<u>TRAC</u>	<u>K GEOMETRY - HORIZONTAL</u>	GENEF	RAL, CIVIL AND TRACK					
CC CS	COMPOUND CURVATURE POINT OF CHANGE FROM CIRCULAR CURVE TO SPIRAL	AB ABM ABN	AGGREGATE BASE AIR-BLOWN MORTAR ABANDON	DIR DIST DN	DIRECTION DISTRIBUTION DOWN	INSUL INT INV	INSULATION INTERIOR INVERT	PT PTM PVC
k1 k2	TANGENT DISTANCE OF SHIFTED PC REFERRED TO THE TS TANGENT DISTANCE OF SHIFTED PT REFERRED TO THE ST	ABUT AC AD	ABUTMENT ASPHALTIC CONCRETE AREA DRAIN	DR DRWY DTR	DRIVE DRIVEWAY DETOUR	IR	INSIDE RADIUS	PVMT
Lc	TOTAL LENGTH OF CIRCULAR CURVE FROM PC TO PT OR SC TO CS	ADJ AHD ALIGN AL T	ADJUSTABLE AHEAD ALIGNMENT ALTERNATE	DWG	DRAWING	JB JT	JUNCTION BOX JOINT	(R) R RC RCP
Lsc Ls1 Ls2	LENGTH OF COMPOUND SPIRAL FROM CS TO SC LENGTH OF SPIRAL FROM TS TO SC LENGTH OF SPIRAL FROM CS TO ST	APPROX ARCH AS ASPH	APPROXIMATE ARCHITECTURAL AGGREGATE SUBBASE ASPHALT	(E) E EA EB	EXISTING EAST EACH EASTBOUND	LB LF LG	POUNDS LINEAL FEET LONG	RD RDWY RECT
p1	OFFSET FROM INITIAL TANGENT TO PC OF THE SHIFTED CIRCLE OF SPIRALIZED CURVE	AVE AVM	AVENUE ADD VALUE MACHINE	ËBR ECR EE FF	ËND OF BRIDGE END CURB RETURN EACH END EACH FACE	LGT LGTH LH LN	LIGHT LENGTH LEFT-HAND LANE	REF REINF REL REQD
p2 PC	OFFSET FROM INITIAL TANGENT TO PT OF THE SHIFTED CIRCLE OF SPIRALIZED CURVE POINT OF CURVATURE/POINT OF CHANGE FROM TANGENT TO CIRCULAR CURVE	BAA	BOARDING ASSISTANCE AREA	EIC EJ ELEC	EMPLOYEE IN CHARGE EXPANSION JOINT ELECTRICAL		LOCATION LAYOUT LINE LOW POINT LIGHT POLE	REV RH RO RP
PCC PI POC	POINT OF COMPOUND CURVE POINT OF INTERSECTION POINT ON CIRCULAR CURVE	BBR BCR BEG BK	BEGINNING OF BRIDGE BEGIN CURB RETURN BEGIN BACK	EL ELEV EMB EMER	ELEVATION ELEVATOR EMBANKMENT EMERGENCY	LFL LT LTG LVL	LIGHT FOLE LEFT LIGHTING LEVEL	RR RT RTE RW
POS POT PRC PS	POINT ON SPIRAL POINT ON TANGENT POINT OF REVERSE CURVATURE POINT OF SWITCH	BKF BLDG BLST BLVD	BAČKFILL BUILDING BALLAST BOULEVARD	ENGR EP EQ EQUIP	ENGINEERING EDGE OF PAVEMENT EQUATION EQUIPMENT			R/W, ROW
PT	POINT OF TANGENCY/POINT OF CHANGE FROM CIRCULAR CURVE TO TANGENT	BM BOC BOT BOW	BENCHMARK BOTTOM OF CURB BOTTOM OF WALL	ES ESMT ETW EW	EDGE OF SHOULDER EASEMENT EDGE OF TRAVELED WAY END WALL	MAX MECH MED MEM	MAXIMUM MECHANICAL MEDIAN MEMBRANE	S
SC SS ST	POINT OF CHANGE FROM SPIRAL TO CIRCULAR CURVE POINT OF CHANGE FROM ONE SPIRAL	BR BR BS	BRIDGE BOTTOM OF SLOPE	EXC EXP EXT	EXCAVATION EXPANSION EXTERIOR	MET MH MIC MIN	METAL MANHOLE MICROPHONE MINIMUM	SAV SB SCHD SD
ST SPO	POINT OF CHANGE FROM SPIRAL TO TANGENT POINT ON ORIGIN OF COMPOUND SPIRAL	CAB	CABINET			MISC MOD MON MOW	MISCELLANEOUS MODIFIED MONUMENT MAINTENANCE OF WAY	SDMH SECT SERV SF
Ts1 Ts2 TS	TANGENT DISTANCE FROM TS TO PI TANGENT DISTANCE FROM ST TO PI POINT OF CHANGE FROM TANGENT TO SPIRAL	CALP CAP CB CEM	CORRUGATED ALUMINUM PIPE CAPACITY CATCH BASIN CEMENT	(F) FC FDN	FUTURE FACE OF CONCRETE FOUNDATION	MP MPH MSL	MILEPOST MILES PER HOUR MEAN SEA LEVEL	SG SHLDR SHT SIM
Xs1	TANGENT OFFSET AT THE SC	CF CG CIP CJ	CUBIC FEET CENTER OF GRAVITY CAST IN PLACE CONSTRUCTION JOINT	FF FG FH	FILTER FABRIC FINISHED GRADE FIRE HYDRANT	MTL	MATERIAL	SL SLPA SPEC
Xs2 Ys1	TANGENT OFFSET AT THE CS	CL CLK CLR CMP	CENTER LINE CHAIN LINK CLEAR	FIN FL FLR FOC	FINISH FLOW LINE FLOOR FIBER OPTIC CABLE	(N) N N/A	NEW NORTH NOT APPLICABLE	SQ SS SST
Ys2	TANGENT DISTANCE AT THE CS	CMU CND CNTR	CORRUGATED METAL PIPE CONCRETE MASONRY UNIT CONDUT COUNTER	FR FT FTG FWY	FRAME FEET FOOTING FREEWAY	NB NEG NEUT	NORTHBOUND NEGATIVE NEUTRAL NOT_IN_CONTRACT	ST STA STD STIFF
∆ ∆ ∆c c1	CENTRAL ANGLE OF FIRST CIRCULAR CURVE OF COMPOUND CURVATURE	CO COC COL COMM	CLEANOUT CENTER ON CENTER COLUMN COMMUNICATIONS			NIC NO NOM NTS	NUMBER NOMINAL NOT TO SCALE	STL STRL STRUCT SW
△ _{c2}	CENTRAL ANGLE OF SECOND CIRCULAR CURVE OF COMPOUND CURVATURE	CONC CONN CONST CONT	CONCRETE CONNECTION CONSTRUCTION CONTINUOUS	GA GALV GCL GM	GAUGE GALVANIZED GRADING CONTROL LINE GUIDE MARKER	OA	OVERALL	SWL SWK SY SYMM
⊖ _{s1}	CENTRAL ANGLE OF SPIRAL LENGTH LS1 OR SPIRAL ANGLE OF FIRST SPIRAL IN SPIRALIZED CURVE CENTRAL ANGLE OF SPIRAL LENGTH LS2 OR SPIRAL	COORD CP CRV CSP	COORDINATE CONTROL POINT CURVE CORRUGATED STEEL PIPE	GND GP GR GSP	GROUND GRADING PLANE GUARDRAIL		ON CENTER OUTSIDE DIAMETER OVERHEAD OVERPASS	
⊖ _{s2} ⊖ _{sc}	ANGLE OF SECOND SPIRAL IN SPIRALIZED CURVE CENTRAL ANGLE OF COMPOUND SPIRAL OR COMPOUND SPIRAL ANGLE FROM CS TO SC	CT CTR CULV CVR	COURT CENTER CULVERT COVER	GSP	GALVANIZED STEEL PIPE	OP OPNG OPP	OPENING OPPOSITE	T&B
	K GEOMETRY - VERTICAL	CWR CY	CONTINUOUS WELDED RAIL CUBIC YARDS	HB HC HD HDPE	HOSE BIBB HANDICAP HEAVY DUTY HIGH DENSITY POLY ETHYLENE	PB PED	PULL BOX PEDESTRIAN	TAN TBD TC TD
BVC	BEGIN VERTICAL CURVE			HĒX HH HI HMAC	HEXAGONAL HANDHOLE HIGH HOT MIX ASPHALT CONCRETE	PERM PERF PG PGL	PERMEABLE PERFORATED PAGE PROFILE GRADE LINE	TDS TEL TF TO, T/O
Ea EVC	SUPERELEVATION IN INCHES END VERTICAL CURVE	DEL DEP	DELINEATORS DEPTH	HOR HP HR	HORIZONTAL HIGH POINT HANDRAIL	PH PL P/L PNA	POTHOLE PLATE PROPERTY LINE PASSENGER NEEDING ASSISTANCE	TOC TOG TOL
PCVC PIVC POVC	POINT OF COMPOUND VERTICAL CURVE POINT OF INTERSECTION OF TWO PROFILE TANGENTS POINT ON VERTICAL CURVE	DET DFX DGAC	DETAIL DIRECT FIXATION DENSE GRADED ASPHALT CONCRETE	HS HT HW HWY	HIGH STRENGTH HEIGHT HEADWALL HIGHWAY	PNL PP PPL PPP	PANEL POWER POLE PREFORMED PERMEABLE LINE	TOP TOR, T/R TOS TOT
POVT	POINT ON VERTICAL TANGENT	DI DIA DIAG DIM	DRAINAGE INLET DIAMETER DIAGONAL DIMENSION	ID	INSIDE DIAMETER	PPP PR PSI PSM	PERFORATED PLASTIC PIPE PAIR POUNDS PER SQUARE INCH PARK BY SPACE MACHINE	TOW TRANS TS TTB
vc	VERTICAL CURVE	DIW	DIVIENSION	IE IN	INVERT ELEVATION INCHES			_
<u> </u>	DRAWN BY: A. CARLO	S DATE:	06/08/07 SCRRA ENGINEERING STANDARDS ARE INTE FOR NON-SCRRA APPROVED USES:	NDED FOR SCRRA AF				EN
	PRINCIPAL /ENGINEER	, DESIGN & STA	FOR NON-SCRRA APPROVED USES SCRRA SHALL NOT BE RESPONSIBLE FOR I THE DATA OR INFORMATION CONTAINED HE STANDARDS IS THE SOLE RESPONSIBILITY WITHOUT CONSULTING A REGISTERED PROF AND REPRESENTATIONS OF ANY KIND ARE	OF THE USER AND SECONDAL ENGINEER	AND USE OF THESE SHOULD NOT BE USED ALL WARRANTIES E MARINE SE OF			
04-13-20 DATE		RECTOR, DESIGN	THIS INFORMATION AGREES THAT IT ASSU	MES ALL LIABILITY A DULD BE REPRODUCED THE PRIOR WRITTEN I	ARISING FROM SUCH SOUTHERN CALIFC) OR DISTRIBUTED IN PERMISSION OF SCRRA. 900 WILSHIRE BLVI	D., SUITE	GIONAL RAIL AUTHORITY 1500, L. A., CA. 90017 icS_pdf_work_dir\56\488_2\ES1101.dgn	

DES. ENG. REV. DATE UserName=> scrrapw01app02\$ Date Plotted: 1/6/2021 6:36:55 PM

A 04-13-20

POINT PARKING TICKET MACHINE POLYVINYL CHLORIDE PAVEMENT	TVD TYP	TICKET VENDING DEVICE TYPICAL
RELOCATED RADIUS REINFORCED CONCRETE REINFORCED CONCRETE PIPE ROAD ROADWAY	UB UD UG UON UP UTIL	UNDERDRAIN UNDERGROUND UNLESS OTHERWISE NOTED
RECTANGULAR REFERENCE REINFORCED RELOCATE REQUIRED REVISION RIGHT-HAND	VAR VERT VMB VMS	VARIES VERTICAL VISUAL MESSAGE BOARD VISUAL MESSAGE SIGN
ROUGH OPENING REFERENCE POINT RAILROAD RIGHT ROUTE RETAINING WALL RIGHT-OF-WAY	W W/ WB WPF WRT WT WWF WWF	WEST WITH WITHOUT WESTBOUND WORK POINT WATERPROOF WITH RESPECT TO WEIGHT WELDED WIRE FABRIC WELDED WIRE MESH
SOUTH STAND ALONE VALIDATOR SOUTH BOUND SCHEDULE STORM DRAIN	XING XO, X/O	CROSSING CROSSOVER

YD

YARDS

STAND ALONE VALIDATOR SOUTH BOUND SCHEDULE STORM DRAIN STORM DRAIN MANHOLE SECTION SERVICE SQUARE FEET SUBGRADE SHOULDER SHOULDER SIMILAR SHEET SIMILAR SLOPE SIGNAGE/LIGHTING/ PUBLIC ADDRESS SPECIFICATION SQUARE SANITARY SEWER STAINLESS STEEL STATION ALCOMENT STATION, ALIGNMENT STANDARD STANDARD STIFFENER STEEL STRUCTURAL STRUCTURE SWITCH SOUNDWALL SIDEWALK SQUARE YARDS SYMMETRICAL

<u>NOTE:</u>

SEE SCRRA ES2201 AND ES2202-01 FOR ADDITIONAL HORIZONTAL AND VERTICAL ALIGNMENT ABBREVIATIONS.

TOP AND BOTTOM TANGENT TO BE DETERMINED TOP OF CONCRETE TRENCH DRAIN TELEPHONE TRACK FEET TURNOUT TOP OF CURB TOP OF GRATE TOLERANCE TOP OF RAIL TOP OF SLOPE TOP OF SLOPE TOP OF TIE TOP OF TIE TOP OF WALL TRANSITION TUBE STEEL TELEPHONE TERMINAL BOARD

ENGINEERING STANDARDS	standard 1101
	SCALE: NTS
GENERAL ABBREVIATIONS CIVIL & TRACK	A 1 OF 1
	CADD FILE: ES1101

STATI	ON COMMUNICATIONS			<u>SIGN</u>	<u>ALS</u>	<u>TRAIN</u>	CONTROL COMMUNICATION	<u>AGENC</u>	<u>ies, (</u>
ACS	ADVANCED COMMUNICATION SYSTEM	PA PAS PDA	PUBLIC ADDRESS PUBLIC ADDRESS SYSTEM PERSONAL DIGITAL ASSISTANT	AK	APPROACH TRACK INDICATION	AMPL ATCS	AMPLIFIER Advance train control system	AASHTO AAR	AMEI W ASSO
BER	BIT-ERROR RATE	PDU PLC PSTN	POWER DISTRIBUTION UNIT PROGRAMMABLE LOGIC CONTROLLER PUBLIC SWITCHING TELEPHONE	DAX	DOWNSTREAM ADJACENT CROSSING	BER BPF	BIT ERROR RATE BAND PASS FILTER	ACI ADA AMTRAK	AME AME NAT
C CC CCTV	CONDUIT COMMUNICATIONS CABINET CLOSED CIRCUIT TELEVISION-	PTB PTT PVC	NETWORK PROTECTED TERMINAL BLOCKS PUSH TO TALK PRIVATE VIRTUAL CIRCUIT	EMS	EMERGENCY ALARM CONTROL CIRCUITS	BS	BASE STATION	ANSI APWA	C AME IN AME
	VIDEO SECURITY COMMUNICATIONS EQUIPMENT ROOM COMMUNICATIONS INTERFACE CABINETS			FLT FR	SIGNAL FLEETING FLASHER RELAY	CRC CSU CTC CTCSS	CYCLIC REDUNDANCY CHECKS CHANNEL SERVICE UNIT CENTRALIZED TRAIN CONTROL CONTINUOS-TONE-CODED	AREA AREMA	AME A AME V
CID CIR CIS	CARD INTERFACE DEVICE CIRCUIT CUSTOMER INFORMATION SYSTEM	QOS	QUALITY OF SERVICE	GCR GD	GATE CONTROL RELAY GATE DOWN	0,000	SQUELCH SYSTEM	ASTM ATT	AME M ATL
CS CSMH CST	COMMUNICATION SHELTER COMMUNICATIONS SYSTEM MANHOLE COMBINED SYSTEM TRUNK	RPR RTU	RESILIENT PACKET RING REMOTE TERMINAL UNIT (COMMUNICATIONS)	ĞÊ GPR	GREEN SIGNAL LAMP GATE REPEATER RELAY (GATE IN UP POSITION)	dB dBm	DECIBEL DECIBEL REFERENCED TO A	AWG AWS	C AME AME
DC DDS DSO	DISTRIBUTION CABINET DEDICATED DIGITAL SERVICE SINGLE DATA CHANNEL OF	SCC SFX	STATION COMMUNICATION CABINET SMALL FORM (PLUGGABLE) CROSS-	LOS	LOSS OF SHUNT	dBW DBU DED	MILLIWATT DECIBEL REFERENCED TO A WATT DIAL BACKUP DRAGGING EQUIPMENT DETECTOR	BNSF CALCAS	BURI CALI
E	56-65 Kbps Existing	SLA SM SMFOC	CONNECT SERVICE LEVEL AGREEMENT SINGLE MODE SINGLE-MODE FIBER OPTIC CABLE	NGHS NGK	NORTHWARD SIGNAL REQUEST NORTHWARD SIGNAL CLEAR	DSU	DATA SERVICE UNIT	CALDAG CALTRANS	TF
EDC E&M E-LAN	ELECTRICAL DISTRIBUTION CENTER EAR AND MOUTH ETHERNET LAN	SNMP SONET SPDU	SIMPLE NETWORK MANAGEMENT PROTOCOL SYNCHRONOUS OPTICAL NETWORK SWITCHED POWER DISTRIBUTION UNIT	NJSP NWK NWP	INDICATION DUAL SELECTOR LEVER NORMAL SWITCH INDICATION NORMAL SWITCH POINT POSITION	ERP	EFFECTIVE RADIATED POWER	CCR CEC CMF CPUC	CALII CALII CEN ⁻ CALII
EOS EPL EVC EVPL	ETHERNET OVER SONET ETHERNET PRIVATE LINE ETHERNET VIRTUAL CIRCUIT ETHERNET VIRTUAL PRIVATE LINE			NWR NWS	NORMAL SWITCH CONTROL RELAY NORMAL SWITCH REQUEST	FAT FDP FEC FM	FACTORY ACCEPTANCE TEST FIBER DISTRIBUTION PANEL FORWARD ERROR CONNECTION FREQUENCY MODULATION	EIA F AA	ELEC FEDE
FDP FO	ETHERNET VIRTUAL PRIVATE LAN FIBER DISTRIBUTION PANEL FIBER OPTIC	T1C T1MUX	SINGLE DATA CHANNEL OF 1.544 Mbps A MULTIPLEXING DEVICE BY WHICH A SINGLE T1 CHANNEL IS UTILIZED TO PROVIDE DSO CHANNELS	RE RWK RWP	RED SIGNAL LAMP REVERSE SWITCH INDICATION REVERSE SWITCH POINT POSTION	FO FOPP FR	FIBER OPTIC FIBER OPTIC PATCH PANEL FRAME RELAY	FCC FRA LAUS	FEDE
FOC FPS FSE	FIBER OPTIC CABLE FRAME PER SECOND FIBER SLACK ENCLOSURE	TDM	TIME DIVISION MULTIPLEXING	RWR RWS	REVERSE SWITCH CONTROL RELAY REVERSE SWITCH REQUEST	GMSK GPS	GAUSSIAN MINIMUM SHIFT KEYING GLOBAL POSITIONING SYSTEM	MOC MUTCD	ME TF MANU DE
GBIC GBPS GIGE	GIGABIT INTERFACE CONVERTER GIGABITS PER SECOND GIGABIT ETHERNET	UPS UPS UPSR UTP	1000 MBPS SWITCH EXPANSION PORTS UNINTERRUPTIBLE POWER SUPPLY UNIDIRECTIONAL PATH SWITCH RING UNSHIELDED TWISTED PAIR	SEH SGHS SGK	SIGNAL EQUIPMENT HOUSE SOUTHWARD SIGNAL REQUEST SOUTHWARD SIGNAL CLEAR	ISDN	INTERGRATED SERVICES DIGITAL NETWORK	NEC NEMA NEPA	NATI NATI AS NATI
GND GRP GRS GUI	GROUND GLASS REINFORCED PLASTIC ROD GALVANIZED RIGID STEEL GRAPHICAL USER INTERFACE	VCAT VLAN	VIRTUAL CONCATENATION VIRTUAL LOCAL AREA NETWORK	ТЕК ТК	INDICATION SIGNAL IN TIME INDICATION OS TRACK INDICATION	КО КVМ	KEYBOARD OPERATOR KEYBOARD VIDEO MOUSE	NIC PCMCIA	NOT PERS IN
C P	INTERFACE CONVERTER INTERNET PROTOCOL	VPN	VIRTUAL PRIVATE NETWORK	TOB	TON PER OPERATIVE BRAKE	MAS MC	MULTIPLE ADDRESSING SCHEME MEDIA CONVERTER	SCE SCRRA SPR	SOU1 SOU1 SPRII
(bps	KILO BITS PER SECOND	WA WAN WAP WCM	WORK AREA WIDE AREA NETWORK WIRELESS APPLICATION PROTOCOL WAYSIDE COMMUNICATIONS	UAX	UPSTREAM ADJACENT CROSSING	MDF	MAIN DISTRIBUTION FRAME	SPTC	SOU" C(
AN CD DF ID	LOCAL AREA NETWORK LIQUID CRYSTAL DISPLAY LOCAL DISTRIBUTION FRAME LOCAL INJECTION AND DETECTION		MANAGER	WBC	SWITCH CONTROL RELAY BACK CHECK	NIC NMS	NETWORK INTERFACE CARD NETWORK MANAGEMENT SYSTEM	TIA UBC UL	TELE UNIF UNDE
PM	(FUSION SPLICING) LOCAL PAGING MICROPHONE			XR	CROSSING CONTROL RELAY	RF RX	RADIO FREQUENCY RECEIVE	UPC UPRR	UNIF UNIO
1bps 1DF 1DPE	MEGA BITS PER SECOND MAIN DISTRIBUTION FRAME MEDIUM DENSITY POLYETHYLENE (CABLE SHEATH)			ΥE	YELLOW SIGNAL LAMP	SPKR SINAD SVR	SPEAKER SIGNAL TO NOISE AND DISTORTION SERVER		
MEF MM MMFOC MOPE MS	METRO ETHERNET FORUM MULTI-MODE MULTI-MODE FIBER OPTIC CABLE MAIN POINT OF ENTERY MILLISECOND					TC/C TCT TX	TRAIN CONTROLS AND COMMUNICATION TRAIN CONTROL TRENCH TRANSMITTER		
MSPP	MULTI-SERVICE PROVISIONING PLATFORM					UHF	ULTRA HIGH FREQUENCY		
ND NMP NMS NTP NVR	NETWORK INTERFACE DEVICE NETWORK MEDIA PLAYER NETWORK MANAGEMENT SYSTEM NETWORK TIME PROTOCOL NETWORK VIDEO RECORDER					VHF VHLC	VERY HIGH FREQUENCY VITAL HARMON LOGIC CONTROLLER		
OCC OSP	OPERATION CONTROL CENTER OUTSIDE PLANT								
		DRAW	FOR NO	ENGINEERING ST N-SCRRA APPRO SHALL NOT BE	ANDARDS ARE INTENDED FOR SCRRA APPROVED USES ONLY. <u>VED USES</u> : RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF TION CONTAINED HEREIM, THE SELECTION AND USE OF THESE				
\pm		;;;]-		RDS IS THE SO T CONSULTING A	LE RESPONSIBILITY OF THE USER AND SHOULD NOT BE USED A REGISTERED PROFESSIONAL ENGINEER. ALL WARRANTIES		ETROLINK	®	
1-13 TE		C NDP	USE. NO ANY FO	PART OF THES	SE STANDARDS SHOULD BE REPRODUCED OR DISTRIBUTED IN		CALIFORNIA REGIONAL RAIL AUTHORITY E BLVD., SUITE 1500, L. A., CA. 90017		

UserName+> scrrapw01app02\$ Date Plotted: 1/6/2021 6:36:55 PM

REV. DATE

GEEGSDG

FileName+> \\scrrapw01app02\iCS_pdf_work_dir\56\488_3\ES1102.dgn

ORGANIZATIONS AND CODES

ERICAN ASSOCIATION OF STATE HIGH-WAY AND TRANSPORTATION OFFICIALS SOCIATION OF AMERICAN RAILRAODS ERICAN CONCRETE INSTITUTE ERICANS WITH DISABILITIES ACT TIONAL RAILROAD PASSENGER TIONAL RAILROAD PASSENGER CORPORATION ERICAN NATIONAL STANDARDS INSTITUTE ERICAN PUBLIC WORKS ASSOCIATION ERICAN RAILWAY ENGINEERING ASSOCIATION ERICAN RAILWAY ENGINEERING AND MAINTENANCE OF WAY ASSOCIATION ERICAN RALEWAY ENGINEERING AND MAINTENANCE OF WAY ASSOCIATION ERICAN SOCIETY FOR TESTING AND MATERIALS LANTIC TELEPHONE AND TELEGRAPH COMPANY ERICAN WIRE GAUGE ERICAN WELDING SOCIETY LINGTON NORTHERN SANTA FE LIFORNIA ACCESS COMPLIANCE SOURCE LIFORNIA DISABLED ACCESSIBILITY GUIDEBOOK LIFORNIA DEPARTMENT OF TRANSPORTATION LIFORNIA CODE OF REGULATIONS LIFORNIA ELECTRICAL CODE NTRAL MAINTENANCE FACILITY IFORNIA PUBLIC UTILITIES COMMISSION CTRONICS INDUSTRIES ALLIANCE ERAL AVIATION ADMINISTRATION ERAL COMMUNICATIONS COMMISSION ERAL RAILROAD ADMINISTRATION ANGELES UNION STATION TROLINK OPERATIONS CENTER NUAL ON UNIFORM TRAFFIC CONTROL DEVICES TIONAL ELECTRICAL CODE TIONAL ELECTRICAL MANUFACTURERS ASSOCIATION TIONAL FIRE PROTECTION ASSOCIATION T IN CONTRACT RSONAL COMPUTER MEMORY CARD INTERNATIONAL ASSOCIATION IUTHERN CALIFORNIA EDISON IUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY (METROLINK) RINT NEXTEL IUTHERN PACIFIC TRANSPORTATION COMPANY

ECOMMUNICATIONS INDUSTRY ASSOC

IFORM BUILDING CODE DERWRITERS LABORATORIES IFORM PLUMBING CODE ION PACIFIC RAILROAD

ENGINEERING STANDARDS	STANDARD 1102
GENERAL ABBREVIATIONS SIGNAL, COMMUNICATIONS AND STATION COMMUNICATIONS	SCALE: REVISION SHEET A 1 OF 7 CADD FILE: ES1107

ARCH	ITECTURAL			<u>ELEC</u>	TRICAL			MECH	ANICAL		
ACOUS ALUM AFF	ACOUSTICAL ALUMINUM ABOVE FINISHED FLOOR	PC PCC PLAM PLAS	PRECAST CONCRETE PORTLAND CEMENT CONCRETE PLASTIC LAMINATE PLASTER	AC AF AF R AGC	ALTERNATING CURRENT AMPERE FUSE AMPERE FRAME AUTOMATIC GAIN CONTROL	LED LV LS	LIGHT EMITTING DIODE LOW VOLTAGE LIMIT SWITCH		ACOUSTICAL SOUND ATTENUATOR AIR COMPRESSOR ACCESS DOOR	NC NO	NORMALLY CLOSED NORMALLY OPEN
BD BITUM	BOARD BITUMINOUS	PLYWD PTD	PLYWOOD PAPER TOWEL DISPENSER	AMP ANN AS ASW	AMPERE ANNUCIATOR AMPERE SENSOR AMPERE SWITCH	MAG MC	MAGNETIC CONTACTOR COIL METALLIC CONDUIT	ACD ACU AF AHU AP	AIR CONDITIONING UNIT AIR FILTER/AIR FOIL AIR HANDLING UNIT	O A O AD	OUTSIDE AIR OUTSIDE AIR DAMPER
BLKG BM	BLOCKING BEAM	RB RD	RESILIENT BASE ROOF DRAIN	AUX ASSY AT	AUXILIARY ASSEMBLY AMPERE TRIP	MDP MGB MS MT	MAIN DISTRIBUTION PANEL MAIN GROUNDING BUSS-BAR MOTOR STARTER EMPTY CONDUIT	AP APD ASR	ACCESS PANEL AIR PRESSURE DROP AUTOMATIC SPRINKLER RISER	PD PDN PH	PUMP DISCHARGE PLANTER DRAIN PHASE
CAB CER CI	CABINET CERAMIC CAST IRON	RESIL RM RWL	RESILIENT ROOM RAIN WATER LEADER	ATS AVI	AUTOMATIC TRANSFER SWITCH AUTOMATIC VEHICLE IDENTIFICATION	NF	NON FUSED	BD BDD	BALANCING DAMPER BACK DRAFT DAMPER	PIV PRV PS	POST INDICATOR VALVE PRESSURE REDUCING VALVE POSITION SWITCH
CIP CLG CLKG CORR	CAST IRON PIPE CEILING CAULKING CORRIDOR	SC SCD	SOLID CORE SEAT COVER DISPENSER			NMC NP	NONMETALLIC CONDUIT NEMPLATE	BFP BFV	BACKFLOW PREVENTER BUTTERFLY VALVE	RA RAD	RETURN AIR RETURN AIR DAMPER
CT CTSK	CERAMIC TILE COUNTERSUNK	SD SDT SND SNR	SMOKE DETECTOR STATIC DISSIPATE TILE FLOOR SANITARY NAPKIN DISPENSER SANITARY NAPKIN RECEPTACLE	BC BCW BAT BKR	BARE COPPER BARE COPPER WIRE BATTERY BREAKER	P PC PCU	POWER POWER CABLE POWER CONDITIONING UNIT	CA CC CEG	COMPRESSED AIR COOLING COIL CEILING EXHAUST GRILLE	RF RH RL	RETURN FAN RADIANT HEATER REFRIGERANT LIQUID
DF DISP	DRINKING FOUNTAIN DISPENSER	SPKR SSK STOR SUSP	SPEAKER SERVICE SINK STORAGE SUSPENDED	CBKR	CIRCUIT BREAKER	PE PEC PH POS	PHOTOELECTRIC PHOTOELECTRIC CELL PHASE POSITIVE	CG COND CU CV	CEILING GRILLE CONDENSATE CONDENSING UNIT CHECK VALVE	RS RV	REFRIGERANT SUCTION ROOF VENTILATOR
DO DR DS DSP	DOOR OPENING DOOR DOWNSPOUT DRY STANDPIPE	TPD	TOILET PAPER DISPENSER	CCD CGB CKT CLF	CHARGE COUPLED DEVICE CHASSIS GROUNDING BUS-BAR CIRCUIT CURRENT LIMITING FUSE	PT RES	POTENTIAL TRANSFORMER	CW CWR CWS	COLD WATER CHILLED WATER RETURN CHILLED WATER SUPPLY	SA SANT SAR	SUPPLY AIR SANITARY SOUND ATTENUATOR
ENCL	ENCLOSURE	UNF	UNFINISHED	C70 COMM COND CNTL	CONDUIT ONLY COMMUNICATIONS CONDUCTOR CONTROL	RGS RPC RSC	RIGID GALVANIZED STEEL REMOTE POWER CENTER RIGID STEEL CONDUIT	DB	DRY BULB	SCAC SCHP SDP	SELF CONTAINED AIR CONDITIONER SELF CONTAINED HEAT PUMP SPLITTER DAMPER
ESCL EXPD ESEW	ESCALATOR EXPOSED EMERGENCY SHOWER/ EYE WASH	UR VCT	URINAL	CP CPT C/R CR	CONTROL PANEL CONTROL POWER TRANSFER CONTACT RAIL CONTROL RELAY	STC	SUPERVISORY TERMINATION CABINET	DEG DX	DUCT EXHAUST GRILLE DIRECT EXPANSION	SF SPWG SP	SUPPLY FAN STATIC PRESSURE WATER GAUGE SUMP PUMP
FA	FIRE ALARM	VEST	VESTIBULE	CRI CRS CS	COLOR RENDENING INDEX PVC COATED RIGID STEEL CONDUIT COMMUNICATION SHELTER	SV SWBD SWGR	SOLENOID VALVE SWITCHBOARD SWITCHGEAR	EA EAD EAT	EXHAUST AIR EXHAUST AIR DAMPER ENTERING AIR TEMPERATURE		
F ACP F C O F D F D C	FIRE ALARM CONTROL PANEL FLOOR CLEAN OUT FLOOR DRAIN FIRE_DEPARTMENT	WC WD WSP	WATER CLOSET WOOD WET STAND PIPE	CT CTB CU	CURRENT TRANSFORMER COMPUTER TERMINAL BOARD COPPER	TCK TDR	TIME CLOCK TIME DELAY RELAY	EF EFF ESP EUH	EXHAUST FAN EFFICIENCY EXTERNAL STATIC PRESSURE ELECTRIC_UNIT HEATER	T&P TEMP TG	TEMPERATURE AND PRESSURE RELIEF VALVE TEMPERATURE TRANSFER GRILLE
FE FH FHC	CONNECTION FIRE EXTINGUISHER FIRE HYDRANT FIRE HOSE CABINET					TGB TH TLK	TELECOMMUNICATIONS GROUNDING BUSS-BAR THERMOSTAT TWISTLOCK	EXTR	EXTRACTER	THR TSP TV	TOTAL HEAT RÉJECTION TOTAL STATIC PRESSURE TURNING VANE
FLR FLUOR FOF FOS	FLOOR FLUORESCENT FACE OF FINISH FACE OF STUDS			DIM DC DISC DP	DIMMER DIRECT CURRENT DISCONNECT DISTRIBUTION PANEL	TMGB TMS	TELCOMMUNICATIONS MAIN GROUNDING BUSS-BAR THERMAL FIT MARKER SYSTEM	FC FCD FLA FLEX	FORWARD CURVE FLOW CONTROL DEVICE FULL LOAD AMPERES FLEXIBLE	UC UH	UNDER CUT UNIT HEATER
FPRF FSK FUR	FIREPROOF FLOOR SINK FURRING			DSP	DIGITAL SIGNAL PROCESSING			FMN	FORCE MAIN	VB VD	VACUUM BREAKER VOLUME DAMPER
				EMI EMT EPF	ELECTROMAGNETIC INTERFACE ELECTRICAL METALLIC TUBING EXPLOSION PROOF	UH V	UNIT HEATER	GPM GR GV	GALLONS PER MINUTE GRILLE GATE VALVE	VEL VTR	VELOCITY VENT THROUGH ROOF
GL GYP GYPBD	GLASS GYPSUM GYPSUM BOARD			ËTM	ELAPSED TIME METER	VM VPF VS	VOLT METER VAPOR PROOF VOLTIMETER SWITCH	HC HD HDN	HEATING COIL HEAD HOPPER DRAIN	WST WB WCO	WASTE WET BULB WALL CLEAN OUT
HDWE HM	HARDWARE HOLLOW METAL			FC FDR FS FVNR	FRAMMING CHANNEL FEEDER FLOW SWITCH FULL VOLTAGE	W WHD	WATT WATT-HOUR DEMAND METER	HP HSC HVA	HORSEPOWER/HEAT PUMP HOSE STORAGE CABINET HOSE VALVE, ANGLE	WEG WG WH WHA	WALL EXHAUST GRILLE WATER GAUGE WATER HEATER WATER HAMMER ARRESTOR
INCAND	INCANDESCENT				NON-REVERSING	XFMR	TRANSFORMER	HVS HWR	GLOBE TYPE HOSE VALVE, STRAIGHTWAY GATE TYPE HOT WATER RETURN	WL WSP	WALL LOUVER WET STANDPIPE
JAN	JANITOR			GFI GRS GTS	GROUND FAULT INTERRUPTER GALVANIZED RIGID STEEL GROUND TEXT STATION			HWS	HOT WATER SUPPLY		
L AM L AV L KR	LAMINATE LAVATORY LOCKER				HIGH INTENSITY DISCHARGE HAND-OFF-AUTO SWITCH			IPS IW	IRON PIPE SIZE INDUSTRIAL WASTE		
MO MSK	MASONRY OPENING MOP SINK			HPS HV	HIGH PRESSURE SODIUM HIGH VOLTAGE			LAT LCP LR	LEAVING AIR TEMPERATURE LOCAL CONTROL PANEL LONG RADIUS		
MTD MUL	MOUNTED MULLION			IC	INTERRUPTING CAPACITY			MAV MCC	MANUAL AIR VENT MOTOR CONTROL CENTER		
OFD	OVERFLOW DRAIN			KVA KW	KILOVAR KILOWATT			MCP MD	MOTOR CONTROL PANEL MOTOR OPERATED DAMPER		
	DRAWN BY:	A. CARLOS	DATE: 06/08/07 SCRRA ENGINEERING STA	NDARDS ARE INT	ENDED FOR SCRRA APPROVED USES ONLY.						
		401 M	FOR NON-SCRA APPROV SCRA SHALL NOT BE R THE DATA OR INFORMAT STANDARDS IS THE SOL WITHOUT CONSULTING A WITHOUT CONSULTING A	ION CONTAINED H E RESPONSIBILITY REGISTERED PRO	IFESSIONAL ENGINEER. ALL WARRANTIES	Μ	ETROLI	NK	®		NG STANDARDS 1103 SCALE: NTS
REMOVED TS DEFINITIO REVISED GENERAL ABBREVIA DESCRIPTION	N AC JMM	ABSISTANT DIRE	AND REPRESENTATIONS THIS INFORMATION AGRE USE. NO PART OF THESI AND PROVIDE BY ANY	DF ANY KIND AR S THAT IT ASS STANDARDS SH	E DISCLAIMED. ANYONE MAKING USE OF UMES ALL LIABILITY ARISING FROM SUCH INNU D. RE REPENDINGED OR DISTRIBUTED IN		ALIFORNIA REGIONAL RAIL A BLVD., SUITE 1500, L. A., CA. S		M ARCI		ABBREVIATIONS RAL & ENGINEERING CADD FILE: ES1103
02\$ Date Plotted: 1			ram Files (x86)\Common Files\InterPlot	\IPLOT\bin\	iplotdryn olt	FileName+>	\\scrrapw01app02\iCS_pdf_work_dir\56	6\488 4\FS	110.3 dan		1 201100

JserName∗>	scrrapw01app02\$	Date	Plotted:	1/6/2021	6:

B 04-13-20

A 11-01-13

REV. DATE

6:36:55 PM Plot Driver+≻ C:\Program Files (x86)\Common Files\InterPlot\IPLOT\bin\iplotdrvn.plt

FileName•> \\scrrapw01app02\iCS_pdf_work_dir\56\488_4\ES1103.dgn

GENERAL

ABBRE VIATIONS

GENERAL					
& ©	AND AT	COMM COMM R/W	COMMUNICATIONS COMMISSION RIGHT OF WAY	F G F H	FINISHED GRADE FIRE HYDRANT
AB	AGGREGATE BASE	CONC	CONCRETE	FIN	FINISH, FINISHED
ABM ABN	AIR-BLOWN MORTAR ABANDON	CONN CONST	CONNECTION CONSTRUCTION	FL FLR	FLOW LINE FLOOR
ABUT	ABUTMENT	CONT	CONTINUOUS	FOC	FIBER OPTIC CABLE
AC AD	ASPHALTIC CONCRETE AREA DRAIN	CONTR COORD	CONTRACTOR COORDINATE	F R F T	FRAME FOOT, FEET
ADJ	ADJUSTABLE	COS	COSINE	FTG	FOOTING
AHD	AHEAD	CP	CONTROL POINT, CLEARANCE POINT	FW	FIELD WELD
ALIGN AL T	ALIGNMENT ALTERNATE	CPUC CRV	CALIFORNIA PUBLIC UTILITIES COMMISSION CURVE	FWY	FREEWAY
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	CSP	CORRUGATED STEEL PIPE	G A	GAUGE
AOBE APPROX	AS ORDERED BY ENGINEER APPROXIMATE, APPROXIMATELY	CT CTC	COURT CENTER TO CENTER, CENTRALIZED	G AL V G C L	GALVANIZED GRADING CONTROL LINE
ARCH	ARCHITECTURAL	010	TRAFFIC CONTROL	GM	GUIDE MARKER
AREA AREMA	AMERICAN RAILWAY ENGINEERING ASSOCIATION AMERICAN RAILWAY ENGINEERING &	C T R C U L V	CENTER CULVERT	GND GP	GROUND GRADING PLANE
	MAINTENANCE OF WAY ASSOCIATION	CVD	CURVED	GR	GUARDRAIL / GRADE
A/R	AS REQUIRED	C V R C W R	COVER Continuously welded rail	GSP	GALVANIZED STEEL PIPE
AS	AGGREGATE SUBBASE	CY	CUBIC YARD	HB	HOSE BIBB
ASPH ASSY	ASPHALT, ASPHALT CONCRETE PAVING ASSEMBLY	Dc	DEGREE OF CURVE	HC HD	HANDICAP, HANDICAPPED HEAVY DUTY
ASTM	AMERICAN SOCIETY FOR TESTING & MATERIALS	DEL	DELINEATORS	HDPE	HIGH DENSITY POLY ETHYLENE
ATR AVE	ABOVE TOP OF RAIL AVENUE	DEP DET	DEPTH DETAIL	HE X HF	HEXAGONAL HEEL OF FROG, HEAD FREE RAIL
AVM	ADD VALUE MACHINE	DFX	DIRECT FIXATION	НН	HANDHOLE
AWWA	AMERICAN WATER WORKS ASSOCIATION	DGAC DI	DENSE GRADED ASPHALT CONCRETE DROP INLET, DRAINAGE INLET	HI HL	HIGH HEEL LENGTH
BAA	BOARDING ASSISTANCE AREA	DIA, Ø	DIAMETER	HMAC	HOT MIX ASPHALT CONCRETE
BB BBR	BATTERY BOX BEGINNING OF BRIDGE	DIAG DIM	DIAGONAL DIMENSION	HORIZ HP	HORIZONTAL HEEL PLATE, HIGH POINT
BCR	BEGIN CURB RETURN BEGIN, BEGINNING	DIR	DIRECTION	HR	HANDRAIL
BEG BK	BEGIN, BEGINNING BACK	DIST DN	DISTRIBUTION DOWN	HS HST	HEEL OF FROG, HIGH STRENGTH HOLLOW STEEL TIE
BKF	BACKFILL	DR	DRIVE	HT	HOLLOW STELL THE HEIGHT, HIGH TENSILE, HAND THROW
BL	BASELINE	DRWY	DRIVEWAY	HW	HEADWALL
BLDG BLLBRD	BUIL DING BIL L BO AR D	D T R D W G	DETOUR DRAWING	HWY HZ	HIGHWAY HERTZ
BLST	BALLAST				
BLVD BM	BOULEVARD BENCHMARK	(E) E	EXISTING EAST	ID I.D.	INSIDE DIAMETER IDENTIFICATION
BNSF	BURLINGTON NORTHERN SANTA FE RAILWAY	ΕA	EACH	IE	INVERT ELEVATION
BOC BOS	BOTTOM OF CURB BOTTOM OF SLOPE	E B E B R	EASTBOUND END OF BRIDGE	I J I N	INSULATED JOINT INCH(ES)
BOT	BOTTOM	ECR	END CURB RETURN	INSUL	INSULATION
BOW BR	BOTTOM OF WALL BRIDGE, BLUE ROD	E E E F	EACH END EACH FACE	IN T IN V	INTERIOR INVERT
-		ĒJ	EXPANSION JOINT	IR	INSIDE RADIUS
C/W CAB	COMES WITH CABINET	ELEC El	ELECTRICAL ELEVATION	JB	JUNCTION BOX
CALP	CORRUGATED ALUMINUM PIPE	ĒĒV	ELEVATOR	JJ	JOINTED RAIL
C AP C B	CAPACITY CATCH BASIN	EMB EMER	EMBANKMENT EMERGENCY	JT	JOINT
CEM	CEMENT	ENGR	ENGINEER, ENGINEERING	LACFCD	LOS ANGELES COUNTY FLOOD
CF CG	CUBIC FEET CENTER OF GRAVITY	E P E Q	EDGE OF PAVEMENT EQUAL, EQUATION	LACMTA	CONTROL DISTRICT LOS ANGELES COUNTY METROPOLITAN
CI	CAST IRON	EQUIP	EQUIPMENT		TRANSPORTATION AUTHORITY
CIP	CAST IN PLACE CONSTRUCTION JOINT	ES ESMT	EDGE OF SHOULDER, ENGINEERING STANDARD EASEMENT	LAUS LB, LBS	LOS ANGELES UNION STATION POUND, POUNDS
CJ,Ę	CENTERLINE	ΕT	END OF TRACK	LF	LINEAL FEET
CLK CLR	CHAIN LINK CLEAR, CLEARANCE	E T W E W	EDGE OF TRAVELED WAY END WALL	L G L G T	L ONG L IGHT
СМР	CORRUGATED METAL PIPE	ΕX	EXISTING	LGTH	LENGTH
C M P A C M U	CORRUGATED METAL PIPE ARCH CONCRETE MASONRY UNIT	E X C E X P	EXCAVATION EXPANSION	L H L N	LEFT HAND LANE
COMPJT	COMPROMISE JOINT	EXT	EXTERIOR	LOC	LOCATION
C N D C N T R	CONDUIT COUNTER	(F)	FUTURE	LOL LP	LAYOUT LINE LOW POINT
CNTRLR	CONTROLLER	FC	FACE OF CONCRETE	LPL	LIGHT POLE
CO COC	CLEANOUT CENTER ON CENTER	F D N F F	FOUNDATION FILTER FABRIC	L T L T G	LEFT LIGHTING
COL	COLUMN	ГГ	FILIER FADRIG	LVL	LEVEL
	DRAWN BY: HDR DATE:	03/31/2011 SCF	RRA ENGINEERING STANDARDS ARE INTENDED FOR SCRRA APPROVED USES ONLY.		
			RA NON-SCRRA APPROVED USES: RRA SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF		

					DIVARIA DT. HOIX	UAIL: 03/3//2011	
						AL.	<u>FOR NON-SCRRA APPROVED USES:</u> SCRRA SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF
						Non	THE DATA OR INFORMATION CONTAINED HEREIN. THE SELECTION AND USE OF THESE STANDARDS IS THE SOLE RESPONSIBILITY OF THE USER AND SHOULD NOT BE USED
					PRINCIPAL /ENGINEER, D		WITHOUT CONSULTING A REGISTERED PROFESSIONAL ENGINEER. ALL WARRANTIES
					Sin n	_ /	AND REPRESENTATIONS OF ANY KIND ARE DISCLAIMED. ANYONE MAKING USE OF THIS INFORMATION AGREES THAT IT ASSUMES ALL LIABILITY ARISING FROM SUCH
Α	10-02-20	REVISED ABBREVIATIONS	AC	JMM	Marke	-(USE. NO PART OF THESE STANDARDS SHOULD BE REPRODUCED OR DISTRIBUTED IN
REV.	DATE	DESCRIPTION	DES.	ENG.	ASSISTANT DIRE		ANY FORM OR BY ANY MEANS WITHOUT THE PRIOR WRITTEN PERMISSION OF SCRRA. All rights reserved.
UserN	ame∗≻ sc	rrapw01app02\$ Date Plotted: 1/6/2021	6:36:55 F	РМ	Plot Driver=> C:\Prog	ram Files (x86)\Commo	on Files\InterPlot\IPLOT\bin\iplotdrvn.plt

METROLINK. SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY 900 WILSHIRE BLVD., SUITE 1500, L. A., CA. 90017

FileName+> \\scrrapw01app02\iCS_pdf_work_dir\56\488_5\ES1201-01.dgn

MAINT MANG MAX M/C MECH MED MEM MET MFG MH MIC MIN MISC ML MOD MON MOW MPH MSL MTL	MAINTENANCE MANGANESE MAXIMUM MILL CUT MECHANICAL MEDIAN, MEDIUM MEMBRANE METAL MANUFACTURER MANHOLE MINIMUM MISCELLANEOUS MAINLINE MODIFIED MONUMENT MAINTENANCE OF WAY MILE POST MILES PER HOUR MEAN SEA LEVEL MATERIAL			
(N) N NB NEG NEUT NIC NO, # NOM NTS	NEW NORTH NOT APPLICABLE NORTHBOUND NEGATIVE NEUTRAL NOT IN CONTRACT NUMBER NOMINAL NOT TO SCALE			
OA OC OCTA OD OHD OP OPNG OPP OTM OZ	OVERALL ON CENTER ORANGE COUNTY TRANSPORTATION OUTSIDE DIAMETER OVERHEAD OVERPASS OPENING OPPOSITE OTHER TRACK MATERIAL OUNCE	AUTHORITY		
PB PED PERF PGR PGL PH PITO PL PNA PNL PP PR PR PS PSM PT PTM PVC PVMT	PULL BOX PEDESTRIAN PERFORATED PERMEABLE, PERMANENT POINT OF FROG PAGE PROFILE GRADE LINE POTHOLE POTHOLE POTHOLE PARE PROPERTY LINE PASSENGER NEEDING ASSISTANCE PANEL POWER POLE PREFORMED PERMEABLE LINE PERFORATED PLASTIC PIPE PAIR PROPOSED POINT OF SWITCH POUNDS PER SQUARE INCH PARK BY SPACE MACHINE POLYVINYL CHLORIDE PAVEMENT			
ENGINEERIN	G STANDARDS	STANDARD 1201 SCALE:		
STANDARD ABBREVIATIONS				

\sim	С	N I	С	D	۸	ı.	
U	L	Ν	L	П	н	L	

QTY	QUANTITY
(R) R RBM RC RCP RCTC RD WY RDWY RECT REINF REL REL REU REV RH RO RP RR RT RT RT RT RT RT RT RT RT RT RT RT	RELOCATED RADIUS RAIL BOUND MANGANESE REINFORCED CONCRETE REINFORCED CONCRETE PIPE RIVERSIDE COUNTY TRANSPORTATION COMMISSION ROAD ROADWAY RECTANGULAR REFERENCE REINFORCED RELOCATE(D) REQUIRED REVISION, REVISED RIGHT HAND ROUGH OPENING REFERENCE POINT RAILROAD RIGHT ROUTE ROADWAY WORKER-IN-CHARGE RIGHT OF WAY
S SAE SBCTA SBCHD SCRRA SDMH SDDNG SECT SERV SFG SHLDR SHT SIM SIL SLPA SMN SLPA SMN SLPA SMN SPEC SST STA STA STFF STL STRL STRL STRL STRL STRL STRL STRL	SOUTH SOCIETY OF AUTOMOBILE ENGINEER SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY SOUTHBOUND SCHEDULE SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY STORM DRAIN STORM DRAIN STORM DRAIN MANHOLE SIDING SECTION SERVICE SQUARE FEET SUBGRADE SHOULDER SHEET SIMILAR SINE SLOPE SIGNAGE/LIGHTING/PUBLIC ADDRESS SWIVEL MOVEABLE JOINT SERIAL NUMBER SPECIFICATION SQUARE SANITARY SEWER STAINLESS STEEL STREET STATION STANDARD STIFFENER STEEL STRAIGHT STRUCTURAL STRUCTURAL STRUCTURE SWITCH SIDEWALK SOUNDWALL SQUARE YARD(S) SYMMETRICAL

					DRAWN BY: HDR DATE: 03	3/31/2011 S	CRRA ENGINEERING STANDARDS ARE INTENDED FOR SCRRA APPROVED USES ONLY.		
					1111	S	<u>OR NON-SCRRA APPROVED USES:</u> CRRA SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF		
					1. King	T	HE DATA OR INFORMATION CONTAINED HEREIN. THE SELECTION AND USE OF THESE		1
					PRINCIPAL ENGINEER DESIGN & STANDARDS		TANDARDS IS THE SOLE RESPONSIBILITY OF THE USER AND SHOULD NOT BE USED /ITHOUT CONSULTING A REGISTERED PROFESSIONAL ENGINEER, ALL WARRANTIES		1
					PRINCIPAL/ENGINEER, DESIGN & STANDARDS	A	ND REPRESENTATIONS OF ANY KIND ARE DISCLAIMED. ANYONE MAKING USE OF		1
	10-02-20	REVISED ABBREVIATIONS	40		1/2 lo h	1	HIS INFORMATION AGREES THAT IT ASSUMES ALL LIABILITY ARISING FROM SUCH SE. NO PART OF THESE STANDARDS SHOULD BE REPRODUCED OR DISTRIBUTED IN	SOUTHERN CALIFORNIA REGIONAL RAIL AUTHORITY	1
			AC	JMM	Conno Cr	Å	NY FORM OF BY ANY MEANS WITHOUT THE PRIOR WRITTEN PERMISSION OF SCRRA	900 WILSHIRE BLVD., SUITE 1500, L. A., CA. 90017	
REV.	DATE	DESCRIPTION	DES.	ENG.	ASSISTANT DIRECTOR, DESIGN	A	LL RIGHTS RESERVED.	300 WILDHINE DEVD., OOTE 1000, L.A., OA. 30017	
		04 000 D I DI II I 4/0/0004 0.7	7.07	D14					

UserName+> scrrap#01app02\$ Date Plotted: 1/6/2021 6:37:07 PM Plot Driver+> C:\Program Files (x86)\Common Files\InterPlot\IPLOT\bin\iplotdrvn.plt

FileName+> \\scrrapw01app02\iCS_pdf_work_dir\56\488_6\ES1201-02.dgn

ABBRE VIATIONS

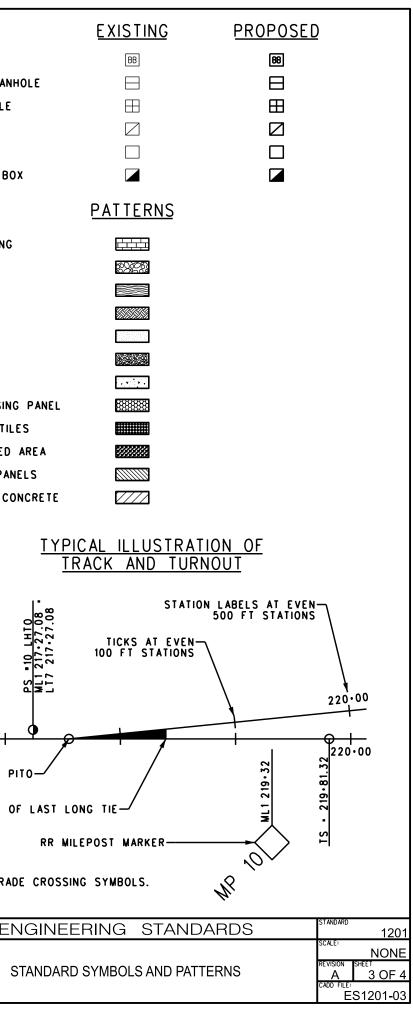
T&B TAN TBD TBR TC TD TDS TEL TF THDS THK TK TL TO, T/O TOC TOC TOC TOC TOL TOP TOS TOL TOP TOS TOL TOW T/R TRANS TTB TVD (TYP)	TOP AND BOTTOM TANGENT TO BE DETERMINED TO BE REMOVED TRACK CENTER TRENCH DRAIN TRAIN DESTINATION SIGN TELEPHONE TRACK FEET THREADS THICKNESS TRACK TOE LENGTH TURNOUT TOP OF CURB TOP OF CURB TOP OF CURB TOP OF GRATE TOLERANCE TOP OF SLOPE TOP OF TIE TOP OF TIE TOP OF TALL TOP OF RAIL TOP OF RAIL TRANSITION TELEPHONE TERMINAL BOARD TICKET VENDING DEVICE TYPICAL
UB UD UG UP UPRR UR UTIL	UTILITY BOX UNDERDRAIN UNDERGROUND UNLESS OTHERWISE NOTED UNDERPASS UNION PACIFIC RAILROAD UNIFORM RISER UTILITY
VAR VCTC VERT VMB VMS	VARIES VENTURA COUNTY TRANSPORTATION COMMISSION VERTICAL VISUAL MESSAGE BOARD VISUAL MESSAGE SIGN
W W/ W/O WB WP WPF WRT WSM WT WWF WWF	WEST WITH WITHOUT WESTBOUND WROUGHT IRON WORK POINT WATERPROOF WITH RESPECT TO WELDED SPRING MANGANESE WEIGHT WELDED WIRE FABRIC WELDED WIRE MESH
XING XOVER, X/O	CROSSING CROSSOVER
ΥD	YARD(S)
*20POTO RH	NUMBER 20 POWER OPERATED TURNOUT - RIGHT HAND
∗10HOTO LH	NUMBER 10 HAND OPERATED TURNOUT - LEFT HAND
+/-, <u>+</u>	PLUS OR MINUS, APPROXIMATELY

ENGINEERING STANDARDS	STANDARD 1201
	SCALE: NONE
STANDARD ABBREVIATIONS	A 2 OF 4
	CADD FILE: ES1201-02

DESCRIPTION	EXISTING	<u>PROPOSED</u>	DESCRIPTION	EXISTING	PROPOSED	DESCRIPTION
BILLBOARD	~~~~ ``	~~~~ ~	POINT OF SWITCH (HAND-THROW TURNOUT) ##		•	BATTERY BOX
BUILDING					<u>е</u>	CCTV, SECURITY MANH
BUMPER	∑a ₽	X •	TURNUUT WITH ELECTRIC LUCK)			TELEVISION MANHOLE
CATCH BASIN	CB	СВ	POINT OF SWITCH (POWER-OPERATED TURNOUT) #			ELECTRIC MANHOLE
NORTH ARROW	z - z -				SP	WATER VALVE BOX
COORDINATE	N2,800,500				80	TRAFFIC CONTROL BO
*FLASHERS		X		MON *		
*CROSSING GATE & FLASHERS		!!	HORIZONTAL CONTROL POINT	Δ		
CURVE NUMBER	C12	C12	HORIZONTAL AND VERTICAL Control point	MON *		STONE/BRICK PAVING
FLAG POLE	P	~	VERTICAL CONTROL POINT	MON *		
FLOW			BENCHMARK	\bullet		BALLAST
GRID TICK	+	+	STAIRWAY OR RAMP FLOODLIGHT			TIMBER
GROUND CONTROL POINT (AERIAL)	Δ		UTILITY METER	M	<u> </u>	SUBGRADE, EARTH
GUY WIRE	\longrightarrow		TRANSFORMER	\bigtriangleup	\bigtriangleup	SUBBALLAST
HYDRANT	+0+	-+ @ +-	GROUNDING ROD	\odot	\odot	AGGREGATE BASE
HEADWALL			GROUND	I	— •	CONCRETE
FLARED END SECTION			CCTV CAMERA			PEDESTRIAN CROSSING
MANHOLE	Ô	O O	MICROPHONE	\square		TACTILE WARNING TIL
STORM DRAIN MANHOLE	SD	SD	SPEAKER			GRADED/LANDSCAPED
POWER POLE			DUAL SPEAKER	\bowtie	▶•◀	GRADE CROSSING PAN
SANITARY SEWER MANHOLE	\$\$ <u>EQ</u>	© 	HANDHOLE	H	θ	HOT MIX ASPHALT CO
STATION EQUALITY			CARD INTERFACE DEVICE	CID	CID	
TELEPHONE POLE	-0-		DISTRIBUTION CABINET (ATTRIBUTED) D••••	D	
TELEPHONE MANHOLE	T	1	STAND ALONE VALIDATOR	SAV	SAV	
SIGN		~	TICKET VENDING DEVICE	TVD	TVD	
TREE		٩	CHANGEABLE MESSAGE SIGN	CMS	CMS	~ 1
PALM TREE	×~	*	PUBLIC TELEPHONE	TEL	TEL	3.38
TREE LINE, SHRUBBERY	L.		COMMUNICATIONS EQUIPMENT ROOM	CER	CER	8 • 9
POLE-MOUNTED LUMINAIRE	\downarrow		COMMUNICATIONS INTERFACE CABINE	T CIC	CIC	- 21
ELECTROLIER WITH POLE		•	FIBER DISTRIBUTION PANEL	FDP	FOP	13
ELECTROLIER WITHOUT POLE RAILROAD SIGNAL	$\rightarrow \downarrow$	- →	NOISE SENSING MICROPHONE (SURFACE MOUNTED)	Μ	M	
SIGNAL HOUSE	\mathbf{X}	X	PULL BOX	PB	PB	
	î t [†]	¢†	EQUIPMENT ROOM	ER	ER	
RAILROAD MILEPOST	\rightarrow		SUBSYSTEM DEVICE	D	D	POINT OF CHANGE PI
TRAFFIC SIGNAL	ୟ 	q	(TVM, VMS, OR CCTV)			GEOMETRY (TYP)
TRAFFIC SIGNAL WITH ARM ONLY	$-\overline{\Delta}$		DISTRIBUTION CABINET (INTERMEDIATE CROSS-CONNECT)	DC	DC	CL 0
TRAFFIC SIGNAL WITH ARM AND POLE	• • • ••	—T	SINGLE MODE OR MULTIMODE FIBER OPTIC CABLE			
TIME CLOCK	Ú.	(î)	8 OHM EXTERIOR HORN SPEAKER	Δ	ß	*SEE SCRRA ES8125 FOR GRAD
PHOTOELECTRIC CELL	C	®	SM FIBER TO COPPER MEDIA Converter/Switch dual tx/rx	C/S	C/S	SEL SURRA ESOIZO FUR GRAD
	DRAWN BY:	HDR DATE: 03/31/	2011 SCRPA ENGINEERING STANDARDS ARE INTENDED FOR SCRPA APPROVED LISES ON			EN
		401 Malong	FOR NON-SCREA APPRVED USES: SCREA SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF THE DATA OR INFORMATION (ONTAINED HERRIN, THE STELECTION AND USE OF THE STANDARDS IS THE SOLE RESPONSIBILITY OF THE USER AND SHOULD NOT BE US	SED 🖌	ETROL	
	PR	INCIPAL/ENGINEER, DESIGN & STANDARDS	 WITHOUT CONSULTING A REGISTERED PROFESSIONAL ENGINEER. ALL WARRANTIES AND REPRESENTATIONS OF ANY KIND ARE DISCLAIMED. ANYONE MAKING USE OF THIS INFORMATION AGREES THAT IT ASSUMES ALL LIABILITY ARISING FROM SUCI 	SOUTHERN CA	LIFORNIA REGIONAL RA	
10-02-20 REVISED ABBREVIATIONS DATE DESCRIPTION	AC JMMC	ASSISTANT DIRECTOR, DESIGN	USE. NO PART OF THESE STANDARDS SHOULD BE REPRODUCED OR DISTRIBUTED ANY FORM OR BY ANY MEANS WITHOUT THE PRIOR WRITTEN PERMISSION OF SCI ALL RIGHTS RESERVED.	N	BLVD., SUITE 1500, L. A.,	

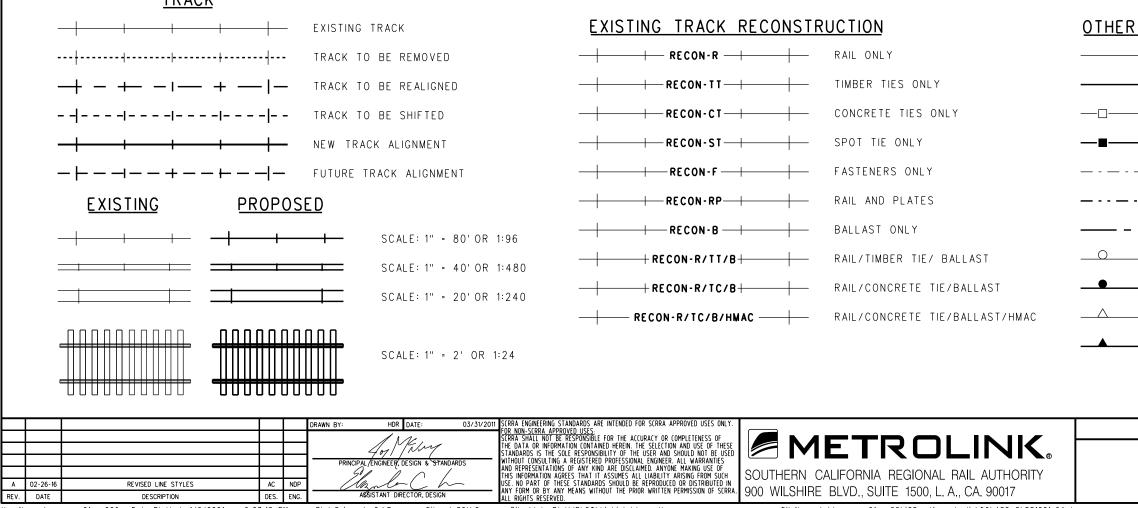
UserName+> scrrap#01app02\$ Date Plotted: 1/6/2021 6:37:07 PM Plot Driver+> C:\Program Files (x86)\Common Files\InterPlot\IPLOT\bin\iplotdrvn.plt

FileName > \\scrrapw01app02\iCS_pdf_work_dir\56\488_7\ES1201-03.dgn



	UTILITY	E XISTING O VERHE AD	OVERHEAD TO BE REMOVED	PROPOSED OVERHEAD	E XISTING UNDERGROUND	UNDERGROUND TO BE REMOVED	PROPOSED UNDERGROUND
	ELECTRIC POWER		— — + 0E - + - +	——••••••••••••••••••••••••••••••••••••	— — E — — ·	— X E - X— b	—— Е ——
	NATURAL GAS				— — · G — — ·	— X · G - X ·	c
	OIL				— — · 0 — — ·	— X 0 — X 0	— o —
S	SANITARY SEWER				— — · SS — — ·	— X SS — X — A	ss
Ш	STORM DRAIN				— — · SD — — ·	— X SD — X — A	SD
STΥ	SIGNAL				— — · SIG — — ·	— — X SIG — X -	SIC
INE	TELEPHONE	— — OT— — V	× 101 - × - 1	—— 0T ——	— — · T — — ·	— X T — X — T	— T —
	CABLE TV	— — • o t v — — •	$- \rightarrow v v \times - v$	—— otv ——	— — · TV — — ·	— X TV — X T	—— TV ——
IΤΥ	COMMUNICATIONS	— — • • • • • •	× 00 - × - 1	oc	— — · C — — ·	— × c – ×	c
UTIL	FIBER OPTIC CABLE	— — • 0F0 — — •	— → OF 0 → −	0F0	— — FO — — ·	— 🔆 FO —X— -	FO
	WATER					— — — W — — M	——— w ———
	TRENCH DRAIN				— — · TD — - ·	— — TD ——— -	TD
	UNDER DRAIN				— — · UD — — ·	— — W UD — X— 4	UD
	COMPRESSED AIR				— — AIR — — •	— 🔆 🗛 🖓 — 🗡	—— AIR ——

TRACK



UserName=> scrrapw01app02\$ Date Plotted: 1/6/2021

6:37:12 PM Plot Driver+> C:\Program Files (x86)\Common Files\InterPlot\IPLOT\bin\iplotdrvn.plt FileName+> \\scrrapw01app02\iCS_pdf_work_dir\56\488_8\ES1201-04.dgn

NOTE:

UTILITY MAPS SHALL BE PLOTTED IN COLOR FOR VERIFICATION, REVIEW AND APPROVAL BY SCRRA AND UTILITY COMPANIES. THE COLORS USED SHALL BE AS PER CALTRANS AND SHALL BE:

- ELECTRICAL - NATURAL GAS
- GREEN BROWN

RFD

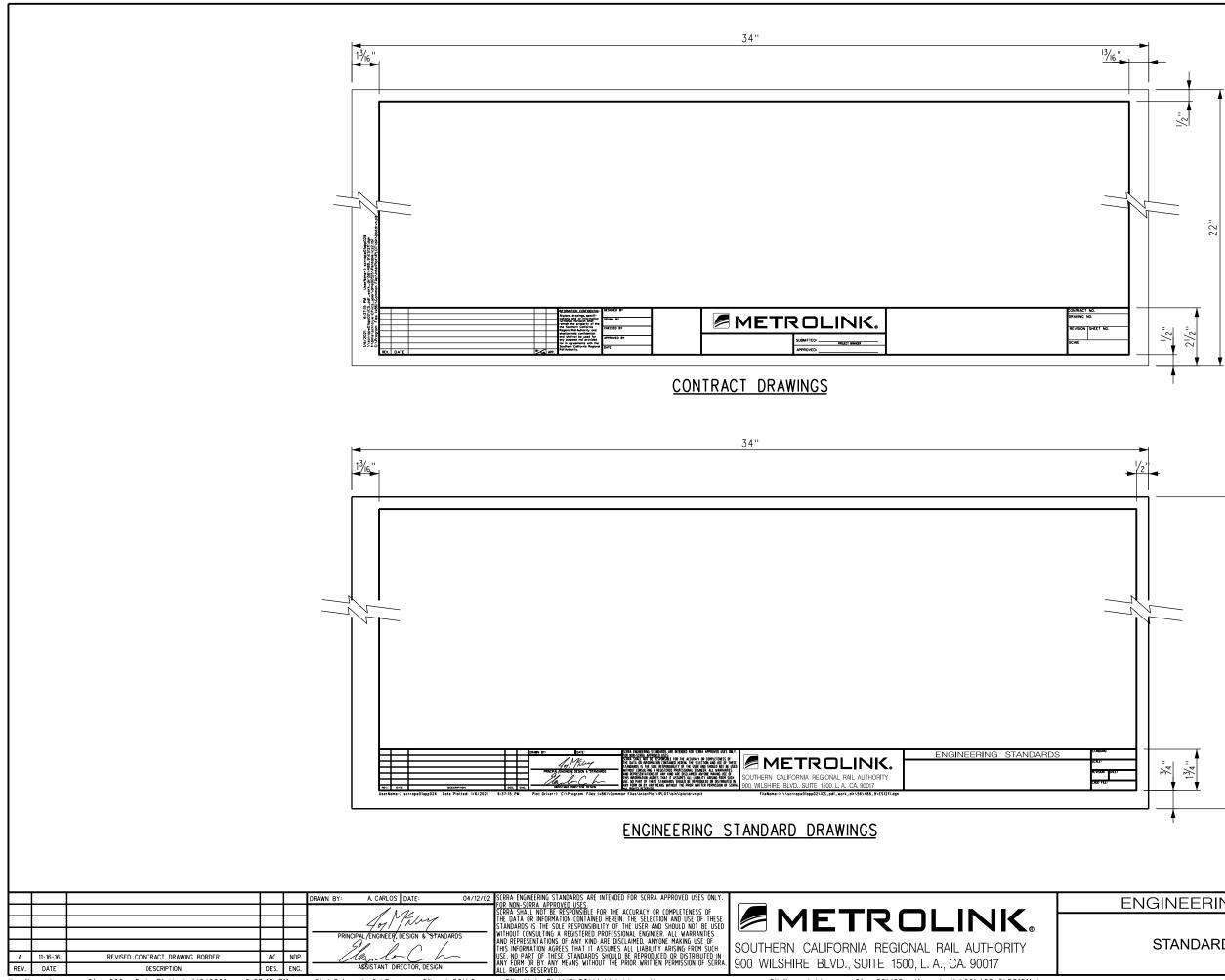
- FUEL ORANGE - SEWER
 - TELEPHONE/CABLE/COMMUNICATIONS/FIBER OPTIC - WATER
- PURPLE BLUE

OTHER COMMON LINESTYLES

		EXISTING FENCE
		PROPOSED FENCE
		EXISTING SCRRA INTERTRACK FENCE/WWM
	∎	PROPOSED SCRRA INTERTRACK FENCE/WWM
		CENTERLINE
· — · ·		RIGHT OF WAY, EASEMENT, PROPERTY LINE
		MATCH LINE
0	0	EXISTING GUARDRAIL
•	•	PROPOSED GUARDRAIL
	Δ	EXISTING RETAINING WALL
	A	PROPOSED RETAINING WALL

ENGINEERING STANDARDS

STANDARD LINESTYLES



FileName+> \\scrrapw01app02\iCS_pdf_work_dir\56\488_9\ES1211.dgn

22"	2	
ENGINEERING	STANDARDS	STANDARD 1211
STANDARD T	ITLE BLOCKS	SCALE: REVISION SHEET A 1 OF 1 CADD FILE: ES1211

