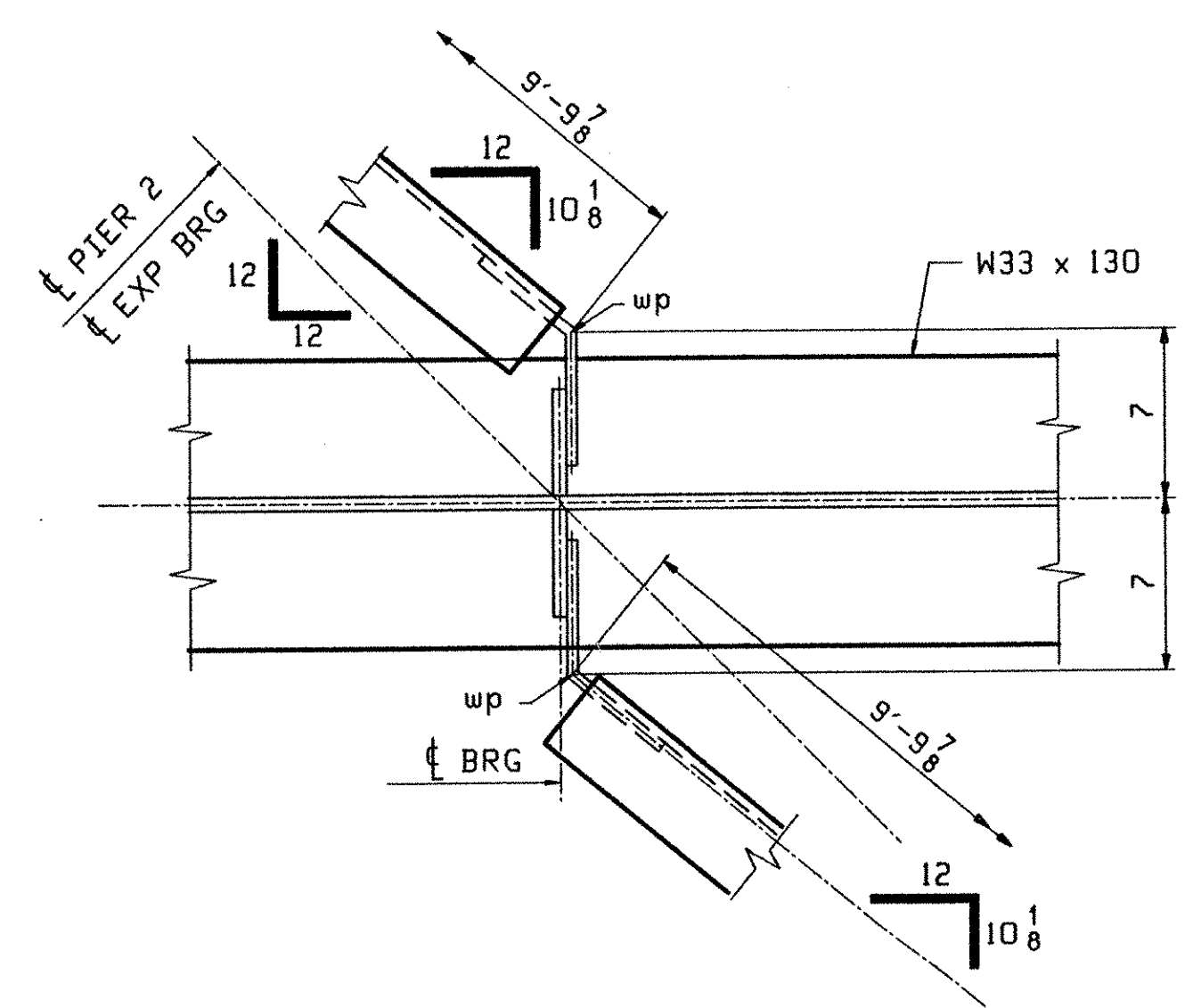


**CALCULATION PLAN**

| Line | DEV LEN ALONG BTM OF STRINGER |             | GRADE  |        | BEVELS |          |
|------|-------------------------------|-------------|--------|--------|--------|----------|
|      | LEN CL                        | LEN C       | Pier 2 | ABUT 2 | P2     | AB2      |
| 1    | 62'-11                        | 105'-8 9/16 | -.0242 | -.0363 | 12     | 12       |
| 2    | 62'-10 11/16                  | 105'-8 1/16 | -.0255 | -.0365 | 12     | 12       |
| 3    | 62'-10 3/8                    | 105'-7 9/16 | -.0259 | -.0369 | 12     | 11 15/16 |
| 4    | 62'-10                        | 105'-7 1/8  | -.0262 | -.0372 | 12     | 11 15/16 |
| 5    | 62'-9 3/4                     | 105'-6 5/8  | -.0267 | -.0391 | 12     | 11 15/16 |



**DIAPHRAGM WORKPOINTS @ PIER 2**

**\*\* NOTE \*\***  
 THE PURPOSE OF THIS DRAWING IS TO COORDINATE GEOMETRIC CONTROL INFORMATION. THIS DWG IS SUBMITTED FOR INFORMATION ONLY AND IS NOT INTENDED FOR SHOP FABRICATION.

- NOTES**
1. LONGITUDINAL DIMENSIONS ARE SLOPING ALONG BOTTOM OF STRINGER WITH CORRECTIONS MADE FOR VERTICAL CURVE, GRADE & DL CAMBER (UN).
  2. TRANSVERSE DIMENSIONS ARE IN A HORIZ. PLANE (UN).
  3. ARROW POINTS TOWARDS LOW END OF MEMBER.
  4. ENDS OF STRINGERS AND BRG. STIFF'S ARE VERTICAL AFTER DL ROTATION.
  5. DIAPH STIFF & FIELD SPLICES ARE NORMAL TO GRADE.
  6. BOTT PT NUMBERS = TOP PT NUMBERS + 200.
  7. FOR LAYOUTS SEE DWG TD101.
  8. COMBINE CROSSFRAMES FOR DIFF IN DROPS OF +/- 1/8.
  9. CROSSFRAMES DROPS ARE CALCULATED IN THEIR FINAL POSITION.
  10. WP'S AT 1/2 OF BENT PLATE.

**TVGA**  
 Engineering, Surveying, P.C.

NO EXCEPTIONS TAKEN  REJECTED  
 FURNISH AS CORRECTED  REVISE AND RESUBMIT

ENGINEER has reviewed Shop Drawings and Samples and other data which Contractor is required to submit, only for conformance with the information given in the Contract Documents and compatibility with the design concept of the completed Project as a functioning whole as indicated in the Contract Documents. Such review shall extend to means, methods, techniques, sequences or procedures of construction or to safety precautions and programs incident thereto. Contractor is responsible for eliminations to be confirmed and corrected at the job site; for information that pertains solely to the fabrication processes or to techniques of construction and for coordination of the work of all trades.

BY: *Pit W. S.C.*  
 DATE: *3/20/11*

|   |   |             |     |        |              |             |            |      |     |         |             |       |  |  |  |  |  |  |  |
|---|---|-------------|-----|--------|--------------|-------------|------------|------|-----|---------|-------------|-------|--|--|--|--|--|--|--|
| OUT FOR APPROVAL  | 2-2-cd  |             |     |        |              |             |            |      |     |         |             |       |  |  |  |  |  |  |  |
| OUT FOR APPROVAL  |   |             |     |        |              |             |            |      |     |         |             |       |  |  |  |  |  |  |  |
| ISSUED TO SHOP  |   |             |     |        |              |             |            |      |     |         |             |       |  |  |  |  |  |  |  |
| FIELD & OFFICE  |   |             |     |        |              |             |            |      |     |         |             |       |  |  |  |  |  |  |  |
| REV.  | REMARKS   | DATE        | DWN | CHK    | APP          | Q.A.        | NO.        | DIA. | LGT | TYPE    | WASHER      |       |  |  |  |  |  |  |  |
| MATERIAL:   | M270 GR 50W   | ELECTRODES: |     | HOLES: | 15/16 Ø (UN) | SHOP BOLTS: | 7/8 Ø (UN) |      |     |         |             |       |  |  |  |  |  |  |  |
| SURFACE PREP. & PAINT:<br>-STEEL WITHIN 10'-0 OF ABUT 1 SHALL BE PAINTED (SEE GNI)<br>-ALL OTHER STEEL SHALL BE BLAST CLEANED AND LEFT UNPAINTED. |   |             |     |        |              |             |            |      |     |         |             |       |  |  |  |  |  |  |  |
| DESCRIPTION:  | CALCULATION PLAN  |             |     |        |              |             |            |      |     |         | DRAWN BY    | DATE  |  |  |  |  |  |  |  |
| JOB:  | BRIDGE NO. 43S<br>1-89 SB OVER U.S. ROUTE 2<br>1-89 IMPROVEMENTS<br>TOWN OF MIDDLESEX-BOLTON, VERMONT |             |     |        |              |             |            |      |     |         | WL          | 01/12 |  |  |  |  |  |  |  |
| TENSOR 2105-S   |   |             |     |        |              |             |            |      |     |         | CHKD BY     |       |  |  |  |  |  |  |  |
|   |   |             |     |        |              |             |            |      |     |         | WMJ         | 01/15 |  |  |  |  |  |  |  |
|   |   |             |     |        |              |             |            |      |     |         | APPROV BY   |       |  |  |  |  |  |  |  |
|   |   |             |     |        |              |             |            |      |     |         | H. J. GATTI |       |  |  |  |  |  |  |  |
| PROJ NO.  | 1M-089-2(26)  |             |     |        |              |             |            |      |     |         | Q.A.        |       |  |  |  |  |  |  |  |
| CUSTOMER: VERMONT AGENCY OF TRANSPORTATION  |   |             |     |        |              |             |            |      |     |         |             |       |  |  |  |  |  |  |  |
| <b>CASCO BAY STEEL STRUCTURES, INC.</b>   |   |             |     |        |              |             |            |      |     | JOB NO. | DRG. NO.    |       |  |  |  |  |  |  |  |
| 75 SPRING HILL ROAD SACO, MAINE 04072   |   |             |     |        |              |             |            |      |     | 116-43S | WS102       |       |  |  |  |  |  |  |  |
| PHONE (207) 282-7360 FAX. (207) 282-1179  |   |             |     |        |              |             |            |      |     |         |             |       |  |  |  |  |  |  |  |
|   |   |             |     |        |              |             |            |      |     | REV.    | △           |       |  |  |  |  |  |  |  |