

TRACK GEOMETRY – HORIZONTAL

CC COMPOUND CURVATURE
 CS POINT OF CHANGE FROM CIRCULAR CURVE TO SPIRAL
 k1 TANGENT DISTANCE OF SHIFTED PC REFERRED TO THE TS
 k2 TANGENT DISTANCE OF SHIFTED PT REFERRED TO THE ST
 Lc TOTAL LENGTH OF CIRCULAR CURVE FROM PC TO PT OR SC TO CS
 Lsc LENGTH OF COMPOUND SPIRAL FROM CS TO SC
 Ls1 LENGTH OF SPIRAL FROM TS TO SC
 Ls2 LENGTH OF SPIRAL FROM CS TO ST
 p1 OFFSET FROM INITIAL TANGENT TO PC OF THE SHIFTED CIRCLE OF SPIRALIZED CURVE
 p2 OFFSET FROM INITIAL TANGENT TO PT OF THE SHIFTED CIRCLE OF SPIRALIZED CURVE
 PC POINT OF CURVATURE/POINT OF CHANGE FROM TANGENT TO CIRCULAR CURVE
 PCC POINT OF COMPOUND CURVE
 PI POINT OF INTERSECTION
 POC POINT ON CIRCULAR CURVE
 POS POINT ON SPIRAL
 POT POINT ON TANGENT
 PRC POINT OF REVERSE CURVATURE
 PS POINT OF SWITCH
 PT POINT OF TANGENCY/POINT OF CHANGE FROM CIRCULAR CURVE TO TANGENT
 SC POINT OF CHANGE FROM SPIRAL TO CIRCULAR CURVE
 SS POINT OF CHANGE FROM ONE SPIRAL
 ST POINT OF CHANGE FROM SPIRAL TO TANGENT
 SPO POINT ON ORIGIN OF COMPOUND SPIRAL
 Ts1 TANGENT DISTANCE FROM TS TO PI
 Ts2 TANGENT DISTANCE FROM ST TO PI
 TS POINT OF CHANGE FROM TANGENT TO SPIRAL
 Xs1 TANGENT OFFSET AT THE SC
 Xs2 TANGENT OFFSET AT THE CS
 Ys1 TANGENT DISTANCE AT THE SC
 Ys2 TANGENT DISTANCE AT THE CS
 Δ TOTAL CENTRAL ANGLE OF THE SPIRALIZED CURVE
 Δc CENTRAL ANGLE OF CIRCULAR CURVE (Lc) FROM SC TO CS
 Δc1 CENTRAL ANGLE OF FIRST CIRCULAR CURVE OF COMPOUND CURVATURE
 Δc2 CENTRAL ANGLE OF SECOND CIRCULAR CURVE OF COMPOUND CURVATURE
 θs1 CENTRAL ANGLE OF SPIRAL LENGTH Ls1 OR SPIRAL ANGLE OF FIRST SPIRAL IN SPIRALIZED CURVE
 θs2 CENTRAL ANGLE OF SPIRAL LENGTH Ls2 OR SPIRAL ANGLE OF SECOND SPIRAL IN SPIRALIZED CURVE
 θsc CENTRAL ANGLE OF COMPOUND SPIRAL OR COMPOUND SPIRAL ANGLE FROM CS TO SC

TRACK GEOMETRY – VERTICAL

BVC BEGIN VERTICAL CURVE
 Ea SUPERELEVATION IN INCHES
 EVC END VERTICAL CURVE
 PCVC POINT OF COMPOUND VERTICAL CURVE
 PIVC POINT OF INTERSECTION OF TWO PROFILE TANGENTS
 POVc POINT ON VERTICAL CURVE
 POVT POINT ON VERTICAL TANGENT
 U UNBALANCED SUPERELEVATION IN INCHES
 VC VERTICAL CURVE

GENERAL, CIVIL AND TRACK

AB AGGREGATE BASE
 ABM AIR-BLOWN MORTAR
 ABN ABANDON
 ABUT ABUTMENT
 AC ASPHALTIC CONCRETE
 AD AREA DRAIN
 ADJ ADJUSTABLE
 AHD AHEAD
 ALIGN ALIGNMENT
 ALT ALTERNATE
 APPROX APPROXIMATE
 ARCH ARCHITECTURAL
 AS AGGREGATE SUBBASE
 ASPH ASPHALT
 AVE AVENUE
 AVM ADD VALUE MACHINE
 BAA BOARDING ASSISTANCE AREA
 BBR BEGINNING OF BRIDGE
 BCR BEGIN CURB RETURN
 BEG BEGIN
 BK BACK
 BKF BACKFILL
 BLDG BUILDING
 BLST BALLAST
 BLVD BOULEVARD
 BM BENCHMARK
 BOC BOTTOM OF CURB
 BOT BOTTOM
 BOW BOTTOM OF WALL
 BR BRIDGE
 BS BOTTOM OF SLOPE
 CAB CABINET
 CALP CORRUGATED ALUMINUM PIPE
 CAP CAPACITY
 CB CATCH BASIN
 CEM CEMENT
 CF CUBIC FEET
 CG CENTER OF GRAVITY
 CIP CAST IN PLACE
 CJ CONSTRUCTION JOINT
 CL CENTER LINE
 CLK CHAIN LINK
 CLR CLEAR
 CMP CORRUGATED METAL PIPE
 CMU CONCRETE MASONRY UNIT
 CND CONDUIT
 CNTR COUNTER
 CO CLEANOUT
 COC CENTER ON CENTER
 COL COLUMN
 COMM COMMUNICATIONS
 CONC CONCRETE
 CONN CONNECTION
 CONST CONSTRUCTION
 CONT CONTINUOUS
 COORD COORDINATE
 CP CONTROL POINT
 CRV CURVE
 CSP CORRUGATED STEEL PIPE
 CT COURT
 CTR CENTER
 CULV CULVERT
 CVR COVER
 CWR CONTINUOUS WELDED RAIL
 CY CUBIC YARDS
 DEL DELINEATORS
 DEP DEPTH
 DET DETAIL
 DFX DIRECT FIXATION
 DGAC DENSE GRADED ASPHALT CONCRETE
 DI DRAINAGE INLET
 DIA DIAMETER
 DIAG DIAGONAL
 DIM DIMENSION
 DIR DIRECTION
 DIST DISTRIBUTION
 DN DOWN
 DR DRIVE
 DRWY DRIVEWAY
 DTR DETOUR
 DWG DRAWING
 (E) EXISTING
 E EAST
 EA EACH
 EB EASTBOUND
 EBR END OF BRIDGE
 ECR END CURB RETURN
 EE END END
 EF EACH FACE
 EIC EMPLOYEE IN CHARGE
 EJ EXPANSION JOINT
 ELEC ELECTRICAL
 EL ELEVATION
 ELEV ELEVATOR
 EMB EMBANKMENT
 EMER EMERGENCY
 ENGR ENGINEERING
 EP EDGE OF PAVEMENT
 EQ EQUATION
 EQUIP EQUIPMENT
 ES EDGE OF SHOULDER
 ESMT EASEMENT
 ETW EDGE OF TRAVELED WAY
 EW END WALL
 EXC EXCAVATION
 EXP EXPANSION
 EXT EXTERIOR
 (F) FUTURE
 FC FACE OF CONCRETE
 FDN FOUNDATION
 FF FILTER FABRIC
 FG FINISHED GRADE
 FH FIRE HYDRANT
 FIN FINISH
 FL FLOW LINE
 FLR FLOOR
 FOC FIBER OPTIC CABLE
 FR FRAME
 FT FEET
 FTG FOOTING
 FWY FREEWAY
 GA GAUGE
 GALV GALVANIZED
 GCL GRADING CONTROL LINE
 GM GUIDE MARKER
 GND GROUND
 GP GRADING PLANE
 GR GUARDRAIL
 GSP GALVANIZED STEEL PIPE
 HB HOSE BIBB
 HC HANDICAP
 HD HEAVY DUTY
 HEX HEXAGONAL
 HH HANDHOLE
 HI HIGH
 HMAC HOT MIX ASPHALT CONCRETE
 HOR HORIZONTAL
 HP HIGH POINT
 HR HANDRAIL
 HS HIGH STRENGTH
 HT HEIGHT
 HW HEADWALL
 HWY HIGHWAY
 ID INSIDE DIAMETER
 IE INVERT ELEVATION
 IN INCHES

INSUL INSULATION
 INT INTERIOR
 INV INVERT
 IR INSIDE RADIUS
 JB JUNCTION BOX
 JT JOINT
 LB POUNDS
 LF LINEAL FEET
 LG LONG
 LGT LIGHT
 LGTH LENGTH
 LH LEFT-HAND
 LN LANE
 LOC LOCATION
 LOL LAYOUT LINE
 LP LOW POINT
 LPL LIGHT POLE
 LT LEFT
 LTG LIGHTING
 LVL LEVEL
 MAX MAXIMUM
 MECH MECHANICAL
 MED MEDIAN
 MEM MEMBRANE
 MET METAL
 MH MANHOLE
 MIC MICROPHONE
 MIN MINIMUM
 MISC MISCELLANEOUS
 MOD MODIFIED
 MON MONUMENT
 MOW MAINTENANCE OF WAY
 MP MILEPOST
 MPH MILES PER HOUR
 MSL MEAN SEA LEVEL
 MTL MATERIAL
 (N) NEW
 N NORTH
 N/A NOT APPLICABLE
 NB NORTHBOUND
 NEG NEGATIVE
 NEUT NEUTRAL
 NIC NOT IN CONTRACT
 NO NUMBER
 NOM NOMINAL
 NTS NOT TO SCALE
 OA OVERALL
 OC ON CENTER
 OD OUTSIDE DIAMETER
 OHD OVERHEAD
 OP OVERPASS
 OPNG OPENING
 OPP OPPOSITE
 PB PULL BOX
 PED PEDESTRIAN
 PERM PERMEABLE
 PERF PERFORATED
 PG PAGE
 PGL PROFILE GRADE LINE
 PH POTHOLE
 PL PLATE
 P/L PROPERTY LINE
 PNA PASSENGER NEEDING ASSISTANCE
 PNL PANEL
 PP POWER POLE
 PPL PREFORMED PERMEABLE LINE
 PPP PERFORATED PLASTIC PIPE
 PR PAIR
 PSI POUNDS PER SQUARE INCH
 PSM PARK BY SPACE MACHINE

PT POINT
 PTM PARKING TICKET MACHINE
 PVC POLYVINYL CHLORIDE
 PVMT PAVEMENT
 (R) RELOCATED
 R RADIUS
 RC REINFORCED CONCRETE
 RCP REINFORCED CONCRETE PIPE
 RD ROAD
 RDWY ROADWAY
 RECT RECTANGULAR
 REF REFERENCE
 REINF REINFORCED
 REL RELOCATE
 REQD REQUIRED
 REV REVISION
 RH RIGHT-HAND
 RO ROUGH OPENING
 RP REFERENCE POINT
 RR RAILROAD
 RT RIGHT
 RTE ROUTE
 RW RETAINING WALL
 ROW RIGHT-OF-WAY
 S SOUTH
 SAV STAND ALONE VALIDATOR
 SB SOUTH BOUND
 SCHD SCHEDULE
 SD STORM DRAIN
 SDMH STORM DRAIN MANHOLE
 SECT SECTION
 SERV SERVICE
 SF SQUARE FEET
 SG SUBGRADE
 SHLDR SHOULDER
 SHT SHEET
 SIM SIMILAR
 SL SLOPE
 SLPA SIGNAGE/LIGHTING/
 PUBLIC ADDRESS
 SPEC SPECIFICATION
 SQ SQUARE
 SS SANITARY SEWER
 SST STAINLESS STEEL
 ST STREET
 STA STATION, ALIGNMENT
 STD STANDARD
 STIFF STIFFENER
 STL STEEL
 STRL STRUCTURAL
 STRUCT STRUCTURE
 SW SWITCH
 SWL SOUNDWALL
 SWK SIDEWALK
 SY SQUARE YARDS
 SYMM SYMMETRICAL
 T&B TOP AND BOTTOM
 TAN TANGENT
 TBD TO BE DETERMINED
 TC TOP OF CONCRETE
 TD TRENCH DRAIN
 TDS TRAIN DESTINATION SIGN
 TEL TELEPHONE
 TF TRACK FEET
 TO TURNOUT
 TOC TOP OF CURB
 TOG TOP OF GRATE
 TOL TOLERANCE
 TOP TOP OF PAVEMENT
 TOR TOP OF RAIL
 TOS TOP OF SLOPE
 TOT TOP OF TIE
 TOW TOP OF WALL
 TRANS TRANSITION
 TTB TELEPHONE TERMINAL BOARD

TVM TICKET VENDING MACHINE
 TYP TYPICAL
 UB UTILITY BOX
 UD UNDERDRAIN
 UG UNDERGROUND
 UON UNLESS OTHERWISE NOTED
 UP UNDERPASS
 UTIL UTILITY
 VAR VARIES
 VERT VERTICAL
 VMB VISUAL MESSAGE BOARD
 VMS VISUAL MESSAGE SIGN
 W WEST
 W/ WITH
 W/O WITHOUT
 WB WESTBOUND
 WP WORK POINT
 WPF WATERPROOF
 WRT WITH RESPECT TO
 WT WEIGHT
 WWF WELDED WIRE FABRIC
 WWM WELDED WIRE MESH
 XING CROSSING
 YD YARDS


REV	DATE	BY	CHK	APP	DESCRIPTION

PENINSULA CORRIDOR JOINT POWERS BOARD

APPROVED BY:

Bernard Anzures *Steph Chen*

DISCIPLINE MANAGER DEPUTY DIRECTOR OF ENGINEERING



1250 San Carlos Avenue
San Carlos, CA 94070

STANDARD DRAWINGS

GENERAL ABBREVIATIONS

CIVIL AND TRACK

CADD FILE NO.: SD-1101	
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STATION COMMUNICATIONS

ACS ADVANCED COMMUNICATION SYSTEM PA PUBLIC ADDRESS
 PAS PUBLIC ADDRESS SYSTEM
 BER BIT-ERROR RATE PDA PERSONAL DIGITAL ASSISTANT
 PDU POWER DISTRIBUTION UNIT
 PLC PROGRAMMABLE LOGIC CONTROLLER
 PSTN PUBLIC SWITCHING TELEPHONE NETWORK
 CC COMMUNICATIONS CABINET PTB PROTECTED TERMINAL BLOCKS
 CCF CENTRAL CONTROL FACILITY PTT PUSH TO TALK
 CCTV CLOSED CIRCUIT TELEVISION-VIDEO SECURITY PVC PRIVATE VIRTUAL CIRCUIT
 CER COMMUNICATIONS EQUIPMENT ROOM
 CIC COMMUNICATIONS INTERFACE CABINETS QOS QUALITY OF SERVICE
 CID CARD INTERFACE DEVICE
 CSMH COMMUNICATIONS SYSTEM MANHOLE RPR RESILIENT PACKET RING
 CST COMBINED SYSTEM TRUNK RTU REMOTE TERMINAL UNIT (COMMUNICATIONS)
 DC DISTRIBUTION CABINET
 DDS DEDICATED DIGITAL SERVICE
 DSO SINGLE DATA CHANNEL OF 56-65 Kbps
 SCC STATION COMMUNICATION CABINET
 SFX SMALL FORM (PLUGGABLE) CROSS-CONNECT
 SLA SERVICE LEVEL AGREEMENT
 SM SINGLE MODE
 SMFOC SINGLE-MODE FIBER OPTIC CABLE
 SNMP SIMPLE NETWORK MANAGEMENT PROTOCOL
 SONET SYNCHRONOUS OPTICAL NETWORK
 SPDU SWITCHED POWER DISTRIBUTION UNIT
 T1C SINGLE DATA CHANNEL OF 1.544 Mbps
 T1MUX A MULTIPLEXING DEVICE BY WHICH A SINGLE T1 CHANNEL IS UTILIZED TO PROVIDE DSO CHANNELS
 TDM TIME DIVISION MULTIPLEXING
 UP-LINK 1000 MBPS SWITCH EXPANSION PORTS
 UPS UNINTERRUPTIBLE POWER SUPPLY
 UPSR UNIDIRECTIONAL PATH SWITCH RING
 UTP UNSHIELDED TWISTED PAIR
 VCAT VIRTUAL CONCATENATION
 VLAN VIRTUAL LOCAL AREA NETWORK
 VPN VIRTUAL PRIVATE NETWORK
 IP INTERNET PROTOCOL
 Kbps KILO BITS PER SECOND
 WA WORK AREA
 WAN WIDE AREA NETWORK
 WAP WIRELESS APPLICATION PROTOCOL
 WCM WAYSIDE COMMUNICATIONS MANAGER
 LAN LOCAL AREA NETWORK
 LCD LIQUID CRYSTAL DISPLAY
 LDF LOCAL DISTRIBUTION FRAME
 LID LOCAL INJECTION AND DETECTION (FUSION SPLICING)
 LPM LOCAL PAGING MICROPHONE
 Mbps MEGA BITS PER SECOND
 MDF MAIN DISTRIBUTION FRAME
 MDPE MEDIUM DENSITY POLYETHYLENE (CABLE SHEATH)
 MEF METRO ETHERNET FORUM
 MM MULTI-MODE
 MMFOC MULTI-MODE FIBER OPTIC CABLE
 MOPE MAIN POINT OF ENTRY
 MS MILLISECOND
 MSPP MULTI-SERVICE PROVISIONING PLATFORM
 NID NETWORK INTERFACE DEVICE
 NMS NETWORK MANAGEMENT SYSTEM
 NTP NETWORK TIME PROTOCOL
 NVR NETWORK VIDEO RECORDER
 OCC OPERATION CONTROL CENTER
 OSP OUTSIDE PLANT

SIGNALS

AK APPROACH TRACK INDICATION
 DAX DOWNSTREAM ADJACENT CROSSING
 EMS EMERGENCY ALARM CONTROL CIRCUITS
 FLT SIGNAL FLEETING
 FR FLASHER RELAY
 GCR GATE CONTROL RELAY
 GD GATE DOWN
 GE GREEN SIGNAL LAMP
 GPR GATE REPEATER RELAY (GATE IN UP POSITION)
 LOS LOSS OF SHUNT
 NGHS NORTHWARD SIGNAL REQUEST
 NGK NORTHWARD SIGNAL CLEAR INDICATION
 NJSP DUAL SELECTOR LEVER
 NWK NORMAL SWITCH INDICATION
 NWP NORMAL SWITCH POINT POSITION
 NWR NORMAL SWITCH CONTROL RELAY
 NWS NORMAL SWITCH REQUEST
 RE RED SIGNAL LAMP
 RWK REVERSE SWITCH INDICATION
 RWP REVERSE SWITCH POINT POSITION
 RWR REVERSE SWITCH CONTROL RELAY
 RWS REVERSE SWITCH REQUEST
 SGHS SOUTHWARD SIGNAL REQUEST
 SGK SOUTHWARD SIGNAL CLEAR INDICATION
 TEK SIGNAL IN TIME INDICATION
 TK OS TRACK INDICATION
 TOB TON PER OPERATIVE BRAKE
 UAX UPSTREAM ADJACENT CROSSING
 WBC SWITCH CONTROL RELAY BACK CHECK
 XR CROSSING CONTROL RELAY
 YE YELLOW SIGNAL LAMP

TRAIN CONTROL COMMUNICATION

AMPL AMPLIFIER
 ATCS ADVANCE TRAIN CONTROL SYSTEM
 BER BIT ERROR RATE
 BPF BAND PASS FILTER
 BS BASE STATION
 CCF CENTRAL CONTROL FACILITY
 CRC CYCLIC REDUNDANCY CHECKS
 CSU CHANNEL SERVICE UNIT
 CTC CENTRALIZED TRAIN CONTROL
 CTCSS CONTINUOUS-TONE-CODED SQUELCH SYSTEM
 dB DECIBEL
 dBm DECIBEL REFERENCED TO A MILLIWATT
 dBW DECIBEL REFERENCED TO A WATT
 DBU DIAL BACKUP
 DED DRAGGING EQUIPMENT DETECTOR
 DSU DATA SERVICE UNIT
 ERP EFFECTIVE RADIATED POWER
 FAT FACTORY ACCEPTANCE TEST
 FDP FIBER DISTRIBUTION PANEL
 FEC FORWARD ERROR CONNECTION
 FM FREQUENCY MODULATION
 FO FIBER OPTIC
 FPP FIBER PATCH PANEL
 FR FRAME RELAY
 GMSK GAUSSIAN MINIMUM SHIFT KEYING
 GPS GLOBAL POSITIONING SYSTEM
 ISDN INTERGRATED SERVICES DIGITAL NETWORK
 KO KEYBOARD OPERATOR
 KVM KEYBOARD VIDEO MOUSE
 MAS MULTIPLE ADDRESSING SCHEME
 MC MEDIA CONVERTER
 MDF MAIN DISTRIBUTION FRAME
 NIC NETWORK INTERFACE CARD
 NMS NETWORK MANAGEMENT SYSTEM
 RF RADIO FREQUENCY
 RX RECEIVE
 SPKR SPEAKER
 SINAD SIGNAL TO NOISE AND DISTORTION
 SVR SERVER
 TC/C TRAIN CONTROLS AND COMMUNICATION
 TCT TRAIN CONTROL TRENCH
 TX TRANSMITTER
 UHF ULTRA HIGH FREQUENCY
 VHF VERY HIGH FREQUENCY
 VHLC VITAL HARMON LOGIC CONTROLLER

CITIES AND COUNTIES

CATH CITY OF ATHERTON
 CBEL CITY OF BELMONT
 CBUR CITY OF BURLINGAME
 CGIL CITY OF GILROY
 CMIL CITY OF MILLBRAE
 CMPK CITY OF MENLO PARK
 CMV CITY OF MOUNTAIN VIEW
 CPA CITY OF PALO ALTO
 CRWC CITY OF REDWOOD CITY
 CSB CITY OF SAN BRUNO
 CSC CITY OF SAN CARLOS
 CSJ CITY OF SAN JOSE
 CSM CITY OF SAN MATEO
 CSCL CITY OF SANTA CLARA
 CSSF CITY OF SOUTH SAN FRANCISCO
 CSV CITY OF SUNNYVALE
 CCSF CITY AND COUNTY OF SAN FRANCISCO
 COSM COUNTY OF SAN MATEO
 COSCL COUNTY OF SANTA CLARA

AGENCIES, ORGANIZATIONS AND CODES

AASHTO AMERICAN ASSOCIATION OF STATE HIGH-WAY AND TRANSPORTATION OFFICIALS
 AAR ASSOCIATION OF AMERICAN RAILROADS
 ACI AMERICAN CONCRETE INSTITUTE
 ADA AMERICANS WITH DISABILITIES ACT
 AMTRAK NATIONAL RAILROAD PASSENGER CORPORATION
 ANSI AMERICAN NATIONAL STANDARDS INSTITUTE
 APWA AMERICAN PUBLIC WORKS ASSOCIATION
 AREA AMERICAN RAILWAY ENGINEERING ASSOCIATION
 AREMA AMERICAN RAILWAY ENGINEERING AND MAINTENANCE OF WAY ASSOCIATION
 ASTM AMERICAN SOCIETY FOR TESTING AND MATERIALS
 ATT ATLANTIC TELEPHONE AND TELEGRAPH COMPANY
 AWG AMERICAN WIRE GAUGE
 AWS AMERICAN WELDING SOCIETY
 BART BAY AREA RAPID TRANSIT (DISTRICT)
 BNSF BURLINGTON NORTHERN SANTA FE
 CALCAS CALIFORNIA ACCESS COMPLIANCE SOURCE
 CALDAG CALIFORNIA DISABLED ACCESSIBILITY GUIDEBOOK
 CALTRANS CALIFORNIA DEPARTMENT OF TRANSPORTATION
 CCR CALIFORNIA CODE OF REGULATIONS
 CEC CALIFORNIA ELECTRICAL CODE
 CPUC CALIFORNIA PUBLIC UTILITIES COMMISSION
 EIA ELECTRONICS INDUSTRIES ALLIANCE
 FAA FEDERAL AVIATION ADMINISTRATION
 FCC FEDERAL COMMUNICATIONS COMMISSION
 FRA FEDERAL RAILROAD ADMINISTRATION
 JPB (PENINSULA CORRIDOR) JOINT POWERS BOARD
 MUTCD MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES
 NEC NATIONAL ELECTRICAL CODE
 NEMA NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
 NFPA NATIONAL FIRE PROTECTION ASSOCIATION
 PCJPB PENINSULA CORRIDOR JOINT POWERS BOARD
 PCMCIA PERSONAL COMPUTER MEMORY CARD INTERNATIONAL ASSOCIATION
 PG&E PACIFIC GAS AND ELECTRIC
 SAMTRANS SAN MATEO COUNTY TRANSIT DISTRICT
 SBC SOUTHERN BELL COMPANY
 SCRRA SOUTH CALIFORNIA REGINAL RAIL AUTHORITY (METROLINK)
 SCVTA SANTA CLARA VALLEY TRANSPORTATION AUTHORITY
 SMCTA SAN MATEO COUNTY TRANSPORTATION AUTHORITY
 SPR SPRINT NEXTEL
 SPTC SOUTHERN PACIFIC TRANSPORTATION COMPANY
 SVP SILICON VALLEY POWER
 TIA TELECOMMUNICATIONS INDUSTRY ASSOC
 UBC UNIFORM BUILDING CODE
 UL UNDERWRITERS LABORATORIES
 UPC UNIFORM PLUMBING CODE
 UPRR UNION PACIFIC RAILROAD

PENINSULA CORRIDOR JOINT POWERS BOARD

STANDARD DRAWINGS

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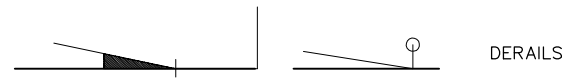
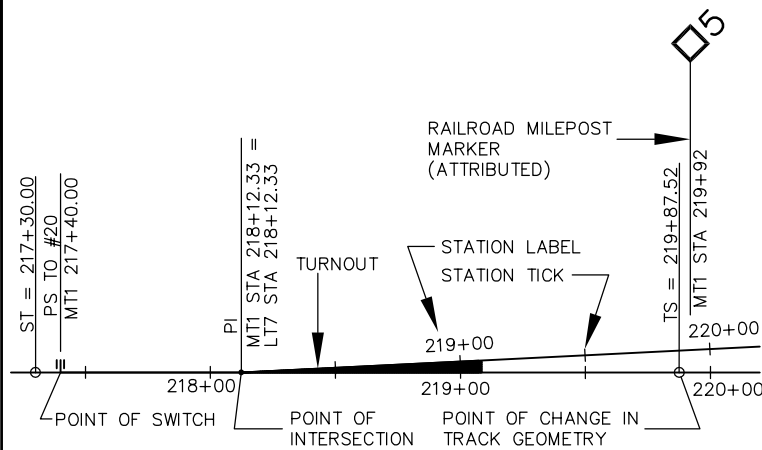


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REV	DATE	BY	CHK	APP	DESCRIPTION



SYMBOLS

- MON # HORIZONTAL CONTROL POINT (ATTRIBUTED)
- MON # HORIZONTAL AND VERTICAL CONTROL POINT (ATTRIBUTED)
- MON # VERTICAL CONTROL POINT (ATTRIBUTED)
- POINT OF VERTICAL INTERSECTION (PVI) VERTICAL CURVE (ATTRIBUTED)
- BENCHMARK
- STATIONING EQUATION MARKER
- CURVE MARKER (ATTRIBUTED)
- NORTH ARROW
- PLAN NORTH ARROW
- TREE(S), BRUSH, SHRUBS
- TREE(S), BRUSH, SHRUBS TO BE REMOVED

PATTERNS

- PEDESTRIAN CROSSING PANELS TO BE REMOVED
- GRADE CROSSING PANELS TO BE REMOVED
- ASPHALTIC CONCRETE TO BE REMOVED
- PORTLAND CEMENT CONCRETE TO BE REMOVED
- NEW ASPHALTIC CONCRETE
- COMPACTED SUBGRADE, EARTH
- BALLAST
- PORTLAND CEMENT CONCRETE
- AGGREGATE BASE
- GRADED/LANDSCAPED AREA
- STONE/BRICK PAVING
- TACTILE WARNING TILES

- SANITARY SEWER MANHOLE
- STORM DRAIN MANHOLE
- CCTV, SECURITY MANHOLE
- TELEVISION MANHOLE
- ELECTRIC MANHOLE
- WATER VALVE BOX
- RAILROAD SWITCHBOX
- TRAFFIC CONTROL BOX
- TRAFFIC SIGNAL
- TRAFFIC SIGNAL W/ ARM ONLY
- TRAFFIC SIGNAL W/ ARM AND POLE
- SIGN
- TELEPHONE POLE
- EXISTING POLE
- LIGHT POLE
- EXISTING POLE MOUNTED LUMINAIRE (EXISTING PLATFORM)
- ELECTROLIER WITH POLE
- ELECTROLIER WITHOUT POLE
- ELECTROLIER, DOUBLE
- CROSSING GATE WITH LIGHTS
- SIGNAL HOUSE
- RAILROAD SIGNAL
- SIGNAL BASE
- TEMPORARY DRAINAGE INLET
- TIME CLOCK
- PHOTOELECTRIC CELL
- STAIRWAY OR RAMP FLOODLIGHT
- SERVICE METERING SWITCHBOARD
- UTILITY METER
- TRANSFORMER

- GROUNDING ROD
- GROUND
- CCTV CAMERA
- CARD INTERFACE DEVICE
- DISTRIBUTION CABINET (ATTRIBUTED)
- STAND ALONE VALIDATOR
- TICKET VENDING MACHINE
- VISUAL MESSAGE SIGN
- PUBLIC TELEPHONE
- COMMUNICATIONS EQUIPMENT ROOM
- COMMUNICATIONS INTERFACE CABINET
- FIBER DISTRIBUTION PANEL
- NOISE SENSING MICROPHONE (SURFACE MOUNTED)
- PULL BOX
- EQUIPMENT ROOM
- SUBSYSTEM DEVICE (TVM, VMS OR CCTV)
- DISTRIBUTION CABINET (INTERMEDIATE CROSS-CONNECT)
- MICROPHONE
- SPEAKER
- DUAL SPEAKER
- HANDHOLE
- SINGLE MODE OR MULTIMODE FIBER OPTIC CABLE
- 8 OHM EXTERIOR HORN SPEAKER
- CONTROL POINT
- SM FIBER TO COPPER MEDIA CONVERTER/SWITCH DUAL TX/RX

LINE TYPES

- TD TRENCH DRAIN
- UD UNDER DRAIN
- CATV CABLE TV LINE
- Q COMMUNICATIONS LINE
- COPPER CABLE
- E ELECTRICAL LINE
- FOC FIBER OPTIC CABLE
- ATT FIBER OPTIC CABLE, ATT
- SPR FIBER OPTIC CABLE, SPRINT
- FUEL FUEL LINE
- GAS GAS LINE
- SS SANITARY SEWER LINE
- SIG SIGNALS LINE
- SD STORM DRAIN
- STORM DRAIN, OVER 18" DIA
- TEL TELEPHONE LINE
- OH OVERHEAD UTILITY LINE
- W WATER LINE
- HW HOT WATER LINE
- CENTERLINE
- MATCH LINE
- RIGHT-OF-WAY, EASEMENT, PROPERTY LINE
- X FENCE
- PCJPB INTERTRACK FENCE WELDED WIRE MESH (WWM)

TRACK

- TRACK TO BE REMOVED
- TRACK TO BE REALIGNED
- TRACK TO BE SHIFTED
- EXISTING TRACK ALIGNMENT
- FUTURE TRACK ALIGNMENT
- NEW TRACK ALIGNMENT

TRACK RECONSTRUCTION

- RECON=R RAIL ONLY
- RECON=TT TIES ONLY (TIMBER)
- RECON=TC TIES ONLY (CONCRETE)
- ST SPOT TIE ONLY
- RECON=F FASTENERS ONLY
- RECON=RP RECONSTRUCT RAIL AND INSTALL NEW PLATES
- RECON=B BALLAST ONLY
- RECON=R/TT/B RAIL/TIMBER TIE/BALLAST
- RECON=R/TC/B RAIL/CONCRETE TIE/BALLAST
- RECON=R/TC/B/HMAC RAIL/CONCRETE TIE/BALLAST/HMAC

PENINSULA CORRIDOR JOINT POWERS BOARD

STANDARD DRAWINGS

REV	DATE	BY	CHK	APP	DESCRIPTION

APPROVED BY:

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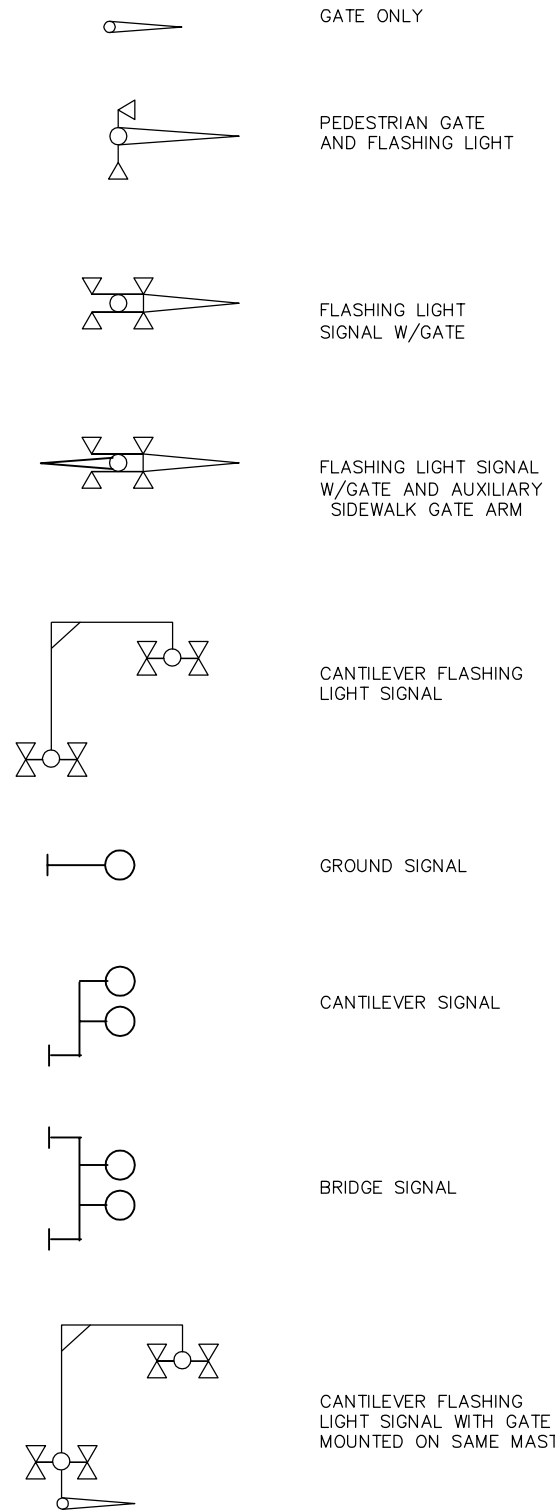


GENERAL SYMBOLS

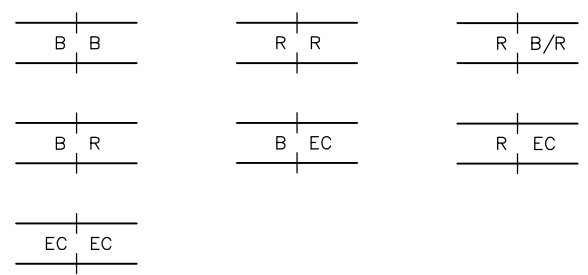
GENERAL, CIVIL AND TRACK

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STANDARD NO.: SD-1201	

SIGNALS AND GATES

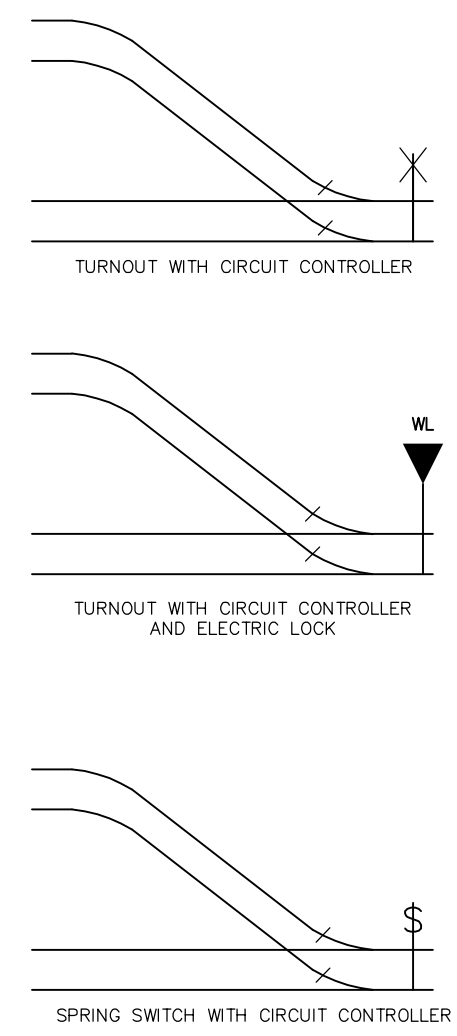


TRACK CIRCUITS

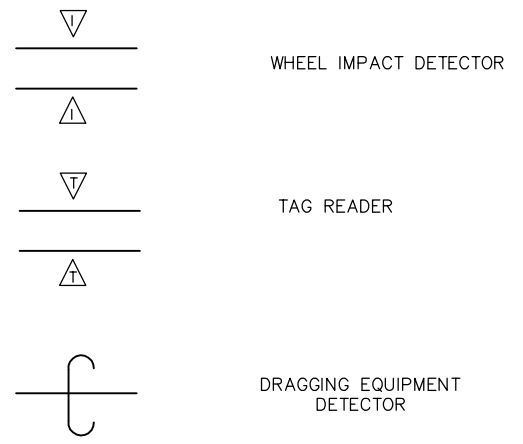


B/R-TRACK BATTERY WITH FLOATER RELAY LOCATION
 EC-ELECTRONICALLY CODED
 R-TRACK RELAY LOCATION
 B-TRACK BATTERY LOCATION

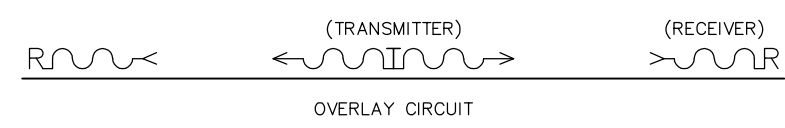
HAND-OPERATED TURNOUTS



DETECTORS

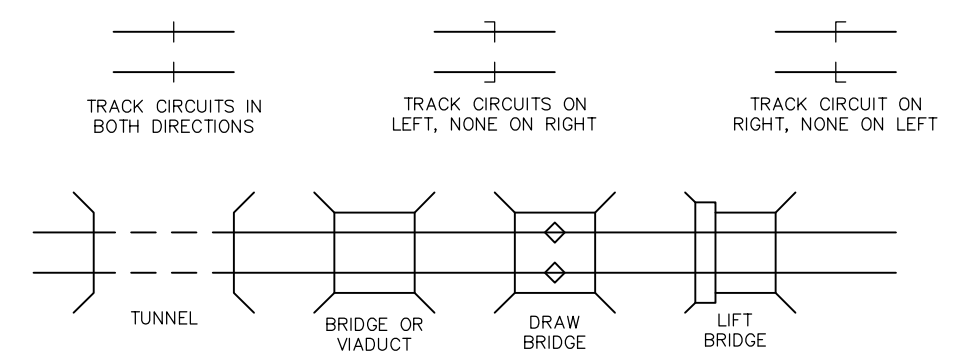


TRACK INSTRUMENT

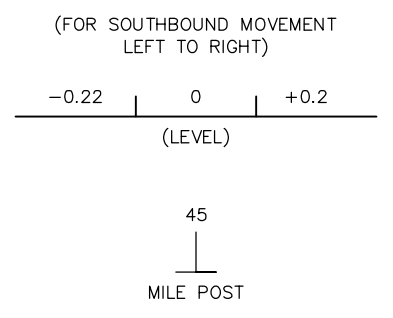


- HXP CONSTANT WARNING DEVICE (BI-DIRECTIONAL)
- HXP CONSTANT WARNING DEVICE (UNI-DIRECTIONAL)
- SAFETRAN CONSTANT WIRING DEVICE (BI-DIRECTIONAL)
- SAFETRAN GPC3000
- DOUBLE WIDE BAND SHUNT
- NARROW BAND SHUNT

INSULATED RAIL JOINTS

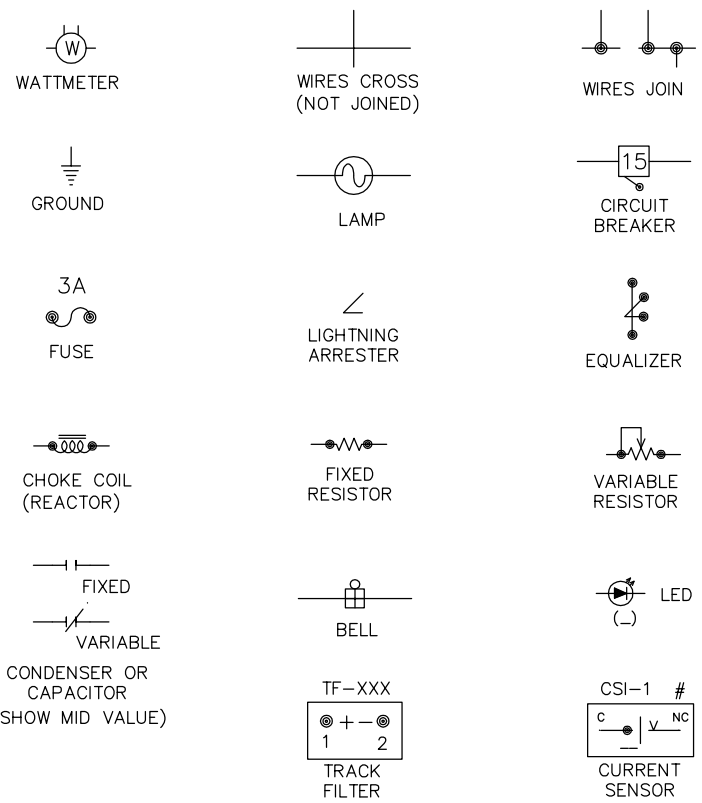


PROFILE (GRADE)

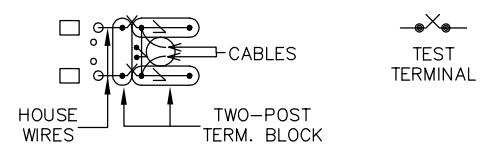


REV	DATE	BY	CHK	APP	DESCRIPTION	REV	DATE	BY	CHK	APP	DESCRIPTION

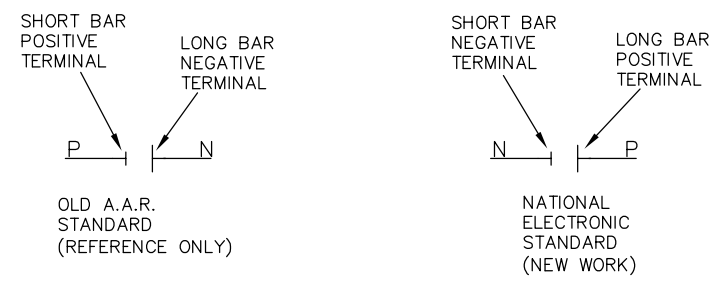
PENINSULA CORRIDOR JOINT POWERS BOARD		STANDARD DRAWINGS	CADD FILE NO.: SD-1202
APPROVED BY: DISCIPLINE MANAGER	APPROVED BY: DEPUTY DIRECTOR OF ENGINEERING	 1250 San Carlos Avenue San Carlos, CA 94070	REV 0 DATE 041507 GENERAL STANDARD NO.: SD-1202
		GENERAL SYMBOLS SIGNAL AND COMMUNICATIONS	



DETAILS FOR TERMINAL BOARD

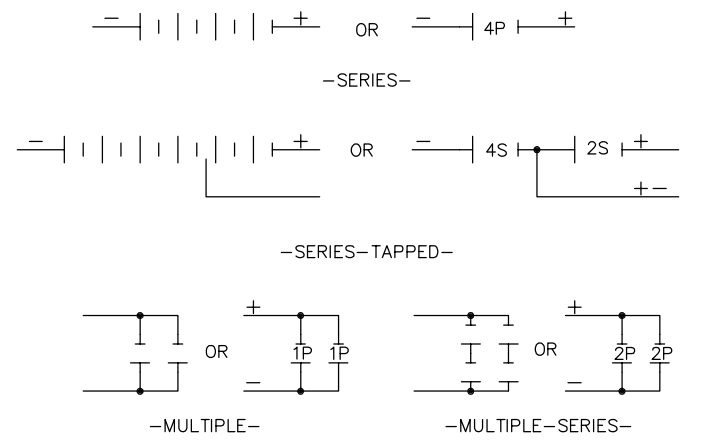


BATTERIES



NOTE:
THE NATIONAL ELECTRONIC STANDARD IS SHOWN HERE TO ACQUAINT OUR PERSONNEL WITH THE SYMBOL USED BY OTHER INDUSTRIES AND IS NOT FOR USE ON SIGNAL CIRCUIT PLANS.

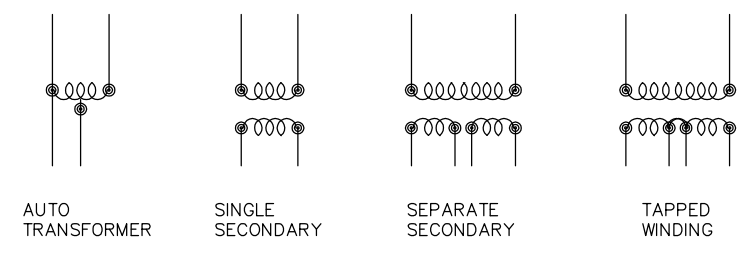
CIRCUIT ARRANGEMENTS



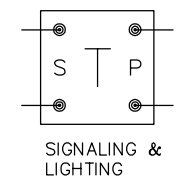
SPECIFY NUMBER OF CELLS USED AND USING SYMBOLS BELOW SHOW THE TYPE

- D- DRY CELLS
- P- PRIMARY CELLS
- S- LEAD STORAGE CELLS
- N- NICKEL-IRON OR NICKEL-CADMIUM STORAGE CELLS

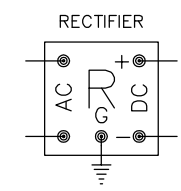
TRANSFORMERS



SIMPLIFIED SYMBOL

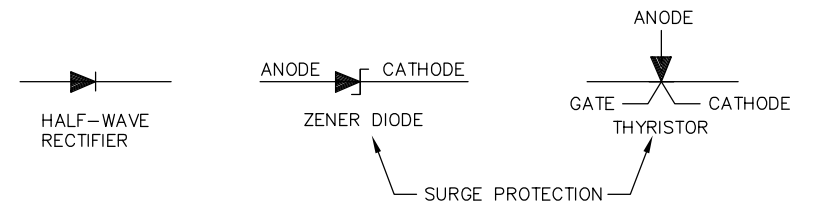


NOTE:
IF PERTINENT, SHOW CAT. NO. OR PC. NO., RATING AND OTHER INFORMATION DESIRED



SHOW TYPE AND RATING (I.E. AUTO-20A)

DEVICES USED WITH RECTIFIERS



REV	DATE	BY	CHK	APP	DESCRIPTION

PENINSULA CORRIDOR JOINT POWERS BOARD















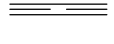

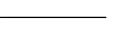



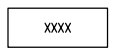
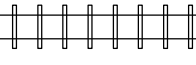
APPROVED BY:

DISCIPLINE MANAGER

DEPUTY DIRECTOR OF ENGINEERING

1250 San Carlos Avenue
San Carlos, CA 94070

STANDARD DRAWINGS		CADD FILE NO.:
GENERAL SYMBOLS SIGNAL COMPONENT AND CIRCUIT PLANS		SD-1203
REV	DATE	
0	041507	
GENERAL		
STANDARD NO.:		SD-1203

	CENTRAL CONTROL FACILITY		RELAY
	MICROWAVE SITE		RESISTOR
	DATA RADIO BASE STATION ANTENNA TOWER AND SITE		EARTH GROUND
	SPREAD SPECTRUM REPEATER SITE		CAVITY FILTER
	CONTROL POINT		CAVITY NOTCH FILTER
	50 OHM TERMINATION		CRYSTAL FILTER
	PENINSULA CORRIDOR		SAMPLE TAP / DIRECTIONAL COUPLER
	LEASED 4 WIRE E&M CIRCUITS		FERRITE ISOLATOR
	COAXIAL CABLE		DUPLEXER
	AMPLIFIER OR PRE-AMPLIFIER (XX DENOTES GAIN IN dB)		POWER COMBINER / SPLITTER
	RF DEVICE (XXXX DENOTES DEVICE TYPE)		RAILROAD TRACKS

REV	DATE	BY	CHK	APP	DESCRIPTION	REV	DATE	BY	CHK	APP	DESCRIPTION

PENINSULA CORRIDOR JOINT POWERS BOARD

APPROVED BY:


 DISCIPLINE MANAGER


 DEPUTY DIRECTOR OF ENGINEERING


1250 San Carlos Avenue
San Carlos, CA 94070

STANDARD DRAWINGS

GENERAL SYMBOLS
VHF VOICE RADIO AND
DATA RADIO NETWORK

CADD FILE NO.: SD-1205	
REV 0	DATE 041507
GENERAL	
STANDARD NO.: SD-1205	