MOVEMENT CORRECTIVE PROCEDURES:

THIS PROCEDURE IS INTENDED TO BRING THE TOTAL MOVEMENT OF ALL THE CYLINDERS TO WITHIN ± 1/4".
AFTER THE "ALL STOP" PROCEDURES HAVE BEEN COMPLETED, THE FOLLOWING PROCEDURES SHALL BE PERFORMED.

1. DETERMINE ALL CYLINDER STATIONS THAT NEED TO BE EXTENDED TO MATCH THE A1 CYLINDER TOTAL MOVEMENT.
2. OPEN A AND B PORT VALVES FOR ALL CYLINDERS THAT NEED TO BE EXTENDED.
3. ACTUATE APPROPRIATE DIRECTIONAL VALVES FOR APPROXIMATELY TWO SECONDS.
4. CLOSE THE A AND B PORT VALVES FOR ALL CYLINDERS WITHIN ± 1/8" OF THE TOTAL MOVEMENT FOR CYLINDER A1.
5. CONTINUE STEPS 3 AND 4 UNTIL ALL CYLINDERS REQUIRING EXTENSIONS ARE ± 1/8" OF THE TOTAL MOVEMENT FOR CYLINDER A1.
6. DETERMINE ALL CYLINDER STATIONS THAT NEED TO BE RETRACTED TO MATCH THE A1 CYLINDER TOTAL MOVEMENT.
7. OPEN A AND B PORT VALVES FOR ALL CYLINDERS THAT NEED TO BE RETRACTED.
8. ACTUATE APPROPRIATE DIRECTIONAL VALVES FOR TWO SECONDS.
9. CLOSE THE A AND B PORT VALVES FOR ALL CYLINDERS WITH IN ± 1/8" OF THE TOTAL MOVEMENT FOR CYLINDER A1.
10. CONTINUE STEPS 7 AND 8 UNTIL ALL CYLINDERS REQUIRING RETRACTION ARE ± 1/8" OF THE TOTAL MOVEMENT FOR CYLINDER A1.
11. OPEN THE A AND B PORT VALVES FOR ALL CYLINDERS AND CONTINUE SIDE LAUNCH OPERATION.

CHORD NODAL CORRECTION PROCEDURES:

PRIOR TO BEGINNING CHORD CORRECTION PROCEDURES, FURNISH SURVEY DATA TO FINLEY FOR REVIEW AND CONFIRMATION.

1. IF THE SOUTH TRUSS NEEDS CORRECTION, PROCEED WITH STEPS 2 THRU 7, OTHERWISE PROCEED TO STEP 8.
2. TENSION NORTH TRUSS SECONDARY CABLES TO 5 KIPS PER CABLE.
3. DETERMINE WHICH TOP CHORD LAUNCHING CYLINDERS WILL BE USED TO CORRECT SOUTH TRUSS ALIGNMENT. PROCEED WITH NODES REQUIRING LARGEST CORRECTION TO SMALLEST CORRECTION.
4. DE-TENSION SOUTH TRUSS PRIMARY CABLES AND SLACKEN TO ALLOW FOR REQUIRED ADJUSTMENT LENGTH.
5. WITH HYDRAULIC SYSTEM RUNNING, DIS-ENGAGE SECONDARY RESTRAINTS AT TOP CHORD CYLINDERS TO BE ADJUSTED. THEN OPEN 'A' AND 'B' PORT VALVES.
6. CONTINUOUSLY MONITOR TRUSS NODES REQUIRING CORRECTION, ACTUATE CYLINDERS FOR 'T' LINE ONLY FOR TWO SECONDS AT A TIME UNTIL TRUSS NODE POSITIONS HAVE BEEN CORRECTED.
7. RE-ENGAGE SOUTH TRUSS PRIMARY CABLES, STRESSING TO 5 KIPS PER CABLE. IF NORTH TRUSS ALSO REQUIRES CORRECTION PROCEED TO STEP 8, OTHERWISE CONTINUE WITH LAUNCHING PROCEDURE.
8. DETERMINE WHICH TOP CHORD CYLINDERS WILL BE USED TO CORRECT NORTH TRUSS ALIGNMENT. PROCEED WITH NODES REQUIRING LARGEST CORRECTION TO SMALLEST CORRECTION.
9. WITH HYDRAULIC SYSTEM RUNNING, DIS-ENGAGE SECONDARY RESTRAINTS AT TOP CHORD CYLINDERS TO BE ADJUSTED. THEN OPEN 'A' AND 'B' PORT VALVES.
10. CONTINUOUSLY MONITOR TRUSS NODES REQUIRING CORRECTION, ACTUATE CYLINDERS FOR 'T' LINE ONLY FOR TWO SECONDS AT A TIME UNTIL TRUSS NODE POSITIONS HAVE BEEN CORRECTED. CONTINUE WITH LAUNCHING PROCEDURE.

CAMBER ADJUSTMENT PROCEDURES:

1. DETERMINE THE REQUIRED CAMBER ADJUSTMENT. THIS PROCEDURE CAN ACCOMPLISH A VERTICAL ADJUSTMENT OF UP TO 2½". BASED ON THE REQUIRED ADJUSTMENT, DETERMINE ANTICIPATED FORCE USING 12 KIPS PER ROD PER INCH. (AT EACH TRANSVERSE BEAM)
2. INSTALL 4-1" DIAMETER RODS AT NORTH TRUSS NODES L4, L8, L10, & L14, CONNECTING THE NORTH TRUSS TO THE TEMPORARY TRANSVERSE BEAMS.
3. STRESS RODS TO 50% OF THE TARGET FORCE IN THE FOLLOWING ORDER: L8, L10, L4, L14.
4. STRESS RODS TO 100% OF THE TARGET FORCE IN THE SAME ORDER.
5. RE-SURVEY NORTH TRUSS NODES AND MAKE ANY FURTHER ADJUSTMENTS AS REQUIRED UNTIL NORTH TRUSS GEOMETRY IS ACCEPTABLE FOR ERECTION OF NEW MEMBERS.

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SUMMARY OF BAR QUANTITIES AND STRESSING FORCES

DESCRIPTION	TYPE	LOCATION	NO. BARS	INITIAL FORCE PER BAR
LONGITUDINAL AND DIAGONAL BRACE CONNECTIONS	1" Ø HIGH STRENGTH ROD	L4-U4, L8-U8, L10-U10, L14-U14	16	35 KIPS
LONGITUDINAL BRACE CONNECTIONS	1" Ø HIGH STRENGTH ROD	L5-U5, L6-U6, L7-U7, L9-U9, L11-U11, L12-U12, L13-U13	28	SNUG TIGHT
SOUTH TRUSS BRACE	1" Ø HIGH STRENGTH ROD	L1-U1, L17-U17	4	SNUG TIGHT
TEMPORARY TOWER	1" Ø HIGH STRENGTH ROD	L2-U2, L4-U4, L6-U6, L8-U8, L10-U10, L12-U12, L14-U14, L16-U16	44	SNUG TIGHT
BOTTOM CHORD JACKING FRAME	1" Ø HIGH STRENGTH ROD	L4, L8, L10, L14	16	25 KIPS
NORTH TRUSS CAMBER ADJUSTMENT	1" Ø HIGH STRENGTH ROD	L4, L8, L10, L14	16	30 KIPS MAX.
TOP CHORD LAUNCHING BEAM TO NORTH TRUSS CONNECTION "A"	1" Ø HIGH STRENGTH ROD	U4, U8, U10, U14	32	20 KIPS
TOP CHORD JACKING CONNECTION TO SOUTH TRUSS DETAIL "1"	1" Ø HIGH STRENGTH ROD	U4, U8, U10, U14	8	SNUG TIGHT
BOTTOM BAR AROUND EXISTING BRACING CONNECTION "C" AND "D"	1" Ø HIGH STRENGTH ROD	U4, U8, U10, U14	16	35 KIPS
TOP BAR AROUND TOP CHORD LAUNCHING BEAM CONNECTION "C" AND "D"	1" Ø HIGH STRENGTH ROD	U4, U8, U10, U14	16	SNUG TIGHT
TEMPORARY END TRUSS SUPPORT BRACE	1" Ø HIGH STRENGTH ROD	L0, L18	4	10 KIPS
EXISTING FLOOR BEAM TO TRANSVERSE SUPPORT BEAM CONNECTION "G"	1" Ø PT BAR	L4, L8, L10, L14	16	94 KIPS

STATE OF VERMONT
ROBERT C. FINLEY
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CIVIL
LICENSED
PROFESSIONAL ENGINEER
4/30/12

Revision	Drawn By	Date	Description
1	JLB	04/24/12	Updated Summary of Bar Quantities and Stressing Forces Table.

	Name	Date
Drawn By:	RAA	01/12
Designed By:	JMP	01/12
Approved By:	RCF	01/12

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CHITTENDEN COUNTY
U.S. ROUTE 2 BRIDGE NO. 24

Title:
CONSTRUCTION MANUAL
STANDARD PROCEDURES (2 OF 2)

Sheet No.
CM-03

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