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MARCH 8, 2013

P0728-C700-DU-018WP01.FD.R1

DU-018

SSH JV

UPRR Industrial Lead (Shoofly) Design Unit 018 – Work Package 01 Alternate Shoofly

SVBX C700

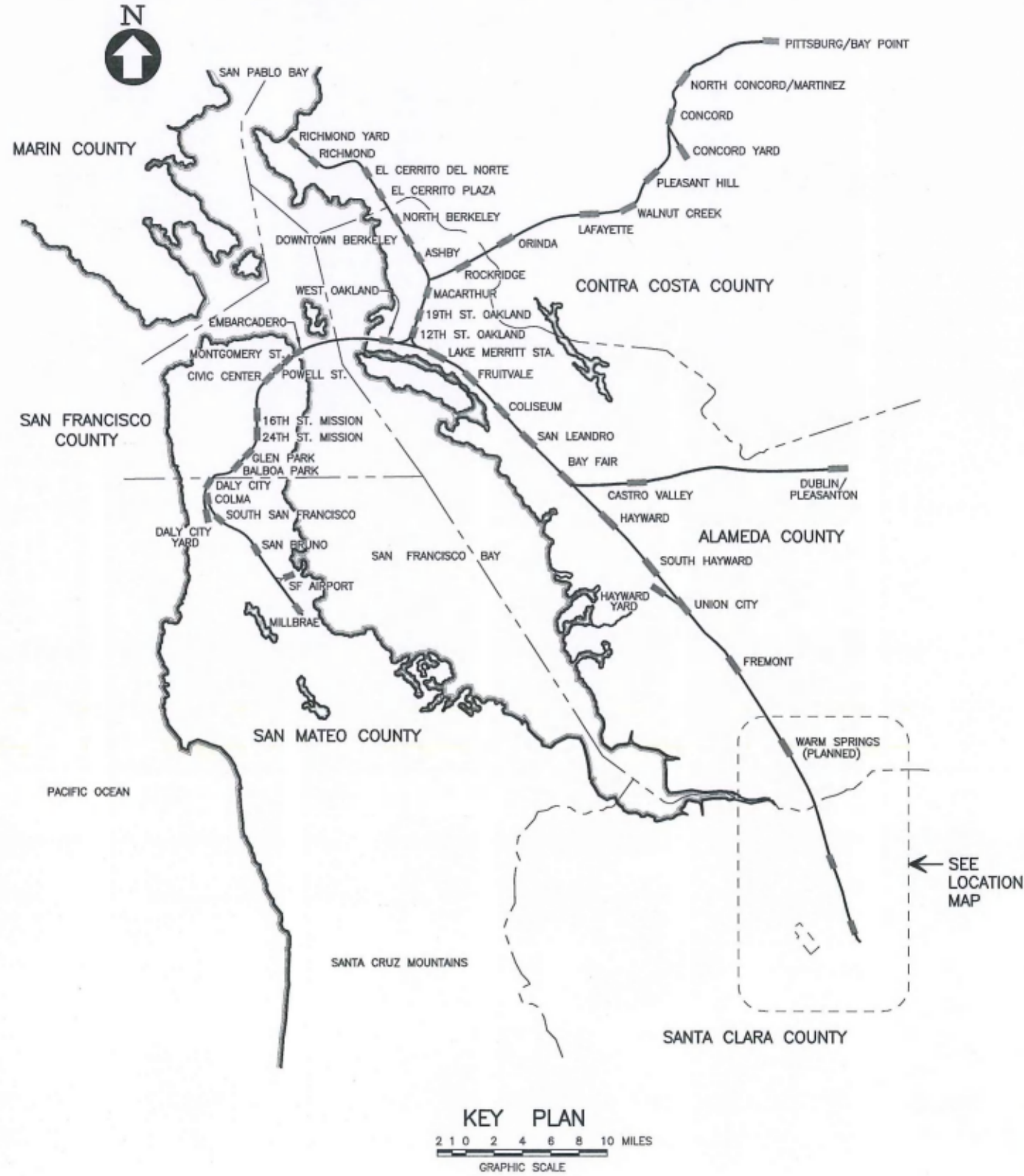
Thursday, February 28, 2013

HALF SIZE
COPY

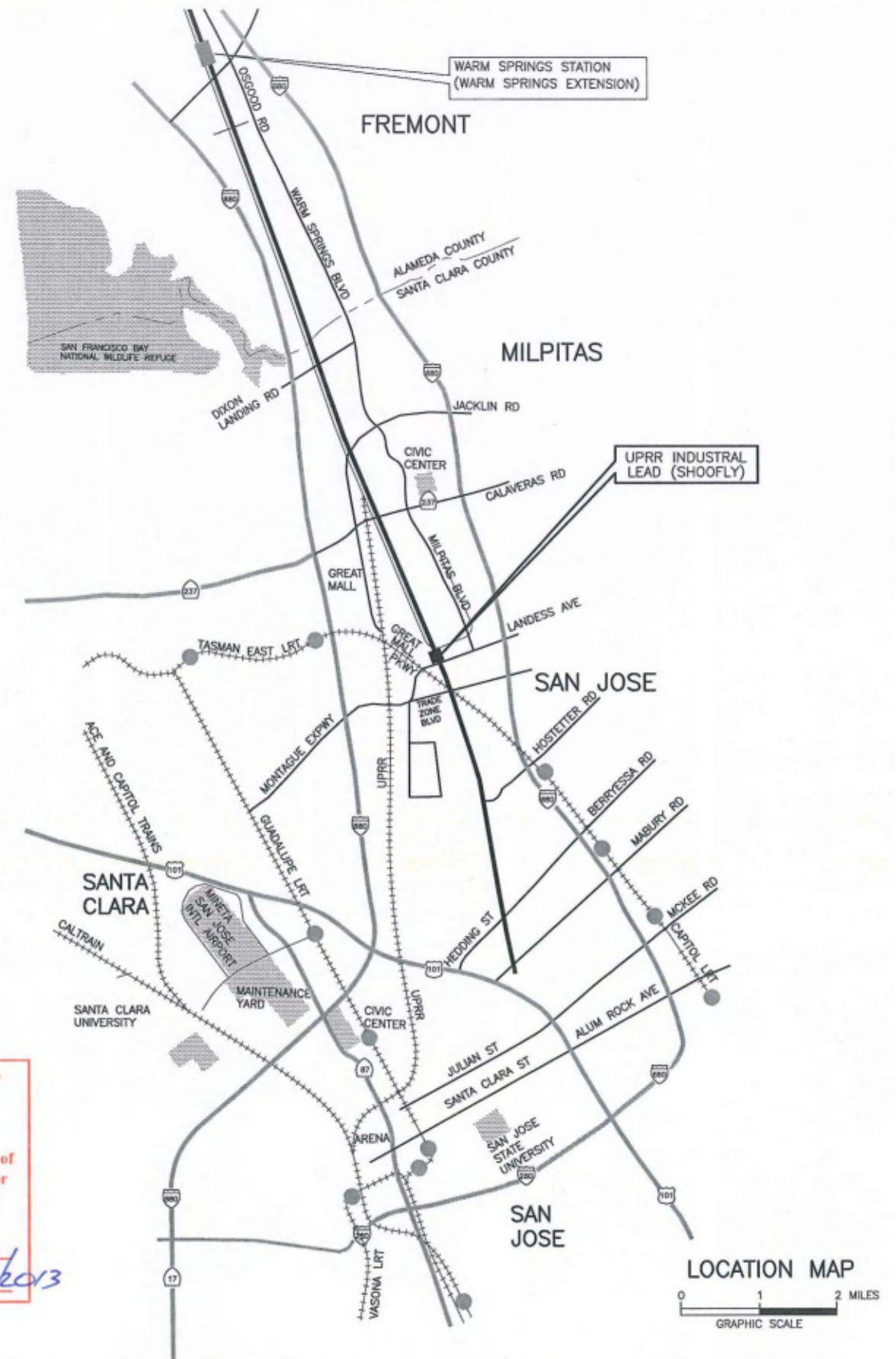


TYLIN INTERNATIONAL
engineers | planners | scientists

B1303-F241



Santa Clara Valley Transportation Authority
 NO EXCEPTION TAKEN
 MAKE CORRECTIONS NOTED
 AMEND AND RESUBMIT
 Any action shown above is subject to the terms of the contract and does not relieve the contractor of any of its obligations under the contract including design and detailing.
 Contract No.: DB11002F
 By: *[Signature]* Date: 03/21/2013



Jan 23, 2013 10:15:00 AM C:\Users\jclark\Documents\Projects\BART_Silicon_Valley\018_WP01_Shoofly\018_WP01_Shoofly.dwg 20130228

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130123				FINAL DESIGN
0	20121004				READY FOR CONSTRUCTION



Skanska Shimmick Herzog
 1435 California Circle
 Milpitas, California 95035
 A Joint Venture

Lockwood, Andrews & Newnam, Inc.
 A JOINT VENTURE

LOCKWOOD, ANDREWS & NEWNAM, INC. A JOINT VENTURE

APPROVED: *[Signature]*

BART SILICON VALLEY

LINE, TRACK, STATIONS, AND SYSTEMS
 DESIGN UNIT 018 - WORK PACKAGE 01
 TITLE SHEET

CADD FILENAME C700-S-RR-X001.dwg	SIZE D	SCALE NOT TO SCALE	CONTRACT NO. C700	REV. 1
AREA CODE RR	SHEET NO. X001	PAGE NO. 0001		

P0728-C700-DU-018WP01.FD.AMD.R1

B1303-F456

Received
SVBX PDCC
March 22, 2013

PAGE NO.	DWG NO.	REV NO.	TITLE
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FRONT END

0001	RR-X001	1	TITLE SHEET
0002	RR-X002	3	INDEX OF DRAWINGS SHOOFLY

RAILROAD SHOOFLY

GENERAL

0003	RR-C001	1	CIVIL GENERAL NOTES AND LEGEND
0004	RR-X200	1	GENERAL ABBREVIATIONS SHEET 1 OF 4
0005	RR-X201	1	GENERAL ABBREVIATIONS SHEET 2 OF 4
0006	RR-X202	1	GENERAL ABBREVIATIONS SHEET 3 OF 4
0007	RR-X203	1	GENERAL ABBREVIATIONS SHEET 4 OF 4

ALIGNMENT DATA

0008	RR-C089	2	RAILROAD RELOCATION - SHOOFLY ALIGNMENT DATA
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PLAN AND PROFILE

0009	RR-C224	2	RAILROAD RELOCATION SHOOFLY - PLAN AND PROFILE STA 9+96.92 TO 20+91.24
0010	RR-C224A	3	RAILROAD RELOCATION SHOOFLY - UTILITY LAYOUT
0010A	RR-C224B	1	RAILROAD RELOCATION SHOOFLY - 42" WATER 8" CHEVRON PROTECTION

TYPICAL SECTIONS

0011	RR-C342	2	RAILROAD RELOCATION - SHOOFLY TYPICAL SECTIONS
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CROSS SECTION

0012	RR-C800	2	CROSS SECTIONS SHEET 1 OF 3
0013	RR-C801	2	CROSS SECTIONS SHEET 2 OF 3
0014	RR-C802	2	CROSS SECTIONS SHEET 3 OF 3

UTILITIES

0015	RR-U900	0	EX SCVWD WATER PIPELINE PROTECTION DETAIL PRECAST VAULT
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PAGE NO.	DWG NO.	REV NO.	TITLE
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REFERENCE DRAWINGS

**	LM-C305	PIPER DRIVE TITLE SHEET
**	LM-C306	PIPER DRIVE TRAFFIC CONTROL PLAN BEGINNING OF WORK TO STA 20+50
**	LM-C307	PIPER DRIVE TRAFFIC CONTROL PLAN STA 20+50 TO END OF WORK

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 Contract No.: DB11002F
 By: *[Signature]* Date: 03/22/13

NOTE:

** FOR REFERENCE ONLY

Mar 18, 2013 - 3:03pm C:\p\shoofly\shoofly\amend\018\018-C700-S-RR-X002.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
3	20130318				ADD SCVWD PROTECTION DETAIL
2	20130228				ALTERNATE SHOOFLY
1	20130123				FINAL DESIGN AND UTILITY PROTECTION DETAILS
0	20121001				READY FOR CONSTRUCTION

DESIGNED BY
R. BANKS
 DRAWN BY
J. HUMBLE
 CHECKED BY
D. CLARY
 IN CHARGE
K. ANDERSON
 DATE
20130318



Skanska
Shimmick
Herzog
 Lockwood, Andrews & Newnam, Inc.
 SUBMITTED *[Signature]*

1436 California Circle
Miyama, California 95035
A Joint Venture

Lockwood, Andrews & Newnam, Inc.
T-Y-LIN INTERNATIONAL
 APPROVED *[Signature]*



LINE, TRACK, STATIONS, AND SYSTEMS
 DESIGN UNIT 018 - WORK PACKAGE 01

INDEX OF DRAWINGS
 SHOOFLY

CADD FILENAME	C700-S-RR-X002.dwg		
SIZE	SCALE	NOT TO SCALE	
CONTRACT NO.	C700	REV.	3
AREA CODE	RR	SHEET NO.	X002
PAGE NO.	0002		

SYMBOLS

GENERAL NOTES

EXISTING	
	DIRT ROAD
	GUTTER
	FENCE
	PROPERTY/ RIGHT OF WAY
	EASEMENT LINE
	CURBED ROAD EDGE
	PAVED ROAD EDGE
	OFF-ROAD CURB
	ASPHALT, PARKING
	CONCRETE SLAB
	SIDEWALK, DRIVEWAY
	RETAINING WALL
	CULVERT
	GUARDRAIL/ MEDIAN BARRIER
	MANHOLE
	POST
	FLAGPOLE
	SIGN
	LARGE SIGN
	UTILITY BOX
	ANCHOR W/GUY WIRE
	CATCH BASIN
	RAILROAD
	WATER LINE
	CONCRETE DITCH
	TREE DRIP LINE/ SHRUBS
	TREE
	INDEX CONTOUR
	DASHED INDEX CONT
	INTERMEDIATE CONTOUR
	DEPRESSION CONTOUR
	EXISTING SVRT RIGHT-OF-WAY
	EXISTING RIGHT-OF-WAY
	EXISTING EASEMENT
	EXISTING PROPERTY LINE

PROPOSED	
	CURB
	CURB AND GUTTER
	EDGE OF PAVEMENT
	TRENCH STRUCTURE WALL
	SOUNDWALL
	SOUNDWALL ON RETAINING WALL
	RETAINING WALL
	DIRT ROAD, DRIVE, OR WALK
	CENTERLINE
	TRACK CENTERLINE
	CHAIN LINK FENCE
	4' WIDE CHAIN LINK GATE
	4' WIDE DOOR AT SOUNDWALL
	CHAIN LINK FENCE ON TOP OF RETAINING WALL OR TRAFFIC BARRIER
	CHAIN LINK FENCE ON TYPE 'D' TRAFFIC BARRIER
	HIDDEN LINE
	MATCH LINE
	DITCH SHOWING DIRECTION OF FLOW
	DIRECTION OF RUNOFF/FLOW
	STORM DRAIN
	UNDERDRAIN
	CURVE NUMBER
	ELEVATION OF FINISHED GRADE
	PRIMARY SURVEY CONTROL POINT
	PI/PVC
	CONTROL POINT ON HORIZONTAL OR VERTICAL CURVE
	STORM DRAIN MANHOLE
	CLEANOUT
	STORM DRAIN INLET/ CATCH BASIN
	STATION EQUATION
	SWITCH MACHINE
	PROFILE HIGH OR LOW POINT
	RAIL LUBRICATOR

	MILE POST
	PROPOSED RIGHT-OF-WAY
	PROPOSED EASEMENT
	PROPOSED ACCESS ROAD
	TEMPORARY CONSTRUCTION EASEMENT AND ANGLE AT BAR SIZE CONTROL POINT DIAMETER EQUAL TO PERCENT WORK POINT ANGLE SECTION CHANNEL SECTION WIDE FLANGE SECTION GREATER THAN LESS THAN GREATER THAN OR EQUAL TO LESS THAN OR EQUAL TO
	DETAIL (NUMBER) OR SECTION (LETTER)
	DRAWING WHERE DETAIL OR SECTION IS CUT
	DRAWING WHERE DETAIL OR SECTION IS SHOWN
	EMERGENCY WALKWAY AT TOP OF BALLAST, SUBBALLAST AND TOP OF RAIL
	EMERGENCY WALKWAY 2' ABOVE TOP OF RAIL
	ELEVATION TRANSITION RAMP BETWEEN WALKWAYS
	PLANVIEW 5'-0" CROSSWALK AT TOP OF RAIL ELEVATION

1. ALL HORIZONTAL AND VERTICAL DISTANCES ARE IN FEET AND/OR DECIMALS OF FOOT.
2. STATIONING INCREASES FROM NORTH TO SOUTH FOR SVRT TRACK. STATIONING INCREASES FROM SOUTH TO NORTH FOR UPRR TRACKS. CONTROL STATIONING IS ON THE CENTERLINE OF S1 TRACK.
3. THE PROFILE ELEVATIONS OF EXISTING TRANSVERSE UTILITIES ARE APPROXIMATE. THE ELEVATIONS ARE BASED ON LIMITED POTHOLE INFORMATION AT LOCATIONS BEYOND THE S1 TRACK PROFILE LINE.
4. SVRT RIGHT OF WAY LINES SHOWN ON PLAN AND PROFILE DRAWINGS ARE PARTIAL.
5. THE PROFILE CORRESPONDS TO THE ELEVATION OF THE TOP OF LOWER RAIL THROUGH HORIZONTAL CURVES AND SPIRALS FOR THE DESIGNATED TRACK AND ALSO FOR TRACKS PARALLEL TO THE DESIGNATED TRACK. THE LENGTHS OF LINES ARE BASED ON CENTER OF TRACK ALIGNMENT. UNLESS SEPARATE TRACK PROFILES ARE GIVEN, TRACKS PARALLEL TO THE DESIGNATED TRACK ARE SET AT THE SAME TOP OF RAIL ELEVATIONS PROJECTED ON EITHER PERPENDICULAR OR RADIAL LINES FROM THE DESIGNATED TRACK CENTERLINES.
6. EXISTING TOPOGRAPHY SHOWN FOR INFORMATION ONLY.
7. THE HORIZONTAL CONTROL FOR ALL ALIGNMENTS IS BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD 83), EPOCH 1998.50. COORDINATES SHALL BE CALIFORNIA COORDINATE SYSTEM OF 1983 (CCS83), ZONE 3.
8. THE VERTICAL CONTROL IS BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

Jan 23, 2013 10:21 am C:\p\projects\13021\13021.dwg

Santa Clara Valley Transportation Authority

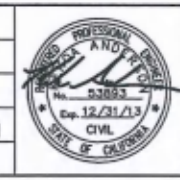
X NO EXCEPTION TAKEN
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By: *[Signature]* Date: 03/21/2013

REV	DATE	BY	SUB	APP	DESCRIPTION
1	20130123				FINAL DESIGN
0	20121001				READY FOR CONSTRUCTION



**Skanska
Shimmick
Herzog**

1438 California Circle
Milpitas, California 95035
A Joint Venture

**Lockwood, Andrews
& Newnam, Inc.**

LEG A JOINT COMPANY
Lockwood, Andrews & Newnam, Inc.
2100 S. BERRYESSA AVENUE
MILPITAS, CA 95035

T-Y-LIN INTERNATIONAL

**BART
SILICON VALLEY**

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS, AND SYSTEMS
DESIGN UNIT 018 - WORK PACKAGE 01

CIVIL
GENERAL NOTES AND LEGEND

CADD FILENAME	C700-S-RR-C001.dwg
SIZE	NONE
SCALE	NONE
CONTRACT NO.	C700
REV.	1
AREA CODE	RR
SHEET NO.	C001
PAGE NO.	0003

AGENCIES, ORGANIZATIONS ETC.

Table listing agencies and organizations such as AASHTO, ACFC & WCD, ACI, ACWD, AGA, AIR, AISC, ANSI, APCO, API, AREMA, ASTM, AT&T, AWS, BART, BNSF, B OF A, CALTRANS, CGS, CHEV, COF, COM, COMCAST, CPUC, CPUC GO, CSC, CSJ, CRSI, FDX, FGCS, ICG, JPB, KND, KM, L3, LVL3, MCI, MCWD, MFN, MFS, MSD, NEMA, NFPA, NOAA, OWT, PG&E, QWEST, SBC, SBWR, SCC, SCCA, SCS, SCVWD, S.F., SFWD, SUSU, SJC, SJCW, SPTC, SVBX, SVE, SVP, SVRT, TBE, TCI, WIL, UL, UPRR, USC&GS, USD, USPS, VRZ, VTA, SCVTA, XO.

- SPECIAL CHARACTERS -

Table listing special characters and their meanings: C&# (CENTER LINE AND DIAMETER), L (TEMPERATURE - FAHRENHEIT SCALE), 01,02 (AT ITEM SPACINGS ONLY), 2/C (ANGLE), 3/C (MEMBER SIZE), A (AMPERE), A/D (ABOVE FINISHED FLOOR), A/V (ANALOG-TO-DIGITAL CONVERTER), AB (ADVANCED AUTOMATIC TRAIN CONTROL), ABM (AUTOMATIC AIR VENT), ABN (AGGREGATE BASE), ABS (ANCHOR BOLT), ABT (ARRESTOR BLOCK), AC (AIR-BLOWN MORTAR), ACB (ABANDON(ED)), ACU (ACRYLONITRILE-BUTADIENE-STYRENE), ACV (AUTOMATIC BLOCK SIGNAL), ACW (ANCHOR BOLT), AD (ABUTMENT), ADJ (AIR COMPRESSOR), ADR (AIR CURTAIN), ADT (AIR CONDITIONING), AEU (ASPHALT CONCRETE), AFD (ALTERNATING CURRENT), AFG (AIR CIRCUIT BREAKER), AFI (AIR CONDITIONING CONTROL PANEL), AFJ (ACCESS DOOR), AFK (AUTOMATIC CALLER IDENTIFICATION), AFL (ACKNOWLEDGE), AFM (ALTERNATING CURRENT OUTPUT), AFN (ACOUSTICAL), AFO (ASBESTOS CEMENT PIPE), AFR (AUXILIARY CONTROL PANEL), AFS (AUXILIARY COMM ROOM), AFT (ACCESS CONTROL SYSTEM), AFV (ACOUSTICAL TREATMENT), AFW (AIR CONDITIONING UNIT), AFX (ASBESTOS CEMENT WATER PIPE), AFY (AREA DRAIN), AFZ (ADDENDUM), AG (ADDITIONAL), AGA (ADJACENT), AGB (ADJUSTABLE), AGC (ADD/DROP MULTIPLEXER), AGD (ADD/DROP MULTIPLEXER), AGE (AUTOMATIC ELECTRONIC IDENTIFICATION), AGF (SYSTEM), AGG (AIR FILTER), AGH (AUDIO FREQUENCY), AGI (ANTI-FREEZE REEL), AGJ (AUTOMATIC FARE COLLECTION), AGK (ABOVE FINISH FLOOR), AGL (ADD FARE MACHINE), AGM (ABOVE GROUND), AGN (AHEAD), AGO (AIR HANDLING UNIT), AGP (ADDITIONAL INFO), AGQ (ANALOG INPUT), AGR (ALARM), AGS (ALIGNMENT), AGT (ALUMINUM), AGU (ALUMINUM LEVEL CONTROL UNIT), AGV (ALTERNATE), AGW (ALTERNATIVE), AGX (AMMETER), AGY (AMPLITUDE MODULATION), AGZ (AMBIENT), AH (AMPLIFIER), AHA (ANCHOR), AHB (ANNUNCIATOR), AHC (ANNUNCIATOR), AHD (AMBIENT NOISE SENSOR), AHE (ANTENNA), AHF (ANALOG OUTPUT), AHG (ANGLE OF VIEW), AHI (ACCESS PANEL), AHJ (AIR PRESSURE DROP), AHK (ASSESSOR PARCEL NUMBER), AHL (APPROACH), AHM (APPROXIMATE), AHN (ACOUSTICAL PANEL CEILING), AHO (AREA OF RESCUE ASSISTANCE), AHP (ARCHITECTURAL), AHR (ACCELERATION RESPONSE SPECTRUM), AHS (AIR RELEASE VALVE), AHT (AGGREGATE SUBBASE), AHU (AMMETER SWITCH), AHV (ASPHALT), AHW (APPROACH LOCKING STICK RELAY), AHX (AUTOMATIC SPRINKLER RISER), AHY (AMMETER TRANSDUCER), AHZ (AUTOMATIC TRAIN CONTROL), AIA (AUTOMATIC TRAIN OPERATION).

- A -

Table listing characters A through Z and their meanings: A (AMPERE), B (BOTTOM), B/O (BOTTOM OF POS. 12VDC), B12 (POS. 28VDC), B28 (BATTERY), BAT (BACK BONE), BB (BILL-TO-BILL CHANGER), BBC (BARE COPPER), BC (BEGIN CURVE), BCM (BILL CHANGE MACHINE), BCR (BEGIN CURB RETURN), BCU (BARE COPPER), BD (BALANCING DAMPER), BDA (BI-DIRECTIONAL AMPLIFIER), BDD (BACKDRAFT DAMPER), BER (BIT ERROR RATE), BFD (BLACK ROLL FIBER DUCT), BFP (BACK FLOW PREVENTER), BFS (BART FACILITY STANDARD), BGS (BELOW GROUND SURFACE), BHP (BRAKE HORSE POWER), BIT (BINARY DIGIT), BITUM (BITUMINOUS), BK (BACK), BKF (BACKFILL), BKR (BREAKER), BLDG (BUILDING), BLKG (BLOCKING), BLKS (BLOCKS), BLS (BLUE LIGHT STATION), BLVD (BOULEVARD), BM (BEAM), BO (BLOW OFF), BOC (BOTTOM OF CONCRETE), BOD (BOTTOM OF DUCT), BORI (BIDIRECTIONAL OPTICAL RF INTERFACE), BOS (BOTTOM OF SLAB), BOW (BACK OF WALK), BP (BART POLICE), BPS (BITS PER SECOND), BR (BRIDGE), BRG(S) (BEARING(S)), BRKR (BREAKER), BRR (BROKEN RAIL RELAY), BS (BOTTOM OF SLOPE), BSI (BAYSTATE SUBSURFACE INVESTIGATION), BSS (BUS SIGNAL SYSTEM), BTM (BUS TRANSFER MACHINE), BTS (BASE TRANSCIEVER STATION), BTU (BRITISH THERMAL UNIT), BTUH (BRITISH THERMAL UNIT PER HOUR), BV (BUTTERFLY VALVE), BV (BEGIN VERTICAL CURVE), BWC (BARBED WIRE), BX (BANDWIDTH), BX12 (AC VOLTAGE POSITIVE 12V AC).

- B -

Table listing characters B through Z and their meanings: B (DC VOLTAGE - POSITIVE), B/O (BOTTOM), B12 (BOTTOM OF POS. 12VDC), B28 (POS. 28VDC), BAT (BATTERY), BB (BACK BONE), BBC (BILL-TO-BILL CHANGER), BC (BARE COPPER), BCM (BILL CHANGE MACHINE), BCR (BEGIN CURB RETURN), BCU (BARE COPPER), BD (BALANCING DAMPER), BDA (BI-DIRECTIONAL AMPLIFIER), BDD (BACKDRAFT DAMPER), BER (BIT ERROR RATE), BFD (BLACK ROLL FIBER DUCT), BFP (BACK FLOW PREVENTER), BFS (BART FACILITY STANDARD), BGS (BELOW GROUND SURFACE), BHP (BRAKE HORSE POWER), BIT (BINARY DIGIT), BITUM (BITUMINOUS), BK (BACK), BKF (BACKFILL), BKR (BREAKER), BLDG (BUILDING), BLKG (BLOCKING), BLKS (BLOCKS), BLS (BLUE LIGHT STATION), BLVD (BOULEVARD), BM (BEAM), BO (BLOW OFF), BOC (BOTTOM OF CONCRETE), BOD (BOTTOM OF DUCT), BORI (BIDIRECTIONAL OPTICAL RF INTERFACE), BOS (BOTTOM OF SLAB), BOW (BACK OF WALK), BP (BART POLICE), BPS (BITS PER SECOND), BR (BRIDGE), BRG(S) (BEARING(S)), BRKR (BREAKER), BRR (BROKEN RAIL RELAY), BS (BOTTOM OF SLOPE), BSI (BAYSTATE SUBSURFACE INVESTIGATION), BSS (BUS SIGNAL SYSTEM), BTM (BUS TRANSFER MACHINE), BTS (BASE TRANSCIEVER STATION), BTU (BRITISH THERMAL UNIT), BTUH (BRITISH THERMAL UNIT PER HOUR), BV (BUTTERFLY VALVE), BV (BEGIN VERTICAL CURVE), BWC (BARBED WIRE), BX (BANDWIDTH), BX12 (AC VOLTAGE POSITIVE 12V AC).

- C -

Table listing characters C through Z and their meanings: C (CELSIUS), C&G (CONDUIT), C/B (COVER BOARD), C/R (CONTACT RAIL), C/W (COMPLETE WITH COMPRESSED AIR), CA (COMPRESSOR), CAB (CABINETS), CAL (CALIBER), CAP (CAPACITOR), CAT (CATHODE RAY TUBE), CATV (CONTACT SWITCH), CB (CATCH BASIN), CC (CENTRAL CONTROL), C-C (CENTER TO CENTER), CCF (CENTRAL CONTROL FACILITY), CCN (COMMUNICATIONS CABLE NETWORK), CCP (CENTRAL CONTROL PANEL), CCS (CENTRAL CONTROL SYSTEM), CCS53 (CALIFORNIA COORDINATE SYSTEM), CCTV (CORROSION CONTROL TEST LEADS), CD (CONDENSATE DRAIN), CDB (CENTRAL DISPLAY BOARD), CEC (CALIFORNIA ELECTRICAL CODE), CEG (CEILING EXHAUST GRILLE), CEM (CEMENT), CER (CERAMIC), CF (CUBIC FOOT/FEET), CF/DA (CALL FORWARD/DON'T ANSWER), CFH (CUBIC FEET PER HOUR), CFM (CUBIC FEET PER MINUTE), CFT (CONTACT FIBER TRANSCEIVER), CG (CENTER OF GRAVITY), CH (CHANNEL), CH BK (CHANNEL BANK), CHFU (CONTROL FUSE), CHWR (CHILLED WATER RETURN), CHWS (CHILLED WATER SUPPLY), CI (CAST IRON), CIC (COMMUNICATIONS INTERFACE), CIP (CAST IRON PIPE), CJ (CONSTRUCTION JOINT), CKT (CIRCUIT), CL (CEMENT LINED), CL&C (CEMENT LINED AND COATED), CLF (CHAIN LINK FENCE), CLG (CEILING), CLKG (CAULKING), CLO (CLOSET), CLR (CLEAR), CMP (CORRUGATED METAL PIPE), CMU (CONCRETE MASONRY UNIT), CND (CONDUIT), CNTR (CONTROL), CO (CLEANOUT), CO1 (CLEANOUT, COUNTY, CROSSOVER), COAX (CONVENIENCE OUTLET), COL(S) (CARBON MONOXIDE SENSOR), COMM (CONTROL ONLY), COMP (SUPERVISORY CENTRAL CONTROL BOARD), COMPT (COAXIAL CABLE), CONC (COLUMN), COND (COMMUNICATION(S)), CONN (COMPUTER, COMPOSITE), CONST (COMPARTMENT), CONV (CONCRETE), COORD (CONDENSATE), CORP (CONDENSING), CORR (CONDITIONED), CORS (CONNECT), CP (CONSTRUCT), CPB (CONTINUOUS), CPC (CONVENTIONAL), CPL (COORDINATE), CPLG (CORPORATION), CPP (CORRIDOR), CPT (CORRIGATED PLASTIC PIPE), CPU (CARPET), CPU/PD (CENTRAL PROCESSING UNIT), CR (CENTRAL PROCESSOR UNIT), CRD (CARD READER), CRG (CROWN), CRK (CONTACT RAIL), CRT (CEILING RETURN), CS (CEILING RETURN GRILLE), CSA (CREEK), CSB (CATHODE RAY TUBE), CSBR (CONTACT SWITCH), CSD (CONTACT SWITCH, CONTROL SWITCH), CSEX (CABLE TELEVISION), CSP (CATCH BASIN), CSR (CIRCUIT BREAKER), CSU (CONVERTER BLOCK), CT (CATCH BASIN), CTC (CATCH BASIN), CTCSS (CATCH BASIN), CTR (CATCH BASIN), CTSK (CATCH BASIN), CU (CATCH BASIN), CULV (CATCH BASIN), CV (CATCH BASIN), CW (CATCH BASIN), CWR (CATCH BASIN), CX (CATCH BASIN), CXFU (CATCH BASIN), CY (CATCH BASIN).

- D -

Table listing characters D through Z and their meanings: D (DEPTH), D/A (DRAIN), D/F (DRAINAGE), D/L (DRAINAGE), DA (DISTRICT FURNISHED), DACS (DOWN LINK), DAS (DISTRIBUTION AMPLIFIER), DB (DIGITAL ACCESS AND CROSS CONNECT), dB (DATA ACQUISITION SYSTEM), DBC (DRY BULB, DUCTBANK), DBL (DECIBEL), DBO (DIRECT BURIED CABLE), DC (DOUBLE), DCC (DOUBLE BREAK OUTPUT), DCD (DIRECT CURRENT), DCP (DEGREE OF CURVE), DD (DATA COMMUNICATIONS CHANNEL), DDCVA (DATA COMMUNICATIONS NETWORK), DDS (DAMPEN CONTROL PANEL), DEG (DOWN DRAIN), DEL (DOUBLE DETECTOR), DEPT (CHECK VALVE), DET (DYNAMIC), DFM (TRAIN DESTINATION SIGN), DIA (DUCT EXHAUST GRILLE), DIG (DEGREE), DIP (DELINEATORS), DIPIS (DELETE), DIR (DEPARTMENT), DISP (DETAIL), DISTR (DETOUR), DLM (DETECTOR), DLS (DIRECT FIXATION), DMH (DRINKING FOUNTAIN), DMOD (DEGREES FAHRENHEIT), DMP (DISTRICT FURNISHED EQUIPMENT), DN (DISTRICT FURNISHED MATERIAL), DO (DISTRIBUTION FEEDER MAIN), DOD (DOOR GRILLE), DP (DENSE GRADED ASPHALT CONCRETE), DIA (DUCTILE IRON PIPE), DIM (DRAINAGE INLET), DIP (DIRECT INPUT), DIR (DIAMETER), DISP (DIAGONAL), DISTR (DIRECT INWARD DIALING), DL (DIMENSION), DLM (DUCTILE IRON PIPE), DLS (DOOR INTERLOCK PROTECTION ISOLATION), DMH (SCHEME), DMOD (DIRECT, DIRECTION), DMP (DISPENSER), DN (DISTRIBUTION), DO (DISTRICT, DISTANCE), DOD (DEAD LOAD), DP (DOOR LOUVER), DR (DRAINAGE MANHOLE), DRWY (DEMODULATE), DS (DESIGNATED MATCHING PRODUCT), DS0 (DOWN), DS1 (DIGITAL OUTPUT), DS2 (DOOR OPENING), DS3 (DITTO), DS4 (DIRECT OUTWARD DIALING), DS5 (DIFFERENTIAL PRESSURE), DS6 (DISTRIBUTION PANEL), DS7 (DOOR, DRIVE), DS8 (DRIVEWAY), DS9 (DISCONNECT SWITCH), DS10 (DOWNSPOUT), DS11 (DESK SET UNIT), DS12 (DIGITAL SIGNAL), DS13 (LEVEL 0), DS14 (DIGITAL SIGNAL), DS15 (LEVEL 1), DS16 (DEEP SOIL MIX), DS17 (DESTINATION SIGN SYSTEM), DS18 (DESTINATION SIGN UNIT), DS19 (DATA SERVICE UNIT), DS20 (DIGITAL CROSSCONNECT), DS21 (DUAL TONE MULTIFREQUENCY).

Santa Clara Valley Transportation Authority NO EXCEPTION TAKEN MAKE CORRECTIONS NOTED AMEND AND RESUBMIT Any action shown above is subject to the terms of the contract and does not relieve the contractor of any of its obligations under the contract including design and detailing. Contract No. DB11002F By: [Signature] Date: 03/21/2013

- NOTES: 1. ABBREVIATIONS SHOULD ONLY BE USED WHEN SPACE LIMITATIONS ON THE DRAWING DOES NOT ALLOW FOR THE FULL TEXT. 2. SOME ABBREVIATIONS ARE CONSIDERED COMMON OR WIDESPREAD AND CAN BE USED UNIVERSALLY. I.E., TYP FOR TYPICAL; UNO FOR UNLESS NOTED OTHERWISE. 3. ABBREVIATIONS WITH MULTIPLE DEFINITIONS SHOULD BE READ IN RELATION TO THE ITEM, AND DISCIPLINE OF THE DRAWING ON WHICH IT OCCURS. 4. ABBREVIATIONS MAY BE COMBINED WHEN NEEDED I.E. DIP-CL (DUCTILE IRON PIPE, CEMENT LINED), NS&FS (NEAR SIDE AND FAR SIDE)

Jan 23, 2013 10:22am C:\projects\Bart\Drawings\018-Work Package\018-WP01-FD-R1.dwg

Table with 5 columns: REV, DATE, BY, SUB, APP, DESCRIPTION. Row 1: 1, 20130123, [Blank], [Blank], [Blank], FINAL DESIGN. Row 2: 0, 20121001, [Blank], [Blank], [Blank], READY FOR CONSTRUCTION.

DESIGNED BY R. BANKS, DRAWN BY M. HALL, CHECKED BY D. CLARY, IN CHARGE K. ANDERSON, DATE 20130123. Includes logos for Skanska Shimmick Herzog, Lockwood, Andrews & Newnam, Inc., and T-Y-LIN INTERNATIONAL.

BART SILICON VALLEY logo. LINE, TRACK, STATIONS, AND SYSTEMS DESIGN UNIT 018 - WORK PACKAGE 01 GENERAL ABBREVIATIONS. CADD FILENAME C700-S-RR-X200.dwg. SCALE NOT TO SCALE. CONTRACT NO. C700. REV. 1. AREA CODE SHEET NO. RR. SHEET NO. X200. PAGE NO. 0004. SHEET 1 OF 4.

Table with 2 columns: Abbreviation and Definition. Includes entries for E (East, Super-elevation), E&M (Ear and Mouth), EA (Each, Exhaust Air), EAD (Exhaust Air Damper), EAT (Entering Air Temperature), EB (Eastbound, End of Bridge), EBH (Electrical Baseboard Heater), EBO (Emergency Barrier Override), EBP (Emergency Backup Panel), EC (End Curve), ECB (Emergency Call Box), ECC (Electric Cabinet Convector), ECH (Electric Cabinet Heater), ECR (End Curb Return), EDACS (Enhanced Digital Access Communications System), EDF (Electric Drinking Fountain), EE (Each End, Emergency Exit), EERMS (Elevator and Escalator Remote Monitoring System), EF (Each Face, Exhaust Fan), EFF (Efficiency), EG (Existing Ground), EHC (Electric Heating Coil), EHH (Electrical Handhole), EIO (Ethernet Input Output), EIP (Elevator Interface Panel), EJ (Expansion Joint), EUEC (Ejection / Ejector), EL (Elevation), ELB (Elbow), ELEC (Electric, Electrical), ELEV (Elevator), E'LY (Easterly), EM, EMER (Emergency, Emergency Mode, Emergency Command, Emergency Trip), EM TRIP (Embarkment), EMB (Embedment), EMCC (Emergency Motor Control Center), EMH (Electrical Manhole), EMI (Electromagnetic Interference), EMP (Emergency Management Panel), ENC (Encased), ENCL (Enclosure), ENGR (Engineer), ENT (Entrance), EOB (End of Bridge), EOL (End of Line), EOP (End of Platform), EOS (Electric Operating Switch), EOT (End of Track), EP (Edge of Pavement), EPB (Electrical Pull Box, Empty Pull Box), EPDM (Ethylene Propylene Diene Monomer), EPD (External Pressure Drop), EPOCH DATE (A Specific Instant in Time), EPR (Exit Prohibit Relay, Ethylene Propylene Rubber Insulated Cable), EQ (Equal, Equation), EQUIP (Equipment), ER (Exhaust Register), ES (Edge of Shoulder, End System, Emergency Shower), ESC (Emergency Supply Closet, Escalator, Escape Easement), ESMT (External Static Pressure), ESS (Essential), EST (Estimate), ET (Emergency Telephone, Emergency Trip, Expansion Tank, Etcetera), ETC (Emergency Trip Module), ETP (Emergency Trip Panel), ETS (Electrolysis Test Station, Emergency Trip Station), ETTS (Emergency Transfer Trip Station), ETW (Edge of Traveled Way), EUH (Electric Unit Heater), EV (Electrical Vault), EVC (End Vertical Curve), EW (Each Way, Emergency Eye Wash), EWL (End Wall).

Table with 2 columns: Abbreviation and Definition. Includes entries for EWT (Entering Water Temperature), EXC (Excavation), EXH (Exhaust), EXIST (Existing), EXP (Expansion), EXP JT (Expansion Joint), EXPO (Exposed), EXPWY (Expressway), EXT (Exterior, Extended), EXTR (Extractor), F (Fahrenheit, Fuse, Fuel), FA (Fire Alarm, Free Area), FACP (Fire Alarm Control Panel), FAFM (Future Add Fare Machine), FAI (Fresh Air Intake), FAWS (Fire Alarm Work Station), FB (Flat Bar, Face of Building), FC (Fan Coil, Flexible Connection, Forward Curve, Face of Curb, Specified Compressive Strength of Concrete), f'c (Compressive Strength of Concrete at Time of Initial Prestress), f'ci (Flow Control Device), FCD (Fracture Critical Member), FCM (Floor Clean Out), FCO (Fire Control Panel), FCP (Floor Drain, French Drain, Fan Damper, Fiber Duct, Fire Department Connection, Fan Damper Control Panel, Fan Damper Close Relay), FD (Fiber Distributed Data Interface, Foundation, Fire Line Going Down, Fiber Distribution Panel, Fire Damper with Access Panel), FDC (Fan Damper Section), FDCP (Fan Damper Control Panel), FDCR (Fan Damper Close Relay), FDDI (Fiber Distributed Data Interface), FDN (Foundation, Fire Line Going Down), FDP (Fiber Distribution Panel, Fire Damper with Access Panel), FDS (Fan Damper Section), FDSC (Fan Damper Section Close Relay), FDSO (Fan Damper Section Open Relay), FE (Field Equipment), FE(C) (Fire Extinguisher (Cabinet)), FECR (Flashing Lamp Check Relay), FF (Filter Fabric), FF(E) (Finished Floor (Elevation)), FG (Finished Grade, Fare Gate), FGA (Fare Gate Array), FGC (Fare Gate Cabinet), FH (Fire Hydrant, Flat Head), FHC (Fire Hose Cabinet), FHV (Fire Hose Valve), FIN (Finished), FIT (Furnish Install Terminate, Furnish Install Test, Fire Isolation Valve), FIV (Flow Line), FL (Full Load Amperes), FLA (Full Load Amperes), FLC (Full Load Current), FLEX (Flexible), FLR (Floor, Flashing Lamp Relay), FM (Factory Mutual, Forced Main, Frequency Modulation, Fan Motor Trouble Found), FMT (Fiber Optic Cable), FND (Face of Concrete), FO (Face of Finish), FOC (Face of Masonry, Fiber Optic Modem), FOF (Face of Studs), FOM (Fiber Optic Terminal, Fiber Optic Tunnel Interface), FOS (Fire Protection), FOT (Feet Per Minute), FO-TN (Fireproof), FPF (Feet Per Second), FPR (Frame), FRE (Fan Running (Exhaust)), FRG (Floor Return Grille), FR GRD (Frame Ground), FRP (Fiber Reinforced Polymer), FRRC (Fire-Radio Remote Control Unit), FRS (Fan Running (Supply)), FS (Far Side, Fire Service, Full Size, Floor Sink, Flow Switch, Finished Surface).

Table with 2 columns: Abbreviation and Definition. Includes entries for FSD (Combination Fire Smoke Detector), FSK (Frequency Shift Keying), FSV (Fire Sprinkler Valve), FT (Foot (Feet), Fire Telephone, Computer/Fault Tolerant Computer), FTG (Footing), FTLT (Freight Lift), FTVM (Future Ticket Vending Machine), FU (Fixture Unit), FUELL (Fuel Line), FURR (Furring), FUT (Future), FV (Flow Venturi, Face Velocity), FW (Face of Wall, Fire Water), FWD (Forward), FWY (Freeway), FXO (Foreign Exchange, Office End), FXS (Foreign Exchange, Station End), G (Acceleration of Gravity), G (Gas Line, Generator Set, Green, Natural Gas), G/L (Ground Line), GA (Gage, Gauge, Gate), GAL (Gallon(s)), GALV (Galvanized), Gb (Gigabit), GB (Ground Bus, Gypsum Board, Grade Break, Grab Bar, Gap Breaker), GBS (Gap Breaker Station, Ground Breaker Station), Gbs (Gigabits Per Second), GCL (Grading Control Line), GCT (Grounded Current Transformer), GDR (Guard Railing), GE (Green Aspect Lamp, Grooved End, Ground Fault Current Interrupting), GF (Ground Fault Interruptor), GFRC (Glass Fiber Reinforced Concrete), GG (Gate Valve, Ground Grid), GGH (Gas Handhole), GHz (Gigahertz), GIGA (One Billion), GIL (Green Indication Light), GIP (Galvanized Iron Pipe), GL (Glass), GLV (Globe Valve), GLZ (Glazing), GM (Gas Meter, Guide Marker), GMH (Gas Manhole (Regulator Vault)), GMU (Glass Masonry Unit), GND (Ground), GO (Grease Oil Reel), GP (Grading Plane), GPM (Gallons Per Minute), GPS (Global Positioning System, Global Positioning Satellite, Grate, Guard Railing, Ground Rod, Gate Relay), GR (Grade), GRD (Grille), GRL (Galvanized Rigid Steel), GRS (Galvanized Rigid Steel Conduit), GRSC (Galvanized Steel Pipe), GSP (Grand Total Heat), GTH (Ground Test Station), GTS (Gas Unit Heater), GUH (Gas Valve, Gravity Vent, Gate Valve), GV (Gypsum), H (Height, Horizontal, Hot, Humidistat), HB (Hose Bibcock), HC (Heating Coil), HCR (Humidity Controller), HD (Head), HDD (Horizontal Directional Drilling), HDN (Hopper Drain), HDPE (High Density Polyethylene), HDR (Header), HDW (Hardware), HEX (Hexagon, Hexagonal), HF (High Frequency), HH (Handhole).

Table with 2 columns: Abbreviation and Definition. Includes entries for HI (High), HM (Hollow Metal), HMP (Hot Mix Asphalt Concrete), H-O-A (Hand-Off-Auto), HOR (Horizontal), HP (High Pressure, High Point, Horsepower, Heat Pump), HPGN (High Precision Geodetic Network), HR (Handrail, Hour), HS (High Strength, Hand Switch), HSC (Heat Storage Cabinet), HSE (House), HSG (Housing), HSS (Hollow Structural Section), HT (Height), HTG (Heating), HTR (Heater), HV (Heating Ventilating Unit, High Voltage, Hose Valve), HVA (Hose Valve, Angle Globe Type), HVAC (Heating, Ventilating, and Air Conditioning), HVS (Hose Valve, Straightway Gate Type), HVSS (High Voltage Substation), HW (Hard Wired, Headwall, Hot Water), HWR (Hot Water Return), HWS (Hot Water Supply), HWY (Highway), HYD (Fire Hydrant), Hz, HZ (Hertz (Cycles Per Second)), I (Interlock), I (Interface), I/L (Interlocking), I/O (Input/Output), IC (Intercom, Interface Cabinet, Interrupting Capacity), ICM (Interface Control Manual), ICS (Integrated Control System, Integrated Control System - Ventilation), ICT (Phase Current Transformer), ID (Identification, Inside Diameter), IDF (Intermediate Distribution Frame), IDS (Intrusion Detection System), IE (Invert Elevation), IEE (Ingress/Egress Easement), IHH (Current Indication High), IHHH (Current Indication High High), ILL (Current Indication Low), IJ(P) (Insulated Joint (Plug)), ILD (Injection Laser Diode), ILJ (Fan Low Current), ILK (Interlock or Interlocking), IMC (Integrated Multisite Controller), IME (Installation and Maintenance Easement), IN (Inch, Inches), IN.WC (Inches of Water Column), INCL (Including), INFO (Information), INS (Insulated), INST (Instantaneous), INSUL (Insulation, Insulator), INT (Interior or Intake), INV (Invert), IP (Internet Protocol, Iron Pipe), IPS (Iron Pipe Size), IP-G (Iron Pipe Gas), IR (Inside Radius), IRAT (Integrated Remote ATO Terminal), IRR (Irrigation), ISDN (Integrated Services Digital Network), ISU (Interface and Signaling Unit), IT (Current Transmitter, Industry Track), ITL (Industry Lead Track), IVS (Intelligent Video Surveillance), IW (Industrial Waste).

Table with 2 columns: Abbreviation and Definition. Includes entries for JKFLD (Jackfield), JMP (Jumper), JP (Joint Pole), JPL (Joint Pole Lines), JT(S), J/T (Joint(s), Joint Trench, Loss of Power Transmitter, Joint Utility Easement), JUE (Joint Utility Easement), K (Kilo (One Thousand), KIP(s)), kA (Kiloampere), Kbps, Kb/s (Kilobits Per Seconds), KC (Manual Timer), KCMIL (Thousand Circular MILs), kHz (Kilohertz), km (Kilometer), KOP (Knockout Panel), KQI (Elapsed Time Indicator), KS (Kitchen Sink), KSF (Kips Per Square Foot), KSI (Kips Per Square Inch), kV (Kilo Volt (One Thousand Volts)), kVA (Kilo Volt Amperes), KVAR (Kilovolt Amperes Reactive), KVM (Keyboard Video Monitor), kW (Kilowatt), KWD (Kilowatt Demand), KWH (Kilowatt Hour), L (Length, Long, Louver, Liquid), L (Lined), L/G (Lip of Gutter), L/O (Layout), LA (Landscape Architect, Lightning Arrester), LAC (Left Active Channel), LAM (Laminate), LAN (Local Area Network), LAT (Lateral, Leaving Air Temperature), LAV (Lavatory), LB(S) (Pound(s)), LC (Landscape Contractor, Left Cable, Local Control), LCD (Liquid Crystal Display), LCN (Local Communications Network), LCP (Local Control Panel), LCS (Local Control Station), LD (Laser Diode), LE (Landscape Easement, Lunar Aspect Lamp), LED (Light Emitting Diode), LF (Linear Foot (Feet)), LG (Long, Lip of Gutter), LH (Left Hand, Lavatory Handicap), LIP (Local Instrument Panel), LKGL (Looking Glass), LKR (Locker), LL (Live Load), LLDL (Low Level Data Link), LLH (Long Leg Horizontal), LLV (Long Leg Vertical), LMA (Lake Merritt Administration Building), LMR (Load Measuring Resistor), LOC (Location), LOL (Layout Line), LONGIT (Longitudinal), LP (Low Point), LPG (Liquified Petroleum Gas), LR (Long Radius), LRA (Locked Rotor Amps), LRT (Light Rail Transit), LS (Limit Switch), LSR (Switch Completion Lock, Storage Relay), LSW1A (Actuator No.1 Blade Limit Switch - A), LWS1B (Actuator No.1 Blade Limit Switch - B), LT (Left, Light, Light Reel), LTE (Line Terminating Equipment), LTG (Lighting), LV (Low Voltage), LVL (Level), LWD (Large Woody Debris), LWP (Low Working Point), LWT (Leaving Water Temperature), LYL (Lower Yard Lead).

Table with 2 columns: Abbreviation and Definition. Includes entries for M (Main Contactor, Meter, Medium Loading, Motor), MAE (Maintenance Easement), MCTB (Motor Control Terminal Box), M & E (Maintenance & Engineering), mA (Milliampere), MAINT (Maintenance), MAP (Mimic Annunciation Panel), MAR (Marble), MAT'L (Material), MAV (Manual Air Vent), MAX (Maximum), MBF (Measured Board Feet), MBGR (Metal Beam Guard Rail), MBH (Thousands BTU Per Hour), MBTH (Motor Bearing Temperature High), Mbps, Mb/s (Mega Bit Per Second), MC (Media Converter, Multi-Coupler, Media Converter), MCC (Motor Control Center), MCP (Motor Control Panel), MCR (Mini Carrier Remote), MD (Motorized Damper), MDF (Main Distribution Frame), MECH (Mechanical), MED (Median, Medium), MEGA (One Million), MEM (Membrane), MF (Main Contactor, Forward (Exhaust)), MFR (Manufacturer), MFU (Main Line Fuse), MG (Million Gallon), MH (Manhole), MHz (Megahertz), MIN (Minimum), MISC (Miscellaneous), ML (Main Line Track), mm (Millimeter), MM (Multi-Mode (Fiber Cable)), MMR (Motor Master Relay), MO (Masonry Opening, Motor Overload, Motor Oil Reel, Modify, Modified, Modulate, Motor Operated Damper), MOD (Modulator/Demodulator), MOM (Momentary), MON (Monument), MOS (Manual Operating Switch, Motor Operated Switch), MOW, MW (Maintenance-Of-Way), MP (Mile Post), MPH (Miles Per Hour), MPR (Motor Protection Relay, Multifunction Protection Relay), MPTB (Motor Power Terminal Box), MR (Main Contactor Reverse (Supply), Multi-Ratio Mop Sink, Motor Starter), MS (Main Switch Board), MSB (Mechanically Stabilized Earth), MSE (Message), MSG (Minimum Shift Key), MSK (Mean Sea Level), MSL (Multi-loop Supervisory Module), MSM (Magnetic Testing, Main Track, Maintenance Telephone), MT (Mounted), MTD (Material, Metal), MTL (Meter, Metering, Motor), MTR (Manual Transfer Switch), MTS (Master Terminal Unit), MTU (Mullion), MUL (Multiple), MULT (Multiplex, Multiplexer), MUX (Millivolt), mV (Megavolt Ampere), MVA (Maintenance Vehicle Detection Relay), MVDTR (Megawatt), MW (Motor Winding Temperature High), MWT (Milpitas Yard Lead), MYL (Milpitas Yard Lead).

Revision table with columns: REV, DATE, BY, SUB, APP, DESCRIPTION. Includes entries for 1 (20130123) FINAL DESIGN and 0 (20121001) READY FOR CONSTRUCTION.

Professional Engineer seal for D. Clary, State of California, License No. 53883, dated 12/31/13.

Skanska Shimmick Herzog logo and contact information: 1436 California Circle, Milpitas, California 95035, A Joint Venture.

Lockwood, Andrews & Newnam, Inc. logo and contact information: 1436 California Circle, Milpitas, California 95035, A Joint Venture.

T-Y-LIN INTERNATIONAL logo and contact information: 1436 California Circle, Milpitas, California 95035, A Joint Venture.

BART SILICON VALLEY logo.

LINE, TRACK, STATIONS, AND SYSTEMS DESIGN UNIT 018 - WORK PACKAGE 01 GENERAL ABBREVIATIONS. Includes CADD FILENAME (C700-S-RR-X201.dwg), SCALE (NOT TO SCALE), CONTRACT NO. (C700), REV. (1), AREA CODE (RR), SHEET NO. (X201), and PAGE NO. (0005). SHEET 2 OF 4.

Notice: Santa Clara Valley Transportation Authority. NO EXCEPTIONS TAKEN. MAKE CORRECTIONS NOTED. AMEND AND RE-DATE. Any action shown above is subject to the terms of the contract and does not release the contractor of any of its obligations under the contract including design and detailing. Date: 03/21/13.

- N -

N	NORTH, NEUTRAL
(N)	NEW
N/A	NOT APPLICABLE
N/R	NON-RELATED
N12	NEGATIVE 12V DC
N28	NEGATIVE 28V DC
NAD27	NORTH AMERICAN DATUM OF 1927 (HORIZONTAL)
NAD83	NORTH AMERICAN DATUM OF 1983 (HORIZONTAL)
NAVDB88	NORTH AMERICAN VERTICAL DATUM OF 1988
NB	NEGATIVE BUS, NORTH BOUND
NC	NOISE CRITERIA, NORMALLY CLOSED
NE	NORTHEAST
NEC	NATIONAL ELECTRIC CODE
NEG	NEGATIVE
NEG RET	NEGATIVE RETURN
NE'LY	NORTHEASTERLY
NGS	NATIONAL GEODETIC SURVEY
NIC	NOT IN CONTRACT
NIT	NITROGEN GAS LINE
NK	NECK
N'LY	NORTHERLY
nm	NANOMETER
NMC	NON-METALLIC CONDUIT
NMS	NETWORK MANAGEMENT SYSTEM
NO	NORMALLY OPEN, NUMBER
NO(S)	NUMBERS
NOM	NOMINAL
NON-ESS	NON-ESSENTIAL
NOR	NORMAL
NOTC	NORMALLY OPEN TIME CLOSED
NS	NEAR SIDE
NTS	NOT TO SCALE
NV	NON-VITAL
NVI	NON-VITAL INPUT
NVO	NON-VITAL OUTPUT
NVR	NETWORK VIDEO RECORDER
NW	NORTHWEST
NWCR	SWITCH NORMAL CORRESPONDENCE RELAY
NW'LY	NORTHWESTERLY
NWPR	NORMAL SWITCH REPEATER RELAY
NX	AC VOLTAGE
NX12	12VAC
NXTGEN	ARCHITECTURE OF BART'S NEXT GENERATION EQUIPMENT

- P -

OSP	OUTSIDE PLANT
OSYT	NEWHALL YARD CONTROL TOWER
OTDR	OPTICAL TIME DOMAIN REFLECTOMETER
OTE	OVER TRACK EXHAUST
OTM	OTHER TRACK MATERIAL
OTN	OPTICAL TRANSPORT NETWORK
OV	OUTLET VELOCITY, OUTSIDE VELOCITY
OVC	OVERCROSSING

- P -

P	POWER LINE, PAINT, NON-VITAL REPEATER
P LAM	PLASTIC LAMINATE
P&S	POWER AND SUPPORT
P&W	POWER AND WAY
P.B., PB	PULLBOX OR PUSH BUTTON
P/L	PROPERTY LINE
P/O	PART OF
PA	PUBLIC ADDRESS, PLANTING AREA
PABX, PBX	PRIVATE AUTOMATIC BRANCH EXCHANGE
PAE	PEDESTRIAN ACCESS EASEMENT
PART	PARTNERS
PATS	PROPERTY ACQUISITION TRACKING SYSTEM
PB	PULL BOX, PUSH BUTTON
PC	PERSONAL COMPUTER, PRECAST, PRECAST CONCRETE, POINT OF CURVATURE, POINT OF CHANGE FROM TANGENT TO CIRCULAR CURVE
PCC	PORTLAND CEMENT CONCRETE, POINT OF COMPOUND CURVATURE
PCF	POINT OF CURVATURE, POUND PER CUBIC FOOT
PCM	PARKING CONTROL MACHINE, PULSE CODE MODULATION
PCR	PORTAL COMMUNICATIONS ROOM
PCTL	PRECAST TUNNEL LINING
PCV	PRESSURE CONTROL VALVE
PCVC	POINT OF COMPOUND VERTICAL CURVE
PD	PRESSURE DROP, PUMP DISCHARGE
PDN	PLASTER DRAIN
PDU	PROTOCOL DATA UNIT
PE	POLYETHYLENE PIPE, PNEUMATIC-ELECTRIC
PED	PEDESTRIAN
PERF	PERFORATED
PERM	PERMEABLE
PERM MTL	PERMEABLE MATERIAL
PET, PETRO,	PETROLEUM LINE
PT	POINT OF FROG
PF	PROFILE GRADE
PG	PEAK GROUND ACCELERATION
PGL	PROFILE GRADE LINE
PGT	PRIME GROUND TERMINAL
PH	PHASE, POTHOLE
PH, #	PHASE
PI	POINT OF INFLECTION, POINT OF INTERSECTION
PIDS	PORTAL INTRUSION DETECTION SYSTEM
PIP	PROPERTY IDENTIFICATION NUMBER
PIPO	POURED-IN-PLACE
PITO	POINT OF INTERSECTION OF TURNOUT
PIV	POST INDICATOR VALVE
PIVC	POINT OF INTERSECTION OF TWO PROFILE TANGENTS
PL	PIPE LINE, PLATE, PROPERTY LINE, PLATFORM, PLASTIC
PLAS	PLASTER
PLC	PROGRAMMABLE LOGIC CONTROLLER, PLASTIC COATED
PLP	PLASTIC PIPE
PLUM	PLUMBING
PLY	PLYWOOD
PM	POST MILE
PNL	PANEL
PNEU	PNEUMATIC
POC	PEDESTRIAN OVERCROSSING, POINT ON CIRCULAR CURVE, POINT OF CONNECTION
POE	POINT OF EQUATION, POWER OVER ETHERNET
POS	POSITIVE OR POSITION, POINT ON SPIRAL
POT	POINT ON TANGENT
POVC	POINT ON VERTICAL CURVE
POVT	POINT ON VERTICAL TANGENT
PP	POWER POLE, NON-VITAL REPEATER
PPL	PERFORMED PERMEABLE LINER
PPP	PERFORATED PLASTIC PIPE
PPTM	PLC PANEL TERMINAL INTERFACE MODULE

- P -

PR	PAIR(S), PRESSURE
PRC	POINT OF REVERSE CURVATURE
PREP	PREPARATION
PRI	PRIMARY
PRKG	PARKING
PROP	PROPERTY, PROPOSED
PROT	PROTECTOR
PRS	PAIRS
PRV	PRESSURE REDUCING VALVE
PRVAL	PRESSURE RELIEF VALVE
PRVC	POINT ON REVERSE VERTICAL CURVE
ps	PICO SECOND
PS	POINT OF SWITCH, POSITION SWITCH, POWER SUPPLY, PUMP STATION, PRE-STRESSED
PS/L	PROTECTOR SHELF/L BLOCK
PSE	PUBLIC SERVICE EASEMENT
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PSSTN	PUBLIC SWITCHED TELEPHONE NETWORK
PSUE	PUBLIC SERVICE UTILITY EASEMENT
PT	POINT, POINT OF TANGENT, POINT OF CHANGE FROM CIRCULAR CURVE TO TANGENT, POTENTIAL TRANSFORMER, PORCELAIN TILE, PETROLEUM
PTD/R	PAPER TOWEL DISPENSER & RECEPTACLE
PTEAC	PERMIT TO ENTER AND CONSTRUCT
PTM	PLATFORM TRIP MODULE
PTS	PLATFORM TRIP STATION
PTT	PUSH TO TALK
PTZ	PAN, TILT AND ZOOM
PU	POWER UNIT
PUE	PUBLIC UTILITY EASEMENT
PVC	POLYVINYL CHLORIDE (CONDUIT) OR (PIPE), POINT OF VERTICAL CURVE
PVI	POST VALVE INDICATOR
PVMT	PAVEMENT
PWR	POWER

- Q -

QR	SEQUENTIAL DETECTION RELAY
QS	QUEUING SPACE
QT	QUARRY TILE
QTY	QUANTITY

- R -

R	RADIUS, RESISTOR, RISER, RING, ROUTER
(R)	RELOCATE OR REMOVE AND SALVAGE
R NO.	RACK NUMBER
R/C	RATE OF CHANGE
R/R	RUNNING RAIL
R/W	RIGHT-OF-WAY
R1	RING 1
RA	RETURN AIR
RAA	RESCUE ASSISTANCE AREA
RAC	RIGHT ACTIVE CHANNEL
RAD	RETURN AIR DAMPER, RADIUS
RAT	REMOTE ATO TERMINAL
RB	RESILIENT RUBBER BASE
RBC	REINFORCED BOX CULVERT
RBM	RAILBOUND MANGANESE FROG
RC	REINFORCED CONCRETE, REMOTE CONTROL, RIGHT CABLE
RCB	REINFORCED CONCRETE BOX
RCP	REINFORCED CONCRETE PIPE
RCR	ROUTE CHECK RELAY
RCV	RECEIVE, REMOTE CONTROL VALVE
RCVR, REC	RECEIVER
RD	ROAD, ROOF DRAIN, ROUND
RDC	RADIO DISTRIBUTION CABINET
RDWY	ROADWAY
RE	RED ASPECT LAMP
REBAR	REINFORCEMENT BAR
RECT	RECTIFIER, RECTANGULAR
REF	REFERENCE
REINF	REINFORCED, REINFORCING, REINFORCEMENT
REL	RELOCATE
REM	REMOTE
REQ, REQD	REQUIRED
RES	RESISTOR
RESIL	RESILIENT
RET	RETURN
REV	REVISION, REVERSE
RF	RADIO FREQUENCY, RETURN FAN
RGB	RED, GREEN, BLUE VIDEO COLORS
RGS	RIGID GALVANIZED STEEL
RH	RADIANT HEATER, RIGHT HAND, RELATIVE HUMIDITY

RIDS	RAILROAD INTRUSION DETECTION SYSTEM
RIL	RED INDICATION LIGHT
RIM	TOP OF XMH
RIO	REMOTE INPUT/OUTPUT
RJ	AUDIO FREQ. TRACK INTERMEDIATE TRACK RELAY
RL	REFRIGERANT LIQUID
RLA	RATED LOAD AMPS
RLY	RELAY
RM	ROOM
RN	REFERENCE NORTH
RNS	RUNNING RAIL NEGATIVE RETURN SWITCH
RO	ROUGH OPENING
ROW	RIGHT-OF-WAY
RP	REFERENCE POINT
RPM	REVOLUTIONS PER MINUTE
RPTR	REPEATER
RR	RAILROAD
RS	REFRIGERANT SUCTION, RIPARIAN SETBACK
RSC	RIGID STEEL CONDUIT
RSP	ROCK SLOPE PROTECTION
RSR	RESTRICTED SPEED RELAY
RST	RESILIENT TILE
RT	RIGHT, ROUTE, RANDOM TWIST
RTAC	ROOF TOP AIR CONDITIONING UNIT
RTD	RESISTANCE TEMPERATURE DETECTOR
RTE	ROUTE
RTU	REMOTE TERMINAL UNIT
RV	ROOF VENTILATOR
RW	RECYCLED WATER, RETAINING WALL
RWCR	SWITCH REVERSE
RWE	CORRESPONDENCE RELAY
RWL	ROADWAY EASEMENT
RWLOL	RAIN WATER LEADER
RWPR	RETAINING WALL LAYOUT LINE
RX, RCV (R)	REVERSE SWITCH REPEATER RELAY RECEIVE (R)

- S -

S	SOUTH, SLOPE
SO.	SOUTH
S.I.C.	SUPPORT IN PLACE
S1	SVRT MAIN LINE TRACK (SB)
S2	SVRT MAIN LINE TRACK (NB)
S3	SVRT POCKET OR STORAGE TRACK
So	SPECTRAL ACCELERATION
SA	SUPPLY AIR, SURGE ARRESTER
SAB	STATION AGENTS BOOTH
SAN	SANITARY
SAR	SOUND ATTENUATOR
SAT	SATURATION
SB	SOUTH BOUND
SBGR	STEEL BEAM GUARDRAIL
SBO	SINGLE BREAK OUTPUT
SC	SOLID CORE, POINT OF CHANGE FROM SPIRAL TO CIRCULAR CURVE
SCAC	SELF CONTAINED AIR CONDITIONER
SCADA	SUPERVISORY CONTROL AND DATA ACQUISITION
SCD	SEAT COVER DISPENSER, SMOKE CONTROL DAMPER
SCS	SMOKE CONTROL SENSOR
SCH	SCHEDULE
SCHP	SELF CONTAINED HEAT PUMP
SCN	SYSTEMWIDE CABLE NETWORK
SCTB	SHORT CIRCUITING TERMINATION BLOCK
SD	SOAP DISPENSER, STORM DRAIN, TUNNEL ISOLATION DAMPER, SUBWAY DAMPER
SDCB	STORM DRAIN CATCH BASIN OR DRAINAGE INLET
SDE	STORM DRAIN EASEMENT
SDMH	STORM DRAIN MANHOLE
SDP	SPLITTER DAMPER, SMOKE/FIRE DAMPER WITH ACCESS PANEL
SE	SOUTHEAST
SEC	SECOND, SECONDARY
SECT	SECTION, SECTIONALIZING
SE'LY	SOUTHEASTERLY
SES	SECTIONALIZING STATION
SF	SQUARE FEET, SUPPLY FAN
SG	SUBGRADE, SUPPLY GRILLE
SH	SHIELD, SHUNT
SHG	SHOWER GANG
SHH	SHOWER HANDICAP
SHC	SENSIBLE HEATING CAPACITY
SHL	SHOULDER
SHR	SHOWER
SHT	SHEET
SIG	SIGNAL
SIM	SIMILAR
SJW TEST	SAN JOSE WATER CO TEST STATION

SL	STREET LIGHT
SLC	LEFT CIRCUIT (34.5KV TPSS)
SLPA	SIGNAGE/LIGHTING/PUBLIC ADDRESS
SLR	SPEAKERS
SLV	SEALER
S'LY	SHORT LEG VERTICAL
SM	SOUTHERLY
SMF	SINGLE MODE (FIBER CABLE), SOLID MANGANESE FROG, SWITCH MACHINE
SMH	SINGLE MODE FIBER
SND	SANITARY MANHOLE
SNF	SANITARY NAPKIN DISPENSER
SNR	SWING NOSE FROG, MOVABLE POINT FROG
SNT	SANITARY NAPKIN RECEPTACLE
SOE	STATION NETWORK TERMINAL
SOL	SUPPORT OF EXCAVATION
SOM	SOLENOID
SOMET	SOMASTIC COATED PIPE
SORS	SYNCHRONOUS OPTICAL NETWORK SEQUENTIAL OCCUPANCY RELEASE SYSTEM
SOV	SHUT-OFF VALVE
SP	STEEL PIPE, SUMP PUMP, STATIC PRESSURE, SPARE, SPLICE
SP1, SP2	BART SPUR TRACK
SPA	SPACES, SPACING
SPD	SANITARY PRESSURE DISCHARGE
SPDT	SINGLE POLE DOUBLE THROW
SPEC	SPECIFICATION
SPECS	SPECIFICATIONS
SPK	SPEAKER
SPO	POINT OF ORIGIN OF COMPOUND SPIRAL
SPRK	SPRINKLER
SPRR COMM	SOUTHERN PACIFIC RAILROAD COMMUNICATION
SPSC	SWITCH POWER SUPPLY CABINET, SWITCH MACHINE POWER SUPPLY CABINET
SPST	SINGLE POLE SINGLE THROW
SPT	SPRINT COMMUNICATIONS
SPTC	SOLDIER PILE TREMIE CONCRETE
SPWG	STATIC PRESSURE WATER GAUGE
SQ	SQUARE
SQ.FT.	SQUARE FOOT (FEET)
SQYD,SY	SQUARE YARD
SR	SUPPLY REGISTER
SRC	RIGHT CIRCUIT (34.5KV TPSS)
SS	SELECTOR SWITCH, STAINLESS STEEL, SANITARY SEWER, SUBSTATION, POINT OF CHANGE FROM ONE SPIRAL TO ANOTHER
SSCO	SANITARY SEWER CLEANOUT
SSE	SUBSURFACE EASEMENT, SANITARY SEWER EASEMENT
SSK	SERVICE SINK
SSMH, SMH	SANITARY SEWER MANHOLE
SSR	SOUTH STICK RELAY
SSS	SYSTEM SELECTOR SWITCH
SST	SOAP STONE
ST	STREET, SAINT, POINT OF CHANGE FROM SPIRAL TO TANGENT, STONE TILE
STA	ALIGNMENT STATION, STATION, STATIONING
STBY	STANDBY
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STE	SPECIAL TEST EQUIPMENT
STIFF	STIFFENER
STL	STEEL
STOPR	STOP SPEED COMMAND RELAY
STOR	STORAGE
STR	STAIR, STRANDED
STRUC	STRUCTURAL, STRUCTURE
STS	SYNCHRONOUS TRANSPORT SIGNAL
SUB	SUBSTATION
SUPP	SUPPLY
SUSP	SUSPENDED
SV	TUNNEL VENTILATION FAN, SOLID VEE FROG, SHEET VINYL
SVC	SERVICE
SVR	SERVER
SW	SIDEWALK, SOUNDWALL, SOUTHWEST, SWITCH
SWAC POR	SWITCH MACHINE POWER OFF
SWBD	SWITCH BOARD
SWGR	SWITCH GEAR
SWL	SOUNDWALL
SW'LY	SOUTHWESTERLY
SWR	SYSTEMWIDE RACEWAY
SWS	SWITCHING STATION
SWT PT	SWITCH POINT

SY	SQUARE YARD
SYM	SYMMETRICAL
SYS	SYSTEM(S)

Santa Clara Valley Transportation Authority

X NO EXCEPTION TAKEN

MAKE CORRECTIONS NOTED

AMEND AND RESUBMIT

Any action shown above is subject to the terms of the contract and does not relieve the contractor of any of its obligations under the contract including design and detailing.

Contract No.: **DB11002F**

By: *[Signature]* Date: **03/21/2013**

1	20120123	FINAL DESIGN			
0	20121001	READY FOR CONSTRUCTION			
REV	DATE	BY	SUB	APP	DESCRIPTION

DESIGNED BY
R. BANKS

DRAWN BY
M. HALL

CHECKED BY
D. CLARY

IN CHARGE
K. ANDERSON

DATE
20130123

Skanska
Shimmick
Herzog

1435 California Circle
Milpitas, California 95035
A Joint Venture

Lockwood, Andrews & Nowman, Inc.

1435 California Circle
Milpitas, California 95035
A Joint Venture

BART
SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS, AND SYSTEMS
DESIGN UNIT 018 - WORK PACKAGE 01
GENERAL ABBREVIATIONS

CADD FILENAME	C700-S-RR-X202.dwg	
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D	NOT TO SCALE	
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C700	1	
AREA CODE	SHEET NO.	PAGE NO.
RR	X202	0006

SHEET 3 OF 4

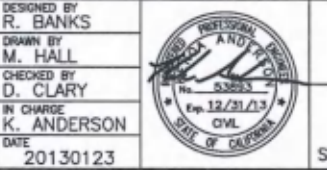
-- T --		TIM	TENANT IMPROVEMENT, TRAIN INFORMATION MONITOR	VAR	VOLT-AMPERE REACTIVE, VARIES	-- X --	
t	THICKNESS	TL	TREE LIGHTING	VAV	VARIABLE AIR VOLUME, VARIABLE AIR DAMPER	X	CROSSOVER (TRACK)
T	TELEPHONE, COMMUNICATION LINE, TOP, TRANSFORMER, TREAD, TIP, TRANSDUCER, THERMOSTAT	TLC	TRIP LOGIC CIRCUIT	VB	VACUUM BREAKER	X/O	CROSSOVER
T&B	TOP & BOTTOM	TM	TERMINAL ZONE	VC	VERTICAL CURVE, VITRIFIED CLAY, VIDEO CARD	XCVR	TRANSCEIVER
T&P	TEMPERATURE AND PRESSURE RELIEF VALVE	TMH	TELEPHONE MANHOLE	VCD	VITRIFIED CLAY DUCT	XFMR	TRANSFORMER
T.O., T/O	TURNOUT	TN	TRUE NORTH	VCN	VERTICAL CIRCULATION NODE	XING	CROSSING
T/	TOP OF	T.O.	TORQUE OIL REEL	VCP	VENTILATION CONTROL PANEL, VITRIFIED CLAY PIPE	XL	INTERLOCKING ZONE
T/C, T.C.	TRAIN CONTROL	TOD	TOP OF CONCRETE	VCT	VINYL COMPOSITION TILE	XMT, XMIT	TRANSMIT
T/P	TOP OF PAVEMENT, TOP OF PIPE	TOF	TRANSIT ORIENTED DEVELOPMENT	VCTB	VINYL COVERED TACK BOARD	XMR	TRANSMITTER
T/R	TOP OF RAIL	TOL	TOP OF FOOTING	VD	VOLUME DAMPER, VIBRATION DETECTOR	XSR	DIRECTIONAL ROUTE LOCKING RELAY
T/W	TOP OF WALL	TOS	TOLERANCE	VDA	VIDEO DISTRIBUTION AMPLIFIER	XT	X-TERMINAL COMPUTER
T1	T1 TELEPHONE CARRIER	TOT	TOTAL	VDC	VOLTS DIRECT CURRENT	-- Y --	
TA	TRUNK AMPLIFIER	TOW	TOP OF WALL	VE	MOTOR VIBRATION DETECTOR, VIBRATION ELEMENT	Y	OVERLAP, YARD
TAH	TEMPERATURE ALARM HIGH	TP	TRACTION POWER, TWISTED PAIR, TRAP PRIMER, TEST PIT, TRANSMISSION PRESSURE	VEL	VELOCITY	Y&S	YARDS AND SHOPS
TAN	TANGENT	TPD	TOILET PAPER DISPENSER	VENT	VENTILATION	YAH	TORQUE ALARM (HIGH)
TB	TERMINAL BOX, TERMINAL BLOCKS, TEST BORING	TR	TRACTION POWER SUB STATION	VERT	VERTICAL	YCT	YARD CONTROL TOWER
TBD	TO BE DETERMINED	TRACS	TRUNKED RADIO AND COMMUNICATIONS SYSTEMS	VEST	VESTIBULE	YE	YELLOW ASPECT LAMP
TBDC	TO BE DETERMINED BY THE CONTRACTOR	TRANS	TRANSFORMER, TRANSITION, TRANSVERSE	VF	VOICE FREQUENCY	YL	INDICATOR LIGHT
TBL	TROUBLE	TR-FO	TRUNKED RADIO FIBER OPTIC INTERFACE	VFD	VARIABLE FREQUENCY DRIVE	YSH	TORQUE SWITCH (HIGH)
TBM	TUNNEL BORING MACHINE	TRK	TRACK	VHF	VERY HIGH FREQUENCY	YT	YARD TRACK
TBP	TERMINATION BLOCK POST	TS	POINT OF CHANGE FROM TANGENT TO SPIRAL, TRAFFIC SIGNAL, TUBE SECTION, TUBE STEEL, TEST SWITCH	VI	VIBRATION INDICATOR	-- Z --	
TC	TIME CLOCK, TOP OF CURB, TRAIN CONTROL, TERMINAL CABINET, TEMPERATURE CONTROLLER	TSL	TRAFFIC SIGNAL	VIB	MOTOR VIBRATION	Z	ZONE
TC/C	TRAIN CONTROL & COMMUNICATIONS	TSP	TOTAL STATIC PRESSURE	VIH	VIBRATION INDICATION HIGH	ZIC	POSITION INDICATOR CLOSED
TCB	TRAIN CONTROL BUILDING	TT	TRANSFER TRIP	VM	VOLTMETER	ZIO	POSITION INDICATOR OPEN
TCC	TOTAL COOLING CAPACITY	TTC	TRANSFER TRIP CABINET	VMS	VARIABLE MESSAGE SIGN, VISUAL MESSAGING SYSTEM	ZSC	POSITION SWITCH CLOSED
TCE	TEMPORARY CONSTRUCTION EASEMENT	TV	TELEVISION, TURNING VANE	VMTF	VIBRATION MITIGATION TRACK FORM VOLUME	ZSCA	POSITION SWITCH CLOSED ALARM
TCH	TRAIN CONTROL HOUSE	TVE	TUNNEL VENTILATION EQUIPMENT	VOX	VOICE OPERATED TRANSMITTER	ZSO	POSITION SWITCH OPEN
TCP	TEMPERATURE CONTROL PANEL, TRANSPORT CONTROL PROTOCOL	TVF	TUNNEL VENTILATION FAN	VPI	GENERAL RAILWAY SIGNAL'S VITAL PROCESSOR INTERLOCKING SYSTEM		
TCR	TRAIN CONTROL ROOM	TVM(S)	TICKET VENDING MACHINE(S)	VR	SPEED CODE APPLICATION RELAY, VIDEO REPEATER		
TCS	TELEMETRY CABLE SPLICE	TVS	TUNNEL VENTILATION SHAFT	VRD	VITAL RELAY DRIVER, VPI VITAL RELAY DRIVER RELAY		
TCSA	TEMPORARY CONSTRUCTION STAGING AREA	TW	TRAVELED WAY	VRD01R	FIRST REPEATER OF VRD		
TCT	TRACK CIRCUIT TUNING	TWA	TRANSPARENT WALL ASSEMBLY	VS	VOLTMETER SWITCH		
TD	TRENCH DRAIN, TUNNEL DAMPER, TIRE DERIVED AGGREGATE	TWC	TRAIN-TO-WAYSIDE COMMUNICATIONS	VSC	VITAL SERIAL CONTROLLER		
TDC	TIME DELAY CLOSE	TWPR	TWISTED PAIR	VT	VOLTMETER TRANSDUCER, VOLTAGE TRANSFORMER		
TDCR	TUNNEL DAMPER CLOSE RELAY	TWR	TOWER	VTR	VENT THRU ROOF		
TDD	TELECOMMUNICATIONS DEVICE FOR THE DEAF	TX, XMT	TRANSMIT	VZ	VENT ZONE		
TDDO	TIME DELAY DROPOUT	TXP	TYPICAL	-- U --			
TDF	TIME DELAY DE-ENERGIZING RELAY	<U>	UPGRADE	W	WIDTH, WATER, WEST, WATT		
TDO	TIME DELAY OPEN	U	UNBALANCED SUPERELEVATION (IN INCHES), TURN-BACK	W/	WITH		
TDOR	TUNNEL DAMPER OPEN RELAY	U/L	UP LINK	W/O	WITHOUT		
TDP	TIME DELAY PICK UP	UA	COMMON ALARM	WAC	WALL MOUNTED AIR CONDITIONING UNIT		
TDR	TIME DELAY DE-ENERGIZING RELAY	UB	UTILITY BOX	WAO	WORK AREA OUTLET		
TE	TEMPERATURE ELEMENT, THREADED END	UBC	UNIFORM BUILDING CODE	WB	WESTBOUND, WEST BANK, WET BULB		
TEB	MOTOR BEARING TEMPERATURE (RTD'S)	UC	UNDERCUT, UNDERCROSSING	WC	WATER CLOSET		
TEH	TEMPERATURE ELEMENT MOTOR ENCLOSURE SPACE HEATER	UCD	UNDER CAR DELUGE	WCO	WALL CLEAN OUT		
TEL	BURIED TEL. TELEPHONE	UD	UNDERDRAIN	W.PR.	WATER COLUMN		
TELCO	TELEPHONE COMPANY	UDF	UNITED DEFENSE	WDG	WINDING		
TELECOM	TELECOMMUNICATIONS	UE	UTILITY EASEMENT	WDM	WAVE DIVISION MULTIPLEXER		
TELVLT	TELEPHONE VAULT	UG	UNDERGROUND	WEG	WALL EXHAUST GRILLE		
TEMP	TEMPERATURE, TEMPORARY	UH	UNIT HEATER	WG	WATER GAUGE, WAVEGUIDE		
TER	TIMER RELAY, TERRITZO	UHF	ULTRA HIGH FREQUENCY	WGT	WEIGHT		
TEW	MOTOR WINDING TEMPERATURE (RTD'S)	UHH	UNIT HEATER HYDRONIC	WGV	WATER GATE VALVE		
TF	TRACK FEET, TRANSFER (ATO TO MANUAL OR MANUAL TO ATO), FORWARD CURRENT CONDUCTION	UMC	UNIFORM MECHANICAL CODE	WH	WEEP HOLE, WATER HEATER		
TFD	TUNNEL VENTILATION FAN DAMPER	UNF	UNFINISHED	WHA	WATER HAMMER ARRESTOR		
TFE	TETRAFLUOROETHYLENE	UNK	UNKNOWN	WIDS	WAYSIDE INTRUSION DETECTION SYSTEM		
TG	TOP OF GRATE (ELEVATION), TRANSFER GRILLE	UNO	UNLESS NOTED OTHERWISE	WL	WALL LOUVER, WATER LINE		
TH	TEST HOLE (SUBSURFACE INVESTIGATION)	UP	UPWARD, UTILITY POLE	W'LY	WESTERLY		
THH	TELEPHONE HAND HOLE	UPC	UNIFORM PLUMBING CODE	WM	WATER MAIN, WATER METER		
THK	THICK, THICKNESS	UPRR-OHE	OVERHEAD SIGNAL/COMM LINE	WMH	WATER MANHOLE		
THR	TOTAL HEAT REJECTION	UPS	UNINTERRUPTIBLE POWER SUPPLY	WMS	WIRE MESH SCREEN		
THRU	THROUGH	UR	URINAL	WO	WHERE OCCURS, WASTE OIL REEL		
TI	TEMPERATURE INDICATION	URH	URINAL HANDICAP	WP	WORK POINT, WEATHER PROOF		
TICHL	TEMPERATURE INDICATION CONTROL (HIGH/LOW)	US	TURN-BACK, THE ROUTE INTO THE TM ZONE, WHEN TURN-BACK, IS ALIGNED, UNITED STATES, COMMON TROUBLE	WPF	WATERPROOF, WATERPROOFING		
TIEE	TEMPORARY INGRESS/EGRESS EASEMENT	UT	ULTRASONIC TESTING	WR	SWITCH CONTROL RELAY		
TIH	TEMPERATURE INDICATION HIGH FOR MOTOR ENCLOSURE OR BEARINGS	UTC	UNSHIELDED TWISTED PAIR	WRG	WALL RETURN GRILLE		
		UTL	UTILITY	WRR	WALL RETURN REGISTER		
		UTP	UNSHIELDED TWISTED PAIR CABLE	WSP	WELDED STEEL PIPE, WET STANDPIPE		
		UV	ULTRA VIOLET, UNDERVOLTAGE	WSR	WALL SUPPLY REGISTER		
		UWP	UPPER WORKING POINT	WSX	WARM SPRINGS EXTENSION		
		V	VENT, VOLTS, DESIGN VELOCITY (MPH)	WT	WEIGHT		
		VA	VOLT AMPERES	WTG	WALL TRANSFER GRILLE		
		VAC	VOLTS ALTERNATING CURRENT, VACUUM	WV	WAYSIDE TRIP MODULE		
				WW	WATER VALVE		
				WWF	WIREWAY, WING WALL		
					WELDED WIRE FABRIC		

ADDITIONAL HORIZONTAL AND VERTICAL ALIGNMENT NOMENCLATURE

k ₁	TANGENT DISTANCE OF SHIFTED PC REFERRED TO THE TS
k ₂	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
Ls ₁	LENGTH OF SPIRAL FROM TS TO SC
Ls ₂	LENGTH OF SPIRAL FROM CS TO ST
pc	OFFSET BETWEEN CIRCLES AT POINT OF COMPOUND CURVATURE
P ₁	OFFSET FROM INITIAL TANGENT TO PC OF THE SHIFTED CIRCLE OF SPIRALIZED CURVE
P ₂	OFFSET FROM INITIAL TANGENT TO PT OF THE SHIFTED CIRCLE OF SPIRALIZED CURVE
Rc	RADIUS OF CIRCULAR CURVE
Ts ₁	TANGENT DISTANCE FROM TS TO PI
Ts ₂	TANGENT DISTANCE FROM ST TO PI
TS	POINT OF CHANGE FROM TANGENT TO SPIRAL
Xs ₁	TANGENT DISTANCE AT THE SC
Xs ₂	TANGENT DISTANCE AT THE CS
Ys ₁	TANGENT OFFSET AT THE SC
Ys ₂	TANGENT OFFSET AT THE CS
Δ	TOTAL CENTRAL ANGLE OF THE SPIRALIZED CURVE
Δc	CENTRAL ANGLE OF CIRCULAR CURVE (Lc) FROM SC TO CS
Δc ₁	CENTRAL ANGLE OF FIRST CIRCULAR CURVE OF COMPOUND CURVATURE
Δc ₂	CENTRAL ANGLE OF SECOND CIRCULAR CURVE OF COMPOUND CURVATURE
∠s ₁	CENTRAL ANGLE OF SPIRAL LENGTH Ls ₁ OR SPIRAL ANGLE OF FIRST SPIRAL IN SPIRALIZED CURVE
∠s ₂	CENTRAL ANGLE OF SPIRAL LENGTH Ls ₂ OR SPIRAL ANGLE OF SECOND SPIRAL IN SPIRALIZED CURVE
∠s ₃	CENTRAL ANGLE OF COMPOUND SPIRAL OR COMPOUND SPIRAL ANGLE FROM CS TO SC
#10	TRACK TURNOUT DESIGNATION
#15 EQ	EQUALATERAL TURNOUT

Jan 23, 2013 - 10:31am C:\projects\shoo\shoo\dwg\20130228\1\018-5-RR-X203.dwg

DESIGNED BY	R. BANKS
DRAWN BY	M. HALL
CHECKED BY	D. CLARY
IN CHARGE	K. ANDERSON
DATE	20130123



Skanska Shimick Herzog
 1438 California Circle
 Milpitas, California 95035
 A Joint Venture

Lockwood, Andrews & Newnam, Inc.
 1438 California Circle
 Milpitas, California 95035
 A Joint Venture

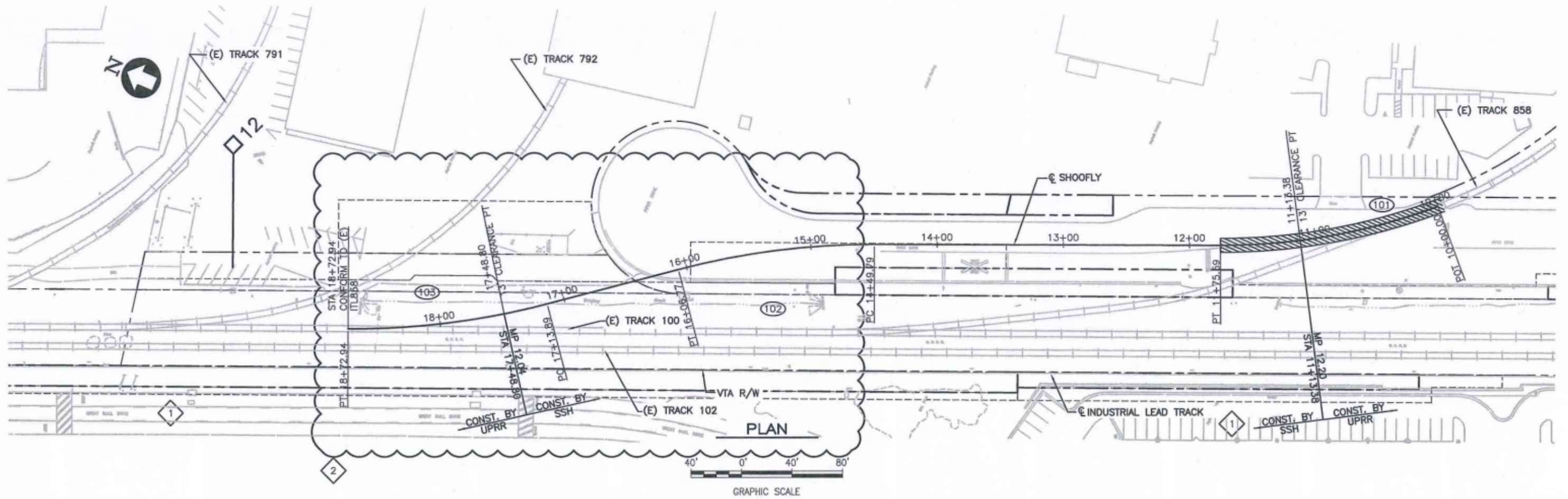
T-Y-LIN INTERNATIONAL

APPROVED: *[Signature]*



LINE, TRACK, STATIONS, AND SYSTEMS DESIGN UNIT 018 - WORK PACKAGE 01 GENERAL ABBREVIATIONS	
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SIZE	SCALE NOT TO SCALE
CONTRACT NO.	C700
REV.	1
AREA CODE	RR
SHEET NO.	X203
PAGE NO.	0007

Santa Clara Valley Transportation Authority
 NO EXCEPTION TAKEN
 MAKE CORRECTIONS NOTED
 AMEND AND RESUBMIT
 Any action shown above is subject to the terms of the contract and does not relieve the contractor of any of its obligations under the contract including design and detailing.
 Contract No.: DB11002F
 By: *[Signature]* Date: 03/21/2013



LINE/ CURVE NO	POINTS	STATION (CHORD DEFINITION)	COORDINATE		CURVE DATA	TURNOUT DATA	DESIGN SPEED (MPH)	SUPER ELEVATION (IN)	UNBALANCE (IN)	REMARKS
			NORTHING	EASTING						
SHOOFLY (101)	PCC PI PT	10+00.00 10+88.89 11+75.59	1975707.374 1975771.712 1975853.390	6157405.273 6157343.943 6157308.881	Dc = 11° 36' 57.4" R = 494.10' Lc = 175.59' Δc = 20° 23' 46.9"		10	0.00	0.81	
SHOOFLY (102)	PC PI PT	14+49.79 15+28.72 16+06.59	1976105.357 1976177.890 1976239.982	6157200.719 6157169.582 6157120.847	Dc = 9° 30' 00" R = 603.81' Lc = 156.80' Δc = 14° 53' 44.4"		10	0.00	0.67	
SHOOFLY (103)	PC PI PT	17+13.89 17+93.97 18+72.94	1976324.392 1976387.383 1976461.083	6157054.594 6157005.153 6156973.839	Dc = 9° 30' 00" R = 603.81' Lc = 159.04' Δc = 15° 06' 31.7"		10	0.00	0.67	

Santa Clara Valley Transportation Authority
 NO EXCEPTION TAKEN
 MAKE CORRECTIONS NOTED
 AMEND AND RESUBMIT
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 Contract No: DB11002F
 By: *[Signature]* Date: 03/21/2013

Mar 01, 2013 - 2:08pm C:\projects\shoofly\shoofly\area\0089\CT00-S-RR-C089.dwg
 Printed by: [Name]

REV	DATE	BY	SUB	APP	DESCRIPTION
2	20130228				ALTERNATE SHOOFLY
1	20130123				FINAL DESIGN AND UP COMMENTS
0	20121001				READY FOR CONSTRUCTION

DESIGNED BY
M. SANDVIK
 DRAWN BY
S. FAULKNER
 CHECKED BY
D. CLARY
 IN CHARGE
K. ANDERSON
 DATE
20130123



Skanska
Shimmick
Herzog

1438 California Circle
Milpitas, California 95035
A Joint Venture

Lockwood, Andrews
& Newnam, Inc.

Lockwood, Andrews
& Newnam, Inc.

T-Y-LIN INTERNATIONAL

APPROVED *[Signature]*

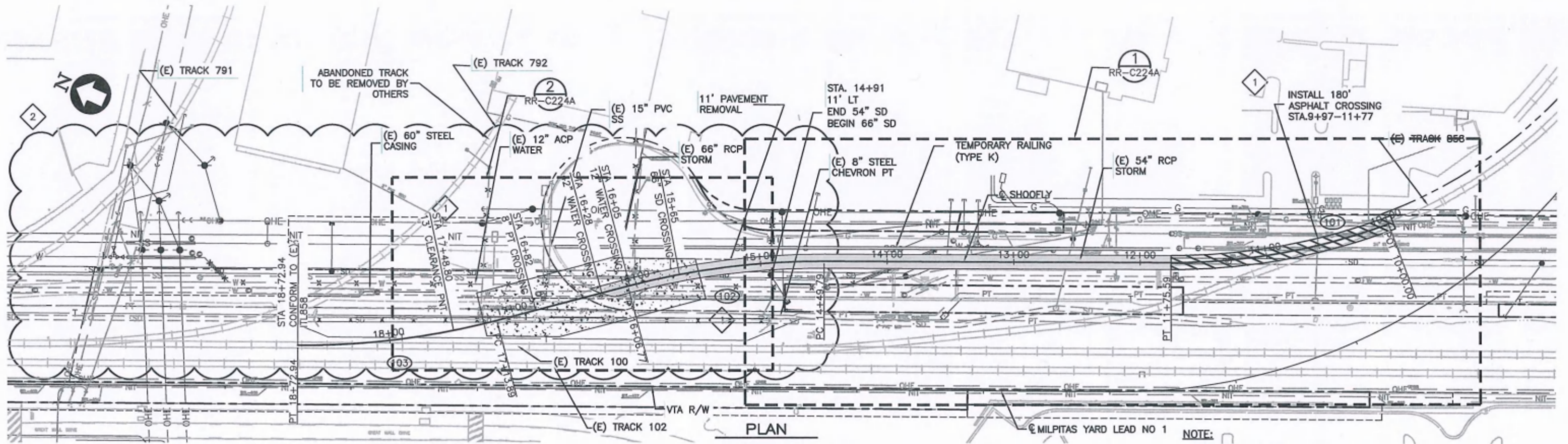
BART
VTA SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
 DESIGN UNIT 018 - WORK PACKAGE 01

RAILROAD RELOCATION - SHOOFLY
 ALIGNMENT DATA

CADD FILENAME C700-S-RR-C089.dwg	SIZE D	SCALE 1"=40'H
CONTRACT NO. C700	SHEET NO. RR C089	REV. 2
AREA CODE	PAGE NO. 0008	



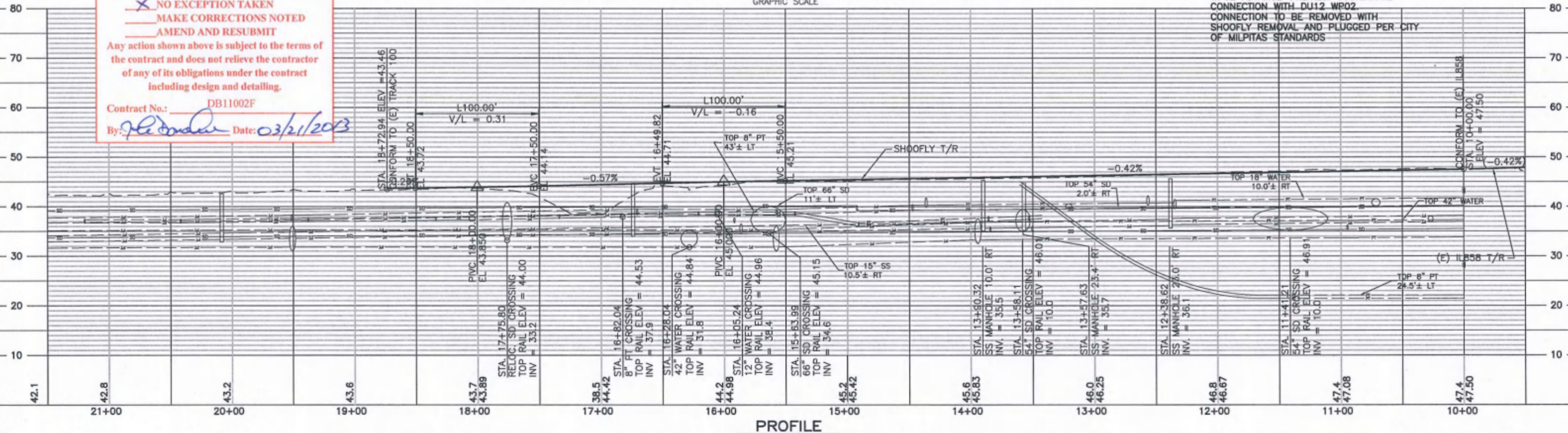
NOTE:

1. CONNECT SHOOFLY UNDERDRAIN TO MANHOLE CONSTRUCTED AS PART OF DU12, WPO2 ADVANCE UTILITIES. COORDINATE CONNECTION WITH DU12 WPO2. CONNECTION TO BE REMOVED WITH SHOOFLY REMOVAL AND PLUGGED PER CITY OF MILPITAS STANDARDS

Santa Clara Valley Transportation Authority
 X NO EXCEPTION TAKEN
 MAKE CORRECTIONS NOTED
 AMEND AND RESUBMIT

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Contract No.: DB11002F
 By: *[Signature]* Date: 03/21/2013



Mar 01, 2013 7:28pm C:\projects\shoofly\mwp01\du01\du01.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
2	20130228				SHOOFLY ALIGNMENT SHIFT
1	20130123				FINAL DESIGN
0	20121001				READY FOR CONSTRUCTION

DESIGNED BY
M. SANDVIK
 DRAWN BY
S. FAULKNER
 CHECKED BY
D. CLARY
 IN CHARGE
K. ANDERSON
 DATE
20121001



Skanska
Shimmick
Herzog

Lockwood, Andrews & Newnam, Inc.
 A Joint Venture

1438 California Circle
 Milpitas, California 95035
 A Joint Venture

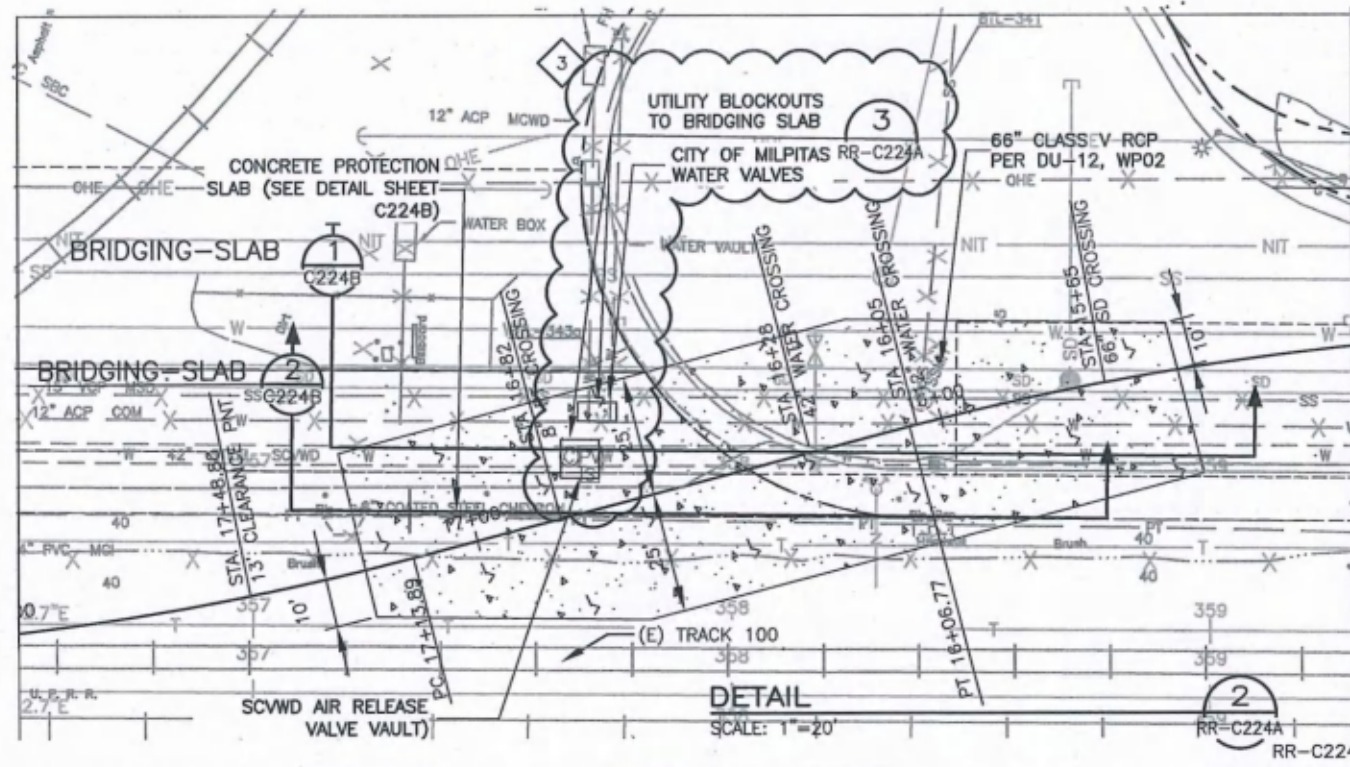
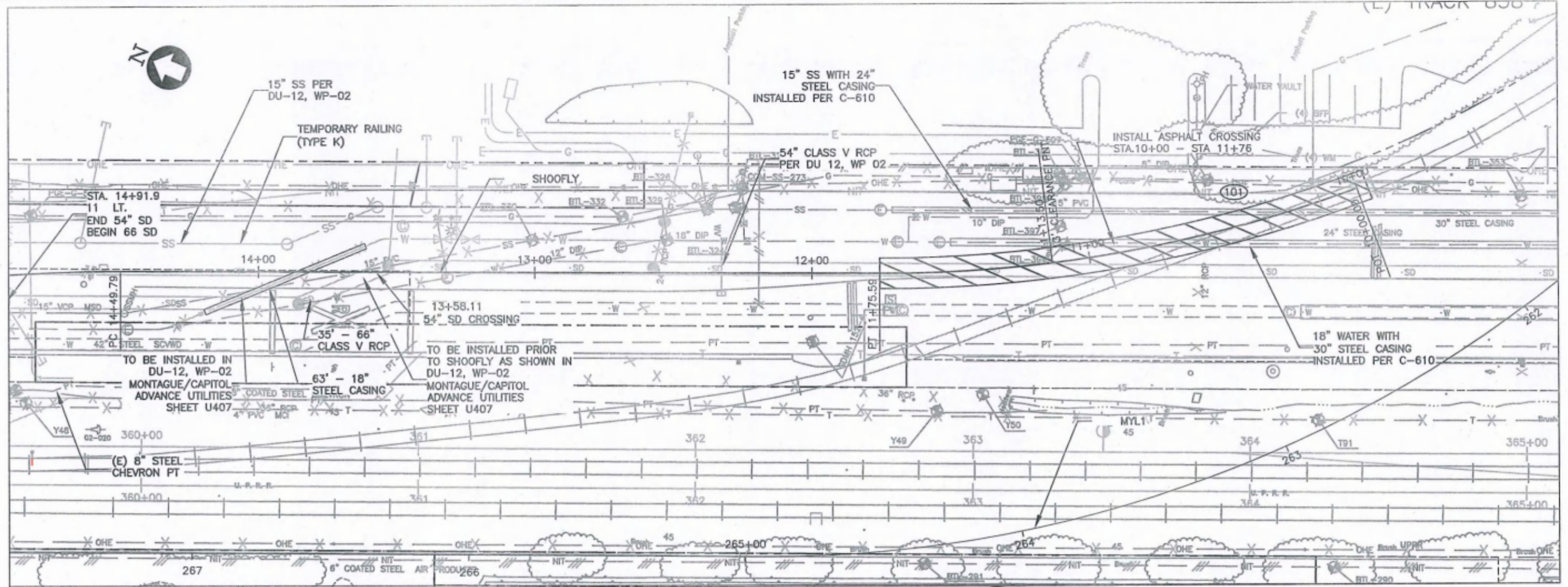
T-Y-LIN INTERNATIONAL



LINE, TRACK, STATIONS AND SYSTEMS

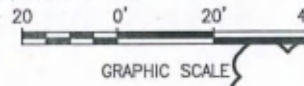
RAILROAD RELOCATION
 SHOOFLY - PLAN AND PROFILE
 STA. 9+96.92 TO 20+91.24

CADD FILENAME C700-S-RR-C224.dwg	REV. 2
SIZE SCALE D 1"=40'H; 1"=10'V	PAGE NO. 0009
CONTRACT NO. C700	
AREA CODE SHEET NO. RR C224	

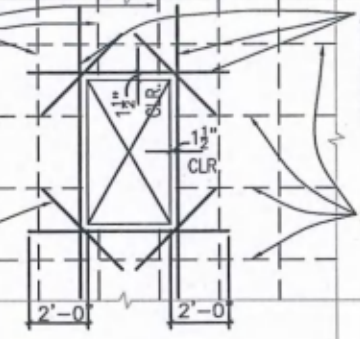


DETAIL

SCALE: 1"=20'



SLAB REINFORCING



ADDED BARS SHALL BE SAME SIZE AND NUMBER AS INTERRUPTED BARS, ONE HALF TO EACH SIDE OF OPENING, SPACED @ 3" c/c (1 BAR MINIMUM EACH SIDE). ADDED MAIN BARS SHALL BE SAME LENGTH AS UNINTERRUPTED BARS

1 - #4 x 4'-0" AT CORNERS CENTER IN SLAB

SLAB REINF.

NOTES:

- 1. ADDITIONAL REINF. NOT REQ. WHERE LONGER DIMENSION OF OPENING IS 12" OR LESS. INTERRUPTED BARS SHALL BE DEFLECTED AROUND THE OPENING.
2. CIRCULAR OPENINGS HAVING A DIAMETER GREATER THAN 12" SHALL BE REINF. IN SAME MANNER AS RECTANGULAR OPENINGS, WITH DIAGONAL BARS ON 4 SIDES PLACED AT 45° TO THE SLAB REINF.
3. CONTRACTOR TO FIELD VERIFY BLOCKOUT LOCATIONS AND SIZES

DETAIL

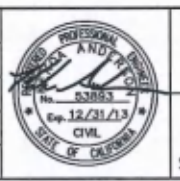
SCALE: NOT TO SCALE

Santa Clara Valley Transportation Authority NO EXCEPTION TAKEN MAKE CORRECTIONS NOTED AMEND AND RESUBMIT Any action shown above is subject to the terms of the contract and does not relieve the contractor of any of its obligations under the contract including design and detailing. Contract No.: DB11002F By: [Signature] Date: 03/22/13

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Table with columns: REV, DATE, BY, SUB, APP, DESCRIPTION. Includes revision history for utility blockouts and SCWD protection.

DESIGNED BY M. SANDVIK, DRAWN BY M. SANDVIK, CHECKED BY D. CLARY, IN CHARGE K. ANDERSON, DATE 20130318



Skanska Shimmick Herzog logo and address: 1436 California Circle, Milpitas, California 95035, A Joint Venture.

Lockwood, Andrews & Newnam, Inc. logo and address: 1436 California Circle, Milpitas, California 95035, A Joint Venture.

T.Y. LIN INTERNATIONAL logo and address: 1436 California Circle, Milpitas, California 95035, A Joint Venture.

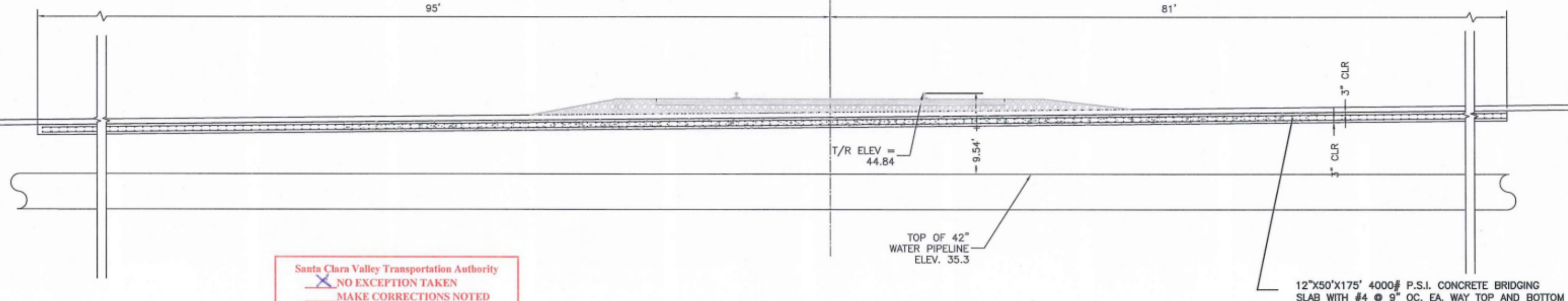


LINE, TRACK, STATIONS AND SYSTEMS DESIGN UNIT 018 - WORK PACKAGE 01 RAILROAD RELOCATION SHOOFLY - UTILITY LAYOUT

Table with columns: CADD FILENAME, SIZE, SCALE, CONTRACT NO., AREA CODE, SHEET NO., PAGE NO. Includes project identification numbers.

1

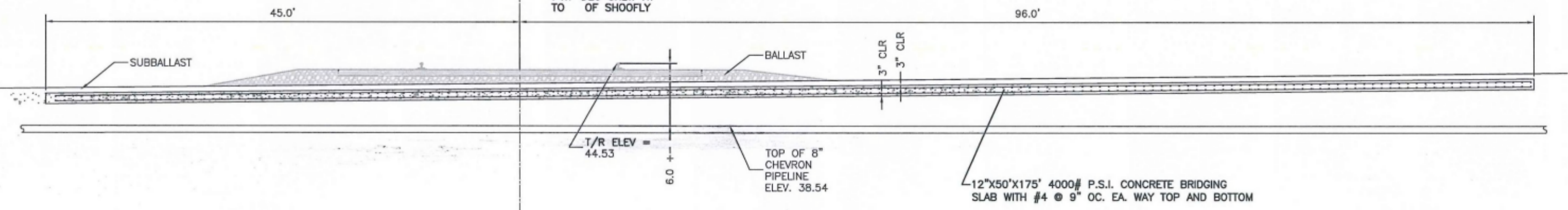
SHOOFLY @ STA. 16+28+-
BRIDGING SLAB
74.7 DEG SKEW RT
TO OF SHOOFLY



Santa Clara Valley Transportation Authority
 NO EXCEPTION TAKEN
 MAKE CORRECTIONS NOTED
 AMEND AND RESUBMIT
 Any action shown above is subject to the terms of the contract and does not relieve the contractor of any of its obligations under the contract including design and detailing.
 Contract No.: DB11002F
 By: *John Anderson* Date: *03/21/03*

BRIDGING-SLAB
 NTS
 1
 RR-C224B
 RR-C224A

SHOOFLY @ STA. 16+82+-
BRIDGING SLAB
74.7 DEG SKEW RT
TO OF SHOOFLY



BRIDGING-SLAB
 NTS
 2
 RR-C224B
 RR-C224A

Mar 01, 2013 10:53:28 AM C:\proj\p018\work\20130228.dwg

REV	DATE	BY	APP	DESCRIPTION
1	20130228			SHOOFLY ALTERNATE SHIFT
0	20130123			NEW SHEET DEFINE BRIDGING SLAB/FINAL DESIGN

DESIGNED BY
M. SANDVIK
 DRAWN BY
M. SANDVIK
 CHECKED BY
D. CLARY
 IN CHARGE
K. ANDERSON
 DATE
20130123



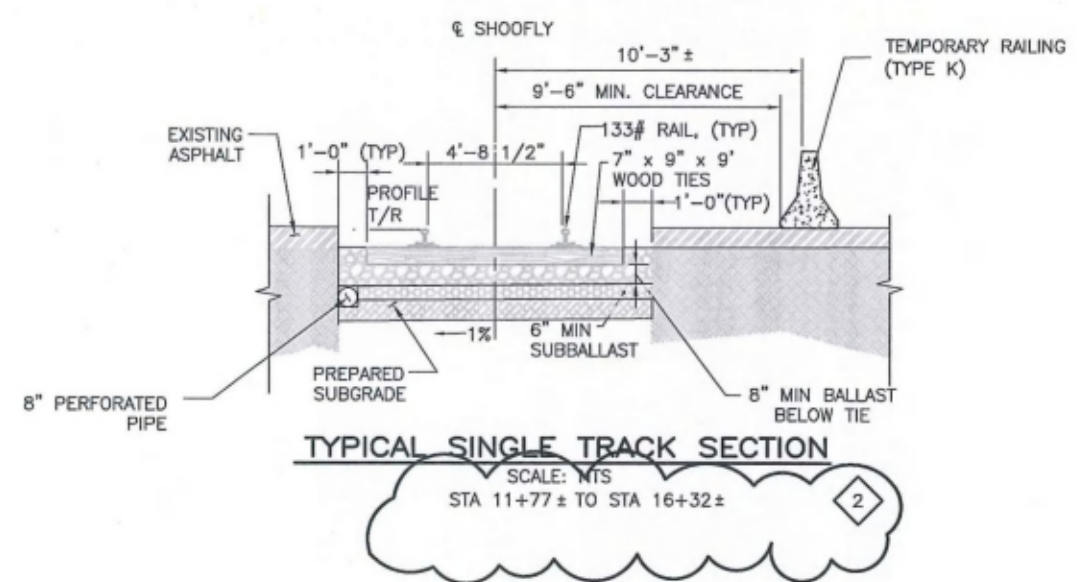
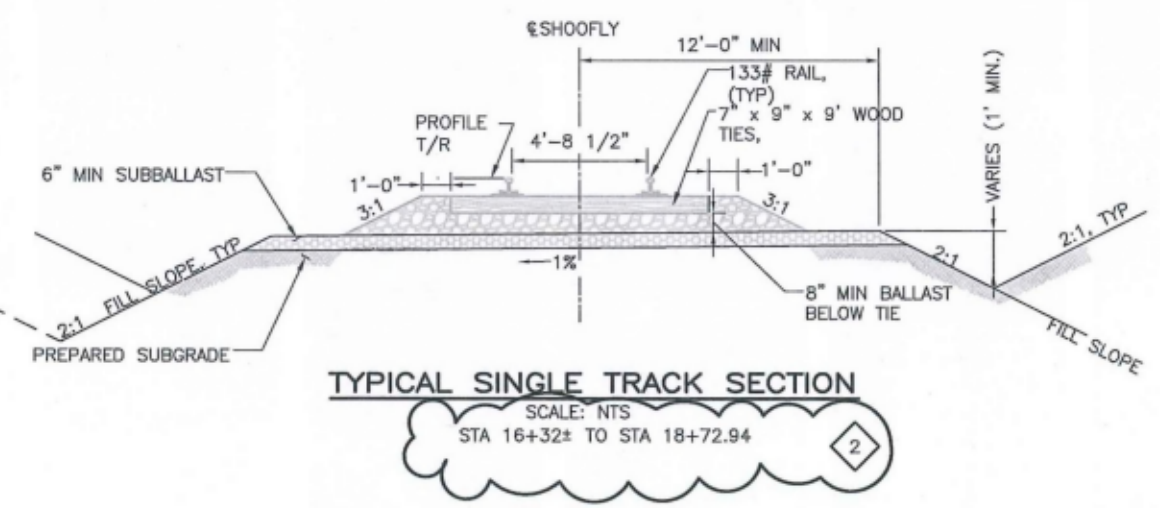
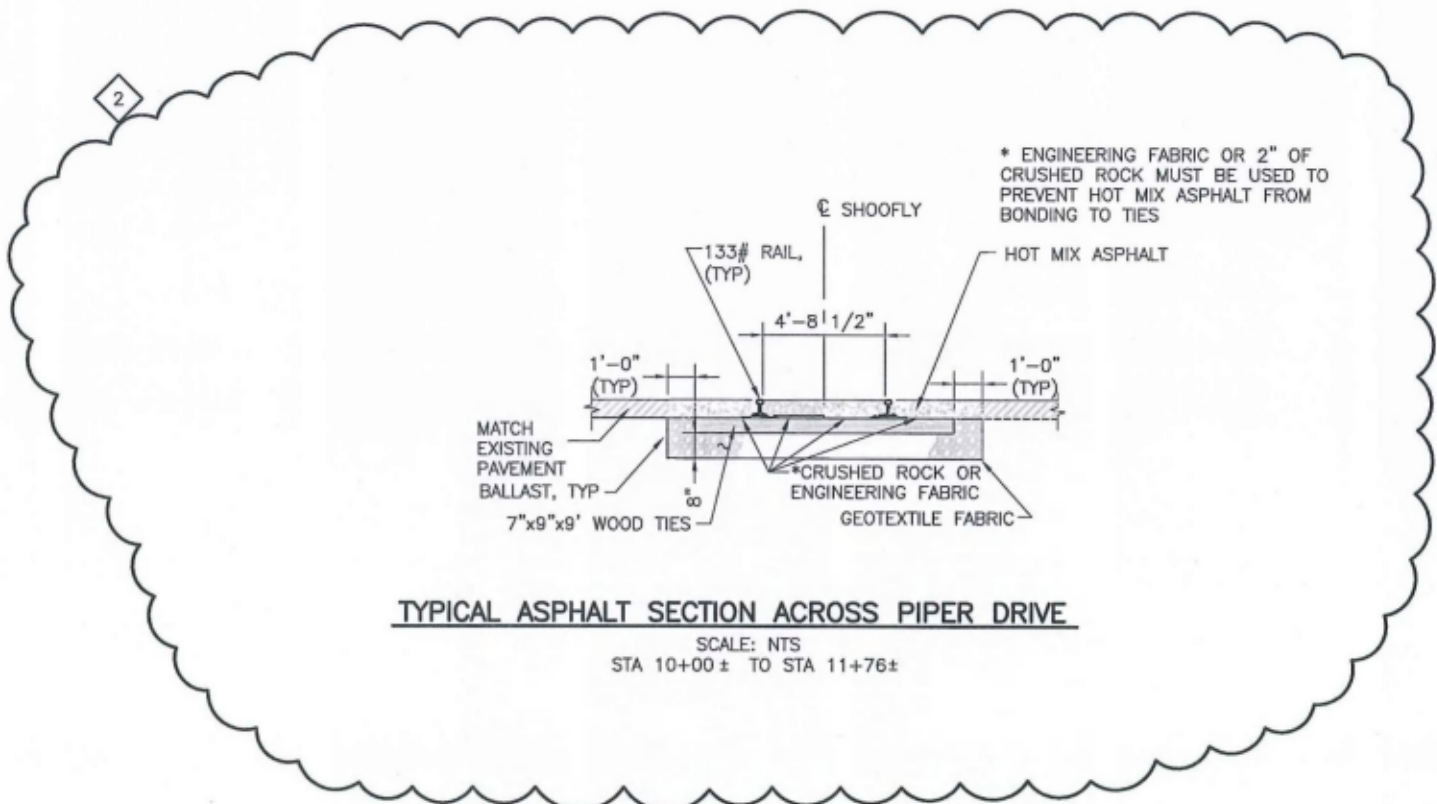
Skanska
Shimmick
Herzog
 Lockwood, Andrews
& Newnam, Inc.
 LEG A BULLY COMPANY
 LOCKWOOD, ANDREWS & NEWNAM, INC.
 1436 California Circle
 Milpitas, California 95035
 A Joint Venture

T-Y-LIN INTERNATIONAL
 LOCKWOOD, ANDREWS & NEWNAM, INC.
 APPROVED *Ray Adkins*



LINE, TRACK, STATIONS AND SYSTEMS
 DESIGN UNIT 018 - WORK PACKAGE 01
 RAILROAD RELOCATION
 SHOOFLY - 42" WATER PROTECTION
 8" CHEVRON PROTECTION

CADD FILENAME C700-S-RR-C224B.dwg	REV. 1
CONTRACT NO. C700	PAGE NO. 1
AREA CODE SHEET NO. RR C224B	PAGE NO. 0010A



Santa Clara Valley Transportation Authority
 NO EXCEPTION TAKEN
 MAKE CORRECTIONS NOTED
 AMEND AND RESUBMIT
 Any action shown above is subject to the terms of the contract and does not relieve the contractor of any of its obligations under the contract including design and detailing.
 Contract No.: DB11002F
 By: *[Signature]* Date: 03/21/2013

Mar 01, 2013 - 10:45am C:\projects\shoofly\shoofly\shoofly\shoofly\shoofly\C100-9-RR-C342.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
2	20130228				ALTERNATE SHOOFLY
1	20130123				CHANGE CROSSING DETAIL/FINAL DESIGN
0	20121001				READY OF CONSTRUCTION

DESIGNED BY
M. SANDVIK
 DRAWN BY
M. SANDVIK
 CHECKED BY
D. CLARY
 IN CHARGE
K. ANDERSON
 DATE
20130228



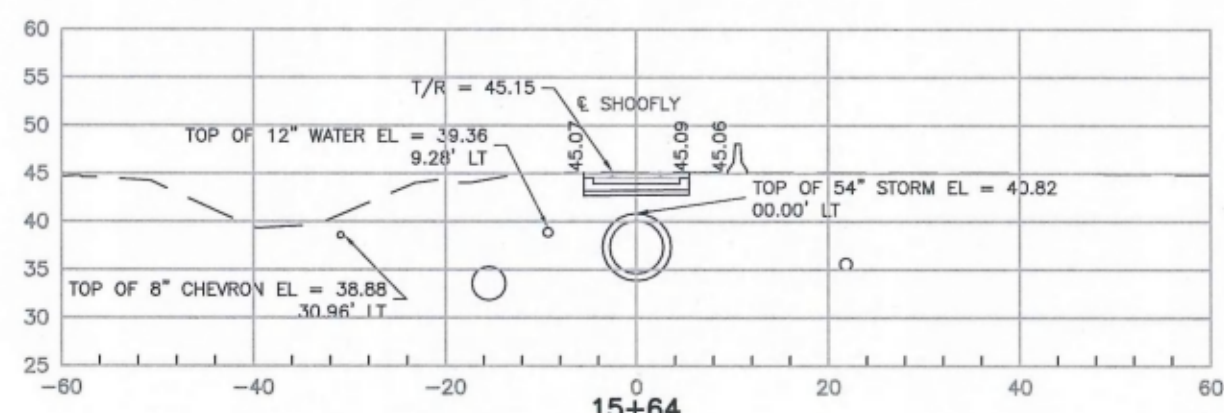
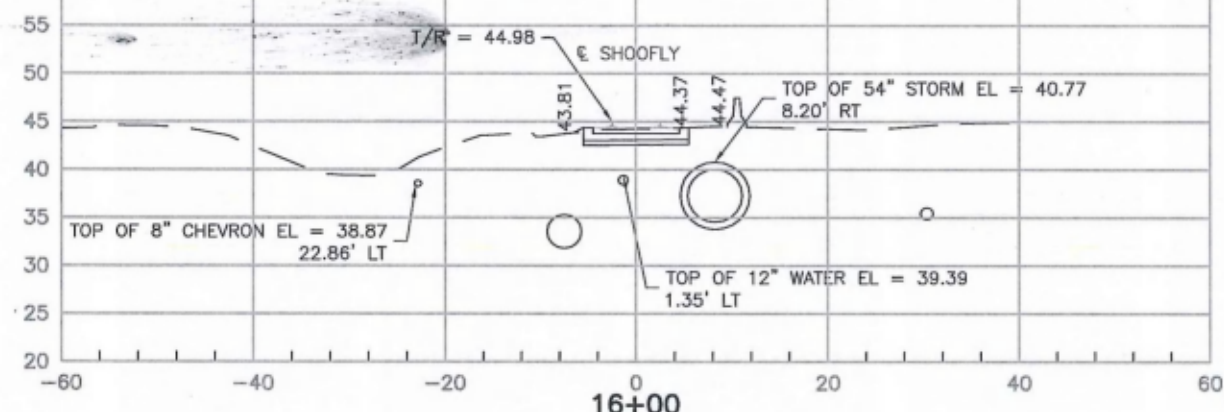
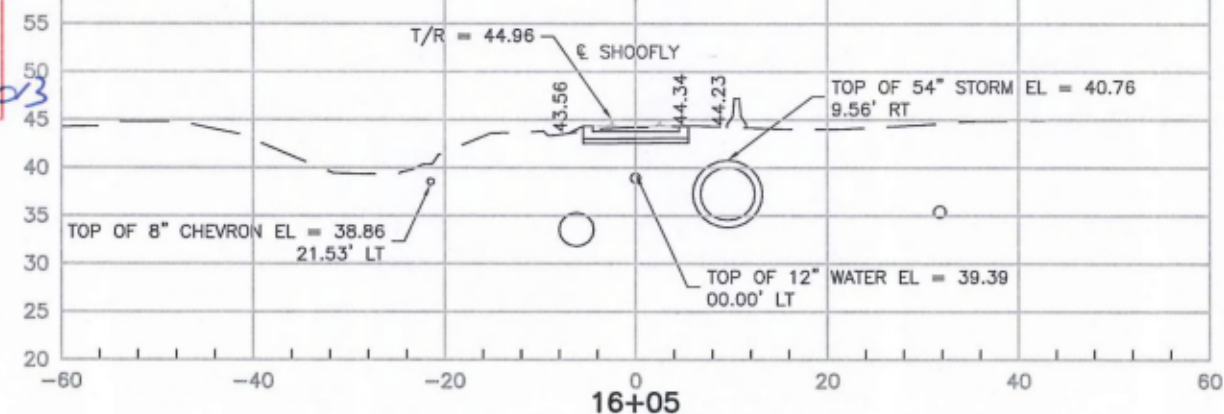
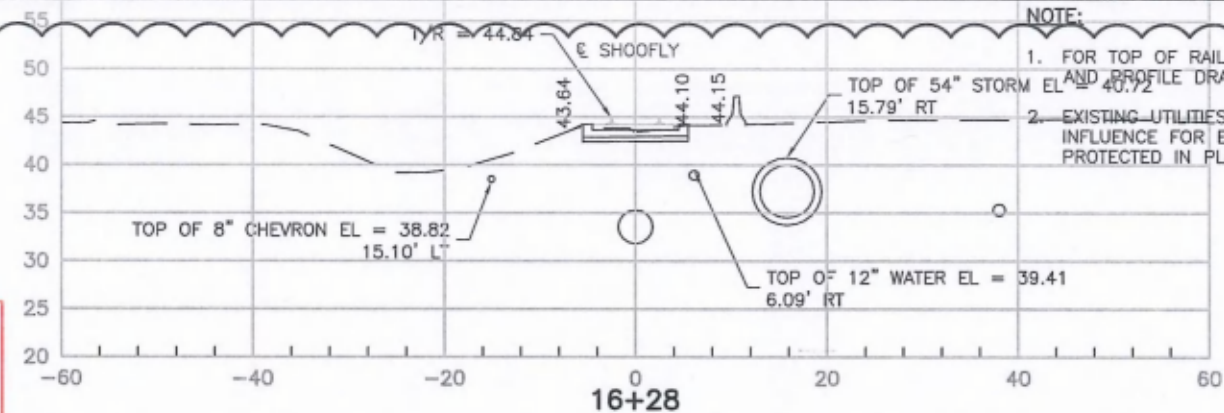
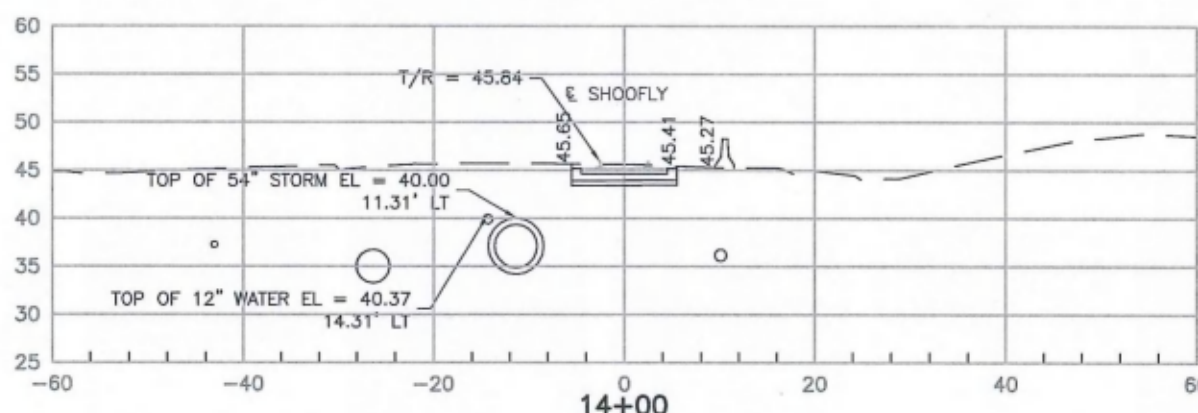
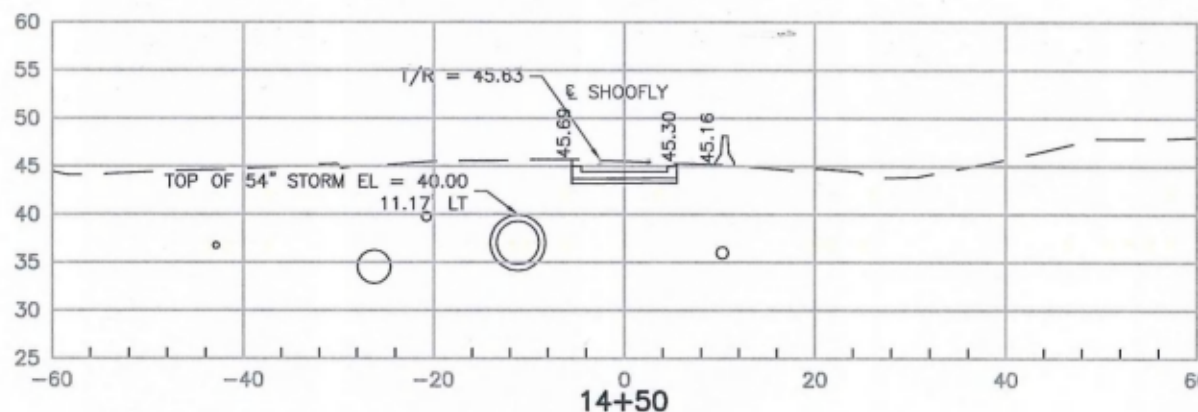
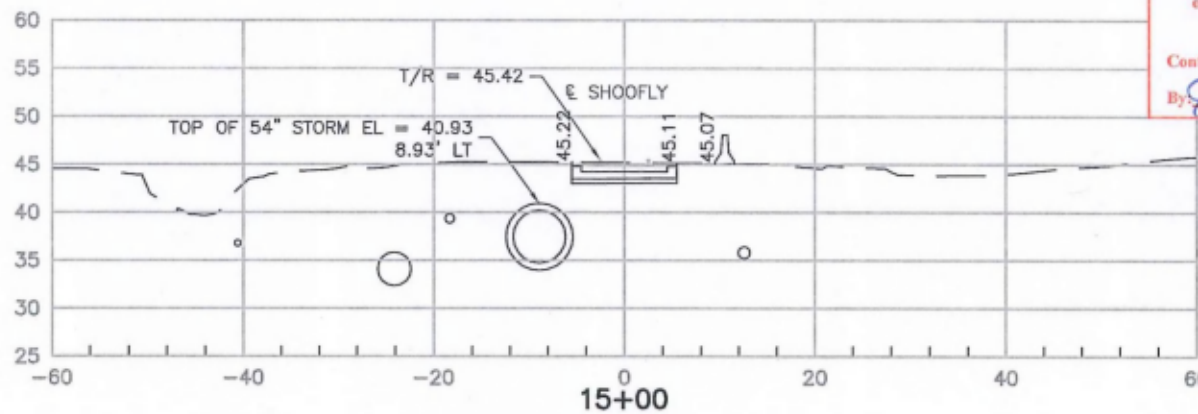
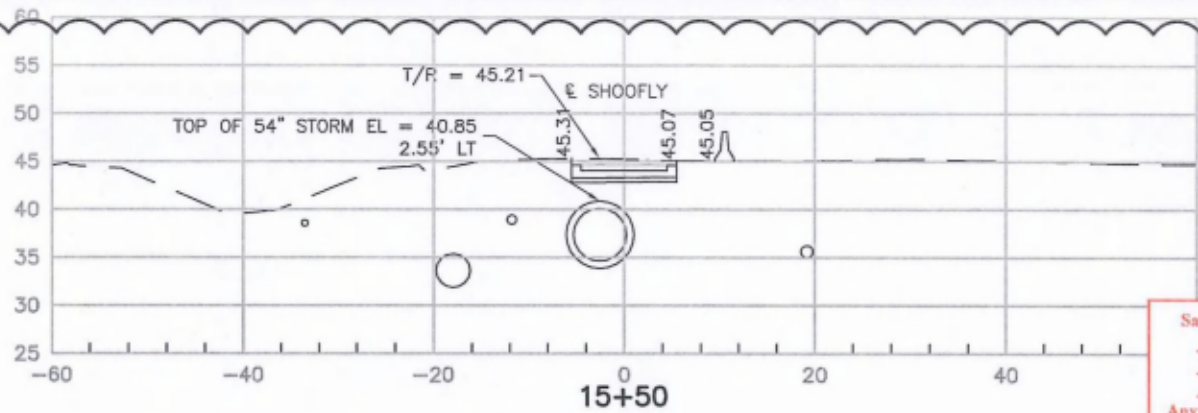
Skanska
Shimmick
Herzog
 1436 California Circle
Milpitas, California 95035
A Joint Venture
L&N Lockwood, Andrews & Newnam, Inc.
 LEG A DAILY COMPANY
 SUBMITTED *[Signature]*

L&N Lockwood, Andrews & Newnam, Inc.
 2180 S. BERRYESSA AVENUE
 T-Y-LIN INTERNATIONAL
 APPROVED *[Signature]*



LINE, TRACK, STATIONS AND SYSTEMS
 DESIGN UNIT 018 - WORK PACKAGE 01
 RAILROAD RELOCATION - SHOOFLY
 TYPICAL SECTIONS

CADD FILENAME C700-S-RR-C341.dwg	
SIZE D	SCALE NTS
CONTRACT NO. C700	REV. 2
AREA CODE RR	SHEET NO. C342
PAGE NO. 0011	



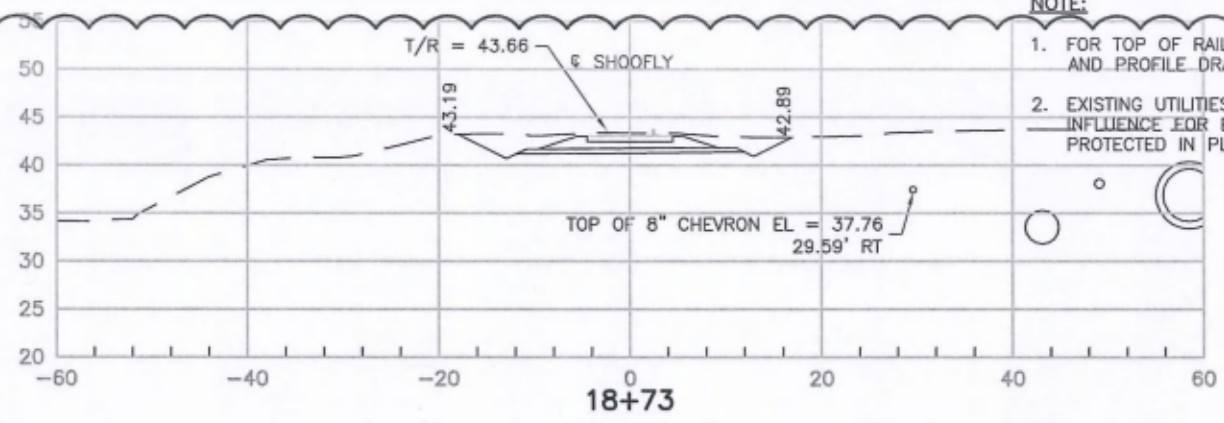
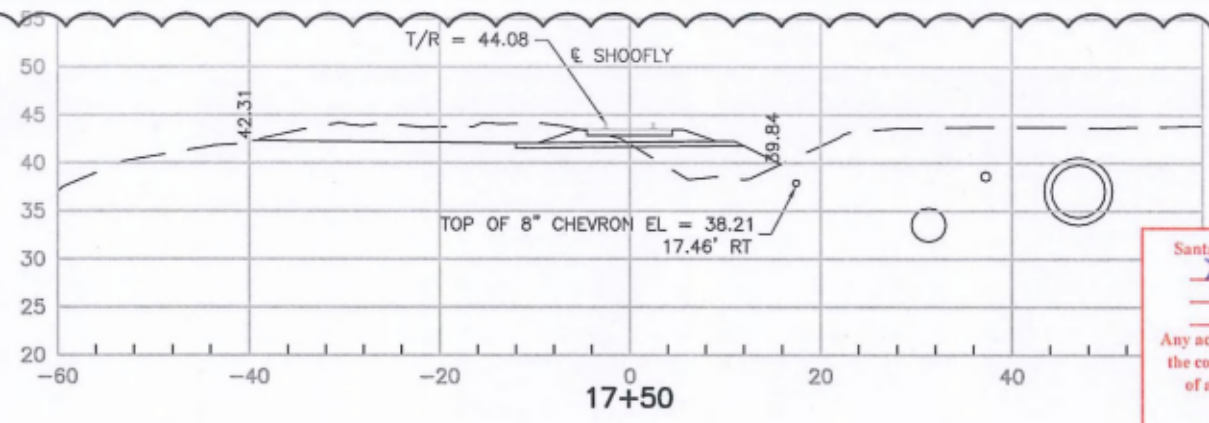
NOTE:
 1. FOR TOP OF RAIL ELEVATION, SEE PLAN AND PROFILE DRAWINGS
 2. EXISTING UTILITIES WITHIN ZONE OF INFLUENCE FOR E-80 LOADING TO BE PROTECTED IN PLACE

Santa Clara Valley Transportation Authority
 NO EXCEPTION TAKEN
 MAKE CORRECTIONS NOTED
 AMEND AND RESUBMIT
 Any action shown above is subject to the terms of the contract and does not relieve the contractor of any of its obligations under the contract including design and detailing.
 Contract No.: DB11002F
 By: *[Signature]* Date: 03/21/2013

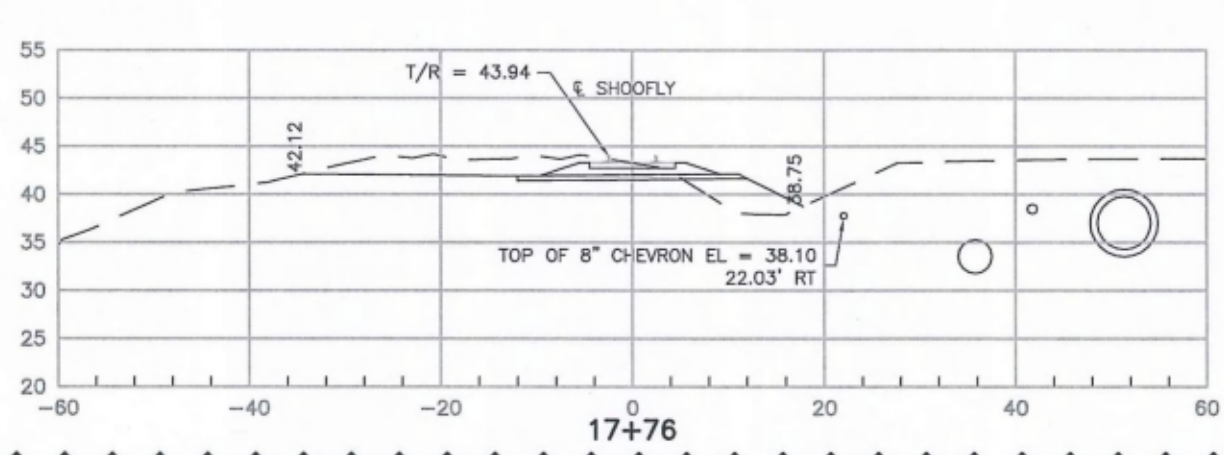
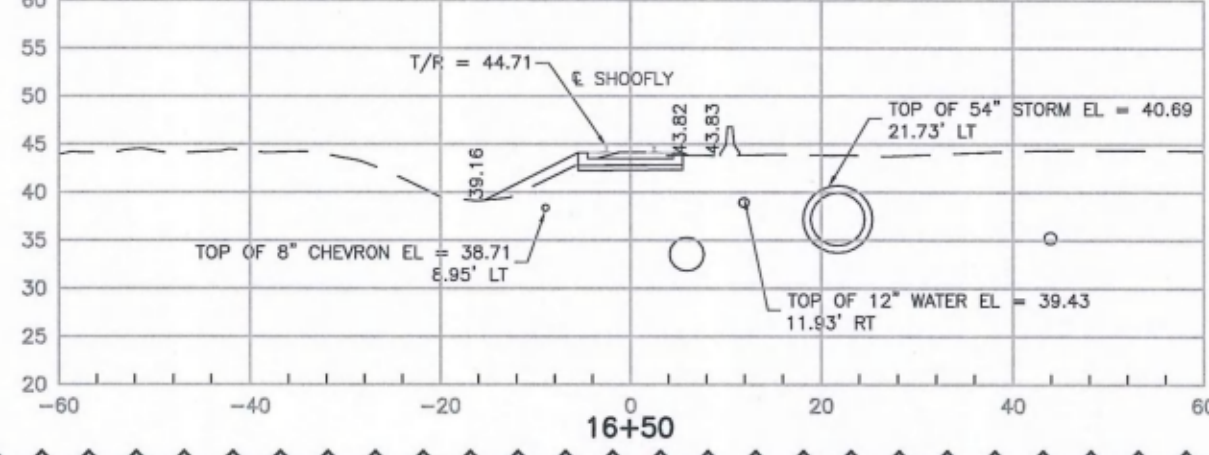
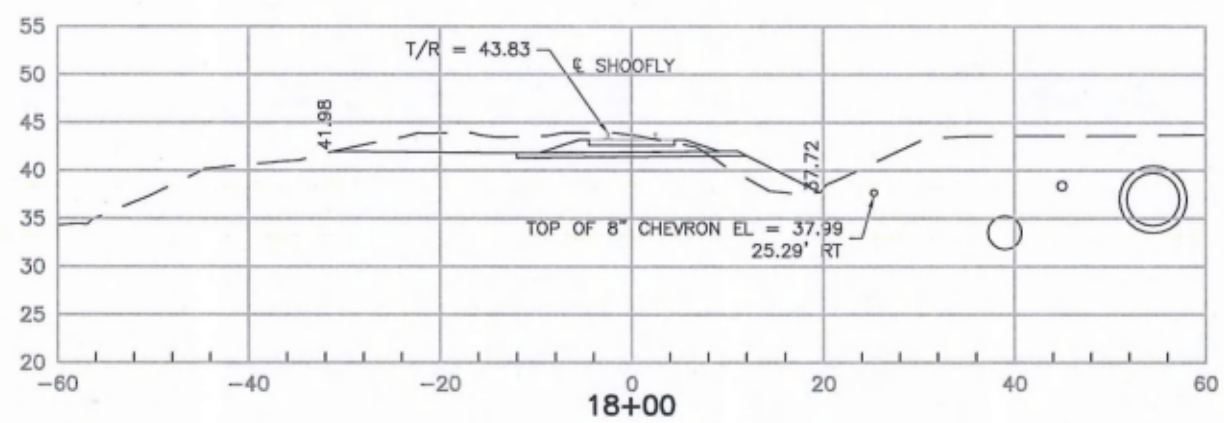
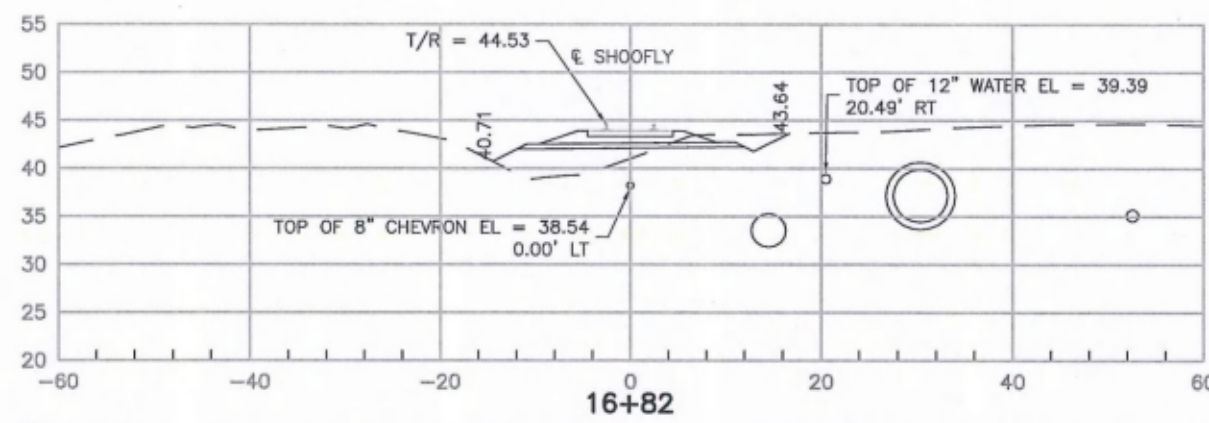
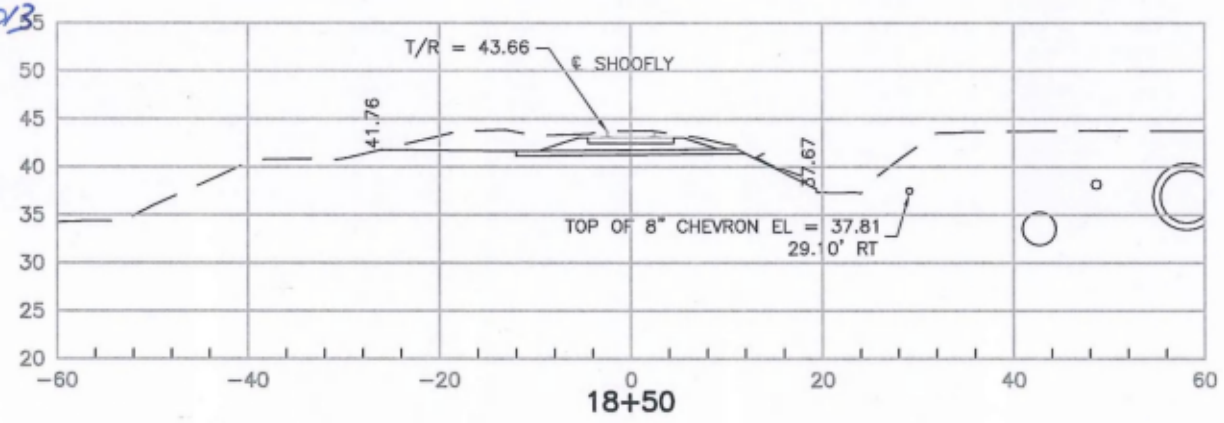
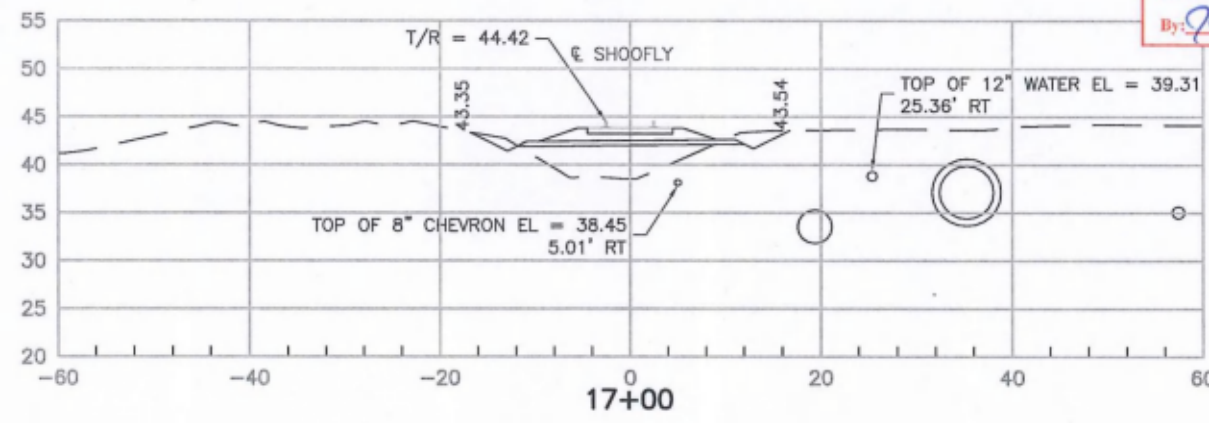
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 20130228
 1 20130123
 0 20121001
 REV DATE BY SUB APP DESCRIPTION
 DESIGNED BY M. SANDVIK
 DRAWN BY S. FAULKNER
 CHECKED BY D. CLARY
 IN CHARGE K. ANDERSON
 DATE 20130123
 PROFESSIONAL ENGINEER AND ARCHITECT
 No. 53283
 Exp. 12/31/13
 CIVIL
 STATE OF CALIFORNIA
 Skanska Shimmick Herzog
 1436 California Circle
 Milpitas, California 95035
 A Joint Venture
 Lockwood, Andrews & Newnam, Inc.
 LANC
 Lockwood, Andrews & Newnam, Inc.
 T-Y-LIN INTERNATIONAL
 BART SILICON VALLEY BERRYESSA EXTENSION
 LINE, TRACK, STATIONS AND SYSTEMS
 DESIGN UNIT 018 - WORK PACKAGE 01
 CROSS SECTIONS
 SHEET 2 OF 3
 CADD FILENAME C700-S-RR-C801.dwg
 SIZE SCALE 1"=10'
 CONTRACT NO. C700 REV. 2
 AREA CODE SHEET NO. RR C801 PAGE NO. 0013

NOTE:

1. FOR TOP OF RAIL ELEVATION, SEE PLAN AND PROFILE DRAWINGS
2. EXISTING UTILITIES WITHIN ZONE OF INFLUENCE FOR E-80 LOADING TO BE PROTECTED IN PLACE



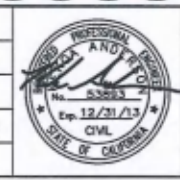
Santa Clara Valley Transportation Authority
X NO EXCEPTION TAKEN
 MAKE CORRECTIONS NOTED
 AMEND AND RESUBMIT
 Any action shown above is subject to the terms of the contract and does not relieve the contractor of any of its obligations under the contract including design and detailing.
 Contract No.: DB11092F
 By: *[Signature]* Date: 03/21/2013



Mir 01, 2013 - 9:28pm C:\proj\shoofly\work\018\018-RR-C802.dwg
 skanska

REV	DATE	BY	SUB	APP	DESCRIPTION
2	20130228				ALTERNATE SHOOFLY
1	20130123				ADD SCWD PROTECTION/FINAL DESIGN
0	20121001				READY FOR CONSTRUCTION

DESIGNED BY
M. SANDVIK
 DRAWN BY
S. FAULKNER
 CHECKED BY
D. CLARY
 IN CHARGE
K. ANDERSON
 DATE
20130123



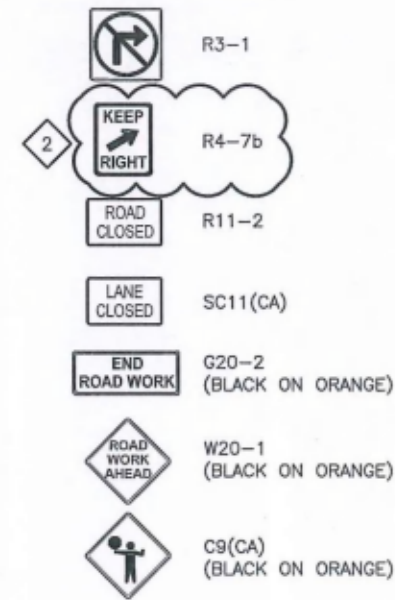
Skanska
 Shimmick
 Herzog
 1436 California Circle
 Milpitas, California 95035
 A Joint Venture
LAN Lockwood, Andrews & Newnam, Inc.
 A JOINT VENTURE
 T-Y-LIN INTERNATIONAL
 APPROVED *[Signature]*

BART
 SILICON VALLEY
 BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS
 DESIGN UNIT 018 - WORK PACKAGE 01
 CROSS SECTIONS
 SHEET 3 OF 3

CADD FILENAME C700-S-RR-C802.dwg	REV. 2
SIZE SCALE 1"=10'	PAGE NO. 0014
CONTRACT NO. C700	
AREA CODE SHEET NO. RR C802	

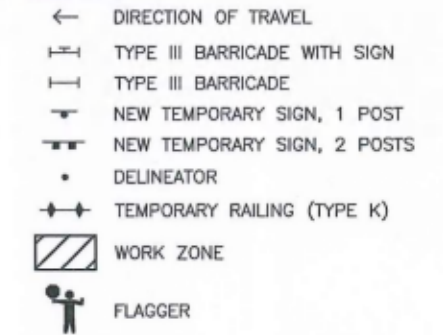
SIGN LEGEND:



GENERAL NOTES:

1. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO CHAPTER 6 OF THE 2012 CALIFORNIA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (CA MUTCD).
2. MAINTAIN ALL TEMPORARY TRAFFIC CONTROL DEVICES 24 HOURS PER DAY AND 7 DAYS PER WEEK.
3. ALL TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM VIEW WHEN NOT IN USE.
4. ALL STRIPING REMOVED OR DAMAGED, SHALL BE REPLACED BY THE CONTRACTOR WITHIN 4 HOURS (OR REPLACED WITH TEMPORARY TAPE UNTIL MARKINGS CAN BE PERMANENTLY RESTORED).

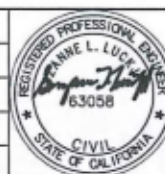
LEGEND:



FOR REFERENCE ONLY, FROM DU-12, WP-02

Jan 04, 2013 - 11:48am C:\projects\shoofly\mbr-joseph\shoofly\du018\du018.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
2	20121221				FINAL DESIGN
1	20121031				READY FOR CONSTRUCTION
0	20120919				READY FOR CONSTRUCTION



Skanska
Shimnick
Herzog
 1435 California Circle
 Milpitas, California 95035
 A Joint Venture

FEHR & PEERS
 180 N. Santa Clara Street San Jose, CA 95113
 Suite 625 (408) 435-1100

L&N Ludenrod, Andrews & Newman, Inc.
 2100 N. RALPH BLVD
 T-Y-LIN INTERNATIONAL

SUBMITTED *[Signature]* APPROVED *[Signature]*

BART SILICON VALLEY BERRYESSA EXTENSION

LINE, TRACK, STATIONS AND SYSTEMS

PIPER DRIVE
TITLE SHEET

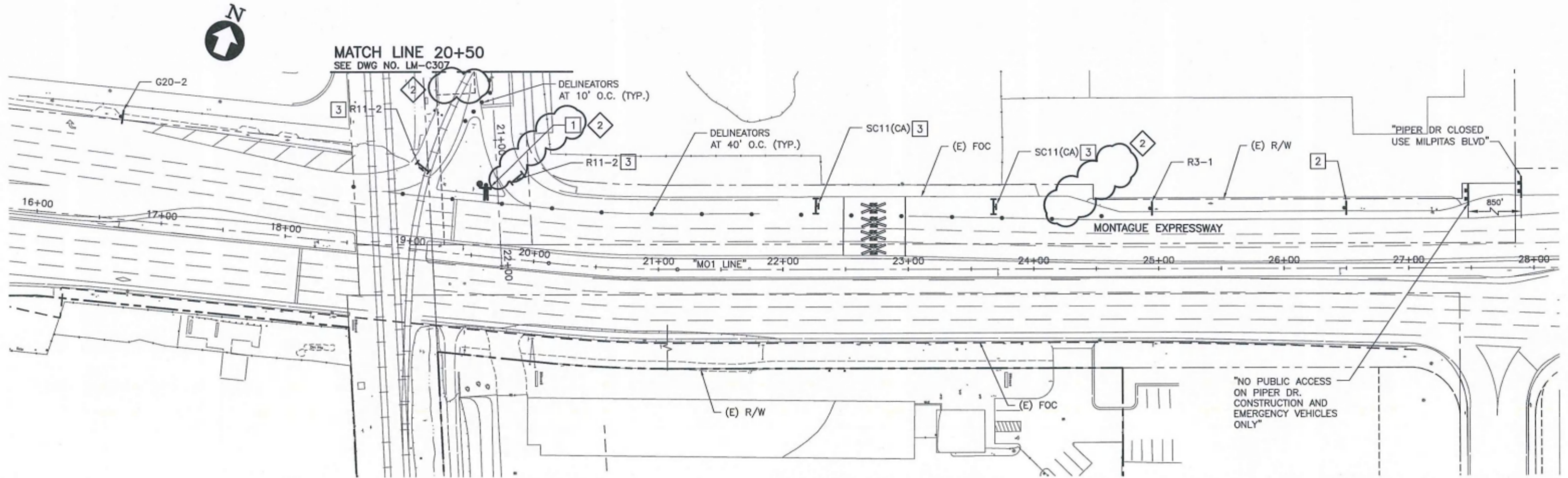
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SIZE	SCALE	1"=40'	
D			
CONTRACT NO.	C700	REV.	2
AREA CODE	SHEET NO.	PAGE NO.	
LM	C305	0038	

PROJECT NOTES:

- 1 FLAGGER TO BE PROVIDED DURING WORK HOURS.
- 2 INSTALL C9A(CA) SIGN WHEN FLAGGER IS USED.
- 3 INSTALL SIGN AND BARRICADE DURING OFF WORK HOURS.

GENERAL NOTES:

- 1. SEE TITLE SHEET LM-C305 FOR LEGEND.
- 2. THIS PLAN IS INCLUDED IN DU 012 AND REFERENCED INTO DU 018.
- 3. THE CONTRACTOR IS RESPONSIBLE FOR MANAGING ALL CONSTRUCTION VEHICLES ACCESS TO AND FROM PIPER DRIVE AT ALL TIMES.



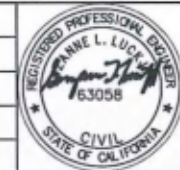
FOR REFERENCE ONLY FROM DU-12, WP-02



Jan 04, 2013 11:09am C:\projects\berkeley\miller\miller\lm-c306.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
2	20121221				FINAL DESIGN
1	20121031				READY FOR CONSTRUCTION
0	20120919				READY FOR CONSTRUCTION

DESIGNED BY
R. PADERNA
DRAWN BY
J. MOSER
CHECKED BY
J. PETERMAN
IN CHARGE
S. LUCKJIFF
DATE
20121221



Skanska
Shimnick
Herzog
FEHR PEERS
1438 California Circle
Milpitas, California 95035
A Joint Venture

LAN Lockwood, Anderson & Newmann, Inc.
T-Y-LIN INTERNATIONAL
APPROVED *Ry. Adkins*



LINE, TRACK, STATIONS AND SYSTEMS
PIPER DRIVE
TRAFFIC CONTROL PLAN
BEGINNING OF WORK TO STA 20+50

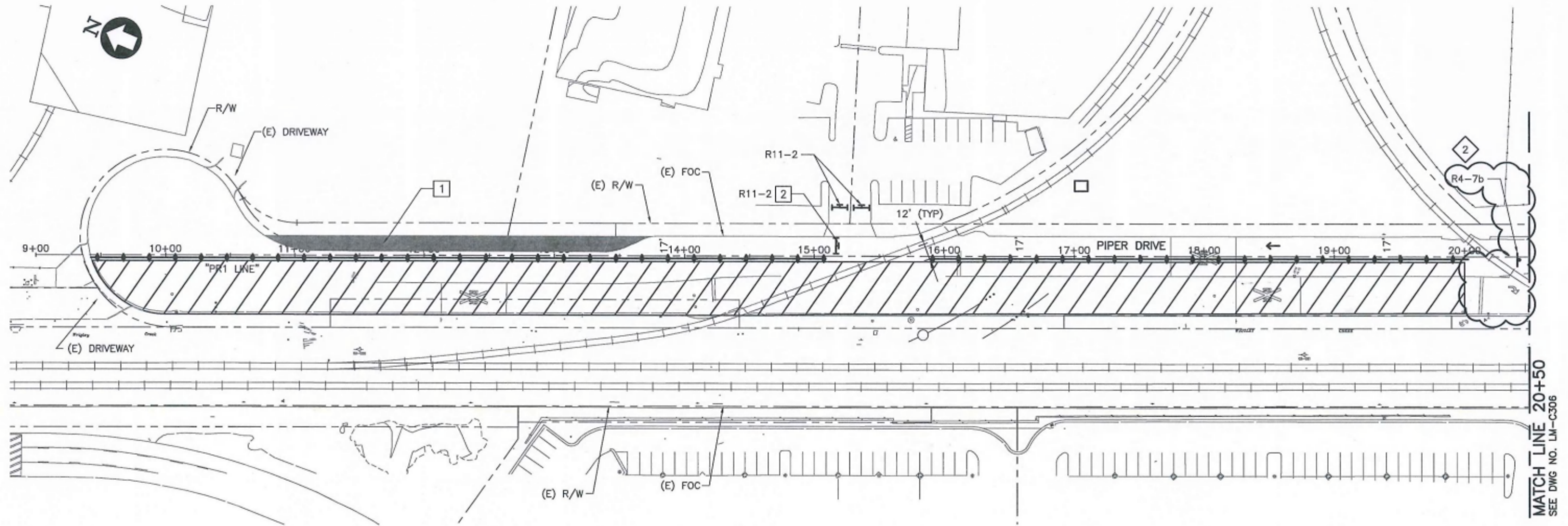
CADD FILENAME C700-S-LM-C306.dwg	CONTRACT NO. C700	REV. 2
SIZE D	SCALE 1"=40'	PAGE NO. 0039
AREA CODE LM	SHEET NO. C306	

PROJECT NOTES:

- 1 EXISTING CURB TO BE REMOVED. INSTALL TEMPORARY PAVEMENT. MATCH EXISTING PAVEMENT SECTION.
- 2 INSTALL SIGN AND BARRICADE DURING OFF WORK HOURS.

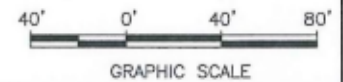
GENERAL NOTES:

- 1. SEE TITLE SHEET LM-C305 FOR LEGEND.
- 2. THIS PLAN IS INCLUDED IN DU 012 AND REFERENCED INTO DU 018.
- 3. THE CONTRACTOR IS RESPONSIBLE FOR MANAGING ALL CONSTRUCTION VEHICLES ACCESS TO AND FROM PIPER DRIVE AT ALL TIMES.
- 4. TEMPORARY RAILING TO BE INSTALLED TO ADEQUATELY PROTECT WORK ZONE.



MATCH LINE 20+50
SEE DWG NO. LM-C306

FOR REFERENCE ONLY FROM DU-12, WP-02



Jan 04, 2013 12:05pm C:\proj\shoofly\sub\jmoser\jmoser\shoofly\7100-6-LM-C307.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
2	20121221				FINAL DESIGN
1	20121031				READY FOR CONSTRUCTION
0	20120919				READY FOR CONSTRUCTION

DESIGNED BY
R. PADERNA

DRAWN BY
J. MOSER

CHECKED BY
J. PETERMAN

IN CHARGE
S. LUCKJIFF

DATE
20121221

Skanska
Shimmick
Herzog

1426 California Circle
Milpitas, California 95035
A Joint Venture

FEHR & PEERS
193 W. Santa Clara Street, San Jose, CA 95133
Sub 875 (408) 276-1700

LDN Ledwood, Andrews & Newman, Inc.
A Joint Venture

T-Y-LIN INTERNATIONAL

APPROVED *Ray Adkins*

BART
VTA SILICON VALLEY

BART SILICON VALLEY BERRYESSA EXTENSION

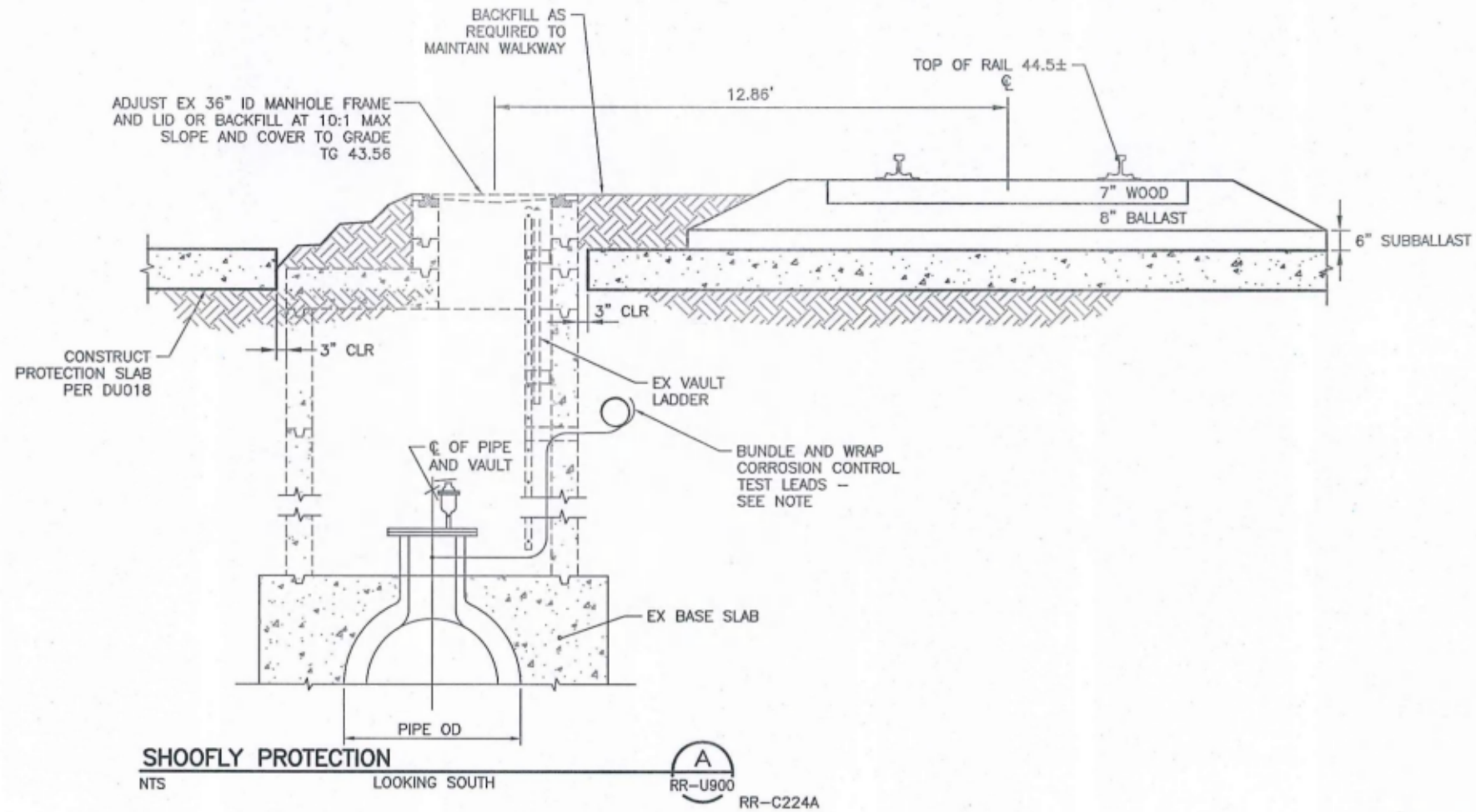
LINE, TRACK, STATIONS AND SYSTEMS

PIPER DRIVE
TRAFFIC CONTROL PLAN
STA 20+50 TO END OF WORK

CADD FILENAME C700-S-LM-C307.dwg	REV. 2
SIZE SCALE D 1"=40'	PAGE NO. 0040
CONTRACT NO. C700	SHEET NO. C307

NOTE:

AFTER REMOVAL OF SHOOFLY AND PROTECTION SLAB, THE MANHOLE FRAME/LID AND THE CORROSION CONTROL TEST LEADS (WITH BOX) SHALL BE RESTORED TO ORIGINAL CONDITION, AT THE NEW FINISHED GRADE.



Santa Clara Valley Transportation Authority
 NO EXCEPTION TAKEN
 MAKE CORRECTIONS NOTED
 AMEND AND RESUBMIT
 Any action shown above is subject to the terms of the contract and does not relieve the contractor of any of its obligations under the contract including design and detailing.
 Contract No.: DB11002F
 By: *[Signature]* Date: 03/22/13

Mar 19, 2013 4:17pm C:\projects\scvtda\copy of mba-hampshire (2013)\mbs71885\C700-S-RR-U900.dwg

REV	DATE	BY	SUB	APP	DESCRIPTION
0	20130318				ADD SCVWD PROTECTION DETAIL

DESIGNED BY
J. STREEPER
 DRAWN BY
A. CANIVEL
 CHECKED BY
K. MULLER
 IN CHARGE
J. STREEPER
 DATE
20130318



Skanska
Shimmick
Herzog
 1436 California Circle
Milton, California 95035
A John Deere
 HMM
 SUBMITTED *[Signature]*

Lockwood, Andrew
& Partners, Inc.
 T-Y-LIN INTERNATIONAL
 APPROVED *[Signature]*



LINE, TRACK, STATIONS AND SYSTEMS
 DESIGN UNIT 018-WORK PACKAGE 01
 EX SCVWD WATER PIPELINE
 PROTECTION DETAIL
 PRECAST VAULT

CADD FILENAME C700-S-RR-U900.dwg	SIZE D	SCALE AS NOTED
CONTRACT NO. C700	SHEET NO. RR U900	REV. 0
AREA CODE	PAGE NO. 0015	