

11. HPC SPECIFICATIONS

The Louetta Road project was let under the 1982 Texas specifications with modifications to the sections dealing with concrete structures, portland cement concrete, and prestressed concrete structural members. The following text was extracted from the General Notes and Specification Data.

STRUCTURE MONITORING

THE RESEARCHERS WILL DEVELOP A FIELD MEASURING PROGRAM IN ORDER TO MONITOR THE STRUCTURAL PERFORMANCE OF THE BRIDGE AND ITS COMPONENTS. THE CONTRACTOR WILL NEED TO MAKE AVAILABLE SELECTED COMPONENTS FOR ATTACHMENT OF EXTERNALLY MOUNTED MEASUREMENT DEVICES. IT IS NOT ANTICIPATED THAT THE INSTALLATION OF EQUIPMENT OR THE COLLECTION OF DATA WILL CAUSE ANY SIGNIFICANT DELAYS OR WORK STOPPAGES FOR THE CONTRACTOR.

ITEMS 426, 421, 425 AND 6734.

USE OF EXTRA-HIGH-STRENGTH CONCRETE FOR BRIDGE STRUCTURES. THIS STUDY IS CO-SPONSORED BY THE FEDERAL HIGHWAY ADMINISTRATION AND THE TEXAS DEPARTMENT OF TRANSPORTATION. THE INVESTIGATION TEAM IS FROM THE CENTER FOR TRANSPORTATION RESEARCH OF THE UNIVERSITY OF TEXAS. THE SUCCESS OF BOTH THE RESEARCH AND THE CONSTRUCTION PROJECT REQUIRES THAT THE INVESTIGATING TEAM [RESEARCHERS] PLAY AN INTEGRAL PART IN THE CONSTRUCTION PROCESS AND THAT THE CONTRACTOR AND SUBCONTRACTOR COOPERATE FULLY WITH THE RESEARCHERS. THE FOLLOWING SECTION DESCRIBES SPECIAL CONSIDERATION REQUIRED OF THE CONTRACTOR AND OUTLINES THE ROLE OF THE RESEARCHERS IN VARIOUS ASPECTS OF THE CONSTRUCTION PROCESS.

COORDINATION OF WORK WITH THE CONTRACTOR

ALL ASPECTS OF THE INVESTIGATING TEAM'S WORK WILL BE COORDINATED WITH THE CONTRACTOR. AFTER LETTING, A PRECONSTRUCTION MEETING WILL BE SCHEDULED BETWEEN THE RESEARCHERS, SPONSORS, AND THE CONTRACTOR, INCLUDING PERTINENT SUBCONTRACTORS. DURING CONSTRUCTION, COORDINATION BETWEEN THE INVESTIGATING TEAM AND THE CONTRACTOR'S REPRESENTATIVES WILL BE REQUIRED TO ENSURE IMPLEMENTATION OF THE NECESSARY MEASURES FOR DESIGN AND CONTROL OF HIGH STRENGTH CONCRETE.

CONCRETE MIX DEVELOPMENT

THE RESEARCHERS WILL PROVIDE TECHNICAL EXPERTISE TO TO THE CONTRACTOR IN DEVELOPING AND EVALUATION THE HIGH STRENGTH CONCRETE (f'_c GREATER THAN OR EQUAL TO 8000 PSI) MIX DESIGNS USED FOR THE LOUETTA RD. OVERPASS STRUCTURES. THE DESIGN AND CONTROL OF THE HIGH STRENGTH CONCRETE SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS, SPECIAL PROVISIONS AND CONTRACT PLANS. EMPHASIS WILL BE GIVEN TO USING THE LOCAL MATERIALS AVAILABLE AS PROPOSED BY THE CONTRACTOR. HOWEVER, HIGHER QUALITY MATERIALS THAN ARE AVAILABLE LOCALLY MAY BE REQUIRED TO MEET MINIMUM STRENGTH AND MODULUS CRITERIA.

LABORATORY AND FIELD TESTING

DURING THE TRIAL MIX PHASE OF THE HIGH STRENGTH CONCRETE MIX DESIGN, AND FOR CONTROL OF THE CONCRETE DURING CONSTRUCTION/FABRICATION, CONCRETE SPECIMENS IN ADDITION TO THOSE REQUIRED BY THE SPECIFICATIONS/CONTRACT PLANS WILL BE MADE BY THE RESEARCHERS AND/OR TxDOT PERSONNEL. THE CONTRACTOR SHALL MAKE THE NECESSARY PROVISIONS TO ALLOW ADEQUATE SAMPLING OF THE CONCRETE.

ITEM 437: CONCRETE ADMIXTURES

HIGH RANGE WATER REDUCERS WILL BE USED ONLY TO MEET SPECIAL REQUIREMENTS AND WILL REQUIRE THE WRITTEN APPROVAL OF THE ENGINEER ON EACH SPECIFIC PROJECT. A SATISFACTORY WORK PLAN FOR CONTROL SHALL BE SUBMITTED BY THE CONTRACTOR FOR APPROVAL AND AN EVALUATION OF THE CONCRETE CONTAINING THE ADMIXTURE WILL BE PERFORMED BY THE ENGINEER. WHEN DIRECTED BY THE ENGINEER, AN APPROVED RETARDER AT THE DOSAGE SPECIFIED BY THE ENGINEER SHALL BE USED.