

The Track Guy

NEWSLETTER

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Some Bid Results

Track Rehab, Brookings, SD

1. Railworks 2,071,500
2. L.A. Colo 2,246,600
3. Railroad Constructors 2,575,000

Track Rehab, Tiptonville, TN

1. Queen City 377,700
2. Railworks 406,800
3. Tenniken Railroad 428,900

Track Rehab, Williamsport, PA

1. Ohio Track 595,400
2. Acme Construction 633,300
3. Amtrac of Ohio 638,000

Track Rehab, Los Angeles, CA

1. Herzog 10,851,900
2. Veolia Transportation 10,987,300



Track Guy Consultants

Business is doing OK and we are grateful for that. Our one day seminar on Thermal Forces has done very well and many Contractors and Short Lines have used us to help train their employees. This is a very important part of the rail system to understand and can be catastrophic if not done properly. We talk about the proper method for adjusting CWR and how to spot those areas that may have a potential of buckling. We go over the formulas in a common sense format using basic mathematics to understand the forces that are involved and realize what we must do to restrain those forces. Sun Kinks can kill people and cause serious property damage. Just drop us an e-mail or give us a call if you want us to come to you and give the class.



All the dates have been set for our fall training tour. We decided to offer our Trackwork 101 seminar which is an overview and Trackwork 105 seminar which is about building and maintaining track. You can register for both or one seminar. Visit our website for more details and the registration form. We are offering a 4 for 3 discount. If you register 3 people for a course, you can add one more person for free. The dates and locations are as follows:

Oct. 6 & 7, Pittsburgh, Hilton Garden, Southpointe

Nov. 4 & 5, Dallas, Hilton Garden, Duncanville

Dec. 15 & 16, San Francisco, Hilton Garden, San Mateo

Give us a call if you have any questions. We do accept credit cards, checks and cash or we can send an invoice. Don't miss this opportunity to learn more about track. This is a perfect time to invest in your people. **Training is not an expense.**

Spotlight:

Direct Fixation Track

Direct Fixation or DF type track is a track form that uses



concrete as the supporting structure instead of crossties and ballast. It is typically used in the Light Rail arena on elevated guideways and in some cases slab on grade. It has been completely overlooked by the freight industry due to the excessive cost of construction. Several years ago we did an extensive study for the Portland Cement Association on DF track design, construction and maintenance. We were asked to help the contractor construct 2 test sections of DF track at the Pueblo Test Center. One configuration uses a twin block design and another uses Direct Fixation Fasteners. Over the last six years



they have been running 315,000 pound loads over the test sections. With over 200 MGT's both sections show no signs of deterioration except that the twin block section has seen a change in stiffness due to sand migrating between the rubber boot and the concrete tie. The sand has migrated to the bottom causing the track modules to increase. The section using the Advanced Track Loadmaster has experienced no change in stiffness. The test sections were built to Class 9 (yes, I said class 9) Standards or 200 mph freight trains. The ride quality on DF track is absolutely amazing since the stiffness can be set to any parameter based on the loads. What a great application for High Speed or Heavy Haul unit trains coming out of the Powder River Basin.

For shared track, a ganuntlet configuration could be built with 2 stiffness's and 2 different super-elevations. Now to the cost issue. In our extensive research for the Portland Cement Report we found that slip form machines capable of



achieving a production rate of 4-feet per minute where not out of line and some experts said 8 feet is easy. Using the 4-foot production, achieving 2,000 feet per day is easy. That is for finished track; no dumping ballast or tamping etc. The initial cost of construction will be high at about \$225.00 per track foot. New ballasted track is about \$175.00 per track foot to construct. Ballasted track will carry about a \$15 per track foot annual maintenance cost where DF track will be about \$0.80 per track foot. Doing the math shows that the DF track pays for itself in 4 years and the savings keep going. Just imagine no tampers or regulators etc.



