

**LBNL STANDARDS
CIVIL STANDARD DETAILS**

Detail # _____ Title _____

CIVIL DETAILS

C101	STREET LIGHT FOUNDATION DETAILS
C102	TYPICAL DUCT BANK INLET & OUTLET AT MANHOLE
C103	TRANSFORMER PAD FOUNDATION
C104	TYPICAL PROJECT NOTES
C105B	PIER RETAINING WALL SCHEDULE
C106	STANDARD BOLLARD DETAIL
C107	REMOVABLE BOLLARD DETAIL
C108	BOLLARD SURFACE MOUNT
C109	PEDESTRIAN AND VEHICULAR PROTECTION BARRIER DETAILS
C110	ROADWAY AND PARKING AREA PAVEMENT SECTIONS
C111	STREAM TRASH GRATE

SITE UTILITIES DETAILS

U101	UNDERGROUND UTILITY ABANDONED PIPE PLUG DETAIL
U102	BACKFLOW PREVENTER
U103	BELOW GRADE INSULATION FLANGE DETAIL
U104	BELOW GRADE INSULATING FLANGE OR INSULATING UNION DETAIL
U105	BOND CABLES DIP FITTING DETAIL
U106	CABLE TO PIPE CONNECTION DETAIL
U107	CATHODIC PROTECTION TEST BOX DETAIL
U108	CHAIN LINK FENCE DETAIL
U109	CUT OFF COLLAR DETAIL
U110	DIP BONDCABLE DETAIL
U111	TERMINAL BOARD DETAIL
U112	EXOTHERMIC WELD DETAIL
U113A	FIRE HYDRANT INSTALLATION
U114A	GAS MANIFOLD
U115	INSULATING FLANGE COUPLING DETAIL
U116	INSULATING FLANGE OR INSULATING UNION DETAIL
U117	ISOLATION VALVE DETAIL
U118	PERMANENT MAINLINE CLEANOUT RODDING INLET DETAIL
U119	PRESSURE CONTROL STATION
U120	SEWER MAIN CROSSING
U121	PRESSURE SENSOR CONNECTION
U122	ISOLATION FOR NEW FIRE SERVICE RISER WALL PENETRATION DETAIL
U123	SANITARY SEWER ABANDONED MANHOLE DETAIL
U124	SEWER LATERAL CLEANOUT
U125	WATER METER INSTALLATION
U126	SHALLOW MANHOLE DETAIL
U127	SPOT REPAIR DETAIL
U128	STANDARD MANHOLE FRAME & COVER
U129	WOOD FENCE DETAIL

**LBNL STANDARDS
CIVIL STANDARD DETAILS**

Detail #	Title
U130	NOT USED
U131	TERMINAL POST DETAIL
U132	STANDARD THRUST BLOCK DETAIL
U133	THRUST RESTRAIN DETAIL
U134	TIE-IN DETAIL
U135	TRENCH DETAIL - TYPE A
U136	TRENCH DETAIL - TYPE A1
U137	TRENCH DETAIL - TYPE B
U138	TRENCH DETAIL - TYPE C
U139	TYPICAL TRENCH SECTION
U140	TRENCH PIPE BEDDING DETAIL
U141	TYPICAL BUTTERFLY VALVE INSTALLATION DETAIL
U142	TYPICAL DROP MANHOLE
U143	TYPICAL MANHOLE DETAIL
U144	NOT USED
U145	TYPICAL SIDEWALK REPAIR SECTION
U146A	TYPICAL VALVE BOX & RISER INSTALLATION DETAIL
U147	TYPICAL WATER MAIN INSTALLATION OVER STRUCTURE
U148	TYPICAL WATER MAIN INSTALLATION UNDER STRUCTURE
U149	WALL PENETRATION DETAIL
U150	WATER MAIN TIE-IN DETAIL
U151	COMBINATION AIR RELIEF VALVE
U152	STANDARD PRECAST MANHOLE