

U.S. Department of Housing and Urban Development
Office of Policy Development and Research

**PROPOSED MODEL LAND
DEVELOPMENT STANDARDS
DISSEMINATION ACTIVITY**

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Prepared for:

U.S. Department of Housing and Urban Development
Office of Policy Development and Research

Prepared by:

NAHB Research Center
Upper Marlboro, MD

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Office of Policy Development and Research

MODEL LAND DEVELOPMENT STANDARDS

DISSEMINATION ACTIVITY

The *Proposed Model Land Development Standards and Accompanying Model State Enabling Legislation 1993 Edition* was prepared by the NAHB Research Center for the U.S. Department of Housing and Urban Development. The *Standards* were prepared under the direction of HUD with review and input provided by an expert group in the land development industry representing both the public and private sectors. Preparation of the document began in March, 1992 and publication was completed in June, 1993. Following publication, the Research Center prepared a dissemination plan to publicize the work and solicit comments which could lead to improvements in the *Standards*. This report is a summary of the dissemination activities undertaken by the Research Center and the comments which were received.

The Research Center announced the availability of the *Standards* through advertisements in *Builder* magazine and *Nations Building News*, through NAHB and state and local Home Builder Associations, and through the organizations represented on the Expert Group. Over 1,100 copies of the standards were distributed to influential groups and organizations as summarized in Attachment A. The *Standards* were also available through HUD USER. Recipients of the *Standards* were encouraged to comment on specific technical issues addressed in the document and on the overall concept of uniform land development standards. (*Standards*, p.5) Attachment B reports each comment received by the Research Center including section reference, comment provider, and Research Center response/recommendation. Where further action is recommended to address a comment, the response from the Research Center in Attachment B is in bold typeface.

Several general comments were received which address the overall scope of the *Standards* and uniform land development regulation. Respondents cited, for example:

- lack of guidance on land use and "quality of life" issues such as open space, setbacks, landscaping, wetlands, streetscape, site furniture, site characteristics;
- too much attention to low-density conventional suburban design and not enough discussion of neo-traditional development or higher density urban housing;
- concern over loss of local flexibility, added regulation and bureaucracy with the potential to add costs;
- exclusion of "transit" standards (circulation, connectivity) and inadequate attention to bicycle usage;
- no mention of growth management regulations.

Comments on specific technical issues were also received. Examples of these issues include:

- a section is needed on lot grading, soils, siting of the house, slope control, mass grading;
- parking should be expanded to include space size for multifamily buildings and the latest ADA (and Fair Housing Accessibility Guidelines) requirements;
- commentary on wetlands should be included in the Storm Water Management section.

FURTHER RECOMMENDATIONS

If an updated edition of the standards is published in the future, the Research Center recommends accommodating some of the specific comments. However, due to the small number of comments received, neither additional meetings of the Expert Group nor revision of the *Standards* is recommended at this time.

The Research Center will continue to disseminate the *Standards* in response to requests, via our publications list, through local and state Home Builder Associations, and at seminars, workshops, or presentations, as appropriate, and will also distribute the comments and our recommendations to the Expert Group. Consideration by HUD should be given to minor revisions, up-dates, and additions to the *Standards* in 1995.

ATTACHMENT A

Proposed Model Land Development Standards and Accompanying Model State Enabling Legislation

A-1

MEETINGS/PRESENTATIONS	DATE
New Jersey Department of Community Affairs - Land Development Standards Task Force	Aug. 1993
ASCE Land Development Standards Committee (Chicago, IL) Standards presented along with New Jersey standard as models for standards to be developed by ASCE. Michael Bruen was the Research Center representative.	Aug. 7, 1993
NAHB Fall Board of Directors Meeting (Cincinnati, OH) presented to Land Developers Committee, Construction & Codes Committee, Research Center Board of Directors, and the NAHB Research Committee Standards were well-received. Approximately 100 requests for copies. Land Developers Committee will review and comment to Joe Molinaro (NAHB).	Sept. 19-22, 1993
ICMA Annual Conference (Nashville, TN) Land Development Standards Presentation (David Engel, Michael Bruen, Tom Muhlenbeck) Attendance—135 David Engel presented background on standards. Michael Bruen discussed development of the standards, areas covered, and examples. Tom Mullenbeck, City Manager of Plano, Texas, and an ICMA member, presented their opinions of the standards and expressed concern that communities retain the right to select their own land development standards and that variability between communities even within Texas makes a national or statewide code impractical. Open discussion followed. One attendee suggested the standards consider that curbs and street widths must facilitate snow removal and storage. Another suggested hillside development is a critical issue and should be addressed. Most comments reflected a concern that the standards would reduce city/county manager control in their community. The city administer of Jerome, Idaho, praised the standards and pointed out their usefulness to small communities.	Sept. 20, 1993
COSCEA Annual Conference presented to Hsg. Committee by Sally Moore	Sept. 19-22, 1993
NCSBCS Annual Conference presented to State Delegates by Bob Brown (50 active delegates)	Oct. 10-13, 1993
ULI Semi-Annual Meeting presentations by Tom Black and Scott Middleton	Nov. 2-6, 1993
Suburban Maryland Home Builders Association	Nov. 1993
Maryland Home Builders Association, Howard County Chapter	Nov. 10, 1993
West Virginia Home Builders Association Annual Convention presentation by Mark Nowak	Aug. 1993
Brunswick and Golden Isles, GA, HBA	Nov. 1993

ATTACHMENT B

Note: Bolded response items are recommended for consideration in future editions of the standards

SECTION AND COMMENT	COMMENT PROVIDER (company and/or address)	NAHB Research Center RESPONSE
<p>General: The centralization of development powers and the advocacy of ordinance powers will lead to higher costs, not lower. Those municipalities with more lenient standards will be required to write a tougher ordinance while those with a stricter ordinance will not lower their standards</p>	<p>James R. Harris James R. Harris Company, Inc. 6300 Ridglea Place, Suite 824 Fort Worth, TX 76116</p>	<p>These standards are an effort to combat certain local land development requirements which are excessive, unnecessary, or based on unsound engineering practices. It is acknowledged some less-regulated communities would be forced to meet new requirements if they adopted the standards without modification. The standards are a step toward reasonable uniform land development regulation.</p>
<p>General: In general we believe the standards are well written and presented. The only problem we have is that HUD is involved in the project. We have come to assume that anything that comes from the Federal Government will result in unfunded mandates for local governments.</p>	<p>William G. Foster, Sr. Thomas & Hutton Engineering Co. P.O. Box 14609 Savannah, GA 31416</p>	<p>The intent of the standards is to reduce costs for private industry and individuals. Adoption of the standards could only occur if acted upon by a state or local jurisdiction. Federal funding to create the standards allowed development of an unbiased document with representation of diverse public and private organizations to be prepared in a timely manner.</p>
<p>General: I would caution that you avoid prescriptive standards with regard to conceptual site planning. I do not believe this document does any such thing, but feel we must be vigilant to ensure site planning, the layout of streets, pedestrian ways, open space, and related land use features evolve as the result of specific site characteristics for each project and community.</p>	<p>Jeffrey Heller, AIA Heller & Leake Architects 221 Main Street San Francisco, CA 9410</p>	<p>Acknowledged. Specific planning and landscape standards were not included.</p>

SECTION AND COMMENT	COMMENT PROVIDER (company and/or address)	NAHB Research Center RESPONSE
<p>General: First, the standards should have some relationship to the variety of land uses which are to be regulated or promoted. It's interesting the model is more devoted to street and traffic design than land use issues. The standards do not address any of the concerns of affordable housing. Second, the stds do not address the subdivision - transit connection. Third, all examples are directed at low density suburban development. Fourth, stds should draw on experience of the Bicycle Federation of America for bike pathway facilities. Fifth, the stds do not address issues associated with growth management regulations. Sixth, stds seem to be developed for the land use tenure of the 1970's rather than 1990's and beyond. Seventh, legislative model which supersedes local regulations will not sit well with the associations of cities and counties.</p>	<p>Gary Molyneaux, PhD. President Molyneaux Associates, Inc. 5609 S.W. Manning Street Seattle, WA 98116</p>	<p>These comments are directed primarily at the scope and intent of the standards. While it is recognized that land use, growth management, and zoning play a critical factor in affecting the ability to provide affordable housing, these issues are beyond the scope of the standards. Also, the standards do not attempt to endorse or recommend any particular land planning agenda but attempt to provide reasonable regulations which can be applied to a variety of planning strategies.</p> <p>It is acknowledged that mandatory state adoption of the standards which would take regulatory power away from local governments would be objectionable to the associations of cities and counties.</p>
<p>General: I would recommend that another section be added to reflect the condition of lot grading, soils and siting of the house including standards for the mass grading that is common to the western states.</p>	<p>J. Lionel Harrison Regional Civil Engineer Dept. of Housing and Urban Dev. 450 Golden Gate Avenue San Francisco, CA 94102</p>	<p>Individual lot grading is a building permit rather than land development issue.</p> <p>Mass grading of soils should be considered for inclusion in any future editions of the standards.</p>
<p>General: There may be a need for two sets of standards. One for those promoting "neo traditional neighborhoods" and one for conventional subdivisions.</p>	<p>Frank Spielberg, PE Principal SG Associates, Inc. 4200 Daniels Avenue Annandale, VA 22003</p>	<p>The standards were set at "minimum" levels to ensure protection of the public health and safety regardless of the planning philosophy used.</p>

SECTION AND COMMENT	COMMENT PROVIDER (company and/or address)	NAHB Research Center RESPONSE
<p>General: In Idaho there are 199 cities and towns and only 10 have populations over 10,000. None of the communities less than 10,000 have a full time city engineer and they lack the time and expertise to research elements of a new subdivision ordinance. We must borrow and adapt what others have used to make it work in our community.</p>	<p>Larry Paine City Administrator 152 East Avenue A Jerome, ID 83338</p>	<p>Acknowledged. One of the objectives behind creating the standards was to provide an informative resource on cost-effective techniques for smaller communities interested in establishing reasonable regulations.</p>
<p>General When addressing "affordable housing", there should be a clear relationship between income and development costs. I would not endorse cluster development outright due to the marginal cost benefits to the homebuyer and the increase in litigation over clusters.</p>	<p>Haim Schlick, PE HS Consulting Inc. 17356 Twelve Mile #201 Southfield, MI 48076</p>	<p>The standards are intended to serve as minimum requirements which protect the health and safety of individuals using the development. The standards were not intended to endorse any particular planning strategy. The standards are meant to encourage more affordable home construction through reasonable standards for all communities.</p>
<p>General: I feel the standards are helpful as a guide, but hope they do not create another layer of bureaucracy in gaining approval for projects. The basic controversy with these standards is whether-or-not additional long-term maintenance costs are less than the innovative design savings.</p>	<p>Peter Robinson Former President Treasure Coast Builders Association Port Saint Lucie, FL</p>	<p>The intent of the standards is to reduce costs by eliminating unnecessary or excessive regulations and certainly not to increase costs by creating another layer of bureaucracy. Most of the "innovative" sections of the standards are not really new breakthroughs. Rather, they have not been used as widely as some of the more traditional practices. The communities using these practices have years of experience with them with acceptable performance.</p>

SECTION AND COMMENT	COMMENT PROVIDER (company and/or address)	NAHB Research Center RESPONSES
<p>General: This document only addresses residential development whereas "development regulations" implies coverage of all types of development uniformly and consistently. Why wasn't American Society of Landscape Architects represented on the expert group? There should be design/planning guidelines in a separate section. Omitting open space, landscaping, streetscape, and site furniture is not consistent with NAHB's general position on quality development. Grading and slope control standards are also missing. This is an excellent first draft of regulations, but we feel it must be much more comprehensive or change the title to reflect its present residential focus.</p>	<p>Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects</p> <p>Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee</p> <p>Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee</p>	<p>It was agreed among the expert group that since the objective of the document was to provide minimum standards to protect the public health and safety, softer design issues should be more flexible and left up to local jurisdictions. It was felt that if open space, streetscape, landscaping, and design/planning guidelines were outlined, these eventually would become mandatory standards and result in increased development costs in many areas.</p> <p>Although NAHB participated in the expert group, the standards are not an NAHB document and are not likely to reflect all of NAHB's policies, nor all of the policies of the other organizations on the panel.</p> <p>It would be valuable to have representation of landscape architects on the expert group. A title revision should be considered to reflect the emphasis of the document on residential development. Grading and slope control standards should be considered for inclusion in any future edition of the standards.</p>

SECTION AND COMMENT	COMMENT PROVIDER (company and/or provider)	NAHB Research Center RESPONSE
Street - 1.1, pg. 8 Is traffic defined as the auto? What about transit?	Gary Molyneaux, PhD. President Molyneaux Associates, Inc. 5609 S.W. Manning Street Seattle, WA 98116	Yes, traffic in general in this standard is referring to automobiles. The standards address the importance of transit in sections 3.1.1 and 4.0.
Street - 1.2, pg. 8 This is a suburban approach. Nothing about circulation, connectivity, or connecting grids.	Gary Molyneaux, PhD. President Molyneaux Associates, Inc. 5609 S.W. Manning Street Seattle, WA 98116	The standards were not intended to promote any specific planning strategy, but to allow all types of development. In general, the standards do specify streets should "promote safe and efficient movement of vehicular and pedestrian traffic" and ensure "pedestrian circulation."
Street - 1.2, pg. 8 The functional classification system referenced here and in 2.1 is not appropriate for "new urbanism" communities. Strategy should include some positive items: maximize pedestrian accommodation, provide meeting place, safe pedestrian path, enhance urban design.	Frank Spielberg, PE Principal SG Associates, Inc. 4200 Daniels Avenue Annandale, VA 22003	These standards are not geared for any particular planning strategy and an attempt was made to allow for urban and suburban developments. The expert group agreed to remove references in the standards that streets be designed to provide meeting places and play areas and instead concentrate street objectives on reducing vehicle speeds and moving traffic. Pathways are covered in 10.2.
Street - 2.1, pg. 9 Classification system should not be based on traffic flows since they blur the "new urbanism." One tenet of the new design is that the street system should be connected. Alternatives to typical design should also be illustrated.	Frank Spielberg, PE Principal SG Associates, Inc. 4200 Daniels Avenue Annandale, VA 22003	The standards were written to apply to all types of planning strategies and the traffic volumes associated with the various street types were arrived at after much discussion and debate by the expert group members. Planners are free to employ design techniques which create more connections in the residential street system.

SECTION AND COMMENT	COMMENT PROVIDER (company and/or address)	NAHB Research Center RESPONSE
Street - 2.1 to 3.0, pgs. 9 and 10 It strikes me as imprudent that residences should not be constructed on certain street types. I have seen very high value residences located along major streets.	Frank Spielberg, PE Principal SG Associates, Inc. 4200 Daniels Avenue Annandale, VA 22003	These classification descriptions are intended as a guide to identify street functions. The reference to siting residences on major collectors should be moved to the commentary in future editions of the standards.
Street - 2.1, pg. 9 This map, Figure 1, looks screwed up. Major and minor collector and arterial mislabeled.	William S. Robertson 5583 Ridge Avenue Cincinnati, OH 45213	This map is based on an actual subdivision in Clinton, Maryland. The minor collector is shown wider than the major collector since parking is allowed on this street.
Street - 2.1.1, pg. 10 Right, commercial businesses can be accommodated along major collectors. But, should only be in centers rather than strip configuration where autos are prime form of transportation access.	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	The focus of the standards is residential land development. The configuration of commercial development along major collectors, even by mention, is beyond the scope of this document.
Street - 3.2, pg. 11 The trip rates cited may not be appropriate for alternative design principles. Standards should have a clear statement of "conditions of applicability".	Frank Spielberg, PE Principal SG Associates, Inc. 4200 Daniels Avenue Annandale, VA 22003	The trip rates shown in Table 2 are from the Institute of Transportation Engineers (ITE) manual which is the most comprehensive and recognized resource available on traffic flow rates.
Street - 3.1, pg. 11 The (ADT) volumes and (design) speeds shown may be too high. Where design speeds are recommended, there should be a caution against using higher design standards which result in higher than intended traffic speeds.	Frank Spielberg, PE Principal SG Associates, Inc. 4200 Daniels Avenue Annandale, VA 22003	The volumes and speeds shown in Table 1 are the product of much discussion and debate among members of the expert group. Table 1 is a combination of previous work performed by ASCE, NAHB, HUD, and ULI.

SECTION AND COMMENT	COMMENT PROVIDER (company and/or address)	NAHB Research Center RESPONSE
Street - 3.2, pg. 11 Needs much more work for many uses! Also, number of bedrooms and type of housing units should be considered - impact, not just DU numbers, should be basis. (Trip generation rates)	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	The simplified table is shown as a resource for common development applications and is one option available to designers. The ITE manual which is directly cited in the text is the most comprehensive and recognized resource available on traffic flow rates. Local trip rate studies may also be used.
Street - 4.0, pg. 11 Why these requirements, Table 3 parking space requirements, are these mins or max? Where is the transit connection for multi-family?	Gary Molyneaux, PhD. President Molyneaux Associates, Inc. 5609 S.W. Manning Street Seattle, WA 98116	The parking requirements shown in Table 3 are the minimum number of spaces which must be provided and are the product of much discussion and debate among the expert group. The transit connection, requiring spaces be some prescribed distance from multi-family units, was omitted from the standards based on discussions of the expert group.
Street - 4.0, pg. 11 Very minimal for many types and price ranges. (2.0 parking spaces required for single family detached)	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	The minimum parking requirements shown in Table 3 are recommended by ITE and are the product of much discussion and debate among the expert group.

SECTION AND COMMENT	COMMENT PROVIDER (company and/or address)	NAHB Research Center RESPONSE
Street - 4.1.1, pg. 12 Need different parking space dimensions for different land uses. High turnover spaces, commercial, should be larger than captive low turnover spaces, office and industrial. Also, decreased is misspelled.	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	The standards focus on residential use and, therefore, the minimum space dimensions shown consider a captive residential space. Any future edition should consider providing additional commentary on selecting appropriate space size for multifamily or even commercial uses. The spelling of "decreased" should be corrected in future editions.
Street - 4.1.2, pg. 13 Does this, accessible parking space dimensions, conform with new ADA? Also, ADA has strict slope requirements including parking spaces, walks, and ramps.	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	The standards are intended to comply with existing federal regulations, including ADA requirements. Ramp slopes requirements were addressed in 8.2. Future editions of the standards should incorporate the latest ADA requirements.
Street - 4.1.3, pg. 13 ADA also now requires van space(s) which are larger. Parking dimensions depend on combination of aisle width, space length and width, and whether captive or high or low turn over space.	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	Future editions of the standards should incorporate comments stating that the latest ADA requirements, where required, should be followed.

SECTION AND COMMENT	COMMENT PROVIDER (company and/or address)	NAHB Research Center RESPONSE
<p>Street - 5.0, pg. 13 Table 5, footnote 5, should also reference the expected frequency of use by these vehicles. It should also note that infrequent uses that must cross the center-line are permitted.</p>	<p>Frank Spielberg, PE Principal SG Associates, Inc. 4200 Daniels Avenue Annandale, VA 22003</p>	<p>Emergency vehicles will undoubtedly have infrequent occasion to travel on residential subcollector and access streets. It is implied from the narrow widths of streets allowed that emergency vehicles will be allowed to cross the center-line of the street and opposing traffic will yield.</p>
<p>Street - 5.1, pg. 14 Why is width enlarged to 14' for emergency vehicles, if deemed necessary, when 10' one-way widths allowed. National Fire Code allows 16' with 4" stabilized shoulders both sides. Access could even be narrower with very few DUs.</p>	<p>Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects</p> <p>Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee</p> <p>Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee</p>	<p>The reference in the commentary to enlarging the street width to 14 feet if deemed necessary was an agreement reached among the expert group after much discussion and debate. Representatives of the Prince George's County Fire Department were involved in these discussions.</p>
<p>Street - 5.2.1, pg. 15 Was minimum cul-de-sac length omitted on purpose? They should generally be as long as needed.</p>	<p>Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects</p> <p>Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee</p> <p>Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee</p>	<p>Yes, a decision was made not to require a minimum length for cul-de-sacs.</p>
<p>Street - 5.2.1, pg. 15 Too much attention is given to cul-de-sac street types. Guidance should be provided on designing connected systems that minimize volumes.</p>	<p>Frank Spielberg, PE Principal SG Associates, Inc. 4200 Daniels Avenue Annandale, VA 22003</p>	<p>Cul-de-sacs were specifically mentioned due to their frequent use. It was not intended to recommend their use over any other street type.</p>
<p>Street - 5.2.4, pg. 15 It is probably not a good idea for private streets to be designed to the same standards as public streets.</p>	<p>William S. Robertson 5583 Ridge Avenue Cincinnati, OH 45213</p>	<p>The intent of this standard was to avoid regulations which could set higher standards for private streets than public streets.</p>

SECTION AND COMMENT	COMMENT PROVIDER (company and/or address)	NAHB Research Center RESPONSE
Street - 5.3, pg. 15 The use of superelevation on residential streets should be discouraged. It tends to promote higher speeds.	Frank Spielberg, PE Principal SG Associates, Inc. 4200 Daniels Avenue Annandale, VA 22003	Superelevation of residential streets is not promoted by the standards. The intent of this standard is to ensure proper drainage of the roadway and not to endorse or recommend superelevation. See commentary in section 5.6.1.
Street - 5.6.1, pg. 17 On neighborhood streets, right angle "L" curves should be explicitly permitted.	Frank Spielberg, PE Principal SG Associates, Inc. 4200 Daniels Avenue Annandale, VA 22003	Right angle "L" intersections would be allowed by these standards if designed as an intersection.
Street - 6.1, pg. 18 Tables 6 and 8 not consistent. Table 8 values can be less than Table 6. Sight distance is excessive. Diagrams don't relate to reality especially 2nd and 3rd. Many auto front ends not 4.25' high.	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	Table 6 is from AASHTO and table 8 is from ITE. When stopping sight distance, Table 6, exceeds intersection sight distance, Table 8, the stopping sight distance length should be used for intersection design. Although some autos may not be 4.25 feet high at the front end, this is the standard design criteria established by AASHTO for height of objects and is used by engineers for highway and residential street design. The diagrams are meant to show sight distance design examples.

SECTION AND COMMENT	COMMENT PROVIDER (company and/or address)	NAHB Research Center RESPONSE
<p>Street - 6.2, pg. 19 The triangle in Figure 10 should be slightly longer on left or have greater cleared area on left.</p>	<p>Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects</p> <p>Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee</p> <p>Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee</p>	<p>The diagram was intended only to define the sight triangle, but should be revised in any future edition of the standards to more realistically demonstrate the effect of the sight triangle on corner areas.</p>
<p>Street - 6.3.3, pg. 19 The text might better state that "on streets designed for pedestrian activity, the curb or edge of pavement radius should be no larger than 15 feet.</p>	<p>Frank Spielberg, PE Principal SG Associates, Inc. 4200 Daniels Avenue Annandale, VA 22003</p>	<p>The curb radii are minimums established by AASHTO for a vehicle to properly negotiate turns. Smaller radii may result in difficult turning movements or vehicles leaving paved areas while turning. Although, jurisdictions which require excessively large radii would unnecessarily raise development costs and promote high vehicle speeds in turns.</p> <p>The issue of minimum and maximum radii at intersections should be re-examined in revised standards editions. The wording of the commentary should be corrected to accurately reference AASHTO.</p>
<p>Street - 6.3.3, pg. 19 I would prefer that the curb radius be "no larger than" 15 feet.</p>	<p>Chester Chellman, PE LLS CEO White Mountain Survey Co, Inc. Ossipee, NH 03864</p>	<p>The curb radii are minimums established by AASHTO for a vehicle to properly negotiate turns. Smaller radii may result in difficult turning movements or vehicles leaving paved areas while turning.</p>
<p>Street - 10.1, pg. 23 This, the commentary at the bottom of page 23, is changing fast. Sidewalks are now being required on access streets with low traffic volumes and densities of housing.</p>	<p>William S. Robertson 5583 Ridge Avenue Cincinnati, OH 45213</p>	<p>Acknowledged.</p>

SECTION AND COMMENT	COMMENT PROVIDER (company and/or address)	NAHB Research Center RESPONSE
Street - 10.1, pg. 23 Sidewalks should be provided on both sides of all streets in communities designed for pedestrian emphasis.	Frank Spielberg, PE Principal SG Associates, Inc. 4200 Daniels Avenue Annandale, VA 22003	The requirement for sidewalks was a topic of much discussion and debate among the expert group. Due to variability in regional reliance and preferences for sidewalks, it was agreed to leave the decision on sidewalk requirements to the local jurisdictions.
Street - 10.1, pg. 23 Sidewalks only required when someplace to walk to generally.	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	The requirement for sidewalks was a topic of much discussion and debate among the expert group. Due to the variability of their presence, the group agreed to leave sidewalk requirements to the local jurisdiction. The commentary states that sidewalks are appropriate only in situations where people walk to destinations, and gives typical requirements.
Street - 10.2, pg. 24 Pathways removed from the street are often seen as safety or security problems and are, therefore, unused. In neighborhoods, pedestrian activity should be accommodated on the street in full view of houses and passing cars.	Frank Spielberg, PE Principal SG Associates, Inc. 4200 Daniels Avenue Annandale, VA 22003	Pathways are only suggested for medium and high density communities. The commentary in section 10.1 addresses considering safety for alternative pedestrian systems.
Street - 10.2, pg. 24 Contact the Bike Federation of America for help on this section. Contact person is Bill Wilkinson.	Gary Molyneaux, PhD. President Molyneaux Associates, Inc. 5609 S.W. Manning Street Seattle, WA 98116	If the bicycle path section is to be significantly revised, this resource should be contacted.
Street - References, pg. 27 Couldn't find use of reference 15.	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	Reference 15 was used in section 5.6.1 commentary.

SECTION AND COMMENT	COMMENT PROVIDER (company and/or address)	NAHB Research Center RESPONSE
Storm Water Management - Contents, pg. 29 Need a discussion of wetlands and how to integrate wetlands into SWM standards and procedures.	Gary Molyneaux, PhD. President Molyneaux Associates, Inc. 5609 S.W. Manning Street Seattle, WA 98116	Water quality improvement measures are not required in the standards. Compliance with federal NPDES and wetland protection regulations is required. The standards allow flexibility for the designer to best develop a storm water management scheme and to encourage the use of natural systems, like wetlands, which promote percolation and natural storage. Commentary regarding wetlands should be considered in future editions of the standards.
Storm Water Management - Contents, pg. 29 Relationship to wetlands should be included in the standards.	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	Water quality improvement measures are not required in the standards. Compliance with federal NPDES and wetland protection regulations is required. The standards allow flexibility for the designer to best develop a storm water management scheme and to encourage the use of natural systems, like wetlands, which promote percolation and natural storage. Commentary regarding wetlands should be considered in future editions of the standards.
Storm Water Management - 1.1, pg. 30 Habitat protection should be included in the standards.	Gary Molyneaux, PhD. President Molyneaux Associates, Inc. 5609 S.W. Manning Street Seattle, WA 98116	Habitat protection was not identified as a public health and safety issue. Developers must adhere to any federal regulations regarding habitat and endangered species protection.

SECTION AND COMMENT	COMMENT PROVIDER (company and/or address)	NAHB Research Center RESPONSE
Storm Water Management - 1.1, pg. 30 See attached landscape architecture magazine article regarding best solution to storm water management.	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	The points made in this article agree with the storm water management philosophy of the standards. Whenever possible, use of a regional plan which evaluates the overall effect of development in an entire basin is encouraged. However in the absence of such a plan, on-site detention of the peak flows attenuates the effect of additional runoff created by development.
Storm Water Management - 2.1, pg. 30 Who takes care of 10 to 100 year storms?	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	The decision to use 2, 10, and 100 year storm events as the design criteria was agreed upon by the expert group after much discussion and debate. Designing for the 100 year storm will ensure that smaller events, 10 to 100 years, will not result in major property damage or loss of life.
Storm Water Management - 2.1.1, pg. 30 Be careful. Regional storm water management system can cause creation of a new taxing authority.	William S. Robertson 5583 Ridge Avenue Cincinnati, OH 45213	Acknowledged. However, a regional watershed plan can potentially eliminate requirements for construction of expensive and sometimes marginally effective facilities on individual sites.
Storm Water Management - 2.2.2, pg. 32 This requires integrated total watershed/river basin management plan. Can't generally be done on project by project basis.	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	Disagree. Designers can readily determine pre- and post-development runoff flows required to evaluate the first criteria. Likewise, the second criteria is commonly evaluated based on zoning and expected land uses for properties draining to the downstream evaluation point. An integrated watershed/river management plan is not required for these evaluations.

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Storm Water Management - 9.0, pg. 52 At minimum allow all materials covered in AASHTO, Federal Highway, applicable state highway specifications. What about non-reinforced concrete and corrugated pipes?	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	The intent of the standards was to permit use of all materials capable of performing the intended function. Any future editions of the standards should allow conformance with proven AASHTO, Federal Highway, and applicable state highway specifications. Non-reinforced and corrugated metal pipes meeting accepted criteria should be allowed.
Site Utilities - 2.0, pg. 91 It's time we put utilities overhead and within the right-of-way as in the past to minimize cost and eliminate the underground maze of crossings which will be created when the fiber optics superhighway is added.	Haim Schlick HS Consulting Inc. 17356 Twelve Mile #201 Southfield, MI 48076	The standards as written allow for the placement of utilities either above- or below-ground and do not favor one method over the other.
Sanitary Sewage Systems - 9.0, pg. 101 Why no mention of natural and other proven innovative systems, and provision for other newer technology?	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	Mounds, evapotranspiration, and recirculating sand filters are specifically addressed in the standards. Vacuum sewers, STEP systems, and pump systems are also addressed. Additionally, other systems which are acceptable to local health authorities are allowed. We believe the language adequately provides for innovative technologies.
Sanitary Sewage Systems - 9.1.1, pg. 101 Length to width ratio requirement for septic tanks is out-dated. Round tanks are allowed in some states.	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	Any future edition of the standards should be revised to allow all septic tanks which adequately provide primary treatment regardless of their shape.

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Sanitary Sewage Systems - 9.1.2.1, pg. 103 In Connecticut, only 18" of unsaturated soil is required to treat septic tank effluent.	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	The 2 to 4 feet of unsaturated soil requirement is an EPA design recommendation. It is recognized this requirement would create problems for many areas which experience high seasonal groundwater levels. This requirement should be re-examined in future editions of the standards and the ability to reduce this length should be available to systems which employ additional treatment provisions.
Sanitary Sewage Systems - Appendix, pg. 110 Figure of common water and sewer trench on pg. 110 conflicts with pg. 119 paragraph 3.3.	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	The figure on pg. 110 of a common sewer and water trench and pg. 119 paragraph 3.3 are in agreement. The water pipe is 18" above the sewer and on a separate shelf in both instances.
Sanitary Sewage Systems - Appendix, pg. 110 Figure of common sewer and water lines on pg. 110 conflicts with EPA regulations.	William S. Robertson 5583 Ridge Avenue Cincinnati, OH 45213	No EPA regulation can be identified which prohibits this common trench configuration.
Water Supply - 3.0, pg. 119 Need typical section with tree protection for all utilities, drainage, water, sewer, and grading.	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	There is no typical section prescribed by the standards for utility locations. Flexibility is encouraged to allow the designer to select the most cost-effective placement of utilities. Methods of tree protection should be considered for inclusion in the Temporary Sediment and Erosion Control section.

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Water Supply - 6.4, pg. 122 Standard for 40 foot offset of hydrants from building should be farther for taller buildings.	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	This distance, considering the residential focus of the document, was suggested as the standard by the PG County Fire Department representatives. It is recognized this distance may need to be greater for large multi-story buildings which are not, however, covered by the standards.
Water Supply - Appendix, pg. 133 Fire hydrant protection diagram is not adequate for large trucks or high speed cars.	Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee	This hydrant protection diagram is intended as an example for use in parking areas not subjected to high speed car and large truck traffic. The title of the diagram should be revised for clarification in any future edition of the standards.
Water Supply - Appendix, pg. 131 In typical water service connection diagram on pg. 131, there is no need for curb box. This is a big waste of money and we have not used for years.	William S. Robertson 5583 Ridge Avenue Cincinnati, OH 45213	This diagram should be revised to remove the curb box in any future edition of the standards.
Miscellaneous Standards - 1.1, pg. 136 Give reasons for considering open space. Open space can enhance stormwater management, non-motorized facilities, sediment and erosion control, water supply, and habitat protection. Need a discussion on set-back requirements with both pros and cons.	Gary Molyneaux, PhD. President Molyneaux Associates, Inc. 5609 S.W. Manning Street Seattle, WA 98116	The expert group agreed after much discussion and debate to omit open space and set-back requirements in either standard or guideline language from this document. It was felt no minimum standard for open space is required to protect the public health and safety, although the quality of life benefits are recognized.

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<p>Miscellaneous Standards - 1.1, pg. 136 Inadequate very poor standards, but good commentary. Have you forgotten Tony Hiss' Experience of Place? Maybe performance standards would be applicable.</p>	<p>Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects</p> <p>Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee</p> <p>Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee</p>	<p>The expert group agreed after much discussion and debate to omit open space in either standard or guideline language from this document. It was felt no minimum standard for open space is required to protect the public health and safety, although the quality of life benefits are recognized.</p>
<p>Miscellaneous Standards - 2.2, pg. 137 Having no minimum requirement for landscaping flies in the face of NAHB's "Releaf Program".</p>	<p>Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects</p> <p>Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee</p> <p>Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee</p>	<p>The expert group agreed after much discussion and debate to omit landscaping in either standard or guideline language from this document. It was felt no minimum standard for landscaping is required to protect the public health and safety, although the quality of life benefits are recognized. The standards are not an NAHB document.</p>
<p>State Preemptive Standards - pg. 139 a. Nothing in the proposed standards truly addresses increases in housing costs. f. Proposed standards only address low density suburban development, how about higher density urban forms. h. Many will fight the creation of a new agency.</p>	<p>Gary Molyneaux, PhD. President Molyneaux Associates, Inc. 5609 S.W. Manning Street Seattle, WA 98116</p>	<p>The content and scope of the standards was agreed upon by the expert group members after lengthy discussions and debate. The standards themselves are directed at lowering unnecessary housing costs by eliminating unnecessary, outdated, or excessive land development regulations. The standards are intended to apply to all types of developments regardless of high or low density, although high-rise buildings were beyond the scope of the document. The introduction should be revised to clarify the scope of development to which the standards apply.</p>

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<p>State Preemptive Standards - pg. 140 State Society or Association of Landscape Architects should be included. LAs do most of best land planning which should come before nuts and bolts engineering.</p>	<p>Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects</p> <p>Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee</p> <p>Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee</p>	<p>Including landscape architects in this section should be considered for any future editions of the standards.</p>
<p>State Preemptive Standards - pg. 141 d. A developer "and community" must meet the standards. 4. Where is the local flexibility? 7. add "or growth management regulations". 10. Shall take effect immediately "by declaring an emergency".</p>	<p>Gary Molyneaux, PhD. President Molyneaux Associates, Inc. 5609 S.W. Manning Street Seattle, WA 98116</p>	<p>This language should be considered for any future editions of the standards.</p>
<p>Land Development Approval - pg. A-1 120 days appears too long for plan approval. If the designer adheres to standards, then it should be approved within 2 weeks. Also, public hearings are a back-door for politicians to disapprove the application or at best approve it with certain conditions that make development more expensive.</p>	<p>Haim Schlick, PE HS Consulting Inc. 17356 Twelve Mile #201 Southfield, MI 48076</p>	<p>The approval process shown is intended to be a suggested model. The expert group agreed after much discussion and debate that the time frames shown are reasonable goals for most jurisdictions. It is acknowledged some jurisdictions could reduce these processes.</p>
<p>Land Development Approval - pg. A-2 Too much difference between major, could be in the 1000s, and minor, could be 1, 5, 10, or 15 homes. Need category for mid-level project sizes.</p>	<p>Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects</p> <p>Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee</p> <p>Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee</p>	<p>The addition of a mid-level project size category in the model plan approval process should be considered for any future editions of the standards.</p>

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<p>Land Development Approval - pg. A-3 Applicant should be advised of development requirements and all other applicable regulatory requirements including Board of Health, wetlands, etc.</p>	<p>Jestena C. Boughton, ASLA, President Boston Society of Landscape Architects</p> <p>Thomas R. Ryan, ASLA, Pres. Elect Chair, BSLA Public Advocacy Committee</p> <p>Richard H. Anderson, ASLA Chair, BSLA Government Affairs Committee</p>	<p>This language revision should be considered for any future editions of the standards.</p>

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