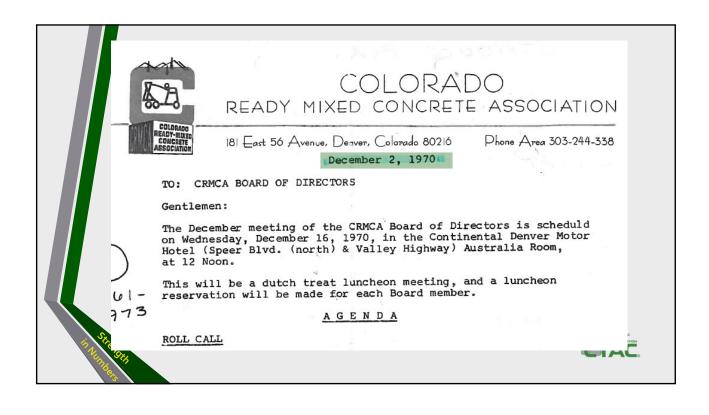


MINUTES OF NOVEMBER 13 & 14 MEETINGS AS PER ENCLOSED COPY

HIGHWAY DEPARTMENT SPECIFICATIONS PROBLEMS

Plans are in the making - and probably will be activated before the December Board meeting - to determine our industry's position, also that of the Colo. Sand & Gravel Producers Association, on recent difficulties with the Colo. Department of Highways in their exacting penalties on producers for in-place concrete purported to be outside of tolerances - with possible inconsistencies in sampling and testing procedures. Representatives of both Associations will meet prior to the Board meeting, and possibly will come up with a recommended plan of action for the Board's decision.





Not Just in Colorado... National NRMCA Survey from 1997 List of 15 Highest Rated Problems 1 Quality Assurance - Improper handling and curing of cylinders 2 Quality Assurance - Tests of fresh concrete at the job 3 Mixing & Delivery - Control of air content 4 Quality Assurance - Lack of qualified testing technicians 5 Proportioning - Quality and uniformity of local materials 6 **Proportioning** - Selection of optimum proportions (cement, fly ash, admixtures) 7 Mixing & Delivery - Control of slump 8 Records of Test Results - Obtaining test results for commercial labs/agencies 9 Specification Problems - Conflicting w/c ratio - performance requirements 10 Raw Materials Variability - Aggregates 11 Quality Assurance - Compressive strength testing 12 Raw Materials Variability - Lack of communication from suppliers on changes in product 13 Raw Materials Variability - Cement 14 Customer Complaints - Plastic Concrete - Plastic shrinkage cracking / crusting 15 Specification Problems - Unreasonable performance requirements





