Stutzman's Crossing at Walnut Creek

Some Lessons Learned

David Rinehart, PE Richland Engineering Limited, Mansfield, OH



The previous bridge over Walnut Creek. The village of Walnut Creek is in the background.



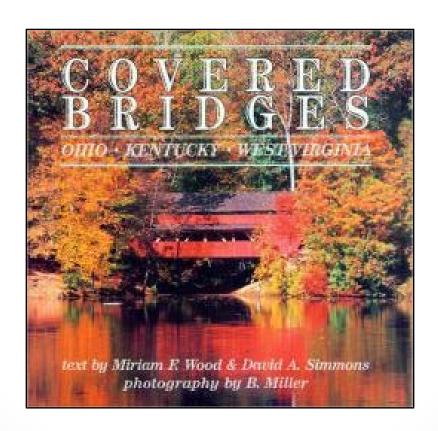


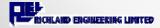
The bridge was in need of repair...or replacement.



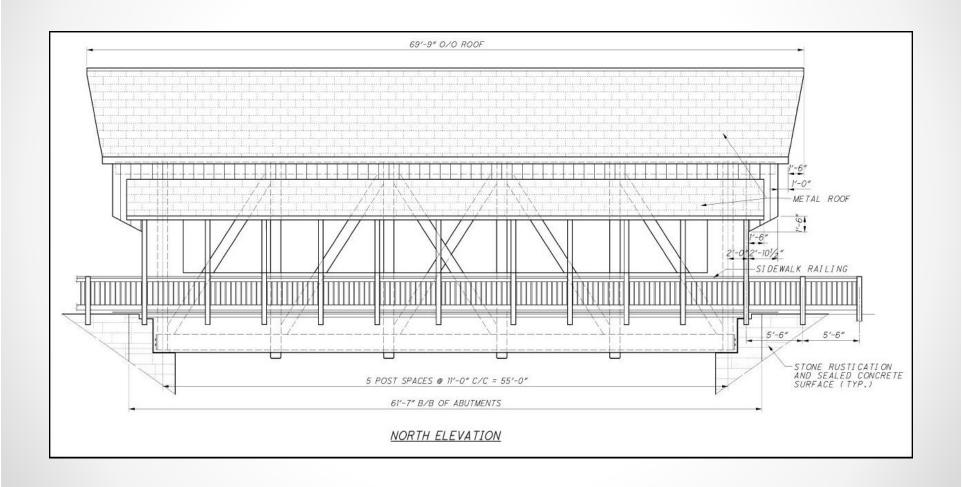


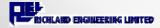
The County Engineer wanted a covered bridge that would qualify for the next edition of this book:



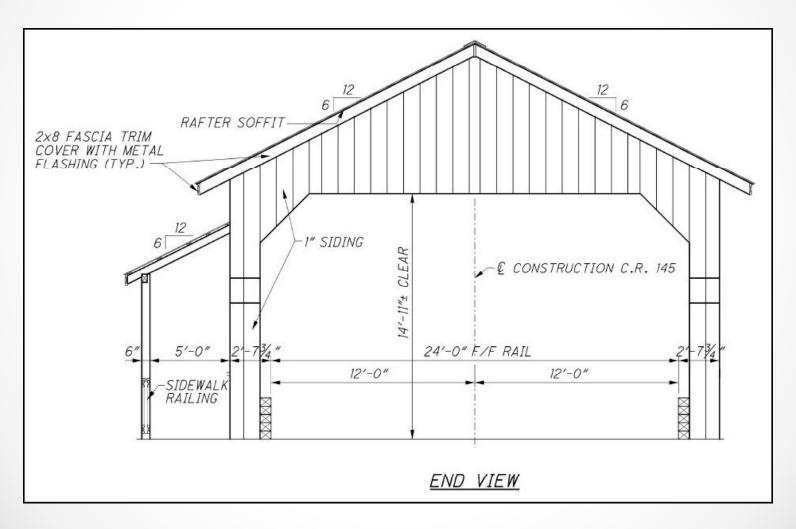


With that direction, we went to work...



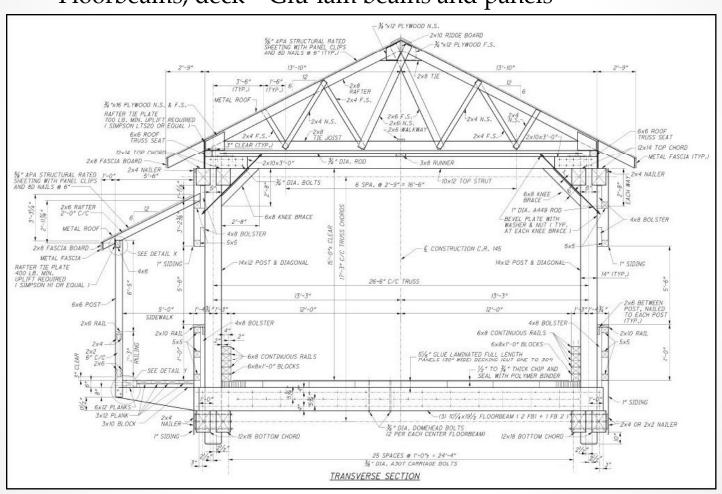


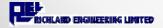
...and tried to meet the County Engineer's vision...





Trusses – Northern Red Oak from Holmes County Other framing – Southern Pine Siding – Cedar Floorbeams, deck – Glu-lam beams and panels





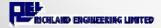
Ribbon-cutting ceremony – November 13, 2009





Opening Day Reception on the bridge





And the bridge was open to traffic!





One year later, people were worried about the sag.





Lesson 1: Timber connections settle into place over time





Lesson 1a: Even small settlements can yield a noticeable sag



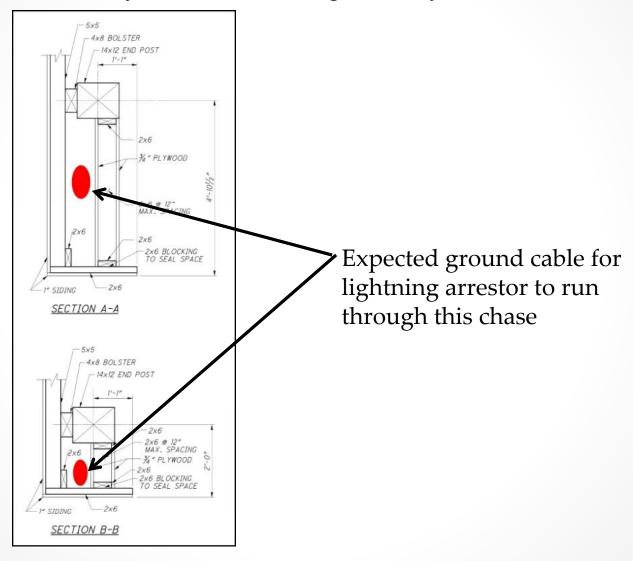


Lesson 2: Standard specifications don't cover non-standard work items

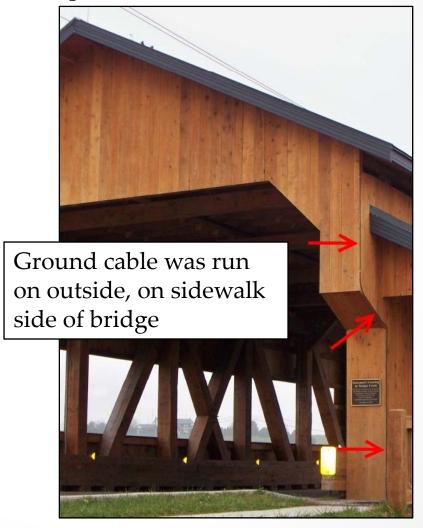
- We assumed the Contractor would submit shop drawings
- The ODOT Construction and Material Specifications requires shop drawings for structural members in steel and precast concrete but not timber
- We didn't get shop drawings

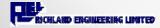
If you want shop (or fabrication) drawings for a covered bridge (or other non-standard bridge), spell it out in the general notes.

Lesson 3: If you want it done right, do it yourself

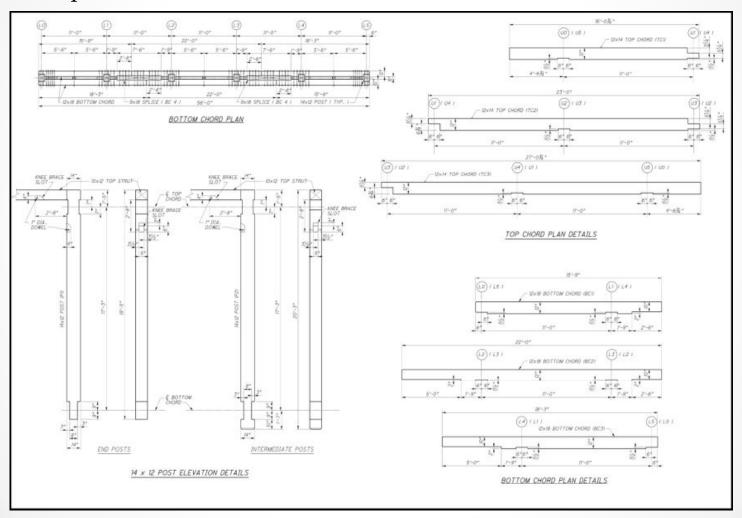


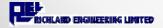
Lesson 3a: If you want the contractor to know what you are thinking, put it in the plans





Lesson 4: Don't provide too much detail...or be sure to provide all the details





Lesson 5: If it is not in the plans, it is (probably) not going to get done

- Frequent informal communication between Contractor, Owner, and Designer is a good thing
- Changes to the contract require formal, written communication (addendum, RFI, etc.)
- Oral (and even email) requests to do or include things will get a smile, a nod, and either ignored or forgotten

