONE ALIGNMENT AND REMAIN OUTSIDE OF SIGHT VISIBILITY ZONE.

PROFESSIONAL ENGINEER
 JOHN I. LAND
 Exp. 12/31/2015
 CIVIL
 No. 16441
 9/16/2014
 DRAWING
D-4
 SHEET 10 OF 35
 DWG # 10745003
 CLV PROJECT # 052625