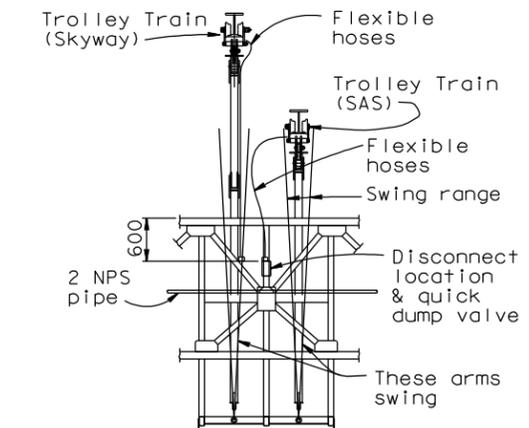


PARTS FOR TROLLIES AND TROLLEY CONTROLS

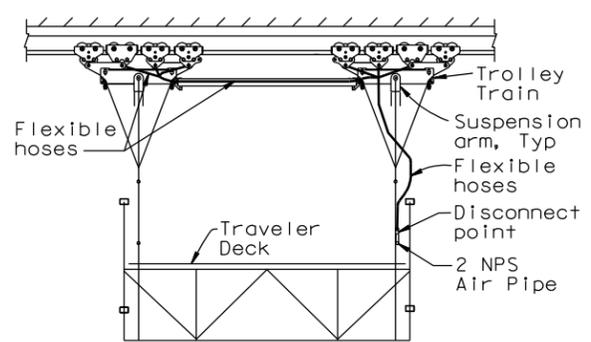


DIST.	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SF	80	13.2/13.9	1134R4	1204

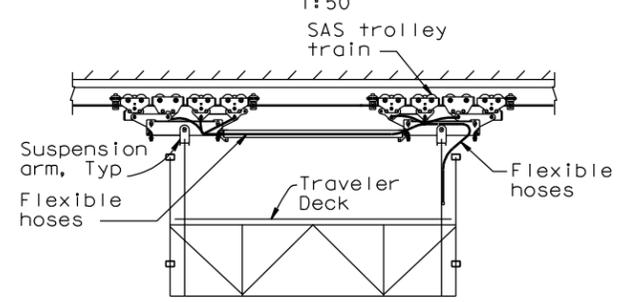
REGISTERED ENGINEER - CIVIL
 12-6-04
 PLANS APPROVAL DATE
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.
 T.Y. LIN / MOFFATT & NICHOL
 825 BATTERY STREET
 SAN FRANCISCO, CA 94111
 Caltrans now has a web site! To get to the web site, go to: <http://www.dot.ca.gov>



PIPING & DISCONNECT SCHEMATIC E2/E3 TRAVELERS
NTS



SKYWAY SUSPENSION
1:50



SAS SUSPENSION
1:50

Part/No.	Description	Size	Quantity/Traveler
1N	Throttle for North Trollies, Full flow. Deadman control. With built in emergency stop valve	1 1/4"	1
1S	Throttle for South Trollies, Full flow. Deadman control. With built in emergency stop valve	1 1/4"	1
2N	Pilot operated poppet valve for skew control on north motors	1 1/4"	1
2S	Pilot operated poppet valve for skew control on south motors	1 1/4"	1
3	Main System valve - pilot operated. Poppet Valve	1 1/2"	1
4A-4B	Quick Dump Valve for Valve 2N or 2S pilot system	1/4"	2
5	Pedal operated Main System Pilot Valve, deadman operation - To control Valve 3 (Note 20)	1/4"	2
5A	Trolley Air Lockout Valve (if elevating platforms are up)	1/4"	1
6A-6B	Double check valve - shuttle valve	3/8"	2
7A-7D	Pilot operated for operating valves 2N or 2S	1/4"	4
8	Pilot operated for applying brakes at extreme skew	3/8"	2
9	Bypass valve allowing brake release after brakes have been applied due to excess skew	3/8"	2
10	Quick Dump Valve for Brakes	1/2"	2
11	Quick Disconnect couplings, with closure caps. (Required on E2/E3 Travelers only) Note 2	1/2"	2: (4)
12	Quick Disconnect couplings, with closure caps. (Required on E2/E3 Travelers only) Note 2	1 1/4"	4: (8)
13	Exhaust Choke Valve for speed control	1/2"	12-SAS 24-E2/E3
14	Silencer	1/2"	12-SAS 24-E2/E3
15	Whistle valve	3/8"	1
16	Whistle		1
17	Twiflex Caliper Brakes, Spring on, pressure off		16-SAS 32-E2/E3
18	Ingersoll Rand piston air motor trolley		12-SAS 24-E2/E3
19	Lubricator, Filter and Pressure Regulator	1 1/2"	1
20	Gage	50 mm	1
21	NOT USED		
22	Coupling	2"	
23	Full Port Ball Valve	2"	
24	Flexible Supply Hose - 12,000 long	2"	2
25	Coupling	2"	2
26	Motor shutdown over-ride valve	1/4"	2
27	3-Way Manual Diversion Ball Valve with Latch-Lock Lever and Nut to allow maintenance and repair of the Pneumatic System at the Trolley.	1 1/2"	1
28	NOT USED		
29	Shuttle Valve: Will be actuated by either L1 or L4 as necessary. Inline Lubricator: 1. Use one for each port of each Trolley Motor. 2. Plumb as close to Motor as Possible.	1/4"	1
30	Air Manifold: 2 X 1 1/4" NPS inlets 3 X 3/4" NPS outlets	1 1/4"	8-SAS 16-E2/E3
L1-L4	Skew Control Limit Valve	1/4"	4

Function Description:

- Pneumatic system operation for skew correction per skew orientation matrix & diagram. Limit switches L2 and L3 shutdown only the motor causing excessive skew at approx 50% of Max allowable skew. This function can be over-ridden when it is necessary to operate at a greater skew: (valves 26).
- Limit switches L1 and L4 apply all brakes when the critical skew is reached. The brakes may be released on either the North or the South trollies through a manual over-ride (9).

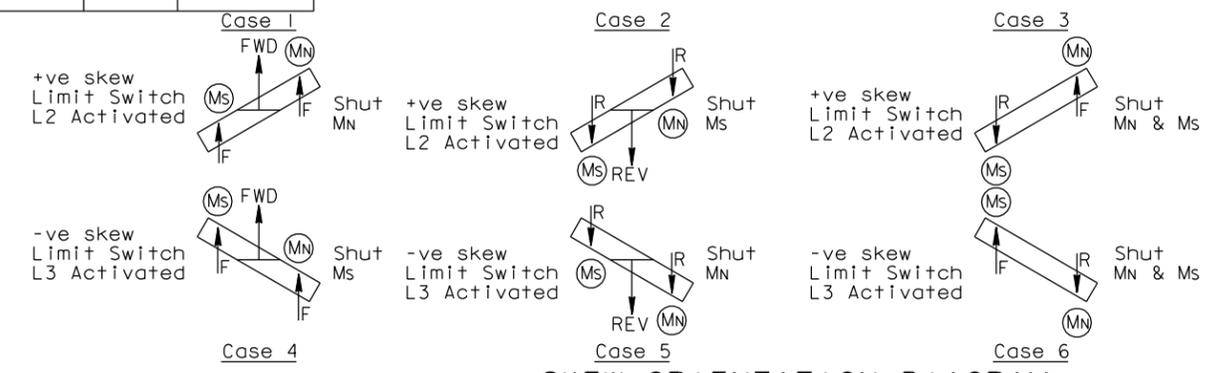
NOTES:

- For general notes see "Traveler Air System-02" sheet.
- Quantities are for the portion of the disconnects that remain with the traveler scaffold. Quantities for the detachable portions are shown in parenthesis.

SKIEW ORIENTATION MATRIX

CASE	MOTOR		SKIEW	L2	L3	SHUT
	Ms	Mn				
1	F	F	+ve	Act.	-	MN
2	R	R	+ve	Act.	-	Ms
3	R	F	+ve	Act.	-	MN & M
4	F	F	-ve	-	Act.	Ms
5	R	R	-ve	-	Act.	MN
6	F	R	-ve	-	Act.	MN & Ms

LEGEND:
 F - Travelling West
 R - Travelling East



SKIEW ORIENTATION DIAGRAM



REVISION 2 SUPERSEDES REVISION 1
CONTRACT CHANGE ORDER NO. _____
SHEET _____ OF _____

MARK	DATE	DESCRIPTION	BY	CH'D	CCO#
Δ	08/23/11	MISCELLANEOUS TRAVELER MODIFICATIONS	RH	AS	183
Δ	07/30/10	TRAVELER MODIFICATIONS	RH	NV	2451
Δ	08/21/09	TRAVELER MODIFICATIONS	RH	NV	2451
Δ	07/20/07	RAIL CHANGE & MISCELLANEOUS DETAILS	RD	NV	24

DESIGN	BY	CHECKED
BY	J. Otter	R. Donikian
DETAILS	BY	J. Otter
QUANTITIES	BY	J. Otter

PREPARED FOR THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION

BRIDGE NO.	34-0006L/R
KILOMETER POST	13.2/13.9

SAN FRANCISCO OAKLAND BAY BRIDGE EAST SPAN SEISMIC SAFETY PROJECT
SELF-ANCHORED SUSPENSION BRIDGE (SUPERSTRUCTURE & TOWER)
TRAVELER AIR SYSTEM-O1A

R. Valizadeh/V. Toan/Y. L. /W. L. /F. C.
 DESIGN OVERSIGHT
 SIGN OFF DATE 08/23/11