Nysdot Highway Design Manual Chapter 21

Roadside Design GuideA Policy on Design Standards--interstate SystemAashtoA Policy on Geometric Design of Highways and Streets, 2011AASHTOStreet Design Manual

This guide is about designing highways that incorporate community values and are safe, efficient, effective mechanisms for the movement of people and goods. It is written for highway engineers and project managers who want to learn more about the flexibility available to them when designing roads and illustrates successful approaches use in other highway projects.

"The Street Design Manual is New York City's comprehensive resource on street design guidelines, policies, and processes. It aggregates a broad range of resources--from nationally recognized engineering and design guidelines and standards to federal, state, and local laws, rules, and regulations--to provide information on treatments that are allowed and encouraged on New York City streets. The Manual's intended audience is diverse, consisting of design professionals, city agencies and officials, community groups, and private developers."--Introduction.

The purpose of this document is to identify and provide design guidelines for bridge scour and stream instability countermeasures that have been implemented by various State departments of transportation (DOTs) in the United States. Countermeasure experience, selection, and design guidance are consolidated from other FHWA publications in this document to support a comprehensive analysis of scour and stream instability problems and provide a range of solutions to those problems. The results of recently completed National Cooperative Highway Research Program (NCHRP) projects are incorporated in the design guidance, including: countermeasures to protect bridge piers and abutments from scour; riprap design criteria, specifications, and quality control, and environmentally sensitive channel and bank protection measures. Selected innovative countermeasure concepts and guidance derived from practice outside the United States are introduced. In addition, guidance for the preparation of Plans of Action ...

This report details the design, construction and testing of a type III barricade constructed of three inch polyvinyl chloride conduit.

The NACTO Urban Street Design Guide shows how streets of every size can be reimagined and reoriented to prioritize safe driving and transit, biking, walking, and public activity. Unlike older, more conservative engineering manuals, this design guide emphasizes the core principle that urban streets are public places and have a larger role to play in communities than solely being conduits for traffic. The well-illustrated guide offers blueprints of street design from multiple perspectives, from the bird’s eye view to granular details. Case studies from around the country clearly show how to implement best practices, as well as provide guidance for customizing design applications to a city’s unique needs. Urban Street Design Guide outlines five goals and tenets of world-class street design: • Streets are public spaces. Streets play a much larger role in the public life of cities and communities than just thoroughfares for traffic. • Great streets are great for business. Well-designed streets generate higher revenues for businesses and higher values for homeowners. • Design for safety. Traffic engineers can and should design streets where people walking, parking, shopping, bicycling, working, and driving can cross paths safely. • Streets can be changed. Transportation engineers can work flexibly within the building envelope of a street. Many city streets were created in a different era and need to be reconfigured to meet new needs. • Act now! Implement projects quickly using temporary materials to help inform public decision making. Elaborating on these fundamental principles, the guide

offers substantive direction for cities seeking to improve street design to create more inclusive, multi-modal urban environments. It is an exceptional resource for redesigning streets to serve the needs of 21st century cities, whose residents and visitors demand a variety of transportation options, safer streets, and vibrant community life.

State transportation agencies are increasingly tasked with doing more with less in managing highway transportation networks. The TRB National Cooperative Highway Research Program's NCHRP Research Report 923: Workforce Optimization Workbook for Transportation Construction Projects provides state transportation agencies with guidance to identify their construction staffing needs and how to best allocate their state or consultant engineering and inspection staff and consultant resources to highway construction projects. The guidance provides 35 specific staffing strategies that may help alleviate construction staff challenges.

Developed as a more detailed follow-up to a 2009 briefing document, Building Sustainable Pavement with Concrete, this guide provides a clear, concise, and cohesive discussion of pavement sustainability concepts and of recommended practices for maximizing the sustainability of concrete pavements. The intended audience includes decision makers and practitioners in both owner-agencies and supply, manufacturing, consulting, and contractor businesses. Readers will find individual chapters with the most recent technical information and best practices related to concrete pavement design, materials, construction, use/operations, renewal, and recycling. In addition, they will find chapters addressing issues specific to pavement sustainability in the urban environment and to the evaluation of pavement sustainability. Development of this guide satisfies a critical need identified in the Sustainability Track (Track 12) of the Long-Term Plan for Concrete Pavement Research and Technology (CP Road Map). The CP Road Map is a national research plan jointly developed by the concrete pavement stakeholder community, including Federal Highway Administration, academic institutions, state departments of transportation, and concrete pavement-related industries. It outlines 12 tracks of priority research needs related to concrete pavements. CP Road Map publications and other operations support services are provided by the National Concrete Pavement Technology Center at Iowa State University. For details about the CP Road Map, see www.cproadmap.org/index.cfm.

This report contains guidelines and recommendations for managing and designing for friction on highway pavements. The contents of this report will be of interest to highway materials, construction, pavement management, safety, design, and research engineers, as well as others concerned with the friction and related surface characteristics of highway pavements.

The completely revised and extended Recommendations deal with all questions relevant to the planning and dimensioning of geosynthetics-reinforced earth structures. In addition to the demands on materials and analysis principles, the applications of geosynthetics in a range of foundation systems, ground improvement measures, highways engineering projects, in slopes and retaining structures, and in landfill engineering are discussed. The Recommendations have been supplemented by the following sections: - reinforced earth structures over point or linear bearing elements, - foundation systems using geotextile-encased columns, - bridging subsidence, - dynamic actions of geosynthetic-

reinforced systems. The remaining sections have been fundamentally revised and updated in line with current standards and codes of practice.

TRB's National Cooperative Highway Research Program (NCHRP) Report 672: Roundabouts: An Informational Guide - Second Edition explores the planning, design, construction, maintenance, and operation of roundabouts. The report also addresses issues that may be useful in helping to explain the trade-offs associated with roundabouts. This report updates the U.S. Federal Highway Administration's Roundabouts: An Informational Guide, based on experience gained in the United States since that guide was published in 2000.

NACTO's Urban Bikeway Design Guide quickly emerged as the preeminent resource for designing safe, protected bikeways in cities across the United States. It has been completely re-designed with an even more accessible layout. The Guide offers updated graphic profiles for all of its bicycle facilities, a subsection on bicycle boulevard planning and design, and a survey of materials used for green color in bikeways. The Guide continues to build upon the fast-changing state of the practice at the local level. It responds to and accelerates innovative street design and practice around the nation.

"Since the publication of the first edition of the Access Management Manual, the context for transportation planning and roadway design in the United States has been transformed. Transportation agencies and local governments are under growing pressure to integrate land use and transportation policy and achieve a more sustainable, energy-efficient transportation system. This second edition of the manual responds to these developments by addressing access management comprehensively, as a critical part of network and land use planning. The content is interdisciplinary, with guidance pertinent to various levels of government as well as to pedestrians, bicyclists, and motorized vehicles, including trucks and buses, and is strongly grounded in decades of research, engineering science, and professional experience. Greater emphasis is placed on appropriate location of access, and guidance is refined to provide appropriate consideration of context and community issues. Substantial updates aid state and local agencies in managing access to corridor development effectively. Specific guidance on network and circulation planning and modal considerations is included, as well as guidance on effective site access and circulation design. A chapter on corridor management reinforces these concepts with a framework for application of access management in different contexts, along with appropriate strategies for each context. There are also new chapters on network planning, regional access management policies and programs, interchange area access management, auxiliary lane warrants and design, and right-of-way and access control. The manual concludes with an extensive menu of access management techniques and information on their application"--Provided by publisher.

This volume addresses the multi-disciplinary topic of engineering geology and the environment, one of the fastest growing, most relevant and applied fields of research and study within the geosciences. It covers the fundamentals of geology

and engineering where the two fields overlap and, in addition, highlights specialized topics that address principles, concepts and paradigms of the discipline, including operational terms, materials, tools, techniques and methods as well as processes, procedures and implications. A number of well known and respected international experts contributed to this authoritative volume, thereby ensuring proper geographic representation, professional credibility and reliability. This superb volume provides a dependable and ready source of information on approximately 300 topical entries relevant to all aspects of engineering geology. Extensive illustrations, figures, images, tables and detailed bibliographic citations ensure that the comprehensively defined contributions are broadly and clearly explained. The Encyclopedia of Engineering Geology provides a ready source of reference for several fields of study and practice including civil engineers, geologists, physical geographers, architects, hazards specialists, hydrologists, geotechnicians, geophysicists, geomorphologists, planners, resource explorers, and many others. As a key library reference, this book is an essential technical source for undergraduate and graduate students in their research. Teachers/professors can rely on it as the final authority and the first source of reference on engineering geology related studies as it provides an exceptional resource to train and educate the next generation of practitioners.

Speeding is the number one road safety problem in a large number of OECD/ECMT countries. It is responsible for around one third of the current, unacceptably high levels of road fatalities. Speeding has an impact not only on accidents but also on the ...

TRB’s National Cooperative Highway Research Program (NCHRP) Synthesis 424: Engineering Economic Analysis Practices for Highway Investment explores how U.S. transportation agencies have applied engineering economics--benefit–cost analyses and similar procedures--to decisions on highway investments.

Manual contains 1971 rules, standards, and specifications adopted by the Federal Highway Administration for traffic control devices on all streets and highways along with the Nebraska Dept. of Roads additions and interpretations to these national standards.