Transportation

Kentucky Transportation Center Research Report

University of Kentucky

Year 1972

Chronological Listing of Research Reports

Division of Research, Kentucky Department of Highways

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Research Report
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CHRONOLOGICAL LISTING
OF
RESEARCH REPORTS

issued by
Division of Research

DEPARTMENT OF HIGHWAYS
Commonwealth of Kentucky

January 1972
1939


2. Cooperative Investigation of Joint Spacing in Concrete Pavements, Campbell, Louis.


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4. An Outline of Prospective Research, Gregg, L. E.; December.

5. Summary Report of Concrete Investigations in Research Projects C-1, C-2, C-3, and C-17, Collier, S. T.; December.

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15. Outline of Proposed Study of Sand Used as Concrete Fine Aggregates, March.


19. A Summary of Experiments with Air Entrainment in Cement Concrete, September.


Memorandum Report on Research with Mulches for Roadside Grasses, March.


Bond Characteristics of Commercial and Prepared Reinforcing Bars, Collier, S. T.; March; also Journal of the American Concrete Institute, Vol 18, No 10, June.


Porous Backfill, Baker, R. F.; March.

Interim Report on Experiments with Western Kentucky Bank Gravel in Bituminous Concrete, June.

Report No. 1 on an Experiment with Expanded-Metal Integrating Mats in Bituminous Concrete Pavements, September.


Outline of Research Proposed for a Study of the Relationship between Subgrade California Bearing Ratios and Pumping of Rigid Pavements, April.

Supplementary Report No. 1 on Experiments with Air Entrainment in Cement Concrete, October; also Experiments with Air Entrainment in Cement Concrete, Gregg, L. E.; Bulletin No. 5, Engineering Experiment Station, University of Kentucky, September.

Memorandum Report on ReflectORIZING Surfaces for Signs and Markers, Gregg, L. E.; January.


Memorandum Report on Cold-Applied Mastic-Type Crack and Joint Filler Compound, Gregg, L. E.; May.


A Laboratory Investigation of Mineralogical, Chemical and Physical Properties of Limestone Aggregates, Young, J. L., Jr.; Havens, J. H.; and Gregg, L. E.; December; also Abstracts, Highway Research Board, Vol 19, No 6, June 1949.


Memorandum Report on Maintenance Installation of Cold Mastic Joint Filler on KY 50 in Fayette County, Gregg, L. E.; February.

An Examination of Equipment for Preventing Segregation in Storage of Coarse Aggregates, Collier, S. T.; February.


47. Progress Report No. 4 on Cooperative Investigation of Joint Spacing in Concrete Pavements, Collier, S. T.; July.


50. Memorandum Report on Study of Acid Water Conditions in Kentucky, Gregg, L. E.; December.


52. Report No. 2 on a Concrete Pavement without Transverse Joints, Drake, W. B.; December.


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56. Determination of Unit Weights of Aggregates in the Laboratory and at the Source, Collier, S. T.; February.


58. Report No. 1 on Test Sections, BPR Project on Correlation of Truck Traffic and Pavement Conditions, September.


64. Report No. 3 on a Concrete Pavement without Transverse Joints, Drake, W. B.; February.


67. Memorandum Report on Proposed Specification Class I, Type C and Blade Spreading Hot Mixes, Gregg, L. E.
68. **Final Report on Evaluation of Plant Mix Surface Treatments by Road Test Sections**, Drake, W. B.; July.


70. **Memorandum Report on Vibration Compaction of Base Courses**, November.


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75. **Report No. 1 on a Bank Gravel Base Containing Calcium Chloride**, Drake, W. B.; February.


81. **Memorandum Report on Vibratory Compaction of Base Courses**, November.

82. **Observation on Seal Coats, Tack Coats, Penetration Macadam, and Blade Spread Hot Mix in 1951**, Drake, W. B. and Field, H. J., Jr.; December.


85. **A Compendium on Class I, Type C Mixes**, Williams, E. G.; December.

86. **Progress Report No. 2 on a Survey of Acidity in Drainage Waters and the Condition of Highway Drainage Installations**, Havens, J. H.; December.

87. **Report No. 4 on a Concrete Pavement without Transverse Joints**, Drake, W. B.; December.

88. **Report No. 2 on a Bank Gravel Base Containing Calcium Chloride**, Drake, W. B.; December.

89. **Report No. 2 on an Investigation of Lean Concrete Mixes as Base Courses for Bituminous Surfaces**, Sawyer, D. H.; December.
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90. Report No. 2 on a Test Road for the Evaluation of Sandstone as an Aggregate in Plant-Mix Bituminous Pavements, Williams, E. G.; April.

91. Applications of Geology to Highway Engineering in Kentucky, Gregg, L. E. and Havens, J. H.; February.

92. Report No. 1 on Vibratory Compaction of a Macadam Base, Williams, E. G.; December.


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96. Pavement Investigation, Middletown-Eastwood Portion of U. S. 60 Louisville-Shelbyville Road, Drake, W. B.; June.


100. Application of Wire Mesh Reinforcement to Asphalitic Concrete Pavement Overlays, Franklin-Shelby County Project FI 172(12), Williams, E. G.; December.

101. Memorandum Report on Inspection of Full Depth Modified Dense-Graded Aggregate Base, Plant Mixed (Tennessee Project), Drake, W. B.; December.


103. Roughness as a Factor in Culvert Hydraulics, West, E. M.; December.


1955


109. Observations of Stabilized Turf Shoulders, Warren County Project No. 1 16(2) and 1 113(5) U. S. 31W and U. S. 68 Bowling Green-Cave City Road, Williams, E. G.; November.

110. Observations of the Manufacture and Placement of Prefabricated Bridge Sections and Precast Concrete Riprap, Sawyer, D. H.; December.


114. Model Study of Flow through Culverts, West, E. M.; March; also Bulletin No. 40, Engineering Experiment Station, University of Kentucky, June.

115. Kentucky Soils: Their Origin, Distribution and Engineering Properties, Deen, R. C.; March; also Bulletin No. 40, Engineering Experiment Station, University of Kentucky, June.

116. The Application of Kentucky Flexible Pavement Design Method to WASHO Test Road Conditions, Drake, W. B.; March; also Bulletin No. 40, Engineering Experiment Station, University of Kentucky, June.


119. A Field and Laboratory Examination of Weathering Effects on Petroleum and Blended Petroleum-Natural Asphalts in Paving Mixtures, Williams, E. G.; November.


121. A Survey Inspection of Plain Corrugated Metal Pipe Arches and Multi-Plate Metal Pipe Arches in Kentucky, West, E. M.; March.


123. Ten Rural Highway Base Stabilization Projects, Havens, J. H. and Drake, W. B.; August.

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125. Comparative Laboratory Evaluation and Field Observations of a Modified Class I Base, Strunk, L. H.; February.


129. Differential Thermal Analysis of the Freeze-Thaw Mechanisms in Concrete, Havens,


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**137. Dense Graded Aggregate Base Development**, Drake, W. B.; April; prepared for presentation at the 16th Annual Meeting of Kentucky Crushed Stone Association.


**143. The Use of Epoxy Resin for Sealing Cracks in a Reinforced Concrete Bridge**, Evans, Milton, Jr.; July.

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152. Report on Investigation of Concrete Pavement U. S. 60 between Versailles and Frankfort, Drake, W. B.; June.


154. Experimental Paving Projects Using Curtiss-Wright's Coal-Modified, Coal-Tar Binder, Hardyman, J. F.; June; also Kentucky's Bituminous Pavement Research on Modified Coal Tar, Drake, W. B.; Bulletin No. 56, Engineering Experiment Station, University of Kentucky, June 1960.

155. A Discussion of the Durability of Expanded Shale Aggregate for Exposed Concrete Structures (Bridges), Havens, J. H.; November.

156. Pavement Friction, Rizenbergs, R. L.; Kentucky Engineer, Vol 22, No. 4, May. 1961

157. Evaluation of Vibratory Roller for Use in Compacting Bituminous Concrete Mixes, Deen, R. C.; February.

158. Performance Report on Application of Wire Mesh Reinforcement to Asphaltic Concrete Pavement Overlays, Franklin-Shelby County Project FI 172(12), Deen, R. C. and Florence, R. L.; February.

159. Experimental Paving Project Using Curtiss-Wright's Coal-Modified, Coal-Tar Binder (First Year Performance), Hardyman, J. F.; March; also Bulletin No. 60, Engineering Experiment Station, University of Kentucky, June 1961.


163. Analysis of Pavement Roughness, Rizenbergs, R. L.; March.


173. Experimental Paving Projects Using Curtiss-Wright's Coal-Modified, Coal-Tar


187. *Base Stabilization Bryantsville-Buena Vista Road, Garrard County, RS 40-26*, Deen, R. C.; February.


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<td>Kentucky Highway Research Program, Havens, J. H. and Deen, R. C.; March; also Bulletin No. 73, Engineering Experiment Station, University of Kentucky, September 1964.</td>
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<td>Weighing Vehicles in Motion, April.</td>
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<td>A Laboratory Investigation of the Properties of Coal-Bitumed Paving Mixtures, Howard, G. G.; February; also thesis, MSCE, University of Kentucky, 1964; also Bulletin 71, Engineering Experiment Station, University of Kentucky, March 1964.</td>
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<td>Memorandum Report on Construction of a Class I, Type A Surface Containing Paradise Aggregate (Experimental), Drakesboro-Paradise Road (KY 176); SP 89-43-68, Florence, R. L.; October.</td>
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<td>Memorandum Report on Manufactured (Crushed), Limestone, Fine Aggregate for Portland Cement Concrete; Proposed Special Provision, Havens, J. H.; October.</td>
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Guardrail Installations and Performance Studies, Havens, J. H.; November.

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224. Freeze-Thaw Characteristics of Aggregates, Laughlin, G. R.; Scott, J. W.; and Havens, J. H.; March; also Bulletin No. 76, Engineering Experiment Station, University of Kentucky, September 1965.


226. Insulation of Concrete Bridge Decks, Mossbarger, W. A., Jr.; July.

227. Weighing Vehicles in Motion, September.


230. Obtaining Highway Engineering Services from Professional Engineers in Private Practice, Shaver, R. E. and Hutchinson, J. W.; December.


236. Basic Criterion for Determining Design Loads on Box and Pipe Culverts, Havens, J. H.; Deen, R. C.; and Hughes, R. D.; June.


238. Engineering Properties of Kentucky Soils, Deen, R. C.; August.


241. Triaxial and Consolidation Test Procedures, October.


244. Impact of I-75 on the Local Economy between Walton and Georgetown, Deen, R. C.; February.

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245. Highway Construction in Windblown Silts of Western Kentucky, Deen, R. C.; January.


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254. The Crab Orchard and Osgood Formations, the Case for Slope Instability, Deen, R. C.; April.

255. Construction and Performance of Trial Sections of Treated Shoulders on the Mountain Parkway Extension, Florence, R. L. and Hopkins, T. C.; June.


261. Experimental Applications of Protective Coatings to Shales Exposed in Highway Cuts, Havens, J. H.; August.

262. Performance of a Reinforced Concrete Pipe Culvert under Rock Embankment, Deen, R. C.; August; also Record 262, Highway Research Board, 1969.

263. Equivalent Axleloads for Pavement Design, Deacon, J. A. and Deen, R. C.; August; also Record 291, Highway Research Board, 1969.


266. Landslides in Kentucky, Deen, R. C. and Havens, J. H.; September; presented at Landslide Seminar, University of Tennessee, September 18-20, 1968.

267. I 75, Kenton County Slide, Southgate, H. F.; September.

268. Proposed Experimental Design and Construction Features, Boyd County, SP 10-165-23L, Cannonsburg -- Ashland Road (US 60), October.


270. Flexible Pavement Design Criterion, December.

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272. Rational Design of Bituminous Concrete Pavements, Southgate, H. F.; Deen, R. C.; and Havens, J. H.; February.


276. Lateral Distribution of Traffic on a Four-Lane and Six-Lane Section of I 75 South of Covington, Lynch, R. L. and Hamby, G. N.; June.


283. Selected Features of Kentucky Geology from Lexington to Pineville, Southgate, H. F.; Hopkins, T. C.; and Scott, G. D.; October.

284. Weighing Vehicles in Motion, University of Kentucky Research Foundation; November.


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286. An Investigation of Low-Strength Concrete and Resulting Structural Failure in a Bridge Deck, Havens, J. H.; February.


289. Slip-Form Paving, Magan, K. P.; February.


294. Legal Aspects and Guidelines Pertaining to Drainage of Surface Waters, McLellan, D. W., Jr. and Fox, Victor, April.


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<td>Experimental Concrete Pavement Containing Fly-Ash Admixtures; I-64-2(72)18 and F 552(15), Philpot, J. R.; April.</td>
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<td>Development of an Electronic Means of Weighing Vehicles in Motion,</td>
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